## Appendix A: Detailed Scenario Description and Regional Inputs

## 1- Africa & ME

lssue	1-Freeway	2-Tollway
General	World with solutions where pure market forces     prevail	<ul> <li>Regulated world where governments and politicians decide to put common interests at forefront and intervene in markets</li> </ul>
Players	<ul> <li>Private sector leads</li> <li>Global companies emerging as central players</li> <li>Entrepreneurs</li> <li>Consumers</li> </ul>	<ul> <li>Public sector leads</li> <li>Local Governments acting as central planners</li> <li>NGOs</li> <li>Citizens</li> </ul>
Trade	<ul> <li>WTO makes progress on competitive issues</li> <li>Free and expanding international trade in regard to trade &amp; barriers removals.</li> <li>Globalized economy</li> <li>Global competition and occasional trade disputes</li> <li>High global trade imbalances</li> <li>Trade activities increase with other countries especially China and India.</li> <li>Trade is made mainly around minerals, metals, and agriculture.</li> <li>Trade ties with OECD countries continue and strengthen.</li> </ul>	<ul> <li>WTO shows increased emphasis on free flow of green goods and services</li> <li>Increased international cooperation on climate change issues in the short to medium term.</li> <li>Individual countries/regions preferring local content and solutions</li> <li>More fragmented and /differentiated global economy</li> <li>More trade restrictions due to regional concerns</li> <li>Trade is focussed with small set of selected countries (countries with high technology are invited to invest in South Africa; Germany, USA, and China as examples).</li> <li>Interregional trade increases between Southern African nations.</li> </ul>
International Institutions	Less prominent international institutions	Stronger role for international and multilateral institutions
FDI	Increased level of FDI	<ul> <li>Same or less</li> <li>Increased national investments</li> <li>Few selected industrial sectors are targeted for FDI.</li> </ul>
Technologies	<ul> <li>Technological innovation market driven</li> <li>Emerging innovation centres attracting and competing for investment capital and human resources</li> <li>Original Equipment Manufacturers (OEM) develop transport solutions most wanted by consumers</li> </ul>	<ul> <li>Governments picking technology winners (e.g. photovoltaic)</li> <li>Higher amount of technology transfer into developing nations</li> <li>Multinational technology co-operation and initiatives</li> <li>More state subsidies sponsor focused research programs into new transport technologies</li> <li>High degree of technology transfer into sectors that benefit the public (health, water, energy, infrastructure)</li> <li>Multilateral sponsorship programs and with Millennium goals as driving factors</li> <li>Benefits of tech transfer do not accrue to other sectors.</li> </ul>
Capital & Labour	<ul> <li>Free flow of capital &amp; labour</li> <li>Flow of foreign capital and workers (all skill levels) from OECD and Asian countries.</li> <li>Competitive labour market.</li> <li>Domestic worker unemployment increases, especially in skilled sectors.</li> </ul>	<ul> <li>Restricted flow of capital &amp; labour</li> <li>Investment is targeted in select sectors (mining &amp; energy) via government intervention.</li> <li>Only highly-skilled foreign workers are permitted into the labour market.</li> <li>Domestic unemployment is low, but so is productivity.</li> </ul>
Manufacturing centres	Manufacturing established in low cost centres & close to major markets	<ul> <li>Manufacturing established in less optimal locations but with regional development and factors in mind</li> </ul>
Infrastructure	<ul> <li>Patch work of improvements in many regions</li> <li>Public infrastructure does not develop to the same level as in Tollway.</li> </ul>	<ul> <li>New infrastructure projects, mainly in renewable energy and public transport, state funded</li> <li>Access to energy and public transport schemes promoted by international institutions (UNIDO)</li> <li>Public infrastructure improves (roads &amp; buildings).</li> <li>Massive investments in road building programs.</li> <li>Investment in energy infrastructure remains an urgent need, as energy access remains a top priority</li> <li>Multilateral sponsorship programs improving proper government regulation, increasing</li> </ul>

		<ul> <li>private sector investments into public sector.</li> <li>Divide between rural and urban transport options increases as a result of increased investments in urban infrastructure</li> <li>Accessibility of some rural areas improves due to road construction programs</li> <li>extreme congestion and pollution in the major urban centres increasing</li> <li>Problems with frustrated young and poor portion of the population are alleviated due to improving unemployment numbers.</li> </ul>
Climate change	Commercially viable Innovative Green technologies/practices flourish	<ul> <li>Big focus and international efforts on climate change by governments in short, medium to long terms.</li> <li>Africa &amp; Middle East are not going to go green on own volition</li> <li>Local strategies aimed at providing maximum energy at lowest cost possible</li> <li>Additional funding for energy efficiency programs and climate change mitigation initiatives based on foreign funding via Copenhagen mechanisms</li> <li>There is consensus that a consolidated approach promoting all forms of energy is the best way forward.</li> </ul>
Politics & competition for resources	<ul> <li>Pure competition creates cost-efficient solutions</li> <li>Higher In some Western Africa and MENA energy-rich countries, the demographic demands in countries like Nigeria/Libya/Iraq/Iran have an impact on that country's stability and ability to export oil.</li> <li>Remain mostly unstable though 2050.</li> <li>Hydrocarbon supplies from MENA remain at risk. Straits of Hormuz, Bab Al-Mandab and Suez Canal remain vulnerable.</li> <li>Conflicts in Libya, Sudan, Somalia, West Africa, Iraq, Iran, Lebanon, Palestine, and Yemen are expected to last for few more decades.</li> <li>demand creates global competition for resources</li> </ul>	<ul> <li>Less competition over energy resources</li> <li>Focuses on regional supply and energy efficiency reduce competition for resources.</li> <li>Unemployment improving in areas of large infrastructure investments</li> <li>African middle classes developing at a slow pace</li> <li>Government health programs first increase birth rates, but then lead to stabilisation and even decrease in fertility rates due to increased awareness</li> <li>Political volatility due to series of backlashes based on widespread corruption and inefficiencies linked to large investments in infrastructure programs</li> <li>International pressure and monitoring mechanisms based on EU model of common currency mechanisms</li> <li>Arab spring in MENA is expected to end at Libya/Yemen/Syria but reforms will take years. These conflicts are expected to adversely slow down the demand for transport in these</li> </ul>
Regulation	Low government regulation (minimum regulated environment)	<ul> <li>High government regulation (fully regulated environment)</li> <li>Major local energy companies continue to dominate local markets.</li> </ul>
Competitive	<ul> <li>Pure market forces</li> <li>Market seeks competitive cost solutions</li> <li>Favourable climate for open global competition</li> <li>US and Chinese companies dominate, Germany continues to be an export leader</li> </ul>	<ul> <li>Same or less market influence</li> <li>Market distortions through government intervention</li> <li>Company reputation and ability to work with bureaucratic governments become a competitive differentiator</li> <li>BRIC countries outperforming OECD</li> </ul>
Privatization, liberalization, deregulation	<ul> <li>Wave of privatization, liberalization &amp; deregulation</li> <li>Lack of proper government frameworks remain a challenging concern for the market</li> <li>Privatization remains challenging (South Africa could be exception?)</li> </ul>	<ul> <li>Same level or less</li> <li>Energy and transport sector considered strategic in most countries</li> <li>Government processes slowly improving</li> </ul>
Economic Volatility	High economic volatility     Potential super-cycles	<ul> <li>More stable economic environment at lower growth levels in the short term.</li> </ul>
Wealth	<ul> <li>High &amp; increasing wealth in western world &amp; successful new industrial (SE Asia &amp; LAC).</li> <li>Africa still marginalized.</li> <li>Rise of the super-rich (expats and politicians).</li> <li>Wealth accrues to very select minority</li> <li>Increasing number of urban poor.</li> </ul>	<ul> <li>Wealth disparity is less obvious in industrial countries</li> <li>Africa improving due to technology transfer (e.g. Copenhagen accord) and multi-lateral programs (e.g. UNIDO access to energy program).</li> </ul>

	Outpouring of civil unrest due to income disparity and increasing crime waves	<ul> <li>Sub-Saharan Africa has still the lowest GDP per capita (\$1,138 versus a world average of \$8,599) but is slowly improving at the backend of scenario period. North Africa has a relatively higher per capita GDP of close to \$3,000, which is still far below the world's average. The ME is higher than Africa and stands at an average of \$5,763.</li> </ul>
R&D	<ul> <li>Diverse R&amp;D efforts</li> <li>Driven by both private and public sectors</li> </ul>	<ul> <li>More focused R&amp;D programmes driven mainly by public sector</li> <li>International research programs and technology "clearing houses" to facilitate technology transfer.</li> <li>Remains dependent on technology transfer</li> </ul>
Carbon pricing	<ul> <li>Efficient carbon price mechanisms</li> <li>Entry into market only after significant gains (OECD levels) in per capita income across all sections of society.</li> <li>Entry post-2020 (??).</li> <li>CSS will not be adopted unless mandated, price increases will be absorbed.</li> </ul>	<ul> <li>Existing Clean Development Mechanisms (CDMs) may fail in EU-US and not take off in other markets</li> <li>Regional limits and penalties imposed by local governments.</li> <li>Set of regional agreements on climate change and introduction of carbon price mechanisms.</li> <li>International incentives for countries to join, through investment funding and technology transfer system.</li> <li>Entry may happen sooner, but only due to government intervention and international political pressure.</li> <li>Carbon trade remains very small.</li> <li>Conflict with major local energy producers may be a hurdle</li> </ul>
Sustainability	Cheaper but less wide-spread solutions	<ul> <li>More expensive sustainability (as efficient prices are not driving players actions) but faster implementation</li> </ul>
Consumer behaviour & lifestyle	<ul> <li>Consumer spending increases, savings drop</li> <li>Individual interests dominate</li> <li>Cheapest price and highest comfort dominate and differentiate products</li> <li>Increasing levels of consumption (demand for fast moving consumer goods increases).</li> <li>Entry of foreign retail firms into the market.</li> <li>Increasing high-street banking services &amp; lending</li> <li>Domestic savings level drops.</li> <li>Demand for more sophisticated goods – highend electronics, cars, etc.</li> </ul>	<ul> <li>Consumer spending decreases, saving increases</li> <li>Common interests at forefront</li> <li>Consumer power used to stimulate development of greener goods and services</li> <li>Social activism increases and forces producers and governments to put common interests at forefront</li> <li>Best public image and corporate responsibility differentiate in addition to price</li> <li>Consumption levels are lower</li> <li>Very few market players (mostly local firms).</li> <li>High level of domestic savings.</li> <li>Tourism industry remains dominant factor in foreign spending.</li> <li>Banking services growth remains limited to non- retail banking.</li> <li>African individual interest remains at front.</li> <li>Consumers in sub-Saharan Africa looking for any affordable transport mean.</li> <li>In the higher income and more urbanized MENA, population are frustrated with the congestions and pollution problems (major cities).</li> </ul>
Good Economic Situation-Top of Business cycle	<ul> <li>High but uneven distributed economic growth.</li> <li>Sufficient fund for new private investments.</li> </ul>	<ul> <li>Sufficient economic performance to fund government initiatives in energy.</li> <li>Overall economic growth is more moderate. Still distributed unevenly across regions.</li> <li>Between 1990 and 2008, Africa's GDP grew at about 3.8% per year while the ME at 3.9% per year (both higher the global average of 3.3%)</li> <li>Thru 2035, Africa's GDP is expected to grow at about 3.5% per year (both higher the global average of 3.2%).</li> </ul>
Bad Economic Situation-Bottom of Business cycle	<ul> <li>Low &amp; uneven distributed economic growth.</li> <li>Wide spread austerity packages reducing new investments and energy demand.</li> </ul>	<ul> <li>Still sufficient economic performance in developing countries (shielded such as China &amp; Brazil). Much weaker in developed. Still distributed unevenly.</li> <li>Large public sector debt developing.</li> </ul>

		Effect of down-cycle partially mitigated by lower energy demand and import bills due to energy efficiency gains.
Population		<ul> <li>Sub-Saharan Africa has the world's highest population growth rate of 2.5%, relative to the global growth rate of 1.2 % and 1.9% in MENA.</li> <li>Thru 2035, Africa's population is expected to grow at about 1.9% while the ME is expected to grow at 1.5% (both higher the global average compared to global average of 0.9%). Africa is expected to double by 2050.</li> <li>In Sub-Saharan Africa almost 43% of the population is 14 years of age or under while in MENA it is about 31% (compared to the world average of 27.2%).</li> </ul>
Finance	Private Financing capital available, abundant and easy to flow	<ul> <li>More Limited private financing capital mostly by local institutions</li> <li>Large public sector funding for infrastructure and "green" projects</li> <li>There is no lack of credit and willing investors for energy infrastructure investment.</li> </ul>
Corruption	Could lessens in many regions	<ul> <li>Tops list in South Asia, Sub-Saharan Africa, transition economies.</li> <li>Corruption is still a concern in most countries (with the exception of high income ME countries).</li> </ul>
Bureaucracy	Lessens in many regions	<ul> <li>Remains an issue everywhere.</li> <li>Sub-Saharan Africa is the least bureaucratic in the world (world economic forum results).</li> <li>Bureaucracy in MENA remains high.</li> </ul>
Tax regulation	Taxes (as a market distortion) drops in many regions	<ul> <li>Constitutes a severe constraint on OECD and post socialist transition economies.</li> <li>New taxes needed to finance large public sector debt in Western economies</li> <li>About average (world economic forum results).</li> </ul>
Subsidies	<ul> <li>Subsidies (as another market distortion) removed in many regions. Remaining subsidies mainly in renewables.</li> </ul>	<ul> <li>Subsidies remain and increase for green goods and services.</li> <li>West Africa and MENA countries remain heavily dependent on subsidies especially subsidies related to energy resources.</li> </ul>
Energy E&P	<ul> <li>Many countries open their upstream sectors resulting in a surge of supply.</li> <li>Moderate oil prices in the short term.</li> <li>More security of supply and demand</li> <li>Fossil fuel dominance reducing only gradually</li> <li>High growth of energy demand, leading to higher prices at the end of scenario period.</li> <li>Industrial demand for energy reaches all time peak</li> <li>Electricity prices increasing sharply, leading to energy poverty</li> <li>Boost to coal and mining industries.</li> <li>Sasol makes big gains.</li> <li>Eskom has to put up with increasing competition from private power sector.</li> <li>Regional power sharing agreements to balance countries' transmission systems.</li> <li>Oil pipeline infrastructure is developed in the latter half of the next decade.</li> </ul>	<ul> <li>Lack of opening new areas for E&amp;P leading to tight supplies</li> <li>High infrastructure costs for early integration of renewable energy sources</li> <li>higher oil and energy prices at the beginning of scenario period, but lower, more stable prices after quicker transition to renewable energy sources</li> <li>Oil price is tightly regulated</li> <li>Security of supply and climate change concerns push drive to reduce dependence from fossil fuels</li> <li>Clean coal and CCS socially unacceptable in EU and US but becomes a must for developing world</li> <li>Electricity prices increasing sharply, leading to energy poverty and government subsidies for lower incomes</li> <li>Export oriented growth model.</li> <li>Role of Eskom is predominant.</li> <li>Interregional power sharing agreements to meet demand</li> <li>West Africa and MENA's transport situations benefit from the fact that most of these countries have energy reserves, or access to them, that help to fuel a higher level of motorization than that found in the rest of Africa.</li> </ul>
Liberalization, policy agreements	<ul> <li>Liberalized energy markets and high competition for resources on a global basis</li> <li>Easy to reach international agreements on removing trade barriers</li> </ul>	<ul> <li>Limited competition and participation</li> <li>Policy agreements of "coalitions of the willing" to reduce greenhouse gas emissions and setting of (increasingly) international standards for</li> </ul>

	No agreements on international energy policy     due to competing interacts	carbon pricing
	<ul> <li>due to competing interests.</li> <li>Energy market lacks of ability to reach international agreements and common set of basic rules</li> </ul>	<ul> <li>Stronger role for international institutions to set policies</li> </ul>
Policy initiatives	<ul> <li>Policy initiatives aimed at setting framework conditions for market solutions to emerge</li> <li>Policy is influenced by free market thinking.</li> <li>Generation and transmission is unbundled.</li> <li>Foreign investment in energy sector will be in the form of partnerships with domestic firms to allow technology and knowhow transfers.</li> <li>Policy will focus on diversifying fuel mix</li> <li>Proactive policies.</li> </ul>	<ul> <li>Energy policy initiatives set by centralized government where regulations of energy sector reverts to national states</li> <li>High focus on maintaining government subsidies (impacts future investment on generation capacity).</li> <li>Reactive policies.</li> </ul>
International cooperation	Successful international coordination on free market mechanisms	<ul> <li>International coordination of energy taxes progressing</li> </ul>
Energy Saving	<ul> <li>Significant saving (higher prices/efficient markets)</li> </ul>	<ul> <li>Large government focus on energy efficiency and energy saving programs</li> <li>Efficiency brands (Like Energy Star) become dominant in consumer minds</li> <li>Dependant on government mandates.</li> <li>Eskom will implement efficiency measures in case of generation shortfall.</li> </ul>
Energy Consumption	High economic growth yields high energy consumption	<ul> <li>High impact from energy efficiency and energy saving programs</li> <li>Global demand for energy is also lower because of lower growth and changes in lifestyle</li> <li>Transport in Africa mostly uses conventional gasoline and diesel</li> <li>In 2008, Africa consumed 28 mtoe (about 0.564 million barrels per day) of gasoline and about 38 mtoe (about 0.765 million barrels per day) of diesel.</li> <li>Similarly, the ME consumed 46 mtoe (about 0.939 million barrels per day) of gasoline and about 54 mtoe (about 1,082 million barrels per day) of diesel.</li> <li>Consumption is expected to double for Africa (from~100 mtoe to ~200 mote) by 2050, again mostly gasoline and diesel (IEA baseline).</li> <li>Road transport increasing (more than in Freeway) due to road construction programs</li> </ul>
Transport Intermodal	<ul> <li>Individual transport solutions</li> <li>Solutions are more short term and lack wide perspectives</li> <li>Rail and bus companies are privatized. Operation of public transport is privatized.</li> <li>High fuel efficiency measures implemented by operators.</li> <li>Electrification of urban public transport remains dependant on government policy support.</li> <li>Transport options from industrial hinterland to urban centres widen.</li> </ul>	<ul> <li>Stronger emphasis on public transport</li> <li>Solutions are long term with a wide perspectives</li> <li>Public transport monopolies.</li> <li>Electrification mandated by government policy.</li> <li>Transport links between hinterland and urban centres continue to be underdeveloped.</li> <li>Individual transport solutions dominating.</li> </ul>
Air Traffic/Freight	<ul> <li>High growth of air traffic and freight sector</li> <li>Dependent on petroleum</li> <li>Increasing fuel economy</li> </ul>	<ul> <li>Less growth due to lower economic growth</li> <li>Dependent on petroleum</li> <li>Lesser fuel economy measures</li> <li>For Africa, Boeing expects a growth rate of 5.5% for passenger and 6% for cargo per year thru 2029.</li> <li>For ME, Boeing expects a growth rate of 7.1% for passenger and 6.8% for cargo per year thru 2029.</li> </ul>
ICEs	High efficiency ICEs	<ul> <li>High efficiency ICEs</li> <li>In 2005, the passenger LDV stock is about 15 million vehicles in Africa and about 15 million in ME.</li> <li>New car sales in Africa are about 1.6 million /yr and the same in ME.</li> <li>Used cars inflow to Africa is about 243,000 cars in 2005 (mostly from EU) and about 391,000 in ME (mostly from US followed by Japan).</li> </ul>

		•	Conventional ICEs dominates existing stock/new
		•	sales /used sales. ICE is expected to dominate thru 2050.
	More hybrids	•	moderate hybrids share growth
Hybrids		•	Now, minimum level and potential
EVs	<ul> <li>Batteries still expensive.</li> <li>With time, R&amp;D will drive battery prices down</li> <li>competitive market facilitate new business models for battery replacement</li> <li>Oil still a necessity for most transport demand, even in 2050.</li> <li>Innovation centres in the Eastern markets and mega-cities drive the introduction of large numbers of EVs due to air quality concerns in mega cities. In the longer term, low cost EVs penetrate western markets.</li> <li>Intra-city personal transport solutions viable only post-2020 (??).</li> <li>Crucial factor will be battery capacity and charging infrastructure.</li> </ul>	•	
	More CNGs if gas reserves available as E&P     accessible by IOCs	• • • •	Heavily subsidised. Company fleets (??) Now, minimum level and potential CNGs significantly in transport early on by local governments with access to domestic gas
CNGs		•	reserves. Minimum level and potential
FCs	FCs small breakthrough as they are still     expensive	•	Fuel cells adopted to reduce dependency on foreign oil Minimum level and potential
Biofuels	<ul> <li>Food crisis depresses global biofuels growth</li> <li>Strong regional hubs in both North and South America</li> <li>Gene technology used to grow energy crops (except EU).</li> <li>2<sup>nd</sup> &amp; 3<sup>rd</sup> generations are still expensive</li> </ul>	•	Increasing contribution of 1st gen. biofuels to fuel mix Larger impact on food prices Gene modifications of crops still not accepted in EU. Large contribution of second (and 3 <sup>rd</sup> ?) generation biofuels in the long term First generation biofuels have a potential in areas where they do not threaten food security (e.g. ethanol production in Swaziland).
Urban Planning	<ul> <li>Good economies will invite better planning and problem solving.</li> <li>Increasing move from rural to urban areas.</li> <li>Cities grow at a high rate – increasing congestion on roads and land space.</li> <li>Rural areas become the target for large-scale, plantation-type farming enterprises.</li> </ul>	• • • •	Governments alone can poorly direct/coordinate urbanisation Problems worsen with tight government budgets and bad economies. Move from rural to urban areas continues, albeit at a lower rate. Cities continue to grow and areas of the cities turn into ghettos/slums – resulting polarization of society. Rural areas continue to engage in subsistence farming. Only about 36% of the sub-Saharan Africans live in cities compared to around 60% in MENA. The world average is about 50%. Good economies will invite better planning and problem solving. Increasingly, young MENA are migrating to the major cities looking for employment, adding more stress on the urban infrastructure (housing, infrastructure, and transportation). This is faced by very little public planning. Urbanisation is growing faster than government response.
High Speed rails	<ul> <li>There could be problems with corridors and private sector funding.</li> </ul>	•	Penetration of high speed rail networks at a larger scale, especially in second half of scenario period Minimum level and potential
			Less car ownerships & more reliance on public

		<ul> <li>transport systems, car sharing and rentals.</li> <li>In 2005, Africa had the lowest private car ownership in the world with only 20 privately- owned cars per 1,000 people. In ME, the level is relatively higher (80 cars per 1,000 people).</li> <li>Private car ownership is something that many young Africans &amp; ME would like to have , particularly in the absence of reliable, affordable, and convenient mass transit and public transportation options</li> </ul>
Aviation, Shipping, Rails & Trucks	<ul> <li>High growth for both passenger travels and freight especially in eastern markets.</li> </ul>	<ul> <li>More moderate growth levels.</li> <li>High growth for both passenger travels and freight 5-6% per year.</li> <li>Over the next 20 years, Boeing expects the Africa passenger fleet to double from 660 planes to 1130 planes and the ME to more than double from 950 to 2440 planes.</li> </ul>

## 2- Asia

Issue	1-Freeway	2-Tollway
General	World with solutions where pure market forces     prevail	<ul> <li>Regulated world where governments and politicians decide to put common interests at forefront and intervene in markets</li> </ul>
Trade	<ul> <li>WTO makes progress competitive issues???</li> <li>Free and expanding international trade in regard to trade &amp; barriers removals.</li> <li>Globalized economy</li> <li>Global competition and occasional trade disputes</li> <li>High global trade imbalances</li> <li>Trade between OECD countries, China and India grows substantially.</li> <li>ASEAN trading bloc becomes a major player in world trade.</li> <li>Focus of China on Africa as a food source grows.</li> </ul>	<ul> <li>WTO shows increased emphasis on free flow of green goods and services</li> <li>Increased international cooperation on climate change issues in the short to medium term.</li> <li>Individual countries/regions preferring local content and solutions</li> <li>More fragmented and /differentiated global economy</li> <li>More trade restrictions due to regional concerns</li> <li>Chinese growth begins to be domestically driven.</li> <li>China remains the predominant trading nation in Asia.</li> <li>India continues to remain a business process outsourcing (BPO) hub, but its share begins to erode as Eastern Europe starts IT development.</li> <li>Trade polarizes into Western and Eastern blocs</li> </ul>
International Institutions	Less prominent international institutions	<ul> <li>Stronger role for international and multilateral institutions</li> </ul>
		<ul> <li>Increased national investments</li> <li>FDI remains constrained</li> <li>FDI levels are up 43% since last year, with the 21% of foreign equity being attracted by the services sector.</li> <li>India continues to lag. Total FDI inflow from 2000-2011 was \$ 19billion.</li> </ul>
FDI		<ul> <li>Services attracted 21% of FDI in April 2011 (almost three times the next highest). Housing – 7%, Construction – 7%, Automobiles – 5%, Power – 5%, Metallurgical – 3%, Petroleum &amp; Natural Gas – 2%.</li> <li>Over the same period, FDI in China for 2010 was \$ 105.7 billion. Main focus manufacturing. Road network in China increased 7-fold from 2000-2005 to 1,930,500 kms. By end of 2005, length of running railways in China was 75,000 kms, up 10% since 2000.</li> </ul>
Technologies	<ul> <li>Technological innovation market driven</li> <li>Emerging innovation centres attracting and competing for investment capital and human resources</li> <li>Original Equipment Manufacturers (OEM) develop transport solutions most wanted by consumers</li> <li>India becomes an R&amp;D hub in South Asia, and its infrastructure improvements enable it to achieve double digit growth year on year.</li> </ul>	<ul> <li>Governments picking technology winners (e.g. photovoltaic)</li> <li>Higher amount of technology transfer into developing nations</li> <li>Multinational technology co-operation and initiatives</li> <li>More state subsidies sponsor focused research programs into new transport technologies</li> <li>High-end tech research remains in OECD countries due to lack of Asian investment in domestic R&amp;D.</li> </ul>

	Japanese technology transfer to Asian manufacturing countries.	<ul> <li>Intellectual property violations become a major bone of contention between China and other countries, slowing technology transfer.</li> </ul>
Capital & Labour	<ul> <li>Free flow of capital &amp; labour</li> <li>India becomes host to increasingly large amounts of capital repatriated by US and UK non-resident Indians.</li> <li>Labour market booms due to infrastructure investments.</li> <li>Asian job market becomes a target for highly experienced western professionals seeking growth opportunities.</li> <li>Asian labour market becomes more mobile.</li> </ul>	<ul> <li>Restricted flow of capital &amp; labour</li> <li>Capital inflows from western economies depend on currency conditions of Eurozone and US debt levels.</li> <li>Middle Eastern countries (i.e. Saudi Arabia and Qatar) seek to make investments in developing Asian countries.</li> <li>Domestic equity markets contribution is low.</li> <li>Major energy investments made by governments to meet domestic energy demand.</li> <li>Labour market remains in current status. Declining employment in rural areas increases labour push to urban centres.</li> </ul>
Manufacturing centres	Manufacturing established in low cost centres & close to major markets	Manufacturing established in less optimal locations but with regional development and factors in mind
Infrastructure	<ul> <li>Patch work of improvements in many regions</li> <li>•</li> </ul>	<ul> <li>New infrastructure projects, mainly in renewable energy and public transport, state funded</li> <li>Access to energy and public transport schemes in Africa and developing Asia are being promoted by international institutions (UNIDO)</li> <li>Infrastructure investments are made by central governments (growth is slow) scale is limited due to size of government holdings.</li> <li>Chinese investment in infrastructure continues to develop strongly, levelling off by 2035/2040.</li> </ul>
Climate change	<ul> <li>Commercially viable Innovative Green technologies/practices flourish</li> <li>Clean energy technologies will only be implemented if international funding is obtained.</li> </ul>	<ul> <li>Big focus and international efforts on climate change by governments in short, medium to long terms.</li> <li>Chinese investment in renewables in 2009 was US\$ 34.6 billion, which was higher than the US. Set to increase even further</li> <li>It is also the world's leading consumer of coal and coal-fired electricity.</li> <li>CCS technology is expected to play a significant role in the future with dozens of full scale pilot plants operating at the end of the scenario period.</li> <li>The priority for energy access and reliable electricity supply supersedes the need to address climate change concerns in most developing countries in Asia.</li> </ul>
Politics & competition for resources	<ul> <li>Pure competition creates cost-efficient solutions</li> <li>Higher demand creates global competition for resources</li> <li>Pressure on North Korea to democratize.</li> <li>Chinese economic growth and infrastructure development limited by resource constraints</li> <li>Political unrest increasing due to poverty divide</li> </ul>	<ul> <li>Less competition over energy resources</li> <li>Focus on regional supply and energy efficiency reduce competition for resources</li> <li>The Chinese political system is scheduled to go through a power transfer in 2012. The old ruling elite will step down and give way to a newer generation. The focus will be on maintaining a steady level of economic growth along with social stability. Indicators of social unrest will be watched very closely by the government. Militarily, China will be seeking to exert its influence in the Asian region more strongly. Stability will hinge on a minimum economic growth of about 9%.</li> <li>The Korean peninsula instability seems to last for few more decades.</li> <li>India-Pakistan nuclear war threat will hang over for many years until Kashmir problem is solved.</li> <li>US influence waning, Asia looks increasingly to itself</li> </ul>
Regulation	<ul> <li>Low government regulation (minimum regulated environment), especially with China reducing government interference/involvement.</li> <li>Non-performing public assets are privatised.</li> <li>Higher degree of Chinese dissident opinions forming out of market driven economic</li> </ul>	<ul> <li>High government regulation (fully regulated environment)</li> <li>Domestic private conglomerates and industrialists begin to meet demand for services creating more market distortions (rise of monopolies)</li> <li>Government regulation remains high in China. Large infrastructure programs keep large sectors</li> </ul>

	developments	of the population employed and political reforms
	New Chinese political power blocks forming from within the communist party	<ul> <li>stay on the back burner</li> <li>India is has a more liberal regulation policy, but the size of its bureaucracy limits its growth potential.</li> </ul>
Competitive	<ul> <li>Pure market forces</li> <li>Market seeks competitive cost solutions</li> <li>Favourable climate for open global competition</li> </ul>	<ul> <li>Same or less market influence</li> <li>Market distortions through government intervention</li> </ul>
Privatization, liberalization, deregulation	Wave of privatization, liberalization & deregulation	<ul> <li>Same level or less</li> <li>Energy and transport sector considered strategic in most countries</li> <li>India liberalised in 1991 and has experienced an average annual GDP growth rate of 4.8% (1990- 2009) (World Bank). Chinese growth rate over the same period has been 9%.</li> <li>The biggest sector for FDI in India is Services, while in China, Thailand, and Taiwan it is manufacturing.</li> <li>India infrastructure investments increasing at a rapid pace, albeit regionally very different</li> <li>Some Indian state and city governments are starting to address the urbanisation and energy poverty challenges</li> </ul>
Economic Volatility	<ul><li>High economic volatility</li><li>Potential super-cycles</li></ul>	<ul> <li>More stable economic environment at lower growth levels in the short term.</li> </ul>
Wealth	<ul> <li>High &amp; increasing wealth in western world &amp; successful new industrial (SE Asia &amp; LAC).</li> <li>Africa still marginalized.</li> <li>Overall ASEAN per capita incomes rise.</li> <li>Flow of capital from traditional high-income Asian nations like Japan, Hong Kong, Singapore to China, India, Vietnam, &amp; Thailand.</li> <li>Standard of living increases across smaller ASEAN countries.</li> <li>India continues to lag due to large rural population.</li> </ul>	<ul> <li>Wealth disparity is less obvious in industrial countries</li> <li>Africa improving due to technology transfer (e.g. Copenhagen accord) and multi-lateral programs (e.g. UNIDO access to energy program).</li> <li>Governments continue to subsidize rural populations. High possibility of balance of payments crises.</li> <li>Urban middle class continues to grow due to rural influx</li> <li>Wide variation in GDP per capita figures across Asia (2009, current US\$, World Bank).</li> <li>Can categorize them according to certain economic development stages. GDP per capita are high for OECD members (Korea = \$ 17,078 and Japan = \$ 39,7380 and low for others (China = \$ 3,744 and India = \$ 1,192)</li> </ul>
R&D	<ul> <li>Diverse R&amp;D efforts</li> <li>Driven by both private and public sectors</li> </ul>	<ul> <li>More focused R&amp;D programmes driven mainly by public sector</li> <li>International research programs and technology "clearing houses" to facilitate technology transfer.</li> <li>While most of the manufacturing is done in China/Korea/Japan, the R&amp;D for high-end electronics is carried out in countries like Germany, Japan, USA, etc.</li> <li>India has a number of R&amp;D centres on software, pharmaceuticals, and other industries and starts to outpace China in terms of technology development</li> <li>Regional competition increasing</li> <li>Asia as a whole (with the exception of Japan and Korea) remains dependent on technology transfer.</li> </ul>
Carbon pricing	<ul> <li>Efficient carbon price mechanisms</li> <li>Carbon markets begin to gain a foothold in high- income Asian countries – Singapore, HK, Japan.</li> <li>Indian and Chinese governments adopt carbon credit system with international funding.</li> </ul>	<ul> <li>Existing Clean Development Mechanisms (CDMs) may fail in EU-US and not take off in other markets</li> <li>Regional limits and penalties imposed by local governments.</li> <li>Set of regional agreements on climate change and introduction of carbon price mechanisms.</li> <li>International incentives for countries to join, through investment funding and technology transfer system.</li> <li>Not a priority, unless international pressure is placed on governments of China and India.</li> <li>Will only take place in a very small scale, along</li> </ul>

		with promised international funding.
Sustainability	Cheaper but less wide-spread solutions	<ul> <li>Abuse of carbon trading mechanism likely.</li> <li>More expensive sustainability (as efficient prices are not driving players actions) but faster</li> </ul>
-		implementation
	<ul> <li>Consumer spending increases, savings drop</li> <li>Individual interests dominate</li> </ul>	<ul> <li>Consumer spending decreases, saving increases</li> <li>Number of middle class consumers increasing,</li> </ul>
	Cheapest price and highest comfort dominate	however, during second half of scenario period
	and differentiate products	Common interests at forefront
	Asia opens its doors to foreign/multinational	Consumer power used to stimulate development
	<ul> <li>brands.</li> <li>A truly global market is created for high-end</li> </ul>	<ul> <li>of greener goods and services</li> <li>Social activism increases and forces producers and</li> </ul>
	<ul> <li>A duly global market is created for high-end consumer goods.</li> <li>Increasing focus on providing consumer</li> </ul>	governments to put common interests at
	experiences/services instead of goods.	Best public image and corporate responsibility
	Credit levels rise – domestic household savings     levels drop	<ul> <li>differentiate in addition to price</li> <li>Characterised by constrained demand due to</li> </ul>
	<ul> <li>levels drop</li> <li>Growth of smaller firms where innovation</li> </ul>	Imited infrastructure.
	thrives.	• Increasing stress placed on electricity, water, and
Consumer behaviour	•	sewage systems in Asian megacities.
& lifestyle		<ul> <li>Rising food and fuel inflation.</li> <li>Consumption levels will increase across most of</li> </ul>
		Consumption levels will increase across most of the developing Asian economies. As incomes rise,
		there will be a shift towards demand for transport
		& high end products.
		Large demand for cars in China, with     manufacturers like BMW and Mercedes struggling
		to meet demand.
		• Entry into the markets by Retail multinational
		companies faces some opposition from local
		traders, but the move towards globalization continues. (E.g. Walmart in India)
		There is huge potential for consumption of
		services at the domestic household and individual
		level.
	High but uneven distributed economic growth.	<ul> <li>Demand for electricity will continue to rise.</li> <li>Sufficient economic performance to fund</li> </ul>
	<ul> <li>Sufficient fund for new private investments.</li> </ul>	government initiatives in energy.
	·	Overall economic growth is more moderate. Still
		distributed unevenly across regions.
		ADB expects growth in Asia to be driven by the economies of China, India, Indonesia, Japan,
		Republic of Korea, Thailand and Malaysia.
		• Chinese economic growth is expected to be
		around 9.5% this year (IMF). However, there are
		concerns that the Chinese economy may be overheating, with a property bubble in the
Good Economic		making. Food inflation is also rising.
Situation-Top of		• GDP growth rate in India is expected to be 8.25%
Business cycle		in 2011, dropping to 7.75% in 2012. Core inflation
		<ul><li>is rising in India.</li><li>Japanese economic output has suffered after</li></ul>
		Fukushima, affecting electronics supply chains
		worldwide. Growth is expected to be 2% in 2012.
		Japan Growth will be crippled by the national debt problems. Currently Japan's net debt stands at
		128% of their GDP (higher than Greece which is at
		124% of its GDP).
		• Thru 2035, China DGP is expected to grow by 5.7%
		a year compares to Asia of 5.45% and global of 3.2%. Also, India is expected to grow by 6.4% a
		year, over the same period.
	Low & uneven distributed economic growth.	Still sufficient economic performance in
	Wide spread austerity packages reducing new	developing countries (shielded such as China &
	investments and energy demand.	Brazil). Much weaker in developed. Still distributed unevenly.
Bad Economic Situation-Bottom of Business cycle		<ul> <li>Large public sector debt developing.</li> </ul>
		Currencies under pressure from finance market
		speculations
		<ul> <li>Devaluations and trade barriers emerging</li> </ul>
		<ul> <li>Effect of down-cycle partially mitigated by lower energy demand and import bills due to energy</li> </ul>

		• Currently, Asia has 60% of the world's population
		<ul><li>(4.1 billion out of 6.8 billion)</li><li>China is the most populous country today with 1.3</li></ul>
		• China is the most populous country today with 1.3 Billion people. India follows with 1.189 billion.
		<ul> <li>Currently, Asia's population growth is about 0.7%</li> </ul>
		a year (China is 0.5% and India is about 1.3%)
		which is lower than the global rate of 1.2%.
		• Thru 2035, Asia's population is expected to grow
		almost at the global average (0.8% compared to
		global average of 0.9%). China will grow at 0.3%
		while India will grow at 1%. In fact, most of the
		growth from south Asia. By 2030, India will take over and will be the largest by 2050.
		<ul> <li>Now, almost 22% of Asia's population is 14 years</li> </ul>
		of age or under (compared to the world average
Population		of 27%). South Asia is the youngest. In China 20%
Population		of the population is below 14 years while the level
		foe India is 31%.
		Looking at future trends, Japan and China
		population are aging and experiencing decline while population of India, Pakistan, Bangladesh
		and Indonesia are growing and having younger
		population.
		Chinese demographic change due to one-child
		policy will kick-in during this decade. The share of
		Chinese under age 15 dropped 6.3%, while that of
		those over 60 rose by 2.93%. This represents a
		<ul><li>shrinking labour market.</li><li>Demographic decline will become a serious</li></ul>
		concern in Japan. UN numbers estimate that
		36.5% of its population will be aged 65 or more by
		2050.
	Private Financing capital available, abundant	More Limited private financing capital mostly by
	and easy to flow	local institutions
Finance		• Large public sector funding for infrastructure and
		"green" projects
		<ul> <li>Foreign inflows continue strongly into Asian economies.</li> </ul>
	Could lessens in many regions	Tops list in South Asia, Sub-Saharan Africa,
		transition economies.
		• Corruption in Asia remains a challenge (south Asia
		is the most corrupted worldwide, WB).
		Corruption continues to plague Indian
		government at the national and state levels. It is
Corruption		ranked 87 in the latest Transparency International Corruption Rankings with a score of 3.3 (highly
		corrupt).China has a policy of harshly punishing its
		offenders. However allegations of corruption
		against state officials continue to be mounted.
		The Chinese government so far has not tolerated
		any strong widespread challenge and has regularly
	Lessens in many regions	<ul><li>imprisoned its harshest critics.</li><li>Remains an issue everywhere.</li></ul>
		<ul> <li>Remains very strong in Asia, especially in India and</li> </ul>
		China. All major external investors have to deal
Burgaucragy		with a major bureaucratic element. This causes
Bureaucracy		delays and higher project costs, especially in India.
		Corruption increase due to public sector
		programs, however, multilateral assistance to help
	Taxes (as a market distortion) drops in many	<ul> <li>cope with monitoring of disposal of public funds</li> <li>Constitutes a severe constraint on OECD and post</li> </ul>
	Taxes (as a market distortion) drops in many regions	<ul> <li>Constitutes a severe constraint on OECD and post socialist transition economies.</li> </ul>
	1081010	<ul> <li>New taxes needed to finance large public sector</li> </ul>
		debt in Western economies
Tax regulation		• India has an effective statutory corporate tax rate
Tax regulation		of 30 to 40%.
		China has an effective statutory corporate tax rate
		of 25%, down from 30% in 2007. (Source: Deloitte)
		<ul> <li>Overall, tax regulations in Asia are considered low compared to OECDs</li> </ul>
	Subsidies (as another market distortion)	<ul> <li>compared to OECDs.</li> <li>Subsidies remain and increase for green goods</li> </ul>
Subsidies	<ul> <li>Subsidies (as another market distortion) removed in many regions. Remaining subsidies</li> </ul>	and services.
	mainly in renewables.	<ul> <li>Fuel and electricity remain heavily subsidised</li> </ul>

Energy E&P	<ul> <li>Many countries open their upstream sectors resulting in a surge of supply.</li> <li>Moderate oil prices in the short term.</li> <li>More security of supply and demand</li> <li>Fossil fuel dominance reducing only gradually</li> <li>High growth of energy demand, leading to higher prices at the end of scenario period.</li> <li>Industrial demand for energy reaches all time peak</li> <li>Electricity prices increasing sharply, leading to energy poverty</li> <li>Coal becomes a main driver for growth (widespread implementation of CCS technologies).</li> <li>Gads from former USSR becomes important for China and India.</li> <li>Mongolia experiences a commodities boom (rare earths/minerals).</li> <li>Riparian conflicts and natural resource disputes increase.</li> </ul>	<ul> <li>most Asian countries. Any increase at the pumps will have an immediate adverse impact on economic growth.</li> <li>The Chinese government still subsidises electricity and regularly subsidies State Owned Enterprises.</li> <li>Lack of opening new areas for E&amp;P leading to tight supplies</li> <li>High infrastructure costs for early integration of renewable energy sources</li> <li>higher oil and energy prices at the beginning of scenario period, but lower, more stable prices after quicker transition to renewable energy sources</li> <li>Oil price is tightly regulated</li> <li>Security of supply and climate change concerns push drive to reduce dependence from fossil fuels</li> <li>Clean coal and CCS socially unacceptable in EU and US but becomes a must for developing world</li> <li>Electricity prices increasing sharply, leading to energy poverty and government subsidies for lower incomes</li> <li>Energy investments are funnelled into specific areas by governments (power generation infrastructure to meet urban and industrial demand for the short to medium term only).</li> <li>Continued dependence on oil imports from Middle East and development of gas links with CIS, Qatar and Iran.</li> <li>Formation of regional energy trading blocs.</li> <li>Increasing competition for ME oil as western countries seek to maintain security of supply and Asian countries struggle to meet demand.</li> <li>India and China both continue to invest in the development of their coalfields.</li> <li>Gas exploration continues off the eastern coast of India. India and Iran have an oil supply agreement which has recently run into payment disputes.</li> <li>The region remains heavily dependent on oil imports.</li> <li>Major Asian consuming nations (China, India, and Japan) are trying to secure a foot hold in major natural resource exporting regions (Africa/Middle east)</li> <li>A move has begun to exploit the resources of the</li> </ul>
Liberalization, policy agreements	<ul> <li>Liberalized energy markets and high competition for resources on a global basis</li> <li>Easy to reach international agreements on removing trade barriers</li> <li>No agreements on international energy policy due to competing interests.</li> <li>Energy market lacks of ability to reach international agreements and common set of basic rules</li> <li>Policy is made to further industrial growth not regulate it.</li> <li>Energy security becomes increasingly important and domestic reserves are optimally exploited.</li> </ul>	<ul> <li>Central Asian Region.</li> <li>Limited competition and participation</li> <li>Policy agreements of "coalitions of the willing" to reduce greenhouse gas emissions and setting of (increasingly) international standards for carbon pricing</li> <li>Stronger role for international institutions to set policies</li> <li>Main focus of energy policy will be to ensure energy crises are averted, economy is shielded from oil shocks, and domestic energy reserves are fully developed.</li> <li>Energy access at an affordable price becomes main target of energy policy</li> </ul>
Policy initiatives	<ul> <li>Policy initiatives aimed at setting framework conditions for market solutions to emerge</li> </ul>	<ul> <li>Energy policy initiatives set by centralized government where regulations of energy sector reverts to national states</li> </ul>
International	Successful international coordination on free	International coordination of energy taxes
cooperation Energy Saving	<ul> <li>market mechanisms</li> <li>Significant saving (higher prices/efficient markets)</li> <li>Rising electricity prices force industry and domestic consumers to adopt smart-metering and energy saving measures.</li> </ul>	<ul> <li>progressing</li> <li>Large government focus on energy efficiency and energy saving programs</li> <li>Efficiency brands (Like Energy Star) become dominant in consumer minds</li> <li>Efficiency does not make inroads unless investment made justifies energy savings in monetary terms.</li> <li>Clean energy mandates are financed by</li> </ul>

		international organisations.
		World Bank funds continue to be provided to     Asian countries to implement energy efficiency
Energy Consumption	High economic growth yields high energy consumption	<ul> <li>targets.</li> <li>High impact from energy efficiency and energy saving programs</li> <li>Global demand for energy is also lower because of lower growth and changes in lifestyle.</li> <li>Transport Mostly using conventional gasoline and diesel</li> <li>In 2008, China consumed 65 mtoe (about 1.314 million barrels per day) of gasoline and about 76 mtoe (about 1.546 million barrels per day) of diesel.</li> <li>In 2008, OECD-Asia consumed 65 mtoe (about 1.314 million barrels per day) of gasoline and about 54 mtoe (about 1.082 million barrels per day) of diesel.</li> <li>In 2008, rest of Asia's consumed 65 mtoe (about 1.314 million barrels per day) of gasoline and about 54 mtoe (about 1.082 million barrels per day) of diesel.</li> <li>In 2008, rest of Asia's consumed 65 mtoe (about 1.314 million barrels per day) of gasoline and about 84 mtoe (about 1.700 million barrels per day) of diesel.</li> <li>Passenger and freight transport are up 26 and 29.2 percent in China (2000-2005)</li> <li>By 2050, china transport fuels consumptions is expected to increase from 150 mtoe to around 700 mtoe (mostly conventional gasoline/diesel/jet fuel).</li> <li>Similarly, India transport fuels consumptions is expected to increase from 50 mtoe to around 400 mtoe (mostly conventional gasoline/diesel/jet fuel).</li> <li>However, OECD-pacific transport fuels consumptions is expected to increase from 50 mtoe to around 400 mtoe (mostly conventional gasoline/diesel/jet fuel).</li> <li>Other Asia transport fuels consumptions is expected to increase from 300 mtoe to around 550 mtoe (mostly conventional gasoline/diesel/jet fuel).</li> </ul>
Transport Intermodal	<ul> <li>Individual transport solutions</li> <li>Solutions are more short term and lack wide perspectives</li> <li>Megacities embark on electrification of public transport systems.</li> <li>Urban planning becomes more important.</li> <li>Intra-city rail projects increase.</li> </ul>	<ul> <li>Stronger emphasis on public transport</li> <li>Intermodal transport seen as a crucial part of the solution in China</li> <li>In India and Indonesia local and regional efforts on public transport around major urban centres appearing until 2025 driven by local visionary politicians</li> <li>Eventual national solutions developing after 2025; long term solutions with wide perspectives</li> <li>Electrification does on take place till infrastructure and funding is secured.</li> <li>Freight within countries remains heavily dependent on road transport.</li> <li>Exxon estimates that by 2030 HDVs will become the largest transportation demand segment (Energy Outlook, 2009).</li> <li>Efforts are underway in India to bring intra-city rail systems online, while China has ambitious plans of extending its rail network to 120,000kms with 16,000kms of high speed rail.</li> </ul>
Air Traffic/Freight	<ul> <li>High growth of air traffic and freight sector</li> <li>Aircraft orders increase.</li> <li>Air links to urban centres within manufacturing hinterlands increase in India and China.</li> </ul>	<ul> <li>Less growth due to lower economic growth</li> <li>Slow to medium growth in Aviation sector. Demand for aircraft will depend on oil prices and ability of governments to meet non-aviation transport demand for oil.</li> <li>According to International Civil Airline Organization of Member States, civil airline of China became the second largest, next to the US in 2005.</li> <li>Freight in India is heavily dependent on road transport and also railways. Infrastructure developments in the national highway corridors are being carried out.</li> </ul>

		For the Asia pacific market, Boeing expects a
		growth rate of 6.8% for passenger and 6.8% for
		cargo per year thru 2029.
		• For china the rates are 7.6% for passenger and
		7.4% for cargo,
		• for South Asia it is 7.4% for passenger and 7.7%
		for cargo,
		• for northeast Asia it is 4% for passenger and 6.3%
		for cargo
		• for south east Asia it is 6.9% for passenger and
		6.5% for cargo
		• for Oceania and Australia it is 6% for passenger
		and 6.2% for cargo
	High efficiency ICEs	High efficiency ICEs
		<ul> <li>In 2005, diesel ICEs constitutes about 25% of</li> </ul>
		India's LDV stocks (still gaining popularity) due to
		the low cost of diesel at the pump compared to
		petrol. Increasing fuel efficiency, combined with
		turbocharged technology has boosted the
		demand for diesel vehicles in India.
		Gasoline ICEs have a big demand in China and it
		will continue to grow.
		• In 2005, the passenger LDV stock is about 14
ICEs		million vehicles in China, about 7 million in India,
		and 26 million in other Asia (total = 47 million).
		• In 2005, new car sales in China are about 3.1
		million /yr, 1.1 million cars/yr in India, and 2.9 in
		other Asia.
		<ul> <li>In 2005, used cars inflow to Asia is about 274,000</li> </ul>
		cars (mostly from Japan) .
		Conventional ICEs dominates existing stock/new
		sales /used sales.
		ICE is expected to dominate thru 2050. Small
		fraction will be fuelled off CTL.
	More hybrids	<ul> <li>moderate hybrids share growth</li> </ul>
	Hybrid vehicle growth increases in Asian	• Hybrid penetration is low in Asia, with the
	markets.	exception of Japan where sales were almost
		500,000 units in 2010.
		• Expected to increase market share in high income
Hybrids		countries (Japan/Korea)
		<ul> <li>In 2009, Japan's sales of hybrid cars were 334,000</li> </ul>
		and 500,000 in 2010 (now IEA forecasts that there
		will be about 15-20 million Hybrids by 2020 and
		about 80 million by 2040.
	Batteries still expensive.	Earlier penetration of EVs and more use of
	With time, R&D will drive battery prices down	electricity in public transport fleets (government
	<ul> <li>competitive market facilitate new business</li> </ul>	directed).
	models for battery replacement	Efficiency of electric vehicles transforms energy
	<ul> <li>Oil still a necessity for most transport demand,</li> </ul>	demand and landscape. However, impact really
	Oil still a necessity for most transport demand, even in 2050.	demand and landscape. However, impact really visible after 2025. By 2050, EV expected to be 40%
	even in 2050.	visible after 2025. By 2050, EV expected to be 40%
	<ul><li>even in 2050.</li><li>Innovation centres in the Eastern markets and mega-cities drive the introduction of large</li></ul>	visible after 2025. By 2050, EV expected to be 40% of the LDVs demand share (extreme case as in
	<ul> <li>even in 2050.</li> <li>Innovation centres in the Eastern markets and mega-cities drive the introduction of large numbers of EVs due to air quality concerns in</li> </ul>	visible after 2025. By 2050, EV expected to be 40% of the LDVs demand share (extreme case as in IEA's 450 level). This is subject to significant
	<ul> <li>even in 2050.</li> <li>Innovation centres in the Eastern markets and mega-cities drive the introduction of large numbers of EVs due to air quality concerns in mega cities. In the longer term, low cost EVs</li> </ul>	<ul> <li>visible after 2025. By 2050, EV expected to be 40% of the LDVs demand share (extreme case as in IEA's 450 level). This is subject to significant improvement to the grid systems.</li> <li>Fossil fuels reduced to cover 30% of LDVs</li> </ul>
	<ul> <li>even in 2050.</li> <li>Innovation centres in the Eastern markets and mega-cities drive the introduction of large numbers of EVs due to air quality concerns in mega cities. In the longer term, low cost EVs penetrate western markets.</li> </ul>	<ul> <li>visible after 2025. By 2050, EV expected to be 40% of the LDVs demand share (extreme case as in IEA's 450 level). This is subject to significant improvement to the grid systems.</li> <li>Fossil fuels reduced to cover 30% of LDVs transport energy demand in 2050. Remaining 30%</li> </ul>
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		across rural areas where road infrastructure is less developed
CNGs	More CNGs if gas reserves available as E&P accessible by IOCs	<ul> <li>Governments put CNG infrastructure programs in place as part of the drive to reduce dependency from imported oil and with air quality considerations in mind</li> <li>CNGs significantly in transport early on by local governments with access to domestic gas reserves.</li> <li>Potential for CNG vehicles, especially in India, Pakistan and Iran.</li> <li>CNG vehicles are becoming increasingly popular, estimated at 11.4 million vehicles in 2009 by IANGV. Around 72% of these vehicles are located in Pakistan, Argentina, Brazil, Iran, and India.</li> <li>CNG vehicles are becoming more popular in India and other countries due to the low cost of CNG per km compared to other fuels.</li> <li>Still will constitute a small fraction of the total stock.</li> </ul>
FCs	FCs small breakthrough as they are still expensive	Fuel cells adopted to reduce dependency on foreign oil     Minimum level & potential
Biofuels	<ul> <li>Food crisis depresses global biofuels growth</li> <li>Strong regional hubs in both North and South America</li> <li>Gene technology used to grow energy crops (except EU).</li> <li>2<sup>nd</sup> &amp; 3<sup>rd</sup> generations are still expensive</li> </ul>	<ul> <li>Increasing contribution of first generation biofuels to fuel mix</li> <li>Larger impact on food prices</li> <li>Gene modifications of crops still not accepted in EU.</li> <li>Large contribution of second (and 3<sup>rd</sup>?) generation biofuels in the long term</li> <li>Developing Asia is expected to consume 16mtoe (322,000 barrel per day) of biofuels in 2030 (China: 7.9mtoe, India: 2.4mtoe, Indonesia: 1.5mtoe).</li> <li>Competitive biofuel production can be achieved in SE Asian countries which produce palm oil. Around 3 billion litres of biofuels were produced in Asia in 2008, compared to a world total of 67 billion litres.</li> </ul>
Urban Planning	<ul> <li>Good economies will invite better planning and problem solving.</li> <li>Urbanisation sharply grows and then plateaus as income levels rise in non-urban manufacturing areas (e.g. SEZs).</li> <li>Number of industrial cities will grow.</li> <li>Cities begin to grow a more planned manner.</li> <li>Land and house prices sharply increase, leading to a boom in real estate businesses.</li> </ul>	<ul> <li>Governments alone can poorly direct/coordinate urbanisation</li> <li>Coalitions of local and regional governments and multi-lateral institutions providing financing and project management expertise inviting private sector consortia to undertake large urban redevelopment projects to improve worst problem areas</li> <li>Urbanisation continues to grow sharply as more and more rural inhabitants move to cities in search of work to meet higher costs of living.</li> <li>Unplanned expansion of urban settlements, particularly in India.</li> <li>Population density in Asia is about 90 people/sq km and expected to grow.</li> <li>In 2000, around 48% of the Asian populations live in cities. Around 30% of the Indian population lived in urban centres while in china it is around 44%. These rates are set to increase.</li> <li>Rural to urban influx is also increasing in China and India. Internal migration is rising; 1 in 5 respondents to the last census has relocated. Bohai Economic Rim, with a series of urban centres located in the industrial hinterland surrounding Beijing and Tianjin is being developed.</li> </ul>
High Speed rails	There could be problems with corridors and private sector funding.	<ul> <li>Penetration of high speed rail networks at a larger scale, especially in second half of scenario period</li> <li>Move towards electrifying railways</li> <li>China leads the world with 4,840 km in operation and 15,478 km under construction.</li> <li>China plans form more than 12,000 km by 2020.</li> <li>Recent HSR accidents may not slow down the government plans.</li> </ul>

		<ul> <li>Jonan has a total of 2 405 km of USB. Taiware</li> </ul>
		<ul> <li>Japan has a total of 2,495 km of HSR, Taiwan – 345 km, South Korea – 412 km.</li> </ul>
	NA	
	More vehicles ownerships	Less car ownerships & more reliance on public
	Number of two wheelers increasing significantly	transport systems, car sharing and rentals.
		• In 2005, the vehicle ownership in China was about
		11 cars per 1000 capita and 6 cars per capita in
		India compared to a global average of 111 cars per
		1000 capita. Still very long way to go.
		In China ownership rate has been growing at the
		rate of 12% per year, in India it has been growing
		at 9% per year. In Beijing, number of new cars
		rose by 23.8% in first four months of 2010.
Vehicles Ownerships		• Asia produces 95% of the global 2-3 wheelers and
		constitutes 75% of the stocks in the world.
		China is the fastest growing but still within 50-100
		per 1000 capita (still below Malaysia and Thailand,
		250/1000 capita).
		Electric bikes cost 505 less than motor scooters
		and about 30% of the conventional ones.
		China banned gasoline motorcycles and scooters     in Relifing and Characheri
		<ul> <li>in Beijing and Shanghai.</li> <li>100 million E-bikes in circulation in china. Sales 20</li> </ul>
		million/year.
	111-based the free based as a second second second	• France/US are on the path of china for E-Bikes.
	High growth for both passenger travels and     for initial second s	More moderate growth levels.
	freight especially in eastern markets.	Over the next 20 years, overall Asia-Pacific
		freighter fleet is expected to grow five-fold, rising
		from 16% of global fleet to almost 40%. Airbus expects India's fleet to grow 13.5 times by 2028.
		<ul> <li>Over the next 20 years, Boeing expects the Asia</li> </ul>
		Pacific passenger fleet to grow by three fold from
Aviation, Shipping,		4110 planes to 12200 planes.
Rails & Trucks		<ul> <li>India needs 3000 additional aircraft over the next</li> </ul>
Hans & Hacks		<ul> <li>India needs 5000 additional and and over the next decade to maintain economic growth.</li> </ul>
		<ul> <li>Chinese investment in air infrastructure over ten</li> </ul>
		years is planned to be US\$64 billion (100 new
		airports). India has earmarked US\$ 7 billion for
		airport expansion over next 5 years.
		<ul> <li>China plans to invest US\$ 1trillion to expand its</li> </ul>
		rail network by 2020.

### 3- Europe & Russia

Issue	1-Freeway	2-Tollway
General	World with solutions where pure market forces     prevail	Regulated world where governments and politicians decide to put common interests at forefront and intervene in markets
Trade	<ul> <li>WTO makes progress competitive issues???</li> <li>Free and expanding international trade in regard to trade &amp; barriers removals.</li> <li>Globalized economy</li> <li>Global competition and occasional trade disputes</li> <li>High global trade imbalances</li> <li>Stronger trade links between Russia (gas), CIS (gas &amp; oil), and Asian (manufacturing) countries.</li> <li>Euro regains potential after resolution of PIIGS crisis.</li> <li>US remains strongest trading partner.</li> </ul>	<ul> <li>WTO shows increased emphasis on free flow of green goods and services</li> <li>Increased international cooperation on climate change issues in the short to medium term.</li> <li>Individual countries/regions preferring local content and solutions</li> <li>More fragmented and /differentiated global economy</li> <li>More trade restrictions due to regional concerns</li> <li>Trade is mainly focussed on servicing US market.</li> <li>Formation of a Eurasian Economic Union under the leadership of Russia (potential for EU to be polarized into West vs. East trading partners).</li> <li>SE Europe will be increasing influenced by GCC trade investments in the region.</li> </ul>
International Institutions	Less prominent international institutions	<ul> <li>Stronger role for international and multilateral institutions</li> </ul>
FDI	Increased level of FDI	<ul><li>Same or less</li><li>Increased national investments</li></ul>
Technologies	<ul> <li>Technological innovation market driven</li> <li>Emerging innovation centres attracting and competing for investment capital and human resources</li> <li>Original Equipment Manufacturers (OEM) develop transport solutions most wanted by</li> </ul>	<ul> <li>Governments picking technology winners (e.g. photovoltaic)</li> <li>Higher amount of technology transfer into developing nations</li> <li>Multinational technology co-operation and initiatives</li> </ul>

	consumers	More state subsidies sponsor focused research
	Continued R&D on renewables technology.	<ul> <li>programs into new transport technologies</li> <li>Focus on renewables R&amp;D is limited to a gropup of countries called the planet pioneers, e.g. Germany, Denmark, UK etc</li> </ul>
Capital & Labour	<ul> <li>Free flow of capital &amp; labour</li> <li>No shortage of capital as economic growth rebounds.</li> <li>Investment is provided by International Banks and carefully monitored by central banks (new EU banking code)</li> </ul>	<ul> <li>Restricted flow of capital &amp; labour</li> <li>Highly dependent on ability of Euro zone to stabilize currency and common central banking codes are strictly adhered to.</li> <li>Labour from Eastern Europe continues to flow into NW Europe to benefit from open borders and better social programs.</li> <li>Remittances into Eastern Europe, especially Poland drive economic development.</li> </ul>
Manufacturing centres	<ul> <li>Manufacturing established in low cost centres &amp; close to major markets</li> <li>Increasingly manufacturing shifts to the East of Europe</li> </ul>	<ul> <li>Manufacturing established in less optimal locations but with regional development and factors in mind</li> </ul>
Infrastructure	<ul> <li>Patch work of improvements in many regions</li> <li>In order to meet 20-20-20 target, EU aims to accomplish the following:</li> <li>Connect offshore grids in Northern Seas to consumption centres in C. Europe.</li> <li>Roll out smart grid technologies.</li> <li>Diversify gas southern corridor: bring gas in from Caspian Basin, Central Asia, and Middle East.</li> <li>Baltic Energy Market Interconnection Plan (BEMIP).</li> <li>Linking Baltic, Black, Adriatic, and Aegean Sea via BEIMP and North-South gas corridor.</li> <li>Reinforcing Cen. European pipeline network.</li> <li>Commission first Electricity Highways by 2020.</li> <li>EUR 200 billion needs to be invested until 2020 to meet objectives</li> <li>Existing EU-Russia transport infrastructure is old will be very expensive to replace-modernize</li> </ul>	<ul> <li>New infrastructure projects, mainly in renewable energy and public transport, state funded</li> <li>Access to energy and public transport schemes in Africa and developing Asia are being promoted by international institutions (UNIDO)</li> <li>EDU starts the planning, design and implementation of the European super-grid, a high voltage network that is centrally run and coordinated</li> <li>New European agency to run EU grid established</li> </ul>
Climate change	<ul> <li>Commercially viable Innovative Green technologies/practices flourish</li> <li>EU 20-20-20 target</li> </ul>	<ul> <li>Big focus and international efforts on climate change by governments in short, medium to long terms.</li> </ul>
Politics & competition for resources	<ul> <li>Pure competition creates cost-efficient solutions</li> <li>Higher demand creates global competition for resources</li> <li>Region is politically stable, although financial crises have lent instability to Ireland, Portugal, Italy, and Greece.</li> <li>Green Parliamentary Group in the Bundestag has come to dominate German politics – all renewable energy by 2030.</li> <li>Russia continues demonstrating its fears from NATO.</li> <li>Instabilities continues in the southern Russian old states (Chechen Republic), Northern Spanish province of Basque, and Northern Ireland</li> </ul>	<ul> <li>Less competition over energy resources</li> <li>Focus on regional supply and energy efficiency reduce competition for resources</li> </ul>
Regulation	<ul> <li>Low government regulation (minimum regulated environment)</li> <li>Occurs at the EU-level, which members states have to eventually adopt.</li> <li>Russia is still heavily regulated.</li> </ul>	<ul> <li>High government regulation (fully regulated environment)</li> <li>EU-level regulators for gas and electricity markets.</li> <li>EU-level regulation becomes bigger not necessarily stronger.</li> </ul>
Competitive	<ul> <li>Pure market forces</li> <li>Market seeks competitive cost solutions</li> <li>Favourable climate for open global competition</li> </ul>	<ul> <li>Same or less market influence</li> <li>Market distortions through government intervention</li> </ul>
Privatization, liberalization, deregulation	<ul> <li>Wave of privatization, liberalization &amp; deregulation</li> <li>Potential for private operation of transnational pipelines</li> <li>OECD Europe countries have fully liberalized markets. Non-OECD Europe countries will</li> </ul>	<ul> <li>Same level or less</li> <li>Energy and transport sector considered strategic in most countries</li> <li>Move towards privatization of energy companies in PIIG countries.</li> </ul>

	eventually privatize non-performing public assets, especially in light of financial crisis.	
	<ul> <li>Privatization is still an issue in Russia.</li> </ul>	
	High economic volatility	More stable economic environment at lower
Economic Volatility	Potential super-cycles	growth levels in the short term.
	High & increasing wealth in western world &	Wealth disparity is less obvious in industrial
	successful new industrial (SE Asia & LAC).	countries
	Africa still marginalized.	• Africa improving due to technology transfer (e.g.
	Germany remains the most productive economy	Copenhagen accord) and multi-lateral programs
Wealth	in Europe.	(e.g. UNIDO access to energy program).
	<ul> <li>Strong growth of Eastern European economies.</li> <li>In 2010, the GDP per capita for the Euro area</li> </ul>	<ul> <li>Affected by non-resolution of EU currency crisis.</li> <li>Unemployment issues will need to be addressed</li> </ul>
	was about \$32,772 and for Russia, it was about	by job creation instead of clamping immigration.
	\$8,684	<ul> <li>Middle classes continue to get squeezed leading</li> </ul>
	•	to demand for political reform.
	Diverse R&D efforts	More focused R&D programmes
R&D	Driven by both private and public sectors	driven mainly by public sector
	Countries like Germany, UK, and Italy continue	International research programs and technology
	to be centres of innovation.	"clearing houses" to facilitate technology transfer.
	Efficient carbon price mechanisms	<ul> <li>Existing Clean Development Mechanisms (CDMs) may fail in EU-US and not take off in other</li> </ul>
	Most developed carbon market worldwide.	markets
		<ul> <li>Regional limits and penalties imposed by local</li> </ul>
		governments.
Carbon pricing		• Set of regional agreements on climate change and
		introduction of carbon price mechanisms.
		International incentives for countries to join,
		through investment funding and technology
		<ul> <li>transfer system.</li> <li>Does not reach to the Freeway level.</li> </ul>
	Cheaper but less wide-spread solutions	<ul> <li>More expensive sustainability (as efficient prices</li> </ul>
Sustainability	• Cheaper but less wide-spread solutions	are not driving players actions) but faster
,		implementation
	Consumer spending increases, savings drop	Consumer spending decreases, saving increases
	Individual interests dominate	Common interests at forefront
	Cheapest price and highest comfort dominate	Consumer power used to stimulate development
	and differentiate products	of greener goods and services
	<ul> <li>Demand for green goods and services rises.</li> <li>Public opinion influenced by virtual</li> </ul>	<ul> <li>Social activism increases and forces producers and governments to put common interests at</li> </ul>
	<ul> <li>Public opinion influenced by virtual communities.</li> </ul>	forefront
	<ul> <li>Increased use of personal gadgets and</li> </ul>	<ul> <li>Best public image and corporate responsibility</li> </ul>
	communication devices.	differentiate in addition to price
	Increased monitoring capability of personal	Drive towards increased virtual
	energy consumption	interconnectedness continues.
	In 2008, primary energy consumption for OECD	Trust in government and financial institutions very
Consumer behaviour	Europe was 1,820 Mtoe and 1,386 Mtoe for non-OECD Europe.	<ul> <li>low, increased political uncertainty.</li> <li>Intra-EU movement decreases.</li> </ul>
& lifestyle	<ul> <li>Energy intensity has been steadily falling year</li> </ul>	
	on year (primarily due to efficiency increases).	
	In 2035, it is expected to increase to 1,843 Mtoe	
	for OECD.	
	In 2007, biggest energy consumers of energy	
	included Germany (339.6 Mtoe), France (270.3	
	Mtoe), UK (221.1 Mtoe) and Spain (146.8 Mtoe).	
	<ul> <li>EU-27 Energy Consumption figures in 2007 were</li> </ul>	
	Oil 36.4%, Gas 23.9%, Solid fuels 18.3%, Nuclear	
	13.4%, Renewables 7.8%.	
	• In 2008, the expenditure per head on transport	
	for EU-27 is around EUR 1,900.	
Good Economic	High but uneven distributed economic growth.	Sufficient economic performance to fund
Situation-Top of	<ul> <li>Sufficient fund for new private investments.</li> </ul>	<ul> <li>government initiatives in energy.</li> <li>Overall economic growth is more moderate. Still</li> </ul>
Business cycle		distributed unevenly across regions.
	Low & uneven distributed economic growth.	Still sufficient economic performance in
	<ul> <li>Wide spread austerity packages reducing new</li> </ul>	developing countries (shielded such as China &
Pad Economic	investments and energy demand.	Brazil). Much weaker in developed. Still
Bad Economic Situation-Bottom of	• Between 1990 and 2008, the EU grew by	distributed unevenly.
Business cycle	2.2%/year while Russia grew by 0.6% a year.	Large public sector debt developing.
	• In 2010, the inflation of avg. consumer prices in	Effect of down-cycle partially mitigated by lower
	was about 2%.	energy demand and import bills due to energy
	• Average unemployment rate is about 9.3%	efficiency gains.

	• Growth in EU zone will be slowed down by the	
	debt crises hitting Greece (net debt of 125% of	
	its GDP), Italy (net debt of 101% of its GDP),	
	Belgium (net debt of 80% of its GDP), Portugal	
	(net debt of 75% of its GDP), and Ireland (net	
	debt of 70% of its GDP).	
	It is widely expected that Greece will default in	
	paying its loans and will expose many European	
	banks (mainly French).	
	• Austerity measure will also slow down growth in	
	the EU zone.	
	• Thru 2035, The WB expects EU to grow at 1.6%	
	a year while Russia to grow at 3%.	
	In 2008, the Europe's population stood at	
	around 723 billion. The current population	
	growth is about -0.1% per year for Russia and	
	0.4% per year for the EU.	
	• Most of the EU's population growth is in	
	Northern EU (0.58%/year).	
	Germany, Hungary, and UK experienced	
	negative population growth rate in 2010	
	<ul> <li>Around 15% of the Russian population is below</li> </ul>	
Population	14 years old while for Eu it is about 17%.	
	<ul> <li>Over the last decade EU-25 dependency ratio</li> </ul>	
	grew by 1.3% per year and reached 25% in	
	2005.	
	<ul> <li>Low fertility rates (1.5 children per woman) and</li> </ul>	
	high life expectancies are accelerating the	
	demographic decline.	
	<ul> <li>Thru 2035, Russia's population is expected to</li> </ul>	
	grow at 0.4% and per year while the EU's	
	population is expected to grow by 0.2% a year.	A for the line is a line in the first state in the line set in
	Private Financing capital available, abundant	<ul> <li>More Limited private financing capital mostly by local institutions</li> </ul>
Finance	and easy to flow	local institutions
	Wide options of financing options.	Large public sector funding for infrastructure and
		"green" projects
	Could lessens in many regions	Tops list in South Asia, Sub-Saharan Africa,
Corruption	Minimum in West EU but very high for East EU	
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Corruption	<ul> <li>Minimum in West EU but very high for East EU Russia (second to South Asia).</li> <li>Lessens in many regions</li> </ul>	Tops list in South Asia, Sub-Saharan Africa,
	<ul> <li>Minimum in West EU but very high for East EU Russia (second to South Asia).</li> <li>Lessens in many regions</li> <li>Considerable at the EU-level.</li> </ul>	Tops list in South Asia, Sub-Saharan Africa, transition economies.
Corruption Bureaucracy	<ul> <li>Minimum in West EU but very high for East EU Russia (second to South Asia).</li> <li>Lessens in many regions</li> </ul>	Tops list in South Asia, Sub-Saharan Africa, transition economies.
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	<ul> <li>reduced rates of VAT (5 %) on domestic oil and gas (EUR 1.4 billion), while Italy allows reduced VAT rates (10 %) on domestic gas (EUR 0.9 billion).</li> <li>Subsidies are significant in Russia too.</li> <li>Many countries open their upstream sectors resulting in a surge of supply.</li> </ul>	Lack of opening new areas for E&P leading to tight supplies
Energy E&P	<ul> <li>Moderate oil prices in the short term.</li> <li>More security of supply and demand</li> <li>Fossil fuel dominance reducing only gradually</li> <li>High growth of energy demand, leading to higher prices at the end of scenario period.</li> <li>Industrial demand for energy reaches all time peak</li> <li>Electricity prices increasing sharply, leading to energy poverty</li> <li>Russia becomes largest supplier of gas to EU.</li> <li>Middle East predominant in oil supply.</li> <li>Azerbaijan contribution to gas increases.</li> <li>Electricity infrastructure for unified EU-25 grid is put in place.</li> <li>Creation of common European power trading hub.</li> <li>Gas pipelines (Nabucco &amp; South Stream are achieved, North-South gas corridors) are developed.</li> <li>Adriatic, Aegean, Black, and Baltic seas are linked.</li> <li>Strategies to link into Central Asia reserves.</li> <li>EU as a whole remains heavily dependent on Russian gas supplies. This dependence is expected to last for few more decades especially in light of the current move away from nuclear (Germany)</li> </ul>	<ul> <li>High infrastructure costs for early integration of renewable energy sources</li> <li>higher oil and energy prices at the beginning of scenario period, but lower, more stable prices after quicker transition to renewable energy sources</li> <li>Oil price is tightly regulated</li> <li>Security of supply and climate change concerns push drive to reduce dependence from fossil fuels</li> <li>Clean coal and CCS socially unacceptable in EU and US but becomes a must for developing world</li> <li>Electricity prices increasing sharply, leading to energy poverty and government subsidies for lower incomes</li> <li>Domestic fossil fuel reserves are developed.</li> <li>Energy supply is wielded as a trump card by producer countries.</li> <li>Poland and other developing EU nations concentrate on developing fossil fuel reserves, along with unconventional sources.</li> <li>Gas pipeline development moves towards regionalisation instead of EU-wide level.</li> <li>Formation of regional energy/electricity trading blocs.</li> </ul>
Liberalization, policy agreements	<ul> <li>Liberalized energy markets and high competition for resources on a global basis</li> <li>Easy to reach international agreements on removing trade barriers</li> <li>No agreements on international energy policy due to competing interests.</li> <li>Energy market lacks of ability to reach international agreements and common set of basic rules</li> </ul>	<ul> <li>Limited competition and participation</li> <li>Policy agreements of "coalitions of the willing" to reduce greenhouse gas emissions and setting of (increasingly) international standards for carbon pricing</li> <li>Stronger role for international institutions to set policies</li> </ul>
Policy initiatives	<ul> <li>Policy initiatives aimed at setting framework conditions for market solutions to emerge</li> <li>Becomes predominantly focussed on drive to renewables.</li> </ul>	<ul> <li>Energy policy initiatives set by centralized government where regulations of energy sector reverts to national states</li> <li>Mainly focussed on providing cheap energy for domestic consumption.</li> </ul>
International	Successful international coordination on free	International coordination of energy taxes
cooperation Energy Saving	<ul> <li>market mechanisms</li> <li>Significant saving (higher prices/efficient markets)</li> <li>Credits are given to households for saving energy.</li> </ul>	<ul> <li>progressing</li> <li>Large government focus on energy efficiency and energy saving programs</li> <li>Efficiency brands (Like Energy Star) become dominant in consumer minds</li> <li>Energy efficiency targets become compulsory for industry.</li> <li>Governments undertake energy efficiency targets.</li> </ul>
Energy Consumption	<ul> <li>High economic growth yields high energy consumption</li> <li>Gas becomes the transition fuel.</li> <li>Oil link is still strong for transport (depending on battery storage technology breakthrough).</li> <li>In 2008, the OECD Europe transportation market is dominated by gasoline, diesel, and jet fuel. It consumed 102 mtoe (2.1 million barrels per day) gasoline and 199 mtoe (4.02 million barrels per day) diesel.</li> <li>Similarly, non-OECD Europe and Russia transportation markets are dominated by gasoline, diesel, and jet fuel, non-OECD Europe and Russia transportation markets are dominated by gasoline, diesel, and jet fuel. They consumed 56</li> </ul>	<ul> <li>High impact from energy efficiency and energy saving programs</li> <li>Global demand for energy is also lower because of lower growth and changes in lifestyle.</li> <li>Increasing use of coal and gas in power generation.</li> <li>Renewables may reach full scale as envisioned in 20-20-20 targets.</li> <li>CCS projects slowly accepted in some countries, but not across the whole of the EU</li> </ul>

	<ul> <li>mtoe (1.1 million barrels per day) gasoline and 31 mtoe (0.62 million barrels per day) diesel.</li> <li>By 2050, all OECD Europe, Eastern Europe, and Russia are expected to remain almost at the current fuel consumption levels of 450 mtoe, 100 mtoe, and 80 mtoe respectively.</li> <li>Significant gains in fuel efficiency.</li> </ul>	
Transport Intermodal	<ul> <li>Individual transport solutions prevail</li> <li>Solutions are more short term and lack wide perspectives</li> <li>Roll out of hybrid buses in other parts of Europe.</li> <li>Large emphasis on improved consumption for ICEs</li> <li>New car models with reduced weight and very low fuel consumption levels, 3l to 1l engines seen as the best way forward to reduce emissions from transport</li> <li>2008 modal split: Road – 45.9%, Rail – 10.8%, Inland waterways – 3.6%, Pipelines – 3%, Sea – 36.6%, Air – 0.1%</li> </ul>	<ul> <li>Stronger emphasis on public transport</li> <li>Solutions are long term with a wide perspectives</li> <li>Increasing share of hybrid.</li> <li>Large scale electrification of public transport in NW Europe.</li> </ul>
Air Traffic/Freight	<ul> <li>High growth of air traffic and freight sector</li> <li>Increase is moderate compared to Asian demand.</li> <li>Focus on decarbonising air travel viause of different fuels and technologies.</li> <li>Freight (tkm) level dropped off sharply in 2007 due to recession. Recovery in progress, yet to reach pre-2007 levels. Annual growth rate (2000-2008) in freight transport has been 2%.</li> </ul>	<ul> <li>Less growth due to lower economic growth and the emergence of long distance high speed train systems in some EU countries</li> </ul>
ICEs	<ul> <li>High efficiency ICEs</li> <li>In 2005, diesel ICEs constitutes about 30% of OECD's LDV stocks (still gaining popularity).</li> <li>In 2005, cars stocks stood at 228 million in OECD Europe, 18 millions in east Europe and 29 millions in Russia.</li> <li>In 2005, new car sales 16 millions in OECD Europe, 1.4 million in east Europe and 2 millions in Russia.</li> <li>In 2005, about 701,000 used cars were shipped from Western Europe to Eastern Europe while about 347,000 cars were shipped from Japan to Former USSR.</li> <li>All new and old sales and existing stocks are dominated by conventional ICEs.</li> <li>The ICEs will remain dominant.</li> </ul>	<ul> <li>High efficiency ICEs</li> <li>ICEs continue to dominate.</li> </ul>
Hybrids	<ul> <li>More hybrids</li> <li>In 2010, Europe had sales of only 110,000 hybrid cars.</li> <li>IEA forecasts that there will be about 15-20 million Hybrids by 2020 and about 80 million by 2040.</li> </ul>	<ul> <li>moderate hybrids share growth</li> </ul>
EVs	<ul> <li>Batteries still expensive.</li> <li>With time, R&amp;D will drive battery prices down</li> <li>competitive market facilitate new business models for battery replacement</li> <li>Oil still a necessity for most transport demand, even in 2050.</li> <li>Innovation centres in the Eastern markets and mega-cities drive the introduction of large numbers of EVs due to air quality concerns in mega cities. In the longer term, low cost EVs penetrate western markets.</li> <li>Small scale rollout of electricity transport in Germany and Switzerland.</li> <li>Reaches medium scale. Highly dependent on grids reaching dynamic flexibility and availability of charging infrastructure.</li> <li>ICEs may still dominate if performance of EVs disappoint</li> </ul>	<ul> <li>Earlier penetration of EVs and more use of electricity in public transport fleets (government directed).</li> <li>Efficiency of electric vehicles transforms energy demand and landscape. However, impact really visible after 2025. By 2050, EV expected to be 40% of the LDVs demand share (extreme case as in IEA's 450 level). This is subject to significant improvement to the grid systems.</li> <li>Fossil fuels reduced to cover 30% of LDVs transport energy demand in 2050. Remaining 30% is provided by Biofuels and FCs.</li> <li>Lower OECD transport emission (assuming CCS for power generation) in the long run.</li> <li>Main emerging economies avoid mistakes of developed world, leapfrogging technologies.</li> <li>Reaches medium scale. Highly dependent on grids reaching dynamic flexibility and availability of</li> </ul>

	• Largest market expected to be Germany having 25% of EU EV market, France will have 20%, while the UK & Italy will have 15%.	<ul> <li>EV penetration only in pockets – Germany, Sweden, Switzerland.</li> <li>Roll out of test fleets in select cities on a limited scale.</li> <li>EVs a phenomenon of upper middle class but does</li> </ul>
CNGs	More CNGs if gas reserves available as E&P     accessible by IOCs	<ul> <li>not reach the majority of populations until 2025 due to high costs</li> <li>CNGs significantly in transport early on by local governments with access to domestic gas</li> </ul>
FCC	Small     FCs small breakthrough as they are still	<ul><li>reserves.</li><li>Fuel cells adopted to reduce dependency on</li></ul>
FCs Biofuels	<ul> <li>expensive</li> <li>Food crisis depresses global biofuels growth</li> <li>Strong regional hubs in both North and South America</li> <li>Gene technology used to grow energy crops (except EU).</li> <li>2<sup>nd</sup> &amp; 3<sup>rd</sup> generations are still expensive</li> <li>EU biofuels production in 2009 was 178 kb/d (about 17% of the global), mostly biodiesel (110,000 b/d and bioethanol 46,000 b/d).</li> <li>IEA expects OECD Europe biofuels consumption to be 0.97 million b/d (in the optimistic 450 Scenario) and non-OECD EU to be 0.11 million b/d.</li> <li>EU RE Directive 2009/28/EC requires GHG savings of at least 35% from end of 2010 – currently, emissions savings are well below this.</li> <li>EU support for biofuels in 2009 was US\$ 7.9 billion; largest share was biodiesel in Germany.</li> </ul>	<ul> <li>foreign oil</li> <li>Increasing contribution of first generation biofuels to fuel mix</li> <li>Larger impact on food prices</li> <li>Gene modifications of crops still not accepted in EU.</li> <li>Large contribution of second (and 3<sup>rd</sup> ?) generation biofuels in the long term</li> </ul>
Urban Planning	<ul> <li>Good economies will invite better planning and problem solving.</li> <li>Not much change in NW Europe.</li> <li>Eastern Europe and SE Europe experiences increasing urbanisation.</li> <li>Land use may feature greenhouse plantation farming to maintain food security in face of increasing food consumption in producer countries.</li> <li>Around 73% of Europe's (Russia/EU) population is urban</li> <li>Population density is about 119 persons/sq km for EU and about 9 persons/sq km for Russia.</li> </ul>	<ul> <li>Governments alone can poorly direct/coordinate urbanisation</li> <li>Problems worsen with tight government budgets and bad economies.</li> <li>Prospecting for unconventional receives a boost.</li> <li>Urbanisation grows especially in countries with low economic growth.</li> <li>EU agricultural subsidies continue.</li> </ul>
High Speed rails	<ul> <li>There could be problems with corridors and private sector funding.</li> <li>23.9% of total EU-27 rail network is HSR, at 97.6 million passenger km or 6,178 km (EU)</li> <li>12 HSR lines currently under construction.</li> <li>Russia is lagging behind.</li> </ul>	<ul> <li>Penetration of high speed rail networks at a larger scale, especially in second half of scenario period</li> </ul>
Vehicles Ownerships	<ul> <li>More vehicles ownerships</li> <li>In 2005, OECD Europe stands at a vehicle ownership level of 424 cars/1000 capita, Eastern Europe at 149/1000 capita and Russia at 134/1000 capita.</li> </ul>	<ul> <li>Less car ownerships &amp; more reliance on public transport systems, car sharing and rentals.</li> </ul>
Aviation, Shipping, Rails & Trucks	<ul> <li>High growth for both passenger travels and freight especially in eastern markets.</li> <li>Dominated by road (45.9% of tkm in 2008), followed by rail (10.8%), waterways (3.6%).</li> <li>In 2008, the value of EU sea trade (both Export &amp; Import) was about EUR 1.4 trillion (air: EUR 576 billion, road: EUR 476 billion, rail: EUR 46.1 billion)</li> <li>Highest number of commercial freight vehicles in the world: 33.97 million (2008).</li> <li>Thru 2029, Boeing expects the air freight to increase by 4.4% a year while the passenger will increase by 5%. In the CIS, Boeing expects an air freight growth of 4.8% and a passenger growth of 5.7% a year.</li> <li>Boeing also expects that air fleet in Europe to increase from 4300 airplanes to 7460 planes by</li> </ul>	More moderate growth levels.

2029. In CIS, it expects an increase from 1150 to	
1300.	

### 4- North America

lssue	1-Freeway	2-Tollway
General	<ul> <li>World with solutions where pure market forces prevail</li> </ul>	<ul> <li>Regulated world where governments and politicians decide to put common interests at forefront and intervene in markets</li> </ul>
Players	<ul> <li>Private sector leads</li> <li>Global companies emerging as central players</li> <li>Entrepreneurs</li> <li>Consumers</li> </ul>	<ul> <li>Public sector leads</li> <li>Local Governments acting as central planners</li> <li>NGOs</li> <li>Citizens</li> </ul>
Trade	<ul> <li>WTO makes progress competitive issues???</li> <li>Free and expanding international trade in regard to trade &amp; barriers removals.</li> <li>Globalized economy</li> <li>Global competition and occasional trade disputes</li> <li>High global trade imbalances</li> <li>Increasing trade with Asia – commodities, manufacturing</li> <li>Trade with EU is knowledge based – high-tech industries</li> <li>Trade with LAC is resource based</li> </ul>	<ul> <li>WTO shows increased emphasis on free flow of green goods and services</li> <li>Increased international cooperation on climate change issues in the short to medium term.</li> <li>Individual countries/regions preferring local content and solutions</li> <li>More fragmented and /differentiated global economy</li> <li>More trade restrictions due to regional concerns</li> <li>Most dominant trading partner is EU</li> <li>Trade with China remains at expected growth level</li> </ul>
International Institutions	<ul> <li>Less prominent international institutions</li> <li>US institutions supersede international institutions</li> </ul>	<ul> <li>Stronger role for international and multilateral institutions</li> <li>International institutions influence US policy</li> </ul>
FDI	<ul> <li>Increased level of FDI</li> <li>FDI outflows to Asia and LAC</li> <li>Chinese investment in US grows further</li> </ul>	<ul> <li>Same or less</li> <li>Increased national investments</li> <li>FDI flows decrease, including foreign aids</li> </ul>
Technologies	<ul> <li>Technological innovation market driven</li> <li>Emerging innovation centres attracting and competing for investment capital and human resources</li> <li>Original Equipment Manufacturers (OEM) develop transport solutions most wanted by consumers</li> <li>Technologies are integrated into ITES (information technology enabled services) sector</li> <li>Carbon mitigation technologies become popular</li> <li>Lower growth in "clean energy" sectors, e.g. wind, solar, tidal</li> </ul>	<ul> <li>Governments picking technology winners (e.g. photovoltaic)</li> <li>Higher amount of technology transfer into developing nations</li> <li>Multinational technology co-operation and initiatives</li> <li>More state subsidies sponsor focused research programs into new transport technologies</li> <li>R&amp;D into renewables technology is funded by government and international grants.</li> <li>Consortiums fund research into breakthrough technologies</li> <li>Attempts to bring new renewable technologies to scale, especially via international funding.</li> <li>Growth in "clean energy" technologies</li> </ul>
Capital & Labour	Free flow of capital and labour	Restricted flow of capital & labour
Manufacturing centres	<ul> <li>Manufacturing established in low cost centres &amp; close to major markets</li> <li>Outsourcing of manufacturing to Asian countries continues.</li> </ul>	<ul> <li>Manufacturing established in less optimal locations but with regional development and factors in mind</li> <li>Rise in domestic manufacturing</li> <li>Overall manufacturing output falls due to higher costs of production</li> <li>Government subsidies increase for domestic industries</li> </ul>
Infrastructure	<ul> <li>Patch work of improvements in many regions</li> <li>Investment flows into sectors where demand is high</li> <li>Oil pipeline infrastructure (from Canadian oil sands) and shale gas technologies increasing become targets of infrastructure investment.</li> <li>High level of infrastructure.</li> <li>Gas network is fully developed in US.</li> <li>Efforts are on to link Canadian oil sands to US ports and refineries via pipelines.</li> <li>Over the next 20 years, Boing expects the number of passenger planes to increase from 6590 to 9000.</li> </ul>	<ul> <li>New infrastructure projects, mainly in renewable energy and public transport, state funded</li> <li>Access to energy and public transport schemes in Africa and developing Asia are being promoted by international institutions (UNIDO)</li> <li>Targeted investment in non-fossil fuel forms of energy – mostly wind, solar, and biofuels.</li> <li>Associated investment costs in grid upgrades and additional required infrastructure is heavily supported by governments.</li> <li>Overall investment levels are lower compared to Freeway Scenario</li> </ul>
	Commercially viable Innovative Green	Big focus and international efforts on climate

	• Remain high on the list for the current US govt.	terms.
Politics & competition for resources	<ul> <li>Pure competition creates cost-efficient solutions</li> <li>Higher demand creates global competition for resources</li> <li>Full potential of domestic fossil-fuel reserves are developed</li> <li>Increasing oil and mineral flow from LAC to US</li> <li>Stable region.</li> <li>US increasingly characterised by bipartisan politics, which will lend an element of uncertainty to long term energy policies.</li> </ul>	<ul> <li>Less competition over energy resources</li> <li>Focus on regional supply and energy efficiency reduce competition for resources</li> <li>Oil sands and shale gas do not reach full maturity and are curtailed because of environmental impact concerns</li> <li>Continued reliance on oil imports, gas imports may also begin to creep up in the future</li> </ul>
Regulation	<ul> <li>Low government regulation (minimum regulated environment)</li> <li>Focus on increasing energy efficiency and boosting renewables contribution under Obama presidency.</li> <li>Canada continuing to develop oil sands with international players.</li> </ul>	<ul> <li>Relatively higher government regulation , but still much lower than in Europe and other parts of the worldery strong support for renewables technology at state level</li> <li>Framework support for renewables and climat change mitigation on national level</li> </ul>
Competitive	<ul> <li>Pure market forces</li> <li>Market seeks competitive cost solutions</li> <li>Favourable climate for open global competition</li> </ul>	<ul> <li>Same or less market influence</li> <li>Market distortions through government intervention</li> </ul>
Privatization, liberalization, deregulation	<ul> <li>Wave of privatization, liberalization &amp; deregulation</li> <li>Environmental regulation in place, but not very strong</li> <li>Fully liberal markets.</li> </ul>	<ul> <li>Same level or less</li> <li>Energy and transport sector considered strategic in most countries</li> <li>Strong regulatory forces</li> </ul>
Economic Volatility	<ul> <li>High economic volatility inside and outside business cycles</li> <li>Potential super-cycles</li> </ul>	<ul> <li>More stable economic environment at lower growth levels in the short term.</li> <li>Long period of low growth, bordering on recession levels</li> </ul>
Wealth	<ul> <li>High &amp; increasing wealth in western world &amp; successful new industrial (SE Asia &amp; LAC).</li> <li>Africa still marginalized.</li> <li>Canadian wealth grows</li> <li>Unemployment is expected to fall over the next 5 years.</li> <li>Current US unemployment rate: 9.2%</li> <li>US and Canada together account for 40% of World GDP in 2010. World Real GDP (PPP) in 2010 was US\$ 37.2 trillion.</li> <li>US gross debt (annual) as a % of its GDP is expected to rise over next 2 years (now the net debt stands at 75% of its GDP).</li> <li>GDP per capita are \$45,989 for US, \$39,599 for Canada and \$8,143 for Mexico. World Bank)</li> </ul>	<ul> <li>Wealth disparity is less obvious in industrial countries</li> <li>Africa improving due to technology transfer (e.g. Copenhagen accord) and multi-lateral programs (e.g. UNIDO access to energy program).</li> <li>Falling incomes in US</li> <li>Canadian wealth grows, but at lower levels that in Freeway scenario.</li> </ul>
R&D	<ul> <li>Diverse R&amp;D efforts</li> <li>Driven by both private and public sectors</li> <li>Mainly driven by private sector</li> <li>Innovation hub (especially USA).</li> <li>Lot of activity around developing new technologies, especially electric transport</li> </ul>	<ul> <li>More focused R&amp;D programmes driven mainly by public sector</li> <li>International research programs and technology "clearing houses" to facilitate technology transfer.</li> </ul>
Carbon pricing	<ul> <li>Efficient carbon price mechanisms</li> <li>Trading is only due to government support and policy</li> <li>Some form of carbon legislation (not very strong)</li> </ul>	<ul> <li>Existing Clean Development Mechanisms (CDMs) may fail in EU-US and not take off in other markets</li> <li>Regional limits and penalties imposed by local governments.</li> <li>Set of regional agreements on climate change and introduction of carbon price mechanisms.</li> <li>International incentives for countries to join, through investment funding and technology transfer system.</li> <li>Carbon market is small</li> <li>Mandated carbon reduction/fuel efficiency targets</li> <li>Trading is due to international and national agreements</li> </ul>
Sustainability	Cheaper but less wide-spread solutions	<ul> <li>More expensive sustainability (as efficient prices are not driving players actions) but faster</li> </ul>

		implementation
Consumer behaviour & lifestyle	<ul> <li>Consumer spending increases, savings drop</li> <li>Individual interests dominate</li> <li>Cheapest price and highest comfort dominate and differentiate products</li> <li>US per capita energy consumption in 2009 was 7 tons of oil equivalent, Canada per capita energy consumption in 2009 was 7.4 toe, World per capita energy consumption in 2009 was 7.4 toe, World per capita energy consumption has been declining since 2000.</li> <li>OECD North America has the highest passenger travel per capita.</li> <li>Vehicle kilometres per licensed driver in US (2006): 23,779 km</li> </ul>	<ul> <li>Consumer spending decreases, saving increases</li> <li>Common interests at forefront</li> <li>Consumer power used to stimulate development of greener goods and services</li> <li>Social activism increases and forces producers and governments to put common interests at forefront</li> <li>Best public image and corporate responsibility differentiate in addition to price</li> </ul>
Good Economic Situation-Top of Business cycle	<ul> <li>High but uneven distributed economic growth.</li> <li>Sufficient fund for new private investments.</li> </ul>	<ul> <li>Sufficient economic performance to fund government initiatives in energy.</li> <li>Overall economic growth is more moderate. Still distributed unevenly across regions.</li> </ul>
Bad Economic Situation-Bottom of Business cycle	<ul> <li>Low &amp; uneven distributed economic growth.</li> <li>Wide spread austerity packages reducing new investments and energy demand.</li> <li>Historically, the economic growth rates for US and North America were about 2.8% year.</li> <li>Thru 2035, the IEA expects US and north America GDP to grow at 2.2%.</li> </ul>	<ul> <li>Still sufficient economic performance in developing countries (shielded such as China &amp; Brazil). Much weaker in developed. Still distributed unevenly.</li> <li>Large public sector debt developing.</li> <li>Effect of down-cycle partially mitigated by lower energy demand and import bills due to energy efficiency gains.</li> </ul>
Population	<ul> <li>In 2008, the North America population stood at around 447 billion (US is about 310 while Mexico is about 110). The current population growth is about 1.3% for Canada, 1% for US, and 0.9% for Mexico.</li> <li>Around 17% of the Canadian population is below 14 years old, us is about 20% while Mexico is about 29%. Mexico got only 6% of the population above 65 years while both Canada and the US, it is about 13%.</li> <li>Thru 2035, both the USA population and North America population are expected to grow at 0.7%per year.</li> <li>US Census Bureau projects US to be world's third most populous nation through 2050 behind India and China (US population in 2050 will be around 423 million).</li> </ul>	
Finance	<ul> <li>Private Financing capital available, abundant and easy to flow</li> <li>Loans for renewable energy projects will require political regulatory certainty</li> <li>Credit sources are available.</li> </ul>	<ul> <li>More Limited private financing capital mostly by local institutions</li> <li>Large public sector funding for infrastructure and "green" projects</li> </ul>
Corruption	Could lessens in many regions     Minimum	<ul> <li>Tops list in South Asia, Sub-Saharan Africa, transition economies.</li> </ul>
Bureaucracy	<ul> <li>Lessens in many regions</li> <li>Moderate.</li> <li>Increased focus on drawbacks of offshore drilling after Gulf of Mexico spill.</li> <li>Shale gas exploration also affected by EPA findings and state rulings.</li> </ul>	<ul> <li>Remains an issue everywhere.</li> <li>Projects will need to clear more regulatory hurdles than before – higher costs, longer times</li> </ul>
Tax regulation	<ul> <li>Taxes (as a market distortion) drops in many regions</li> <li>Taxes fall if Republican</li> <li>Taxes fall then rise if Democrat</li> <li>US Excise Taxes on Motor Fuels (2009): Gasoline: 18.4 cents/gallon, Diesel: 24.4 c/gallon, Gasohol: 18.4 c/gallon, CNG: 18.3 c/gallon, LNG: 24.3 c/gallon, LPG: 18.3 c/gallon</li> <li>In General, taxes remain high in OECD countries</li> </ul>	<ul> <li>Constitutes a severe constraint on OECD and post socialist transition economies.</li> <li>New taxes needed to finance large public sector debt in Western economies</li> <li>Inability to fund basic government commitments eventually forces US government to revamp tax system and raise taxes against strong opposition of parts of US society</li> </ul>

Subsidies	<ul> <li>Subsidies (as another market distortion) removed in many regions. Remaining subsidies mainly in renewables.</li> <li>US Federal subsidies for energy have more than doubled since 1999. In 2007, govt. spending on energy subsidies was US\$ 16.6 billion (Renewables: \$4.8 bn, End use: \$2.8bn, Refined coal:\$ 2.3 bn, NG &amp; Petroleum liquids: \$2.1bn, Nuclear: \$1.2bn, Electricity:\$ 1.2bn, Coal:\$ 0.9bn, Conservation:\$ 0.9bn)</li> <li>Canada spent CAD 1.4bn on oil and gas subsidies. Increase in subsidies between 1996- 2000 was 33%. Expenditure on oil sands from 1996 2002 and 0.2 billion</li> </ul>	Subsidies remain and increase for green goods and services.
Energy E&P	<ul> <li>1996-2002 was CAD 1.2bn. (Source: Pembina)</li> <li>Many countries open their upstream sectors resulting in a surge of supply.</li> <li>Moderate oil prices in the short term.</li> <li>More security of supply and demand</li> <li>Fossil fuel dominance reducing only gradually</li> <li>High growth of energy demand, leading to higher prices at the end of scenario period.</li> <li>Industrial demand for energy reaches all time peak</li> <li>Electricity prices increasing sharply, leading to energy poverty</li> <li>US prospecting of shale gas plays and Canadian development of oil sands continue to surge ahead</li> <li>Reduced reliance on oil and gas imports</li> <li>Increasing WTI-Brent spread</li> <li>Deep water and Arctic oil E&amp;P</li> <li>Shale plays continue to be developed in the US, with increasing focus on developing liquid plays.</li> <li>Canada is developing its oil sands to full potential.</li> </ul>	<ul> <li>Lack of opening new areas for E&amp;P leading to tight supplies</li> <li>High infrastructure costs for early integration of renewable energy sources</li> <li>higher oil and energy prices at the beginning of scenario period, but lower, more stable prices after quicker transition to renewable energy sources</li> <li>Oil price is tightly regulated</li> <li>Security of supply and climate change concerns push drive to reduce dependence from fossil fuels</li> <li>Clean coal and CCS socially unacceptable in EU and US but becomes a must for developing world</li> <li>Electricity prices increasing sharply, leading to energy poverty and government subsidies for lower incomes</li> <li>Imports of oil and gas remain steady &amp; could grow</li> </ul>
Liberalization, policy agreements	<ul> <li>Liberalized energy markets and high competition for resources on a global basis</li> <li>Easy to reach international agreements on removing trade barriers</li> <li>No agreements on international energy policy due to competing interests. Energy market lacks of ability to reach international agreements and common set of basic rules</li> </ul>	<ul> <li>Limited competition and participation</li> <li>Policy agreements of "coalitions of the willing" to reduce greenhouse gas emissions and setting of (increasingly) international standards for carbon pricing</li> <li>Stronger role for international institutions to set policies</li> <li>International consensus on carbon mitigation, higher energy efficiency, and increased roll-out of green technologies is reached.</li> </ul>
Policy initiatives	<ul> <li>Policy initiatives aimed at setting framework conditions for market solutions to emerge</li> </ul>	<ul> <li>Energy policy initiatives set by centralized government where regulations of energy sector reverts to national states</li> </ul>
International cooperation	<ul> <li>Successful international coordination on free market mechanisms</li> </ul>	<ul> <li>International coordination of energy taxes progressing</li> </ul>
Energy Saving	Significant saving (higher prices/efficient markets)	<ul> <li>Large govt focus on energy efficiency and energy saving programs</li> <li>Efficiency brands (like Energy Star) become dominant in consumer minds</li> </ul>
Energy Consumption	<ul> <li>High economic growth yields high energy consumption</li> <li>In 2008, North America transportation market is dominated by gasoline, diesel, and jet fuel. It consumed 448 mtoe (9 million barrels per day) gasoline and 169 mtoe (3.4million barrels per day) diesel.</li> <li>US consume 19.15 Mbpd of petroleum. Transport accounts for 69.7% of total petroleum use (13.3 million barrels per day, 58% gasoline and 21% diesel).</li> <li>The demand in North America expected to increase from 700 mtoe in 2005 to around 800 mtoe in 2050</li> <li>Light trucks account for 31% of energy use, followed by cars &amp; motorcycles at 28%, other</li> </ul>	<ul> <li>High impact from energy efficiency and energy saving programs</li> <li>Global demand for energy is also lower because of lower growth and changes in lifestyle.</li> <li>Increase in energy consumption, but will be lower than Freeway scenario.</li> <li>Energy monitoring technology will become popular</li> </ul>

	trucks 16% aircraft 00% hoats & abias 50% trains	
	trucks 16%, aircraft 9%, boats & ships 5%, trains & buses 3%, military 3%, pipelines 2%, and	
	lubricants 1%.	
	Individual transport solutions	Stronger emphasis on public transport
	Solutions are more short term and lack wide	Solutions are long term with a wide perspectives
	perspectives	
	<ul> <li>US has largest freight transportation system worldwide.</li> </ul>	
Transport Intermodal	<ul> <li>US freight exports doubled from US\$ 682 bn to</li> </ul>	
	US\$ 1.3 trillion from 1998-2008.	
	• However, since 2001 US share of world GDP and	
	merchandise has declined.	
	<ul> <li>Intermodal rail traffic in the US has significantly increased over past 2 decades.</li> </ul>	
	High growth of air traffic and freight sector	Less growth due to lower economic growth
	•	
	• 45% of goods by value are handled by water in	
	the US, 25% by air, and 24% by land (truck, rail,	
Air Traffic/Freight	<ul><li>pipeline).</li><li>2008 US receipts for freight transportation were</li></ul>	
All Hume/Height	\$22 billion, double 1998 figures. Payment for	
	freight services were \$45 billion.	
	• Over the next 20 years, Boeing expects	
	passenger travel to increase by 3.4% a year and	
	<ul><li>freight by 5% a year.</li><li>High efficiency ICEs</li></ul>	High efficiency ICEs
	Remain dominant	High efficiency rels
	ICE and e-transport technologies grow side by	
	side – latter is heavily dependent on market	
	demand	
	<ul> <li>Remain the dominant transport technology in the region. US government has mandated</li> </ul>	
	higher energy efficiency figures. US Fuel	
	economy figures stand at 22.5 mpg for cars and	
ICEs	18 mpg for Light trucks).	
	• In 2005, LDV stock was at 211 million in US, 17	
	millions in Canada and 15 millions in Mexico.	
	<ul> <li>In 2005, sales were 14.7 million in US, 1.3 millions in Canada, and 1.3 in Mexico.</li> </ul>	
	• In 2005, 473,000 used cars went from US to	
	Mexico and 186,000 from US to Canada. Within	
	the US, there was 665,000 used cars sold.	
	<ul> <li>Sales of both new and old cars, in addition to the existing stock are all dominated by ICEs</li> </ul>	
	More hybrids	<ul> <li>moderate hybrids share growth</li> </ul>
	Remain popular, although market share remains	Market share of hybrids will remain high (if EVs
	stagnant	underperform)
	US Federal government acquisition of hybrids is	
	growing yearly but still at a very low level (4853 vehicles in 2010).	
	<ul> <li>Demand and market share for hybrids are rising</li> </ul>	
Hybrids	but still low (290,000 units sold in 2010, total	
	hybrid fleet is reaching 2 million (around 1-2%	
	of the total stock), mostly Toyota Prius followed	
	<ul><li>by Honda Civic).</li><li>IEA forecasts that there will be about 15-20</li></ul>	
	million Hybrids by 2020 and about 80 million by	
	2040.	
	Batteries still expensive.	Earlier penetration of EVs and more use of
	With time, R&D will drive battery prices down     compatitive market facilitate new business	electricity in public transport fleets (government directed).
	competitive market facilitate new business     models for battery replacement	<ul> <li>Efficiency of electric vehicles transforms energy</li> </ul>
	<ul> <li>Oil still a necessity for most transport demand,</li> </ul>	demand and landscape. However, impact really
	even in 2050.	visible after 2025. By 2050, EV expected to be 40%
	Innovation centres in the Eastern markets and	of the LDVs demand share (extreme case as in
EVs	mega-cities drive the introduction of large	IEA's 450 level). This is subject to significant
	numbers of EVs due to air quality concerns in mega cities. In the longer term, low cost EVs	<ul><li>improvement to the grid systems.</li><li>Fossil fuels reduced to cover 30% of LDVs</li></ul>
	mega cities. In the longer term, low cost EVs penetrate western markets.	transport energy demand in 2050. Remaining 30%
	<ul> <li>Small market share – personal, intra-city</li> </ul>	is provided by Biofuels and FCs.
	transport only	Lower OECD transport emission (assuming CCS for
	•	power generation) in the long run.
		<ul> <li>Main emerging economies avoid mistakes of</li> </ul>

	• EV adoption is expected in urban areas, where distance travelled is within the vehicle range. US	developed world, leapfrogging technologies.
	is expected to be second largest EV market after Asia.	
CNGs	<ul> <li>More CNGs if gas reserves available as E&amp;P accessible by IOCs</li> <li>Increasingly popular due to low fuel cost – increasing share in heavy road transport</li> <li>Move towards developing GNG engines for High DVs and Medium DVs.</li> <li>Still at low levels and potential.</li> </ul>	<ul> <li>CNGs significantly in transport early on by local governments with access to domestic gas reserves.</li> </ul>
FCs	<ul> <li>FCs small breakthrough as they are still expensive</li> <li>Dependent on technological breakthrough</li> <li>Small scale test projects</li> <li>In development stages. IEA estimates likelihood of FCVs emerging as future low carbon option is less than switch to EV.</li> </ul>	<ul> <li>Fuel cells adopted to reduce dependency on foreign oil</li> </ul>
Biofuels	<ul> <li>Food crisis depresses global biofuels growth</li> <li>Strong regional hubs in both North and South America</li> <li>Gene technology used to grow energy crops (except EU).</li> <li>2<sup>nd</sup> &amp; 3<sup>rd</sup> generations are still expensive</li> <li>Unlikely to grow without government subsidies.</li> <li>In 2009, the US production of biofuels was about 45% of the global (mostly bioethanol from maize). Production was about 0.585 million b/d bioethanol and about 44,000 b/d biodiesel.</li> <li>IEA expects US to account for 38% of global biofuels market in 2035. Avg. annual growth is expected to be 5%.</li> <li>US targets 136 billion litres of biofuels by 2022 (1.162 million barrel per day). Current legislation allows for E10 blending, farmers lobby is keen on increasing it to E15.</li> <li>US biofuels consumption in 2009 was 0.7 million b/d, world's highest, ahead of Brazil which consumed 0.31 million b/d.</li> <li>IEA estimates 2009 biofuels support to be US \$8.1 billion.</li> </ul>	<ul> <li>Increasing contribution of first generation biofuels to fuel mix</li> <li>Larger impact on food prices</li> <li>Gene modifications of crops still not accepted in EU.</li> <li>Large contribution of second (and 3<sup>rd</sup>?) generation biofuels in the long term</li> <li>Continues to grow under government subsidies &amp; fuel blending regulations.</li> </ul>
Urban Planning	<ul> <li>Good economies will invite better planning and problem solving.</li> <li>Congestion in cities will drive private solutions to intra-city transport, e.g. rise in car sharing, innovating car ownership schemes, etc.</li> <li>Second highest urban land area worldwide after Asia.</li> <li>Second lowest urban population density after Oceania.</li> <li>Has a high urbanization rate. About 82% of US population lives in urban areas, Mexico is about 77% and Canada about 81%.</li> <li>North American cities are more spread out and consequently urban consumption of fuel is the highest in the world. Around 80% of urban transport is via individual motorized transport. Automobile usage is more than 10,000km/person/year</li> </ul>	<ul> <li>Governments alone can poorly direct/coordinate urbanisation.</li> <li>Problems worsen with tight government budgets and bad economies.</li> <li>Local governments will pass regulations limiting number of cars and increasing certain modes of intra-city transport.</li> </ul>
High Speed rails	<ul> <li>There could be problems with corridors and private sector funding.</li> <li>Private sector investment available, however, dependent on resolution of political uncertainty.</li> <li>Scale reached will be more than in Tollway scenario.</li> <li>Current US administration seeks to provide high speed rail access to 80% of Americans within next 25 years. \$10 billion grant funding available. So far, 59 projects have been allocated 6 billion.</li> <li>Currently, US has 362 km of HSR, with 900 km being planned.</li> </ul>	<ul> <li>Penetration of high speed rail networks at a larger scale, especially in second half of scenario period</li> <li>Funding for nation-wide plan may be a problem as it comes with increased govt. regulation.</li> </ul>

Vehicles Ownerships	<ul> <li>More vehicles ownerships</li> <li>In 2005, the vehicle ownership stood at 710 vehicles/1000 population for US (Avg. annual growth rate: 1.6%), 535 for Canada (Avg. annual growth rate: 1.6%) and 142 for Mexico (Avg. annual growth rate: 2.8%). (Source: Dargay, 2007).</li> </ul>	<ul> <li>Less car ownerships &amp; more reliance on public transport systems, car sharing and rentals.</li> </ul>
Aviation, Shipping, Rails & Trucks	<ul> <li>High growth for both passenger travels and freight especially in eastern markets.</li> <li>Demand in North America is for diesel locomotives (approx 1000 locos sold per year), since the rail system is used for heavy haulage and is mostly single track with few crossing points and intersections.</li> <li>North America has the largest aircraft fleet size - 6,590 (2009). 7,200 new aircraft are due to be supplied to region, and by 2029, the region is expected to have 9,000 aircraft (around 25% of global fleet in 2029).</li> <li>US has highest trucking haulage rates globally. Avg. fuel efficiency per truck is 20-25 km/litre.</li> <li>US is ranked 6<sup>th</sup> in controlled fleet by deadweight tonnage with 1,865 vessels. IMO expects shipping activities to increase by 150-300% from 2007-2050.</li> </ul>	More moderate growth levels.

# 5- LAC

Issue	1-Freeway	2-Tollway
General	World with solutions where pure market forces     prevail	<ul> <li>Regulated world where governments and politicians decide to put common interests at forefront and intervene in markets</li> </ul>
Players	<ul> <li>Private sector leads</li> <li>Global companies emerging as central players</li> <li>Entrepreneurs</li> <li>Consumers</li> </ul>	<ul> <li>Public sector leads</li> <li>Local Governments acting as central planners</li> <li>NGOs</li> <li>Citizens</li> </ul>
Trade	<ul> <li>WTO makes progress competitive issues???</li> <li>Free and expanding international trade in regard to trade &amp; barriers removals.</li> <li>Globalized economy</li> <li>Global competition and occasional trade disputes</li> <li>High global trade imbalances</li> <li>Trade with US increases</li> <li>Chinese investment in LAC increases</li> <li>Joint ventures between Brazil, Argentina, Chile, and developing Asian countries increases</li> <li>Regional trade groups become powerful</li> </ul>	<ul> <li>WTO shows increased emphasis on free flow of green goods and services</li> <li>Increased international cooperation on climate change issues in the short to medium term.</li> <li>Individual countries/regions preferring local content and solutions</li> <li>More fragmented and /differentiated global economy</li> <li>More trade restrictions due to regional concerns</li> </ul>
International Institutions	Less prominent international institutions	<ul> <li>Stronger role for international and multilateral institutions</li> </ul>
FDI	<ul> <li>Increased level of FDI</li> <li>US and China lead investors</li> <li>IOCs invest in Brazil's offshore oil deposits</li> <li>Mining firms continue to invest in minerals exploration</li> <li>Funding from international institutions increases in line with FDI – they do not influence regional politics</li> </ul>	<ul> <li>Same or less</li> <li>Increased national investments</li> <li>Funding levels from international institutions are more than Freeway scenario – institutions influence regional politics</li> </ul>
Technologies	<ul> <li>Technological innovation market driven</li> <li>Emerging innovation centres attracting and competing for investment capital and human resources</li> <li>Original Equipment Manufacturers (OEM) develop transport solutions most wanted by consumers</li> <li>MNCs transfer technology to domestic firms in order to lower costs of production</li> </ul>	<ul> <li>Governments picking technology winners (e.g. photovoltaic)</li> <li>Higher amount of technology transfer into developing nations</li> <li>Multinational technology co-operation and initiatives</li> <li>More state subsidies sponsor focused research programs into new transport technologies</li> </ul>
Capital & Labour	Free flow of capital & labour	Restricted flow of capital & labour
Manufacturing centres	<ul> <li>Manufacturing established in low cost centres &amp; close to major markets</li> <li>Flow of foreign goods (esp. Chinese) increases</li> </ul>	<ul> <li>Manufacturing established in less optimal locations but with regional development and factors in mind</li> </ul>

	<ul> <li>in domestic markets.</li> <li>Improvements in domestic manufacturing centres – effect of competition.</li> </ul>	Brazil and Argentina emerge as regional manufacturing centres
Infrastructure	<ul> <li>Patch work of improvements in many regions</li> <li>Large-scale investments made in infrastructure in natural resource rich areas – roads, ports, heavy industry, electricity &amp; water supply</li> </ul>	<ul> <li>New infrastructure projects, mainly in renewable energy and public transport, state funded</li> <li>Access to energy and public transport schemes in poorer parts of LA are being promoted by international institutions (UNIDO)</li> <li>Government undertakes most of the investment, which is localised (upgrade urban infrastructure, rural energy access) – scale of development is not comparable to Freeway scenario.</li> <li>Regional spend of infrastructure is around 2% of GDP per year. Will need to spend about 4-6% per year to sustain growth.</li> <li>Brazil and Chile have invested heavily in developing their fossil and mineral resources.</li> <li>Main infrastructure spender in the region is governments.</li> </ul>
Climate change	<ul> <li>Commercially viable Innovative Green technologies/practices flourish</li> <li>Not a priority unless part of official government policy</li> </ul>	<ul> <li>Big focus and international efforts on climate change by governments in short, medium to long terms.</li> <li>Energy access and rural development more of a priority.</li> <li>Climate change policies implemented only by LAC governments only if there is international and regional consensus</li> <li>Brazil takes a leading role in Biofuels and continues to increase development of agricultural areas, despite ecological concerns about adverse impacts</li> <li>Secondary to energy access and rural development issues.</li> </ul>
Politics & competition for resources	<ul> <li>Pure competition creates cost-efficient solutions</li> <li>Higher demand creates global competition for resources</li> <li>Fossil-fuel and mineral resources are fully exploited</li> <li>Attempts by regional trade bodies to enforce regulations on foreign trade in order to capture higher returns</li> </ul>	<ul> <li>Less competition over energy resources</li> <li>Focus on regional supply and energy efficiency reduce competition for resources</li> <li>Governments regulate foreign activity in resource sector</li> <li>Region has undergone political turmoil in the past.</li> <li>Brazil has undergone a presidency change and is stable.</li> <li>Venezuela continues to face uncertainty under Chavez, although his health is failing.</li> <li>Overall political stability in the region ranges is medium to volatile.</li> </ul>
Regulation	Low government regulation (minimum regulated environment)	<ul> <li>High government regulation (fully regulated environment)</li> <li>Most energy companies are government owned and run, or at least the government is the majority shareholder.</li> </ul>
Competitive	<ul> <li>Pure market forces</li> <li>Market seeks competitive cost solutions</li> <li>Favourable climate for open global competition</li> </ul>	<ul> <li>Same or less market influence</li> <li>Market distortions through government intervention</li> </ul>
Privatization, liberalization, deregulation	Wave of privatization, liberalization & deregulation	<ul> <li>Same level or less</li> <li>Energy and transport sector considered strategic in most countries</li> <li>Energy (upstream) and utilities are still part of public sector</li> <li>Region began to liberalize its trade practices between 1980 and 1990.</li> <li>Active trading within the region; ALADI, CARICOM, Mercosur, etc.</li> </ul>
Economic Volatility	<ul> <li>High economic volatility</li> <li>Potential super-cycles</li> <li>Argentina experienced recession from 1999-2002, economy still recovering, therefore more susceptible to economic shocks.</li> <li>Brazil – robust economy, embarked on growth trajectory, more resistant to economic volatility.</li> <li>Region will weather short term economic fluctuations, but will be affected by longer,</li> </ul>	<ul> <li>More stable economic environment at lower growth levels in the short term.</li> <li>True growth potential of LAC economies are not reached due to non-liberal policies. This may shield countries from economic contagion.</li> </ul>

	harsher dips.	
Wealth	<ul> <li>High &amp; increasing wealth in western world &amp; successful new industrial (SE Asia &amp; LAC).</li> <li>Africa still marginalized.</li> <li>Investment in core industries reduces unemployment and raises wages.</li> <li>Social divide increases and leads to political volatility and unrest</li> </ul>	<ul> <li>Wealth disparity is less obvious in industrial countries</li> <li>Some poorer LAC countries improving due to technology transfer (e.g. Copenhagen accord) and multi-lateral programs (e.g. UNIDO access to energy program).</li> <li>GDP per capita for LAC is about \$7260 (about \$7260 (about \$7260 for the program).</li> </ul>
R&D	<ul> <li>Diverse R&amp;D efforts</li> <li>Driven by both private and public sectors</li> <li>R&amp;D investment correspondent with level of education and literacy - impact will be felt in latter half of scenario.</li> </ul>	<ul> <li>\$8230 for Brazil)</li> <li>More focused R&amp;D programmes driven mainly by public sector</li> <li>International research programs and technology "clearing houses" to facilitate technology transfer.</li> <li>State &amp; state enterprises sponsored R&amp;D programmes increase.</li> <li>Low.</li> <li>Dependent on technology transfer.</li> <li>Brazil starts to take a role on par with Western companies in the Biofuels sector where a large number of international co-operation agreements are signed.</li> </ul>
Carbon pricing	<ul> <li>Efficient carbon price mechanisms</li> <li>Carbon price market in LAC dependent on growth and status of global carbon market.</li> <li>Regional market for carbon possible only with government support.</li> </ul>	<ul> <li>are signed</li> <li>Existing Clean Development Mechanisms (CDMs) may fail in EU-US and not take off in other markets</li> <li>Regional limits and penalties imposed by local governments.</li> <li>Set of regional agreements on climate change and introduction of carbon price mechanisms.</li> <li>International incentives for countries to join, through investment funding and technology transfer system.</li> <li>Regional government align with international consensus on carbon markets. State-funded mechanisms are put in place to encourage carbon trading.</li> </ul>
Sustainability	Cheaper but less wide-spread solutions	<ul> <li>More expensive sustainability (as efficient prices are not driving players actions) but faster implementation</li> </ul>
Consumer behaviour & lifestyle	<ul> <li>Consumer spending increases, savings drop</li> <li>Individual interests dominate</li> <li>Cheapest price and highest comfort dominate and differentiate products</li> <li>Demand for consumer goods, telecom, and IT services will increase, related energy consumption will rise.</li> </ul>	<ul> <li>Consumer spending decreases, saving increases</li> <li>Common interests at forefront</li> <li>Consumer power used to stimulate development of greener goods and services</li> <li>Social activism increases and forces producers and governments to put common interests at forefront</li> <li>Best public image and corporate responsibility differentiate in addition to price</li> <li>Region's average individual consumption per capita is above world average.</li> <li>Range: Mexico is three times world average while Bolivia is less than 50% of world avg.</li> <li>Chile, Mexico, Argentina, Uruguay have consumption levels above world average.</li> </ul>
Good Economic Situation-Top of Business cycle	<ul> <li>High but uneven distributed economic growth.</li> <li>Sufficient fund for new private investments.</li> </ul>	<ul> <li>Sufficient economic performance to fund government initiatives in energy.</li> <li>Overall economic growth is more moderate. Still distributed unevenly across regions.</li> <li>IMF expects growth in the region to be 4.75% in 2011 and 4.25% in 2012.</li> <li>Thru 2035, the GDP growth for LAC is about 3% a year (about 3.3% for Brazil)</li> <li>Growth will be commodity based and driven to be demand from China.</li> </ul>
Bad Economic Situation-Bottom of Business cycle	<ul> <li>Low &amp; uneven distributed economic growth.</li> <li>Wide spread austerity packages reducing new investments and energy demand.</li> </ul>	<ul> <li>Still sufficient economic performance in developing countries (shielded such as China &amp; Brazil). Much weaker in developed. Still distributed unevenly.</li> <li>Large public sector debt developing.</li> <li>Effect of down-cycle partially mitigated by lower energy demand and import bills due to energy</li> </ul>
		efficiency gains.

	Private Financing capital available, abundant and easy to flow	<ul> <li>(42% in Brazil, 194 millions). The growth was about 1.1% a year (0.9% for Brazil).</li> <li>About 28% of the total population is under 14 years (26% in Brazil).</li> <li>Population growth rates of countries in the region have been decreasing.</li> <li>Thru 2035, LAC is expected to grow by 0.8% a year (Brazil at 0.5%)</li> <li>More Limited private financing capital mostly by local institutions</li> <li>Large public sector and international funding for</li> </ul>
Finance		<ul> <li>infrastructure and "green" projects</li> <li>Funding is quite limited.</li> <li>Funding for infrastructure projects from international organisations like World Bank, IFC, etc.</li> <li>Extensive Chinese funding for infrastructure projects in energy &amp; commodities, around US\$ 4bn/year.</li> </ul>
Corruption	<ul> <li>Could lessens in many regions</li> <li>Corruption remains high in first half, but falls in second half.</li> </ul>	<ul> <li>Tops list in South Asia, Sub-Saharan Africa, transition economies.</li> <li>Continues to remain high.</li> <li>High level of corruption according to latest Transparency International survey</li> </ul>
Bureaucracy	<ul> <li>Lessens in many regions</li> <li>Remains high till latter half, but does not impediment private sector investment.</li> </ul>	<ul> <li>Remains an issue everywhere.</li> <li>Remains high.</li> <li>High level of bureaucracy</li> </ul>
Tax regulation	Taxes (as a market distortion) drops in many regions	<ul> <li>Constitutes a severe constraint on OECD and post socialist transition economies.</li> <li>New taxes needed to finance large public sector debt in Western economies</li> <li>About average (much less than OECD)</li> </ul>
Subsidies	<ul> <li>Subsidies (as another market distortion) removed in many regions. Remaining subsidies mainly in renewables.</li> </ul>	<ul> <li>Subsidies remain and increase for green goods and services.</li> <li>Biofuels continue to be subsidised.</li> <li>Venezuela has world's 7<sup>th</sup> highest fossil fuel consumption subsidy (mostly for oil). Total subsidy as share of GDP is less than5%. Oil subsides are around 12 billion dollars (2009).</li> <li>Mexico also has fuel subsidies, but very low in comparison.</li> </ul>
Energy E&P	<ul> <li>Many countries open their upstream sectors resulting in a surge of supply.</li> <li>Moderate oil prices in the short term.</li> <li>More security of supply and demand</li> <li>Fossil fuel dominance reducing only gradually</li> <li>High growth of energy demand, leading to higher prices at the end of scenario period.</li> <li>Industrial demand for energy reaches all-time peak</li> <li>Electricity prices increasing sharply, leading to energy poverty</li> <li>Sub-salt oil deposits become one of the core drivers of growth in Brazilian economy.</li> <li>Bolivian gas deposits are optimally exploited.</li> </ul>	<ul> <li>Lack of opening new areas for E&amp;P leading to tight supplies</li> <li>High infrastructure costs for early integration of renewable energy sources</li> <li>higher oil and energy prices at the beginning of scenario period, but lower, more stable prices after quicker transition to renewable energy sources</li> <li>Oil price is tightly regulated</li> <li>Security of supply and climate change concerns push drive to reduce dependence from fossil fuels</li> <li>Clean coal and CCS socially unacceptable in EU and US but becomes a must for developing world</li> <li>Electricity prices increasing sharply, leading to energy poverty and government subsidies for lower incomes</li> <li>Sub-salt reserves are not fully exploited.</li> <li>Some LAC countries continue to be dependent on oil imports.</li> <li>Brazil has embarked on developing its sub-salt oil reserves</li> <li>The ultra-deep water drilling has changed the oil picture</li> <li>Development of Venezuela's reserves has slowed during the Chavez regime.</li> <li>Region also has significant reserves of conventional gas in Venezuela, Bolivia, Argentina, Mexico, Trinidad &amp; Tobago.</li> </ul>

	composition for recorded and built built	
agreements	<ul> <li>competition for resources on a global basis</li> <li>Easy to reach international agreements on removing trade barriers</li> <li>No agreements on international energy policy due to competing interests.</li> <li>Energy market lacks of ability to reach international agreements and common set of basic rules</li> <li>Markets are liberalized.</li> <li>Move towards creation of a common LAC market.</li> <li>Liberal policies allow inflow of FDI and setting up of industry</li> <li>Underperforming state energy companies are either privatised or made minority partners in ventures with international firms.</li> </ul>	<ul> <li>Policy agreements of "coalitions of the willing" to reduce greenhouse gas emissions and setting of (increasingly) international standards for carbon pricing</li> <li>Stronger role for international institutions to set policies</li> <li>Move towards liberalisation is much slower.</li> </ul>
Policy initiatives	<ul> <li>Policy initiatives aimed at setting framework conditions for market solutions to emerge</li> </ul>	<ul> <li>Energy policy initiatives set by centralized government where regulations of energy sector reverts to national states</li> <li>Protectionism continues.</li> </ul>
International cooperation	<ul> <li>Successful international coordination on free market mechanisms</li> <li>International agreement on clean energy mechanisms may not occur due to imposition of higher costs of production.</li> </ul>	<ul> <li>International coordination of energy taxes progressing</li> </ul>
Energy Saving	<ul> <li>Significant saving (higher prices/efficient markets)</li> </ul>	<ul> <li>Large government focus on energy efficiency and energy saving programs</li> <li>Efficiency brands (Like Energy Star) become dominant in consumer minds</li> </ul>
Energy Consumption	High economic growth yields high energy consumption	<ul> <li>High impact from energy efficiency and energy saving programs</li> <li>Global demand for energy is also lower because of lower growth and changes in lifestyle.</li> <li>LAC is heavily dependent on conventional gasoline/diesel/jet fuel.</li> <li>LAC is expected to be dependent on conventional gasoline/diesel/jet fuel thru 2050.</li> <li>Thru 2050, LAC consumption is expected to double from 150 mtoes in 2005 to around 300 mtoe in 2050.</li> <li>In 2008, LAC consumed about 47 mtoe (about 939,000 b/d) gasoline and 62 mtoe (about 1.236 million b/d) diesels.</li> </ul>
Transport Intermodal	<ul> <li>Individual transport solutions</li> <li>Solutions are more short term and lack wide perspectives</li> </ul>	<ul> <li>Stronger emphasis on public transport</li> <li>Solutions are long term with a wide perspectives</li> <li>LAC is considered a leader in bus Rapid Transit systems (with the first system in Curitiba)</li> <li>Other examples now include Bogota, Sao Paulo, Guayaquil, etc.</li> <li>Boeing projects number of aircraft in the region in 2029 to be 2,770, up from 1,130.</li> <li>Thru 2029, Boeing also expects air cargo traffic to increase by 6.9% a year and the passenger to increase by 6.7% a year.</li> </ul>
Air Traffic/Freight	High growth of air traffic and freight sector	Less growth due to lower economic growth
ICEs	High efficiency ICEs	<ul> <li>High efficiency ICEs</li> <li>Predominant mode of transport.</li> <li>Engines in Brazil are FFVs (flex fuel vehicles).</li> <li>FFVs in Brazil account for 40% of car fleet. This is incentivized by the government policies towards biofuels.</li> </ul>
Hybrids	<ul> <li>More hybrids</li> <li>Share of hybrids increases if government passes clean air regulation.</li> </ul>	<ul> <li>moderate hybrids share growth</li> <li>Minimum level and potential</li> </ul>
EVs	<ul> <li>Batteries still expensive.</li> <li>With time, R&amp;D will drive battery prices down</li> <li>competitive market facilitate new business models for battery replacement</li> <li>Oil still a necessity for most transport demand, even in 2050.</li> <li>Innovation centres in the Eastern markets and mega-cities drive the introduction of large</li> </ul>	<ul> <li>Earlier penetration of EVs and more use of electricity in public transport fleets (government directed).</li> <li>Efficiency of electric vehicles transforms energy demand and landscape. However, impact really visible after 2025. By 2050, EV expected to be 40% of the LDVs demand share (extreme case as in IEA's 450 level). This is subject to significant</li> </ul>

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	numbers of EVs due to air quality concerns in mega cities. In the longer term, low cost EVs penetrate western markets.	<ul> <li>improvement to the grid systems.</li> <li>Fossil fuels reduced to cover 30% of LDVs transport energy demand in 2050. Remaining 30% is provided by Biofuels and FCs.</li> <li>Lower OECD transport emission (assuming CCS for power generation) in the long run.</li> <li>Main emerging economies avoid mistakes of developed world, leapfrogging technologies.</li> <li>Minimum level and potential</li> </ul>
CNGs	<ul> <li>More CNGs if gas reserves available as E&amp;P accessible by IOCs</li> </ul>	<ul> <li>CNGs significantly in transport early on by local governments with access to domestic gas reserves.</li> <li>Minimum level and potential</li> </ul>
FCs	<ul> <li>FCs small breakthrough as they are still expensive</li> </ul>	<ul> <li>Fuel cells adopted to reduce dependency on foreign oil</li> <li>FC technology adoption only if local R&amp;D succeeds and roll-out is economically viable on a small scale.</li> <li>Minimum level and potential</li> </ul>
Biofuels	<ul> <li>Food crisis depresses global biofuels growth</li> <li>Strong regional hubs in both North and South America</li> <li>Gene technology used to grow energy crops (except EU).</li> <li>2<sup>nd</sup> &amp; 3<sup>rd</sup> generations are still expensive</li> <li>Continue to enjoy high growth – increasing encroachment on sugar sector</li> </ul>	<ul> <li>Increasing contribution of first generation biofuels to fuel mix</li> <li>Larger impact on food prices</li> <li>Gene modifications of crops still not accepted in EU.</li> <li>Large contribution of second (and 3<sup>rd</sup> ?) generation biofuels in the long term</li> <li>Brazil is the second biofuel producer (after the US) with a production level of 27% of the global, mostly bioethanol from sugar cane (0.467 million b/d) and around 19,000 b/d biodiesel.</li> <li>Consumption of biofuels in the region in 2009 was 0.35 mb/d. Brazil consumption alone accounted for 0.31 mb/d in 2009. The balance was exported (mainly to EU and US).</li> <li>Current blend rate is 25% (flexible when pressure is placed on sugar market)</li> </ul>
Urban Planning	<ul> <li>Good economies will invite better planning and problem solving.</li> <li>Existing megacities will continue to experience high growth.</li> <li>Transformation of medium-size cities into large cities.</li> </ul>	<ul> <li>Governments alone can poorly direct/coordinate urbanisation</li> <li>Problems worsen with tight government budgets and bad economies.</li> <li>Megacities will grow more congested, no increase in number of large cities.</li> <li>High level of urbanization. 78% for LAC and 86% for Brazil.</li> <li>Region has 3 megacities in the top 25 megacities worldwide – Sao Paulo, Buenos Aires, and Rio de Janeiro. Of these, Rio is the fastest growing at 0.66% per year.</li> <li>Region has 13.7% of world urban population.</li> </ul>
High Speed rails	<ul> <li>There could be problems with corridors and private sector funding.</li> </ul>	<ul> <li>Penetration of high speed rail networks at a larger scale, especially in second half of scenario period</li> <li>Operational inter-city HSR in Brazil by first half of scenario.</li> <li>Not yet under consideration.</li> <li>Currently, railways are undergoing privatization.</li> </ul>
Vehicles Ownerships	More vehicles ownerships	<ul> <li>Less car ownerships &amp; more reliance on public transport systems, car sharing and rentals.</li> <li>The average ownership rate is about 78 cars/1000 capita.</li> <li>Mexico: 165 vehicles/1000 population. Avg. annual growth rate: 4.9%</li> <li>Argentina: 186 vehicles/1000 pop. Avg. AGR: 3.1%</li> <li>Brazil: 121 vehicles/1000 pop. Avg. AGR: 4.6%</li> <li>Chile: 144 vehicles/1000 pop. Avg. AGR: 5.4%</li> </ul>
Aviation, Shipping, Rails & Trucks	<ul> <li>High growth for both passenger travels and freight especially in eastern markets.</li> <li>High growth for trucks sector.</li> </ul>	<ul> <li>More moderate growth levels.</li> <li>Main mode of transport is road.</li> <li>Mostly medium trucks perform the haulage.</li> </ul>

Appendix B: Model's Input Assumptions (Exogenous Parameters)

1-General

Base year: 2005

Time horizon: 2050

Time step: 5 year

Technology (Cars) life time: 15 years

Discount rate: 5%

### Annual GDP growth rate (%)

Freeway	2010	2015	2020	2025	2030	2035	2040	2045
	-2015	-2020	-2025	-2030	-2035	-2040	-2045	-2050
Africa	4.1%	5.1%	5.9%	6.8%	7.6%	7.7%	7.5%	6.6%
Asia (exl. China, India)	7.3%	6.2%	5.5%	4.6%	4.1%	3.4%	3.1%	2.7%
Brazil	3.1%	4.2%	5.5%	5.8%	5.7%	5.0%	4.4%	3.6%
Canada	2.1%	1.8%	1.8%	1.6%	1.8%	1.6%	1.5%	1.4%
China	8.9%	7.4%	6.5%	5.1%	4.1%	3.4%	3.2%	2.6%
Non-OECD Europe	2.9%	2.9%	3.0%	3.2%	3.6%	3.6%	3.4%	3.2%
OECD Europe	2.1%	1.9%	1.8%	1.5%	1.5%	1.3%	1.2%	1.1%
FSU (exl. Russia)	5.9%	5.8%	5.6%	5.4%	5.4%	5.1%	4.7%	4.1%
India	6.5%	6.9%	7.3%	7.2%	7.1%	6.4%	5.9%	4.9%
LAM (exl. Brazil, Mexico)	5.3%	5.0%	4.8%	4.5%	4.5%	4.1%	3.9%	3.4%
MEA	2.9%	3.2%	3.9%	4.5%	5.0%	5.1%	5.0%	4.4%
Mexico	4.1%	4.6%	5.4%	5.3%	5.1%	4.5%	4.1%	3.5%
OECD Pacific+Asia	1.4%	1.1%	1.1%	0.9%	0.8%	0.7%	0.7%	0.7%
Russia	4.4%	4.7%	4.9%	5.1%	5.3%	4.9%	4.3%	3.7%
USA	1.8%	1.4%	1.3%	1.2%	1.6%	1.5%	1.5%	1.3%
World avg.	3.2%	3.1%	3.2%	3.1%	3.2%	3.0%	3.0%	2.7%
Tollway	2010	2015	2020	2025	2030	2035	2040	2045
· · · ·	-2015	-2020	-2025	-2030	-2035	-2040	-2045	-2050
Africa	<b>-2015</b> 3.9%	<b>-2020</b> 4.8%	<b>-2025</b> 5.5%	<b>-2030</b> 6.4%	<b>-2035</b> 7.1%	<b>-2040</b> 7.2%	<b>-2045</b> 7.0%	<b>-2050</b> 6.3%
Africa Asia (exl. China, India)	<b>-2015</b> 3.9% 6.4%	<b>-2020</b> 4.8% 5.5%	<b>-2025</b> 5.5% 4.9%	<b>-2030</b> 6.4% 4.1%	<b>-2035</b> 7.1% 3.6%	<b>-2040</b> 7.2% 3.1%	<b>-2045</b> 7.0% 2.8%	<b>-2050</b> 6.3% 2.4%
Africa Asia (exl. China, India) Brazil	<b>-2015</b> 3.9% 6.4% 2.8%	<b>-2020</b> 4.8% 5.5% 3.7%	<b>-2025</b> 5.5% 4.9% 4.7%	<b>-2030</b> 6.4% 4.1% 5.0%	<b>-2035</b> 7.1% 3.6% 4.8%	<b>-2040</b> 7.2% 3.1% 4.3%	<b>-2045</b> 7.0% 2.8% 3.7%	-2050 6.3% 2.4% 3.0%
Africa Asia (exl. China, India) Brazil Canada	<b>-2015</b> 3.9% 6.4% 2.8% 1.9%	<b>-2020</b> 4.8% 5.5% 3.7% 1.6%	<b>-2025</b> 5.5% 4.9% 4.7% 1.6%	<b>-2030</b> 6.4% 4.1% 5.0% 1.5%	<b>-2035</b> 7.1% 3.6% 4.8% 1.6%	<b>-2040</b> 7.2% 3.1% 4.3% 1.4%	-2045 7.0% 2.8% 3.7% 1.3%	-2050 6.3% 2.4% 3.0% 1.3%
Africa Asia (exl. China, India) Brazil Canada China	-2015 3.9% 6.4% 2.8% 1.9% 7.5%	-2020 4.8% 5.5% 3.7% 1.6% 6.2%	-2025 5.5% 4.9% 4.7% 1.6% 5.4%	-2030 6.4% 4.1% 5.0% 1.5% 4.2%	-2035 7.1% 3.6% 4.8% 1.6% 3.4%	-2040 7.2% 3.1% 4.3% 1.4% 2.9%	-2045 7.0% 2.8% 3.7% 1.3% 2.8%	-2050 6.3% 2.4% 3.0% 1.3% 2.3%
Africa Asia (exl. China, India) Brazil Canada China Non-OECD Europe	-2015 3.9% 6.4% 2.8% 1.9% 7.5% 2.2%	-2020 4.8% 5.5% 3.7% 1.6% 6.2% 2.2%	-2025 5.5% 4.9% 4.7% 1.6% 5.4% 2.2%	-2030 6.4% 4.1% 5.0% 1.5% 4.2% 2.4%	-2035 7.1% 3.6% 4.8% 1.6% 3.4% 2.7%	-2040 7.2% 3.1% 4.3% 1.4% 2.9% 2.6%	-2045 7.0% 2.8% 3.7% 1.3% 2.8% 2.5%	-2050 6.3% 2.4% 3.0% 1.3% 2.3% 2.3%
Africa Asia (exl. China, India) Brazil Canada China Non-OECD Europe OECD Europe	-2015 3.9% 6.4% 2.8% 1.9% 7.5% 2.2% 1.8%	-2020 4.8% 5.5% 3.7% 1.6% 6.2% 2.2% 1.6%	-2025 5.5% 4.9% 4.7% 1.6% 5.4% 2.2% 1.5%	-2030 6.4% 4.1% 5.0% 1.5% 4.2% 2.4% 1.3%	-2035 7.1% 3.6% 4.8% 1.6% 3.4% 2.7% 1.2%	-2040 7.2% 3.1% 4.3% 1.4% 2.9% 2.6% 1.1%	-2045 7.0% 2.8% 3.7% 1.3% 2.8% 2.5% 1.0%	-2050 6.3% 2.4% 3.0% 1.3% 2.3% 2.3% 0.9%
Africa Asia (exl. China, India) Brazil Canada China Non-OECD Europe OECD Europe FSU (exl. Russia)	-2015 3.9% 6.4% 2.8% 1.9% 7.5% 2.2% 1.8% 4.6%	-2020 4.8% 5.5% 3.7% 1.6% 6.2% 2.2% 1.6% 4.6%	-2025 5.5% 4.9% 4.7% 1.6% 5.4% 2.2% 1.5% 4.4%	-2030 6.4% 4.1% 5.0% 1.5% 4.2% 2.4% 1.3% 4.2%	-2035 7.1% 3.6% 4.8% 1.6% 3.4% 2.7% 1.2% 4.2%	-2040 7.2% 3.1% 4.3% 1.4% 2.9% 2.6% 1.1% 3.9%	-2045 7.0% 2.8% 3.7% 1.3% 2.8% 2.5% 1.0% 3.7%	-2050 6.3% 2.4% 3.0% 1.3% 2.3% 2.3% 0.9% 3.2%
Africa Asia (exl. China, India) Brazil Canada China Non-OECD Europe OECD Europe FSU (exl. Russia) India	-2015 3.9% 6.4% 2.8% 1.9% 7.5% 2.2% 1.8% 4.6% 5.7%	-2020 4.8% 5.5% 3.7% 1.6% 6.2% 2.2% 1.6% 4.6% 6.0%	-2025 5.5% 4.9% 4.7% 1.6% 5.4% 2.2% 1.5% 4.4% 6.4%	-2030 6.4% 4.1% 5.0% 1.5% 4.2% 2.4% 1.3% 4.2% 6.3%	-2035 7.1% 3.6% 4.8% 1.6% 3.4% 2.7% 1.2% 4.2% 6.2%	-2040 7.2% 3.1% 4.3% 1.4% 2.9% 2.6% 1.1% 3.9% 5.6%	-2045 7.0% 2.8% 3.7% 1.3% 2.8% 2.5% 1.0% 3.7% 5.1%	-2050 6.3% 2.4% 3.0% 1.3% 2.3% 2.3% 0.9% 3.2% 4.3%
Africa Asia (exl. China, India) Brazil Canada China Non-OECD Europe OECD Europe FSU (exl. Russia) India LAM (exl. Brazil, Mexico)	-2015 3.9% 6.4% 2.8% 1.9% 7.5% 2.2% 1.8% 4.6% 5.7% 4.7%	-2020 4.8% 5.5% 3.7% 1.6% 6.2% 2.2% 1.6% 4.6% 6.0% 4.5%	-2025 5.5% 4.9% 4.7% 1.6% 5.4% 2.2% 1.5% 4.4% 6.4% 4.3%	-2030 6.4% 4.1% 5.0% 1.5% 4.2% 2.4% 1.3% 4.2% 6.3% 4.1%	-2035 7.1% 3.6% 4.8% 1.6% 3.4% 2.7% 1.2% 4.2% 6.2% 4.0%	-2040 7.2% 3.1% 4.3% 1.4% 2.9% 2.6% 1.1% 3.9% 5.6% 3.7%	-2045 7.0% 2.8% 3.7% 1.3% 2.8% 2.5% 1.0% 3.7% 5.1% 3.5%	-2050 6.3% 2.4% 3.0% 1.3% 2.3% 2.3% 0.9% 3.2% 4.3% 3.0%
Africa Asia (exl. China, India) Brazil Canada China Non-OECD Europe OECD Europe FSU (exl. Russia) India LAM (exl. Brazil, Mexico) MEA	-2015 3.9% 6.4% 2.8% 1.9% 7.5% 2.2% 1.8% 4.6% 5.7% 4.7% 2.8%	-2020 4.8% 5.5% 3.7% 1.6% 6.2% 2.2% 1.6% 4.6% 6.0% 4.5% 3.1%	<b>-2025</b> 5.5% 4.9% 4.7% 1.6% 5.4% 2.2% 1.5% 4.4% 6.4% 4.3% 3.7%	-2030 6.4% 4.1% 5.0% 1.5% 4.2% 2.4% 1.3% 4.2% 6.3% 4.1% 4.2%	-2035 7.1% 3.6% 4.8% 1.6% 3.4% 2.7% 1.2% 4.2% 6.2% 4.0% 4.6%	-2040 7.2% 3.1% 4.3% 1.4% 2.9% 2.6% 1.1% 3.9% 5.6% 3.7% 4.7%	-2045 7.0% 2.8% 3.7% 1.3% 2.8% 2.5% 1.0% 3.7% 5.1% 3.5% 4.7%	-2050 6.3% 2.4% 3.0% 1.3% 2.3% 2.3% 0.9% 3.2% 4.3% 3.0% 4.1%
Africa Asia (exl. China, India) Brazil Canada China Non-OECD Europe OECD Europe FSU (exl. Russia) India LAM (exl. Brazil, Mexico) MEA Mexico	-2015 3.9% 6.4% 2.8% 1.9% 7.5% 2.2% 4.8% 4.6% 5.7% 4.7% 2.8% 3.7%	-2020 4.8% 5.5% 3.7% 1.6% 6.2% 2.2% 4.6% 6.0% 4.5% 3.1% 4.1%	-2025 5.5% 4.9% 4.7% 1.6% 5.4% 2.2% 1.5% 4.4% 6.4% 4.3% 3.7% 4.8%	-2030 6.4% 4.1% 5.0% 1.5% 4.2% 2.4% 1.3% 4.2% 6.3% 4.1% 4.2% 4.7%	-2035 7.1% 3.6% 4.8% 1.6% 3.4% 2.7% 4.2% 6.2% 4.0% 4.6% 4.5%	-2040 7.2% 3.1% 4.3% 1.4% 2.9% 2.6% 1.1% 3.9% 5.6% 3.7% 4.7% 3.9%	-2045 7.0% 2.8% 3.7% 1.3% 2.8% 2.5% 1.0% 3.7% 5.1% 3.5% 4.7% 3.5%	-2050 6.3% 2.4% 3.0% 1.3% 2.3% 0.9% 3.2% 4.3% 3.0% 4.1% 2.9%
Africa Asia (exl. China, India) Brazil Canada China Non-OECD Europe OECD Europe FSU (exl. Russia) India LAM (exl. Brazil, Mexico) MEA Mexico OECD Pacific+Asia	-2015 3.9% 6.4% 2.8% 1.9% 7.5% 2.2% 1.8% 4.6% 5.7% 2.8% 3.7% 1.2%	-2020 4.8% 5.5% 3.7% 1.6% 6.2% 2.2% 1.6% 4.6% 6.0% 4.5% 3.1% 4.1% 1.0%	-2025 5.5% 4.9% 4.7% 1.6% 5.4% 2.2% 1.5% 4.4% 6.4% 4.3% 3.7% 4.8% 0.9%	-2030 6.4% 4.1% 5.0% 1.5% 4.2% 2.4% 1.3% 4.2% 6.3% 4.1% 4.2% 4.7% 0.7%	-2035 7.1% 3.6% 4.8% 1.6% 3.4% 2.7% 4.2% 6.2% 4.2% 4.0% 4.6% 4.6% 4.5% 0.7%	-2040 7.2% 3.1% 4.3% 1.4% 2.9% 2.6% 1.1% 3.9% 5.6% 3.7% 4.7% 3.9% 0.6%	-2045 7.0% 2.8% 3.7% 1.3% 2.8% 2.5% 1.0% 3.7% 5.1% 3.5% 4.7% 3.5% 0.6%	-2050 6.3% 2.4% 3.0% 1.3% 2.3% 0.9% 3.2% 4.3% 3.0% 4.1% 2.9% 0.5%
Africa Asia (exl. China, India) Brazil Canada China Non-OECD Europe OECD Europe FSU (exl. Russia) India LAM (exl. Brazil, Mexico) MEA Mexico OECD Pacific+Asia Russia	-2015 3.9% 6.4% 2.8% 1.9% 7.5% 2.2% 1.8% 4.6% 5.7% 4.6% 5.7% 2.8% 3.7% 1.2% 3.3%	-2020 4.8% 5.5% 3.7% 1.6% 6.2% 2.2% 1.6% 4.6% 6.0% 4.6% 4.5% 3.1% 4.1% 1.0% 3.6%	-2025 5.5% 4.9% 4.7% 1.6% 5.4% 2.2% 1.5% 4.4% 6.4% 4.3% 3.7% 4.8% 0.9% 3.7%	-2030 6.4% 4.1% 5.0% 1.5% 4.2% 2.4% 1.3% 4.2% 6.3% 4.1% 4.1% 4.2% 4.7% 0.7% 3.8%	-2035 7.1% 3.6% 4.8% 1.6% 3.4% 2.7% 4.2% 6.2% 4.2% 6.2% 4.0% 4.6% 4.5% 0.7% 4.0%	-2040 7.2% 3.1% 4.3% 1.4% 2.9% 2.6% 1.1% 3.9% 5.6% 3.7% 4.7% 3.9% 0.6% 3.7%	-2045 7.0% 2.8% 3.7% 1.3% 2.8% 2.5% 1.0% 3.7% 5.1% 3.5% 0.6% 3.2%	-2050 6.3% 2.4% 3.0% 1.3% 2.3% 0.9% 3.2% 4.3% 3.0% 4.1% 2.9% 0.5% 2.8%
Africa Asia (exl. China, India) Brazil Canada China Non-OECD Europe OECD Europe FSU (exl. Russia) India LAM (exl. Brazil, Mexico) MEA Mexico OECD Pacific+Asia	-2015 3.9% 6.4% 2.8% 1.9% 7.5% 2.2% 1.8% 4.6% 5.7% 2.8% 3.7% 1.2%	-2020 4.8% 5.5% 3.7% 1.6% 6.2% 2.2% 1.6% 4.6% 6.0% 4.5% 3.1% 4.1% 1.0%	-2025 5.5% 4.9% 4.7% 1.6% 5.4% 2.2% 1.5% 4.4% 6.4% 4.3% 3.7% 4.8% 0.9%	-2030 6.4% 4.1% 5.0% 1.5% 4.2% 2.4% 1.3% 4.2% 6.3% 4.1% 4.2% 4.7% 0.7%	-2035 7.1% 3.6% 4.8% 1.6% 3.4% 2.7% 4.2% 6.2% 4.2% 4.0% 4.6% 4.6% 4.5% 0.7%	-2040 7.2% 3.1% 4.3% 1.4% 2.9% 2.6% 1.1% 3.9% 5.6% 3.7% 4.7% 3.9% 0.6%	-2045 7.0% 2.8% 3.7% 1.3% 2.8% 2.5% 1.0% 3.7% 5.1% 3.5% 4.7% 3.5% 0.6%	-2050 6.3% 2.4% 3.0% 1.3% 2.3% 0.9% 3.2% 4.3% 3.0% 4.1% 2.9% 0.5%

### Population (million)

Freeway	2010	2015	2020	2025	2030	2035	2040	2045	2050
Africa	1022	1139	1257	1373	1484	1591	1691	1785	1869
Asia (exl. China, India)	1201	1273	1337	1393	1438	1474	1502	1522	1536
Brazil	195	203	209	214	218	220	220	220	218
Canada	34	36	37	39	40	41	42	43	44
China	1349	1376	1393	1400	1397	1384	1357	1319	1269
Non-OECD Europe	60	59	58	58	56	55	54	53	51
OECD Europe	546	557	567	574	579	583	584	585	584
FSU (exl. Russia)	139	142	145	147	148	148	149	150	150
India	1225	1304	1374	1435	1485	1527	1558	1582	1597
LAM (exl. Brazil, Mexico)	282	298	313	326	338	347	354	359	363
MEA	216	236	256	273	288	302	314	324	333
Mexico	113	120	125	129	133	135	137	138	139
OECD Pacific+Asia	201	204	205	205	204	202	199	196	193
Russia	143	142	141	139	136	134	131	129	126
USA	310	324	337	350	362	373	384	394	403

World Total	7036	7413	7754	8052	8305	8513	8676	8796	8873
Tollway	2010	2015	2020	2025	2030	2035	2040	2045	2050
Africa	1022	1145	1278	1417	1562	1713	1870	2030	2192
Asia (exl. China, India)	1201	1277	1349	1414	1472	1522	1563	1596	1619
Brazil	195	203	210	216	221	223	224	224	223
Canada	34	36	38	39	41	42	43	44	45
China	1349	1378	1396	1404	1402	1391	1371	1342	1306
Non-OECD Europe	60	59	59	58	58	57	56	55	53
OECD Europe	546	560	572	583	591	597	602	605	607
FSU (exl. Russia)	139	143	146	149	151	152	154	155	156
India	1225	1308	1387	1459	1524	1580	1627	1665	1692
LAM (exl. Brazil, Mexico)	282	299	316	332	346	358	369	378	384
MEA	216	237	259	280	299	318	337	354	370
Mexico	113	120	126	131	135	139	142	143	144
OECD Pacific+Asia	201	205	207	208	208	207	205	203	201
Russia	143	143	142	141	139	137	135	133	131
USA	310	326	341	355	369	382	395	407	419
Total	7036	7439	7826	8186	8516	8818	9091	9333	9542

#### 2-LDV Sector

Motorization rate (car/1000 capita)

Freeway									
	2010	2015	2020	2025	2030	2035	2040	2045	2050
Africa	23	28	33	37	40	44	49	58	70
Asia (exl. China, India)	27	34	42	51	65	87	115	143	161
Brazil	125	151	166	187	221	266	322	361	378
Canada	575	603	629	653	675	704	733	763	793
China	15	24	35	51	74	101	136	174	193
Non-OECD Europe	201	228	263	292	328	365	402	439	475
OECD Europe	455	493	502	506	506	508	510	514	517
FSU (exl. Russia)	120	144	176	220	276	323	370	415	457
India	8	11	15	19	25	34	48	68	87
LAM (exl. Brazil, Mexico)	65	79	96	112	127	148	177	215	263
MEA	85	98	114	127	142	156	170	185	203
Mexico	173	206	228	264	312	375	452	518	552
OECD Pacific+Asia	430	463	483	495	501	515	530	550	572
Russia	222	263	316	372	440	507	574	641	712
USA	738	763	785	806	823	849	875	901	928
World avg.	115	126	135	145	157	174	194	217	235
Tollway	2010	2015	2020	2025	2030	2035	2040	2045	2050
Africa	23	07	20	20	38	41	44	49	55
	-	27	32	36	50			-	55
Asia (exl. China, India)	27	32	39	44	52	62	75	92	113
Asia (exl. China, India) Brazil	27 125	32 147	39 159	44 173	52 196	62 224	75 257	92 296	113 329
Asia (exl. China, India) Brazil Canada	27 125 575	32 147 591	39 159 606	44 173 623	52 196 636	62 224 653	75 257 670	92 296 686	113 329 701
Asia (exl. China, India) Brazil Canada China	27 125 575 15	32 147 591 21	39 159 606 29	44 173 623 38	52 196 636 49	62 224 653 64	75 257 670 81	92 296 686 102	113 329 701 127
Asia (exl. China, India) Brazil Canada China Non-OECD Europe	27 125 575 15 201	32 147 591 21 217	39 159 606 29 236	44 173 623 38 257	52 196 636 49 276	62 224 653 64 301	75 257 670 81 323	92 296 686 102 344	113 329 701 127 365
Asia (exl. China, India) Brazil Canada China Non-OECD Europe OECD Europe	27 125 575 15 201 455	32 147 591 21 217 477	39 159 606 29 236 489	44 173 623 38 257 493	52 196 636 49 276 496	62 224 653 64 301 496	75 257 670 81 323 496	92 296 686 102 344 497	113 329 701 127 365 498
Asia (exl. China, India) Brazil Canada China Non-OECD Europe OECD Europe FSU (exl. Russia)	27 125 575 15 201 455 120	32 147 591 21 217 477 134	39 159 606 29 236 489 151	44 173 623 38 257 493 173	52 196 636 49 276 496 200	62 224 653 64 301 496 233	75 257 670 81 323 496 261	92 296 686 102 344 497 287	113 329 701 127 365 498 310
Asia (exl. China, India) Brazil Canada China Non-OECD Europe OECD Europe FSU (exl. Russia) India	27 125 575 15 201 455 120 8	32 147 591 21 217 477 134 11	39 159 606 29 236 489 151 14	44 173 623 38 257 493 173 17	52 196 636 49 276 496 200 21	62 224 653 64 301 496 233 26	75 257 670 81 323 496 261 33	92 296 686 102 344 497 287 42	113 329 701 127 365 498 310 55
Asia (exl. China, India) Brazil Canada China Non-OECD Europe OECD Europe FSU (exl. Russia) India LAM (exl. Brazil, Mexico)	27 125 575 15 201 455 120 8 65	32 147 591 21 217 477 134 11 76	39 159 606 29 236 489 151 14 89	44 173 623 38 257 493 173 17 105	52 196 636 49 276 496 200 21 113	62 224 653 64 301 496 233	75 257 670 81 323 496 261 33 143	92 296 686 102 344 497 287 42 164	113 329 701 127 365 498 310 55 188
Asia (exl. China, India) Brazil Canada China Non-OECD Europe OECD Europe FSU (exl. Russia) India LAM (exl. Brazil, Mexico) MEA	27 125 575 15 201 455 120 8 65 85	32 147 591 217 477 134 11 76 96	39 159 606 29 236 489 151 14 89 110	44 173 623 38 257 493 173 17 105 121	52 196 636 49 276 496 200 21 113 134	62 224 653 64 301 496 233 26 126 146	75 257 670 81 323 496 261 33 143 157	92 296 686 102 344 497 287 42 164 168	113 329 701 127 365 498 310 55 188 179
Asia (exl. China, India) Brazil Canada China Non-OECD Europe OECD Europe FSU (exl. Russia) India LAM (exl. Brazil, Mexico) MEA Mexico	27 125 575 15 201 455 120 8 65 85 173	32 147 591 217 477 134 11 76 96 201	39 159 606 29 236 489 151 14 89 110 215	44 173 623 38 257 493 173 17 105 121 241	52 196 636 49 276 496 200 21 113 134 272	62 224 653 64 301 496 233 26 126 126 146 311	75 257 670 81 323 496 261 33 143 157 357	92 296 686 102 344 497 287 42 164 168 411	113 329 701 127 365 498 310 55 188 179 458
Asia (exl. China, India) Brazil Canada China Non-OECD Europe OECD Europe FSU (exl. Russia) India LAM (exl. Brazil, Mexico) MEA Mexico OECD Pacific+Asia	27 125 575 15 201 455 120 8 65 85 173 430	32 147 591 217 477 134 11 76 96 201 449	39 159 606 29 236 489 151 14 89 110 215 464	44 173 623 38 257 493 173 17 105 121 241 475	52 196 636 49 276 496 200 21 113 134 272 481	62 224 653 64 301 496 233 26 126 146 311 486	75 257 670 81 323 496 261 33 143 157 357 492	92 296 686 102 344 497 287 42 164 168 411 500	113 329 701 127 365 498 310 55 188 179 458 510
Asia (exl. China, India) Brazil Canada China Non-OECD Europe OECD Europe FSU (exl. Russia) India LAM (exl. Brazil, Mexico) MEA Mexico OECD Pacific+Asia Russia	27 125 575 15 201 455 120 8 65 85 173 430 222	32 147 591 217 477 134 11 76 96 201 449 246	39 159 606 29 236 489 151 14 89 110 215 464 276	44 173 623 38 257 493 173 17 105 121 241 475 310	52 196 636 49 276 496 200 21 113 134 272 481 347	62 224 653 64 301 496 233 26 126 146 311 486 390	75 257 670 81 323 496 261 33 143 157 357 492 427	92 296 686 102 344 497 287 42 164 168 411 500 461	113 329 701 127 365 498 310 55 188 179 458 510 493
Asia (exl. China, India) Brazil Canada China Non-OECD Europe OECD Europe FSU (exl. Russia) India LAM (exl. Brazil, Mexico) MEA Mexico OECD Pacific+Asia	27 125 575 15 201 455 120 8 65 85 173 430	32 147 591 217 477 134 11 76 96 201 449	39 159 606 29 236 489 151 14 89 110 215 464	44 173 623 38 257 493 173 17 105 121 241 475	52 196 636 49 276 496 200 21 113 134 272 481	62 224 653 64 301 496 233 26 126 146 311 486	75 257 670 81 323 496 261 33 143 157 357 492	92 296 686 102 344 497 287 42 164 168 411 500	113 329 701 127 365 498 310 55 188 179 458 510

## Share of LDV types (million in base year 2005)

Freeway & Tollway	Africa	Asia	Brazil	Canada	China	EEUR	FSU	India	LAM	MEA	Mexico	Pacific	Russia	NSA	WEUR
Electric Vehicle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hydrogen Fuel Cell	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hydrogen Hybrid	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gas Fuel Hybrid	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gas Fuel ICEV	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0
Liquid Fuel Plug-in	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diesel Type Hybrid	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gasoline Type Hybrid	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Diesel Type ICEV	2	0	1	0	3	0	1	2	0	1	0	10	0	1	62
Gasoline Type ICEV	16	25	18	18	12	10	13	6	13	14	15	69	25	221	161
Total	18	25	20	19	14	11	14	7	15	15	15	79	25	222	223

## LDV mileage (1000 v-km/y/car)

Freeway & Tollway	2010	2015	2020	2025	2030	2035	2040	2045	2050
Africa	12	12	12	12	12	12	12	12	12
Asia (exl. China, India)	16	16	16	16	16	16	16	16	16
Brazil	16	16	16	16	16	16	16	16	16
Canada	17	17	17	17	17	17	17	17	17
China	15	15	15	15	15	15	15	15	15
Non-OECD Europe	12	12	12	12	12	12	12	12	12
OECD Europe	12	12	12	12	12	12	12	12	12
FSU (exl. Russia)	13	13	13	13	13	13	13	13	13
India	15	15	15	15	15	15	15	15	15
LAM (exl. Brazil, Mexico)	16	16	16	16	16	16	16	16	16
MEA	18	18	18	18	18	18	18	18	18
Mexico	11	11	11	11	11	11	11	11	11
OECD Pacific+Asia	12	12	12	12	12	12	12	12	12
Russia	13	13	13	13	13	13	13	13	13
USA	19	19	19	19	19	19	19	19	19

#### LDV transport demand (Billion v-km)

Freeway	2010	2015	2020	2025	2030	2035	2040	2045	2050
Africa	288	381	498	617	719	838	999	1244	1574
Asia (exl. China, India)	512	684	896	1147	1506	2045	2768	3492	3945
Brazil	390	490	555	642	770	935	1136	1270	1319
Canada	332	365	398	429	457	490	522	555	588
China	310	488	730	1061	1542	2105	2759	3433	3680
Non-OECD Europe	144	162	184	201	222	242	260	277	291
OECD Europe	2982	3296	3414	3486	3516	3552	3575	3603	3623
FSU (exl. Russia)	218	266	331	420	529	623	716	806	888
India	153	224	315	417	560	774	1117	1615	2089
LAM (exl. Brazil, Mexico)	293	376	483	583	683	821	1001	1237	1525
MEA	330	417	524	623	734	845	958	1079	1214
Mexico	215	272	313	375	455	559	681	786	840
OECD Pacific+Asia	1038	1131	1187	1215	1225	1245	1266	1294	1321
Russia	412	486	579	673	780	881	980	1074	1168
USA	4354	4694	5028	5355	5656	6018	6373	6739	7108
Total	44070	40700	4 - 400	47040	10050	21973	25110	28503	31175
Total	11972	13732	15436	17246	19353	21975	25110	20003	51175
Tollway	2010	2015	2020	2025	2030	2035	2040	2045	2050
Tollway Africa	<b>2010</b> 288	<b>2015</b> 373	<b>2020</b> 484	<b>2025</b> 612	<b>2030</b> 720	<b>2035</b> 842	<b>2040</b> 991	<b>2045</b> 1190	<b>2050</b> 1452
Tollway Africa Asia (exl. China, India)	<b>2010</b> 288 512	<b>2015</b> 373 650	<b>2020</b> 484 833	<b>2025</b> 612 1001	<b>2030</b> 720 1227	<b>2035</b> 842 1517	<b>2040</b> 991 1882	<b>2045</b> 1190 2350	<b>2050</b> 1452 2921
Tollway Africa Asia (exl. China, India) Brazil	<b>2010</b> 288 512 390	<b>2015</b> 373 650 478	<b>2020</b> 484 833 534	<b>2025</b> 612 1001 598	<b>2030</b> 720 1227 690	<b>2035</b> 842 1517 801	<b>2040</b> 991 1882 923	<b>2045</b> 1190 2350 1063	<b>2050</b> 1452 2921 1173
Tollway Africa Asia (exl. China, India) Brazil Canada	<b>2010</b> 288 512 390 332	<b>2015</b> 373 650 478 360	<b>2020</b> 484 833 534 387	<b>2025</b> 612 1001 598 415	<b>2030</b> 720 1227 690 440	<b>2035</b> 842 1517 801 466	<b>2040</b> 991 1882 923 491	<b>2045</b> 1190 2350 1063 516	<b>2050</b> 1452 2921 1173 541
Tollway Africa Asia (exl. China, India) Brazil Canada China	<b>2010</b> 288 512 390 332 310	<b>2015</b> 373 650 478 360 438	<b>2020</b> 484 833 534 387 613	<b>2025</b> 612 1001 598 415 797	<b>2030</b> 720 1227 690 440 1037	<b>2035</b> 842 1517 801 466 1332	<b>2040</b> 991 1882 923 491 1668	<b>2045</b> 1190 2350 1063 516 2057	<b>2050</b> 1452 2921 1173 541 2494
Tollway Africa Asia (exl. China, India) Brazil Canada China Non-OECD Europe	<b>2010</b> 288 512 390 332 310 144	<b>2015</b> 373 650 478 360 438 155	<b>2020</b> 484 833 534 387 613 167	<b>2025</b> 612 1001 598 415 797 180	<b>2030</b> 720 1227 690 440 1037 191	<b>2035</b> 842 1517 801 466 1332 205	<b>2040</b> 991 1882 923 491 1668 216	<b>2045</b> 1190 2350 1063 516 2057 225	<b>2050</b> 1452 2921 1173 541 2494 233
Tollway Africa Asia (exl. China, India) Brazil Canada China Non-OECD Europe OECD Europe	<b>2010</b> 288 512 390 332 310 144 2982	<b>2015</b> 373 650 478 360 438 155 3209	<b>2020</b> 484 833 534 387 613 167 3356	<b>2025</b> 612 1001 598 415 797 180 3449	<b>2030</b> 720 1227 690 440 1037 191 3514	<b>2035</b> 842 1517 801 466 1332 205 3553	<b>2040</b> 991 1882 923 491 1668 216 3584	<b>2045</b> 1190 2350 1063 516 2057 225 3613	<b>2050</b> 1452 2921 1173 541 2494 233 3632
Tollway Africa Asia (exl. China, India) Brazil Canada China Non-OECD Europe OECD Europe FSU (exl. Russia)	<b>2010</b> 288 512 390 332 310 144 2982 218	<b>2015</b> 373 650 478 360 438 155 3209 249	<b>2020</b> 484 833 534 387 613 167 3356 287	<b>2025</b> 612 1001 598 415 797 180 3449 334	<b>2030</b> 720 1227 690 440 1037 191 3514 392	<b>2035</b> 842 1517 801 466 1332 205 3553 460	<b>2040</b> 991 1882 923 491 1668 216 3584 522	<b>2045</b> 1190 2350 1063 516 2057 225 3613 579	<b>2050</b> 1452 2921 1173 541 2494 233 3632 628
Tollway Africa Asia (exl. China, India) Brazil Canada China Non-OECD Europe OECD Europe FSU (exl. Russia) India	<b>2010</b> 288 512 390 332 310 144 2982 218 153	<b>2015</b> 373 650 478 360 438 155 3209 249 211	<b>2020</b> 484 833 534 387 613 167 3356 287 292	<b>2025</b> 612 1001 598 415 797 180 3449 334 371	<b>2030</b> 720 1227 690 440 1037 191 3514 392 475	<b>2035</b> 842 1517 801 466 1332 205 3553 460 614	<b>2040</b> 991 1882 923 491 1668 216 3584 522 798	<b>2045</b> 1190 2350 1063 516 2057 225 3613 579 1051	<b>2050</b> 1452 2921 1173 541 2494 233 3632 628 1387
Tollway Africa Asia (exl. China, India) Brazil Canada China Non-OECD Europe OECD Europe FSU (exl. Russia) India LAM (exl. Brazil, Mexico)	<b>2010</b> 288 512 390 332 310 144 2982 218 153 293	<b>2015</b> 373 650 478 360 438 155 3209 249 249 211 362	<b>2020</b> 484 833 534 387 613 167 3356 287 292 449	<b>2025</b> 612 1001 598 415 797 180 3449 334 371 555	<b>2030</b> 720 1227 690 440 1037 191 3514 392 475 623	<b>2035</b> 842 1517 801 466 1332 205 3553 460 614 725	<b>2040</b> 991 1882 923 491 1668 216 3584 522 798 844	<b>2045</b> 1190 2350 1063 516 2057 225 3613 579 1051 990	<b>2050</b> 1452 2921 1173 541 2494 233 3632 628 1387 1156
Tollway Africa Asia (exl. China, India) Brazil Canada China Non-OECD Europe OECD Europe FSU (exl. Russia) India LAM (exl. Brazil, Mexico) MEA	2010 288 512 390 332 310 144 2982 218 153 293 330	<b>2015</b> 373 650 478 360 438 155 3209 249 249 211 362 409	2020 484 833 534 387 613 167 3356 287 292 449 514	2025 612 1001 598 415 797 180 3449 334 371 555 610	<b>2030</b> 720 1227 690 440 1037 191 3514 392 475 623 722	<b>2035</b> 842 1517 801 466 1332 205 3553 460 614 725 836	2040 991 1882 923 491 1668 216 3584 522 798 844 952	<b>2045</b> 1190 2350 1063 516 2057 225 3613 579 1051 990 1072	<b>2050</b> 1452 2921 1173 541 2494 233 3632 628 1387 1156 1191
Tollway Africa Asia (exl. China, India) Brazil Canada China Non-OECD Europe OECD Europe FSU (exl. Russia) India LAM (exl. Brazil, Mexico) MEA Mexico	2010 288 512 390 332 310 144 2982 218 153 293 330 215	<b>2015</b> 373 650 478 360 438 155 3209 249 249 249 211 362 409 265	2020 484 833 534 387 613 167 3356 287 292 449 514 299	2025 612 1001 598 415 797 180 3449 334 334 334 334 371 555 610 348	2030 720 1227 690 440 1037 191 3514 392 475 623 722 405	<b>2035</b> 842 1517 801 466 1332 205 3553 460 614 725 836 476	2040 991 1882 923 491 1668 216 3584 522 798 844 952 555	<b>2045</b> 1190 2350 1063 516 2057 225 3613 579 1051 990 1072 648	<b>2050</b> 1452 2921 1173 541 2494 233 3632 628 1387 1156 1191 724
Tollway Africa Asia (exl. China, India) Brazil Canada China Non-OECD Europe OECD Europe FSU (exl. Russia) India LAM (exl. Brazil, Mexico) MEA Mexico OECD Pacific+Asia	<b>2010</b> 288 512 390 332 310 144 2982 218 153 293 330 215 1038	<b>2015</b> 373 650 478 360 438 155 3209 249 249 211 362 409 265 1103	<b>2020</b> 484 833 534 387 613 167 3356 287 292 449 514 299 514 299 1150	2025 612 1001 598 415 797 180 3449 334 371 555 610 348 1183	<b>2030</b> 720 1227 690 440 1037 191 3514 392 475 623 722 405 1198	<b>2035</b> 842 1517 801 466 1332 205 3553 460 614 725 836 476 1204	<b>2040</b> 991 1882 923 491 1668 216 3584 522 798 844 952 555 1210	<b>2045</b> 1190 2350 1063 516 2057 225 3613 579 1051 990 1072 648 1218	<b>2050</b> 1452 2921 1173 541 2494 233 3632 628 1387 1156 1191 724 1227
Tollway Africa Asia (exl. China, India) Brazil Canada China Non-OECD Europe OECD Europe FSU (exl. Russia) India LAM (exl. Brazil, Mexico) MEA Mexico OECD Pacific+Asia Russia	2010 288 512 390 332 310 144 2982 218 153 293 330 215 1038 412	<b>2015</b> 373 650 478 360 438 155 3209 249 211 362 409 265 1103 457	2020 484 833 534 387 613 167 3356 287 292 449 514 299 514 299 1150 511	2025 612 1001 598 415 797 180 3449 334 371 555 610 348 1183 568	2030 720 1227 690 440 1037 191 3514 392 475 623 722 405 1198 628	<b>2035</b> 842 1517 801 466 1332 205 3553 460 614 725 836 476 1204 695	2040 991 1882 923 491 1668 216 3584 522 798 844 952 555 1210 750	<b>2045</b> 1190 2350 1063 516 2057 225 3613 579 1051 990 1072 648 1218 800	<b>2050</b> 1452 2921 1173 541 2494 233 3632 628 1387 1156 1191 724 1227 841
Tollway Africa Asia (exl. China, India) Brazil Canada China Non-OECD Europe OECD Europe FSU (exl. Russia) India LAM (exl. Brazil, Mexico) MEA Mexico OECD Pacific+Asia	<b>2010</b> 288 512 390 332 310 144 2982 218 153 293 330 215 1038	<b>2015</b> 373 650 478 360 438 155 3209 249 249 211 362 409 265 1103	<b>2020</b> 484 833 534 387 613 167 3356 287 292 449 514 299 514 299 1150	2025 612 1001 598 415 797 180 3449 334 371 555 610 348 1183	<b>2030</b> 720 1227 690 440 1037 191 3514 392 475 623 722 405 1198	<b>2035</b> 842 1517 801 466 1332 205 3553 460 614 725 836 476 1204	<b>2040</b> 991 1882 923 491 1668 216 3584 522 798 844 952 555 1210	<b>2045</b> 1190 2350 1063 516 2057 225 3613 579 1051 990 1072 648 1218	<b>2050</b> 1452 2921 1173 541 2494 233 3632 628 1387 1156 1191 724 1227

## LDV efficiency (MJ/km)

Freeway & Tollway	2010	2015	2020	2025	2030	2035	2040	2045	2050
HEV	1.84	1.65	1.47	1.28	1.1	1.1	1.1	1.1	1.1
Diesel HEV	1.74	1.56	1.38	1.19	1.01	1.01	1.01	1.01	1.01
CNG HEV	1.67	1.52	1.37	1.23	1.08	1.08	1.08	1.08	1.08
H2 HEV	1.77	1.6	1.43	1.26	1.09	1.09	1.09	1.09	1.09
Plugin-HEV (electricity share)	0.39	0.38	0.37	0.37	0.36	0.36	0.36	0.36	0.36
Plugin-HEV (gasoline share)	0.73	0.66	0.58	0.51	0.43	0.43	0.43	0.43	0.43
BEV	0.71	0.68	0.65	0.65	0.65	0.65	0.65	0.65	0.65
HFCV	1	0.97	0.94	0.91	0.88	0.88	0.88	0.88	0.88
Gasoline advanced ICEV	2.27	2.2	2.14	2.07	2.01	2.01	2.01	2.01	2.01
Diesel advanced ICEV	2.11	2.03	1.96	1.83	1.72	1.72	1.72	1.72	1.72

#### LDV efficiency targets (gCO2/km)

		largets	10 1	, ,					
Tollway	2010	2015	2020	2025	2030	2035	2040	2045	2050
AFRICA	-	-	304.4	253.2	239.0	237.9	240.4	238.4	240.9
ASIA	-	263.0	253.0	237.1	213.9	182.9	152.3	128.4	113.1
BRAZIL	-	253.0	237.1	213.9	182.9	152.3	128.4	113.1	106.2
CANADA	-	266.1	222.3	194.4	182.4	160.7	131.8	112.5	102.8
CHINA	-	-	395.3	340.0	285.8	229.6	179.2	146.2	138.5
EEUR	-	253.0	237.1	213.9	182.9	152.3	128.4	113.1	106.2
WEUR	-	168.4	148.3	130.0	116.4	106.7	102.8	102.8	102.8
FSU	-	253.0	237.1	213.9	182.9	152.3	128.4	113.1	106.2
INDIA	-	263.0	253.0	237.1	213.9	182.9	152.3	128.4	113.1
LAM	-	253.0	237.1	213.9	182.9	152.3	128.4	113.1	106.2
MEA	-	263.0	253.0	237.1	213.9	182.9	152.3	128.4	113.1
MEXICO	-	253.0	237.1	213.9	182.9	152.3	128.4	113.1	106.2
PACIFIC	-	207.3	173.4	145.2	130.0	116.4	106.7	102.8	102.8
RUSSIA	-	253.0	237.1	213.9	182.9	152.3	128.4	113.1	106.2
USA	-	309.9	271.0	223.5	188.6	160.7	131.8	112.5	102.8
Freeway	2010	2015	2020	2025	2030	2035	2040	2045	2050
Freeway AFRICA	2010 -	2015 -	2020 304.4	2025 253.2	2030 239.0	2035 237.9	2040 240.4	2045 238.4	2050 240.9
		2015 - 263.0							
AFRICA		-	304.4	253.2	239.0	237.9	240.4	238.4	240.9
AFRICA ASIA	-	- 263.0	304.4 253.0	253.2 237.1	239.0 213.9	237.9 185.4	240.4 161.8	238.4 144.3 132.3 128.0	240.9 132.3
AFRICA ASIA BRAZIL	-	- 263.0 253.0	304.4 253.0 237.1	253.2 237.1 213.9	239.0 213.9 185.4	237.9 185.4 161.8	240.4 161.8 144.3	238.4 144.3 132.3	240.9 132.3 124.3
AFRICA ASIA BRAZIL CANADA CHINA EEUR	- - -	- 263.0 253.0 266.1	304.4 253.0 237.1 222.3	253.2 237.1 213.9 194.4	239.0 213.9 185.4 184.3	237.9 185.4 161.8 166.6	240.4 161.8 144.3 143.4	238.4 144.3 132.3 128.0 146.2 132.3	240.9 132.3 124.3 120.3
AFRICA ASIA BRAZIL CANADA CHINA EEUR WEUR	- - - -	- 263.0 253.0 266.1 - 253.0 168.4	304.4 253.0 237.1 222.3 395.3 237.1 148.3	253.2 237.1 213.9 194.4 340.0 213.9 131.9	239.0 213.9 185.4 184.3 285.8 185.4 124.1	237.9 185.4 161.8 166.6 229.6 161.8 120.3	240.4 161.8 144.3 143.4 179.2 144.3 120.3	238.4 144.3 132.3 128.0 146.2 132.3 120.3	240.9 132.3 124.3 120.3 138.5 124.3 120.3
AFRICA ASIA BRAZIL CANADA CHINA EEUR WEUR FSU	- - - - -	- 263.0 253.0 266.1 - 253.0 168.4 253.0	304.4 253.0 237.1 222.3 395.3 237.1 148.3 237.1	253.2 237.1 213.9 194.4 340.0 213.9 131.9 213.9	239.0 213.9 185.4 184.3 285.8 185.4 124.1 185.4	237.9 185.4 161.8 166.6 229.6 161.8 120.3 161.8	240.4 161.8 144.3 143.4 179.2 144.3 120.3 144.3	238.4 144.3 132.3 128.0 146.2 132.3 120.3 132.3	240.9 132.3 124.3 120.3 138.5 124.3 120.3 120.3 124.3
AFRICA ASIA BRAZIL CANADA CHINA EEUR WEUR FSU INDIA	- - - - - -	- 263.0 253.0 266.1 - 253.0 168.4 253.0 263.0	304.4 253.0 237.1 222.3 395.3 237.1 148.3 237.1 253.0	253.2 237.1 213.9 194.4 340.0 213.9 131.9 213.9 237.1	239.0 213.9 185.4 184.3 285.8 185.4 124.1 185.4 213.9	237.9 185.4 161.8 166.6 229.6 161.8 120.3 161.8 185.4	240.4 161.8 144.3 143.4 179.2 144.3 120.3 144.3 161.8	238.4 144.3 132.3 128.0 146.2 132.3 120.3 132.3 144.3	240.9 132.3 124.3 120.3 138.5 124.3 120.3 124.3 132.3
AFRICA ASIA BRAZIL CANADA CHINA EEUR WEUR FSU INDIA LAM	- - - - - - - - - - - -	- 263.0 253.0 266.1 - 253.0 168.4 253.0 263.0 253.0	304.4 253.0 237.1 222.3 395.3 237.1 148.3 237.1 253.0 237.1	253.2 237.1 213.9 194.4 340.0 213.9 131.9 213.9 237.1 213.9	239.0 213.9 185.4 184.3 285.8 185.4 124.1 185.4 213.9 185.4	237.9 185.4 161.8 166.6 229.6 161.8 120.3 161.8 185.4 161.8	240.4 161.8 144.3 143.4 179.2 144.3 120.3 144.3 161.8 144.3	238.4 144.3 132.3 128.0 146.2 132.3 120.3 132.3 144.3 132.3	240.9 132.3 124.3 120.3 138.5 124.3 120.3 124.3 132.3 124.3
AFRICA ASIA BRAZIL CANADA CHINA EEUR WEUR FSU INDIA LAM MEA	- - - - - - - - - - - - -	- 263.0 253.0 266.1 - 253.0 168.4 253.0 263.0 253.0 263.0	304.4 253.0 237.1 222.3 395.3 237.1 148.3 237.1 253.0 237.1 253.0	253.2 237.1 213.9 194.4 340.0 213.9 131.9 213.9 237.1 213.9 237.1	239.0 213.9 185.4 184.3 285.8 185.4 124.1 185.4 213.9 185.4 213.9	237.9 185.4 161.8 166.6 229.6 161.8 120.3 161.8 185.4 161.8 185.4	240.4 161.8 144.3 143.4 179.2 144.3 120.3 144.3 161.8 144.3 161.8	238.4 144.3 132.3 128.0 146.2 132.3 120.3 132.3 144.3 132.3 144.3	240.9 132.3 124.3 120.3 138.5 124.3 120.3 124.3 132.3 132.3
AFRICA ASIA BRAZIL CANADA CHINA EEUR WEUR FSU INDIA LAM MEA MEXICO	- - - - - - - - - - - - - - - - - - -	- 263.0 253.0 266.1 - 253.0 168.4 253.0 263.0 253.0 263.0 253.0	304.4 253.0 237.1 222.3 395.3 237.1 148.3 237.1 253.0 237.1 253.0 237.1	253.2 237.1 213.9 194.4 340.0 213.9 131.9 213.9 237.1 213.9 237.1 213.9	239.0 213.9 185.4 184.3 285.8 185.4 124.1 185.4 213.9 185.4 213.9 185.4	237.9 185.4 161.8 166.6 229.6 161.8 120.3 161.8 185.4 161.8 185.4 161.8	240.4 161.8 144.3 143.4 179.2 144.3 120.3 144.3 161.8 144.3 161.8 144.3	238.4 144.3 132.3 128.0 146.2 132.3 120.3 132.3 144.3 132.3 144.3 132.3	240.9 132.3 124.3 120.3 138.5 124.3 120.3 124.3 132.3 132.3 132.3 132.3 124.3
AFRICA ASIA BRAZIL CANADA CHINA EEUR WEUR FSU INDIA LAM MEA MEA MEXICO PACIFIC	- - - - - - - - - - - - - - - - -	- 263.0 253.0 266.1 - 253.0 168.4 253.0 263.0 253.0 263.0 253.0 253.0 207.3	304.4 253.0 237.1 222.3 395.3 237.1 148.3 237.1 253.0 237.1 253.0 237.1 173.4	253.2 237.1 213.9 194.4 340.0 213.9 131.9 213.9 237.1 213.9 237.1 213.9 145.2	239.0 213.9 185.4 184.3 285.8 185.4 124.1 185.4 213.9 185.4 213.9 185.4 131.9	237.9 185.4 161.8 166.6 229.6 161.8 120.3 161.8 185.4 161.8 185.4 161.8 185.4 161.8	240.4 161.8 144.3 143.4 179.2 144.3 120.3 144.3 161.8 144.3 161.8 144.3 120.3	238.4 144.3 132.3 128.0 146.2 132.3 120.3 144.3 132.3 144.3 132.3 144.3 132.3 120.3	240.9 132.3 124.3 120.3 138.5 124.3 120.3 124.3 132.3 132.3 132.3 124.3 132.3 124.3
AFRICA ASIA BRAZIL CANADA CHINA EEUR WEUR FSU INDIA LAM MEA MEXICO	- - - - - - - - - - - - - - - - - - -	- 263.0 253.0 266.1 - 253.0 168.4 253.0 263.0 253.0 263.0 253.0	304.4 253.0 237.1 222.3 395.3 237.1 148.3 237.1 253.0 237.1 253.0 237.1	253.2 237.1 213.9 194.4 340.0 213.9 131.9 213.9 237.1 213.9 237.1 213.9	239.0 213.9 185.4 184.3 285.8 185.4 124.1 185.4 213.9 185.4 213.9 185.4	237.9 185.4 161.8 166.6 229.6 161.8 120.3 161.8 185.4 161.8 185.4 161.8	240.4 161.8 144.3 143.4 179.2 144.3 120.3 144.3 161.8 144.3 161.8 144.3	238.4 144.3 132.3 128.0 146.2 132.3 120.3 132.3 144.3 132.3 144.3 132.3	240.9 132.3 124.3 120.3 138.5 124.3 120.3 124.3 132.3 124.3 132.3 132.3 124.3

#### Share of short-range cars (% of v-km/y): 10% Flat

#### LDV size of batteries and FC (kWh and kW per car):

Battery EV = 48kWh, Plug-in-HEV = 8.2kWh, FC in HFCV = 40kW, EB in HFCV = 40kW, HEV = 28kW.

#### Fixed O&M cost (\$2000/car)

About 2-2.5% of the LDV investments (following)

#### LDV investment cost (\$2000/car/yr), without Battery and Fuel Cell costs

Freeway & Tollway	2010	2015	2020	2025	2030	2035	2040	2045	2050
Gasoline ICEV	17956	17985	18013	18042	18071	18071	18071	18071	18071
Gasoline Adv. ICEV	18100	18275	18450	18625	18800	18800	18800	18800	18800
Gasoline HEV	19800	19800	19800	19800	19800	19800	19800	19800	19800
Diesel ICEV	19856	19885	19913	19942	19971	19971	19971	19971	19971
Diesel Adv. ICEV	20000	20000	20000	20000	20000	20000	20000	20000	20000
Diesel HEV	21000	21000	21000	21000	21000	21000	21000	21000	21000
CNG ICEV	19000	19200	19200	19200	19200	19200	19200	19200	19200
CNG HEV	20100	20100	20100	20100	20100	20100	20100	20100	20100
H2 HEV	21900	21900	21900	21900	21900	21900	21900	21900	21900
Plugin-HEV	20300	20300	20300	20300	20300	20300	20300	20300	20300
BEV	16900	16900	16900	16900	16900	16900	16900	16900	16900
HFCV	18200	18200	18200	18200	18200	18200	18200	18200	18200
Short-range-car Gasoline ICEV	13467	13488	13510	13532	13554	13554	13554	13554	13554
Short-range-car Adv. Gasoline ICEV	13575	13706	13838	13969	14100	14100	14100	14100	14100
Short-range-car HEV	14850	14850	14850	14850	14850	14850	14850	14850	14850
Short-range-car Plug-in HEV	15225	15225	15225	15225	15225	15225	15225	15225	15225
Short-range-car HFCV	12675	12675	12675	12675	12675	12675	12675	12675	12675
Short-range-car BEV	13650	13650	13650	13650	13650	13650	13650	13650	13650

#### Investment costs for battery and FC (\$2000/kW)

Tollway	2010	2015	2020	2025	2030	2035	2040	2045	2050
Battery Storage	288.48	214.42	140.36	121.11	101.86	100.93	100	100	100
Hydrogen Full Cell	250	231.03	212.06	180.04	148.02	126.475	104.93	94.53	84.13

Freeway									
Battery Storage	300	294.24	288.48	274.31	260.14	232.94	205.74	184.525	163.31
Hydrogen Full Cell	250	250	250	250	250	250	250	250	250

Investment cost	adjustments (	%	
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Tollway									
Long-Range BEV	2010	2015	2020	2025	2030	2035	2040	2045	2050
AFRICA	0	0	0	0	0	0	0	0	0
ASIA	0	0	0	0	0	0	0	0	0
BRAZIL	0	0	0	0	0	0	0	0	0
CANADA	-0.09	-0.09	-0.09	-0.09	-0.09	-0.09	-0.09	-0.09	-0.09
CHINA	0	0	0	0	0	0	0	0	0
EEUR	-0.09	-0.09	-0.09	-0.09	-0.09	-0.09	-0.09	-0.09	-0.09
WEUR	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18
FSU	0	0	0	0	0	0	0	0	0
INDIA	0	0	0	0	0	0	0	0	0
LAM	0	0	0	0	0	0	0	0	0
MEA	0	0	0	0	0	0	0	0	0
MEXICO	0	0	0	0	0	0	0	0	0
PACIFIC	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18
RUSSIA USA	0 125	0 125	0 125	0 125	0 125	0	0	0 125	0 125
USA Long-Range PHEV	-0.135 <b>2010</b>	-0.135 <b>2015</b>	-0.135 <b>2020</b>	-0.135 <b>2025</b>	-0.135 <b>2030</b>	-0.135 <b>2035</b>	-0.135 <b>2040</b>	-0.135 <b>2045</b>	-0.135 <b>2050</b>
AFRICA	2010	2015	2020	2025	<b>2030</b>	<b>2035</b> 0	<b>2040</b> 0	<b>2045</b> 0	<b>2050</b>
ASIA	0	0	0	0	0	0	0	0	0
BRAZIL	0	0	0	0	0	0	0	0	0
CANADA	-0.045	-0.045	-0.045	-0.045	-0.045	-0.045	-0.045	-0.045	-0.045
CHINA	0.040	0.040	0.040	0.040	0.040	0.043	0.040	0.040	0.040
EEUR	-0.045	-0.045	-0.045	-0.045	-0.045	-0.045	-0.045	-0.045	-0.045
WEUR	-0.09	-0.09	-0.09	-0.09	-0.09	-0.09	-0.09	-0.09	-0.09
FSU	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INDIA	0	0	0	0	0	0	0	0	0
LAM	0	0	0	0	0	0	0	0	0
MEA	0	0	0	0	0	0	0	0	0
MEXICO	0	0	0	0	0	0	0	0	0
PACIFIC	-0.09	-0.09	-0.09	-0.09	-0.09	-0.09	-0.09	-0.09	-0.09
RUSSIA	0	0	0	0	0	0	0	0	0
USA	-0.0675	-0.0675	-0.0675	-0.0675	-0.0675	-0.0675	-0.0675	-0.0675	-0.0675
Long-Range HFCV	2010	2015	2020	2025	2030	2035	2040	2045	2050
AFRICA	0	0	0	0	0	0	0	0	0
ASIA	0	0	0	0	0	0	0	0	0
BRAZIL	0	0	0	0	0	0	0	0	0
CANADA	-0.09	-0.09	-0.09	-0.09	-0.09	-0.09	-0.09	-0.09	-0.09
CHINA	0	0	0	0	0	0	0	0	0
EEUR	-0.09	-0.09	-0.09	-0.09	-0.09	-0.09	-0.09	-0.09	-0.09
WEUR FSU	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18 0	-0.18	-0.18
INDIA	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
MEA	0	0	0	0	0	0	0	0	0
MEXICO	0	0	0	0	0	0	0	0	0
PACIFIC	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18	-0.18
RUSSIA	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
USA	-0.135	-0.135	-0.135	-0.135	-0.135	-0.135	-0.135	-0.135	-0.135
Freeway : all = Zero	000	000	000	000	000	000	000	000	0.100

## Assumed maximum technically feasible MeOH blend (% J) & EtOH blend (max %J)

Freeway & Tollway	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
MeOH in gasoline	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
EtOH in gasoline	10%	10%	40%	70%	100%	100%	100%	100%	100%	100%
Biodiesel and FT-diesel in diesel	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

## **3-Other Surface Transport Sector**

#### Other Surface transport demand (PJ)

Freewood									
Freeway	2010	2015	2020	2025	2020	2025	20.40	2045	2050
Africa	2010	2015	2020	2025	2030	2035	2040	2045	2050
Africa	1832	2027	2296	2655	3141	3786	4571	5493	6459
Asia (exl. China, India)	4453	5332	6213	7113	7978	8822	9609	10386	11103
Brazil	1193	1288	1429	1634	1886	2170	2458	2743	2999
Canada	749	790	825	862	897	937	976	1013	1049
China	5186	6439	7720	9054	10265	11348	12346	13376	14273
Non-OECD Europe	375	402	432	465	504	551	602	654	708
OECD Europe	7860	8288	8693	9085	9441	9793	10115	10430	10721
FSU (exl. Russia)	1813	2097	2421	2779	3174	3624	4108	4619	5114
India	1334	1565	1854	2217	2648	3153	3695	4269	4821
LAM (exl. Brazil, Mexico)	3613	4117	4660	5244	5865	6549	7252	7983	8693
MEA	4158	4467	4839	5328	5959	6742	7650	8657	9653
Mexico	1385	1534	1721	1967	2244	2547	2848	3154	3438
OECD Pacific+Asia	2852	2955	3040	3122	3189	3257	3317	3379	3437
Russia	793	883	992	1119	1269	1447	1635	1818	1992
USA	6885	7202	7454	7705	7943	8259	8584	8904	9202
Total	44481	49389	54590	60350	66401	72987	79765	86879	93662
Tollway									
Africa	1832	1998	2222	2512	2893	3384	3966	1000	
				2012	2035		2900	4633	5328
Asia (exl. China, India)	4453	5130	5791	6452	7076	7675	8225	4633 8758	5328 9238
Asia (exi. China, India) Brazil	4453 1193	5130 1269	5791 1377	-					
• • •				6452	7076	7675	8225	8758	
Brazil	1193	1269	1377	6452 1529	7076 1708	7675 1902	8225 2091	8758 2271	9238 2430
Brazil Canada	1193 749	1269 782	1377 811	6452 1529 841	7076 1708 869	7675 1902 900	8225 2091 929	8758 2271 958	9238 2430 985
Brazil Canada China	1193 749 5186	1269 782 6117	1377 811 7024	6452 1529 841 7925	7076 1708 869 8710	7675 1902 900 9394	8225 2091 929 10014	8758 2271 958 10650	9238 2430 985 11206
Brazil Canada China Non-OECD Europe	1193 749 5186 375	1269 782 6117 394	1377 811 7024 413	6452 1529 841 7925 435	7076 1708 869 8710 459	7675 1902 900 9394 488	8225 2091 929 10014 518	8758 2271 958 10650 547	9238 2430 985 11206 577
Brazil Canada China Non-OECD Europe OECD Europe	1193 749 5186 375 7860	1269 782 6117 394 8184	1377 811 7024 413 8487	6452 1529 841 7925 435 8776	7076 1708 869 8710 459 9036	7675 1902 900 9394 488 9290	8225 2091 929 10014 518 9520	8758 2271 958 10650 547 9742	9238 2430 985 11206 577 9945
Brazil Canada China Non-OECD Europe OECD Europe FSU (exl. Russia)	1193 749 5186 375 7860 1813	1269 782 6117 394 8184 2010	1377 811 7024 413 8487 2225	6452 1529 841 7925 435 8776 2452	7076 1708 869 8710 459 9036 2692	7675 1902 900 9394 488 9290 2953	8225 2091 929 10014 518 9520 3224	8758 2271 958 10650 547 9742 3500	9238 2430 985 11206 577 9945 3759
Brazil Canada China Non-OECD Europe OECD Europe FSU (exl. Russia) India	1193 749 5186 375 7860 1813 1334	1269 782 6117 394 8184 2010 1514	1377 811 7024 413 8487 2225 1731	6452 1529 841 7925 435 8776 2452 1994	7076 1708 869 8710 459 9036 2692 2294	7675 1902 900 9394 488 9290 2953 2633	8225 2091 929 10014 518 9520 3224 2984	8758 2271 958 10650 547 9742 3500 3342	9238 2430 985 11206 577 9945 3759 3676 7313
Brazil Canada China Non-OECD Europe OECD Europe FSU (exl. Russia) India LAM (exl. Brazil, Mexico)	1193 749 5186 375 7860 1813 1334 3613	1269 782 6117 394 8184 2010 1514 4008	1377 811 7024 413 8487 2225 1731 4427	6452 1529 841 7925 435 8776 2452 1994 4869	7076 1708 869 8710 459 9036 2692 2294 5330	7675 1902 900 9394 488 9290 2953 2633 5827	8225 2091 929 10014 518 9520 3224 2984 6325	8758 2271 958 10650 547 9742 3500 3342 6832	9238 2430 985 11206 577 9945 3759 3676 7313 8494
Brazil Canada China Non-OECD Europe OECD Europe FSU (exl. Russia) India LAM (exl. Brazil, Mexico) MEA	1193 749 5186 375 7860 1813 1334 3613 4158	1269 782 6117 394 8184 2010 1514 4008 4428	1377 811 7024 413 8487 2225 1731 4427 4749	6452 1529 841 7925 435 8776 2452 1994 4869 5157	7076 1708 869 8710 459 9036 2692 2294 5330 5667	7675 1902 900 9394 488 9290 2953 2633 5827 6285	8225 2091 929 10014 518 9520 3224 2984 6325 6986	8758 2271 958 10650 547 9742 3500 3342 6832 7748	9238 2430 985 11206 577 9945 3759 3676 7313 8494 2834
Brazil Canada China Non-OECD Europe OECD Europe FSU (exl. Russia) India LAM (exl. Brazil, Mexico) MEA Mexico	1193 749 5186 375 7860 1813 1334 3613 4158 1385	1269 782 6117 394 8184 2010 1514 4008 4428 1504	1377 811 7024 413 8487 2225 1731 4427 4749 1648	6452 1529 841 7925 435 8776 2452 1994 4869 5157 1833	7076 1708 869 8710 459 9036 2692 2294 5330 5667 2033	7675 1902 900 9394 488 9290 2953 2633 5827 6285 2247	8225 2091 929 10014 518 9520 3224 2984 6325 6986 2452	8758 2271 958 10650 547 9742 3500 3342 6832 7748 2654	9238 2430 985 11206 577 9945 3759 3676 7313 8494 2834 3278
Brazil Canada China Non-OECD Europe OECD Europe FSU (exl. Russia) India LAM (exl. Brazil, Mexico) MEA Mexico OECD Pacific+Asia	1193 749 5186 375 7860 1813 1334 3613 4158 1385 2852	1269 782 6117 394 8184 2010 1514 4008 4428 1504 2932	1377 811 7024 413 8487 2225 1731 4427 4749 1648 2997	6452 1529 841 7925 435 8776 2452 1994 4869 5157 1833 3058	7076 1708 869 8710 459 9036 2692 2294 5330 5667 2033 3107	7675 1902 900 9394 488 9290 2953 2633 5827 6285 2247 3156	8225 2091 929 10014 518 9520 3224 2984 6325 6986 2452 3197	8758 2271 958 10650 547 9742 3500 3342 6832 7748 2654 3239	9238 2430 985 11206 577 9945 3759 3676

#### Share of fuelling options at base year 2005 (EJ)

	Africa	Asia	Brazil	Canada	China	EEUR	FSU	India	LAM	MEA	Mexico	Pacific	Russia	NSA	WEUR
Other (Coal)	0.00	0.00	-	-	0.58	-	0.01	-	-	-	-	0.00	-	-	0.00
Gasoline	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diesel	1.60	4.19	0.97	0.71	3.59	0.28	1.43	0.89	2.91	3.46	1.17	2.99	0.58	6.87	7.80
Biomethanol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bioethanol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bio-Syngas	-	-	0.00	-	-	-	-	-	-	-	-	-	-	-	-
CNG	0.05	-	0.06	0.00	-	0.00	0.00	0.03	0.13	0.00	-	0.01	-	0.01	0.00
Biodiesel	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	-	0.00		0.01	
Electricity	0.01	0.00	0.00	0.00	0.03	0.00	0.02	0.01	0.00	-	0.00	0.04	0.08	0.01	0.11
Hydrogen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bio-Jetfuel	-	-	0.00	-	-	-	-	-	-	-	-	-	-	-	-
Jetfuel	0.32	0.70	0.16	0.25	0.61	0.04	0.08	0.15	0.23	0.48	0.11	0.85	0.43	3.55	2.23
Total	1.98	4.89	1.18	0.96	4.81	0.33	1.54	1.08	3.28	3.94	1.29	3.89	1.10	10.44	10.15

## Assumed maximum technically feasible MeOH blend (max % J) & EtOH blend (max %J)

						•	,		•
Freeway & Tollway	2010	2015	2020	2025	2030	2035	2040	2045	2050
MeOH in petroleum	10%	10%	10%	10%	10%	10%	10%	10%	10%
EtOH in petroleum	10%	40%	70%	100%	100%	100%	100%	100%	100%
Biodiesel	100%	100%	100%	100%	100%	100%	100%	100%	100%

#### 4-Aviation

#### Aviation transport demand (PJ)

Freeway									
	2010	2015	2020	2025	2030	2035	2040	2045	2050
Africa	399	487	623	830	1155	1667	2413	3461	4763

Asia (exl. China, India)	888	1265	1710	2234	2802	3420	4051	4728	5398
Brazil	186	217	267	348	461	608	778	967	1153
Canada	248	275	300	328	354	387	419	452	485
China	711	1086	1551	2122	2720	3318	3921	4597	5230
Non-OECD Europe	52	60	69	80	93	112	133	157	183
OECD Europe	2306	2563	2818	3076	3321	3572	3810	4051	4279
FSU (exl. Russia)	91	122	161	212	275	358	458	578	707
India	199	272	380	539	765	1078	1474	1959	2491
LAM (exl. Brazil, Mexico)	252	326	417	526	656	817	999	1209	1431
MEA	533	615	721	872	1088	1389	1783	2276	2823
Mexico	134	164	206	268	348	447	557	682	809
OECD Pacific+Asia	830	891	943	994	1037	1082	1122	1164	1204
Russia	492	609	765	971	1246	1614	2055	2533	3037
USA	3205	3506	3755	4011	4261	4606	4974	5350	5714
Total	10526	12457	14685	17411	20583	24474	28948	34164	39707
Tollway									
Africa	399	469	572	720	937	1254	1686	2253	2923
Asia (exl. China, India)	888	1156	1450	1775	2110	2458	2799	3149	3482
Brazil	186	209	244	297	365	447	534	623	707
Canada	248	269	288	308	328	350	372	394	415
China	711	966	1251	1567	1871	2156	2431	2729	3003
Non-OECD Europe	52	57	62	69	76	85	95	106	117
OECD Europe	2306	2488	2664	2838	2998	3159	3308	3455	3592
FSU (exl. Russia)	91	111	134	161	191	228	268	313	358
India	199	252	323	421	547	707	893	1104	1319
LAM (exl. Brazil, Mexico)	252	306	369	441	522	617	719	831	945
MEA	533	600	685	799	953	1157	1410	1712	2034
Mexico	134	156	186	226	275	331	390	453	513
OECD Pacific+Asia	830	874	911	947	976	1005	1030	1055	1079
Russia	492	566	657	767	901	1064	1243	1423	1598
USA	3205	3439	3639	3842	4039	4291	4553	4816	5070
Total					17089		21731		27154

#### Assumed maximum technically feasible Blend of biodiesel in aviation fuel (max %J)

Assumed maximum technically leasible blend of blodleser in aviation rder (max 76)									
Freeway & Tollway	2010	2015	2020	2025	2030	2035	2040	2045	2050
Bio-liquids and synthetic fossil liquids	50%	50%	50%	50%	50%	50%	50%	50%	50%

#### 5-Fuels

Fuels in base year 2005 (EJ)

Fuel	Africa	Asia	Brazil	Canada	China	EEUR	FSU	India	LAM	MEA	Mexico	Pacific	Russia	NSA	WEUR
Other (Coal)	-	-	-	-	0.57	-	0.00	-	-	-	-	-	-	-	-
Jetfuels	0.32	0.69	0.15	0.24	0.61	0.04	0.07	0.14	0.23	0.47	0.11	0.85	0.43	3.54	2.23
BioJetfuel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gasoline	0.90	1.51	0.92	1.18	0.63	0.39	0.60	0.32	0.80	0.99	0.65	2.97	1.16	16.4	5.42
Diesel	1.70	4.19	1.00	0.73	3.72	0.29	1.45	0.98	2.93	3.52	1.17	3.38	0.59	6.93	9.55
Methanol	-	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-
BioMethanol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BioEthanol	-	0.00	0.19	0.00	0.02	-	-	0.00	0.00	-	-	0.00	-	0.27	0.02
BioSyngas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNG	0.05	0.02	0.08	0.001	0.01	-	0.01	0.03	0.19	0.01	-	0.01	0.00	0.01	0.01
Biodiesel	-	-	-	-	-	-	-	-	0.00	-	-	0.01	-	0.01	0.10
Electricity	0.01	-	0.01	0.001	0.03	0.01	0.02	0.01	0.00	-	-	0.03	0.08	0.01	0.11
Hydrogen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

# CO2-emission Factors of fuels (gC/J)

Electricity (g	JCO2/Kwh)								
Freeway	2010	2015	2020	2025	2030	2035	2040	2045	2050
AFRICA	0.0482	0.0463	0.0444	0.0425	0.0406	0.0384	0.0362	0.0340	0.0318
ASIA	0.0550	0.0528	0.0507	0.0485	0.0464	0.0438	0.0413	0.0388	0.0362
BRAZIL	0.0064	0.0061	0.0059	0.0056	0.0054	0.0051	0.0048	0.0045	0.0042
CANADA	0.0148	0.0143	0.0137	0.0131	0.0125	0.0118	0.0112	0.0105	0.0098
CHINA	0.0596	0.0573	0.0550	0.0526	0.0503	0.0475	0.0448	0.0420	0.0393
EEUR	0.0355	0.0341	0.0327	0.0313	0.0299	0.0283	0.0266	0.0250	0.0234
WEUR	0.0256	0.0246	0.0236	0.0226	0.0216	0.0204	0.0192	0.0181	0.0169
FSU	0.0252	0.0242	0.0233	0.0223	0.0213	0.0201	0.0189	0.0178	0.0166
INDIA	0.0710	0.0682	0.0654	0.0626	0.0599	0.0566	0.0533	0.0500	0.0468
LAM	0.0147	0.0141	0.0135	0.0130	0.0124	0.0117	0.0110	0.0104	0.0097

MEA	0.052	.0.08	507 0.04	487 0.0	466 0.0	)445	0.0421	0.03	397 0.0	372 0.0	)34
MEXICO	0.043	0.04	413 0.03	396 0.0	379 0.0	0362	0.0342	0.03	323 0.0	303 0.0	)28
PACIFIC	0.037	9 0.03	364 0.03	349 0.0	334 0.0	0319	0.0302	0.02	285 0.0	267 0.0	)25
RUSSIA	0.024	6 0.02	237 0.02	227 0.0	217 0.0	0208	0.0196	0.01	85 0.0	174 0.0	)16
USA	0.043	2 0.04	415 0.03	398 0.0	381 0.0	0364	0.0344	0.03	324 0.0	304 0.0	)28
World	507.2	5 487.38 <sup>2</sup>	125 467.5	125 447.6	438 427	.775	404.4	381.0	)25 357	7.65 334.	.27
Tollway	2010	2015	2020	2025	2030	203	5	2040	2045	2050	
AFRICA	0.0482	0.0430	0.0377	0.0325	0.0273	0.025	1 0.	0229	0.0162	0.0095	
ASIA	0.0550	0.0490	0.0431	0.0371	0.0312	0.028	6 0.	0261	0.0185	0.0108	
BRAZIL	0.0064	0.0057	0.0050	0.0043	0.0036	0.003	3 0.	0030	0.0021	0.0013	
CANADA	0.0148	0.0132	0.0116	0.0100	0.0084	0.007	7 0.	070	0.0050	0.0029	
CHINA	0.0596	0.0532	0.0467	0.0403	0.0338	0.031	0 0.	0283	0.0200	0.0118	
EEUR	0.0355	0.0316	0.0278	0.0239	0.0201	0.018	5 0.	0168	0.0119	0.0070	
WEUR	0.0256	0.0228	0.0201	0.0173	0.0145	0.013	3 0.	0122	0.0086	0.0050	
FSU	0.0252	0.0225	0.0198	0.0170	0.0143	0.013	1 0.	0120	0.0085	0.0050	
INDIA	0.0710	0.0633	0.0556	0.0479	0.0402	0.037	0 0.	0337	0.0238	0.0140	
LAM	0.0147	0.0131	0.0115	0.0099	0.0083	0.007	7 0.	070	0.0049	0.0029	
MEA	0.0528	0.0471	0.0414	0.0356	0.0299	0.027	5 0.	0251	0.0177	0.0104	
MEXICO	0.0430	0.0383	0.0337	0.0290	0.0243	0.022	4 0.	0204	0.0144	0.0085	
PACIFIC	0.0379	0.0338	0.0297	0.0256	0.0215	0.019	0.0	0180	0.0127	0.0075	
RUSSIA	0.0246	0.0220	0.0193	0.0166	0.0140	0.012	8 0.	0117	0.0083	0.0049	
USA	0.0432	0.0385	0.0338	0.0292	0.0245	0.022	5 0.	0205	0.0145	0.0085	
World	507.25 4	152.31875	397.3875	342.4563	287.525	264.1	5 240	.775	217.4	194.025	

Fossil Fuels		Gasoline: 18.9 tC/TJ
		Diesel: 20.2 tC/TJ
		Natural gas: 15.3 tC/TJ
		Jet Kerosene: 19.5 tC/TJ
Hydrogen		80% of emission of electricity per Joule
Biofuels	MeOH, EtOH	10% of gasoline per Joule
	Bio-Diesel	10% of diesel per Joule
	Bio-SNG	10% of CNG per Joule

## CO2-taxes-Prices on Fossil Fuels in (\$/tC) with ref year 2000

Freeway	2010	2015	2020	2025	2030	2035	2040	2045	2050
AFRICA	0								
ASIA	-	0	0	0	0	20	50	75	113
-	0	0	0	0	0	20	50	75	113
BRAZIL	0	0	20	50	75	113	169	253	380
CANADA	20	50	75	113	169	253	380	570	650
CHINA	0	0	20	50	75	113	169	253	380
EEUR	20	50	75	113	169	253	380	570	650
WEUR	50	75	113	169	253	380	570	650	700
FSU	0	0	20	50	75	113	169	253	380
INDIA	0	0	0	20	50	75	113	169	253
LAM	0	0	0	0	20	50	75	113	169
MEA	0	0	0	0	0	20	50	75	113
MEXICO	0	0	20	50	75	113	169	253	380
PACIFIC	20	50	75	113	169	253	380	570	650
RUSSIA	0	0	20	50	75	113	169	253	380
USA	0	20	50	75	113	169	253	380	570
Tollway	2010	2015	2020	2025	2030	2035	2040	2045	2050
Tollway AFRICA	<b>2010</b> 0	<b>2015</b> 0	<b>2020</b> 0	<b>2025</b> 0	<b>2030</b> 0	<b>2035</b> 0	<b>2040</b> 0	<b>2045</b> 0	<b>2050</b> 0
AFRICA	0	0	0	0	0	0	0	0	0
AFRICA ASIA	0 0	0 0	0 0	0	0 0	0 0	0	0	0 0
AFRICA ASIA BRAZIL	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
AFRICA ASIA BRAZIL CANADA	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
AFRICA ASIA BRAZIL CANADA CHINA	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0
AFRICA ASIA BRAZIL CANADA CHINA EEUR	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0
AFRICA ASIA BRAZIL CANADA CHINA EEUR WEUR	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0
AFRICA ASIA BRAZIL CANADA CHINA EEUR WEUR FSU	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0
AFRICA ASIA BRAZIL CANADA CHINA EEUR WEUR FSU INDIA	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0
AFRICA ASIA BRAZIL CANADA CHINA EEUR WEUR FSU INDIA LAM	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0
AFRICA ASIA BRAZIL CANADA CHINA EEUR WEUR FSU INDIA LAM MEA	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
AFRICA ASIA BRAZIL CANADA CHINA EEUR WEUR FSU INDIA LAM MEA MEXICO	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0

## In addition to the previous table, we also have:

Timelag w.r.t. WEUR (# year steps)	of 5
AFRICA	6
ASIA	6
BRAZIL	3

CANADA	1
CHINA	3
EEUR	1
WEUR	0
FSU	3
INDIA	4
LAM	5
MEA	6
MEXICO	3
PACIFIC	1
RUSSIA	3
USA	2

### **Biofuel targets**

Tollway			2015	2020	2025	2030	2035	2040	2045	2050
WEUR	all biofuels	%	5%	10%	10%	10%	10%	10%	10%	10%
BRAZIL	EtOH	%	20%	20%	20%	20%	20%	20%	20%	20%
BRAZIL	Biodiesel	%	5%	5%	5%	5%	5%	5%	5%	5%
CANADA	EtOH	%	5%	5%	5%	5%	5%	5%	5%	5%
CANADA	Biodiesel	%	2%	2%	2%	2%	2%	2%	2%	2%
CHINA	EtOH	%	3%	3%	3%	3%	3%	3%	3%	3%
INDIA	EtOH	%	10%	20%	20%	20%	20%	20%	20%	20%
INDIA	Biodiesel	%		20%	20%	20%	20%	20%	20%	20%
MEXICO	EtOH	%	2%	2%	2%	2%	2%	2%	2%	2%
PACIFIC	EtOH	%	4%	4%	4%	4%	4%	4%	4%	4%
PACIFIC	Biodiesel	%	2%	2%	2%	2%	2%	2%	2%	2%
Others	all biofuels	%		4%	4%	4%	4%	4%	4%	4%
USA	all biofuels	PJ	1552	2725	2725	2725	2725	2725	2725	2725

Freeway			2015	2020	2025	2030	2035	2040	2045	2050
WEUR	all biofuels	%	5%	5%	5%	5%	5%	5%	5%	5%
BRAZIL	EtOH	%	20%	20%	20%	20%	20%	20%	20%	20%
BRAZIL	Biodiesel	%	5%	5%	5%	5%	5%	5%	5%	5%
CANADA	EtOH	%	5%	5%	5%	5%	5%	5%	5%	5%
CANADA	Biodiesel	%	2%	2%	2%	2%	2%	2%	2%	2%
CHINA	EtOH	%	3%	3%	3%	3%	3%	3%	3%	3%
INDIA	EtOH	%	10%	20%	20%	20%	20%	20%	20%	20%
INDIA	Biodiesel	%	-	20%	20%	20%	20%	20%	20%	20%
MEXICO	EtOH	%	2%	2%	2%	2%	2%	2%	2%	2%
PACIFIC	EtOH	%	4%	4%	4%	4%	4%	4%	4%	4%
PACIFIC	Biodiesel	%	2%	2%	2%	2%	2%	2%	2%	2%
rest of world	all biofuels	%	-	2%	2%	2%	2%	2%	2%	2%
USA	all biofuels	PJ	1552	1931	1931	1931	1931	1931	1931	1931

## Fuel cost-prices (\$2000/GJ)

Freeway	2009	2015	2020	2025	2030	2035	2040	2045	2050
Biodiesel	19.91	24.66	26.04	26.78	27.67	28.30	28.86	29.44	30.03
Bio-Ethanol	16.29	20.18	21.31	21.91	22.64	23.15	23.62	24.09	24.57
<b>Bio-Methanol</b>	15.09	18.69	19.73	20.29	20.97	21.44	21.87	22.31	22.75
Bio-Syngas	16.85	20.87	22.03	22.65	23.41	23.94	24.42	24.91	25.41
Diesel	8.29	10.40	11.51	12.79	13.86	15.00	16.08	17.41	18.86
Gasoline	8.58	12.12	12.74	13.60	14.79	16.06	17.39	18.84	20.41
Coal	1.90	1.99	2.27	2.55	2.92	3.28	3.36	3.43	3.51
Hydrogen	17.82	23.65	23.65	24.24	24.55	24.85	25.16	25.46	25.77
Methanol	9.43	13.31	13.85	14.65	15.76	16.95	18.17	19.49	21.01
Natural Gas	4.38	5.54	5.86	6.18	6.94	7.98	9.07	10.07	11.18
Electricity	21.97	23.43	23.57	24.05	24.98	26.14	26.37	26.74	27.11
Tollway	2009	2015	2020	2025	2030	2035	2040	2045	2050
Biodiesel	19.91	27.12	29.35	29.43	29.67	29.59	29.44	29.29	29.14
<b>Bio-Ethanol</b>	16.29	22.19	24.01	24.08	24.28	24.21	24.09	23.97	23.84
<b>Bio-Methanol</b>	15.09	20.55	22.24	22.30	22.48	22.42	22.31	22.19	22.08
Bio-Syngas	16.85	22.94	24.83	24.90	25.10	25.04	24.91	24.78	24.65
Diesel	8.29	12.26	14.24	16.62	17.57	18.10	17.78	17.66	17.54
Gasoline	8.58	14.23	15.72	17.63	18.69	19.32	19.19	19.05	18.92
Coal	1.90	1.99	2.27	2.55	2.92	3.28	3.36	3.43	3.51
Hydrogen	17.82	25.97	27.29	27.98	27.63	27.35	27.14	26.93	26.71
Methanol	9.43	15.63	17.09	18.98	19.93	20.39	20.05	19.71	19.47
Natural Gas	1 00	0.00	7 00	7 05	0.04	0 40	10 20	10.52	10 04
Natural Gas	4.38	6.38	7.09	7.85	8.61	9.42	10.20	10.52	10.84

## Appendix C: Model's Outputs (Indigenous Variables)

## 1-Results for the Freeway Scenario

## **Fuel Demand**

Fuel for Cars (EJ/Y)

Fuels for Cars (Units	EJ/y)									
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electricity	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.5	0.6	0.7
Hydrogen	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.4	0.4	0.4
Bio-Syngas	0.0	0.0	0.1	0.2	0.2	0.2	0.3	0.3	0.2	0.1
CNG	0.1	0.3	0.6	1.0	1.4	1.9	2.1	2.4	2.7	2.9
Biofuel(Diesel)	0.1	0.4	0.6	1.0	1.2	0.9	1.0	1.1	1.3	1.2
Diesel	2.7	2.1	2.1	2.2	2.6	4.0	6.3	9.8	14.1	19.4
Methanol	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.3
Bio-Methanol	0.0	0.1	0.6	1.2	1.9	2.6	3.3	3.4	3.4	2.
Bio-Ethanol	0.5	1.4	2.2	3.2	3.7	4.0	3.9	4.4	5.1	4.9
Gasoline	35.0	38.2	40.6	41.7	42.0	41.2	40.3	39.2	36.6	32.
Total	38.5	42.6	47.0	50.7	53.5	55.5	57.9	61.6	64.6	64.
Fuels for Cars, Regio	•									
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	205
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Syngas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
CNG	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.
Biofuel(Diesel)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.
Diesel	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.6	1.
Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Bio-Methanol	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0.
Bio-Ethanol	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.
Gasoline	0.9	1.2	1.5	1.8	2.0	2.1	2.1	2.1	1.9	1.
Total	1.0	1.3	1.6	2.0	2.4	2.5	2.7	2.8	2.9	3.
Fuels for Cars, Regio	n ASIA (Units:	EJ/v)								
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	205
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.
Bio-Syngas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.
CNG	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.
Biofuel(Diesel)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.
Diesel	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.4	1.0	2.
Bio-Methanol	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.5	0.
Bio-Ethanol	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.6	0.
Gasoline	1.5	1.9	2.3	2.7	3.2	3.9	5.0	6.3	6.6	5.
Total	1.5	1.9	2.4	3.1	3.7	4.7	6.2	8.0	9.1	8.
Fuels for Cars, Regio	•		2015	2020	2025	2020	2025	2040	2045	205
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	205
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CNG	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.
Biofuel(Diesel)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diesel Die Mathemal	0.0	0.1	0.2	0.4	0.6	0.5	0.6	0.7	0.9	1.
Bio-Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Bio-Ethanol	0.2	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.
Gasoline Total	0.9 1.2	0.9 1.5	1.2 1.8	1.1 1.9	1.1 2.1	1.3 2.3	1.6 2.7	1.7 3.0	1.4 2.9	1. 2.
IUldi	1.2	1.5	1.8	1.9	2.1	2.3	2.7	3.0	2.9	Ζ.
		its: EJ/y)								
Fuels for Cars, Regio	I CANADA (OI		2015	2020	2025	2030	2035	2040	2045	205
	2005	2010	2013		0.0	0.0	0.0	0.0	0.0	0.
Fuel	•	<b>2010</b> 0.0	0.0	0.0	0.0	0.0				
Fuels for Cars, Regio Fuel Electricity Hydrogen	2005			0.0 0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Electricity Hydrogen	<b>2005</b>	0.0	0.0						0.0 0.1	
Fuel Electricity Hydrogen CNG	<b>2005</b> 0.0 0.0	0.0 0.0	0.0 0.0	0.0	0.0	0.0	0.0	0.0		0.
Fuel Electricity Hydrogen CNG	<b>2005</b> 0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.1	0.0 0.1	0.0 0.1	0.1	0. 0.
Electricity Hydrogen CNG Biofuel(Diesel)	2005 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.1 0.0	0.0 0.1 0.0	0.0 0.1 0.0	0.1 0.0	0.0 0.1 0.0 0.1

Gasoline Total	1.2 1.2	1.2 1.3	1.1 1.3	1.1 1.3	1.0 1.3	0.9 1.2	0.8 1.1	0.5 1.1	0.4 1.0	0.3
Total	1.2	1.5	1.5	1.5	1.5	1.2	1.1	1.1	1.0	1.0
Fuels for Cars, Region	•		2015	2020	2025	2020	2025	2040	2045	2050
Fuel Electricity	<b>2005</b> 0.0	<b>2010</b> 0.0	<b>2015</b> 0.0	<b>2020</b> 0.0	<b>2025</b> 0.0	<b>2030</b> 0.0	<b>2035</b> 0.0	<b>2040</b> 0.0	<b>2045</b> 0.0	2050
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Bio-Syngas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0
CNG	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1
Biofuel(Diesel)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1
Diesel	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.6	1.3
Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Bio-Methanol	0.0	0.1	0.1	0.2	0.3	0.4	0.5	0.7	0.9	0.4
Bio-Ethanol	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.5	0.6	0.3
Gasoline	0.6	0.9	1.4	2.0	3.0	4.3	5.7	7.0	7.8	7.3
Total	0.8	1.2	1.8	2.6	3.7	5.2	7.0	8.9	10.4	9.7
Fuels for Cars, Region	EEUR (Units: E	J/v)								
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CNG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3
Bio-Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Ethanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline Total	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.2
lotal	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.5	0.5	0.5
Fuels for Cars, Region	FSU (Units: EJ	/y)								
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Syngas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CNG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biofuel(Diesel)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0
Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.6
Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Methanol Bio-Ethanol	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Gasoline	0.0 0.6	0.0 0.7	0.0 0.8	0.0 1.0	0.0 1.1	0.1 1.3	0.1 1.3	0.1 1.3	0.1 1.0	0.2
Total	0.6	0.7	0.8	1.0	1.1	1.5	1.5	1.3	1.0	1.8
Fuels for Cars, Region	•		2045	2020	2025	2020	2025	2040	20.45	2050
Fuel Electricity	<b>2005</b> 0.0	<b>2010</b> 0.0	<b>2015</b> 0.0	<b>2020</b> 0.0	<b>2025</b> 0.0	<b>2030</b> 0.0	<b>2035</b> 0.0	<b>2040</b> 0.0	<b>2045</b> 0.0	<b>2050</b> 0.0
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Syngas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CNG	0.0	0.0			0.0	0.0	0.0		0.0	0.0
Biofuel(Diesel)				0.0				0.0	0.0	0.0
	0.0		0.0 0.0	0.0 0.0				0.0 0.4	0.0 0.6	
Diesel	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.6	0.8
Diesel Bio-Methanol	0.0 0.1 0.0									0.8 0.0
	0.1	0.0 0.1	0.0 0.1	0.0 0.1	0.0 0.1	0.1 0.0	0.2 0.0	0.4 0.0	0.6 0.0	0.8 0.0 0.1
Bio-Methanol	0.1 0.0	0.0 0.1 0.0	0.0 0.1 0.0	0.0 0.1 0.0	0.0 0.1 0.0	0.1 0.0 0.0	0.2 0.0 0.0	0.4 0.0 0.0	0.6 0.0 0.1	0.8 0.0 0.1 1.3
Bio-Methanol Bio-Ethanol	0.1 0.0 0.0	0.0 0.1 0.0 0.0	0.0 0.1 0.0 0.1	0.0 0.1 0.0 0.3	0.0 0.1 0.0 0.4	0.1 0.0 0.0 0.5	0.2 0.0 0.0 0.6	0.4 0.0 0.0 0.8	0.6 0.0 0.1 1.0	0.8 0.0 0.1 1.3 3.8
Bio-Methanol Bio-Ethanol Gasoline Total	0.1 0.0 0.0 0.3 0.4	0.0 0.1 0.0 0.0 0.5 0.6	0.0 0.1 0.0 0.1 0.6	0.0 0.1 0.0 0.3 0.7	0.0 0.1 0.0 0.4 0.9	0.1 0.0 0.0 0.5 1.2	0.2 0.0 0.0 0.6 1.7	0.4 0.0 0.0 0.8 2.3	0.6 0.0 0.1 1.0 3.2	0.8 0.0 0.1 1.3 3.8
Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region	0.1 0.0 0.3 0.4 LAM (Units: E.	0.0 0.1 0.0 0.5 0.6	0.0 0.1 0.0 0.1 0.6 0.8	0.0 0.1 0.0 0.3 0.7 1.1	0.0 0.1 0.0 0.4 0.9 1.4	0.1 0.0 0.0 0.5 1.2 1.8	0.2 0.0 0.0 0.6 1.7 2.5	0.4 0.0 0.0 0.8 2.3 3.5	0.6 0.0 0.1 1.0 3.2 5.0	0.8 0.0 0.1 1.3 3.8 6.1
Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel	0.1 0.0 0.3 0.4 LAM (Units: E. 2005	0.0 0.1 0.0 0.5 0.6	0.0 0.1 0.0 0.1 0.6 0.8 <b>2015</b>	0.0 0.1 0.0 0.3 0.7 1.1	0.0 0.1 0.0 0.4 0.9 1.4 <b>2025</b>	0.1 0.0 0.5 1.2 1.8 <b>2030</b>	0.2 0.0 0.6 1.7 2.5	0.4 0.0 0.8 2.3 3.5 <b>2040</b>	0.6 0.0 0.1 1.0 3.2 5.0	0.8 0.0 0.1 1.3 3.8 6.1
Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region	0.1 0.0 0.3 0.4 LAM (Units: E.	0.0 0.1 0.0 0.5 0.6	0.0 0.1 0.0 0.1 0.6 0.8	0.0 0.1 0.0 0.3 0.7 1.1	0.0 0.1 0.0 0.4 0.9 1.4	0.1 0.0 0.0 0.5 1.2 1.8	0.2 0.0 0.0 0.6 1.7 2.5	0.4 0.0 0.0 0.8 2.3 3.5	0.6 0.0 0.1 1.0 3.2 5.0	0.8 0.0 0.1 1.3 3.8 6.1 <b>2050</b> 0.0
Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity	0.1 0.0 0.3 0.4 LAM (Units: E. 2005 0.0	0.0 0.1 0.0 0.5 0.6 <b>//y)</b> 2010 0.0	0.0 0.1 0.0 0.1 0.6 0.8 <b>2015</b> 0.0	0.0 0.1 0.3 0.7 1.1 <b>2020</b> 0.0	0.0 0.1 0.4 0.9 1.4 <b>2025</b> 0.0	0.1 0.0 0.5 1.2 1.8 <b>2030</b> 0.0	0.2 0.0 0.6 1.7 2.5 <b>2035</b> 0.0	0.4 0.0 0.8 2.3 3.5 <b>2040</b> 0.0	0.6 0.0 1.0 3.2 5.0 <b>2045</b> 0.0	0.8 0.0 0.1 1.3 3.8 6.1 <b>2050</b> 0.0
Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen	0.1 0.0 0.3 0.4 LAM (Units: E. 2005 0.0 0.0	0.0 0.1 0.0 0.5 0.6 <b>//y)</b> 2010 0.0 0.0	0.0 0.1 0.6 0.8 <b>2015</b> 0.0 0.0	0.0 0.1 0.3 0.7 1.1 <b>2020</b> 0.0 0.0	0.0 0.1 0.4 0.9 1.4 <b>2025</b> 0.0 0.0	0.1 0.0 0.5 1.2 1.8 <b>2030</b> 0.0 0.0	0.2 0.0 0.6 1.7 2.5 <b>2035</b> 0.0 0.0	0.4 0.0 0.8 2.3 3.5 <b>2040</b> 0.0 0.0	0.6 0.0 1.0 3.2 5.0 <b>2045</b> 0.0 0.0	0.8 0.0 0.1 1.3 3.8 6.1 <b>2050</b> 0.0 0.0
Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen CNG	0.1 0.0 0.3 0.4 <b>LAM (Units: E.</b> 2005 0.0 0.0 0.1	0.0 0.1 0.0 0.5 0.6 <b>//y)</b> 2010 0.0 0.0 0.0	0.0 0.1 0.0 0.1 0.6 0.8 <b>2015</b> 0.0 0.0 0.0	0.0 0.1 0.3 0.7 1.1 <b>2020</b> 0.0 0.0 0.0	0.0 0.1 0.4 0.9 1.4 <b>2025</b> 0.0 0.0 0.0	0.1 0.0 0.5 1.2 1.8 <b>2030</b> 0.0 0.0 0.1	0.2 0.0 0.6 1.7 2.5 <b>2035</b> 0.0 0.0 0.0	0.4 0.0 0.8 2.3 3.5 <b>2040</b> 0.0 0.0 0.0	0.6 0.0 1.0 3.2 5.0 <b>2045</b> 0.0 0.0 0.0	0.8 0.0 0.1 1.3 3.8 6.1 <b>2050</b> 0.0 0.0 0.2 0.0
Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen CNG Biofuel(Diesel)	0.1 0.0 0.3 0.4 <b>LAM (Units: E.</b> 2005 0.0 0.0 0.1 0.0	0.0 0.1 0.0 0.0 0.5 0.6 <b>//y)</b> 2010 0.0 0.0 0.0 0.1 0.0	0.0 0.1 0.0 0.1 0.6 0.8 <b>2015</b> 0.0 0.0 0.0 0.1 0.0	0.0 0.1 0.3 0.7 1.1 <b>2020</b> 0.0 0.0 0.0 0.1 0.0	0.0 0.1 0.4 0.9 1.4 <b>2025</b> 0.0 0.0 0.0 0.1 0.0	0.1 0.0 0.5 1.2 1.8 <b>2030</b> 0.0 0.0 0.0 0.1 0.0	0.2 0.0 0.6 1.7 2.5 <b>2035</b> 0.0 0.0 0.0 0.2 0.0	0.4 0.0 0.8 2.3 3.5 <b>2040</b> 0.0 0.0 0.0 0.2 0.0	0.6 0.0 1.0 3.2 5.0 <b>2045</b> 0.0 0.0 0.0 0.2 0.0	0.8 0.0 0.1 1.3 3.8 6.1 2050 0.0 0.0 0.2 0.0 0.2 0.0 0.1
Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen CNG Biofuel(Diesel) Diesel	0.1 0.0 0.3 0.4 <b>LAM (Units: E.</b> 2005 0.0 0.0 0.1 0.0 0.0 0.0	0.0 0.1 0.0 0.5 0.6 //y) 2010 0.0 0.0 0.1 0.0 0.1 0.0	0.0 0.1 0.0 0.1 0.6 0.8 <b>2015</b> 0.0 0.0 0.0 0.1 0.0 0.0	0.0 0.1 0.3 0.7 1.1 <b>2020</b> 0.0 0.0 0.0 0.1 0.0 0.0	0.0 0.1 0.0 0.4 0.9 1.4 <b>2025</b> 0.0 0.0 0.0 0.1 0.0 0.1 0.1	0.1 0.0 0.5 1.2 1.8 <b>2030</b> 0.0 0.0 0.1 0.0	0.2 0.0 0.6 1.7 2.5 <b>2035</b> 0.0 0.0 0.2 0.0 0.1	0.4 0.0 0.8 2.3 3.5 <b>2040</b> 0.0 0.0 0.0 0.2 0.0 0.2 0.2 0.2 0.3	0.6 0.0 1.1 3.2 5.0 <b>2045</b> 0.0 0.0 0.2 0.0 0.5	0.8 0.0 0.1 1.3 3.8 6.1 2050 0.0 0.0 0.0 0.2 0.0 0.2 0.0 0.2 0.0 0.2 0.0 0.2
Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen CNG Biofuel(Diesel) Diesel Bio-Methanol Bio-Ethanol Gasoline	0.1 0.0 0.3 0.4 <b>LAM (Units: E.</b> 2005 0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.1 0.0 0.5 0.6 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.1 0.0 0.1 0.6 0.8 <b>2015</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.0 0.1 0.3 0.7 1.1 <b>2020</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.1 4	0.0 0.1 0.0 0.4 0.9 1.4 <b>2025</b> 0.0 0.0 0.1 0.0 0.1 0.1 0.1 1.6	0.1 0.0 0.5 1.2 1.8 <b>2030</b> 0.0 0.0 0.1 0.1 0.1 0.1 1.7	0.2 0.0 0.6 1.7 2.5 <b>2035</b> 0.0 0.0 0.2 0.0 0.1 0.2 0.2 1.7	0.4 0.0 0.8 2.3 3.5 <b>2040</b> 0.0 0.0 0.2 0.0 0.2 0.2 0.2 0.3 1.8	0.6 0.0 0.1 1.0 3.2 5.0 <b>2045</b> 0.0 0.0 0.0 0.2 0.0 0.5 0.2 0.2 1.8	0.8 0.0 0.1 1.3 3.8 6.1 2050 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen CNG Biofuel(Diesel) Diesel Bio-Methanol Bio-Ethanol	0.1 0.0 0.3 0.4 <b>LAM (Units: E.</b> 2005 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0	0.0 0.1 0.0 0.5 0.6 <b>//y)</b> 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.1 0.0 0.1 0.6 0.8 <b>2015</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.1 0.3 0.7 1.1 <b>2020</b> 0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0	0.0 0.1 0.0 0.4 0.9 1.4 <b>2025</b> 0.0 0.0 0.0 0.1 0.0 0.1 0.1	0.1 0.0 0.5 1.2 1.8 <b>2030</b> 0.0 0.0 0.1 0.0 0.1 0.1 0.1	0.2 0.0 0.6 1.7 2.5 <b>2035</b> 0.0 0.0 0.0 0.2 0.0 0.1 0.2 0.2 0.2	0.4 0.0 0.8 2.3 3.5 <b>2040</b> 0.0 0.0 0.0 0.2 0.0 0.2 0.2 0.2 0.3	0.6 0.0 1.1 3.2 5.0 <b>2045</b> 0.0 0.0 0.0 0.2 0.0 0.5 0.2 0.2	0.8 0.0 0.1 1.3 3.8 6.1 2050 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen CNG Biofuel(Diesel) Diesel Bio-Methanol Bio-Ethanol Gasoline Total	0.1 0.0 0.3 0.4 <b>LAM (Units: E.</b> 2005 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.1 0.0 0.5 0.6 <b>2010</b> 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.1 0.0 0.1 0.6 0.8 <b>2015</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.2	0.0 0.1 0.3 0.7 1.1 <b>2020</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.1 4	0.0 0.1 0.0 0.4 0.9 1.4 <b>2025</b> 0.0 0.0 0.1 0.0 0.1 0.1 0.1 1.6	0.1 0.0 0.5 1.2 1.8 <b>2030</b> 0.0 0.0 0.1 0.1 0.1 0.1 1.7	0.2 0.0 0.6 1.7 2.5 <b>2035</b> 0.0 0.0 0.2 0.0 0.1 0.2 0.2 1.7	0.4 0.0 0.8 2.3 3.5 <b>2040</b> 0.0 0.0 0.2 0.0 0.2 0.2 0.2 0.3 1.8	0.6 0.0 0.1 1.0 3.2 5.0 <b>2045</b> 0.0 0.0 0.0 0.2 0.0 0.5 0.2 0.2 1.8	0.8 0.0 0.1 1.3 3.8 6.1 2050 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen CNG Biofuel(Diesel) Diesel Bio-Methanol Bio-Ethanol Gasoline	0.1 0.0 0.3 0.4 <b>LAM (Units: E.</b> 2005 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.1 0.0 0.5 0.6 <b>2010</b> 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.1 0.0 0.1 0.6 0.8 <b>2015</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.2 1.4	0.0 0.1 0.0 0.3 0.7 1.1 <b>2020</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.1 1.4 1.7	0.0 0.1 0.0 0.4 0.9 1.4 <b>2025</b> 0.0 0.0 0.1 0.0 0.1 0.1 0.1 1.6 2.0	0.1 0.0 0.5 1.2 1.8 <b>2030</b> 0.0 0.0 0.1 0.1 0.1 1.7 2.2	0.2 0.0 0.6 1.7 2.5 <b>2035</b> 0.0 0.0 0.2 0.0 0.2 0.2 0.2 1.7 2.4	0.4 0.0 0.8 2.3 3.5 <b>2040</b> 0.0 0.0 0.2 0.0 0.2 0.2 0.3 1.8 2.7	0.6 0.0 0.1 1.0 3.2 5.0 <b>2045</b> 0.0 0.0 0.0 0.2 0.0 0.2 0.2 0.2 1.8 3.0	0.8 0.0 0.1 1.3 3.8 6.1 205C 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.0 2 0.0 0.1 1.7 3.2
Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen CNG Biofuel(Diesel) Diesel Bio-Methanol Gasoline Total Fuels for Cars, Region	0.1 0.0 0.3 0.4 <b>LAM (Units: E.</b> 2005 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.1 0.0 0.5 0.6 <b>2010</b> 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0 1.0 1	0.0 0.1 0.0 0.1 0.6 0.8 <b>2015</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.0 0.1 0.3 0.7 1.1 <b>2020</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.1 4	0.0 0.1 0.0 0.4 0.9 1.4 <b>2025</b> 0.0 0.0 0.1 0.0 0.1 0.1 0.1 1.6	0.1 0.0 0.5 1.2 1.8 <b>2030</b> 0.0 0.0 0.1 0.1 0.1 0.1 1.7	0.2 0.0 0.6 1.7 2.5 <b>2035</b> 0.0 0.0 0.2 0.0 0.1 0.2 0.2 1.7	0.4 0.0 0.8 2.3 3.5 <b>2040</b> 0.0 0.0 0.2 0.0 0.2 0.2 0.2 0.3 1.8	0.6 0.0 0.1 1.0 3.2 5.0 <b>2045</b> 0.0 0.0 0.0 0.2 0.0 0.5 0.2 0.2 1.8	0.8 0.0 0.1 1.3 3.8 6.1 2050 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen CNG Biofuel(Diesel) Diesel Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel	0.1 0.0 0.3 0.4 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.1 0.0 0.5 0.6 <b>2010</b> 0.0 0.0 0.0 0.1 0.0 0.0 0.0 1.0 1.1	0.0 0.1 0.0 0.1 0.6 0.8 <b>2015</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.2 1.4 <b>2015</b>	0.0 0.1 0.0 0.3 0.7 1.1 <b>2020</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.4 1.7 <b>2020</b>	0.0 0.1 0.0 0.4 0.9 1.4 <b>2025</b> 0.0 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	0.1 0.0 0.5 1.2 1.8 <b>2030</b> 0.0 0.0 0.1 0.1 0.1 0.1 0.1 1.7 2.2 <b>2030</b>	0.2 0.0 0.6 1.7 2.5 <b>2035</b> 0.0 0.0 0.2 0.0 0.1 0.2 0.2 1.7 2.4 <b>2035</b>	0.4 0.0 0.8 2.3 3.5 <b>2040</b> 0.0 0.0 0.2 0.0 0.2 0.2 0.3 1.8 2.7 <b>2040</b>	0.6 0.0 0.1 1.0 3.2 5.0 <b>2045</b> 0.0 0.0 0.2 0.2 0.2 1.8 3.0 <b>2045</b>	0.8 0.0 0.1 1.5 3.8 6.1 2050 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.1
Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen CNG Biofuel(Diesel) Diesel Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity	0.1 0.0 0.3 0.4 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.1 0.0 0.5 0.6 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.1 0.0 0.1 0.6 0.8 <b>2015</b> 0.0 0.0 0.0 0.0 0.0 0.0 1.2 1.4 <b>2015</b> 0.0	0.0 0.1 0.0 0.3 0.7 1.1 <b>2020</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.4 1.4 1.7 <b>2020</b> 0.0	0.0 0.1 0.0 0.4 0.9 1.4 <b>2025</b> 0.0 0.1 0.1 0.1 0.1 0.1 1.6 2.0 <b>2025</b> 0.0	0.1 0.0 0.5 1.2 1.8 <b>2030</b> 0.0 0.0 0.1 0.1 0.1 0.1 1.7 2.2 <b>2030</b> 0.0	0.2 0.0 0.6 1.7 2.5 <b>2035</b> 0.0 0.0 0.2 0.0 0.1 0.2 0.2 0.2 1.7 2.4 <b>2035</b> 0.0	0.4 0.0 0.8 2.3 3.5 <b>2040</b> 0.0 0.0 0.2 0.2 0.2 0.2 0.2 0.3 1.8 2.7 <b>2040</b> 0.0	0.6 0.0 0.1 1.0 3.2 5.0 <b>2045</b> 0.0 0.0 0.2 0.2 0.2 1.8 3.0 <b>2045</b> 0.0	0.8 0.0 0.1 1.5 3.8 6.1 2050 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.1 7.7 3.2 2050 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen CNG Biofuel(Diesel) Diesel Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen	0.1 0.0 0.3 0.4 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.1 0.0 0.5 0.6 <b>2010</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.1 0.0 0.1 0.6 0.8 <b>2015</b> 0.0 0.0 0.0 0.0 0.0 0.0 1.2 1.4 <b>2015</b> 0.0 0.0 0.0	0.0 0.1 0.0 0.3 0.7 1.1 <b>2020</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.1 1.4 1.7 <b>2020</b> 0.0 0.0 0.0	0.0 0.1 0.0 0.4 0.9 1.4 <b>2025</b> 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	0.1 0.0 0.5 1.2 1.8 <b>2030</b> 0.0 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1 7.2 2.2 <b>2030</b> 0.0 0.0	0.2 0.0 0.6 1.7 2.5 <b>2035</b> 0.0 0.0 0.2 0.0 0.1 0.2 0.2 0.2 0.2 1.7 2.4 <b>2035</b> 0.0 0.0	0.4 0.0 0.8 2.3 3.5 <b>2040</b> 0.0 0.0 0.2 0.2 0.2 0.2 0.2 0.3 1.8 2.7 <b>2040</b> 0.0 0.0	0.6 0.0 0.1 1.0 3.2 5.0 <b>2045</b> 0.0 0.2 0.0 0.5 0.2 0.2 1.8 3.0 <b>2045</b> 0.0 0.0	0.8. 0.0. 0.1 1.3 3.8. 6.1 2050 0.0. 0.0. 0.0. 0.0. 0.1 7. 3.2 2050 0.0. 0.0. 0.0. 0.0. 0.0. 0.0. 0.
Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen CNG Biofuel(Diesel) Diesel Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen Bio-Syngas	0.1 0.0 0.3 0.4 <b>LAM (Units: E. 2005</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.0 0.1 0.0 0.5 0.6 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.1 0.0 0.1 0.6 0.8 <b>2015</b> 0.0 0.0 0.0 0.0 0.0 1.2 1.4 <b>2015</b> 0.0 0.0 0.0 0.0	0.0 0.1 0.0 0.3 0.7 1.1 <b>2020</b> 0.0 0.0 0.0 0.0 0.0 0.1 1.4 1.7 <b>2020</b> 0.0 0.0 0.0 0.0 0.0	0.0 0.1 0.0 0.4 0.9 1.4 <b>2025</b> 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	0.1 0.0 0.5 1.2 1.8 <b>2030</b> 0.0 0.0 0.1 0.1 0.1 0.1 0.1 1.7 2.2 <b>2030</b> 0.0 0.0 0.0 0.0	0.2 0.0 0.6 1.7 2.5 <b>2035</b> 0.0 0.0 0.2 0.0 0.1 0.2 0.2 0.2 0.2 1.7 2.4 <b>2035</b> 0.0 0.0 0.0 0.0	0.4 0.0 0.8 2.3 3.5 <b>2040</b> 0.0 0.0 0.2 0.2 0.2 0.2 0.2 0.3 1.8 2.7 <b>2040</b> 0.0 0.0 0.0 0.0	0.6 0.0 0.1 1.0 3.2 5.0 2045 0.0 0.2 0.2 0.2 0.2 0.2 1.8 3.0 2045 0.0 0.0 0.0 0.0	0.0 0.8 0.0 0.1 1.3 3.8 6.1 2050 0.0 0.0 0.0 0.2 0.0 0.0 0.2 0.0 0.1 1.7 3.2 2050 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Bio-Ethanol										
	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1
Gasoline Total	1.0 1.1	1.2 1.3	1.4 1.5	1.7 1.9	1.9 2.1	2.0 2.4	2.1 2.5	1.9 2.6	1.5 2.4	1.1 2.4
Total	1.1	1.5	1.5	1.9	2.1	2.4	2.5	2.0	2.4	2.4
Fuels for Cars, Region	MEXICO (Uni	ts: EJ/y)								
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Syngas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0 0.1	0.0	0.0	0.0
Biofuel(Diesel) Diesel	0.0 0.0	0.0 0.0	0.0 0.0	0.0	0.0 0.0	0.0 0.0	0.1	0.0 0.1	0.0 0.3	0.0 0.6
Bio-Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.0
Bio-Ethanol	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0.1
Gasoline	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.3	1.1	0.9
Total	0.7	0.8	1.0	1.1	1.2	1.4	1.7	1.8	1.8	1.7
Fuels for Cars, Region		:s: EJ/y)								
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Syngas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CNG Biofuel(Diesel)	0.0 0.0	0.0 0.0	0.0 0.1	0.0 0.1	0.1 0.2	0.1 0.1	0.1 0.1	0.1 0.1	0.2 0.1	0.2 0.1
Diesel	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.9
Bio-Methanol	0.4	0.0	0.3	0.2	0.2	0.4	0.0	0.7	0.9	0.0
Bio-Ethanol	0.0	0.0	0.1	0.2	0.3	0.2	0.2	0.1	0.1	0.0
Gasoline	3.0	3.2	3.1	2.7	2.3	1.8	1.5	1.3	1.1	1.0
Total	3.4	3.6	3.7	3.6	3.4	3.0	2.7	2.5	2.3	2.2
Fuels for Cars, Region	•									
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electricity	0.0 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0
Hydrogen Bio-Syngas	0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.1	0.0 0.1	0.0 0.0	0.0 0.0	0.0
CNG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
		0.0	0.0	0.0	0.0					
Dioluei(Diesel)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
Biofuel(Diesel) Diesel	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.1 0.0	0.1 0.1	0.0	0.0 0.7	
										1.0
Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.7	1.0 0.0
Diesel Methanol Bio-Methanol Bio-Ethanol	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0	0.0 0.0	0.1 0.0 0.1 0.1	0.3 0.0 0.1 0.1	0.7 0.0	1.0 0.0 0.1 0.2
Diesel Methanol Bio-Methanol Bio-Ethanol Gasoline	0.0 0.0 0.0 0.0 1.2	0.0 0.0 0.0 0.0 1.4	0.0 0.0 0.0 0.0 1.5	0.0 0.0 0.0 0.0 1.7	0.0 0.0 0.0 0.0 1.8	0.0 0.0 0.1 0.1 1.8	0.1 0.0 0.1 0.1 1.7	0.3 0.0 0.1 0.1 1.4	0.7 0.0 0.1 0.2 1.0	1.0 0.0 0.1 0.2 0.7
Diesel Methanol Bio-Methanol Bio-Ethanol	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.1 0.1	0.1 0.0 0.1 0.1	0.3 0.0 0.1 0.1	0.7 0.0 0.1 0.2	1.0 0.0 0.1 0.2 0.7
Diesel Methanol Bio-Methanol Bio-Ethanol Gasoline Total	0.0 0.0 0.0 1.2 1.2	0.0 0.0 0.0 1.4 1.4	0.0 0.0 0.0 0.0 1.5	0.0 0.0 0.0 0.0 1.7	0.0 0.0 0.0 0.0 1.8	0.0 0.0 0.1 0.1 1.8	0.1 0.0 0.1 0.1 1.7	0.3 0.0 0.1 0.1 1.4	0.7 0.0 0.1 0.2 1.0	1.0 0.0 0.1 0.2 0.7
Diesel Methanol Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region	0.0 0.0 0.0 1.2 1.2 USA (Units: E	0.0 0.0 0.0 1.4 1.4 J/y)	0.0 0.0 0.0 1.5 1.6	0.0 0.0 0.0 1.7 1.8	0.0 0.0 0.0 1.8 2.0	0.0 0.0 0.1 1.8 2.2	0.1 0.0 0.1 1.7 2.3	0.3 0.0 0.1 0.1 1.4 2.2	0.7 0.0 0.1 0.2 1.0 2.1	1.0 0.0 0.1 0.2 0.7 2.1
Diesel Methanol Bio-Methanol Bio-Ethanol Gasoline Total	0.0 0.0 0.0 1.2 1.2	0.0 0.0 0.0 1.4 1.4	0.0 0.0 0.0 1.5 1.6 <b>2015</b>	0.0 0.0 0.0 0.0 1.7	0.0 0.0 0.0 0.0 1.8	0.0 0.0 0.1 0.1 1.8 2.2 <b>2030</b>	0.1 0.0 0.1 0.1 1.7	0.3 0.0 0.1 0.1 1.4	0.7 0.0 0.1 0.2 1.0	1.0 0.0 0.1 0.2 0.7 2.1
Diesel Methanol Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel	0.0 0.0 0.0 1.2 1.2 USA (Units: E 2005	0.0 0.0 0.0 1.4 1.4 <b>J/y)</b> 2010	0.0 0.0 0.0 1.5 1.6	0.0 0.0 0.0 1.7 1.8 2020	0.0 0.0 0.0 1.8 2.0	0.0 0.0 0.1 1.8 2.2	0.1 0.0 0.1 1.7 2.3 2035	0.3 0.0 0.1 0.1 1.4 2.2 2040	0.7 0.0 0.1 0.2 1.0 2.1 <b>2045</b>	1.0 0.0 0.1 0.2 0.7 2.1 <b>2050</b> 0.3
Diesel Methanol Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity	0.0 0.0 0.0 1.2 1.2 USA (Units: E 2005 0.0	0.0 0.0 0.0 1.4 1.4 J/y) 2010 0.0	0.0 0.0 0.0 1.5 1.6 <b>2015</b> 0.0	0.0 0.0 0.0 1.7 1.8 <b>2020</b> 0.0	0.0 0.0 0.0 1.8 2.0 <b>2025</b> 0.1	0.0 0.1 0.1 1.8 2.2 <b>2030</b> 0.1	0.1 0.0 0.1 1.7 2.3 <b>2035</b> 0.1	0.3 0.0 0.1 1.4 2.2 <b>2040</b> 0.2	0.7 0.0 0.1 0.2 1.0 2.1 <b>2045</b> 0.2	1.0 0.0 0.1 0.2 0.7 2.1 <b>2050</b> 0.3 0.1
Diesel Methanol Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen	0.0 0.0 0.0 1.2 1.2 USA (Units: E 2005 0.0 0.0	0.0 0.0 0.0 1.4 1.4 <b>J/y)</b> 2010 0.0 0.0	0.0 0.0 0.0 1.5 1.6 <b>2015</b> 0.0 0.0	0.0 0.0 0.0 1.7 1.8 <b>2020</b> 0.0 0.0	0.0 0.0 0.0 1.8 2.0 <b>2025</b> 0.1 0.0	0.0 0.1 0.1 1.8 2.2 <b>2030</b> 0.1 0.1	0.1 0.0 0.1 1.7 2.3 <b>2035</b> 0.1 0.1	0.3 0.0 0.1 1.4 2.2 <b>2040</b> 0.2 0.1	0.7 0.0 0.1 1.0 2.1 <b>2045</b> 0.2 0.1	1.0 0.0 0.1 0.2 0.7 2.1 <b>2050</b> 0.3 0.1 0.0
Diesel Methanol Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen Bio-Syngas CNG Diesel	0.0 0.0 0.0 1.2 1.2 USA (Units: E 2005 0.0 0.0 0.0 0.0 0.0 0.1	0.0 0.0 1.4 1.4 2010 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 1.5 1.6 <b>2015</b> 0.0 0.0 0.1 0.1 0.1	0.0 0.0 0.0 1.7 1.8 <b>2020</b> 0.0 0.0 0.0 0.1 0.3 0.4	0.0 0.0 0.0 1.8 2.0 <b>2025</b> 0.1 0.0 0.1 0.5 0.7	0.0 0.1 0.1 1.8 2.2 <b>2030</b> 0.1 0.1 0.1 0.0 0.7 1.2	0.1 0.0 0.1 1.7 2.3 <b>2035</b> 0.1 0.1 0.1 0.0 0.7 2.3	0.3 0.0 0.1 1.4 2.2 <b>2040</b> 0.2 0.1 0.0 0.7 3.9	0.7 0.0 0.1 1.0 2.1 <b>2045</b> 0.2 0.1 0.0 0.7 5.0	1.0 0.0 0.1 0.2 0.7 2.1 2050 0.3 0.1 0.0 0.8 5.8
Diesel Methanol Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen Bio-Syngas CNG Diesel Bio-Methanol	0.0 0.0 0.0 1.2 1.2 USA (Units: E 2005 0.0 0.0 0.0 0.0 0.0 0.1 0.0	0.0 0.0 1.4 1.4 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.0	0.0 0.0 0.0 1.5 1.6 <b>2015</b> 0.0 0.0 0.1 0.1 0.1 0.2 0.1	0.0 0.0 0.0 1.7 1.8 <b>2020</b> 0.0 0.0 0.0 0.1 0.3 0.4 0.3	0.0 0.0 0.0 1.8 2.0 <b>2025</b> 0.1 0.0 0.1 0.5 0.7 0.5	0.0 0.1 0.1 1.8 2.2 <b>2030</b> 0.1 0.1 0.1 0.0 0.7 1.2 0.8	0.1 0.0 0.1 1.7 2.3 <b>2035</b> 0.1 0.1 0.1 0.0 0.7 2.3 1.1	0.3 0.0 0.1 1.4 2.2 <b>2040</b> 0.2 0.1 0.0 0.7 3.9 0.9	0.7 0.0 0.1 0.2 1.0 2.1 <b>2045</b> 0.2 0.1 0.0 0.7 5.0 0.7	1.0 0.1 0.2 0.7 2.1 <b>2050</b> 0.3 0.1 0.0 0.8 5.8 0.6
Diesel Methanol Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen Bio-Syngas CNG Diesel Bio-Methanol Bio-Ethanol	0.0 0.0 0.0 1.2 1.2 USA (Units: E 2005 0.0 0.0 0.0 0.0 0.0 0.1 0.0 0.3	0.0 0.0 1.4 1.4 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.0 0.0	0.0 0.0 0.0 1.5 1.6 <b>2015</b> 0.0 0.0 0.1 0.1 0.1 0.2 0.1 1.1	0.0 0.0 0.0 1.7 1.8 <b>2020</b> 0.0 0.0 0.0 0.1 0.3 0.4 0.3 1.5	0.0 0.0 0.0 1.8 2.0 <b>2025</b> 0.1 0.0 0.1 0.5 0.7 0.5 1.4	0.0 0.1 0.1 1.8 2.2 <b>2030</b> 0.1 0.1 0.1 0.0 0.7 1.2 0.8 1.1	0.1 0.0 0.1 1.7 2.3 <b>2035</b> 0.1 0.1 0.1 0.0 0.7 2.3 1.1 0.8	0.3 0.0 0.1 1.4 2.2 <b>2040</b> 0.2 0.1 0.0 0.7 3.9 0.9 1.1	0.7 0.0 0.1 0.2 1.0 2.1 <b>2045</b> 0.2 0.1 0.0 0.7 5.0 0.7 1.2	1.0 0.1 0.2 0.7 2.1 <b>2050</b> 0.3 0.1 0.0 0.8 5.8 0.6 1.4
Diesel Methanol Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen Bio-Syngas CNG Diesel Bio-Methanol Bio-Ethanol Gasoline	0.0 0.0 0.0 1.2 1.2 USA (Units: E 2005 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 1.4 1.4 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 1.5 1.6 <b>2015</b> 0.0 0.0 0.1 0.1 0.1 0.2 0.1 1.1 16.4	0.0 0.0 0.0 1.7 1.8 <b>2020</b> 0.0 0.0 0.0 0.1 0.3 0.4 0.3 1.5 15.7	0.0 0.0 0.0 1.8 2.0 <b>2025</b> 0.1 0.0 0.1 0.5 0.7 0.5 1.4 14.8	0.0 0.1 0.1 1.8 2.2 <b>2030</b> 0.1 0.1 0.1 0.0 0.7 1.2 0.8 1.1 12.6	0.1 0.0 0.1 1.7 2.3 <b>2035</b> 0.1 0.1 0.1 0.0 0.7 2.3 1.1 0.8 9.6	0.3 0.0 0.1 1.4 2.2 <b>2040</b> 0.2 0.1 0.0 0.7 3.9 0.9 1.1 6.7	0.7 0.0 0.1 0.2 1.0 2.1 <b>2045</b> 0.2 0.1 0.0 0.7 5.0 0.7 1.2 4.8	1.0 0.0 0.1 0.2 0.7 2.1 2050 0.3 0.1 0.0 0.8 5.8 0.6 1.4 3.6
Diesel Methanol Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen Bio-Syngas CNG Diesel Bio-Methanol Bio-Ethanol	0.0 0.0 0.0 1.2 1.2 USA (Units: E 2005 0.0 0.0 0.0 0.0 0.0 0.1 0.0 0.3	0.0 0.0 1.4 1.4 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.0 0.0	0.0 0.0 0.0 1.5 1.6 <b>2015</b> 0.0 0.0 0.1 0.1 0.1 0.2 0.1 1.1	0.0 0.0 0.0 1.7 1.8 <b>2020</b> 0.0 0.0 0.0 0.1 0.3 0.4 0.3 1.5	0.0 0.0 0.0 1.8 2.0 <b>2025</b> 0.1 0.0 0.1 0.5 0.7 0.5 1.4	0.0 0.1 0.1 1.8 2.2 <b>2030</b> 0.1 0.1 0.1 0.0 0.7 1.2 0.8 1.1	0.1 0.0 0.1 1.7 2.3 <b>2035</b> 0.1 0.1 0.1 0.0 0.7 2.3 1.1 0.8	0.3 0.0 0.1 1.4 2.2 <b>2040</b> 0.2 0.1 0.0 0.7 3.9 0.9 1.1	0.7 0.0 0.1 0.2 1.0 2.1 <b>2045</b> 0.2 0.1 0.0 0.7 5.0 0.7 1.2	1.0 0.0 0.1 0.2 0.7 2.1 <b>2050</b> 0.3 0.1 0.0 0.8 5.8 0.6 1.4 3.6
Diesel Methanol Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen Bio-Syngas CNG Diesel Bio-Methanol Bio-Ethanol Gasoline Total	0.0 0.0 0.0 1.2 1.2 USA (Units: E 2005 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 1.4 1.4 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.0 0.8 16.7 17.6	0.0 0.0 0.0 1.5 1.6 <b>2015</b> 0.0 0.0 0.1 0.1 0.1 0.2 0.1 1.1 16.4	0.0 0.0 0.0 1.7 1.8 <b>2020</b> 0.0 0.0 0.0 0.1 0.3 0.4 0.3 1.5 15.7	0.0 0.0 0.0 1.8 2.0 <b>2025</b> 0.1 0.0 0.1 0.5 0.7 0.5 1.4 14.8	0.0 0.1 0.1 1.8 2.2 <b>2030</b> 0.1 0.1 0.1 0.0 0.7 1.2 0.8 1.1 12.6	0.1 0.0 0.1 1.7 2.3 <b>2035</b> 0.1 0.1 0.1 0.0 0.7 2.3 1.1 0.8 9.6	0.3 0.0 0.1 1.4 2.2 <b>2040</b> 0.2 0.1 0.0 0.7 3.9 0.9 1.1 6.7	0.7 0.0 0.1 0.2 1.0 2.1 <b>2045</b> 0.2 0.1 0.0 0.7 5.0 0.7 1.2 4.8	1.0 0.0 0.1 0.2 0.7 2.1 <b>2050</b> 0.3 0.1 0.0 0.8 5.8 0.6 1.4 3.6
Diesel Methanol Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen Bio-Syngas CNG Diesel Bio-Methanol Bio-Ethanol Gasoline	0.0 0.0 0.0 1.2 1.2 USA (Units: E 2005 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 1.4 1.4 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.0 0.8 16.7 17.6	0.0 0.0 0.0 1.5 1.6 <b>2015</b> 0.0 0.0 0.1 0.1 0.1 0.2 0.1 1.1 16.4	0.0 0.0 0.0 1.7 1.8 <b>2020</b> 0.0 0.0 0.0 0.1 0.3 0.4 0.3 1.5 15.7	0.0 0.0 0.0 1.8 2.0 <b>2025</b> 0.1 0.0 0.1 0.5 0.7 0.5 1.4 14.8	0.0 0.1 0.1 1.8 2.2 <b>2030</b> 0.1 0.1 0.1 0.0 0.7 1.2 0.8 1.1 12.6	0.1 0.0 0.1 1.7 2.3 <b>2035</b> 0.1 0.1 0.1 0.0 0.7 2.3 1.1 0.8 9.6	0.3 0.0 0.1 1.4 2.2 <b>2040</b> 0.2 0.1 0.0 0.7 3.9 0.9 1.1 6.7	0.7 0.0 0.1 0.2 1.0 2.1 <b>2045</b> 0.2 0.1 0.0 0.7 5.0 0.7 1.2 4.8	1.C. 0.0. 0.1 0.2 2.1 205C 0.3 0.1 0.0 0.8 5.8 6.0.6 0.6 6.1 2.4
Diesel Methanol Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen Bio-Syngas CNG Diesel Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region	0.0 0.0 0.0 1.2 1.2 USA (Units: E 2005 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.0 0.3 16.5 16.8	0.0 0.0 0.0 1.4 1.4 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 1.5 1.6 <b>2015</b> 0.0 0.0 0.1 0.1 0.1 0.1 1.1 16.4 18.1	0.0 0.0 0.0 1.7 1.8 <b>2020</b> 0.0 0.0 0.1 0.3 0.4 0.3 1.5 15.7 18.4	0.0 0.0 0.0 1.8 2.0 <b>2025</b> 0.1 0.0 0.1 0.5 0.7 0.5 1.4 14.8 18.0	0.0 0.0 0.1 1.8 2.2 <b>2030</b> 0.1 0.1 0.1 0.7 1.2 0.8 1.1 12.6 16.6	0.1 0.0 0.1 1.7 2.3 <b>2035</b> 0.1 0.1 0.1 0.7 2.3 1.1 0.8 9.6 14.7	0.3 0.0 0.1 1.4 2.2 <b>2040</b> 0.2 0.1 0.0 0.7 3.9 0.9 1.1 6.7 13.4	0.7 0.0 0.1 0.2 1.0 2.1 <b>2045</b> 0.2 0.1 0.0 0.7 5.0 0.7 1.2 4.8 12.7	1.0 0.0 0.1 0.2 0.7 2.1 2050 0.3 0.1 0.0 0.8 5.8 0.6 1.4 3.6 12.4 2050
Diesel Methanol Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen Bio-Syngas CNG Diesel Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel	0.0 0.0 0.0 1.2 1.2 USA (Units: E 2005 0.0 0.0 0.0 0.0 0.0 0.1 0.0 0.3 16.5 16.8 WEUR (Units 2005	0.0 0.0 1.4 1.4 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.0 0.0	0.0 0.0 0.0 1.5 1.6 <b>2015</b> 0.0 0.0 0.1 0.1 0.1 1.1 16.4 18.1 <b>2015</b>	0.0 0.0 0.0 1.7 1.8 <b>2020</b> 0.0 0.0 0.0 0.1 0.3 0.4 0.3 1.5 15.7 18.4	0.0 0.0 1.8 2.0 2025 0.1 0.0 0.1 0.5 0.7 0.5 1.4 14.8 18.0 2025	0.0 0.1 0.1 1.8 2.2 <b>2030</b> 0.1 0.1 0.1 0.7 1.2 0.8 1.1 12.6 16.6 <b>2030</b>	0.1 0.0 0.1 1.7 2.3 <b>2035</b> 0.1 0.1 0.1 0.7 2.3 1.1 0.8 9.6 14.7 <b>2035</b>	0.3 0.0 0.1 1.4 2.2 <b>2040</b> 0.2 0.1 0.0 0.7 3.9 0.9 1.1 6.7 13.4	0.7 0.0 0.1 0.2 1.0 2.1 <b>2045</b> 0.2 0.1 0.0 0.7 5.0 0.7 1.2 4.8 12.7 <b>2045</b>	1.0 0.0 0.1 0.2 2.1 2050 0.3 0.1 0.0 0.8 5.8 6.0 0.6 1.2 4 3.6 6 3.2 6 0.1
Diesel Methanol Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen Bio-Syngas CNG Diesel Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity	0.0 0.0 0.0 1.2 1.2 USA (Units: E 2005 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 1.4 1.4 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 1.5 1.6 <b>2015</b> 0.0 0.1 0.1 0.1 0.1 1.1 1.1 1.1 1.1 1.1	0.0 0.0 1.7 1.8 <b>2020</b> 0.0 0.0 0.1 0.3 1.5 15.7 18.4 <b>2020</b> 0.0	0.0 0.0 1.8 2.0 2025 0.1 0.0 0.1 0.5 0.7 0.5 1.4 14.8 18.0 2025 0.0	0.0 0.1 0.1 1.8 2.2 <b>2030</b> 0.1 0.1 0.1 0.7 1.2 8.0 1.1 12.6 16.6 <b>2030</b> 0.0	0.1 0.0 0.1 1.7 2.3 <b>2035</b> 0.1 0.1 0.1 0.7 2.3 1.1 0.8 9.6 14.7 <b>2035</b> 0.0	0.3 0.0 0.1 1.4 2.2 <b>2040</b> 0.2 0.1 0.0 0.7 3.9 0.9 1.1 6.7 13.4 <b>2040</b> 0.0	0.7 0.0 0.1 0.2 1.0 2.1 <b>2045</b> 0.2 0.1 0.0 0.7 5.0 0.7 1.2 4.8 12.7 <b>2045</b> 0.1	1.0.000 0.1100 2.1100 0.22050 0.3300 0.000 0.8800 0.000 0.8800 0.000 0.8800 0.000 1.2400 1.2400 0.110000 0.110000 0.1100000000
Diesel Methanol Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen Bio-Syngas CNG Diesel Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen	0.0 0.0 0.0 1.2 1.2 USA (Units: E 2005 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 1.4 1.4 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 1.5 1.6 <b>2015</b> 0.0 0.1 0.1 0.1 0.1 1.1 16.4 18.1 <b>2015</b> 0.0 0.0	0.0 0.0 0.0 1.7 1.8 <b>2020</b> 0.0 0.0 0.1 0.3 1.5 15.7 18.4 <b>2020</b> 0.0 0.0	0.0 0.0 0.0 1.8 2.0 2025 0.1 0.0 0.1 0.5 0.7 0.5 1.4 14.8 18.0 2025 0.0 0.0	0.0 0.1 0.1 1.8 2.2 <b>2030</b> 0.1 0.1 0.1 0.1 0.7 1.2 0.8 1.1 12.6 16.6 <b>2030</b> 0.0 0.0	0.1 0.0 0.1 1.7 2.3 <b>2035</b> 0.1 0.1 0.1 0.0 0.7 2.3 1.1 0.8 9.6 14.7 <b>2035</b> 0.0 0.0	0.3 0.0 0.1 1.4 2.2 <b>2040</b> 0.2 0.1 0.0 0.7 3.9 0.9 1.1 6.7 13.4 <b>2040</b> 0.0 0.0 0.0 0.0 0.0 0.0	0.7 0.0 0.1 0.2 1.0 2.1 <b>2045</b> 0.2 0.1 0.0 0.7 5.0 0.7 5.0 0.7 1.2 4.8 12.7 <b>2045</b> 0.1 0.0	1.(. 0.0.0.0.1. 0.1.2.1. 2050 0.3. 0.0.0. 0.8. 0.0. 0.8. 0.0. 1.2.4 2.4. 2.4. 0.1. 0.0. 0.0. 0.0. 0.0. 0.0. 0.0. 0
Diesel Methanol Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen Bio-Syngas CNG Diesel Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen Bio-Syngas CNG Bio-Syngas CNG Bio-Syngas	0.0 0.0 0.0 1.2 1.2 USA (Units: E 2005 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 1.4 1.4 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 1.5 1.6 <b>2015</b> 0.0 0.1 0.1 0.1 1.1 16.4 18.1 <b>2015</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 1.7 1.8 <b>2020</b> 0.0 0.0 0.1 0.3 1.5 15.7 18.4 <b>2020</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 0.0 1.8 2.0 2025 0.1 0.5 0.7 0.5 1.4 14.8 18.0 2025 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.0 0.1 0.1 1.8 2.2 <b>2030</b> 0.1 0.1 0.1 0.1 0.1 0.7 1.2 0.8 1.1 12.6 16.6 <b>2030</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.1 0.0 0.1 1.7 2.3 <b>2035</b> 0.1 0.1 0.1 0.0 0.7 2.3 1.1 0.8 9.6 14.7 <b>2035</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.3	0.3 0.0 0.1 1.4 2.2 <b>2040</b> 0.2 0.1 0.0 0.7 3.9 0.9 1.1 6.7 13.4 <b>2040</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.7 0.0 0.1 0.2 1.0 2.1 2045 0.2 0.1 0.0 0.7 5.0 0.7 1.2 4.8 12.7 2045 0.1 0.0 0.0 0.0 8 0.1	1.C. 0.0.0. 0.7. 2.1. 205C 0.3. 0.1. 0.0. 0.8. 8.6. 1.2. 2.1. 2.2. 2.1. 2.1. 0.1. 0.0. 0.0
Diesel Methanol Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen Bio-Syngas CNG Diesel Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen Bio-Syngas CNG Bio-Syngas CNG	0.0 0.0 0.0 1.2 1.2 USA (Units: E 2005 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 1.4 1.4 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 1.5 1.6 <b>2015</b> 0.0 0.1 0.1 0.1 0.1 1.1 16.4 18.1 <b>2015</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.0 0.0 0.0 1.7 1.8 <b>2020</b> 0.0 0.0 0.1 0.3 1.5 15.7 18.4 <b>2020</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 0.0 1.8 2.0 2025 0.1 0.5 0.7 0.5 1.4 14.8 18.0 2025 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.0 0.1 0.1 1.8 2.2 <b>2030</b> 0.1 0.1 0.1 0.1 0.1 0.7 1.2 0.8 1.1 12.6 16.6 <b>2030</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 4 0.0	0.1 0.0 0.1 1.7 2.3 0.1 0.1 0.1 0.1 0.7 2.3 1.1 0.8 9.6 14.7 2035 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.6	0.3 0.0 0.1 1.4 2.2 <b>2040</b> 0.2 0.1 0.0 0.7 3.9 0.9 1.1 6.7 13.4 <b>2040</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.9	0.7 0.0 0.1 0.2 1.0 2.1 2045 0.2 0.1 0.0 0.7 5.0 0.7 1.2 4.8 12.7 2045 0.1 0.0 0.0 0.0 0.8 0.1 2.1	1.C. 0.0.0. 0.7. 2.1. 205C 0.3. 0.1. 0.C. 0.8. 8.6. 0.6. 1.2.4 2.2.4 2.2.5 2.0.5 0.1. 0.C. 0.1. 0.C. 0.1. 2.1.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2
Diesel Methanol Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen Bio-Syngas CNG Diesel Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen Bio-Syngas CNG Bio-Syngas CNG Bio-Syngas CNG Biofuel(Diesel) Diesel Bio-Methanol	0.0 0.0 0.0 1.2 1.2 USA (Units: E 2005 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 1.4 1.4 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 1.5 1.6 <b>2015</b> 0.0 0.1 0.1 0.1 1.1 16.4 18.1 <b>2015</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.0 0.0 0.0 1.7 1.8 <b>2020</b> 0.0 0.1 0.3 0.4 0.3 1.5 15.7 18.4 <b>2020</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 0.0 1.8 2.0 2025 0.1 0.5 0.7 0.5 1.4 14.8 18.0 2025 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.0 0.1 0.1 1.8 2.2 <b>2030</b> 0.1 0.1 0.1 0.1 0.1 0.7 1.2 0.8 1.1 12.6 16.6 16.6 <b>2030</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.2 2030	0.1 0.0 0.1 1.7 2.3 0.1 0.1 0.1 0.1 0.7 2.3 1.1 0.8 9.6 14.7 2035 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.3 0.0 0.1 1.4 2.2 <b>2040</b> 0.2 0.1 0.0 0.7 3.9 0.9 1.1 6.7 13.4 <b>2040</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.7 0.0 0.1 0.2 1.0 2.1 2045 0.2 0.1 0.0 0.7 5.0 0.7 1.2 4.8 12.7 2045 0.1 0.0 0.0 0.0 0.0 0.0 8 0.1 0.0	1.0 0.0 0.1 0.2 0.7 2.1 2050 0.3 0.1 0.0 0.8 5.8 0.6 1.4 3.6 12.4 2050 0.1 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0.
Diesel Methanol Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen Bio-Syngas CNG Diesel Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen Bio-Syngas CNG Bio-Syngas CNG Bio-Syngas CNG Biofuel(Diesel) Diesel Bio-Methanol Bio-Syngas	0.0 0.0 0.0 1.2 1.2 USA (Units: E 2005 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 1.4 1.4 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 1.5 1.6 <b>2015</b> 0.0 0.1 0.1 0.1 1.1 16.4 18.1 <b>2015</b> 0.0 0.0 0.0 0.0 0.0 0.1 0.5 0.9 0.1 0.2	0.0 0.0 0.0 1.7 1.8 <b>2020</b> 0.0 0.0 0.1 0.3 1.5 15.7 18.4 <b>2020</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 0.0 1.8 2.0 2025 0.1 0.0 0.1 0.5 0.7 0.5 1.4 14.8 18.0 2025 0.0 0.0 0.0 0.0 0.0 0.3 0.9 0.5 0.3 0.6	0.0 0.1 0.1 1.8 2.2 <b>2030</b> 0.1 0.1 0.1 0.1 0.1 0.7 1.2 0.8 1.1 12.6 16.6 16.6 <b>2030</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.2 2030 1.2 2030 0.1 1.2 2030 0.0 1.2 2030 0.0 1.2 2030 0.0 1.2 2030 0.0 1.2 2030 0.0 1.2 2030 0.0 20000000000	0.1 0.0 0.1 1.7 2.3 2035 0.1 0.1 0.0 0.7 2.3 1.1 0.8 9.6 14.7 2035 0.0 0.0 0.0 0.0 0.0 0.0 0.5 0.3 1.6 0.5 0.6	0.3 0.0 0.1 1.4 2.2 <b>2040</b> 0.2 0.1 0.0 0.7 3.9 0.9 1.1 6.7 13.4 <b>2040</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.7 0.0 0.1 0.2 1.0 2.1 2045 0.2 0.1 0.0 0.7 5.0 0.7 1.2 4.8 12.7 2045 0.1 0.0 0.0 0.8 0.1 2.1 0.3 0.4	1.0 0.0 0.1 0.2 0.7 2.1 2050 0.3 0.1 0.0 0.8 5.8 0.6 12.4 3.6 12.4 2050 0.1 0.0 0.0 9 0.1 1.9 0.3 0.5
Diesel Methanol Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen Bio-Syngas CNG Diesel Bio-Methanol Bio-Ethanol Gasoline Total Fuels for Cars, Region Fuel Electricity Hydrogen Bio-Syngas CNG Bio-Syngas CNG Bio-Syngas CNG Biofuel(Diesel) Diesel Bio-Methanol	0.0 0.0 0.0 1.2 1.2 USA (Units: E 2005 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 1.4 1.4 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 1.5 1.6 <b>2015</b> 0.0 0.1 0.1 0.1 1.1 16.4 18.1 <b>2015</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.0 0.0 0.0 1.7 1.8 <b>2020</b> 0.0 0.1 0.3 0.4 0.3 1.5 15.7 18.4 <b>2020</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 0.0 1.8 2.0 2025 0.1 0.5 0.7 0.5 1.4 14.8 18.0 2025 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.0 0.1 0.1 1.8 2.2 <b>2030</b> 0.1 0.1 0.1 0.1 0.1 0.7 1.2 0.8 1.1 12.6 16.6 16.6 <b>2030</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.2 2030	0.1 0.0 0.1 1.7 2.3 0.1 0.1 0.1 0.1 0.7 2.3 1.1 0.8 9.6 14.7 2035 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.3 0.0 0.1 1.4 2.2 <b>2040</b> 0.2 0.1 0.0 0.7 3.9 0.9 1.1 6.7 13.4 <b>2040</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.7 0.0 0.1 0.2 1.0 2.1 2045 0.2 0.1 0.0 0.7 5.0 0.7 1.2 4.8 12.7 2045 0.1 0.0 0.0 0.0 0.0 0.0 8 0.1 0.0	0.0 1.0 0.0 0.1 0.2 0.7 2.1 2050 0.3 0.1 0.0 0.8 5.8 0.6 1.4 3.6 12.4 2050 0.1 0.0 0.0 0.9 0.1 1.9 0.3 0.5 2.6 6.4

## Fuel for Other Surface Transport and Aviation (EJ/Y)

Fuel	nsport and Aviati 2005	2010	2015	2020	2025	2030	2035	2040	2045	205
Other (Coal)	0.6	0.8	1.0	1.2	1.4	1.3	0.4	0.1	0.0	0
Gasoline	0.0	0.0	0.3	0.4	0.5	0.4	0.3	0.2	0.0	0
Diesel	39.5	40.1	42.5	45.3	48.4	51.4	55.3	59.4	63.4	66
Bio-Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Bio-Ethanol	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0
Bio-Syngas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
CNG	0.3	0.0	0.3	0.3	0.4	0.5	0.7	0.8	1.1	1
Biofuel(Diesel)	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.2	0.1	0
Electricity	0.3	0.2	0.5	0.8	1.2	2.0	2.8	3.7	4.6	5
•	0.0	0.0				0.0			0.0	
Hydrogen			0.0	0.0	0.0		0.0	0.0		0
Bio-FT-Jetfuel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0
letfuel	10.2	10.7	12.4	14.6	17.1	19.7	22.8	26.4	30.6	34
Fotal	50.9	52.5	57.6	63.1	69.5	75.8	82.8	90.9	99.8	108
uel in Other Surface Tra	nsport and Aviati	on. Region A	FRICA (Units	: EJ/v)						
uel	2005	2010	2015	2020	2025	2030	2035	2040	2045	205
Other (Coal)	0.0	0.0	0.1	0.1	0.1	0.2	0.0	0.0	0.0	(
Diesel	1.6	1.6	1.7	1.9	2.1	2.4	2.8	3.4	4.0	2
Bio-Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(
Bio-Ethanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Bio-Syngas										(
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(
Biofuel(Diesel)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(
lectricity	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	(
lydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(
etfuel	0.3	0.4	0.5	0.6	0.8	1.1	1.5	2.2	3.0	4
fotal	2.0	2.1	2.3	2.7	3.2	3.8	4.6	5.8	7.4	ç
uel in Other Surface Tra	nonent and Aviati	on Design A	CIA /IImites E	1.4.1						
uel	2005	2010 A	2015	2020	2025	2030	2035	2040	2045	205
Other (Coal)	0.0	0.0	0.1	0.1	0.1	0.2	0.0	0.0	0.0	20.
· ·										
Diesel	4.2	4.1	4.8	5.4	6.0	6.6	7.2	7.7	8.0	8
Bio-Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(
Bio-Ethanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(
Bio-Syngas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(
CNG	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(
Biofuel(Diesel)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(
lectricity	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	(
lydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(
etfuel	0.7	0.9	1.3	1.7	2.2	2.7	3.2	3.7	4.2	4
otal	4.9	5.1	6.1	7.2	8.4	9.6	10.6	11.6	12.6	13
uel in Other Surface Tra	•	, 0	•							
iuel	2005	<b>2010</b> 0.0	2015	2020	2025	2030	2035	2040	2045	205
	0.0	0.0	0.1	0.1	0.1	0.2	0.0	0.0	0.0	(
• •						1.3	1.5	1.7	1.9	2
Diesel	1.0	1.0	1.0	1.1	1.2		-	-	-	
Diesel Bio-Methanol	0.0	1.0 0.0	1.0 0.0	0.0	0.0	0.0	0.0	0.0	0.0	(
Diesel Bio-Methanol	0.0 0.0	1.0 0.0 0.0	1.0 0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0	0.0	0.0	(
Diesel Bio-Methanol Bio-Ethanol	0.0 0.0 0.0	1.0 0.0	1.0 0.0	0.0	0.0	0.0	0.0 0.0			(
Diesel Bio-Methanol Bio-Ethanol Bio-Syngas	0.0 0.0	1.0 0.0 0.0	1.0 0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0	0.0	0.0	( ( (
Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG	0.0 0.0 0.0	1.0 0.0 0.0 0.0	1.0 0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	(
Diesel Bio-Methanol Bio-Ethanol Bio-Syngas ENG Biofuel(Diesel)	0.0 0.0 0.0 0.1	1.0 0.0 0.0 0.0 0.0	1.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	( ( ( (
Diesel Bio-Methanol Bio-Ethanol Bio-Syngas ENG Biofuel(Diesel) Electricity	0.0 0.0 0.0 0.1 0.0	1.0 0.0 0.0 0.0 0.0 0.0	1.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.1	0.0 0.0 0.0 0.0 0.1	0.0 0.0 0.0 0.0 0.1	0.0 0.0 0.0 0.1	0.0 0.0 0.0 0.1	0.0 0.0 0.0 0.1	( ( ( ( ( (
Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen	0.0 0.0 0.1 0.0 0.0	1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	1.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.1 0.0	0.0 0.0 0.0 0.0 0.1 0.0	0.0 0.0 0.0 0.0 0.1 0.1	0.0 0.0 0.0 0.1 0.1	0.0 0.0 0.0 0.1 0.2	0.0 0.0 0.0 0.1 0.2	
Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel	0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0	1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.1 0.0 0.0 0.0	0.0 0.0 0.0 0.1 0.1 0.0 0.0 0.0	0.0 0.0 0.1 0.1 0.0 0.0 0.0	0.0 0.0 0.1 0.2 0.0 0.0	0.0 0.0 0.1 0.2 0.0 0.0	
Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel etfuel	0.0 0.0 0.1 0.0 0.0 0.0 0.0	1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.1 0.0 0.0	0.0 0.0 0.0 0.0 0.1 0.0 0.0	0.0 0.0 0.0 0.0 0.1 0.1 0.0	0.0 0.0 0.0 0.1 0.1 0.0	0.0 0.0 0.1 0.2 0.0	0.0 0.0 0.1 0.2 0.0	
Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel etfuel	0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0.2	1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.2	0.0 0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.3	0.0 0.0 0.0 0.1 0.1 0.0 0.0 0.0 0.4	0.0 0.0 0.1 0.1 0.0 0.0 0.0 0.5	0.0 0.0 0.1 0.2 0.0 0.0 0.0 0.7	0.0 0.0 0.1 0.2 0.0 0.0 0.0 0.8	
Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel etfuel Fotal	0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.2 1.2	1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.2 1.3	1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.2 1.4	0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.2 1.6	0.0 0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.3	0.0 0.0 0.0 0.1 0.1 0.0 0.0 0.0 0.4	0.0 0.0 0.1 0.1 0.0 0.0 0.0 0.5	0.0 0.0 0.1 0.2 0.0 0.0 0.0 0.7	0.0 0.0 0.1 0.2 0.0 0.0 0.0 0.8	
Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel etfuel Total Fuel in Other Surface Tra	0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.2 1.2 msport and Aviati 2005	1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.2 1.3 00, Region C 2010	1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.2 1.4 ANADA (Unit 2015	0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.2 1.6 ss: EJ/y) 2020	0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.3 1.8 <b>2025</b>	0.0 0.0 0.0 0.1 0.1 0.0 0.0 0.4 2.1	0.0 0.0 0.1 0.1 0.0 0.0 0.5 2.3 <b>2035</b>	0.0 0.0 0.1 0.2 0.0 0.0 0.7 2.6 <b>2040</b>	0.0 0.0 0.1 0.2 0.0 0.0 0.8 3.0 <b>2045</b>	
Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel etfuel Fotal Euel in Other Surface Tra Euel Dther (Coal)	0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.2 1.2 nsport and Aviati 2005 0.0	1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.2 1.3 00, Region C 2010	1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.2 1.4 ANADA (Unit 2015 0.0	0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.2 1.6 ss: EJ/y) 2020 0.0	0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.3 1.8 <b>2025</b> 0.0	0.0 0.0 0.0 0.1 0.1 0.0 0.0 0.4 2.1 <b>2030</b> 0.0	0.0 0.0 0.1 0.1 0.0 0.0 0.5 2.3	0.0 0.0 0.1 0.2 0.0 0.0 0.7 2.6 <b>2040</b> 0.0	0.0 0.0 0.1 0.2 0.0 0.0 0.8 3.0 <b>2045</b> 0.0	
Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel etfuel Fotal Euel in Other Surface Tra Euel Dther (Coal)	0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.2 1.2 msport and Aviati 2005 0.0 0.7	1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.2 1.3 00, Region C 2010	1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.2 1.4 ANADA (Unit 2015	0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.2 1.6 ss: EJ/y) 2020	0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.3 1.8 <b>2025</b>	0.0 0.0 0.0 0.1 0.1 0.0 0.0 0.4 2.1	0.0 0.0 0.1 0.1 0.0 0.0 0.5 2.3 <b>2035</b>	0.0 0.0 0.1 0.2 0.0 0.0 0.7 2.6 <b>2040</b>	0.0 0.0 0.1 0.2 0.0 0.0 0.8 3.0 <b>2045</b>	
Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Ietfuel Fotal Euel in Other Surface Tra Euel Dther (Coal) Diesel	0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.2 1.2 nsport and Aviati 2005 0.0	1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.2 1.3 00, Region C 2010	1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.2 1.4 ANADA (Unit 2015 0.0	0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.2 1.6 ss: EJ/y) 2020 0.0	0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.3 1.8 <b>2025</b> 0.0	0.0 0.0 0.0 0.1 0.1 0.0 0.0 0.4 2.1 <b>2030</b> 0.0	0.0 0.0 0.1 0.1 0.0 0.0 0.5 2.3 <b>2035</b> 0.0	0.0 0.0 0.1 0.2 0.0 0.0 0.7 2.6 <b>2040</b> 0.0	0.0 0.0 0.1 0.2 0.0 0.0 0.8 3.0 <b>2045</b> 0.0	
Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel etfuel Fotal Euel in Other Surface Tra Euel Dther (Coal) Diesel CNG	0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.2 1.2 msport and Aviati 2005 0.0 0.7	1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.2 1.3 00, Region C 2010	1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.2 1.4 ANADA (Unit 2015 0.0 0.7	0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.2 1.6 ss: EJ/y) 2020 0.0 0.0	0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.3 1.8 <b>2025</b> 0.0 0.7	0.0 0.0 0.0 0.1 0.1 0.0 0.0 0.4 2.1 <b>2030</b> 0.0 0.7	0.0 0.0 0.1 0.1 0.0 0.0 0.5 2.3 <b>2035</b> 0.0 0.7	0.0 0.0 0.1 0.2 0.0 0.7 2.6 <b>2040</b> 0.0 0.7	0.0 0.0 0.1 0.2 0.0 0.0 0.8 3.0 <b>2045</b> 0.0 0.7	
Dther (Coal) Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Hetfuel Fotal Euel in Other Surface Tra Euel Dther (Coal) Diesel CNG Biofuel(Diesel) Electricity	0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.2 1.2 msport and Aviati 2005 0.0 0.7 0.0	1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.3 0, Region C 2010 0.7 0.0	1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.2 1.4 ANADA (Unit 2015 0.0 0.7 0.0	0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.2 1.6 ss: EJ/y) 2020 0.0 0.0 0.7 0.0	0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.3 1.8 <b>2025</b> 0.0 0.7 0.0	0.0 0.0 0.0 0.1 0.1 0.0 0.0 0.4 2.1 <b>2030</b> 0.0 0.7 0.0	0.0 0.0 0.1 0.1 0.0 0.5 2.3 <b>2035</b> 0.0 0.7 0.0	0.0 0.0 0.1 0.2 0.0 0.7 2.6 <b>2040</b> 0.0 0.7 0.0	0.0 0.0 0.1 0.2 0.0 0.0 0.8 3.0 <b>2045</b> 0.0 0.7 0.0	() () () () () () () () () () () () () (
Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel etfuel Fotal Euel in Other Surface Tra Euel Dther (Coal) Diesel CNG Biofuel(Diesel) Electricity	0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0.2 1.2 nsport and Aviati 2005 0.0 0.7 0.0 0.0 0.0	1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.2 1.3 00, Region C 2010 0.7 0.0 0.0 0.0 0.0	1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.2 1.4 ANADA (Unit 2015 0.0 0.7 0.0 0.0	0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0 1.6 <b>:s: EJ/y)</b> <b>2020</b> 0.0 0.7 0.0 0.0	0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.3 1.8 <b>2025</b> 0.0 0.7 0.0 0.0	0.0 0.0 0.1 0.1 0.0 0.0 0.4 2.1 <b>2030</b> 0.0 0.7 0.0 0.0	0.0 0.0 0.1 0.1 0.0 0.5 2.3 <b>2035</b> 0.0 0.7 0.0 0.0	0.0 0.0 0.1 0.2 0.0 0.7 2.6 <b>2040</b> 0.0 0.7 0.0 0.0	0.0 0.0 0.1 0.2 0.0 0.8 3.0 <b>2045</b> 0.0 0.7 0.0 0.0	
Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel etfuel Fotal Euel in Other Surface Tra Euel in Other Surface Tra Euel Difter (Coal) Diesel CNG Biofuel(Diesel) Electricity Hydrogen	0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0.2 1.2 <b>Insport and Aviati</b> 2005 0.0 0.7 0.0 0.7 0.0 0.0 0.0 0.0	1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.2 1.3 00, Region C 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.2 1.4 ANADA (Unit 2015 0.0 0.7 0.0 0.7 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0 55: EJ/y) 2020 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.3 1.8 <b>2025</b> 0.0 0.7 0.0 0.7 0.0 0.0 0.0	0.0 0.0 0.1 0.1 0.0 0.0 0.4 2.1 <b>2030</b> 0.0 0.7 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.1 0.1 0.0 0.5 2.3 <b>2035</b> 0.0 0.7 0.0 0.7 0.0 0.0 0.1 0.0	0.0 0.0 0.1 0.2 0.0 0.7 2.6 <b>2040</b> 0.0 0.7 0.0 0.0 0.0 0.0	0.0 0.0 0.1 0.2 0.0 0.8 3.0 <b>2045</b> 0.0 0.7 0.0 0.7 0.0 0.0 0.1 0.0	
Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel letfuel Fotal Euel in Other Surface Tra Euel Dther (Coal) Diesel CNG Biofuel(Diesel)	0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0.2 1.2 nsport and Aviati 2005 0.0 0.7 0.0 0.0 0.0 0.0	1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.2 1.3 00, Region C 2010 0.7 0.0 0.0 0.0 0.0 0.0 0.0	1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.2 1.4 ANADA (Unit 2015 0.0 0.7 0.0 0.7 0.0 0.0	0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0 55: EJ/y) 2020 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.3 1.8 <b>2025</b> 0.0 0.7 0.0 0.0 0.0	0.0 0.0 0.1 0.1 0.0 0.0 0.4 2.1 <b>2030</b> 0.0 0.7 0.0 0.0 0.0 0.0	0.0 0.0 0.1 0.1 0.0 0.5 2.3 <b>2035</b> 0.0 0.7 0.0 0.7 0.0 0.0	0.0 0.0 0.1 0.2 0.0 0.7 2.6 <b>2040</b> 0.0 0.7 0.0 0.0 0.0 0.0 0.1 0.0	0.0 0.0 0.1 0.2 0.0 0.8 3.0 <b>2045</b> 0.0 0.7 0.0 0.0 0.0 0.0	

Fuel in Other Surface Transport and Aviation, Region CHINA (Units: EJ/y)

Fuel	2005		2010	2015	2020	2025	2030	2035	2040	2045	2050
Other (Coal)		0.6	0.6	0.6	0.7	0.7	0.7	0.2	0.1	0.0	0.0
Diesel		3.6	4.6	5.5	6.5	7.4	8.1	8.8	9.5	10.0	10.3
Bio-Syngas		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CNG		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biofuel(Diesel)		0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Electricity		0.0	0.0	0.1	0.1	0.1	0.2	0.4	0.5	0.7	0.9
Hydrogen		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Jetfuel		0.6	0.7	1.1	1.5	2.1	2.6	3.1	3.6	4.1	4.6
Total		7.0	8.2	9.7	11.4	13.2	14.9	16.0	17.4	19.0	20.4
Fuel in Other Surface Tran	•		, 0								
Fuel	2005		2010	2015	2020	2025	2030	2035	2040	2045	2050
Other (Coal)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diesel		0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5
CNG		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biofuel(Diesel)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity		0.0	0.0 0.0	0.0 0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0	0.0
Hydrogen Jetfuel		0.0 0.0	0.0	0.0	0.0 0.1	0.0 0.1	0.0 0.1	0.0 0.1	0.0 0.1	0.0	0.0
Total		0.0 7.9	9.3	11.2	13.3	15.7	18.0	19.6	21.6	23.8	25.7
Total		7.9	9.5	11.2	15.5	15.7	16.0	19.0	21.0	25.0	25.7
Fuel in Other Surface Tran Fuel	nsport and 2005		on, Region 2010	FSU (Units: EJ 2015	I/y) 2020	2025	2030	2035	2040	2045	2050
Other (Coal)		0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	2045	2030
Diesel		1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.9	3.2	3.4
Bio-Syngas		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CNG		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Biofuel(Diesel)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
Electricity		0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3
Hydrogen		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Jetfuel		0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.6
Total		9.4	11.0	13.3	15.7	18.4	20.9	22.9	25.2	27.9	30.3
Fuel in Other Surface Tran	sport and	Aviatio	on, Region	INDIA (Units:	EJ/y)						
Fuel	2005		2010	2015	2020	2025	2030	2035	2040	2045	2050
Other (Coal)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline		0.0	0.0	0.2	0.4	0.5	0.4	0.3	0.2	0.0	0.0
Diesel Bie Methenel		0.9	1.1	0.8	0.7	0.8	1.2	1.5	2.0	2.5	2.7
Bio-Methanol Bio-Ethanol		0.0 0.0	0.0 0.0	0.0 0.1	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0
CNG		0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biofuel(Diesel)		0.0	0.0	0.1	0.2	0.2	0.2	0.4	0.1	0.0	0.0
Electricity		0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.3
Hydrogen		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0
Bio-FT-Jetfuel		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Jetfuel			0.0			0.5	0.7	1.0	1.3		
Total		0.1	0.2	03	04					17	22
		0.1 1.1	0.2 1.4	0.3 1.7	0.4 2.0	2.4	2.9	3.6	4.3	1.7 5.1	
		1.1	1.4	1.7	2.0						
Fuel in Other Surface Tran Fuel	nsport and 2005	1.1 Aviatio	1.4 on, Region 2010	1.7 LAM (Units: E 2015	2.0 5 <b>/y)</b> 2020	2.4 2025	2.9 <b>2030</b>	3.6 2035	4.3 <b>2040</b>	5.1 <b>2045</b>	6.0 <b>2050</b>
Fuel in Other Surface Tran Fuel Other (Coal)	nsport and 2005	1.1 Aviatio 2 0.0	1.4 on, Region 2010 0.0	1.7 LAM (Units: E 2015 0.0	2.0 EJ/y) 2020 0.0	2.4 2025 0.0	2.9 <b>2030</b> 0.0	3.6 <b>2035</b> 0.0	4.3 <b>2040</b> 0.0	5.1 <b>2045</b> 0.0	2.2 6.0 <b>2050</b> 0.0
Fuel in Other Surface Tran Fuel Other (Coal) Diesel	nsport and 2005	1.1 Aviatio 0.0 2.9	1.4 <b>DN, Region</b> 2010 0.0 3.2	1.7 LAM (Units: E 2015 0.0 3.6	2.0 EJ/y) 2020 0.0 4.0	2.4 2025 0.0 4.4	2.9 2030 0.0 4.8	3.6 <b>2035</b> 0.0 5.3	4.3 <b>2040</b> 0.0 5.7	5.1 <b>2045</b> 0.0 6.0	6.0 <b>2050</b> 0.0 6.2
Fuel in Other Surface Tran Fuel Other (Coal) Diesel Bio-Methanol	nsport and 2005	1.1 Aviatio 0.0 2.9 0.0	1.4 <b>DN, Region</b> 2010 0.0 3.2 0.0	1.7 LAM (Units: E 2015 0.0 3.6 0.0	2.0 <b>2020</b> 0.0 4.0 0.0	2.4 2025 0.0 4.4 0.0	2.9 2030 0.0 4.8 0.0	3.6 2035 0.0 5.3 0.0	4.3 <b>2040</b> 0.0 5.7 0.0	5.1 2045 0.0 6.0 0.0	6.0 <b>2050</b> 0.0 6.2 0.0
Fuel in Other Surface Tran Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol	nsport and 2005	1.1 Aviatio 2.9 0.0 0.0 0.0	1.4 <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b>	1.7 LAM (Units: E 2015 0.0 3.6 0.0 0.0 0.0	2.0 <b>J/y)</b> 2020 0.0 4.0 0.0 0.0	2.4 2025 0.0 4.4 0.0 0.0	2.9 2030 0.0 4.8 0.0 0.0	3.6 2035 0.0 5.3 0.0 0.0	4.3 <b>2040</b> 0.0 5.7 0.0 0.0	5.1 2045 0.0 6.0 0.0 0.0	6.0 2050 0.0 6.2 0.0 0.0
Fuel in Other Surface Tran Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol CNG	isport and 2005	1.1 Aviatio 2.9 0.0 0.0 0.0 0.1	1.4 <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b>	1.7 LAM (Units: E 2015 0.0 3.6 0.0 0.0 0.1	2.0 (J/y) 2020 0.0 4.0 0.0 0.0 0.0 0.1	2.4 2025 0.0 4.4 0.0 0.0 0.0	2.9 2030 0.0 4.8 0.0 0.0 0.0	3.6 2035 0.0 5.3 0.0 0.0 0.0	4.3 2040 0.0 5.7 0.0 0.0 0.0	5.1 2045 0.0 6.0 0.0 0.0 0.0	6.0 2050 0.0 6.2 0.0 0.0 0.0
Fuel in Other Surface Tran Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol CNG Biofuel(Diesel)	isport and 2005	1.1 Aviatio 0.0 2.9 0.0 0.0 0.0 0.1 0.0	1.4 <b>on, Region</b> <b>2010</b> 0.0 3.2 0.0 0.0 0.0 0.1 0.0	1.7 LAM (Units: E 2015 0.0 3.6 0.0 0.0 0.1 0.0	2.0 <b>3/y)</b> 2020 0.0 4.0 0.0 0.0 0.1 0.0	2.4 2025 0.0 4.4 0.0 0.0 0.0 0.0 0.0	2.9 2030 0.0 4.8 0.0 0.0 0.0 0.0 0.0	3.6 2035 0.0 5.3 0.0 0.0 0.0 0.0 0.0	4.3 2040 0.0 5.7 0.0 0.0 0.0 0.0 0.0	5.1 2045 0.0 6.0 0.0 0.0 0.0 0.0	6.0 2050 0.0 6.2 0.0 0.0 0.0 0.0
Fuel in Other Surface Tran Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol CNG Biofuel(Diesel) Electricity	nsport and 2005	1.1 Aviatio 2.9 0.0 0.0 0.0 0.1 0.0 0.0 0.0	1.4 on, Region 2010 0.0 3.2 0.0 0.0 0.1 0.0 0.0 0.0 0.0	1.7 LAM (Units: E 2015 0.0 3.6 0.0 0.0 0.1 0.0 0.0 0.0	2.0 3/y) 2020 0.0 4.0 0.0 0.0 0.1 0.0 0.1 0.0 0.0	2.4 2025 0.0 4.4 0.0 0.0 0.0 0.0 0.0 0.1	2.9 2030 0.0 4.8 0.0 0.0 0.0 0.0 0.0 0.1	3.6 2035 0.0 5.3 0.0 0.0 0.0 0.0 0.0 0.1	4.3 2040 0.0 5.7 0.0 0.0 0.0 0.0 0.0 0.2	5.1 2045 0.0 6.0 0.0 0.0 0.0 0.0 0.0 0.0 0.4	6.0 2050 0.0 6.2 0.0 0.0 0.0 0.0 0.0
Fuel in Other Surface Tran Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol CNG Biofuel(Diesel) Electricity Hydrogen	nsport and 2005	1.1 Aviatio 2.9 0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0	1.4 on, Region 2010 0.0 3.2 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0	1.7 LAM (Units: E 2015 0.0 3.6 0.0 0.0 0.1 0.0 0.0 0.0 0.0	2.0 <b>3/y)</b> 2020 0.0 4.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0	2.4 2025 0.0 4.4 0.0 0.0 0.0 0.0 0.1 0.0	2.9 2030 0.0 4.8 0.0 0.0 0.0 0.0 0.1 0.0	3.6 2035 0.0 5.3 0.0 0.0 0.0 0.0 0.1 0.0	4.3 2040 0.0 5.7 0.0 0.0 0.0 0.0 0.0 0.2 0.0	5.1 2045 0.0 6.0 0.0 0.0 0.0 0.0 0.0 0.4 0.0	6.0 2050 0.0 6.2 0.0 0.0 0.0 0.0 0.0 0.5 0.0
Fuel in Other Surface Tran Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol CNG Biofuel(Diesel) Electricity Hydrogen Jetfuel	nsport and 2005	1.1 Aviatic 2.9 0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.2	1.4 on, Region 2010 0.0 3.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	1.7 LAM (Units: E 2015 0.0 3.6 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.3	2.0 <b>3/y)</b> 2020 0.0 4.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0	2.4 2025 0.0 4.4 0.0 0.0 0.0 0.0 0.0 0.1 0.0 0.5	2.9 2030 0.0 4.8 0.0 0.0 0.0 0.0 0.1 0.0 0.6	3.6 2035 0.0 5.3 0.0 0.0 0.0 0.0 0.1 0.0 0.8	4.3 2040 0.0 5.7 0.0 0.0 0.0 0.0 0.0 0.2 0.0 0.9	5.1 2045 0.0 6.0 0.0 0.0 0.0 0.0 0.0 0.4 0.0 1.1	6.0 2050 0.0 6.2 0.0 0.0 0.0 0.0 0.5 0.0 0.1 3
Fuel in Other Surface Tran Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol CNG Biofuel(Diesel) Electricity Hydrogen	nsport and 2005	1.1 Aviatio 2.9 0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0	1.4 on, Region 2010 0.0 3.2 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0	1.7 LAM (Units: E 2015 0.0 3.6 0.0 0.0 0.1 0.0 0.0 0.0 0.0	2.0 <b>3/y)</b> 2020 0.0 4.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0	2.4 2025 0.0 4.4 0.0 0.0 0.0 0.0 0.1 0.0	2.9 2030 0.0 4.8 0.0 0.0 0.0 0.0 0.1 0.0	3.6 2035 0.0 5.3 0.0 0.0 0.0 0.0 0.1 0.0	4.3 2040 0.0 5.7 0.0 0.0 0.0 0.0 0.0 0.2 0.0	5.1 2045 0.0 6.0 0.0 0.0 0.0 0.0 0.0 0.4 0.0	6.0 2050 0.0 6.2 0.0 0.0 0.0 0.0 0.0 0.5 0.0
Fuel in Other Surface Tran Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol CNG Biofuel(Diesel) Electricity Hydrogen Jetfuel Total Fuel in Other Surface Tran	isport and 2005	1.1 Aviatic 2.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.2 3.3 Aviatic	1.4 <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b> <b>DATE:</b>	1.7 LAM (Units: E 2015 0.0 3.6 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0	2.0 <b>J/y)</b> 2020 0.0 4.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0	2.4 2025 0.0 4.4 0.0 0.0 0.0 0.0 0.1 0.0 0.5 5.0	2.9 2030 0.0 4.8 0.0 0.0 0.0 0.0 0.1 0.0 0.6 5.6	3.6 2035 0.0 5.3 0.0 0.0 0.0 0.0 0.0 0.0 0.8 6.2	4.3 2040 0.0 5.7 0.0 0.0 0.0 0.0 0.0 0.0 0.9 6.9	5.1 2045 0.0 6.0 0.0 0.0 0.0 0.0 0.0 1.1 7.5	6.0 <b>2050</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
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Fuel in Other Surface Tran Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol CNG Biofuel(Diesel) Electricity Hydrogen Jetfuel Total Fuel in Other Surface Tran Fuel Other (Coal) Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG	nsport and 2005	1.1 Aviatic 0.0 2.9 0.0 0.0 0.0 0.0 0.0 0.0 0.2 3.3 Aviatic 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	1.4 on, Region 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0	1.7 LAM (Units: E 2015 0.0 3.6 0.0 0.0 0.1 0.0 0.0 0.0 0.3 4.0 MEA (Units: E 2015 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	2.0 3/y) 2020 0.0 4.0 0.0 0.1 0.0 0.0 0.0 0.4 4.5 5/y) 2020 0.0 0.0 0.0 0.0 0.0 0.0 0.	2.4 2025 0.0 4.4 0.0 0.0 0.0 0.0 0.1 0.0 0.5 5.0 2025 0.0 0.0 4.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2.9 2030 0.0 4.8 0.0 0.0 0.0 0.0 0.0 5.6 2030 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	3.6 2035 0.0 5.3 0.0 0.0 0.0 0.0 0.1 0.0 0.8 6.2 2035 0.0 0.0 0.0 5.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	4.3 2040 0.0 5.7 0.0 0.0 0.0 0.0 0.2 0.0 0.9 6.9 2040 0.0 0.0 0.0 0.0 0.0 0.0 0.0	5.1 2045 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.1 7.5 2045 0.0 0.0 6.7 0.0 0.0 0.0 0.0	6.0 2050 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Fuel in Other Surface Tran Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol CNG Biofuel(Diesel) Electricity Hydrogen Jetfuel Total Fuel in Other Surface Tran Fuel Other (Coal) Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel)	nsport and 2005	1.1 Aviatic 0.0 2.9 0.0 0.0 0.0 0.0 0.0 0.0 0.2 3.3 Aviatic 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	1.4 on, Region 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0	1.7 LAM (Units: E 2015 0.0 3.6 0.0 0.0 0.0 0.0 0.0 0.0 0.3 4.0 MEA (Units: E 2015 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	2.0 3/y) 2020 0.0 4.0 0.0 0.1 0.0 0.0 0.0 0.4 4.5 5/y) 2020 0.0 0.0 0.0 0.0 0.0 0.0 0.	2.4 2025 0.0 4.4 0.0 0.0 0.0 0.0 0.1 0.0 0.5 5.0 2025 0.0 0.0 4.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2.9 2030 0.0 4.8 0.0 0.0 0.0 0.0 0.0 5.6 2030 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	3.6 2035 0.0 5.3 0.0 0.0 0.0 0.0 0.1 0.0 0.8 6.2 2035 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	4.3 2040 0.0 5.7 0.0 0.0 0.0 0.0 0.2 0.0 0.9 6.9 2040 0.0 0.0 0.0 0.0 0.0 0.0 0.0	5.1 2045 0.0 0.0 0.0 0.0 0.0 0.0 1.1 7.5 2045 0.0 0.0 6.7 0.0 0.0 0.0 0.0 0.0 0.0	6.0 2050 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Fuel in Other Surface Tran Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol CNG Biofuel(Diesel) Electricity Hydrogen Jetfuel Total Fuel in Other Surface Tran Fuel Other (Coal) Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG	isport and 2005	1.1 Aviatic 0.0 2.9 0.0 0.0 0.0 0.0 0.0 0.0 0.2 3.3 Aviatic 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	1.4 on, Region 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0	1.7 LAM (Units: E 2015 0.0 3.6 0.0 0.0 0.1 0.0 0.0 0.0 0.3 4.0 MEA (Units: E 2015 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	2.0 3/y) 2020 0.0 4.0 0.0 0.1 0.0 0.0 0.0 0.4 4.5 5/y) 2020 0.0 0.0 0.0 0.0 0.0 0.0 0.	2.4 2025 0.0 4.4 0.0 0.0 0.0 0.0 0.1 0.0 0.5 5.0 2025 0.0 0.0 4.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2.9 2030 0.0 4.8 0.0 0.0 0.0 0.0 0.0 5.6 2030 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	3.6 2035 0.0 5.3 0.0 0.0 0.0 0.0 0.1 0.0 0.8 6.2 2035 0.0 0.0 0.0 5.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	4.3 2040 0.0 5.7 0.0 0.0 0.0 0.0 0.2 0.0 0.9 6.9 2040 0.0 0.0 0.0 0.0 0.0 0.0 0.0	5.1 2045 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.1 7.5 2045 0.0 0.0 6.7 0.0 0.0 0.0 0.0	6.0 2050 0.0 6.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0

Total	3.9	4.4	4.6	5.0	5.5	6.1	7.0	8.0	9.1	10.2
Fuel in Other Surface Tra	ansport and Avia	tion, Region (	MEXICO (Uni	ts: EJ/v)						
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Other (Coal)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diesel	1.2	1.3	1.4	1.5	1.6	1.8	2.0	2.2	2.3	2.5
CNG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biofuel(Diesel)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2
Jetfuel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.6	0.0
Total	5.7	6.4	6.8	7.4	8.3	9.4	10.8	12.4	14.2	16.0
Fuel in Other Surface Tra	ansport and Avia	tion, Region I	PACIFIC (Unit	:s: EJ/y)						
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Other (Coal)	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Gasoline	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diesel	3.0	2.7	2.4	2.5	2.5	2.4	2.4	2.4	2.4	2.5
Bio-Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Ethanol	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CNG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biofuel(Diesel)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	0.0	0.0	0.0	0.1	0.0	0.2	0.2	0.2	0.0	0.2
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-FT-Jetfuel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Jetfuel	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.1	1.1	1.1
	3.9					3.6		3.7	3.7	
Total	3.9	3.6	3.6	3.6	3.7	3.0	3.6	3.7	3.7	3.8
Fuel in Other Surface Tra	ansport and Avia	tion, Region	RUSSIA (Unit	s: EJ/y)						
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Other (Coal)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diesel	0.6	0.6	0.9	0.9	0.8	0.9	1.0	1.1	1.2	1.3
Bio-Syngas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CNG	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2
Electricity	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Jetfuel	0.4	0.5	0.6	0.8	0.9	1.2	1.5	1.9	2.2	2.7
Total	5.8	5.6	6.1	6.3	6.5	6.8	7.3	7.9	8.5	9.1
Fuel in Other Surface Tra	-	-					2025			
Fuel	2005								2045	2050
Other (Coal)	0.0	2010	2015	2020	2025	2030	2035	2040	2045	2050
Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	6.9	0.0 6.3	0.0 6.3	0.0 6.4	0.0 6.5	0.0 6.5	0.0 6.5	0.0 6.3	0.0 6.4	0.0 6.6
Bio-Methanol	6.9 0.0	0.0 6.3 0.0	0.0 6.3 0.0	0.0 6.4 0.0	0.0 6.5 0.0	0.0 6.5 0.0	0.0 6.5 0.0	0.0 6.3 0.0	0.0 6.4 0.0	0.0 6.6 0.0
Bio-Methanol Bio-Ethanol	6.9 0.0 0.0	0.0 6.3 0.0 0.0	0.0 6.3 0.0 0.0	0.0 6.4 0.0 0.0	0.0 6.5 0.0 0.0	0.0 6.5 0.0 0.0	0.0 6.5 0.0 0.0	0.0 6.3 0.0 0.0	0.0 6.4 0.0 0.0	0.0 6.6 0.0 0.0
Bio-Methanol Bio-Ethanol Bio-Syngas	6.9 0.0 0.0 0.0	0.0 6.3 0.0 0.0 0.0	0.0 6.3 0.0 0.0 0.0	0.0 6.4 0.0 0.0 0.0	0.0 6.5 0.0 0.0 0.0	0.0 6.5 0.0 0.0 0.0	0.0 6.5 0.0 0.0 0.0	0.0 6.3 0.0 0.0 0.0	0.0 6.4 0.0 0.0 0.0	0.0 6.6 0.0 0.0 0.0
Bio-Methanol Bio-Ethanol Bio-Syngas CNG	6.9 0.0 0.0 0.0 0.0	0.0 6.3 0.0 0.0 0.0 0.0	0.0 6.3 0.0 0.0 0.0 0.0	0.0 6.4 0.0 0.0 0.0 0.0	0.0 6.5 0.0 0.0 0.0 0.0	0.0 6.5 0.0 0.0 0.0 0.0	0.0 6.5 0.0 0.0 0.0 0.0	0.0 6.3 0.0 0.0 0.0 0.0	0.0 6.4 0.0 0.0 0.0 0.0	0.0 6.6 0.0 0.0 0.0 0.0
Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel)	6.9 0.0 0.0 0.0 0.0 0.0	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.0	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.2	0.0 6.4 0.0 0.0 0.0 0.0 0.0	0.0 6.5 0.0 0.0 0.0 0.0 0.0	0.0 6.5 0.0 0.0 0.0 0.0 0.0	0.0 6.5 0.0 0.0 0.0 0.0 0.0	0.0 6.3 0.0 0.0 0.0 0.0 0.0	0.0 6.4 0.0 0.0 0.0 0.0 0.0 0.0	0.0 6.6 0.0 0.0 0.0 0.0 0.0
Bio-Methanol Bio-Ethanol Bio-Syngas CNG	6.9 0.0 0.0 0.0 0.0	0.0 6.3 0.0 0.0 0.0 0.0	0.0 6.3 0.0 0.0 0.0 0.0	0.0 6.4 0.0 0.0 0.0 0.0	0.0 6.5 0.0 0.0 0.0 0.0	0.0 6.5 0.0 0.0 0.0 0.0	0.0 6.5 0.0 0.0 0.0 0.0	0.0 6.3 0.0 0.0 0.0 0.0	0.0 6.4 0.0 0.0 0.0 0.0	0.0 6.6 0.0 0.0 0.0 0.0
Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel)	6.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.0	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.2	0.0 6.4 0.0 0.0 0.0 0.0 0.0	0.0 6.5 0.0 0.0 0.0 0.0 0.0	0.0 6.5 0.0 0.0 0.0 0.0 0.0	0.0 6.5 0.0 0.0 0.0 0.0 0.0	0.0 6.3 0.0 0.0 0.0 0.0 0.0	0.0 6.4 0.0 0.0 0.0 0.0 0.0 0.0	0.0 6.6 0.0 0.0 0.0 0.0 0.0
Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity	6.9 0.0 0.0 0.0 0.0 0.0 0.0	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.2 0.0	0.0 6.4 0.0 0.0 0.0 0.0 0.0 0.0	0.0 6.5 0.0 0.0 0.0 0.0 0.0 0.0 0.1	0.0 6.5 0.0 0.0 0.0 0.0 0.0 0.0 0.2	0.0 6.5 0.0 0.0 0.0 0.0 0.0 0.0 0.3	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.0 0.5	0.0 6.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 6.6 0.0 0.0 0.0 0.0 0.0 0.6 0.0
Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen	6.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 6.3 0.0 0.0 0.0 0.0 0.2 0.0 0.0 0.0	0.0 6.4 0.0 0.0 0.0 0.0 0.0 0.1 0.0	0.0 6.5 0.0 0.0 0.0 0.0 0.0 0.1 0.0	0.0 6.5 0.0 0.0 0.0 0.0 0.0 0.0 0.2 0.0	0.0 6.5 0.0 0.0 0.0 0.0 0.0 0.3 0.0	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.5 0.0	0.0 6.4 0.0 0.0 0.0 0.0 0.0 0.6 0.0	0.0 6.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Jetfuel Total	6.9 0.0 0.0 0.0 0.0 0.0 0.0 3.5 10.4	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.4 9.7	0.0 6.3 0.0 0.0 0.0 0.0 0.2 0.0 0.0 0.0 3.5 10.0	0.0 6.4 0.0 0.0 0.0 0.0 0.1 0.0 3.7 10.3	0.0 6.5 0.0 0.0 0.0 0.0 0.0 0.1 0.0 4.0	0.0 6.5 0.0 0.0 0.0 0.0 0.0 0.2 0.0 4.1	0.0 6.5 0.0 0.0 0.0 0.0 0.0 0.3 0.0 4.4	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.5 0.0 4.6	0.0 6.4 0.0 0.0 0.0 0.0 0.0 0.6 0.0 4.9	0.0 6.6 0.0 0.0 0.0 0.0 0.0 0.6 0.0 5.1
Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Jetfuel Total Fuel in Other Surface Tra	6.9 0.0 0.0 0.0 0.0 0.0 0.0 3.5 10.4 ansport and Avia	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.4 9.7	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 6.4 0.0 0.0 0.0 0.0 0.1 0.0 3.7 10.3 <b>: EJ/y)</b>	0.0 6.5 0.0 0.0 0.0 0.0 0.0 0.1 0.0 4.0 10.6	0.0 6.5 0.0 0.0 0.0 0.0 0.0 0.2 0.0 4.1 10.8	0.0 6.5 0.0 0.0 0.0 0.0 0.0 0.3 0.0 4.4 11.1	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.5 0.0 4.6 11.5	0.0 6.4 0.0 0.0 0.0 0.0 0.0 0.6 0.0 4.9 11.9	0.0 6.6 0.0 0.0 0.0 0.0 0.0 0.6 0.0 5.1 12.3
Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Jetfuel Total Fuel in Other Surface Tra Fuel	6.9 0.0 0.0 0.0 0.0 0.0 0.0 3.5 10.4 ansport and Avia 2005	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.4 9.7 tion, Region V 2010	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.5 10.0 WEUR (Units: 2015	0.0 6.4 0.0 0.0 0.0 0.0 0.1 0.0 3.7 10.3 EJ/y) 2020	0.0 6.5 0.0 0.0 0.0 0.0 0.1 0.0 4.0 10.6	0.0 6.5 0.0 0.0 0.0 0.0 0.0 0.2 0.0 4.1 10.8 <b>2030</b>	0.0 6.5 0.0 0.0 0.0 0.0 0.0 0.3 0.0 4.4 11.1	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.5 0.0 4.6 11.5	0.0 6.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 4.9 11.9 2045	0.0 6.6 0.0 0.0 0.0 0.0 0.0 0.0 5.1 12.3 <b>2050</b>
Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Jetfuel Total Fuel in Other Surface Tra Fuel Other (Coal)	6.9 0.0 0.0 0.0 0.0 0.0 0.0 3.5 10.4 ansport and Avia 2005 0.0	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.4 9.7 tion, Region V 2010	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.5 10.0 WEUR (Units: 2015 0.0	0.0 6.4 0.0 0.0 0.0 0.1 0.0 3.7 10.3 <b>: EJ/y)</b> 2020 0.1	0.0 6.5 0.0 0.0 0.0 0.0 0.1 0.0 4.0 10.6 <b>2025</b> 0.1	0.0 6.5 0.0 0.0 0.0 0.0 0.0 0.2 0.0 4.1 10.8 <b>2030</b> 0.0	0.0 6.5 0.0 0.0 0.0 0.0 0.0 0.3 0.0 4.4 11.1 2035 0.0	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.5 0.0 4.6 11.5 <b>2040</b> 0.0	0.0 6.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 4.9 11.9 2045 0.0	0.0 6.6 0.0 0.0 0.0 0.0 0.0 5.1 12.3 <b>2050</b> 0.0
Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Jetfuel Total Fuel in Other Surface Tra Fuel Other (Coal) Diesel	6.9 0.0 0.0 0.0 0.0 0.0 0.0 3.5 10.4 ansport and Avia 2005 0.0 7.8	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.4 9.7 tion, Region V 2010 0.0 7.1	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.5 10.0 WEUR (Units: 2015 0.0 7.2	0.0 6.4 0.0 0.0 0.0 0.1 0.0 3.7 10.3 <b>: EJ/y)</b> <b>2020</b> 0.1 7.2	0.0 6.5 0.0 0.0 0.0 0.0 0.1 0.0 4.0 10.6 <b>2025</b> 0.1 7.1	0.0 6.5 0.0 0.0 0.0 0.0 0.0 0.2 0.0 4.1 10.8 <b>2030</b> 0.0 6.9	0.0 6.5 0.0 0.0 0.0 0.0 0.0 0.3 0.0 4.4 11.1 <b>2035</b> 0.0 7.1	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.5 0.0 4.6 11.5 <b>2040</b> 0.0 7.3	0.0 6.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 4.9 11.9 2045 0.0 7.5	0.0 6.6 0.0 0.0 0.0 0.0 0.0 5.1 12.3 <b>2050</b> 0.0 7.7
Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Jetfuel Total Fuel in Other Surface Tra Fuel Other (Coal) Diesel Bio-Methanol	6.9 0.0 0.0 0.0 0.0 0.0 0.0 3.5 10.4 ansport and Avia 2005 0.0 7.8 0.0	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.0 3.4 9.7 tion, Region 2010 0.0 7.1 0.0	0.0 6.3 0.0 0.0 0.0 0.2 0.0 0.0 3.5 10.0 WEUR (Units: 2015 0.0 7.2 0.0	0.0 6.4 0.0 0.0 0.0 0.1 0.0 3.7 10.3 <b>: EJ/y)</b> 2020 0.1 7.2 0.0	0.0 6.5 0.0 0.0 0.0 0.0 0.1 0.0 4.0 10.6 <b>2025</b> 0.1 7.1 0.0	0.0 6.5 0.0 0.0 0.0 0.0 0.0 0.0 4.1 10.8 <b>2030</b> 0.0 6.9 0.0	0.0 6.5 0.0 0.0 0.0 0.0 0.0 0.3 0.0 4.4 11.1 <b>2035</b> 0.0 7.1 0.0	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.0 4.6 11.5 <b>2040</b> 0.0 7.3 0.0	0.0 6.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 4.9 11.9 <b>2045</b> 0.0 7.5 0.0	0.0 6.6 0.0 0.0 0.0 0.0 0.0 5.1 12.3 <b>2050</b> 0.0 7.7 0.0
Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Jetfuel Total Fuel in Other Surface Tra Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol	6.9 0.0 0.0 0.0 0.0 0.0 0.0 3.5 10.4 ansport and Avia 2005 0.0 7.8 0.0 7.8 0.0	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.0 3.4 9.7 tion, Region 2010 0.0 7.1 0.0 7.1 0.0	0.0 6.3 0.0 0.0 0.0 0.2 0.0 0.0 3.5 10.0 WEUR (Units: 2015 0.0 7.2 0.0 7.2 0.0 0.0	0.0 6.4 0.0 0.0 0.0 0.1 0.0 3.7 10.3 <b>: EJ/y)</b> 2020 0.1 7.2 0.0 0.0	0.0 6.5 0.0 0.0 0.0 0.1 0.0 4.0 10.6 <b>2025</b> 0.1 7.1 0.0 0.0	0.0 6.5 0.0 0.0 0.0 0.0 0.0 4.1 10.8 <b>2030</b> 0.0 6.9 0.0 0.0	0.0 6.5 0.0 0.0 0.0 0.0 0.3 0.0 4.4 11.1 <b>2035</b> 0.0 7.1 0.0 0.0	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.0 4.6 11.5 <b>2040</b> 0.0 7.3 0.0 0.0	0.0 6.4 0.0 0.0 0.0 0.0 0.0 0.0 4.9 11.9 <b>2045</b> 0.0 7.5 0.0 0.0	0.0 6.6 0.0 0.0 0.0 0.0 0.0 5.1 12.3 <b>2050</b> 0.0 7.7 0.0 0.0
Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Jetfuel Total Fuel in Other Surface Tra Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol CNG	6.9 0.0 0.0 0.0 0.0 0.0 0.0 3.5 10.4 ansport and Avia 2005 0.0 7.8 0.0 7.8 0.0 0.0	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.0 3.4 9.7 tion, Region 2010 0.0 7.1 0.0 0.0 0.0 0.0	0.0 6.3 0.0 0.0 0.0 0.2 0.0 0.0 3.5 10.0 WEUR (Units: 2015 0.0 7.2 0.0 0.0 7.2 0.0	0.0 6.4 0.0 0.0 0.0 0.1 0.0 3.7 10.3 <b>: EJ/y)</b> 2020 0.1 7.2 0.0 0.0 0.0	0.0 6.5 0.0 0.0 0.0 0.1 0.0 4.0 10.6 <b>2025</b> 0.1 7.1 0.0 0.0 0.0	0.0 6.5 0.0 0.0 0.0 0.0 0.0 4.1 10.8 <b>2030</b> 0.0 6.9 0.0 0.0 0.0 0.0	0.0 6.5 0.0 0.0 0.0 0.3 0.0 4.4 11.1 <b>2035</b> 0.0 7.1 0.0 0.0 0.0	0.0 6.3 0.0 0.0 0.0 0.0 0.0 4.6 11.5 <b>2040</b> 0.0 7.3 0.0 0.0 0.0	0.0 6.4 0.0 0.0 0.0 0.0 0.0 0.0 4.9 11.9 <b>2045</b> 0.0 7.5 0.0 0.0 0.0	0.0 6.6 0.0 0.0 0.0 0.0 0.0 5.1 12.3 <b>2050</b> 0.0 7.7 0.0 0.0 0.0
Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Jetfuel Total Fuel in Other Surface Tra Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol	6.9 0.0 0.0 0.0 0.0 0.0 0.0 3.5 10.4 ansport and Avia 2005 0.0 7.8 0.0 7.8 0.0	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.0 3.4 9.7 tion, Region 2010 0.0 7.1 0.0 7.1 0.0	0.0 6.3 0.0 0.0 0.0 0.2 0.0 0.0 3.5 10.0 WEUR (Units: 2015 0.0 7.2 0.0 7.2 0.0 0.0	0.0 6.4 0.0 0.0 0.0 0.1 0.0 3.7 10.3 <b>: EJ/y)</b> 2020 0.1 7.2 0.0 0.0	0.0 6.5 0.0 0.0 0.0 0.1 0.0 4.0 10.6 <b>2025</b> 0.1 7.1 0.0 0.0	0.0 6.5 0.0 0.0 0.0 0.0 0.0 4.1 10.8 <b>2030</b> 0.0 6.9 0.0 0.0	0.0 6.5 0.0 0.0 0.0 0.0 0.3 0.0 4.4 11.1 <b>2035</b> 0.0 7.1 0.0 0.0	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.0 4.6 11.5 <b>2040</b> 0.0 7.3 0.0 0.0	0.0 6.4 0.0 0.0 0.0 0.0 0.0 0.0 4.9 11.9 <b>2045</b> 0.0 7.5 0.0 0.0	0.0 6.6 0.0 0.0 0.0 0.0 0.0 5.1 12.3 <b>2050</b> 0.0 7.7 0.0 0.0 0.0
Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Jetfuel Total Fuel in Other Surface Tra Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol	6.9 0.0 0.0 0.0 0.0 0.0 0.0 3.5 10.4 ansport and Avia 2005 0.0 7.8 0.0 7.8 0.0 0.0 0.0 0.0 0.0	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.0 3.4 9.7 tion, Region 2010 0.0 7.1 0.0 0.0 0.0 0.0	0.0 6.3 0.0 0.0 0.2 0.0 0.0 3.5 10.0 WEUR (Units: 2015 0.0 7.2 0.0 0.0 0.0 0.0	0.0 6.4 0.0 0.0 0.0 0.1 0.1 0.0 3.7 10.3 <b>: EJ/y)</b> 2020 0.1 7.2 0.0 0.1 7.2 0.0 0.0 0.0	0.0 6.5 0.0 0.0 0.0 0.1 0.0 4.0 10.6 <b>2025</b> 0.1 7.1 0.0 0.0 0.0	0.0 6.5 0.0 0.0 0.0 0.2 0.0 4.1 10.8 <b>2030</b> 0.0 6.9 0.0 0.0 0.0 0.0 0.0	0.0 6.5 0.0 0.0 0.0 0.3 0.0 4.4 11.1 <b>2035</b> 0.0 7.1 0.0 0.0 0.0	0.0 6.3 0.0 0.0 0.0 0.0 0.0 4.6 11.5 <b>2040</b> 0.0 7.3 0.0 0.0 0.0	0.0 6.4 0.0 0.0 0.0 0.0 0.0 4.9 11.9 <b>2045</b> 0.0 7.5 0.0 0.0 0.0 0.0 0.0	0.0 6.6 0.0 0.0 0.0 0.0 0.0 5.1 12.3 <b>2050</b> 0.0 7.7 0.0 0.0
Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Jetfuel Total Fuel in Other Surface Tra Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol CNG Electricity	6.9 0.0 0.0 0.0 0.0 0.0 0.0 3.5 10.4 ansport and Avia 2005 0.0 7.8 0.0 7.8 0.0 0.0 0.0	0.0 6.3 0.0 0.0 0.0 0.0 0.0 0.0 3.4 9.7 tion, Region V 2010 0.0 7.1 0.0 0.0 7.1 0.0 0.0 0.0	0.0 6.3 0.0 0.0 0.0 0.2 0.0 0.0 3.5 10.0 WEUR (Units: 2015 0.0 7.2 0.0 7.2 0.0 0.0 0.0 0.0	0.0 6.4 0.0 0.0 0.0 0.0 0.1 0.0 3.7 10.3 <b>: EJ/y)</b> 2020 0.1 7.2 0.0 0.1 7.2 0.0 0.0	0.0 6.5 0.0 0.0 0.0 0.1 0.0 4.0 10.6 <b>2025</b> 0.1 7.1 0.0 0.0 0.0 0.0	0.0 6.5 0.0 0.0 0.0 0.0 0.2 0.0 4.1 10.8 <b>2030</b> 0.0 6.9 0.0 0.0 0.0 0.0 0.0	0.0 6.5 0.0 0.0 0.0 0.3 0.0 4.4 11.1 <b>2035</b> 0.0 7.1 0.0 0.0 0.0 0.0	0.0 6.3 0.0 0.0 0.0 0.0 0.0 4.6 11.5 <b>2040</b> 0.0 7.3 0.0 0.0 0.0 0.0 0.0	0.0 6.4 0.0 0.0 0.0 0.0 0.0 4.9 11.9 <b>2045</b> 0.0 7.5 0.0 7.5 0.0 0.0 0.0 0.0	0.0 6.6 0.0 0.0 0.0 0.0 0.0 5.1 12.3 <b>2050</b> 0.0 7.7 0.0 0.0 0.0 0.0 0.0

## Fuel for All Transport (EJ/Y)

EJ/y) 2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
0.6	0.8	1.0	1.2	1.4	1.3	0.4	0.1	0.0	0.0
10.2	10.7	12.4	14.6	17.1	19.7	22.8	26.4	30.6	34.9
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
35.0	38.2	40.9	42.1	42.5	41.6	40.6	39.4	36.6	32.2
42.2	42.2	44.6	47.5	51.0	55.5	61.7	69.2	77.5	85.6
0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
0.0	0.1	0.7	1.2	1.9	2.6	3.3	3.4	3.4	2.5
0.5	1.4	2.4	3.3	3.7	4.0	3.9	4.4	5.1	4.9
0.0	0.0	0.1	0.2	0.2	0.2	0.3	0.3	0.2	0.3
0.4	0.7	0.9	1.3	1.8	2.4	2.8	3.2	3.8	4.4
0.1	0.5	1.1	1.4	1.6	1.2	1.4	1.3	1.4	1.
0.3	0.3	0.5	0.9	1.4	2.3	3.2	4.1	5.2	6.
0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.4	0.4	0.
89.4	95.1	104.6	113.7	123.0	131.3	140.8	152.5	164.4	172.
n AEDICA (IIn									
•		2015	2020	2025	2030	2035	2040	2045	2050
0.0	0.0	0.1	0.1	0.1	0.2	0.0	0.0	0.0	0.
0.3	0.4	0.5	0.6	0.8	1.1	1.5	2.2	3.0	4.
0.9	1.2	1.5	1.8	2.0	2.1	2.1	2.1	1.9	1.
1.7	1.7	1.8	2.0	2.2	2.5	2.9	3.7	4.6	5.
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
									0.
0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.
0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.
0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
3.0	3.4	4.0	4.7	5.5	6.3	7.3	8.6	10.3	12.
•									
									2050
									0.
									4.
									5.
									10.
									0.
									0.
									0. 0.
									0.
									0. 0.
									22.
0.4	7.0	0.0	10.5	12.2	14.2	10.0	19.0	21.0	22.
n BRAZIL (Uni	ts: EJ/y)								
2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
0.0	0.0	0.1	0.1	0.1	0.2	0.0	0.0	0.0	0.
0.2	0.2	0.2	0.2	0.3	0.4	0.5	0.7	0.8	1.
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
0.9	0.9	1.2	1.1	1.1	1.3	1.6	1.7	1.4	1
0.5			1 5	1.0	1.9	2.1	2.3	2.8	3
1.0	1.1	1.2	1.5	1.8					
	1.1 0.0	1.2 0.0	0.0	1.8 0.0	0.0	0.0	0.0	0.0	
1.0	0.0 0.4						0.0 0.4	0.3	0
1.0 0.0	0.0	0.0	0.0	0.0	0.0	0.0			0
1.0 0.0 0.2	0.0 0.4 0.0 0.1	0.0 0.3	0.0 0.3 0.0 0.1	0.0 0.3 0.0 0.1	0.0 0.3 0.0 0.1	0.0 0.4 0.0 0.1	0.4 0.0 0.2	0.3 0.0 0.2	0. 0. 0.
1.0 0.0 0.2 0.0 0.1 0.0	0.0 0.4 0.0	0.0 0.3 0.0	0.0 0.3 0.0	0.0 0.3 0.0	0.0 0.3 0.0 0.1 0.1	0.0 0.4 0.0	0.4 0.0	0.3 0.0	0.00
1.0 0.0 0.2 0.0 0.1 0.0 0.0	0.0 0.4 0.0 0.1 0.0 0.0	0.0 0.3 0.0 0.1 0.0 0.0	0.0 0.3 0.0 0.1 0.1 0.0	0.0 0.3 0.0 0.1 0.1 0.1	0.0 0.3 0.0 0.1 0.1 0.1	0.0 0.4 0.0 0.1 0.1 0.1	0.4 0.0 0.2 0.1 0.2	0.3 0.0 0.2 0.1 0.2	0 0 0 0
1.0 0.0 0.2 0.0 0.1 0.0 0.0 0.0	0.0 0.4 0.0 0.1 0.0 0.0 0.0	0.0 0.3 0.0 0.1 0.0 0.0 0.0	0.0 0.3 0.0 0.1 0.1 0.0 0.0	0.0 0.3 0.0 0.1 0.1	0.0 0.3 0.0 0.1 0.1 0.1 0.0	0.0 0.4 0.0 0.1 0.1 0.1 0.0	0.4 0.0 0.2 0.1 0.2 0.0	0.3 0.0 0.2 0.1 0.2 0.2	
1.0 0.0 0.2 0.0 0.1 0.0 0.0	0.0 0.4 0.0 0.1 0.0 0.0	0.0 0.3 0.0 0.1 0.0 0.0	0.0 0.3 0.0 0.1 0.1 0.0	0.0 0.3 0.0 0.1 0.1 0.1	0.0 0.3 0.0 0.1 0.1 0.1	0.0 0.4 0.0 0.1 0.1 0.1	0.4 0.0 0.2 0.1 0.2	0.3 0.0 0.2 0.1 0.2	
1.0 0.0 0.2 0.0 0.1 0.0 0.0 0.0 2.4	0.0 0.4 0.0 0.1 0.0 0.0 0.0 2.8	0.0 0.3 0.0 0.1 0.0 0.0 0.0 3.2	0.0 0.3 0.0 0.1 0.1 0.0 0.0	0.0 0.3 0.0 0.1 0.1 0.1 0.0	0.0 0.3 0.0 0.1 0.1 0.1 0.0	0.0 0.4 0.0 0.1 0.1 0.1 0.0	0.4 0.0 0.2 0.1 0.2 0.0	0.3 0.0 0.2 0.1 0.2 0.2	0. 0. 0. 0. 0. 0.
1.0 0.0 0.2 0.0 0.1 0.0 0.0 2.4 n CANADA (U	0.0 0.4 0.0 0.1 0.0 0.0 2.8 nits: EJ/y]	0.0 0.3 0.0 0.1 0.0 0.0 0.0 3.2	0.0 0.3 0.1 0.1 0.0 0.0 3.5	0.0 0.3 0.0 0.1 0.1 0.1 0.0 3.9	0.0 0.3 0.0 0.1 0.1 0.1 0.0 4.4	0.0 0.4 0.0 0.1 0.1 0.1 0.0 5.0	0.4 0.0 0.2 0.1 0.2 0.0 5.6	0.3 0.0 0.2 0.1 0.2 0.0 5.9	0. 0. 0. 0. 0. 6.
1.0 0.0 0.2 0.0 0.1 0.0 0.0 2.4 n CANADA (U 2005	0.0 0.4 0.0 0.1 0.0 0.0 2.8 nits: EJ/y) 2010	0.0 0.3 0.0 0.1 0.0 0.0 3.2 2015	0.0 0.3 0.1 0.1 0.0 0.0 3.5 <b>2020</b>	0.0 0.3 0.1 0.1 0.1 0.0 3.9 2025	0.0 0.3 0.1 0.1 0.1 0.0 4.4 <b>2030</b>	0.0 0.4 0.1 0.1 0.1 0.0 5.0 <b>2035</b>	0.4 0.0 0.2 0.1 0.2 0.0 5.6 <b>2040</b>	0.3 0.0 0.2 0.1 0.2 0.0 5.9 <b>2045</b>	0. 0. 0. 0. 0. 6. <b>205</b> 0
1.0 0.0 0.2 0.0 0.1 0.0 0.0 2.4 <b>n CANADA (U</b> 2005 0.0	0.0 0.4 0.0 0.1 0.0 0.0 2.8 nits: EJ/y] 2010 0.0	0.0 0.3 0.0 0.1 0.0 0.0 3.2 2015 0.0	0.0 0.3 0.1 0.1 0.0 0.0 3.5 <b>2020</b> 0.0	0.0 0.3 0.0 0.1 0.1 0.1 0.0 3.9 <b>2025</b> 0.0	0.0 0.3 0.0 0.1 0.1 0.1 0.0 4.4 <b>2030</b> 0.0	0.0 0.4 0.1 0.1 0.1 0.0 5.0 <b>2035</b> 0.0	0.4 0.2 0.1 0.2 0.0 5.6 <b>2040</b> 0.0	0.3 0.0 0.1 0.2 0.0 5.9 <b>2045</b> 0.0	0. 0. 0. 0. 0. 6. <b>2050</b> 0.
1.0 0.0 0.2 0.0 0.1 0.0 0.0 2.4 <b>n CANADA (U</b> 2005 0.0 0.2	0.0 0.4 0.0 0.1 0.0 0.0 2.8 nits: EJ/y) 2010 0.0 0.2	0.0 0.3 0.0 0.1 0.0 0.0 3.2 2015 0.0 0.3	0.0 0.3 0.0 0.1 0.1 0.0 3.5 <b>2020</b> 0.0 0.3	0.0 0.3 0.0 0.1 0.1 0.1 0.0 3.9 <b>2025</b> 0.0 0.3	0.0 0.3 0.0 0.1 0.1 0.0 4.4 <b>2030</b> 0.0 0.3	0.0 0.4 0.0 0.1 0.1 0.1 0.0 5.0 <b>2035</b> 0.0 0.4	0.4 0.0 0.2 0.1 0.2 0.0 5.6 <b>2040</b> 0.0 0.4	0.3 0.0 0.2 0.1 0.2 0.0 5.9 <b>2045</b> 0.0 0.4	0. 0. 0. 0. 0. 6. <b>205</b> 0. 0.
1.0 0.0 0.2 0.0 0.1 0.0 0.0 2.4 <b>n CANADA (U</b> 2005 0.0 0.2 0.0	0.0 0.4 0.0 0.1 0.0 0.0 2.8 nits: EJ/y) 2010 0.0 0.2 0.0	0.0 0.3 0.0 0.1 0.0 0.0 3.2 2015 0.0 0.3 0.0	0.0 0.3 0.0 0.1 0.1 0.0 0.0 3.5 <b>2020</b> 0.0 0.3 0.0	0.0 0.3 0.0 0.1 0.1 0.1 0.0 3.9 <b>2025</b> 0.0 0.3 0.0	0.0 0.3 0.0 0.1 0.1 0.1 0.0 4.4 <b>2030</b> 0.0 0.3 0.0	0.0 0.4 0.0 0.1 0.1 0.0 5.0 <b>2035</b> 0.0 0.4 0.0	0.4 0.0 0.2 0.1 0.2 0.0 5.6 <b>2040</b> 0.0 0.4 0.0	0.3 0.0 0.2 0.1 0.2 0.0 5.9 <b>2045</b> 0.0 0.4 0.0	0. 0. 0. 0. 0. 6. <b>2050</b> 0. 0. 0.
1.0 0.0 0.2 0.0 0.1 0.0 0.0 2.4 <b>n CANADA (U</b> 2005 0.0 0.2	0.0 0.4 0.0 0.1 0.0 0.0 2.8 nits: EJ/y) 2010 0.0 0.2	0.0 0.3 0.0 0.1 0.0 0.0 3.2 2015 0.0 0.3	0.0 0.3 0.0 0.1 0.1 0.0 3.5 <b>2020</b> 0.0 0.3	0.0 0.3 0.0 0.1 0.1 0.1 0.0 3.9 <b>2025</b> 0.0 0.3	0.0 0.3 0.0 0.1 0.1 0.0 4.4 <b>2030</b> 0.0 0.3	0.0 0.4 0.0 0.1 0.1 0.1 0.0 5.0 <b>2035</b> 0.0 0.4	0.4 0.0 0.2 0.1 0.2 0.0 5.6 <b>2040</b> 0.0 0.4	0.3 0.0 0.2 0.1 0.2 0.0 5.9 <b>2045</b> 0.0 0.4	0. 0. 0. 0. 0. 6. <b>2050</b>
	0.6 10.2 0.0 35.0 42.2 0.0 0.0 0.5 0.0 0.4 0.1 0.3 0.0 89.4 n AFRICA (Uni 2005 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.60.810.210.70.00.035.038.242.242.20.00.00.51.40.51.40.00.00.40.70.10.50.30.30.00.00.40.70.10.50.30.30.40.70.10.50.30.00.40.70.520100.0 <td< td=""><td>0.60.81.010.210.712.40.00.00.035.038.240.942.242.244.60.00.00.00.00.10.70.51.42.40.00.00.10.40.70.90.10.51.10.30.30.50.00.00.18.40.00.00.10.51.10.30.30.50.00.00.10.30.40.51.71.71.80.0<tr< td=""><td>0.60.81.01.210.210.712.414.60.00.00.00.035.038.240.942.142.242.244.647.50.00.00.00.00.00.10.71.20.51.42.43.30.00.00.10.20.40.70.91.30.10.51.11.40.30.30.50.90.00.00.10.18.49.51104.6113.720052010201520200.00.00.10.10.30.40.50.60.91.21.51.81.71.71.82.00</td><td>0.60.81.01.21.410.210.712.414.617.10.00.00.00.00.035.038.240.942.142.542.242.244.647.551.00.00.00.00.00.00.00.10.71.21.90.51.42.43.33.70.00.00.10.20.20.40.70.91.31.80.10.51.11.41.60.30.30.50.91.40.00.00.10.10.289.495.1104.6113.7123.020020102015202020250.00.00.10.10.10.30.40.50.60.80.91.21.51.82.01.71.71.82.02.20.00.00.00.00.10.00.00.00.00.10.00.00.00.00.00.00.00.00.00.10.0<!--</td--><td>0.60.81.01.21.41.310.210.712.414.617.119.70.00.00.00.00.00.035.038.240.942.142.541.642.242.244.647.551.055.50.00.00.00.00.00.10.00.10.71.21.92.60.51.42.43.33.74.00.00.00.10.20.20.20.40.70.91.31.82.40.10.51.11.41.61.20.30.30.50.91.42.30.00.00.10.10.20.389.495.1104.6113.7123.0131.3<b>n AFRICA (Units: EJ/y)</b>201020152020202520300.00.00.10.10.10.20.20.0</td><td>0.60.81.01.21.41.30.410.210.712.414.617.119.722.80.00.00.00.00.00.00.035.038.240.942.142.541.640.642.242.244.647.551.055.561.70.00.00.00.00.00.10.10.10.00.10.71.21.92.63.30.51.42.43.33.74.03.90.00.00.10.20.20.30.40.10.51.11.41.61.21.40.30.30.50.91.42.33.20.00.00.110.10.20.30.489.495.1104.6113.7123.0131.3140.8AFFICA (Units: El/y)20052010201520202025203020350.0</td><td>0.6         0.8         1.0         1.2         1.4         1.3         0.4         0.1           10.2         10.7         12.4         14.6         17.1         19.7         22.8         26.4           0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0           35.0         38.2         40.9         42.1         42.5         41.6         40.6         39.4           42.2         42.2         44.6         47.5         51.0         55.5         61.7         69.2           0.0         0.0         0.0         0.0         0.0         0.1         0.1         0.1           0.0         0.1         0.7         1.2         1.9         2.6         3.3         3.4           0.0         0.0         0.1         0.1         2.0         2.0         0.3         0.3           0.1         0.5         1.1         1.4         1.6         1.2         1.4         1.8           0.3         0.3         0.5         0.9         1.4         2.3         3.2         4.1           0.0         0.0         0.1         1.1         1.1         1.1         1.1</td><td>0.60.81.01.21.41.30.40.10.010.210.712.414.617.119.722.826.430.60.00.00.00.00.00.00.00.00.135.038.240.942.142.541.640.639.436.642.242.244.647.551.055.561.769.277.50.00.00.00.00.00.033.43.40.51.42.43.33.74.03.94.45.10.00.00.10.20.20.30.30.30.30.30.30.10.51.11.41.61.21.41.31.440.30.30.50.91.42.33.24.04.089.495.1104.6113.7123.0131.3140.8152.5164.4<b>AFRICA (Units: E)/y</b>2005201020152020202520302035204020450.0<!--</td--></td></td></tr<></td></td<>	0.60.81.010.210.712.40.00.00.035.038.240.942.242.244.60.00.00.00.00.10.70.51.42.40.00.00.10.40.70.90.10.51.10.30.30.50.00.00.18.40.00.00.10.51.10.30.30.50.00.00.10.30.40.51.71.71.80.0 <tr< td=""><td>0.60.81.01.210.210.712.414.60.00.00.00.035.038.240.942.142.242.244.647.50.00.00.00.00.00.10.71.20.51.42.43.30.00.00.10.20.40.70.91.30.10.51.11.40.30.30.50.90.00.00.10.18.49.51104.6113.720052010201520200.00.00.10.10.30.40.50.60.91.21.51.81.71.71.82.00</td><td>0.60.81.01.21.410.210.712.414.617.10.00.00.00.00.035.038.240.942.142.542.242.244.647.551.00.00.00.00.00.00.00.10.71.21.90.51.42.43.33.70.00.00.10.20.20.40.70.91.31.80.10.51.11.41.60.30.30.50.91.40.00.00.10.10.289.495.1104.6113.7123.020020102015202020250.00.00.10.10.10.30.40.50.60.80.91.21.51.82.01.71.71.82.02.20.00.00.00.00.10.00.00.00.00.10.00.00.00.00.00.00.00.00.00.10.0<!--</td--><td>0.60.81.01.21.41.310.210.712.414.617.119.70.00.00.00.00.00.035.038.240.942.142.541.642.242.244.647.551.055.50.00.00.00.00.00.10.00.10.71.21.92.60.51.42.43.33.74.00.00.00.10.20.20.20.40.70.91.31.82.40.10.51.11.41.61.20.30.30.50.91.42.30.00.00.10.10.20.389.495.1104.6113.7123.0131.3<b>n AFRICA (Units: EJ/y)</b>201020152020202520300.00.00.10.10.10.20.20.0</td><td>0.60.81.01.21.41.30.410.210.712.414.617.119.722.80.00.00.00.00.00.00.035.038.240.942.142.541.640.642.242.244.647.551.055.561.70.00.00.00.00.00.10.10.10.00.10.71.21.92.63.30.51.42.43.33.74.03.90.00.00.10.20.20.30.40.10.51.11.41.61.21.40.30.30.50.91.42.33.20.00.00.110.10.20.30.489.495.1104.6113.7123.0131.3140.8AFFICA (Units: El/y)20052010201520202025203020350.0</td><td>0.6         0.8         1.0         1.2         1.4         1.3         0.4         0.1           10.2         10.7         12.4         14.6         17.1         19.7         22.8         26.4           0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0           35.0         38.2         40.9         42.1         42.5         41.6         40.6         39.4           42.2         42.2         44.6         47.5         51.0         55.5         61.7         69.2           0.0         0.0         0.0         0.0         0.0         0.1         0.1         0.1           0.0         0.1         0.7         1.2         1.9         2.6         3.3         3.4           0.0         0.0         0.1         0.1         2.0         2.0         0.3         0.3           0.1         0.5         1.1         1.4         1.6         1.2         1.4         1.8           0.3         0.3         0.5         0.9         1.4         2.3         3.2         4.1           0.0         0.0         0.1         1.1         1.1         1.1         1.1</td><td>0.60.81.01.21.41.30.40.10.010.210.712.414.617.119.722.826.430.60.00.00.00.00.00.00.00.00.135.038.240.942.142.541.640.639.436.642.242.244.647.551.055.561.769.277.50.00.00.00.00.00.033.43.40.51.42.43.33.74.03.94.45.10.00.00.10.20.20.30.30.30.30.30.30.10.51.11.41.61.21.41.31.440.30.30.50.91.42.33.24.04.089.495.1104.6113.7123.0131.3140.8152.5164.4<b>AFRICA (Units: E)/y</b>2005201020152020202520302035204020450.0<!--</td--></td></td></tr<>	0.60.81.01.210.210.712.414.60.00.00.00.035.038.240.942.142.242.244.647.50.00.00.00.00.00.10.71.20.51.42.43.30.00.00.10.20.40.70.91.30.10.51.11.40.30.30.50.90.00.00.10.18.49.51104.6113.720052010201520200.00.00.10.10.30.40.50.60.91.21.51.81.71.71.82.00	0.60.81.01.21.410.210.712.414.617.10.00.00.00.00.035.038.240.942.142.542.242.244.647.551.00.00.00.00.00.00.00.10.71.21.90.51.42.43.33.70.00.00.10.20.20.40.70.91.31.80.10.51.11.41.60.30.30.50.91.40.00.00.10.10.289.495.1104.6113.7123.020020102015202020250.00.00.10.10.10.30.40.50.60.80.91.21.51.82.01.71.71.82.02.20.00.00.00.00.10.00.00.00.00.10.00.00.00.00.00.00.00.00.00.10.0 </td <td>0.60.81.01.21.41.310.210.712.414.617.119.70.00.00.00.00.00.035.038.240.942.142.541.642.242.244.647.551.055.50.00.00.00.00.00.10.00.10.71.21.92.60.51.42.43.33.74.00.00.00.10.20.20.20.40.70.91.31.82.40.10.51.11.41.61.20.30.30.50.91.42.30.00.00.10.10.20.389.495.1104.6113.7123.0131.3<b>n AFRICA (Units: EJ/y)</b>201020152020202520300.00.00.10.10.10.20.20.0</td> <td>0.60.81.01.21.41.30.410.210.712.414.617.119.722.80.00.00.00.00.00.00.035.038.240.942.142.541.640.642.242.244.647.551.055.561.70.00.00.00.00.00.10.10.10.00.10.71.21.92.63.30.51.42.43.33.74.03.90.00.00.10.20.20.30.40.10.51.11.41.61.21.40.30.30.50.91.42.33.20.00.00.110.10.20.30.489.495.1104.6113.7123.0131.3140.8AFFICA (Units: El/y)20052010201520202025203020350.0</td> <td>0.6         0.8         1.0         1.2         1.4         1.3         0.4         0.1           10.2         10.7         12.4         14.6         17.1         19.7         22.8         26.4           0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0           35.0         38.2         40.9         42.1         42.5         41.6         40.6         39.4           42.2         42.2         44.6         47.5         51.0         55.5         61.7         69.2           0.0         0.0         0.0         0.0         0.0         0.1         0.1         0.1           0.0         0.1         0.7         1.2         1.9         2.6         3.3         3.4           0.0         0.0         0.1         0.1         2.0         2.0         0.3         0.3           0.1         0.5         1.1         1.4         1.6         1.2         1.4         1.8           0.3         0.3         0.5         0.9         1.4         2.3         3.2         4.1           0.0         0.0         0.1         1.1         1.1         1.1         1.1</td> <td>0.60.81.01.21.41.30.40.10.010.210.712.414.617.119.722.826.430.60.00.00.00.00.00.00.00.00.135.038.240.942.142.541.640.639.436.642.242.244.647.551.055.561.769.277.50.00.00.00.00.00.033.43.40.51.42.43.33.74.03.94.45.10.00.00.10.20.20.30.30.30.30.30.30.10.51.11.41.61.21.41.31.440.30.30.50.91.42.33.24.04.089.495.1104.6113.7123.0131.3140.8152.5164.4<b>AFRICA (Units: E)/y</b>2005201020152020202520302035204020450.0<!--</td--></td>	0.60.81.01.21.41.310.210.712.414.617.119.70.00.00.00.00.00.035.038.240.942.142.541.642.242.244.647.551.055.50.00.00.00.00.00.10.00.10.71.21.92.60.51.42.43.33.74.00.00.00.10.20.20.20.40.70.91.31.82.40.10.51.11.41.61.20.30.30.50.91.42.30.00.00.10.10.20.389.495.1104.6113.7123.0131.3 <b>n AFRICA (Units: EJ/y)</b> 201020152020202520300.00.00.10.10.10.20.20.0	0.60.81.01.21.41.30.410.210.712.414.617.119.722.80.00.00.00.00.00.00.035.038.240.942.142.541.640.642.242.244.647.551.055.561.70.00.00.00.00.00.10.10.10.00.10.71.21.92.63.30.51.42.43.33.74.03.90.00.00.10.20.20.30.40.10.51.11.41.61.21.40.30.30.50.91.42.33.20.00.00.110.10.20.30.489.495.1104.6113.7123.0131.3140.8AFFICA (Units: El/y)20052010201520202025203020350.0	0.6         0.8         1.0         1.2         1.4         1.3         0.4         0.1           10.2         10.7         12.4         14.6         17.1         19.7         22.8         26.4           0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0           35.0         38.2         40.9         42.1         42.5         41.6         40.6         39.4           42.2         42.2         44.6         47.5         51.0         55.5         61.7         69.2           0.0         0.0         0.0         0.0         0.0         0.1         0.1         0.1           0.0         0.1         0.7         1.2         1.9         2.6         3.3         3.4           0.0         0.0         0.1         0.1         2.0         2.0         0.3         0.3           0.1         0.5         1.1         1.4         1.6         1.2         1.4         1.8           0.3         0.3         0.5         0.9         1.4         2.3         3.2         4.1           0.0         0.0         0.1         1.1         1.1         1.1         1.1	0.60.81.01.21.41.30.40.10.010.210.712.414.617.119.722.826.430.60.00.00.00.00.00.00.00.00.135.038.240.942.142.541.640.639.436.642.242.244.647.551.055.561.769.277.50.00.00.00.00.00.033.43.40.51.42.43.33.74.03.94.45.10.00.00.10.20.20.30.30.30.30.30.30.10.51.11.41.61.21.41.31.440.30.30.50.91.42.33.24.04.089.495.1104.6113.7123.0131.3140.8152.5164.4 <b>AFRICA (Units: E)/y</b> 2005201020152020202520302035204020450.0 </td

Bio-Ethanol	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1
CNG Biofuel(Diesel)	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.1 0.0	0.1 0.0	0.1 0.0	0.1 0.0	0.1 0.0
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
total	2.2	2.2	2.3	2.4	2.4	2.3	2.2	2.2	2.2	2.3
Fuels in All Transport Design		a. 51/.A								
Fuels in All Transport, Regior Fuel	2005	s: EJ/y) 2010	2015	2020	2025	2030	2035	2040	2045	2050
Other (Coal)	0.6	0.6	0.6	0.7	0.7	0.7	0.2	0.1	0.0	0.0
Jetfuels	0.6	0.7	1.1	1.5	2.1	2.6	3.1	3.6	4.1	4.6
Gasoline	0.6	0.9	1.4	2.0	3.0	4.3	5.7	7.0	7.8	7.3
Diesel	3.7	4.7	5.7	6.6	7.6	8.3	9.1	9.8	10.6	11.6
Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Bio-Methanol Bio-Ethanol	0.0 0.0	0.1 0.0	0.1 0.1	0.2 0.1	0.3 0.2	0.4 0.3	0.5 0.4	0.7 0.5	0.9 0.6	0.4 0.3
Bio-Syngas	0.0	0.0	0.0	0.0	0.2	0.0	0.4	0.1	0.0	0.0
CNG	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1
Biofuel(Diesel)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1
Electricity	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.6	0.7	0.9
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
total	5.6	7.1	9.1	11.4	14.0	16.9	19.6	22.5	25.2	25.5
Fuels in All Transport, Region	n EEUR (Units	: EJ/y)								
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Other (Coal)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Jetfuels Gasoline	0.0 0.4	0.1 0.4	0.1 0.5	0.1 0.5	0.1 0.5	0.1 0.5	0.1 0.4	0.1 0.4	0.1 0.3	0.2 0.2
Diesel	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.2
Bio-Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Ethanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CNG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biofuel(Diesel)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity Hydrogen	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0
total	0.0	0.0	0.0	1.0	1.0	1.1	1.1	1.1	1.2	1.2
Fuels in All Transport, Regior	n FSU (Units:	-1/21								
	•									
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Fuel Other (Coal)	<b>2005</b> 0.0	<b>2010</b> 0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Fuel	2005	2010								
Fuel Other (Coal) Jetfuels	<b>2005</b> 0.0 0.1	<b>2010</b> 0.0 0.1	0.1 0.1	0.1 0.2	0.1 0.2	0.0 0.3	0.0 0.3	0.0 0.4	0.0 0.5	0.0 0.6
Fuel Other (Coal) Jetfuels Gasoline Diesel Methanol	2005 0.0 0.1 0.6 1.5 0.0	<b>2010</b> 0.0 0.1 0.7 1.6 0.0	0.1 0.1 0.8 1.8 0.0	0.1 0.2 1.0 2.0 0.0	0.1 0.2 1.1 2.2 0.0	0.0 0.3 1.3 2.4 0.0	0.0 0.3 1.3 2.6 0.0	0.0 0.4 1.3 3.0 0.0	0.0 0.5 1.0 3.5 0.0	0.0 0.6 0.7 4.1 0.0
Fuel Other (Coal) Jetfuels Gasoline Diesel Methanol Bio-Methanol	2005 0.0 0.1 0.6 1.5 0.0 0.0	2010 0.0 0.1 0.7 1.6 0.0 0.0	0.1 0.1 0.8 1.8 0.0 0.0	0.1 0.2 1.0 2.0 0.0 0.0	0.1 0.2 1.1 2.2 0.0 0.0	0.0 0.3 1.3 2.4 0.0 0.1	0.0 0.3 1.3 2.6 0.0 0.1	0.0 0.4 1.3 3.0 0.0 0.1	0.0 0.5 1.0 3.5 0.0 0.1	0.0 0.6 0.7 4.1 0.0 0.1
Fuel Other (Coal) Jetfuels Gasoline Diesel Methanol Bio-Methanol Bio-Ethanol	2005 0.0 0.1 0.6 1.5 0.0 0.0 0.0	2010 0.0 0.1 0.7 1.6 0.0 0.0 0.0	0.1 0.1 0.8 1.8 0.0 0.0 0.0	0.1 0.2 1.0 2.0 0.0 0.0 0.0	0.1 0.2 1.1 2.2 0.0 0.0 0.0	0.0 0.3 1.3 2.4 0.0 0.1 0.1	0.0 0.3 1.3 2.6 0.0 0.1 0.1	0.0 0.4 1.3 3.0 0.0 0.1 0.1	0.0 0.5 1.0 3.5 0.0 0.1 0.1	0.0 0.6 0.7 4.1 0.0 0.1 0.2
Fuel Other (Coal) Jetfuels Gasoline Diesel Methanol Bio-Methanol Bio-Ethanol Bio-Syngas	2005 0.0 0.1 1.5 0.0 0.0 0.0 0.0 0.0	2010 0.0 0.1 0.7 1.6 0.0 0.0 0.0 0.0 0.0	0.1 0.1 0.8 1.8 0.0 0.0 0.0 0.0	0.1 0.2 1.0 2.0 0.0 0.0 0.0 0.0	0.1 0.2 1.1 2.2 0.0 0.0 0.0 0.0	0.0 0.3 1.3 2.4 0.0 0.1 0.1 0.0	0.0 0.3 1.3 2.6 0.0 0.1 0.1 0.0	0.0 0.4 1.3 3.0 0.0 0.1 0.1 0.0	0.0 0.5 1.0 3.5 0.0 0.1 0.1 0.0	0.0 0.6 0.7 4.1 0.0 0.1 0.2 0.0
Fuel Other (Coal) Jetfuels Gasoline Diesel Methanol Bio-Methanol Bio-Ethanol	2005 0.0 0.1 0.6 1.5 0.0 0.0 0.0	2010 0.0 0.1 0.7 1.6 0.0 0.0 0.0	0.1 0.1 0.8 1.8 0.0 0.0 0.0	0.1 0.2 1.0 2.0 0.0 0.0 0.0	0.1 0.2 1.1 2.2 0.0 0.0 0.0	0.0 0.3 1.3 2.4 0.0 0.1 0.1	0.0 0.3 1.3 2.6 0.0 0.1 0.1	0.0 0.4 1.3 3.0 0.0 0.1 0.1	0.0 0.5 1.0 3.5 0.0 0.1 0.1	0.0 0.6 0.7 4.1 0.0 0.1 0.2
Fuel Other (Coal) Jetfuels Gasoline Diesel Methanol Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity	2005 0.0 0.1 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2010 0.0 0.1 0.7 1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.1 0.8 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.1 0.2 1.0 2.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.1 0.2 1.1 2.2 0.0 0.0 0.0 0.0 0.1 0.0 0.1	0.0 0.3 1.3 2.4 0.0 0.1 0.1 0.1 0.1 0.1	0.0 0.3 1.3 2.6 0.0 0.1 0.1 0.0 0.1 0.1 0.2	0.0 0.4 1.3 3.0 0.0 0.1 0.1 0.0 0.2 0.1 0.3	0.0 0.5 1.0 3.5 0.0 0.1 0.1 0.0 0.2 0.1 0.3	0.0 0.6 0.7 4.1 0.0 0.1 0.2 0.0 0.3 0.0 0.3
Fuel Other (Coal) Jetfuels Gasoline Diesel Methanol Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen	2005 0.0 0.1 0.6 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2010 0.0 0.1 0.7 1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.1 0.8 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.1 0.2 1.0 2.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.1 0.2 1.1 2.2 0.0 0.0 0.0 0.0 0.0 0.1 0.0 0.1 0.0	0.0 0.3 1.3 2.4 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.0	0.0 0.3 1.3 2.6 0.0 0.1 0.1 0.1 0.1 0.1 0.2 0.0	0.0 0.4 1.3 3.0 0.0 0.1 0.1 0.1 0.2 0.1 0.3 0.0	0.0 0.5 1.0 3.5 0.0 0.1 0.1 0.0 0.2 0.1 0.3 0.0	0.0 0.6 0.7 4.1 0.0 0.1 0.2 0.0 0.3 0.0 0.3 0.0
Fuel Other (Coal) Jetfuels Gasoline Diesel Methanol Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity	2005 0.0 0.1 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2010 0.0 0.1 0.7 1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.1 0.8 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.1 0.2 1.0 2.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.1 0.2 1.1 2.2 0.0 0.0 0.0 0.0 0.1 0.0 0.1	0.0 0.3 1.3 2.4 0.0 0.1 0.1 0.1 0.1 0.1	0.0 0.3 1.3 2.6 0.0 0.1 0.1 0.0 0.1 0.1 0.2	0.0 0.4 1.3 3.0 0.0 0.1 0.1 0.0 0.2 0.1 0.3	0.0 0.5 1.0 3.5 0.0 0.1 0.1 0.0 0.2 0.1 0.3	0.0 0.6 0.7 4.1 0.0 0.1 0.2 0.0 0.3 0.0 0.3
Fuel Other (Coal) Jetfuels Gasoline Diesel Methanol Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen	2005 0.0 0.1 0.6 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2010 0.0 0.1 0.7 1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.1 0.8 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.1 0.2 1.0 2.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.1 0.2 1.1 2.2 0.0 0.0 0.0 0.0 0.0 0.1 0.0 0.1 0.0	0.0 0.3 1.3 2.4 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.0	0.0 0.3 1.3 2.6 0.0 0.1 0.1 0.1 0.1 0.1 0.2 0.0	0.0 0.4 1.3 3.0 0.0 0.1 0.1 0.1 0.2 0.1 0.3 0.0	0.0 0.5 1.0 3.5 0.0 0.1 0.1 0.0 0.2 0.1 0.3 0.0	0.0 0.6 0.7 4.1 0.0 0.1 0.2 0.0 0.3 0.0 0.3 0.0
Fuel Other (Coal) Jetfuels Gasoline Diesel Methanol Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen total Fuels in All Transport, Region Fuel	2005 0.0 0.1 0.6 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2010 0.0 0.1 0.7 1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.1 0.8 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.9 2015	0.1 0.2 1.0 2.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.4	0.1 0.2 1.1 2.2 0.0 0.0 0.0 0.0 0.1 0.0 0.1 0.0 3.9 <b>2025</b>	0.0 0.3 1.3 2.4 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.0 4.5	0.0 0.3 1.3 2.6 0.0 0.1 0.1 0.1 0.1 0.1 0.2 0.0 5.0	0.0 0.4 1.3 3.0 0.0 0.1 0.1 0.1 0.2 0.1 0.3 0.0 5.5	0.0 0.5 1.0 3.5 0.0 0.1 0.1 0.2 0.1 0.2 0.1 0.3 0.0 5.9 <b>2045</b>	0.0 0.6 0.7 4.1 0.0 0.1 0.2 0.0 0.3 0.0 0.3 0.0 6.4
Fuel Other (Coal) Jetfuels Gasoline Diesel Methanol Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen total Fuels in All Transport, Region Fuel Other (Coal)	2005 0.0 0.1 0.6 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2010 0.0 0.1 0.7 1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.1 0.8 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.9 2015 0.0	0.1 0.2 1.0 2.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.4 <b>2020</b> 0.0	0.1 0.2 1.1 2.2 0.0 0.0 0.0 0.1 0.0 0.1 0.0 3.9 <b>2025</b> 0.0	0.0 0.3 1.3 2.4 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.0 4.5 <b>2030</b> 0.0	0.0 0.3 1.3 2.6 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.2 0.0 5.0 <b>2035</b> 0.0	0.0 0.4 1.3 3.0 0.0 0.1 0.1 0.1 0.2 0.1 0.3 0.0 5.5 <b>2040</b> 0.0	0.0 0.5 1.0 3.5 0.0 0.1 0.1 0.2 0.1 0.3 0.0 5.9 <b>2045</b> 0.0	0.0 0.6 0.7 4.1 0.0 0.1 0.2 0.0 0.3 0.0 0.3 0.0 6.4 <b>2050</b> 0.0
Fuel Other (Coal) Jetfuels Gasoline Diesel Methanol Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen total Fuels in All Transport, Region Fuel Other (Coal) Jetfuels	2005 0.0 0.1 0.6 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2010 0.0 0.1 0.7 1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.1 0.8 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.9 2015 0.0 0.3	0.1 0.2 1.0 2.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.4 2020 0.0 0.0 0.4	0.1 0.2 1.1 2.2 0.0 0.0 0.0 0.0 0.1 0.0 0.1 0.0 3.9 2025 0.0 0.5	0.0 0.3 1.3 2.4 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.0 4.5 <b>2030</b> 0.0 0.7	0.0 0.3 1.3 2.6 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.2 0.0 5.0 <b>2035</b> 0.0 1.0	0.0 0.4 1.3 3.0 0.1 0.1 0.1 0.2 0.1 0.3 0.0 5.5 <b>2040</b> 0.0 1.3	0.0 0.5 1.0 3.5 0.0 0.1 0.1 0.2 0.1 0.3 0.0 5.9 <b>2045</b> 0.0 1.7	0.0 0.6 0.7 4.1 0.0 0.1 0.2 0.0 0.3 0.0 0.3 0.0 6.4 <b>2050</b> 0.0 2.2
Fuel Other (Coal) Jetfuels Gasoline Diesel Methanol Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen total Fuels in All Transport, Region Fuel Other (Coal) Jetfuels Bio-Jetfuels	2005 0.0 0.1 0.6 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2010 0.0 0.1 0.7 1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.1 0.8 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.9 2015 0.0 0.3 0.0	0.1 0.2 1.0 2.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.4 <b>2020</b> 0.0 0.0 0.0 4 0.0	0.1 0.2 1.1 2.2 0.0 0.0 0.0 0.1 0.0 0.1 0.0 3.9 2025 0.0 0.5 0.0	0.0 0.3 1.3 2.4 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.0 4.5 <b>2030</b> 0.0 0.7 0.0	0.0 0.3 1.3 2.6 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.0 5.0 <b>2035</b> 0.0 1.0 0.0	0.0 0.4 1.3 3.0 0.0 0.1 0.1 0.1 0.2 0.1 0.3 0.0 5.5 <b>2040</b> 0.0 1.3 0.0	0.0 0.5 1.0 3.5 0.0 0.1 0.1 0.2 0.1 0.3 0.0 5.9 <b>2045</b> 0.0 1.7 0.0	0.0 0.6 0.7 4.1 0.0 0.1 0.2 0.0 0.3 0.0 0.3 0.0 6.4 <b>2050</b> 0.0 2.2 0.0
Fuel Other (Coal) Jetfuels Gasoline Diesel Methanol Bio-Methanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen total Fuels in All Transport, Region Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel	2005 0.0 0.1 0.6 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2010 0.0 0.1 0.7 1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.1 0.8 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.9 2015 0.0 0.3	0.1 0.2 1.0 2.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.4 2020 0.0 0.0 0.4	0.1 0.2 1.1 2.2 0.0 0.0 0.0 0.0 0.1 0.0 0.1 0.0 3.9 2025 0.0 0.5	0.0 0.3 1.3 2.4 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.0 4.5 <b>2030</b> 0.0 0.7	0.0 0.3 1.3 2.6 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.2 0.0 5.0 <b>2035</b> 0.0 1.0	0.0 0.4 1.3 3.0 0.1 0.1 0.1 0.2 0.1 0.3 0.0 5.5 <b>2040</b> 0.0 1.3	0.0 0.5 1.0 3.5 0.0 0.1 0.1 0.2 0.1 0.3 0.0 5.9 <b>2045</b> 0.0 1.7	0.0 0.6 0.7 4.1 0.0 0.1 0.2 0.0 0.3 0.0 0.3 0.0 6.4 <b>2050</b> 0.0 2.2
FuelOther (Coal)JetfuelsGasolineDieselMethanolBio-MethanolBio-SyngasCNGBiofuel(Diesel)ElectricityHydrogentotalFuels in All Transport, RegionOther (Coal)JetfuelsBio-JetfuelsGasoline	2005 0.0 0.1 0.6 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2010 0.0 0.1 0.7 1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.1 0.8 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.9 2015 0.0 0.3 0.0 0.3	0.1 0.2 1.0 2.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.4 <b>2020</b> 0.0 0.0 0.0 4 0.0 0.1	0.1 0.2 1.1 2.2 0.0 0.0 0.0 0.1 0.0 0.1 0.0 3.9 <b>2025</b> 0.0 0.5 0.0 0.5 0.0 1.5	0.0 0.3 1.3 2.4 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.0 4.5 <b>2030</b> 0.0 0.7 0.0 1.7	0.0 0.3 1.3 2.6 0.0 0.1 0.1 0.1 0.1 0.1 0.2 0.0 5.0 <b>2035</b> 0.0 1.0 0.0 2.0	0.0 0.4 1.3 3.0 0.0 0.1 0.1 0.0 0.2 0.1 0.3 0.0 5.5 <b>2040</b> 0.0 1.3 0.0 2.5	0.0 0.5 1.0 3.5 0.0 0.1 0.1 0.2 0.1 0.3 0.0 5.9 <b>2045</b> 0.0 1.7 0.0 3.2	0.0 0.6 0.7 4.1 0.0 0.1 0.2 0.0 0.3 0.0 0.3 0.0 6.4 <b>2050</b> 0.0 2.2 0.0 3.8
FuelOther (Coal)JetfuelsGasolineDieselMethanolBio-MethanolBio-EthanolBio-SyngasCNGBiofuel(Diesel)ElectricityHydrogentotalFuels in All Transport, RegionFuelOther (Coal)JetfuelsBio-JetfuelsGasolineDieselBio-MethanolBio-MethanolBio-Methanol	2005 0.0 0.1 0.6 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2010 0.0 0.1 0.7 1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.1 0.8 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.9 <b>2015</b> 0.0 0.3 0.0 0.3 0.0 0.8 9 0.0 0.2	0.1 0.2 1.0 2.0 0.0 0.0 0.0 0.0 0.0 0.0 3.4 <b>2020</b> 0.0 0.0 0.4 0.0 1.1 0.8 0.0 0.3	0.1 0.2 1.1 2.2 0.0 0.0 0.0 0.1 0.0 0.1 0.0 3.9 <b>2025</b> 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.5	0.0 0.3 1.3 2.4 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.0 4.5 <b>2030</b> 0.0 0.7 0.0 0.7 7 0.0 1.7 1.2 0.0 0.5	0.0 0.3 1.3 2.6 0.0 0.1 0.1 0.1 0.1 0.1 0.2 0.0 5.0 <b>2035</b> 0.0 1.0 0.0 1.5 0.0 0.6	0.0 0.4 1.3 3.0 0.0 0.1 0.1 0.2 0.1 0.3 0.0 5.5 <b>2040</b> 0.0 1.3 0.0 2.5 2.0 0.0 0.8	0.0 0.5 1.0 3.5 0.0 0.1 0.1 0.2 0.1 0.3 0.0 5.9 <b>2045</b> 0.0 1.7 0.0 3.2 2.5 0.1 1.0	0.0 0.6 0.7 4.1 0.0 0.1 0.2 0.0 0.3 0.0 0.3 0.0 6.4 <b>2050</b> 0.0 2.2 0.0 3.8 2.7 0.1 1.3
FuelOther (Coal)JetfuelsGasolineDieselMethanolBio-MethanolBio-SyngasCNGBiofuel(Diesel)ElectricityHydrogentotalFuels in All Transport, RegionFuelOther (Coal)JetfuelsBio-JetfuelsGasolineDieselBio-MethanolBio-Syngas	2005 0.0 0.1 0.6 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2010 0.0 0.1 0.7 1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.1 0.1 0.8 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.9 <b>2015</b> 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.2 0.0	0.1 0.2 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.4 <b>2020</b> 0.0 0.0 0.4 0.0 1.1 0.8 0.0 0.3 0.0	0.1 0.2 1.1 2.2 0.0 0.0 0.0 0.1 0.0 0.1 0.0 3.9 <b>2025</b> 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.5	0.0 0.3 1.3 2.4 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.0 4.5 <b>2030</b> 0.0 0.7 0.0 0.7 1.2 0.0 0.5 0.0	0.0 0.3 1.3 2.6 0.0 0.1 0.1 0.1 0.1 0.1 0.2 0.0 5.0 <b>2035</b> 0.0 1.0 0.0 2.0 1.5 0.0 0.6 0.0	0.0 0.4 1.3 3.0 0.1 0.1 0.2 0.1 0.2 0.1 0.3 0.0 5.5 <b>2040</b> 0.0 1.3 0.0 2.5 2.0 0.0 0.8 0.0	0.0 0.5 1.0 3.5 0.0 0.1 0.1 0.2 0.1 0.3 0.0 5.9 <b>2045</b> 0.0 1.7 0.0 3.2 2.5 0.1 1.0 0.0	0.0 0.6 0.7 4.1 0.2 0.0 0.3 0.0 0.3 0.0 6.4 <b>2050</b> 0.0 2.2 0.0 3.8 2.7 0.1 1.3 0.0
FuelOther (Coal)JetfuelsGasolineDieselMethanolBio-MethanolBio-EthanolBio-SyngasCNGBiofuel(Diesel)ElectricityHydrogentotalFuels in All Transport, RegionFuelsOther (Coal)JetfuelsBio-JetfuelsGasolineDieselBio-MethanolBio-EthanolBio-EthanolBio-SyngasCNG	2005 0.0 0.1 0.6 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2010 0.0 0.1 0.7 1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.1 0.1 0.8 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.9 <b>2015</b> 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.0	0.1 0.2 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.4 <b>2020</b> 0.0 0.0 0.4 0.0 0.4 0.0 1.1 0.8 0.0 0.3 0.0 0.3	0.1 0.2 1.1 2.2 0.0 0.0 0.0 0.1 0.0 0.1 0.0 3.9 <b>2025</b> 0.0 0.5 0.0 0.5 0.0 1.5 0.0 0.5 0.0 0.4 0.0 0.3	0.0 0.3 1.3 2.4 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.0 4.5 <b>2030</b> 0.0 0.7 0.0 0.7 1.2 0.0 0.5 0.0 0.3	0.0 0.3 1.3 2.6 0.0 0.1 0.1 0.1 0.1 0.2 0.0 5.0 <b>2035</b> 0.0 1.0 0.0 2.0 1.5 0.0 0.6 0.0 0.4	0.0 0.4 1.3 3.0 0.0 0.1 0.1 0.2 0.1 0.3 0.0 5.5 <b>2040</b> 0.0 1.3 0.0 2.5 2.0 0.0 0.8 0.0 0.6	0.0 0.5 1.0 3.5 0.0 0.1 0.1 0.2 0.1 0.3 0.0 5.9 <b>2045</b> 0.0 1.7 0.0 3.2 2.5 0.1 1.0 0.0 0.7	0.0 0.6 0.7 4.1 0.2 0.0 0.3 0.0 0.3 0.0 6.4 <b>2050</b> 0.0 2.2 0.0 3.8 2.7 0.1 1.3 0.0 0.9
FuelOther (Coal)JetfuelsGasolineDieselMethanolBio-MethanolBio-EthanolBio-SyngasCNGBiofuel(Diesel)ElectricityHydrogentotalFuels in All Transport, RegionOther (Coal)JetfuelsBio-JetfuelsGasolineDieselBio-MethanolBio-EthanolBio-EthanolBio-SyngasCNGBio-SyngasCNGBiofuel(Diesel)	2005 0.0 0.1 0.6 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2010 0.0 0.1 0.7 1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.1 0.1 0.8 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.9 <b>2015</b> 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.2 0.0 0.0 0.2 0.0	0.1 0.2 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.4 <b>2020</b> 0.0 0.4 0.0 0.4 0.0 1.1 0.8 0.0 0.3 0.0 0.2 0.2	0.1 0.2 1.1 2.2 0.0 0.0 0.0 0.1 0.0 0.1 0.0 3.9 <b>2025</b> 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.0	0.0 0.3 1.3 2.4 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.0 4.5 <b>2030</b> 0.0 0.7 0.0 0.7 1.2 0.0 0.7 7 0.0 0.5 0.0 0.3 0.3	0.0 0.3 1.3 2.6 0.0 0.1 0.1 0.1 0.1 0.1 0.2 0.0 5.0 <b>2035</b> 0.0 1.0 0.0 2.0 1.5 0.0 0.6 0.0 0.4 0.4	0.0 0.4 1.3 3.0 0.0 0.1 0.1 0.2 0.1 0.2 0.1 0.3 0.0 5.5 <b>2040</b> 0.0 1.3 0.0 2.5 2.0 0.0 0.0 8 0.0 0.5 5.5	0.0 0.5 1.0 3.5 0.0 0.1 0.1 0.2 0.1 0.3 0.0 5.9 <b>2045</b> 0.0 1.7 0.0 3.2 2.5 0.1 1.0 0.0 3.2 2.5 0.1	0.0 0.6 0.7 4.1 0.0 0.1 0.2 0.0 0.3 0.0 6.4 <b>2050</b> 0.0 2.2 0.0 3.8 2.7 0.1 1.3 0.0 0.9 0.8
FuelOther (Coal)JetfuelsGasolineDieselMethanolBio-MethanolBio-EthanolBio-SyngasCNGBiofuel(Diesel)ElectricityHydrogentotalFuels in All Transport, RegionOther (Coal)JetfuelsBio-JetfuelsGasolineDieselBio-MethanolBio-SyngasCNG	2005 0.0 0.1 0.6 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2010 0.0 0.1 0.7 1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.1 0.1 0.8 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.9 <b>2015</b> 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.0	0.1 0.2 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.4 <b>2020</b> 0.0 0.0 0.4 0.0 0.4 0.0 1.1 0.8 0.0 0.3 0.0 0.3	0.1 0.2 1.1 2.2 0.0 0.0 0.0 0.1 0.0 0.1 0.0 3.9 <b>2025</b> 0.0 0.5 0.0 0.5 0.0 1.5 0.0 0.5 0.0 0.4 0.0 0.3	0.0 0.3 1.3 2.4 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.0 4.5 <b>2030</b> 0.0 0.7 0.0 0.7 1.2 0.0 0.5 0.0 0.3	0.0 0.3 1.3 2.6 0.0 0.1 0.1 0.1 0.1 0.2 0.0 5.0 <b>2035</b> 0.0 1.0 0.0 2.0 1.5 0.0 0.6 0.0 0.4	0.0 0.4 1.3 3.0 0.0 0.1 0.1 0.2 0.1 0.3 0.0 5.5 <b>2040</b> 0.0 1.3 0.0 2.5 2.0 0.0 0.8 0.0 0.6	0.0 0.5 1.0 3.5 0.0 0.1 0.1 0.2 0.1 0.3 0.0 5.9 <b>2045</b> 0.0 1.7 0.0 3.2 2.5 0.1 1.0 0.0 0.7	0.0 0.6 0.7 4.1 0.2 0.0 0.3 0.0 0.3 0.0 6.4 <b>2050</b> 0.0 2.2 0.0 3.8 2.7 0.1 1.3 0.0 0.9
FuelOther (Coal)JetfuelsGasolineDieselMethanolBio-MethanolBio-EthanolBio-SyngasCNGBiofuel(Diesel)ElectricityHydrogentotalFuels in All Transport, RegionFuelsOther (Coal)JetfuelsBio-JetfuelsGasolineDieselBio-MethanolBio-EthanolBio-SyngasCNGBioi-SyngasCNGBiofuel(Diesel)Electricity	2005 0.0 0.1 0.6 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2010 0.0 0.1 0.7 1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.1 0.1 0.8 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.9 <b>2015</b> 0.0 0.3 0.0 0.3 0.0 0.8 0.9 0.0 0.2 0.0 0.2 0.0 0.2 0.0	0.1 0.2 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.4 <b>2020</b> 0.0 0.4 0.0 0.4 0.0 1.1 0.8 0.0 0.3 0.0 0.2 0.2 0.2	0.1 0.2 1.1 2.2 0.0 0.0 0.0 0.1 0.0 0.1 0.0 3.9 <b>2025</b> 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.0	0.0 0.3 1.3 2.4 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.0 4.5 <b>2030</b> 0.0 0.7 0.0 0.7 0.0 1.7 1.2 0.0 0.5 0.0 0.3 0.3 0.3 0.1	0.0 0.3 1.3 2.6 0.0 0.1 0.1 0.1 0.1 0.2 0.0 5.0 <b>2035</b> 0.0 1.0 0.0 2.0 1.5 0.0 0.6 0.0 0.4 0.4 0.1	0.0 0.4 1.3 3.0 0.0 0.1 0.1 0.2 0.1 0.2 0.1 0.3 0.0 5.5 <b>2040</b> 0.0 1.3 0.0 2.5 2.0 0.0 0.2 5.5	0.0 0.5 1.0 3.5 0.0 0.1 0.2 0.1 0.3 0.0 5.9 <b>2045</b> 0.0 1.7 0.0 3.2 2.5 0.1 1.0 0.0 3.2 2.5 0.1	0.0 0.6 0.7 4.1 0.0 0.1 0.2 0.0 0.3 0.0 6.4 <b>2050</b> 0.0 2.2 0.0 3.8 2.7 0.1 1.3 0.0 0.9 0.8 0.3
Fuel Other (Coal) Jetfuels Gasoline Diesel Methanol Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen total Tuels in All Transport, Region Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen total	2005 0.0 0.1 0.6 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2010 0.0 0.1 0.7 1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.1 0.1 0.8 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.9 <b>2015</b> 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.0 0.0 0.0	0.1 0.2 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.1 0.2 1.1 2.2 0.0 0.0 0.0 0.1 0.0 0.1 0.0 3.9 <b>2025</b> 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.0	0.0 0.3 1.3 2.4 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.0 4.5 <b>2030</b> 0.0 0.7 0.0 1.7 1.2 0.0 0.5 0.0 0.3 0.3 0.3 0.1 0.0	0.0 0.3 1.3 2.6 0.0 0.1 0.1 0.1 0.1 0.2 0.0 5.0 <b>2035</b> 0.0 1.0 0.0 1.0 0.0 1.5 0.0 0.0 0.6 0.0 0.4 0.4 0.1 0.0	0.0 0.4 1.3 3.0 0.1 0.1 0.2 0.1 0.2 0.1 0.3 0.0 5.5 <b>2040</b> 0.0 1.3 0.0 2.5 2.0 0.0 0.8 0.0 0.8 0.0 0.5 5.2 0.0	0.0 0.5 1.0 3.5 0.0 0.1 0.2 0.1 0.3 0.0 5.9 <b>2045</b> 0.0 1.7 0.0 3.2 2.5 0.1 1.0 0.0 0.7 0.0 0.7 0.0	0.0 0.6 0.7 4.1 0.2 0.0 0.3 0.0 0.3 0.0 6.4 <b>2050</b> 0.0 2.2 0.0 2.2 0.0 2.2 0.0 3.8 2.7 0.1 1.3 0.0 9.0 8 8 2.7 0.1
FuelOther (Coal)JetfuelsGasolineDieselMethanolBio-MethanolBio-EthanolBio-EthanolBio-EthanolBio-EthanolBio-EthanolBio-IterselBiofuel(Diesel)ElectricityHydrogentotalFuels in All Transport, RegionFuelOther (Coal)JetfuelsBio-JetfuelsGasolineDieselBio-MethanolBio-EthanolBio-EthanolBio-SyngasCNGBiofuel(Diesel)ElectricityHydrogentotal	2005 0.0 0.1 0.6 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2010 0.0 0.1 0.7 1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.1 0.1 0.8 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.9 <b>2015</b> 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.2 0.0 0.1 1 0.2 0.0 0.0 0.2 0.0 0.0 0.2 0.0 0.0 0.0	0.1 0.2 1.0 2.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.4 <b>2020</b> 0.0 0.4 0.0 1.1 0.8 0.0 0.3 0.0 0.3 0.0 0.2 0.2 0.2 0.0 0.0 0.3.1	0.1 0.2 1.1 2.2 0.0 0.0 0.0 0.1 0.0 0.1 0.0 3.9 <b>2025</b> 0.0 0.5 0.0 1.5 0.0 1.5 0.0 0.4 0.0 0.3 3.9 2025	0.0 0.3 1.3 2.4 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.0 4.5 <b>2030</b> 0.0 0.7 0.0 1.7 1.2 0.0 0.5 0.0 0.3 0.3 0.3 0.3 0.3 0.4 8 8 0.4	0.0 0.3 1.3 2.6 0.0 0.1 0.1 0.1 0.1 0.2 0.0 5.0 <b>2035</b> 0.0 1.0 0.0 2.0 1.5 0.0 0.6 0.0 0.4 0.4 0.4 0.1	0.0 0.4 1.3 3.0 0.1 0.1 0.2 0.1 0.3 0.0 5.5 <b>2040</b> 0.0 1.3 0.0 2.5 2.0 0.0 0.8 0.0 0.8 0.0 0.6 0.5 0.2 0.2 0.7.9	0.0 0.5 1.0 3.5 0.0 0.1 0.1 0.2 0.1 0.3 0.0 5.9 <b>2045</b> 0.0 1.7 0.0 3.2 2.5 0.1 1.0 0.0 0.7 0.6 0.2 0.0 10.1	0.0 0.6 0.7 4.1 0.0 0.1 0.2 0.0 0.3 0.0 6.4 <b>2050</b> 0.0 2.2 0.0 3.8 2.7 0.1 1.3 0.0 0.9 0.8 8 0.7 0.1 1.3 0.0 0.9 0.8 8 0.3 0.0 0.9 1.2.1
FuelOther (Coal)JetfuelsGasolineDieselMethanolBio-MethanolBio-EthanolBio-EthanolBio-EthanolBio-EthanolBio-EthanolBio-EthanolBio-EthanolBio-EthanolBio-EthanolBio-EthanolBiofuel(Diesel)ElectricityHydrogentotalFuels in All Transport, RegionFuelOther (Coal)JetfuelsBio-JetfuelsGasolineDieselBio-MethanolBio-EthanolBio-EthanolBio-SyngasCNGBiofuel(Diesel)ElectricityHydrogentotalFuels in All Transport, RegionFuels in All Transport, RegionFuels in All Transport, RegionFuel	2005 0.0 0.1 0.6 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2010 0.0 0.1 0.7 1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.1 0.8 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.9 <b>2015</b> 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.2 0.0 0.1 0.2 0.0 0.1 0.2 0.0 0.0 0.2 5 5 2.5	0.1 0.2 1.0 2.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.4 <b>2020</b> 0.0 0.4 0.0 0.4 0.0 1.1 0.8 0.0 0.3 0.0 0.2 0.2 0.2 0.0 0.0 0.3 1.1	0.1 0.2 1.1 2.2 0.0 0.0 0.0 0.1 0.0 0.1 0.0 3.9 <b>2025</b> 0.0 0.5 0.0 1.5 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.1 5 0.0 0.0 0.5 0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.3 1.3 2.4 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.0 4.5 <b>2030</b> 0.0 0.7 0.0 0.7 0.0 0.7 0.0 1.7 1.2 0.0 0.5 0.0 0.3 0.3 0.3 0.3 0.1 0.4 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	0.0 0.3 1.3 2.6 0.0 0.1 0.1 0.1 0.2 0.0 5.0 <b>2035</b> 0.0 1.0 0.0 1.5 0.0 1.5 0.0 0.6 0.0 0.4 0.4 0.4 0.4 0.1	0.0 0.4 1.3 3.0 0.1 0.1 0.2 0.1 0.3 0.0 5.5 <b>2040</b> 0.0 1.3 0.0 2.5 2.0 0.0 0.8 0.0 0.8 0.0 0.6 0.5 5.2 0.0 0.7.9	0.0 0.5 1.0 3.5 0.0 0.1 0.1 0.2 0.1 0.3 0.0 5.9 <b>2045</b> 0.0 1.7 0.0 3.2 2.5 0.1 1.0 0.0 0.7 0.6 0.7 0.6 0.0 0.7 0.6 0.0 0.1 1.0 0.0 1.1 0.0 0.0 0.1 0.1 0.1	0.0 0.6 0.7 4.1 0.0 0.1 0.2 0.0 0.3 0.0 6.4 7 2050 0.0 2.2 0.0 3.8 2.7 0.1 1.3 0.0 0.9 0.8 8 0.7 0.1 1.3 0.0 0.9 0.8 8 0.3 0.0 0.1 2.2 0.0 0.0 0.3 1.2 1.2 0.0 0.0 0.3 0.0 0.0
FuelOther (Coal)JetfuelsGasolineDieselMethanolBio-MethanolBio-EthanolBio-EthanolBio-EthanolBio-EthanolBio-EthanolBio-EthanolBio-InternationBio-EthanolBio-EthanolBio-InternationBio-InternationBio-InternationBio-JetfuelsBio-JetfuelsBio-JetfuelsBio-JetfuelsBio-MethanolBio-EthanolBio-SyngasCNGBiofuel(Diesel)ElectricityHydrogentotal	2005 0.0 0.1 0.6 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2010 0.0 0.1 0.7 1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.1 0.1 0.8 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.9 <b>2015</b> 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.2 0.0 0.1 1 0.2 0.0 0.0 0.2 0.0 0.0 0.2 0.0 0.0 0.0	0.1 0.2 1.0 2.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.4 <b>2020</b> 0.0 0.4 0.0 1.1 0.8 0.0 0.3 0.0 0.3 0.0 0.2 0.2 0.2 0.0 0.0 0.3.1	0.1 0.2 1.1 2.2 0.0 0.0 0.0 0.1 0.0 0.1 0.0 3.9 <b>2025</b> 0.0 0.5 0.0 1.5 0.0 1.5 0.0 0.4 0.0 0.3 3.9 2025	0.0 0.3 1.3 2.4 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.0 4.5 <b>2030</b> 0.0 0.7 0.0 1.7 1.2 0.0 0.5 0.0 0.3 0.3 0.3 0.3 0.3 0.4 8 8 0.4	0.0 0.3 1.3 2.6 0.0 0.1 0.1 0.1 0.1 0.2 0.0 5.0 <b>2035</b> 0.0 1.0 0.0 2.0 1.5 0.0 0.6 0.0 0.4 0.4 0.4 0.1	0.0 0.4 1.3 3.0 0.1 0.1 0.2 0.1 0.3 0.0 5.5 <b>2040</b> 0.0 1.3 0.0 2.5 2.0 0.0 0.8 0.0 0.8 0.0 0.6 0.5 0.2 0.2 0.7.9	0.0 0.5 1.0 3.5 0.0 0.1 0.1 0.2 0.1 0.3 0.0 5.9 <b>2045</b> 0.0 1.7 0.0 3.2 2.5 0.1 1.0 0.0 0.7 0.6 0.2 0.0 10.1	0.0 0.6 0.7 4.1 0.0 0.1 0.2 0.0 0.3 0.0 6.4 <b>2050</b> 0.0 2.2 0.0 3.8 2.7 0.1 1.3 0.0 0.9 0.8 8 0.7 0.1 1.3 0.0 0.9 0.8 8 0.3 0.0 0.9 1.2.1
FuelOther (Coal)JetfuelsGasolineDieselMethanolBio-MethanolBio-EthanolBio-EthanolBio-EthanolBio-EthanolBio-EthanolBio-EthanolBio-EthanolBio-EthanolBio-EthanolBio-EthanolBiofuel(Diesel)ElectricityHydrogentotalFuels in All Transport, RegionFuelOther (Coal)JetfuelsBio-JetfuelsGasolineDieselBio-MethanolBio-EthanolBio-EthanolBio-EthanolBio-SyngasCNGBiofuel(Diesel)ElectricityHydrogentotalFuels in All Transport, RegionFuels in All Transport, RegionFuels in All Transport, RegionFuelOther (Coal)	2005 0.0 0.1 0.6 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2010 0.0 0.1 0.7 1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.1 0.1 0.8 1.8 0.0 0.0 0.0 0.0 0.0 0.0 2.9 <b>2015</b> 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.2 0.0 0.1 0.2 0.0 0.0 0.2 0.0 0.0 0.2 0.0 0.0 0.0	0.1 0.2 1.0 2.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.4 <b>2020</b> 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.1 1.1 0.8 0.0 0.2 0.2 0.2 0.0 0.0 0.0 1.1 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.1 0.2 1.1 2.2 0.0 0.0 0.0 0.1 0.0 0.1 0.0 3.9 <b>2025</b> 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.1 5 0.0 0.0 0.3 0.2 0.0 0.3 8 0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.3 1.3 2.4 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.0 4.5 <b>2030</b> 0.0 0.7 0.0 0.7 0.0 0.7 0.0 0.7 0.0 0.7 0.0 0.7 0.0 0.5 0.0 0.3 0.3 0.3 0.3 0.1 0.0 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3	0.0 0.3 1.3 2.6 0.0 0.1 0.1 0.1 0.2 0.0 5.0 2035 0.0 1.0 0.0 1.5 0.0 0.6 0.0 0.4 0.4 0.4 0.1 0.0 1.5 0.0 0.5 0.0 1.5 0.0 0.1 1.5 0.0 0.1 1.5 0.0 0.1 1.5 0.0 0.1 1.5 0.0 0.1 1.0 1.0 0.1 0.1 0.1 0.1 0.1 0.1	0.0 0.4 1.3 3.0 0.1 0.1 0.2 0.1 0.3 0.0 5.5 <b>2040</b> 0.0 1.3 0.0 2.5 2.0 0.0 0.8 0.0 0.8 0.0 0.6 0.5 0.2 0.0 0.0 7.9 <b>2040</b>	0.0 0.5 1.0 3.5 0.0 0.1 0.1 0.2 0.1 0.3 0.0 5.9 <b>2045</b> 0.0 1.7 0.0 3.2 2.5 0.1 1.0 0.0 0.7 0.6 0.2 0.1 1.0 0.0 1.7 1.0 0.0 1.7 0.0 1.0 1.7 0.0 0.1 0.0 1.7 0.0 0.0 1.7 0.0 0.0 1.7 0.0 0.0 1.7 0.0 0.0 1.7 0.0 0.0 0.1 0.1 0.2 0.0 0.0 0.1 0.2 0.0 0.0 0.2 0.0 0.0 0.0 0.2 0.0 0.0	0.0 0.6 0.7 4.1 0.0 0.1 0.2 0.0 0.3 0.0 6.4 7 2050 0.0 3.8 2.7 0.1 1.3 0.0 0.9 0.8 2.7 0.1 1.3 0.0 0.9 0.8 0.3 0.0 12.1 1.3 0.0 0.9 0.9 0.8 0.0 0.9 0.9 0.9 0.0 0.0 0.0 0.0 0.0 0.0
Fuel Other (Coal) Jetfuels Gasoline Diesel Methanol Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen total Fuels in All Transport, Region Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen total Fuels in All Transport, Region Fuel Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen total Fuels in All Transport, Region Fuel Other (Coal) Jetfuels	2005 0.0 0.1 0.6 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2010 0.0 0.1 0.7 1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.1 0.1 0.8 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.9 <b>2015</b> 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.2 0.0 0.1 0.2 0.0 0.1 0.2 0.0 0.0 0.2 0.0 0.0 0.2 0.0 0.0 0.0	0.1 0.2 1.0 2.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.4 <b>2020</b> 0.0 0.4 0.0 0.3 0.0 0.3 0.0 0.2 0.2 0.0 0.0 0.3 1.1 0.3 0.0 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.1 0.2 1.1 2.2 0.0 0.0 0.0 0.1 0.0 0.1 0.0 3.9 <b>2025</b> 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.4 0.0 0.3 0.2 0.1 0.0 0.3 8 0.2 0.0 0.0 0.3 8 0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.3 1.3 2.4 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.0 4.5 <b>2030</b> 0.0 0.7 0.0 0.7 0.0 0.7 0.0 0.7 0.0 0.7 0.0 0.7 0.0 0.5 0.0 0.3 0.3 0.3 0.3 0.1 0.0 0.3 0.3 0.3 0.3 0.3 0.3 0.1 0.0 0.5 0.0 0.0 0.5 0.0 0.0 0.5 0.0 0.0	0.0 0.3 1.3 2.6 0.0 0.1 0.1 0.1 0.2 0.0 5.0 5.0 2035 0.0 1.5 0.0 0.6 0.0 0.4 0.4 0.1 0.0 0.4 0.1 1.5 0.0 0.5 0.0 0.5 0.0 1.5 0.0 0.0	0.0 0.4 1.3 3.0 0.1 0.1 0.2 0.1 0.3 0.0 5.5 2.0 0.0 1.3 0.0 2.5 2.0 0.0 0.8 0.0 0.8 0.0 0.6 0.5 5.2 2.0 0.0 0.0 0.8 0.0 0.0 2.5 2.0 0.0 0.0 0.2 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.5 1.0 3.5 0.0 0.1 0.1 0.2 0.1 0.3 5.9 2045 0.0 1.7 0.0 3.2 2.5 0.1 1.0 0.0 0.7 0.6 0.2 0.0 10.1 1.0 10.1	0.0 0.6 0.7 4.1 0.0 0.1 0.2 0.0 0.3 0.0 6.4 <b>2050</b> 0.0 2.2 0.0 3.8 2.7 0.1 1.3 0.0 0.9 0.8 0.3 0.0 12.1 <b>2050</b> 0.0 12.1

Bio-Methanol	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.
Bio-Ethanol CNG	0.0 0.2	0.0	0.0	0.1 0.2	0.1 0.2	0.1 0.2	0.2 0.2	0.3	0.2 0.2	0.
CNG Biofuel(Diesel)	0.2	0.2 0.0	0.2 0.0	0.2	0.2	0.2	0.2	0.2 0.0	0.2	0. 0.
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
total	4.2	4.7	5.4	6.2	7.0	7.7	8.7	9.6	10.4	11.
Fuels in All Transport, Reg	zion MEA (Units:	EJ/v)								
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Other (Coal)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Jetfuels	0.5	0.5	0.6	0.7	0.9	1.1	1.3	1.6	2.0	2.
Gasoline Diesel	1.0	1.2	1.5	1.7	1.9	2.0	2.1	1.9	1.5	1.
Bio-Methanol	3.5 0.0	3.9 0.0	4.0 0.0	4.2 0.0	4.6 0.1	5.1 0.1	5.7 0.1	6.5 0.2	7.3 0.2	8. 0.
Bio-Ethanol	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0
Bio-Syngas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
CNG	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.
Biofuel(Diesel)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Electricity	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
total	5.0	5.7	6.2	6.8	7.6	8.5	9.5	10.5	11.5	12
Fuels in All Transport, Reg	gion MEXICO (Ur	nits: EJ/y)								
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	205
Other (Coal)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Jetfuels	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0
Gasoline	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.3	1.1	0
Diesel Bio-Methanol	1.2 0.0	1.3 0.0	1.4 0.0	1.5 0.0	1.7 0.1	1.8 0.1	2.1 0.1	2.3 0.2	2.7 0.1	3 0
Bio-Methanol Bio-Ethanol	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0
Bio-Syngas	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0
CNG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Biofuel(Diesel)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0
Electricity	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
total	1.9									
-	1.9	2.2	2.5	2.8	3.2	3.6	4.2	4.6	4.9	5.
Fuels in All Transport, Reg	-		2.5	2.8	3.2	3.6	4.2	4.6	4.9	5.
Fuels in All Transport, Reg Fuel	gion PACIFIC (Un 2005	its: EJ/y) 2010	2015	2020	2025	2030	2035	2040	2045	205
Fuels in All Transport, Reg Fuel Other (Coal)	gion PACIFIC (Un 2005 0.0	its: EJ/y) 2010 0.0	<b>2015</b> 0.0	<b>2020</b> 0.1	<b>2025</b> 0.1	<b>2030</b> 0.0	<b>2035</b> 0.0	<b>2040</b> 0.0	<b>2045</b> 0.0	<b>205</b>
Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels	gion PACIFIC (Un 2005 0.0 0.9	its: EJ/y) 2010 0.0 0.8	<b>2015</b> 0.0 0.9	<b>2020</b> 0.1 0.9	<b>2025</b> 0.1 1.0	<b>2030</b> 0.0 1.0	<b>2035</b> 0.0 1.0	<b>2040</b> 0.0 1.1	<b>2045</b> 0.0 1.1	<b>205</b> 0
Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Bio-Jetfuels	gion PACIFIC (Un 2005 0.0 0.9 0.0	its: EJ/y) 2010 0.0 0.8 0.0	<b>2015</b> 0.0 0.9 0.0	<b>2020</b> 0.1 0.9 0.0	<b>2025</b> 0.1 1.0 0.0	<b>2030</b> 0.0 1.0 0.0	<b>2035</b> 0.0 1.0 0.0	<b>2040</b> 0.0 1.1 0.0	<b>2045</b> 0.0 1.1 0.0	<b>205</b> 0 1 0
Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline	gion PACIFIC (Un 2005 0.0 0.9 0.0 3.0	its: EJ/y) 2010 0.0 0.8 0.0 3.2	<b>2015</b> 0.0 0.9 0.0 3.1	<b>2020</b> 0.1 0.9 0.0 2.7	<b>2025</b> 0.1 1.0 0.0 2.3	<b>2030</b> 0.0 1.0 0.0 1.8	<b>2035</b> 0.0 1.0 0.0 1.5	<b>2040</b> 0.0 1.1 0.0 1.3	<b>2045</b> 0.0 1.1 0.0 1.1	<b>205</b> 0 1 0 1
Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel	gion PACIFIC (Un 2005 0.0 0.0 3.0 3.4	its: EJ/y) 2010 0.0 0.8 0.0 3.2 3.1	<b>2015</b> 0.0 0.9 0.0 3.1 2.7	<b>2020</b> 0.1 0.9 0.0 2.7 2.7	2025 0.1 1.0 0.0 2.3 2.7	2030 0.0 1.0 0.0 1.8 2.8	2035 0.0 1.0 0.0 1.5 2.9	2040 0.0 1.1 0.0 1.3 3.1	2045 0.0 1.1 0.0 1.1 3.3	<b>205</b> 0 1 0 1 3
Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline	gion PACIFIC (Un 2005 0.0 0.9 0.0 3.0	its: EJ/y) 2010 0.0 0.8 0.0 3.2	<b>2015</b> 0.0 0.9 0.0 3.1	<b>2020</b> 0.1 0.9 0.0 2.7	<b>2025</b> 0.1 1.0 0.0 2.3	<b>2030</b> 0.0 1.0 0.0 1.8	<b>2035</b> 0.0 1.0 0.0 1.5	<b>2040</b> 0.0 1.1 0.0 1.3	<b>2045</b> 0.0 1.1 0.0 1.1	<b>205</b> 0 1 0 1 3 0
Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol	gion PACIFIC (Un 2005 0.0 0.0 3.0 3.4 0.0	its: EJ/y) 2010 0.0 0.8 0.0 3.2 3.1 0.0	2015 0.0 0.9 0.0 3.1 2.7 0.2	2020 0.1 0.9 0.0 2.7 2.7 0.3	2025 0.1 1.0 0.0 2.3 2.7 0.3	2030 0.0 1.0 0.0 1.8 2.8 0.2	2035 0.0 1.0 0.0 1.5 2.9 0.2	2040 0.0 1.1 0.0 1.3 3.1 0.1	2045 0.0 1.1 0.0 1.1 3.3 0.1	205 0 1 0 1 3 0 0
Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG	gion PACIFIC (Un 2005 0.0 0.0 3.0 3.4 0.0 0.0	its: EJ/y) 2010 0.0 0.8 0.0 3.2 3.1 0.0 0.0	<b>2015</b> 0.0 0.9 0.0 3.1 2.7 0.2 0.2	2020 0.1 0.9 0.0 2.7 2.7 0.3 0.2	2025 0.1 1.0 0.0 2.3 2.7 0.3 0.3	2030 0.0 1.0 0.0 1.8 2.8 0.2 0.3	2035 0.0 1.0 0.0 1.5 2.9 0.2 0.2	2040 0.0 1.1 0.0 1.3 3.1 0.1 0.1	2045 0.0 1.1 0.0 1.1 3.3 0.1 0.1	205 0 1 0 1 3 0 0 0 0 0
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Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity	gion PACIFIC (Un 2005 0.0 0.0 3.0 3.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	its: EJ/y) 2010 0.0 0.8 0.0 3.2 3.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2015 0.0 0.9 0.0 3.1 2.7 0.2 0.2 0.0 0.0 0.0 0.1 0.0	2020 0.1 0.9 0.0 2.7 2.7 0.3 0.2 0.0 0.0 0.0 0.1 0.1	2025 0.1 1.0 0.0 2.3 2.7 0.3 0.3 0.0 0.1 0.2 0.1	2030 0.0 1.0 0.0 1.8 2.8 0.2 0.3 0.0 0.1 0.1 0.1	2035 0.0 1.0 0.0 1.5 2.9 0.2 0.2 0.0 0.1 0.1 0.1 0.2	2040 0.0 1.1 0.0 1.3 3.1 0.1 0.1 0.0 0.1 0.1 0.2	2045 0.0 1.1 0.0 1.1 3.3 0.1 0.1 0.0 0.2 0.1 0.2	205 0 1 0 1 3 0 0 0 0 0 0 0 0 0 0
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Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen total	gion PACIFIC (Un 2005 0.0 0.9 0.0 3.0 3.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 7.3	its: EJ/y) 2010 0.0 0.8 0.0 3.2 3.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2015 0.0 0.9 0.0 3.1 2.7 0.2 0.2 0.0 0.0 0.0 0.1 0.0	2020 0.1 0.9 0.0 2.7 2.7 0.3 0.2 0.0 0.0 0.0 0.1 0.1	2025 0.1 1.0 0.0 2.3 2.7 0.3 0.3 0.0 0.1 0.2 0.1	2030 0.0 1.0 0.0 1.8 2.8 0.2 0.3 0.0 0.1 0.1 0.1	2035 0.0 1.0 0.0 1.5 2.9 0.2 0.2 0.0 0.1 0.1 0.1 0.2	2040 0.0 1.1 0.0 1.3 3.1 0.1 0.1 0.0 0.1 0.1 0.2	2045 0.0 1.1 0.0 1.1 3.3 0.1 0.1 0.0 0.2 0.1 0.2	205 0 1 0 1 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen total Fuels in All Transport, Reg	gion PACIFIC (Un 2005 0.0 3.0 3.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	its: EJ/y) 2010 0.0 0.8 0.0 3.2 3.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2015 0.0 0.9 0.0 3.1 2.7 0.2 0.2 0.0 0.0 0.0 0.0 0.0 7.2	2020 0.1 0.9 0.0 2.7 2.7 0.3 0.2 0.0 0.0 0.0 0.1 0.1 0.0 7.3	2025 0.1 1.0 0.0 2.3 2.7 0.3 0.3 0.0 0.1 0.2 0.1 0.0 7.1	2030 0.0 1.0 0.0 1.8 2.8 0.2 0.3 0.0 0.1 0.1 0.1 0.2 0.0 6.6	2035 0.0 1.0 0.0 1.5 2.9 0.2 0.2 0.0 0.1 0.1 0.1 0.2 0.0 6.3	2040 0.0 1.1 0.0 1.3 3.1 0.1 0.1 0.1 0.1 0.1 0.2 0.0 6.2	2045 0.0 1.1 0.0 1.1 3.3 0.1 0.1 0.0 0.2 0.1 0.2 0.0 6.1	205 0 1 1 3 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Biofuel(Diesel) Electricity Hydrogen total Fuels in All Transport, Reg Fuel	gion PACIFIC (Un 2005 0.0 0.9 0.0 3.0 3.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 7.3	its: EJ/y) 2010 0.0 0.8 0.0 3.2 3.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2015 0.0 0.9 0.0 3.1 2.7 0.2 0.2 0.0 0.0 0.0 0.1 0.0 0.0 7.2 2015	2020 0.1 0.9 0.0 2.7 2.7 0.3 0.2 0.0 0.0 0.0 0.1 0.1 0.1 0.1 0.2 7.3 2020	2025 0.1 1.0 0.0 2.3 2.7 0.3 0.3 0.0 0.1 0.2 0.1 0.2 0.1 0.0 7.1	2030 0.0 1.0 0.0 1.8 2.8 0.2 0.3 0.0 0.1 0.1 0.1 0.2 0.0 6.6 2030	2035 0.0 1.0 0.0 1.5 2.9 0.2 0.2 0.0 0.1 0.1 0.1 0.2 0.0 6.3	2040 0.0 1.1 0.0 1.3 3.1 0.1 0.1 0.1 0.1 0.1 0.1 0.2 0.0 6.2 2040	2045 0.0 1.1 0.0 1.1 3.3 0.1 0.1 0.2 0.1 0.2 0.1 0.2 0.0 6.1 2045	2050 0 1 1 3 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0
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Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Biofuel(Diesel) Electricity Hydrogen total Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Gasoline Diesel Methanol Bio-Methanol	gion PACIFIC (Un 2005 0.0 0.9 0.0 3.0 3.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 7.3 gion RUSSIA (Un 2005 0.0 0.4 1.2 0.6 0.0 0.0	its: EJ/y) 2010 0.0 0.8 0.0 3.2 3.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2015 0.0 0.9 0.0 3.1 2.7 0.2 0.2 0.0 0.0 0.0 0.0 7.2 2015 0.0 0.6 1.5 0.9 0.0 0.0 0.0	2020 0.1 0.9 0.0 2.7 2.7 0.3 0.2 0.0 0.0 0.1 0.1 0.1 0.0 7.3 2020 0.0 0.0 8 1.7 0.9 0.0 0.0 0.0	2025 0.1 1.0 0.0 2.3 2.7 0.3 0.3 0.0 0.1 0.0 7.1 0.0 7.1 2025 0.0 0.9 1.8 0.8 0.0 0.0 0.0	2030 0.0 1.0 0.0 1.8 2.8 0.2 0.3 0.0 0.1 0.1 0.2 0.0 6.6 2030 0.0 1.2 1.8 0.9 0.0 0.1	2035 0.0 1.0 0.2 0.2 0.2 0.0 0.1 0.1 0.2 0.0 6.3 2035 0.0 1.5 1.7 1.1 0.0 0.1	2040 0.0 1.1 0.0 1.3 3.1 0.1 0.1 0.1 0.1 0.1 0.2 0.0 6.2 2040 0.0 1.9 1.4 1.4 0.0 0.1	2045 0.0 1.1 0.0 1.1 3.3 0.1 0.1 0.1 0.2 0.0 6.1 2045 0.0 2.2 1.0 1.9 0.0 0.1	2050 0 1 1 3 3 0 0 0 0 0 0 0 0 0 0 2 2 0 0 0 2 2 0
Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Biofuel(Diesel) Electricity Hydrogen total Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Gasoline Diesel Methanol Bio-Methanol Bio-Methanol Bio-Ethanol	gion PACIFIC (Un 2005 0.0 0.9 0.0 3.0 3.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	its: EJ/y) 2010 0.0 0.8 0.0 3.2 3.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2015 0.0 0.9 0.0 3.1 2.7 0.2 0.2 0.0 0.0 0.0 0.0 7.2 2015 0.0 0.6 1.5 0.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2020 0.1 0.9 0.0 2.7 2.7 0.3 0.2 0.0 0.0 0.1 0.1 0.1 0.0 7.3 2020 0.0 0.0 0.0 8 1.7 0.9 0.0 0.0 0.0 0.0 0.0	2025 0.1 1.0 0.0 2.3 2.7 0.3 0.3 0.0 0.1 0.0 7.1 0.0 7.1 2025 0.0 0.0 9 1.8 0.0 0.0 0.0 0.0 0.0 0.0	2030 0.0 1.0 0.0 1.8 2.8 0.2 0.3 0.0 0.1 0.1 0.2 0.0 6.6 2030 0.0 1.2 1.8 0.9 0.0 0.1 1.2 1.8 0.9 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1	2035 0.0 1.0 0.2 0.2 0.2 0.0 0.1 0.1 0.2 0.0 6.3 2035 0.0 1.5 1.7 1.1 0.0 0.1 1.5 1.7 1.1 0.0	2040 0.0 1.1 0.0 1.3 3.1 0.1 0.1 0.1 0.1 0.2 0.0 6.2 2040 0.0 1.9 1.4 1.4 0.0 0.1 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1	2045 0.0 1.1 0.0 1.1 3.3 0.1 0.1 0.2 0.0 6.1 2045 0.0 2.2 1.0 1.9 0.0 0.1 1.9 0.0 0.1 1.0 0.0 0.2 0.0 0.1 0.0 0.1 0.0 0.1 0.1 0.0 0.1 0.1	2050 0 1 1 3 3 0 0 0 0 0 0 0 0 0 0 2 2 0 0 0 2 2 0
Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen total Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Gasoline Diesel Methanol Bio-Methanol Bio-Methanol Bio-Ethanol Bio-Syngas	gion PACIFIC (Un 2005 0.0 0.9 0.0 3.0 3.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	its: EJ/y) 2010 0.0 0.8 0.0 3.2 3.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2015 0.0 0.9 0.0 3.1 2.7 0.2 0.2 0.0 0.0 0.0 0.0 7.2 2015 0.0 0.6 1.5 0.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2020 0.1 0.9 0.0 2.7 2.7 0.3 0.2 0.0 0.0 0.0 0.0 0.1 0.1 0.0 7.3 2020 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	2025 0.1 1.0 0.0 2.3 2.7 0.3 0.3 0.0 0.1 0.0 7.1 0.0 7.1 2025 0.0 0.0 9 1.8 0.0 0.0 9 1.8 0.0 0.0 0.0 0.0 0.0 0.0	2030 0.0 1.0 0.0 1.8 2.8 0.2 0.3 0.0 0.1 0.1 0.2 0.0 6.6 2030 0.0 1.2 1.8 0.9 0.0 0.1 0.1 0.1 0.1 0.0 1.0 0.0 0	2035 0.0 1.0 0.2 0.2 0.2 0.0 0.1 0.1 0.1 0.2 0.0 6.3 2035 0.0 1.5 1.7 1.1 0.0 0.1 1.5 1.7 1.1 0.0 0.1 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1	2040 0.0 1.1 0.0 1.3 3.1 0.1 0.1 0.1 0.1 0.1 0.2 0.0 6.2 2040 0.0 1.9 1.4 1.4 0.0 0.1 1.3 2040 0.0 1.4 1.4 1.4 1.4 0.0 0.1 0.0 1.4 1.4 1.4 0.0 0.1 0.0 1.4 1.4 1.4 0.0 0.0 0.1 0.0 0.0 1.9 1.4 1.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2045 0.0 1.1 0.0 1.1 3.3 0.1 0.1 0.1 0.2 0.0 6.1 0.2 0.0 6.1 2045 0.0 2.2 1.0 1.9 0.0 0.1 1.9 0.0 0.1 1.0 2.2 0.0	2050 00 11 33 00 00 00 00 00 00 00 20 50 00 22 00 00 00 00 00 00 00 00 00 00 00
Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen total Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Gasoline Diesel Methanol Bio-Methanol Bio-Methanol Bio-Ethanol Bio-Syngas CNG	gion PACIFIC (Un 2005 0.0 0.9 0.0 3.0 3.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	its: EJ/y) 2010 0.0 0.8 0.0 3.2 3.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 7.2 its: EJ/y) 2010 0.0 0.0 5 1.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2015 0.0 0.9 0.0 3.1 2.7 0.2 0.2 0.0 0.0 0.0 0.0 7.2 2015 0.0 0.0 0.6 1.5 0.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2020 0.1 0.9 0.0 2.7 2.7 0.3 0.2 0.0 0.0 0.0 0.0 0.1 0.1 0.0 7.3 2020 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	2025 0.1 1.0 0.0 2.3 2.7 0.3 0.3 0.0 0.1 0.0 7.1 0.0 7.1 2025 0.0 0.0 9 1.8 0.0 0.0 9 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2030 0.0 1.0 0.0 1.8 2.8 0.2 0.3 0.0 0.1 0.1 0.2 0.0 6.6 2030 0.0 1.2 1.8 0.9 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1	2035 0.0 1.0 0.2 0.2 0.2 0.0 0.1 0.1 0.2 0.0 6.3 2035 0.0 1.5 1.7 1.1 0.0 0.1 0.1 0.1 0.1	2040 0.0 1.1 0.0 1.3 3.1 0.1 0.1 0.1 0.1 0.1 0.2 0.0 6.2 2040 0.0 1.9 1.4 1.4 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1	2045 0.0 1.1 0.0 1.1 3.3 0.1 0.1 0.1 0.2 0.0 6.1 0.2 0.0 6.1 2045 0.0 2.2 1.0 1.9 0.0 0.1 1.9 0.0 0.1 1.9 0.0 0.1 1.9 0.0 0.1 1.1 0.0 0.1 1.1 0.0 0.1 1.1 0.0 0.1 1.1 0.0 0.1 1.1 0.0 0.1 1.1 0.0 0.1 1.1 0.0 0.1 1.1 0.0 0.1 1.1 0.0 0.1 1.1 0.0 0.1 1.1 0.0 0.1 1.1 0.0 0.2 0.0 0.1 1.1 0.0 0.2 0.0 0.1 0.0 0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2050 0 1 1 3 3 0 0 0 0 0 0 0 0 0 0 0 0 0 2 2 0 0 0 0
Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen total Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Gasoline Diesel Methanol Bio-Methanol Bio-Methanol Bio-Syngas CNG Biofuel(Diesel)	gion PACIFIC (Un 2005 0.0 0.9 0.0 3.0 3.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	its: EJ/y) 2010 0.0 0.8 0.0 3.2 3.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2015 0.0 0.9 0.0 3.1 2.7 0.2 0.2 0.0 0.0 0.0 0.0 7.2 2015 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	2020 0.1 0.9 0.0 2.7 2.7 0.3 0.2 0.0 0.0 0.0 0.0 0.1 0.1 0.1 0.0 7.3 2020 0.0 0.0 8 1.7 0.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2025 0.1 1.0 0.0 2.3 2.7 0.3 0.3 0.0 0.1 0.0 7.1 2025 0.0 7.1 2025 0.0 0.0 9 1.8 0.0 0.0 9 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2030 0.0 1.0 0.0 1.8 2.8 0.2 0.3 0.0 0.1 0.1 0.2 0.0 6.6 2030 0.0 1.2 1.8 0.9 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1	2035 0.0 1.0 0.2 0.2 0.2 0.0 0.1 0.1 0.1 0.0 1.5 1.7 1.1 0.0 0.1 1.5 1.7 1.1 0.0 0.1 1.5 1.7 1.1 0.0 0.1 0.1 0.1 0.1 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	2040 0.0 1.1 0.0 1.3 3.1 0.1 0.1 0.1 0.1 0.1 0.2 0.0 6.2 2040 0.0 1.9 1.4 1.4 0.0 0.1 0.1 0.0 1.3 2040 0.0 1.3 2040 0.0 1.3 1.3 2040 0.0 1.4 1.4 1.4 0.0 0.1 0.0 0.0 1.3 0.0 0.0 1.3 0.0 0.0 1.3 0.0 0.0 1.3 0.0 0.0 1.4 1.4 1.4 0.0 0.0 0.1 0.0 0.0 1.4 1.4 1.4 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0	2045 0.0 1.1 0.0 1.1 3.3 0.1 0.1 0.1 0.2 0.0 6.1 2045 0.0 2.2 1.0 1.9 0.0 0.1 0.2 0.0 0.2 2.0 0.0 0.2 0.0 0.1 0.2 0.0 0.2 0.0 0.2 0.0 0.1 0.0 0.2 0.0 0.0 0.2 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0	2050 0 1 1 3 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Biofuel(Diesel) Electricity Hydrogen total Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Gasoline Diesel Methanol Bio-Methanol Bio-Methanol Bio-Syngas CNG Biofuel(Diesel) Electricity	gion PACIFIC (Un 2005 0.0 0.9 0.0 3.0 3.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	its: EJ/y) 2010 0.0 0.8 0.0 3.2 3.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2015 0.0 0.9 0.0 3.1 2.7 0.2 0.2 0.0 0.0 0.0 0.0 7.2 2015 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	2020 0.1 0.9 0.0 2.7 2.7 0.3 0.2 0.0 0.0 0.1 0.1 0.1 0.1 0.1 0.0 7.3 2020 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	2025 0.1 1.0 0.0 2.3 2.7 0.3 0.3 0.0 0.1 0.2 0.1 0.0 7.1 2025 0.0 0.0 0.9 1.8 0.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2030 0.0 1.0 0.0 1.8 2.8 0.2 0.3 0.0 0.1 0.1 0.2 0.0 6.6 2030 0.0 1.2 1.8 0.9 0.0 1.2 1.8 0.9 0.0 1.2 1.8 0.9 0.0 1.2 1.8 0.9 0.0 1.0 0.1 0.1 0.1 0.1 0.1 0.1	2035 0.0 1.0 0.2 0.2 0.2 0.0 0.1 0.1 0.1 0.0 1.5 1.7 1.1 0.0 0.1 1.5 1.7 1.1 0.0 0.1 1.5 1.7 1.1 0.0 0.1 0.1 0.1 0.1 0.1 0.1	2040 0.0 1.1 0.0 1.3 3.1 0.1 0.1 0.1 0.1 0.1 0.2 0.0 6.2 2040 0.0 1.9 1.4 1.4 0.0 0.1 0.1 0.0 1.3 2040 0.0 1.4 1.4 1.4 0.0 0.1 0.0 0.0 1.9 1.4 1.4 0.0 0.1 0.0 0.0 1.9 1.4 1.4 0.0 0.1 0.0 0.0 1.9 1.4 1.4 0.0 0.0 0.1 0.0 0.0 1.4 1.4 0.0 0.1 0.0 0.0 0.0 0.1 0.0 0.0	2045 0.0 1.1 0.0 1.1 3.3 0.1 0.1 0.2 0.1 0.2 0.0 6.1 2045 0.0 2.2 1.0 1.9 0.0 0.1 0.2 0.0 0.1 1.0 0.2 0.0 0.1 0.0 0.2 0.0 0.1 0.0 0.1 0.2 0.0 0.1 0.0 0.1 0.0 0.0 0.1 0.0 0.0	205 0 1 1 0 0 0 0 0 0 0 0 0 2 2 0 0 0 2 2 0 0 0 2 2 0
Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen total Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Gasoline Diesel Methanol Bio-Methanol Bio-Methanol Bio-Syngas CNG Biofuel(Diesel)	gion PACIFIC (Un 2005 0.0 0.9 0.0 3.0 3.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	its: EJ/y) 2010 0.0 0.8 0.0 3.2 3.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2015 0.0 0.9 0.0 3.1 2.7 0.2 0.2 0.0 0.0 0.0 0.0 7.2 2015 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	2020 0.1 0.9 0.0 2.7 2.7 0.3 0.2 0.0 0.0 0.0 0.0 0.1 0.1 0.1 0.0 7.3 2020 0.0 0.0 8 1.7 0.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2025 0.1 1.0 0.0 2.3 2.7 0.3 0.3 0.0 0.1 0.0 7.1 2025 0.0 7.1 2025 0.0 0.0 9 1.8 0.0 0.0 9 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2030 0.0 1.0 0.0 1.8 2.8 0.2 0.3 0.0 0.1 0.1 0.2 0.0 6.6 2030 0.0 1.2 1.8 0.9 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1	2035 0.0 1.0 0.2 0.2 0.2 0.0 0.1 0.1 0.1 0.0 1.5 1.7 1.1 0.0 0.1 1.5 1.7 1.1 0.0 0.1 1.5 1.7 1.1 0.0 0.1 0.1 0.1 0.1 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	2040 0.0 1.1 0.0 1.3 3.1 0.1 0.1 0.1 0.1 0.1 0.2 0.0 6.2 2040 0.0 1.9 1.4 1.4 0.0 0.1 0.1 0.0 1.3 2040 0.0 1.3 2040 0.0 1.3 1.3 2040 0.0 1.4 1.4 1.4 0.0 0.1 0.0 0.0 1.3 0.0 0.0 1.3 0.0 0.0 1.3 0.0 0.0 1.3 0.0 0.0 1.4 1.4 1.4 0.0 0.0 0.1 0.0 0.0 1.4 1.4 1.4 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0	2045 0.0 1.1 0.0 1.1 3.3 0.1 0.1 0.1 0.2 0.0 6.1 2045 0.0 2.2 1.0 1.9 0.0 0.1 0.2 0.0 0.2 2.0 0.0 0.2 0.0 0.1 0.2 0.0 0.2 0.0 0.2 0.0 0.1 0.0 0.2 0.0 0.0 0.2 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0	205 0 1 3 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Biofuel(Diesel) Electricity Hydrogen total Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Gasoline Diesel Methanol Bio-Methanol Bio-Methanol Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen total	gion PACIFIC (Un 2005 0.0 0.9 0.0 3.0 3.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	its: EJ/y) 2010 0.0 0.8 0.0 3.2 3.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2015 0.0 0.9 0.0 3.1 2.7 0.2 0.2 0.0 0.0 0.0 0.0 0.0 0.0	2020 0.1 0.9 0.0 2.7 2.7 0.3 0.2 0.0 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.0 7.3 2020 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	2025 0.1 1.0 0.0 2.3 2.7 0.3 0.3 0.0 0.1 0.2 0.1 0.0 7.1 2025 0.0 0.0 0.9 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2030 0.0 1.0 0.0 1.8 2.8 0.2 0.3 0.0 0.1 0.1 0.1 0.2 0.0 6.6 2030 0.0 1.2 1.8 0.9 0.0 1.2 1.8 0.9 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1	2035 0.0 1.0 0.2 0.2 0.2 0.0 0.1 0.1 0.1 0.1 0.3 2035 0.0 1.5 1.7 1.1 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	2040 0.0 1.1 0.0 1.3 3.1 0.1 0.1 0.1 0.1 0.2 0.0 6.2 2040 0.0 1.9 1.4 1.4 0.0 0.1 0.1 0.0 1.9 1.4 1.4 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.0	2045 0.0 1.1 0.0 1.1 3.3 0.1 0.1 0.0 0.1 0.2 0.0 6.1 2045 0.0 2.2 1.0 0.0 2.2 1.0 1.9 0.0 0.1 0.2 0.0 0.1 0.2 0.0 0.1 1.0 2.2 0.0 0.1 1.0 0.0 0.1 1.1 0.0 0.0 0.1 0.0 0.1 0.0 0.0	205 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen total Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Gasoline Diesel Methanol Bio-Methanol Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen	gion PACIFIC (Un 2005 0.0 0.9 0.0 3.0 3.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	its: EJ/y) 2010 0.0 0.8 0.0 3.2 3.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2015 0.0 0.9 0.0 3.1 2.7 0.2 0.0 0.0 0.0 0.0 0.0 7.2 2015 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	2020 0.1 0.9 0.0 2.7 2.7 0.3 0.2 0.0 0.0 0.1 0.0 7.3 2020 0.0 0.0 0.0 0.0 0.0 0.0 0.	2025 0.1 1.0 0.0 2.3 2.7 0.3 0.0 0.1 0.2 0.1 0.2 0.1 0.0 7.1 2025 0.0 0.9 1.8 0.0 0.9 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2030 0.0 1.0 0.0 1.8 2.8 0.2 0.3 0.0 0.1 0.1 0.0 1.2 1.8 0.9 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1	2035 0.0 1.0 0.2 0.2 0.2 0.0 0.1 0.1 0.1 0.0 1.5 1.7 1.1 0.0 0.1 0.1 0.1 0.1 0.1 0.1	2040 0.0 1.1 0.0 1.3 3.1 0.1 0.1 0.1 0.1 0.2 0.0 6.2 2040 0.0 1.9 1.4 1.4 0.0 0.1 0.1 0.0 1.9 1.4 1.4 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.0	2045 0.0 1.1 0.0 1.1 3.3 0.1 0.1 0.2 0.1 0.2 0.0 6.1 2045 0.0 2.2 1.0 1.9 0.0 0.1 0.2 0.0 0.1 0.0 0.2 0.0 0.1 1.1 0.0 0.2 0.0 0.1 0.0 0.2 0.0 0.1 0.0 0.1 0.0 0.2 0.0 0.1 0.0 0.2 0.0 0.1 0.0 0.2 0.0 0.1 0.0 0.2 0.0 0.1 0.0 0.2 0.0 0.1 0.0 0.2 0.0 0.1 0.0 0.2 0.0 0.1 0.0 0.2 0.0 0.1 0.0 0.2 0.0 0.1 0.0 0.2 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.0	205 0 1 3 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Biofuel(Diesel) Electricity Hydrogen total Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Gasoline Diesel Methanol Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen total Fuels in All Transport, Reg	gion PACIFIC (Un 2005 0.0 0.9 0.0 3.0 3.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	its: EJ/y) 2010 0.0 0.8 0.0 3.2 3.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2015 0.0 0.9 0.0 3.1 2.7 0.2 0.2 0.0 0.0 0.0 0.0 0.0 0.0	2020 0.1 0.9 0.0 2.7 2.7 0.3 0.2 0.0 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.0 7.3 2020 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	2025 0.1 1.0 0.0 2.3 2.7 0.3 0.3 0.0 0.1 0.2 0.1 0.0 7.1 2025 0.0 0.0 0.9 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2030 0.0 1.0 0.0 1.8 2.8 0.2 0.3 0.0 0.1 0.1 0.1 0.2 0.0 6.6 2030 0.0 1.2 1.8 0.9 0.0 1.2 1.8 0.9 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1	2035 0.0 1.0 0.2 0.2 0.2 0.0 0.1 0.1 0.1 0.1 0.3 2035 0.0 1.5 1.7 1.1 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	2040 0.0 1.1 0.0 1.3 3.1 0.1 0.1 0.1 0.1 0.0 6.2 2040 0.0 1.9 1.4 1.4 0.0 0.1 0.1 0.1 0.1 0.0 0.1 1.5 3.1 0.1 0.0 0.1 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.0	2045 0.0 1.1 0.0 1.1 3.3 0.1 0.1 0.0 0.1 0.2 0.0 6.1 2045 0.0 2.2 1.0 0.0 2.2 1.0 1.9 0.0 0.1 0.2 0.0 0.1 0.2 0.0 0.1 1.0 2.2 0.0 0.1 1.0 0.0 0.1 1.1 0.0 0.0 0.1 0.0 0.1 0.0 0.0	2050 0 1 1 3 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Biofuel(Diesel) Electricity Hydrogen total Fuels in All Transport, Reg Fuel Other (Coal) Jetfuels Gasoline Diesel Methanol Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen total Fuels in All Transport, Reg Fuel Diesel Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen total Fuels in All Transport, Reg Fuel	gion PACIFIC (Un 2005 0.0 0.9 0.0 3.0 3.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	its: EJ/y) 2010 0.0 0.8 0.0 3.2 3.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2015 0.0 0.9 0.0 3.1 2.7 0.2 0.2 0.0 0.0 0.0 0.0 0.0 7.2 2015 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	2020 0.1 0.9 0.0 2.7 2.7 0.3 0.2 0.0 0.0 0.1 0.1 0.1 0.1 0.0 0.3 2020 0.0 0.0 0.0 0.0 0.0 0.0 0.	2025 0.1 1.0 0.0 2.3 2.7 0.3 0.0 0.1 0.2 0.1 0.0 7.1 2025 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	2030 0.0 1.0 0.0 1.8 2.8 0.2 0.3 0.0 0.1 0.1 0.1 0.0 1.2 1.8 0.9 0.0 1.2 1.8 0.9 0.0 1.2 1.8 0.9 0.0 1.2 1.8 0.9 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1	2035 0.0 1.0 0.2 0.2 0.2 0.0 0.1 0.1 0.1 0.2 2035 0.0 1.5 1.7 1.1 0.0 0.1 1.5 1.7 1.1 0.0 0.1 0.1 0.1 0.1 0.1 0.1	2040 0.0 1.1 0.0 1.3 3.1 0.1 0.1 0.1 0.1 0.1 0.2 2040 0.0 1.9 1.4 1.4 0.0 0.1 0.1 0.1 0.0 0.1 1.3 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	2045 0.0 1.1 0.0 1.1 3.3 0.1 0.1 0.2 0.1 0.2 0.1 0.2 0.0 6.1 2045 0.0 2.2 1.0 1.9 0.0 0.1 0.2 0.0 0.1 1.0 0.2 0.0 0.1 0.0 0.2 0.0 0.1 0.0 0.2 0.0 0.1 0.0 0.2 0.0 0.1 0.0 0.2 0.0 0.1 0.0 0.2 0.0 0.1 0.0 0.2 0.0 0.1 0.0 0.2 0.0 0.1 0.0 0.2 0.0 0.1 0.0 0.2 0.0 0.1 0.0 0.2 0.0 0.1 0.0 0.2 0.0 0.1 0.0 0.2 0.0 0.1 0.0 0.0 0.2 0.0 0.0 0.1 0.0 0.0 0.1 0.0 0.0	5. 2056 0. 1. 3. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0

Diesel	6.9	6.3	6.5	6.8	7.2	7.6	8.7	10.2	11.5	12.4
Bio-Methanol	0.0	0.0	0.1	0.3	0.5	0.8	1.1	0.9	0.7	0.6
Bio-Ethanol	0.3	0.8	1.1	1.5	1.4	1.1	0.8	1.1	1.2	1.4
Bio-Syngas	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
CNG	0.0	0.0	0.1	0.3	0.5	0.7	0.7	0.7	0.7	0.8
Biofuel(Diesel)	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.7	0.8	0.8
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
total	27.3	27.3	28.1	28.6	28.6	27.4	25.8	24.9	24.6	24.7
	-									
Fuels in All Transport, Regi	•									
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
										2000
Other (Coal)	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Other (Coal) Jetfuels	0.0 2.2									
		0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Jetfuels	2.2	0.0 2.3	0.0 2.6	0.1 2.8	0.1 3.0	0.0 3.2	0.0 3.4	0.0 3.6	0.0 3.7	0.0 3.9
Jetfuels Gasoline	2.2 5.4	0.0 2.3 6.2	0.0 2.6 6.7	0.1 2.8 6.4	0.1 3.0 5.7	0.0 3.2 4.5	0.0 3.4 3.8	0.0 3.6 3.4	0.0 3.7 2.7	0.0 3.9 2.6
Jetfuels Gasoline Diesel	2.2 5.4 9.6	0.0 2.3 6.2 8.4	0.0 2.6 6.7 8.1	0.1 2.8 6.4 7.8	0.1 3.0 5.7 7.6	0.0 3.2 4.5 8.1	0.0 3.4 3.8 8.8	0.0 3.6 3.4 9.2	0.0 3.7 2.7 9.6	0.0 3.9 2.6 9.6
Jetfuels Gasoline Diesel Bio-Methanol	2.2 5.4 9.6 0.0	0.0 2.3 6.2 8.4 0.0	0.0 2.6 6.7 8.1 0.1	0.1 2.8 6.4 7.8 0.2	0.1 3.0 5.7 7.6 0.3	0.0 3.2 4.5 8.1 0.5	0.0 3.4 3.8 8.8 0.5	0.0 3.6 3.4 9.2 0.4	0.0 3.7 2.7 9.6 0.3	0.0 3.9 2.6 9.6 0.3
Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol	2.2 5.4 9.6 0.0 0.0	0.0 2.3 6.2 8.4 0.0 0.1	0.0 2.6 6.7 8.1 0.1 0.2	0.1 2.8 6.4 7.8 0.2 0.4	0.1 3.0 5.7 7.6 0.3 0.6	0.0 3.2 4.5 8.1 0.5 0.7	0.0 3.4 3.8 8.8 0.5 0.6	0.0 3.6 3.4 9.2 0.4 0.3	0.0 3.7 2.7 9.6 0.3 0.4	0.0 3.9 2.6 9.6 0.3 0.5
Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas	2.2 5.4 9.6 0.0 0.0 0.0	0.0 2.3 6.2 8.4 0.0 0.1 0.0	0.0 2.6 6.7 8.1 0.1 0.2 0.0	0.1 2.8 6.4 7.8 0.2 0.4 0.0	0.1 3.0 5.7 7.6 0.3 0.6 0.0	0.0 3.2 4.5 8.1 0.5 0.7 0.0	0.0 3.4 3.8 8.8 0.5 0.6 0.0	0.0 3.6 3.4 9.2 0.4 0.3 0.0	0.0 3.7 2.7 9.6 0.3 0.4 0.0	0.0 3.9 2.6 9.6 0.3 0.5 0.0
Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG	2.2 5.4 9.6 0.0 0.0 0.0 0.0	0.0 2.3 6.2 8.4 0.0 0.1 0.0 0.0	0.0 2.6 6.7 8.1 0.1 0.2 0.0 0.1	0.1 2.8 6.4 7.8 0.2 0.4 0.0 0.2	0.1 3.0 5.7 7.6 0.3 0.6 0.0 0.3	0.0 3.2 4.5 8.1 0.5 0.7 0.0 0.4	0.0 3.4 3.8 8.8 0.5 0.6 0.0 0.5	0.0 3.6 3.4 9.2 0.4 0.3 0.0 0.6	0.0 3.7 2.7 9.6 0.3 0.4 0.0 0.8	0.0 3.9 2.6 9.6 0.3 0.5 0.0 1.0
Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel)	2.2 5.4 9.6 0.0 0.0 0.0 0.0 0.0 0.1	0.0 2.3 6.2 8.4 0.0 0.1 0.0 0.0 0.0 0.4	0.0 2.6 6.7 8.1 0.1 0.2 0.0 0.1 0.5	0.1 2.8 6.4 7.8 0.2 0.4 0.0 0.2 0.2 0.8	0.1 3.0 5.7 7.6 0.3 0.6 0.0 0.3 0.9	0.0 3.2 4.5 8.1 0.5 0.7 0.0 0.4 0.4	0.0 3.4 3.8 8.8 0.5 0.6 0.0 0.5 0.3	0.0 3.6 3.4 9.2 0.4 0.3 0.0 0.6 0.2	0.0 3.7 2.7 9.6 0.3 0.4 0.0 0.8 0.1	0.0 3.9 2.6 9.6 0.3 0.5 0.0 1.0 0.1

# Technology Mix (billion v-km/y)

Technology Mix of Milea	ge for Cars (Unit	s: billion v-kı	m/y)							
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	0	0	22	61	113	171	234	308	368	442
Hydrogen Fuel Cell	0	0	8	23	49	80	110	126	133	117
Hydrogen Hybrid	0	0	31	68	147	229	264	286	282	270
Gas Fuel Hybrid	0	0	99	208	329	463	610	772	952	1150
Gas Fuel ICEV	51	104	214	335	469	617	673	740	762	755
Liquid Fuel Plug-in	0	0	94	199	316	447	575	720	883	1077
Liquid Fuel Hybrid	11	80	333	599	903	1249	1643	2091	2602	3184
Liquid Fuel ICEV	10652	11788	12930	13941	14919	16097	17865	20067	22522	24181
Total	10714	11972	13732	15436	17246	19353	21973	25110	28503	31175
Technology Mix of Milea	ge for Cars, Regi	on AFRICA (L	Inits: billion	v-km/v)						
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	0	0	1	4	9	13	18	24	24	24
Hydrogen Fuel Cell	0	0	1	4	9	13	14	12	10	9
Hydrogen Hybrid	0	0	3	5	9	12	16	20	18	15
Gas Fuel Hybrid	0	0	3	5	9	12	16	20	25	30
Gas Fuel ICEV	1	3	6	10	13	17	22	27	23	20
Liquid Fuel Plug-in	0	0	3	7	12	17	22	28	35	43
Liquid Fuel Hybrid	0	2	9	17	25	35	46	58	73	89
Liquid Fuel ICEV	222	282	355	444	532	599	684	809	1036	1344
Total	223	288	381	498	617	719	838	999	1244	1574
Technology Mix of Milea	go for Cars Rogi	on ASIA (Illni	te: hillion v k	m/u)						
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	0	2010	2013	8	15	2030	33	43	55	68
Hydrogen Fuel Cell	0	0	2	3	7	14	22	31	36	31
Hydrogen Hybrid	0	0	5	10	, 16	22	29	37	45	39
Gas Fuel Hybrid	0	0	5	10	16	22	29	37	45	55
Gas Fuel ICEV	8	15	21	28	36	44	53	64	75	65
Liquid Fuel Plug-in	0	0	6	13	21	30	40	51	63	77
Liquid Fuel Hybrid	0	4	17	31	46	63	83	106	132	162
Liquid Fuel ICEV	397	494	627	793	990	1287	1755	2399	3040	3448
Total	404	512	684	896	1147	1506	2045	2768	3492	3945
Technology Mix of Milea	• •	•								
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	0	0	1	2	3	5	7	12	14	16
Hydrogen Fuel Cell	0	0	0	0	0	0	0	0	0	0
Hydrogen Hybrid	0	0	0	3	6	9	13	17	15	13
Gas Fuel Hybrid	0	0	3	6	9	13	17	22	27	33
Gas Fuel ICEV	10	16	20	25	30	36	43	50	43	37
Liquid Fuel Plug-in	0	0	4	8	13	18	24	30	38	46
Liquid Fuel Hybrid	0	3	11	19	29	39	51	65	81	99

Liquid Fuel ICEV Total	301 311	372 390	451 490	493 555	552 642	649 770	780 935	940 1136	1053 1270	1076 1319
Total	511	550	450	555	042	//0	555	1150	1270	1515
Technology Mix of Mileage			•							
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	0	0	0	2	6 4	10	9 5	10 4	10 4	14
Hydrogen Fuel Cell	0	0	3	1	4 9	6 13	5 17	4 15	4 13	11
Hydrogen Hybrid Gas Fuel Hybrid	0	0	3	6	9	13	17	22	27	33
Gas Fuel ICEV	0	1	4	7	10	13	17	11	27	5
Liquid Fuel Plug-in	0	0	3	7	10	14	21	26	32	39
Liquid Fuel Hybrid	0	3	11	18	27	37	48	£0 61	76	93
Liquid Fuel ICEV	313	329	341	351	351	349	360	374	384	38
Total	314	332	365	398	429	457	490	522	555	58
Technology Mix of Mileage					2025	2020	2025	2040	2045	2050
Technology Electric Vehicle	<b>2005</b> 0	<b>2010</b> 0	<b>2015</b>	<b>2020</b> 6	<b>2025</b> 12	<b>2030</b> 18	<b>2035</b> 24	<b>2040</b> 32	<b>2045</b> 41	<b>2050</b>
	0	0	2	3	8	18	24	28	36	3
Hydrogen Fuel Cell Hydrogen Hybrid	0	0	3	6	10	14	18	28	28	3
Gas Fuel Hybrid	0	0	3	6	10	13	18	22	28	3
Gas Fuel ICEV	1	3	7	10	10	13	23	22	34	3
Liquid Fuel Plug-in	0	0	4	10	14	22	23	37	46	5
Liquid Fuel Hybrid	0	2	11	10	30	41	29 54	69	40 86	10
Liquid Fuel ICEV	213	305	457	669	963	1402	1918	2519	3134	334
Total	213	310	488	730	1061	1542	2105	2759	3433	368
Technology Mix of Mileage										
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	0	0	0	0	1	1	1	2	2	
Hydrogen Fuel Cell	0	0	0	0	0	0	0	0	0	
Hydrogen Hybrid	0	0	0	0	0	0	0	0	0	
Gas Fuel Hybrid	0	0	1	2	4	6	7	9	11	1
Gas Fuel ICEV	0	1	2	3	5	7	9	7	6	
Liquid Fuel Plug-in	0	0	0	0	1 9	1	1	2	2	2
Liquid Fuel Hybrid Liquid Fuel ICEV	0 131	1 142	3 155	5 172	182	12 195	17 207	22 218	28 227	3- 23
Total	131	142	155	172	201	222	207	218	227	29
lotai	151	144	102	104	201	~~~~	272	200	277	25.
Technology Mix of Mileage	e for Cars, Regio	on FSU (Units	s: billion v-kn	n/y)						
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	0	0	0	1	3	5	8	11	11	1:
Hydrogen Fuel Cell	0	0	0	1	3	5	8	8	7	
Hydrogen Hybrid	0	0					0	0	,	
Gas Fuel Hybrid	0		2	3	5	8	10	13	11	
Gas Eurol ICEV		0	2	3	5 5	8 8	10 10	13 13	11 16	1
	0	0	2 4	3 6	5 5 8	8 8 10	10 10 13	13 13 16	11 16 14	19 12
Liquid Fuel Plug-in	0	0 2 0	2 4 2	3 6 4	5 5 8 7	8 8 10 9	10 10 13 12	13 13 16 16	11 16 14 20	19 17 24
Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid	0 0 0	0 2 0 2	2 4 2 6	3 6 4 11	5 5 7 16	8 8 10 9 22	10 10 13 12 28	13 13 16 16 36	11 16 14 20 45	19 12 24 54
Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV	0 0 0 179	0 2 0 2 214	2 4 2 6 250	3 6 4 11 302	5 5 8 7 16 373	8 8 10 9 22 462	10 10 13 12 28 533	13 13 16 16 36 604	11 16 14 20 45 684	1 1 2 5 75
Liquid Fuel Plug-in Liquid Fuel Hybrid	0 0 0	0 2 0 2	2 4 2 6	3 6 4 11	5 5 7 16	8 8 10 9 22	10 10 13 12 28	13 13 16 16 36	11 16 14 20 45	19 17 24
Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total	0 0 0 179 180	0 2 0 2 214 218	2 4 2 6 250 266	3 6 4 11 302 331	5 5 8 7 16 373	8 8 10 9 22 462	10 10 13 12 28 533	13 13 16 16 36 604	11 16 14 20 45 684	19 17 24 54 75
Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage	0 0 0 179 180	0 2 0 2 214 218	2 4 2 6 250 266	3 6 4 11 302 331	5 5 8 7 16 373	8 8 10 9 22 462	10 10 13 12 28 533	13 13 16 16 36 604	11 16 14 20 45 684	1: 1: 2: 5: 75: 88:
Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileag Technology	0 0 179 180 ge for Cars, Regio	0 2 0 214 214 218	2 4 2 250 266 <b>its: billion v</b> -	3 6 4 11 302 331 km/y)	5 5 8 7 16 373 420	8 8 10 9 22 462 529	10 10 13 12 28 533 623	13 13 16 16 36 604 716	11 16 14 20 45 684 806	1 1 2 5 75 88 <b>2050</b>
Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileag Technology Electric Vehicle	0 0 179 180 ge for Cars, Regio 2005	0 2 0 214 218 0 n INDIA (Un 2010	2 4 2 50 266 its: billion v- 2015	3 6 4 11 302 331 km/y) 2020	5 5 8 7 16 373 420 <b>2025</b>	8 8 10 9 22 462 529 <b>2030</b>	10 10 13 12 28 533 623 <b>2035</b>	13 13 16 16 36 604 716 <b>2040</b>	11 16 14 20 45 684 806 <b>2045</b>	1 1 2 5 75 88 <b>2050</b> 1
Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileag Technology Electric Vehicle Hydrogen Fuel Cell	0 0 179 180 ce for Cars, Regio 2005 0	0 2 0 214 218 0n INDIA (Un 2010 0	2 4 2 50 266 its: billion v- 2015 1	3 6 4 11 302 331 km/y) 2020 1	5 5 8 7 16 373 420 <b>2025</b> 3	8 8 10 9 22 462 529 <b>2030</b> 5	10 10 13 28 533 623 <b>2035</b> 7	13 13 16 16 36 604 716 <b>2040</b> 10	11 16 14 20 45 684 806 <b>2045</b> 13	1 1 2 5 75 88 <b>2050</b> 1
Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid	0 0 179 180 ce for Cars, Regio 2005 0 0	0 2 0 214 218 0n INDIA (Un 2010 0 0	2 4 2 50 266 its: billion v- 2015 1 1	3 6 4 11 302 331 km/y) 2020 1 1	5 5 8 7 16 373 420 <b>2025</b> 3 2	8 8 10 9 22 462 529 <b>2030</b> 5 3	10 10 13 28 533 623 <b>2035</b> 7 5	13 13 16 36 604 716 <b>2040</b> 10 7	11 16 14 20 45 684 806 <b>2045</b> 13 10	1 1 2 5 75 88 <b>2050</b> 1 1 1
Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileag Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV	0 0 179 180 se for Cars, Regio 2005 0 0 0 0 1	0 2 0 214 218 0 <b>INDIA (Un</b> 2010 0 0 0 0 0 2	2 4 2 50 266 its: billion v- 2015 1 1 1 1 1 4	3 6 4 11 302 331 <b>km/y)</b> 2020 1 1 1 2 2 5	5 5 8 7 16 373 420 2025 3 2 3 2 3 3 2 3 3 7	8 8 10 9 22 462 529 <b>2030</b> 5 3 5 5 5 8	10 10 13 228 533 623 <b>2035</b> 7 5 6	13 13 16 36 604 716 <b>2040</b> 10 7 8 8 8 12	11 16 14 20 45 684 806 <b>2045</b> 13 10 10 10 10 14	1 1 2 5 75 88 <b>2050</b> 1 1 1 1
Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileag Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV	0 0 179 180 2005 0 0 0 0 0 1 0	0 2 214 218 00 INDIA (Un 2010 0 0 0 0 0 2 0 0	2 4 2 50 266 its: billion v- 2015 1 1 1 1 1 4 2	3 6 4 11 302 331 <b>km/y)</b> 2020 1 1 2 2 5 3	5 5 8 7 16 373 420 2025 3 2 3 2 3 3 2 3 3 7 5	8 8 10 9 22 462 529 <b>2030</b> 5 3 5 3 5 5	10 10 13 228 533 623 <b>2035</b> 7 5 6 6	13 13 16 36 604 716 <b>2040</b> 10 7 8 8	11 16 14 20 45 684 806 <b>2045</b> 13 10 10 10	1 1 2 5 75 88 <b>2050</b> 1 1 1 1 1
Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileag Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid	0 0 179 180 2005 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0	0 2 214 218 00 INDIA (Un 2010 0 0 0 0 0 0 0 0 1	2 4 2 50 266 its: billion v- 2015 1 1 1 1 1 4 2 4	3 6 4 11 302 331 km/y) 2020 1 1 1 2 2 5 3 7	5 5 8 7 16 373 420 2025 3 2 2 3 3 2 3 3 7 5 11	8 8 10 9 22 462 529 <b>2030</b> 5 3 5 5 5 8 8 8 8 15	10 10 13 228 533 623 <b>2035</b> 7 5 6 6 6 10 10 10 20	13 13 16 6 604 716 <b>2040</b> 10 7 8 8 8 12 13 26	11 16 14 20 45 684 806 <b>2045</b> 13 10 10 10 10 14 16 32	11 1 2 5 75 88 2050 1 1 1 1 1 1 1 2 3
Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV	0 0 0 179 180 2005 0 0 0 0 0 0 1 1 0 0 0 1 1 0 0 111	0 2 214 218 00 INDIA (Un 2010 0 0 0 0 0 0 2 0 1 149	2 4 2 50 266 its: billion v- 2015 1 1 1 1 1 4 2 4 2 11	3 6 4 11 302 331 km/y) 2020 1 1 1 2 2 5 3 7 293	5 5 8 7 16 373 420 <b>2025</b> 3 2 2 3 3 3 7 5 11 383	8 8 10 9 22 462 529 <b>2030</b> 5 3 5 5 5 8 8 8 8 15 511	10 10 13 22 533 623 <b>2035</b> 7 5 6 6 6 10 10 20 710	13 13 16 36 604 716 <b>2040</b> 10 7 8 8 8 12 13 26 1034	111 16 14 20 45 684 806 <b>2045</b> 13 10 10 10 10 10 10 14 16 32 1511	19 11 22 55 755 888 2050 10 11 11 11 11 12 20 33 196
Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileag Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV	0 0 179 180 2005 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0	0 2 214 218 00 INDIA (Un 2010 0 0 0 0 0 0 0 0 1	2 4 2 50 266 its: billion v- 2015 1 1 1 1 1 4 2 4	3 6 4 11 302 331 km/y) 2020 1 1 1 2 2 5 3 7	5 5 8 7 16 373 420 2025 3 2 2 3 3 2 3 3 7 5 11	8 8 10 9 22 462 529 <b>2030</b> 5 3 5 5 5 8 8 8 8 15	10 10 13 228 533 623 <b>2035</b> 7 5 6 6 6 10 10 10 20	13 13 16 6 604 716 <b>2040</b> 10 7 8 8 8 12 13 26	11 16 14 20 45 684 806 <b>2045</b> 13 10 10 10 10 14 16 32	11 1 2 5 75 88 2050 1 1 1 1 1 1 1 1 1 1 1 1 1
Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total	0 0 179 180 2005 0 0 0 0 0 0 0 1 1 1 1 112	0 2 0 214 218 <b>on INDIA (Un 2010</b> 0 0 0 0 0 0 0 1 1 49 153	2 4 250 266 its: billion v- 2015 1 1 1 1 4 2 4 211 224	3 6 4 11 302 331 <b>km/y)</b> 2020 1 1 1 2 2 2 5 3 7 293 315	5 5 8 7 16 373 420 <b>2025</b> 3 2 2 3 3 3 7 5 11 383	8 8 10 9 22 462 529 <b>2030</b> 5 3 5 5 5 8 8 8 8 15 511	10 10 13 22 533 623 <b>2035</b> 7 5 6 6 6 10 10 20 710	13 13 16 36 604 716 <b>2040</b> 10 7 8 8 8 12 13 26 1034	111 16 14 20 45 684 806 <b>2045</b> 13 10 10 10 10 10 10 14 16 32 1511	19 11 22 55 755 888 2050 10 11 11 11 11 12 20 33 196
Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel Hybrid Liquid Fuel Plug-in Liquid Fuel Plug-in Liquid Fuel ICEV Total Technology Mix of Mileage	0 0 179 180 e for Cars, Regio 2005 0 0 0 0 0 1 1 0 0 0 111 112 2 2 e for Cars, Regio	0 2 0 214 218 0 1 100 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 4 2 50 266 its: billion v- 2015 1 1 1 1 1 4 2 4 211 224 ts: billion v-k	3 6 4 11 302 331 <b>km/y)</b> 2020 1 1 1 2 2 2 5 3 7 293 315 m/y)	5 5 8 7 16 373 420 <b>2025</b> 3 2 3 3 7 5 11 383 417	8 8 10 9 22 462 529 <b>2030</b> 5 3 5 5 8 8 8 8 15 511 560	10 10 13 28 533 623 <b>2035</b> 7 5 6 6 6 6 0 0 10 10 20 710 774	13 13 16 36 604 716 <b>2040</b> 10 7 8 8 8 12 13 26 1034 1117	111 16 14 20 45 684 806 <b>2045</b> 13 10 10 10 10 10 14 16 32 1511 1615	11 12 5 75 88 <b>2050</b> 10 11 11 12 3 196 208
Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage Technology	0 0 179 180 e for Cars, Regio 2005 0 0 0 0 0 1 1 0 0 0 1 1 1 200 2005	0 2 0 214 218 0 1 100 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 4 2 50 266 its: billion v- 2015 1 1 1 1 1 4 2 4 211 224 ts: billion v-k 2015	3 6 4 11 302 331 <b>km/y)</b> 2020 1 1 1 2 2 5 3 7 293 315 <b>m/y)</b> 2020	5 5 8 7 16 373 420 <b>2025</b> 3 3 2 3 3 7 5 11 383 417 <b>2025</b>	8 8 9 22 462 529 2030 5 3 5 5 8 8 8 8 15 511 560	10 10 13 28 533 623 <b>2035</b> 7 5 6 6 6 10 10 20 710 774 <b>2035</b>	13 13 16 36 604 716 2040 10 7 8 8 8 8 12 13 26 1034 1117 2040	111 16 14 20 45 684 806 <b>2045</b> 13 10 10 10 10 10 10 10 10 10 10 10 10 10	11 1 2 5 88 2050 1 1 1 1 1 1 2 3 196 208 2050
Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage Technology Electric Vehicle	0 0 179 180 e for Cars, Regio 2005 0 0 0 0 1 1 0 0 0 1 1 1 200 0 0 1 1 1 200 0 0 0	0 2 2 214 218 0 <b>n INDIA (Un</b> 2010 0 0 0 0 0 0 0 2 0 0 1 149 153 0 n LAM (Unit 2010 0 0	2 4 2 50 266 its: billion v- 2015 1 1 1 1 1 1 2 4 2 1 4 211 224 sts: billion v-k 2015	3 6 4 11 302 331 <b>km/y)</b> 2020 1 1 1 2 2 5 3 7 293 315 <b>m/y)</b> 2020 2	5 5 8 7 6 373 420 2025 3 3 2 3 3 7 5 11 383 417 2025 5 5	8 8 9 22 462 529 2030 5 3 3 5 3 5 8 8 8 8 15 511 560 2030 8	10 10 13 28 533 623 <b>2035</b> 7 5 6 6 6 6 0 0 0 10 10 20 710 774 <b>2035</b>	13 13 16 36 604 716 2040 10 7 8 8 8 12 13 26 1034 1117 2040 16	111 166 144 200 455 684 806 <b>2045</b> 131 100 100 100 100 100 100 144 166 322 1511 1615	11 1 2 5 75 88 2050 1 1 1 1 1 1 2 3 196 208 2050 2 2 2050 2
Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell	0 0 179 180 e for Cars, Regio 2005 0 0 0 0 1 1 0 0 0 1 1 1 2005 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 2 2 214 218 0 <b>n INDIA (Un</b> 2010 0 0 0 0 0 0 0 0 2 0 0 1 149 153 0 n LAM (Unit 2010 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 4 2 50 266 its: billion v- 2015 1 1 1 1 1 1 2 4 2 1 4 211 224 ts: billion v-k 2015 1 0	3 6 4 11 302 331 <b>km/y)</b> 2020 1 1 1 2 2 5 3 7 293 315 <b>m/y)</b> 2020 2 1	5 5 8 7 6 373 420 2025 3 3 2 3 3 7 5 11 383 417 2025 5 2	8 8 9 22 462 529 2030 5 3 3 5 3 5 8 8 8 8 15 511 560 2030 8 2030	10 10 13 28 533 623 <b>2035</b> 7 5 6 6 6 6 10 10 10 20 710 770 710 770 2035 12 8	13 13 16 36 604 716 2040 10 7 8 8 8 12 13 26 1034 1117 2040 16 10	111 166 144 200 455 684 806 <b>2045</b> 131 100 100 100 100 100 100 101 101 105 1511 1615 2045 211 9	11 1 2 5 75 88 2050 1 1 1 1 1 2 3 196 208 2050 2 2050 2
Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Fuel Cell	0 0 179 180 e for Cars, Regio 2005 0 0 0 0 1 1 0 0 1 1 1 2005 0 0 111 112 2005 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 2 2 214 218 on INDIA (Un 2010 0 0 0 0 0 0 0 0 0 1 149 153 0 149 153 0 0 149 153 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 4 2 50 266 its: billion v- 2015 1 1 1 1 1 4 2 4 211 224 ts: billion v-k 2015 1 0 2	3 6 4 11 302 331 <b>km/y)</b> 2020 1 1 2 2 3 3 7 293 315 <b>m/y)</b> 2020 2 1 4	5 5 8 7 6 373 420 2025 3 3 2 2 3 3 3 7 5 1 13 3 83 417 5 2025 5 2 2 7	8 8 9 22 462 529 2030 5 3 5 3 5 5 8 8 8 8 5 5 5 5 5 5 5 5 5 5	10 10 13 28 533 623 <b>2035</b> 7 5 6 6 6 10 10 20 7 10 7 74 <b>2035</b> 2035 12 8 13	13 13 16 36 604 716 <b>2040</b> 10 7 8 8 8 2040 1034 1117 2040 16 10 16	111 166 144 200 455 684 806 <b>2045</b> 13 10 100 100 100 100 100 100 100 100 1	11 12 75 88 <b>2050</b> 10 11 11 11 12 20 33 196 208 <b>2050</b> 20 20 20 11 12 12 12 12 12 12 12 12 12
Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid	0 0 0 179 180 2005 0 0 0 0 0 0 0 1 1 0 0 0 1 1 1 0 0 0 1 11 1	0 2 214 218 0 INDIA (Un 2010 0 0 0 0 0 0 0 0 1 149 153 0 149 153 0 149 153 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 4 2 50 266 its: billion v- 2015 1 1 1 1 1 1 2 4 2 2 4 211 224 its: billion v-k 2015 1 0 2 2 2	3 6 4 11 302 331 <b>km/y)</b> 2020 1 1 2020 2 3 3 5 3 7 293 315 7 293 315 <b>m/y)</b> 2020 2 1 4 4	5 5 8 7 6 373 420 <b>2025</b> 3 3 7 5 11 3 83 417 5 2025 5 2 2 7 7 7	8 8 9 22 462 529 2030 5 3 5 3 5 5 3 8 8 8 8 5 5 5 5 5 5 5 5 5	10 10 13 228 533 623 <b>2035</b> 7 5 6 6 6 6 10 10 200 710 774 <b>2035</b> 12 8 13 13	13 13 16 36 604 716 2040 10 7 8 8 8 2 2040 103 1034 1117 2040 16 10 16 10 16 10	111 166 144 200 455 684 806 <b>2045</b> 13 10 100 100 100 100 100 100 100 100 1	1 1 2 5 75 88 2050 1 1 1 1 1 2 3 3 196 208 208 2050 2 2 5 5 2 1 2 2 5 5 2 1 2 5 5 5 8 8 7 5 5 8 8 7 5 5 8 8 7 5 5 8 8 7 5 5 5 8 8 7 5 5 5 8 8 7 5 5 5 8 8 7 5 5 5 8 8 7 5 5 5 8 8 7 5 5 5 8 8 7 5 5 5 8 8 7 5 5 5 8 8 7 5 5 5 8 8 7 5 5 5 8 8 7 5 5 5 8 8 7 5 5 5 8 8 7 5 5 5 5
Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel Hybrid	0 0 0 179 180 2005 0 0 0 0 0 0 0 1 1 0 0 0 1 1 1 0 0 0 1 11 1	0 2 214 218 0 INDIA (Un 2010 0 0 0 0 0 0 0 0 1 149 153 0 149 153 0 149 153 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 4 2 50 266 its: billion v- 2015 1 1 1 1 1 1 2 4 2 2 4 211 224 its: billion v-k 2015 1 0 2 2 30	3 6 4 11 302 331 <b>km/y)</b> 2020 1 1 2020 2 3 3 5 3 7 293 315 7 293 315 2020 2 2 1 4 4 4 4 35	5 5 8 7 16 373 420 2025 3 3 2 2 3 3 3 7 5 111 383 417 2025 5 2 2 7 7 7 1	8 8 9 22 462 529 2030 5 3 5 3 5 3 5 5 3 8 8 8 8 5 15 550 5 10 560 2030 8 8 511 560 2030 2030 2030 2030	10 10 13 228 533 623 <b>2035</b> 7 5 6 6 6 10 10 20 710 714 200 710 774 <b>2035</b> 12 8 13 13 54	13 13 16 36 604 716 <b>2040</b> 10 7 8 8 8 2040 1034 1117 2040 16 10 16 10 16 10 6 2040	111 166 144 200 455 684 806 <b>2045</b> 13 10 100 100 100 100 100 100 100 100 1	11 12 20 2050 10 10 11 11 11 11 12 20 31 1966 2089 2050 20 20 20 20 20 20 20 31 1966 2050 20 20 20 31 1966 20 20 20 20 20 20 20 20 20 20
Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel Hybrid Gas Fuel ICEV	0 0 0 179 180 e for Cars, Regio 2005 0 0 0 0 1 1 0 0 0 1 1 1 0 0 0 1 11 1 1 2005 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 2 214 218 0 INDIA (Un 2010 0 0 0 0 0 0 0 0 1 149 153 0 149 153 0 149 153 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 4 2 50 266 its: billion v- 2015 1 1 1 1 1 1 4 2 4 2 11 224 x: billion v-k 2015 1 0 2 2 30 3 3	3 6 4 11 302 331 <b>km/y)</b> 2020 1 1 2020 2 5 3 7 293 315 7 293 315 8 7 293 315 2020 2 1 4 4 4 4 5 6	5 5 8 7 6 373 420 <b>2025</b> 3 3 7 5 11 3 83 417 <b>2025</b> 5 2 2 7 7 7 7 11 3 83 7 9	8 8 9 22 462 529 2030 5 3 5 3 5 3 5 5 3 8 8 8 5 11 560 2030 8 5 11 560 2030 8 5 11 560 10 10 47 13	10 10 13 228 533 623 <b>2035</b> 7 5 6 6 6 10 10 20 710 714 2035 12 8 13 13 54 18	13 13 16 36 604 716 2040 10 7 8 8 8 2 2040 103 1034 1117 2040 16 10 16 10 16 10	111 16 14 20 45 684 806 <b>2045</b> 13 10 10 10 10 10 10 10 10 10 10 10 10 10	11 1 2 5 88 2050 1 1 1 1 1 1 1 2 3 196 208 208 2050 2 2 1 2 5 3 3
Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel Hybrid	0 0 0 179 180 2005 0 0 0 0 0 0 1 1 0 0 0 1 1 1 0 0 0 1 11 1	0 2 214 218 0 10 10 0 0 0 0 0 0 0 0 0 0 0 149 153 0 149 153 0 149 153 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 4 2 50 266 its: billion v- 2015 1 1 1 1 1 1 2 4 2 2 4 211 224 its: billion v-k 2015 1 0 2 2 30	3 6 4 11 302 331 <b>km/y)</b> 2020 1 1 2020 2 3 3 5 3 7 293 315 7 293 315 2020 2 2 1 4 4 4 4 35	5 5 8 7 16 373 420 2025 3 3 2 2 3 3 3 7 5 111 383 417 2025 5 2 2 7 7 7 1	8 8 9 22 462 529 2030 5 3 5 3 5 3 5 5 3 8 8 8 8 5 15 550 5 10 560 2030 8 8 511 560 2030 2030 2030 2030 2030 2030 2030 20	10 10 13 228 533 623 <b>2035</b> 7 5 6 6 6 10 10 20 710 714 200 710 774 <b>2035</b> 12 8 13 13 54	13 13 16 36 604 716 <b>2040</b> 10 7 8 8 8 12 103 4 1117 2040 16 10 16 10 16 10 6 2 23	111 166 144 200 455 684 806 <b>2045</b> 13 10 100 100 100 100 100 100 100 100 1	19 12 24 54 753

Technology Mix of Mileage	for Cars, Regi	on MEA (Uni	ts: billion v-k	m/y)						
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	0	0	1	2	3	4	6	7	9	12
Hydrogen Fuel Cell	0	0	0	0	0	0	0	0	0	0
Hydrogen Hybrid	0	0	0	0	1	4	7	10	8	7
Gas Fuel Hybrid	0	0	2	5	8	11	15	19	24	28
Gas Fuel ICEV	1	4	7	10	13	17	21	26	22	19
Liquid Fuel Plug-in	0	0	3	7	11	16	21	26	33	40
Liquid Fuel Hybrid	0	3	10	17	25	34	45	57	71	86
Liquid Fuel ICEV	271	324	394	483	562	648	731	813	912	1021
Total	273	330	417	524	623	734	845	958	1079	1214
Technology Mix of Mileage		•								
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	0	0	0	1	3	5	7	10	10	10
Hydrogen Fuel Cell	0	0	0	1	1	3	5	6	5	4
Hydrogen Hybrid	0	0	2	3	5	7	10	12	11	9
Gas Fuel Hybrid	0	0	2	3	5	7	10	12	15	18
Gas Fuel ICEV	0	0	2	4	5	8	10	12	11	9
Liquid Fuel Plug-in	0	0	2	4	6	9	12	15	19	23
Liquid Fuel Hybrid	0	2	6	10	15	21	27	34	43	52
Liquid Fuel ICEV	172	213	258	287	334	395	478	579 681	673 786	714
Total	172	215	272	313	375	455	559	681	786	840
Technology Mix of Mileage	-				2025	2020	2035	20.40	2045	2050
Technology	2005	2010	2015	2020	2025	2030		<b>2040</b>	2045	2050
Electric Vehicle	0	0	1	3	5 5	7	10 4	13 3	17 3	21 2
Hydrogen Fuel Cell	0	0	9	3 18	29	4 34	4 29	25	22	19
Hydrogen Hybrid	0	0	9	18	29		29 54		84	
Gas Fuel Hybrid Gas Fuel ICEV	0	0	9	18	29 29	41 41	54 35	68 30	84 26	102
	0	0	9 10	22	29 34	41	35 45	43	43	25 54
Liquid Fuel Plug-in	3	14	41	66	34 95	48	45 164	43 206	43 254	
Liquid Fuel Hybrid										309
Liquid Fuel ICEV Total	969 972	1024 1038	1050 1131	1038 1187	989 1215	922 1225	903 1245	876 1266	845 1294	791 1321
					1213	1223	1243	1200	1294	1921
Technology Mix of Mileage	for Cars, Regi 2005		Inits: billion v 2015		2025	2020	2025	2040	2045	2050
Technology Electric Vehicle	2005	<b>2010</b> 0	2015	<b>2020</b> 6	10	<b>2030</b> 15	<b>2035</b> 20	2040	2045	<b>2050</b> 25
Hydrogen Fuel Cell	0	0	1	6 4	10	13	20 19	26 16	25 14	12
Hydrogen Hybrid	0	0	3	4	10	13	19	23	23	26
Gas Fuel Hybrid	0	0	3	6	10	14	19	23	29	35
Gas Fuel ICEV	0	3	6	9	13	18	23	28	24	21
Liquid Fuel Plug-in	0	0	4	8	12	17	23	29	37	44
Liquid Fuel Hybrid	0	3	12	20	30	40	53	67	83	101
Liquid Fuel ICEV	334	407	457	519	579	648	707	766	839	904
Total	334	407	486	579	673	780	881	980	1074	1168
					0/0	. 50	001	200	2071	
Technology Mix of Mileage Technology	for Cars, Regi 2005	on USA (Unit 2010	s: billion v-kr 2015	n/y) 2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	2005	2010	2015	14	2025	<b>2030</b> 31	<b>2035</b> 42	<b>2040</b> 55	<b>2045</b> 70	<b>2050</b> 88
Hydrogen Fuel Cell	0	0	0	0	0	31 0	42	0	70	88
, ,		0	0	0	0		78	67	58	58
	0	Λ			27	70		07		20
Hydrogen Hybrid	0	0	0	0	37 123	78 172			255	120
Gas Fuel Hybrid	0	0	0 37	0 78	123	172	227	288	355 120	429 104
Gas Fuel Hybrid Gas Fuel ICEV	0 2	0 10	0 37 48	0 78 90	123 136	172 187	227 162	288 139	120	104
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in	0 2 0	0 10 0	0 37 48 43	0 78 90 91	123 136 144	172 187 204	227 162 270	288 139 343	120 425	104 516
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid	0 2 0 6	0 10 0 32	0 37 48 43 132	0 78 90 91 231	123 136 144 344	172 187 204 472	227 162 270 617	288 139 343 783	120 425 972	104 516 1187
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in	0 2 0	0 10 0	0 37 48 43	0 78 90 91	123 136 144	172 187 204	227 162 270	288 139 343	120 425	104 516
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total	0 2 0 6 4097 4105	0 10 0 32 4312 4354	0 37 48 43 132 4427 4694	0 78 90 91 231 4525 5028	123 136 144 344 4549	172 187 204 472 4511	227 162 270 617 4622	288 139 343 783 4697	120 425 972 4738	104 516 1187 4726
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV	0 2 0 6 4097 4105	0 10 0 32 4312 4354	0 37 48 43 132 4427 4694	0 78 90 91 231 4525 5028	123 136 144 344 4549	172 187 204 472 4511	227 162 270 617 4622	288 139 343 783 4697	120 425 972 4738	104 516 1187 4726
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage Technology	0 2 0 6 4097 4105 for Cars, Regi 2005	0 10 0 32 4312 4354 on WEUR (Ur 2010	0 37 48 43 132 4427 4694 hits: billion v- 2015	0 78 90 91 231 4525 5028 •km/y) 2020	123 136 144 344 4549 5355 <b>2025</b>	172 187 204 472 4511 5656 <b>2030</b>	227 162 270 617 4622 6018 <b>2035</b>	288 139 343 783 4697 6373 <b>2040</b>	120 425 972 4738 6739 2045	104 516 1187 4726 7108 <b>2050</b>
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage	0 2 0 6 4097 4105 for Cars, Regi	0 10 32 4312 4354	0 37 48 43 132 4427 4694 hits: billion v-	0 78 90 91 231 4525 5028 •km/y)	123 136 144 344 4549 5355	172 187 204 472 4511 5656	227 162 270 617 4622 6018	288 139 343 783 4697 6373	120 425 972 4738 6739	104 516 1187 4726 7108 <b>2050</b> 58
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell	0 2 0 6 4097 4105 <b>for Cars, Regi</b> 2005 0 0	0 10 32 4312 4354 on WEUR (Ur 2010 0	0 37 48 43 132 4427 4694 hits: billion v- 2015 4 0	0 78 90 231 4525 5028 •km/y) 2020 9 0	123 136 144 344 4549 5355 <b>2025</b> 14 0	172 187 204 472 4511 5656 <b>2030</b> 21 0	227 162 270 617 4622 6018 <b>2035</b> 28 0	288 139 343 783 4697 6373 <b>2040</b> 37 0	120 425 972 4738 6739 <b>2045</b> 47 0	104 516 1187 4726 7108 <b>2050</b> 58 0
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid	0 2 0 6 4097 4105 for Cars, Regi 2005 0	0 10 32 4312 4354 on WEUR (Ur 2010 0 0	0 37 48 43 132 4427 4694 hits: billion v- 2015 4	0 78 90 231 4525 5028 •km/y) 2020 9	123 136 144 344 4549 5355 <b>2025</b> 14	172 187 204 472 4511 5656 <b>2030</b> 21	227 162 270 617 4622 6018 <b>2035</b> 28	288 139 343 783 4697 6373 <b>2040</b> 37	120 425 972 4738 6739 <b>2045</b> 47	104 516 1187 4726 7108 <b>2050</b> 58
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell	0 2 0 6 4097 4105 for Cars, Regi 2005 0 0 0	0 10 32 4312 4354 on WEUR (Ur 2010 0 0 0	0 37 48 43 132 4427 4694 hits: billion v- 2015 4 0 0	0 78 90 231 4525 5028 -km/y) 2020 9 0	123 136 144 344 4549 5355 <b>2025</b> 14 0 0	172 187 204 472 4511 5656 <b>2030</b> 21 0 0	227 162 270 617 4622 6018 <b>2035</b> 28 0 0	288 139 343 783 4697 6373 <b>2040</b> 37 0 0	120 425 972 4738 6739 <b>2045</b> 47 0 0	104 516 1187 4726 7108 <b>2050</b> 58 0 0
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV	0 2 0 6 4097 4105 <b>for Cars, Regi</b> 2005 0 0 0 0	0 10 32 4312 4354 on WEUR (Ur 2010 0 0 0 0	0 37 48 43 132 4427 4694 hits: billion v- 2015 4 0 0 25	0 78 90 231 4525 5028 •km/y) 2020 9 0 0 0	123 136 144 344 4549 5355 <b>2025</b> 14 0 0 82	172 187 204 472 4511 5656 <b>2030</b> 21 0 0 115	227 162 270 617 4622 6018 <b>2035</b> 28 0 0 0 152	288 139 343 783 4697 6373 <b>2040</b> 37 0 0 192	120 425 972 4738 6739 <b>2045</b> 47 0 0 237	104 516 1187 4726 7108 <b>2050</b> 58 0 0 0 286
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid	0 2 0 6 4097 4105 <b>for Cars, Regi</b> 2005 0 0 0 0 0	0 10 32 4312 4354 00 WEUR (Ur 2010 0 0 0 0 0 0 0	0 37 48 43 132 4427 4694 hits: billion v- 2015 4 0 0 25 46	0 78 90 231 4525 5028 -km/y) 2020 9 0 0 0 52 75	123 136 144 344 4549 5355 <b>2025</b> 14 0 0 82 108	172 187 204 472 4511 5656 <b>2030</b> 21 0 0 115 144	227 162 270 617 4622 6018 <b>2035</b> 28 0 0 0 152 183	288 139 343 783 4697 6373 <b>2040</b> 37 0 0 192 227	120 425 972 4738 6739 <b>2045</b> 47 0 0 237 275	104 516 1187 4726 7108 <b>2050</b> 58 0 0 0 286 329
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in	0 2 0 6 4097 4105 <b>for Cars, Regi</b> 2005 0 0 0 0 0 0 4	0 10 32 4312 4354 <b>on WEUR (Ur</b> <b>2010</b> 0 0 0 0 0 19 0	0 37 48 43 132 4427 4694 hits: billion v- 2015 4 0 0 25 46 4	0 78 90 231 4525 5028 •km/y) 2020 9 0 0 0 52 75 9	123 136 144 344 4549 5355 <b>2025</b> 14 0 0 82 108 14	172 187 204 472 4511 5656 <b>2030</b> 21 0 0 115 144 21	227 162 270 617 4622 6018 <b>2035</b> 28 0 0 152 183 28	288 139 343 783 4697 6373 <b>2040</b> 37 0 0 192 227 37	120 425 972 4738 6739 <b>2045</b> 47 0 0 237 275 47	104 516 1187 4726 7108 <b>2050</b> 58 0 0 286 329 56

## **Technology Mix for Cars (million)**

Technology Mix for Cars (I Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	0	0	1	4	8	12	16	21	25	30
Hydrogen Fuel Cell	0	0	1	2	3	6	8	9	9	8
Hydrogen Hybrid	0	0	2	5	10	15	17	19	19	18
Gas Fuel Hybrid	0	0	7	14	22	31	41	52	64	78
Gas Fuel ICEV	3	7	14	23	32	42	46	52	54	55
Liquid Fuel Plug-in	0	0	6	13	20	28	36	45	55	6
Diesel Type Hybrid	0	0	5	13	21	29	39	50	62	7
Gasoline Type Hybrid	1	5	17	27	40	54	71	90	113	13
Diesel Type ICEV	83	74	75	83	106	153	238	365	531	72
Gasoline Type ICEV	636	725	803	861	903	934	964	981	977	89
Total	723	810	931	1045	1165	1304	1477	1684	1909	208
Technology Mix for Cars, F	Region AFRIC	A (Units: r	nillion)							
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	205
Electric Vehicle	0	0	0	0	1	1	1	2	2	
Hydrogen Fuel Cell	0	0	0	0	1	1	1	1	1	
Hydrogen Hybrid	0	0	0	0	1	1	1	2	1	
Gas Fuel Hybrid	0	0	0	0	1	1	1	2	2	
Gas Fuel ICEV	0	0	1	1	1	1	2	2	2	
Liquid Fuel Plug-in	0	0	0	1	1	1	2	2	3	
Diesel Type Hybrid	0	0	0	0	1	1	1	2	2	
Gasoline Type Hybrid	0	0	1	1	1	2	2	3	4	_
Diesel Type ICEV	2	2	2	2	3	5	8	15	29	5
Gasoline Type ICEV	16	21	27	34	41	44	48	51	56	5
Total	18	23	31	41	50	59	68	82	102	12
Technology Min for Correct	Pogian ACIA		ion\							
Technology Mix for Cars, F Technology	Region ASIA ( 2005	2010 2010	ion) 2015	2020	2025	2030	2035	2040	2045	205
Electric Vehicle	2005	2010	2015			2030	2035		<b>2045</b> 4	205
	0	0	0	1	1	1	1	3	4	
Hydrogen Fuel Cell	0						2		2	
Hydrogen Hybrid Gas Fuel Hybrid	0	0	0	1	1	1	2	2	3	
Gas Fuel ICEV	0	1	1	2	2	3	2	4	5	
Liquid Fuel Plug-in	0	0	0	1	1	2	3	3	4	
Diesel Type Hybrid	0	0	0	1	1	1	2	2	3	
Gasoline Type Hybrid	0	0	1	1	2	3	3	4	5	
Diesel Type ICEV	0	0	0	1	2	4	9	19	39	7
Gasoline Type ICEV	25	31	39	49	60	76	101	132	153	13
Total	25	32	43	56	72	95	129	174	220	24
10101	25	52	15	50	72	55	125	171	220	
Technology Mix for Cars, F	Region BRAZI	L (Units: n	nillion)							
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	205
Electric Vehicle	0	0	0	0	0	0	0	1	1	
Hydrogen Fuel Cell	0	0	0	0	0	0	0	0	0	
Hydrogen Hybrid	0	0	0	0	0	1	1	1	1	
Gas Fuel Hybrid	0	0	0	0	1	1	1	1	2	
Gas Fuel ICEV	1	1	1	2	2	2	3	3	3	
Liquid Fuel Plug-in	0	0	0	1	1	1	2	2	2	
Diesel Type Hybrid	0	0	0	0	1	1	1	1	2	
Gasoline Type Hybrid	0	0	1	1	1	2	2	3	3	
Diesel Type ICEV	1	2	4	8	11	11	13	18	28	3
Gasoline Type ICEV	18	22	25	23	24	30	36	41	38	3
Total	20	25	31	35	40	48	59	71	80	8
Technology Mix for Cars, F										
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	205
Electric Vehicle	0	0	0	0	0	1	1	1	1	
Hydrogen Fuel Cell	0	0	0	0	0	0	0	0	0	
Hydrogen Hybrid	0	0	0	0	1	1	1	1	1	
Gas Fuel Hybrid	0	0	0	0	1	1	1	1	2	
Gas Fuel ICEV	0	0	0	0	1	1	1	1	1	
Liquid Fuel Plug-in	0	0	0	0	1	1	1	2	2	
Diesel Type Hybrid	0	0	0	0	1	1	1	1	2	
Gasoline Type Hybrid	0	0	0	1	1	1	2	2	3	
Diesel Type ICEV	0	1	1	2	2	3	6	10	13	1
Gasoline Type ICEV	18	19	19	19	19	17	15	12	9	
Total	19	20	22	24	26	27	29	31	33	3
			、							
		1110	illion)							
Technology Mix for Cars, F Technology Electric Vehicle	<b>2005</b>	<b>2010</b> 0	<b>2015</b>	<b>2020</b> 0	<b>2025</b> 1	<b>2030</b> 1	<b>2035</b> 2	<b>2040</b> 2	<b>2045</b> 3	205

Hydrogen Fuel Cell Hydrogen Hybrid	0	0 0	0 0	0 0	1 1	1	1 1	2 1	2	2
Gas Fuel Hybrid	0	0	0	0	1	1	1	1	2	2
Gas Fuel ICEV	0	0	0	1	1	1	2	2	2	2
Liquid Fuel Plug-in	0	0	0	1	1	1	2	2	3	4
Diesel Type Hybrid	0	0	0	0	1	1	1	1	2	2
Gasoline Type Hybrid	0	0	1	1	1	2	2	3	4	5
Diesel Type ICEV	3	2	4	3	4	5	8	15	27	52
Gasoline Type ICEV Total	12 14	18 21	27 33	41 49	60 71	88 103	120 140	153 184	182 229	170 245
TOLAI	14	21	33	49	/1	105	140	104	229	245
Technology Mix for Cars,	-	•								
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electric Vehicle Hydrogen Fuel Cell	0	0	0	0	0	0	0	0	0 0	(
Hydrogen Hybrid	0	0	0	0	0	0	0	0	0	(
Gas Fuel Hybrid	0	0	0	0	0	0	1	1	1	
Gas Fuel ICEV	0	0	0	0	0	1	1	1	1	(
Liquid Fuel Plug-in	0	0	0	0	0	0	0	0	0	(
Diesel Type Hybrid	0	0	0	0	0	0	0	0	1	1
Gasoline Type Hybrid	0	0	0	0	1	1	1	1	2	2
Diesel Type ICEV	0	0	0	1	1	2	3	7	9	12
Gasoline Type ICEV Total	10 11	11 12	12 13	14 15	14 16	14 18	14 20	11 21	9 23	7
	11	12	15	12	10	19	20	21	23	24
Technology Mix for Cars,	• •		•						22.45	
Technology Electric Vehicle	<b>2005</b> 0	<b>2010</b> 0	<b>2015</b> 0	<b>2020</b> 0	<b>2025</b> 0	<b>2030</b> 0	<b>2035</b> 1	<b>2040</b> 1	<b>2045</b> 1	2050
Hydrogen Fuel Cell	0	0	0	0	0	0	1	1	0	-
Hydrogen Hybrid	0	0	0	0	0	1	1	1	1	1
Gas Fuel Hybrid	0	0	0	0	0	1	1	1	1	1
Gas Fuel ICEV	0	0	0	0	1	1	1	1	1	:
Liquid Fuel Plug-in	0	0	0	0	0	1	1	1	1	2
Diesel Type Hybrid	0	0	0	0	0	1	1	1	1	1
Gasoline Type Hybrid Diesel Type ICEV	0	0 0	0 1	1	1	1	1 4	2 8	2 16	29
Gasoline Type ICEV	13	16	18	22	27	33	36	38	36	28
Total	13	10	20	25	32	40	47	54	61	67
Tasha alama Min ƙas		(11								
Technology Mix for Cars, Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	0	0	0	0	0	0	0	1	1	1
Hydrogen Fuel Cell	0	0	0	0	0	0	0	0	1	1
Hydrogen Hybrid	0	0	0	0	0	0	0	1	1	1
Gas Fuel Hybrid	0	0	0	0	0	0	0	1	1	1
Gas Fuel ICEV	0	0	0	0	0	1	1	1	1	1
Liquid Fuel Plug-in Diesel Type Hybrid	0	0	0	0 0	0	1	1	1	1	1
Gasoline Type Hybrid	0	0	0 0	0	0	0	0 1	1	1	1
Diesel Type ICEV	2	2	1	2	2	2	4	9	17	25
Gasoline Type ICEV	6	8	13	18	24	32	43	60	84	106
Total	7	10	15	21	28	37	52	74	108	139
Technology Mix for Cars,	Region I AM (	Units: mill	ion)							
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	0	0	0	0	0	1	1	1	1	2
						0	1	1	1	(
	0	0	0	0	0				4	1
Hydrogen Hybrid	0	0	0	0	0	1	1	1	1	
Hydrogen Hybrid Gas Fuel Hybrid	0 0	0 0	0 0	0 0	0 0	1	1	1	1	2
Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV	0 0 1	0 0 2	0 0 2	0 0 2	0 0 3	1 3	1 3	1 4	1 4	2
Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in	0 0	0 0	0 0	0 0 2 0	0 0 3 1	1 3 1	1	1 4 1	1	
Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid	0 0 1 0	0 0 2 0	0 0 2 0	0 0 2	0 0 3	1 3	1 3 1	1 4	1 4 2	
Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid	0 0 1 0 0	0 0 2 0 0	0 0 2 0 0	0 0 2 0 0	0 0 3 1 0	1 3 1	1 3 1	1 4 1 1	1 4 2 1	
Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV	0 0 1 0 0 0	0 0 2 0 0 0 0 0 16	0 0 2 0 0 0	0 0 2 0 0 0	0 0 3 1 0 1	1 3 1 1	1 3 1 1 2	1 4 1 1 2	1 4 2 1 3	2 2 2 3 35
Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV	0 0 1 0 0 0 0	0 0 2 0 0 0 0	0 0 2 0 0 0 0	0 0 2 0 0 1 1	0 0 3 1 0 1	1 3 1 1 1 2	1 3 1 1 2 4	1 4 1 1 2 9	1 4 2 1 3 17	35
Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total	0 0 1 0 0 0 0 13 15	0 0 0 0 0 0 16 18	0 0 0 0 0 0 20 24	0 0 2 0 0 1 1 26	0 0 3 1 0 1 1 1 30	1 3 1 1 1 2 33	1 3 1 1 2 4 38	1 4 1 2 9 42	1 4 2 1 3 17 47	35
Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, Technology	0 0 1 0 0 1 3 15 <b>Region MEA (</b> 2005	0 0 2 0 0 0 16 18 Units: mill 2010	0 0 2 0 0 0 0 20 24 ion) 2015	0 0 0 1 2 6 30 <b>2020</b>	0 0 3 1 0 1 1 30 37 <b>2025</b>	1 3 1 1 2 33 43 <b>2030</b>	1 3 1 2 4 38 52 <b>2035</b>	1 4 1 2 9 42 63 <b>2040</b>	1 4 2 1 3 17 47 78 <b>2045</b>	35 35 46 96
Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, Technology Electric Vehicle	0 0 1 0 0 13 15 <b>Region MEA (</b> 2005	0 0 2 0 0 0 16 18 Units: mill 2010 0	0 0 0 0 0 0 20 24 ion) 2015 0	0 0 0 1 2 6 30 <b>2020</b> 0	0 0 3 1 0 1 1 30 37 2025 0	1 3 1 1 2 33 43 <b>2030</b> 0	1 3 1 2 4 38 52 <b>2035</b> 0	1 4 1 2 9 42 63 <b>2040</b> 0	1 4 2 1 3 17 47 78 <b>2045</b> 1	2 2 2 3 3 5 4 6 9 6 2050
Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, Technology Electric Vehicle Hydrogen Fuel Cell	0 0 1 0 0 1 3 15 <b>Region MEA (</b> 2005	0 0 2 0 0 0 16 18 Units: mill 2010 0 0	0 0 0 0 0 0 20 24 ion) 2015 0 0	0 0 0 1 1 26 30 <b>2020</b> 0 0	0 0 3 1 0 1 1 30 37 <b>2025</b> 0 0	1 3 1 1 2 33 43 <b>2030</b> 0 0	1 3 1 2 4 38 52 <b>2035</b> 0 0	1 4 1 2 9 42 63 <b>2040</b> 0 0	1 4 2 1 3 17 47 78 <b>2045</b> 1 0	2 3 2 3 3 5 4 6 9 6 9 6 2050 1 1 0
Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid	0 0 1 0 0 1 3 15 <b>Region MEA (</b> 2005 0 0 0	0 0 2 0 0 0 16 18 Units: mill 2010 0 0	0 0 0 0 0 0 20 24 <b>ion)</b> 2015 0 0 0	0 0 0 1 1 2 6 30 <b>2020</b> 0 0 0	0 0 3 1 0 1 1 30 37 <b>2025</b> 0 0 0	1 3 1 1 2 33 43 <b>2030</b> 0 0 0	1 3 1 2 4 38 52 <b>2035</b> 0 0 0	1 4 1 2 9 42 63 <b>2040</b> 0 0 0	1 4 2 1 3 17 47 78 <b>2045</b> 1 0 0	2 3 2 3 3 5 4 6 9 6 2050 1 0 0 0
Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV	0 0 1 0 0 1 3 15 <b>Region MEA (</b> 2005	0 0 2 0 0 0 16 18 Units: mill 2010 0 0	0 0 0 0 0 0 20 24 ion) 2015 0 0	0 0 0 1 1 26 30 <b>2020</b> 0 0	0 0 3 1 0 1 1 30 37 <b>2025</b> 0 0	1 3 1 1 2 33 43 <b>2030</b> 0 0	1 3 1 2 4 38 52 <b>2035</b> 0 0	1 4 1 2 9 42 63 <b>2040</b> 0 0	1 4 2 1 3 17 47 78 <b>2045</b> 1 0	2 3 2 2 2 2 3 3 5 4 6 9 6 9 6 2 0 5 0 0 0 1 0 0 0 0 2 1 0 0 0 1 1 0 0 0 1 1 0 1 1 1 1

Dissel Truce Underid	0	0	0	0	0	1	1	1	1	2
Diesel Type Hybrid Gasoline Type Hybrid	0	0	0	0 1	0 1	1	1 2	1	1	2
Diesel Type ICEV	1	1	1	1	2	3	5	9	18	31
Gasoline Type ICEV	14	18	21	26	30	34	37	37	33	27
Total	15	19	24	30	35	42	48	54	61	69
Technology Mix for Cars, R	Region MEXIC	O (Units:	million)							
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	0	0	0	0	0	0	1	1	1	1
Hydrogen Fuel Cell	0	0	0	0	0	0	0	0	0	0
Hydrogen Hybrid	0	0	0	0	0	1	1	1	1	1
Gas Fuel Hybrid Gas Fuel ICEV	0	0 0	0 0	0 0	0	1	1	1	1	2
Liquid Fuel Plug-in	0	0	0	0	1	1	1	1	2	2
Diesel Type Hybrid	0	0	0	0	0	1	1	1	1	2
Gasoline Type Hybrid	0	0	0	1	1	1	2	2	2	3
Diesel Type ICEV	0	0	0	1	1	2	5	9	18	31
Gasoline Type ICEV	15	19	23	25	28	33	38	42	41	32
Total	15	19	24	28	33	40	49	60	70	74
Technology Mix for Cars, R	Region PACIF	C (Units: r	nillion)							
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	0	0	0	0	0	0	1	1	1	1
Hydrogen Fuel Cell	0	0	0	0	0	0	0	0	0	0
Hydrogen Hybrid	0	0	1	2	2	3	2	2	2	2
Gas Fuel Hybrid Gas Fuel ICEV	0	0 0	1	2 2	2 2	3 3	4	6 3	7 2	8
Liquid Fuel Plug-in	0	0	1	2	2	4	4	3	2	4
Diesel Type Hybrid	0	0	1	2	2	3	4	6	7	8
Gasoline Type Hybrid	0	1	3	4	5	7	9	11	14	17
Diesel Type ICEV	10	9	8	9	11	16	24	30	37	40
Gasoline Type ICEV	69	75	77	76	70	59	50	41	32	25
Total	79	85	92	97	99	100	102	103	106	108
Technology Mix for Cars, R	Region RUSSI	A (Units: n	nillion)							
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	0	0	0	0	1	1	2	2	2	2
Hydrogen Fuel Cell	0	0	0	0	1	1	1	1	1	1
Hydrogen Hybrid Gas Fuel Hybrid	0	0	0	0	1	1	1	2	2	2
Gas Fuel ICEV	0	0	0	1	1	1	2	2	2	2
Liquid Fuel Plug-in	0	0	0	1	1	1	2	2	3	3
Diesel Type Hybrid	0	0	0	0	1	1	1	2	2	3
Gasoline Type Hybrid	0	0	1	1	1	2	3	3	4	5
Diesel Type ICEV	0	0	0	1	2	4	7	15	30	42
Gasoline Type ICEV	25	31	34	38	42	45	46	43	33	26
Total	25	31	37	44	51	59	67	74	82	89
Technology Mix for Cars, R	• •		•							
Technology	2005	2010								
Electric Vehicle	•		2015	2020	2025	2030	2035	2040	2045	
	0	0	0	1	1	2	3	4	5	6
Hydrogen Fuel Cell	0	0	0 0	1 0	1 0	2 0	3 0	4 0	5 0	6 0
Hydrogen Fuel Cell Hydrogen Hybrid		0	0	1	1	2	3	4	5	6 0 3
Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid	0 0	0 0 0	0 0 0	1 0 0	1 0 2	2 0 4	3 0 4	4 0 4	5 0 3	6 0 3 23
Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in	0 0 0	0 0 0 0	0 0 0 2	1 0 0 4	1 0 2 6 7 8	2 0 4 9 10 11	3 0 4 12	4 0 4 15	5 0 3 19 6 23	6 0 3 23 5
Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid	0 0 0 0 0 0	0 0 0 0 1 0 0	0 0 2 3 2 2	1 0 0 4 5 5 5 4	1 0 2 6 7 8 6	2 0 4 9 10 11 9	3 0 4 12 9 15 12	4 0 4 15 7 19 15	5 0 3 19 6 23 19	6 0 3 23 5 28 28 23
Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid	0 0 0 0 0 0 0	0 0 0 1 0 0 0 2	0 0 2 3 2 2 2 5	1 0 0 4 5 5 5 4 8	1 0 2 6 7 8 6 12	2 0 4 9 10 11 9 16	3 0 4 12 9 15 12 21	4 0 4 15 7 19 15 27	5 0 3 19 6 23 19 33	6 0 3 23 5 28 28 23 41
Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV	0 0 0 0 0 0 0 0 1	0 0 0 1 0 0 2 1	0 0 2 3 2 2 5 3	1 0 4 5 5 4 8 7	1 0 2 6 7 8 6 12 15	2 0 4 9 10 11 9 16 30	3 0 4 12 9 15 12 21 62	4 0 4 15 7 19 15 27 110	5 0 3 19 6 23 19 33 142	6 0 3 23 5 28 23 23 41 163
Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV	0 0 0 0 0 0 0 1 221	0 0 0 1 0 0 2 1 232	0 0 2 3 2 2 5 3 236	1 0 4 5 5 4 8 7 238	1 0 2 6 7 8 6 12 15 231	2 0 4 9 10 11 9 16 30 214	3 0 4 12 9 15 12 21 62 188	4 0 4 15 7 19 15 27 110 144	5 0 3 19 6 23 19 33 142 114	6 0 3 23 5 28 23 41 163 92
Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total	0 0 0 0 0 0 1 221 222	0 0 0 1 0 0 2 1 232 235	0 0 2 3 2 2 5 3 236 254	1 0 4 5 5 4 8 7	1 0 2 6 7 8 6 12 15	2 0 4 9 10 11 9 16 30	3 0 4 12 9 15 12 21 62	4 0 4 15 7 19 15 27 110	5 0 3 19 6 23 19 33 142	6 0 3 23 5 28 23 41 163 92
Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R	0 0 0 0 0 1 221 222 Region WEUR	0 0 0 1 0 0 2 1 232 235 (Units: m	0 0 2 3 2 2 5 3 236 254 illion)	1 0 0 4 5 5 4 8 7 238 272	1 0 2 6 7 8 6 12 15 231 289	2 0 4 9 10 11 9 16 30 214 306	3 0 4 12 9 15 12 21 62 188 325	4 0 4 15 7 19 15 27 110 144 344	5 0 3 19 6 23 19 33 142 114 364	6 0 3 23 5 28 23 41 163 92 384
Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R	0 0 0 0 0 1 221 222 Region WEUR 2005	0 0 0 1 0 0 2 1 232 235 (Units: m 2010	0 0 2 3 2 2 5 3 236 254 illion) 2015	1 0 4 5 4 8 7 238 272 <b>2020</b>	1 0 2 6 7 8 6 12 15 231 289 <b>2025</b>	2 0 4 9 10 11 9 16 30 214 306 214	3 0 4 12 9 15 12 21 62 188 325 <b>2035</b>	4 0 4 15 7 19 15 27 110 144 344	5 0 3 19 6 23 19 33 142 114 364 <b>2045</b>	6 0 3 23 5 28 23 41 163 92 384 <b>2050</b>
Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R Technology Electric Vehicle	0 0 0 0 0 1 221 222 Region WEUR	0 0 0 1 0 0 2 1 232 235 (Units: m	0 0 2 3 2 2 5 3 236 254 illion)	1 0 0 4 5 5 4 8 7 238 272	1 0 2 6 7 8 6 12 15 231 289	2 0 4 9 10 11 9 16 30 214 306	3 0 4 12 9 15 12 21 62 188 325	4 0 4 15 7 19 15 27 110 144 344	5 0 3 19 6 23 19 33 142 114 364	6 0 3 23 5 28 23 41 163 92 384 <b>2050</b> 4
Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R Technology Electric Vehicle Hydrogen Fuel Cell	0 0 0 0 0 1 221 222 Region WEUR 2005 0	0 0 0 1 0 0 2 1 232 235 (Units: m 2010 0	0 0 2 3 2 2 5 3 2 36 2 54 3 1 2 36 2 54 1 1 100) 2015 0	1 0 4 5 4 8 7 238 272 <b>2020</b> 1	1 0 2 6 7 8 6 12 15 231 289 <b>2025</b> 1	2 0 4 9 10 11 9 16 30 214 306 <b>2030</b> 1	3 0 4 12 9 15 12 21 62 188 325 <b>2035</b> 2	4 0 4 15 7 19 15 27 110 144 344 <b>2040</b> 2	5 0 3 19 6 23 19 33 142 114 364 <b>2045</b> 3	6 0 3 23 5 28 23 41 163 92 384 <b>2050</b> 4 0
Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid	0 0 0 0 0 1 221 222 Region WEUR 2005 0 0	0 0 0 1 0 0 2 1 232 235 (Units: m 2010 0 0	0 0 2 3 2 2 5 3 236 254 illion) 2015 0 0	1 0 4 5 5 4 8 7 238 272 <b>2020</b> 1 0	1 0 2 6 7 8 6 12 15 231 289 <b>2025</b> 1 0	2 0 4 9 10 11 9 16 30 214 306 <b>2030</b> 1 0	3 0 4 12 9 15 12 21 62 188 325 <b>2035</b> 2 0	4 0 4 15 7 19 15 27 110 144 344 <b>2040</b> 2 0	5 0 3 19 6 23 19 33 142 114 364 <b>2045</b> 3 0	6 0 3 23 5 28 23 41 163 92 384 <b>2050</b> 4 0 0
Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV	0 0 0 0 0 0 1 221 222 Region WEUR 2005 0 0 0 0 0 0	0 0 0 1 0 2 1 232 235 (Units: m 2010 0 0 0 0 0 0 2	0 0 2 3 2 2 5 3 2 36 254 illion) 2015 0 0 0 0 0 0 2 4	1 0 4 5 5 4 8 7 238 272 238 272 2020 1 0 0 0 0 4 6	1 0 2 6 7 8 6 12 15 231 289 2025 1 0 0 0 0 7 9	2 0 4 9 10 11 9 16 30 214 306 <b>2030</b> 1 0 0 0 0 10	3 0 4 12 9 15 12 21 62 188 325 <b>2035</b> 2 0 0 0 0 13	4 0 4 15 7 19 15 27 110 144 344 <b>2040</b> 2 0 0 0 0 16 19	5 0 3 19 6 23 19 33 142 114 364 <b>2045</b> 3 0 0 0 0 20 23	6 0 3 23 5 28 23 41 163 92 384 <b>2050</b> 4 0 0 0 24
Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in	0 0 0 0 0 1 221 222 Region WEUR 2005 0 0 0 0 0 0 0 0	0 0 0 1 0 2 1 232 235 (Units: m 2010 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 2 3 2 2 5 3 2 36 2 5 4 2 36 2 5 4 0 0 0 0 0 0 0 0 0 2 4 0 0 0 0 0 0 0 0	1 0 0 4 5 5 4 8 7 238 272 238 272 2020 1 0 0 0 4 6 1	1 0 2 6 7 8 6 12 15 231 289 <b>2025</b> 1 0 0 0 7 9 1	2 0 4 9 10 11 9 16 30 214 306 214 306 2030 1 0 0 0 10 12 1	3 0 4 12 9 15 12 21 62 188 325 <b>2035</b> 2 0 0 0 13 15 2	4 0 4 15 7 19 15 27 110 144 344 <b>2040</b> 2 0 0 0 0 16 19 2	5 0 3 19 6 23 19 33 142 114 364 <b>2045</b> 3 0 0 0 0 20 23 3 3	6 0 3 23 5 28 23 41 163 92 384 <b>2050</b> 4 0 0 0 24 27 4
Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid	0 0 0 0 0 1 221 222 Region WEUR 2005 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 1 0 2 1 232 235 (Units: m 2010 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 2 3 2 2 5 3 2 3 6 2 5 4 2 3 6 2 5 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 4 5 5 4 8 7 238 272 238 272 2020 1 0 0 0 4 6 1 3	1 0 2 6 7 8 6 12 15 231 289 <b>2025</b> 1 0 0 0 7 7 9 1 5	2 0 4 9 10 11 9 16 30 214 306 214 306 2030 1 0 0 0 0 10 12 1 8	3 0 4 12 9 15 12 21 62 188 325 <b>2035</b> 2 0 0 0 13 15 2 11	4 0 4 15 7 19 15 27 110 144 344 <b>2040</b> 2 0 0 0 0 16 19 2 14	5 0 3 19 6 23 19 33 142 114 364 <b>2045</b> 3 0 0 0 0 20 23 3 18	6 0 3 23 5 28 23 41 163 92 384 <b>2050</b> 4 0 0 0 24 27 4 21
Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid	0 0 0 0 0 0 1 221 222 Region WEUR 2005 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 1 0 2 1 232 235 (Units: m 2010 0 0 0 0 0 0 0 0 0 0 1	0 0 0 2 3 2 2 5 3 2 3 6 2 5 4 2 3 6 2 5 4 0 0 0 0 0 0 0 0 0 2 2 4 0 0 0 0 0 1 3 3	1 0 0 4 5 5 4 8 7 238 272 238 272 2020 1 0 0 0 4 6 1 3 6	1 0 2 6 7 8 6 12 15 231 289 2025 1 0 0 0 7 7 9 1 5 9	2 0 4 9 10 11 9 16 30 214 306 214 306 2030 1 0 0 0 10 10 12 1 8 13	3 0 4 12 9 15 12 21 62 188 325 <b>2035</b> 2 0 0 0 13 15 2 11 18	4 0 4 15 7 19 15 27 110 144 344 <b>2040</b> 2 0 0 0 0 16 19 2 14 23	5 0 3 19 6 23 19 33 142 114 364 <b>2045</b> 3 0 0 0 20 20 23 3 18 29	6 0 3 23 5 28 23 41 163 92 384 <b>2050</b> 4 0 0 0 24 27 4 21 36
Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel Hybrid Gas Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV	0 0 0 0 0 0 1 221 222 Region WEUR 2005 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 1 0 2 1 232 235 (Units: m 2010 0 0 0 0 0 0 0 0 0 0 0 0 1 54	0 0 0 2 3 2 2 5 3 2 3 6 2 5 4 2 3 6 2 5 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 4 5 5 4 8 7 238 272 238 272 2020 1 0 0 0 4 6 1 3 6 46	1 0 2 6 7 8 6 12 15 231 289 2025 1 0 0 0 7 9 1 5 9 9 49	2 0 4 9 10 11 9 16 30 214 306 214 306 2030 1 0 0 0 0 10 12 1 8 13 61	3 0 4 12 9 15 12 21 62 188 325 <b>2035</b> 2 0 0 0 13 15 2 11 188 75	4 0 4 15 7 19 15 27 110 144 344 <b>2040</b> 2 0 0 0 0 16 19 2 14 23 82	5 0 3 19 6 23 19 33 142 114 364 <b>2045</b> 3 0 0 0 20 23 3 18 29 88	6 0 3 23 5 28 23 41 163 92 384 <b>2050</b> 4 0 0 0 24 27 4 21 36 76
Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid	0 0 0 0 0 0 1 221 222 Region WEUR 2005 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 1 0 2 1 232 235 (Units: m 2010 0 0 0 0 0 0 0 0 0 0 1	0 0 0 2 3 2 2 5 3 2 3 6 2 5 4 2 3 6 2 5 4 0 0 0 0 0 0 0 0 0 2 2 4 0 0 0 0 0 1 3 3	1 0 0 4 5 5 4 8 7 238 272 238 272 2020 1 0 0 0 4 6 1 3 6	1 0 2 6 7 8 6 12 15 231 289 2025 1 0 0 0 7 7 9 1 5 9	2 0 4 9 10 11 9 16 30 214 306 214 306 2030 1 0 0 0 10 12 1 8 13	3 0 4 12 9 15 12 21 62 188 325 <b>2035</b> 2 0 0 0 13 15 2 11 18	4 0 4 15 7 19 15 27 110 144 344 <b>2040</b> 2 0 0 0 0 16 19 2 14 23	5 0 3 19 6 23 19 33 142 114 364 <b>2045</b> 3 0 0 0 20 20 23 3 18 29	2050 6 0 3 23 5 28 23 41 163 92 384 2050 4 0 0 24 27 4 21 36 76 76 104 296

### **CO2** Emission

CO2-Emission fr	om Cars (Unit	s: GtCO2/y)								
Region	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
USA	1.1	1.2	1.2	1.1	1.1	1.0	0.9	0.8	0.7	0.7
RUSSIA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PACIFIC	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
MEXICO	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
MEA	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
LAM	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
INDIA	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.3
FSU	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
WEUR	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4
EEUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHINA	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.6
CANADA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
BRAZIL	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
ASIA	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.5	0.5	0.6
AFRICA	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
Total	2.6	2.8	3.0	3.1	3.2	3.3	3.4	3.6	3.7	3.8

CO2-Emission (U	nits: GtCO2/y)									
Region	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
USA	1.9	1.9	1.9	1.9	1.9	1.8	1.7	1.7	1.7	1.7
RUSSIA	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4
PACIFIC	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4
MEXICO	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4
MEA	0.4	0.4	0.4	0.5	0.5	0.6	0.7	0.8	0.8	0.9
LAM	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.7	0.7	0.8
INDIA	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.8
FSU	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4
WEUR	1.3	1.2	1.3	1.3	1.3	1.2	1.2	1.3	1.3	1.3
EEUR	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHINA	0.5	0.6	0.7	0.9	1.1	1.3	1.4	1.6	1.8	1.9
CANADA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2
BRAZIL	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4
ASIA	0.5	0.5	0.7	0.8	0.9	1.1	1.2	1.4	1.5	1.6
AFRICA	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.8	0.9
Total	6.5	6.8	7.4	7.9	8.6	9.2	9.8	10.6	11.5	12.2

## 2-Results for Tollway Scenario

## Fuel Demand

Fuel for Cars (EJ/Y)

Fuels for Cars (Units: E.	J/y)									
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electricity	0.0	0.0	0.1	0.3	0.6	1.0	1.6	2.5	3.6	4.6
Hydrogen	0.0	0.0	0.1	0.2	0.4	0.6	0.8	1.0	1.2	1.5
Bio-Syngas	0.0	0.0	0.3	0.7	0.9	0.7	0.5	0.4	0.2	0.1
CNG	0.1	0.3	0.5	0.7	1.2	1.8	2.5	3.0	3.1	3.1
Biofuel(Diesel)	0.0	0.0	0.1	0.3	0.2	0.1	0.1	0.1	0.2	0.3
Diesel	2.8	2.6	2.7	2.8	3.5	4.0	4.4	4.8	5.1	5.3
Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Methanol	0.0	0.1	0.4	0.7	1.1	1.4	1.5	1.5	1.6	1.3
Bio-Ethanol	0.6	1.5	2.3	2.8	3.5	3.9	4.4	5.1	6.0	7.2
Gasoline	34.9	38.0	38.7	38.2	35.2	30.4	25.7	21.2	17.1	14.1
Total	38.5	42.6	45.2	46.8	46.5	43.8	41.5	39.5	38.1	37.5
Fuels for Cars, Region A										
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Bio-Syngas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CNG	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2
Biofuel(Diesel)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diesel	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.4	0.4
Bio-Methanol	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
Bio-Ethanol	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2
Gasoline	0.9	1.2	1.4	1.7	1.9	1.9	1.8	1.6	1.3	1.2
Total	1.0	1.3	1.6	1.9	2.3	2.4	2.4	2.4	2.3	2.3

Fuels for Cars, Region	ASIA (Units: I	EJ/y)								
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electricity	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.3
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
Bio-Syngas CNG	0.0 0.0	0.0	0.0 0.1	0.0 0.1	0.0 0.1	0.0 0.2	0.0 0.3	0.0 0.4	0.0 0.5	0.0 0.4
Biofuel(Diesel)	0.0	0.0 0.0	0.1	0.1	0.1	0.2	0.3	0.4	0.5	0.4
Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0
Bio-Methanol	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.3	0.2	0.1
Bio-Ethanol	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.3	0.5
Gasoline	1.5	1.9	2.1	2.4	2.5	2.5	2.6	2.6	2.4	2.1
Total	1.5	1.9	2.3	2.8	3.1	3.4	3.7	4.1	4.3	4.4
Fuels for Cars, Region	•									
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Bio-Syngas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CNG Biofuel(Diesel)	0.0 0.0	0.0 0.0	0.1 0.0	0.1 0.0	0.1 0.0	0.2 0.0	0.2 0.0	0.2 0.0	0.2 0.0	0.2 0.0
Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Methanol	0.0	0.0	0.0	0.2	0.2	0.2	0.2	0.0	0.0	0.2
Bio-Ethanol	0.2	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.6
Gasoline	0.9	0.9	1.2	1.2	1.2	1.2	1.1	0.8	0.5	0.3
Total	1.2	1.5	1.7	1.8	1.8	1.9	1.9	1.8	1.7	1.6
Fuels for Cars, Region	CANADA (Un	its: EJ/y)								
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Syngas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CNG	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0
Biofuel(Diesel) Diesel	0.0 0.0	0.0	0.0 0.1	0.0 0.1	0.0 0.1	0.0 0.1	0.0	0.0 0.1	0.0 0.1	0.0
Bio-Methanol	0.0	0.0 0.0	0.1	0.1	0.1	0.1	0.1 0.0	0.1	0.1	0.1
Bio-Ethanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline	1.2	1.2	1.1	1.1	1.0	0.8	0.6	0.4	0.2	0.1
Total	1.2	1.3	1.3	1.3	1.2	1.0	0.9	0.8	0.7	0.6
Fuels for Cars, Region	CHINA (Units	: EJ/y)								
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
Bio-Syngas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CNG Riefwel/Diesel)	0.0 0.0	0.0	0.0 0.0	0.0 0.0	0.1 0.0	0.1 0.0	0.1 0.0	0.2 0.0	0.2	0.3 0.0
Biofuel(Diesel) Diesel	0.0	0.0 0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.6	0.0
Methanol	0.1	0.2	0.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Ethanol	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.4
Gasoline	0.6	0.9	1.1	1.4	1.9	2.3	2.9	3.2	3.4	3.0
Total	0.8	1.2	1.6	2.1	2.5	3.1	3.7	4.3	4.8	5.0
Fuels for Cars, Region	EEUR (Units:	EJ/y)								
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Syngas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CNG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biofuel(Diesel)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diesel Bio-Methanol	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0
Bio-Ethanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3
Fuels for Cars, Region	FSU (Units: E	J/v)								
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
				~ ~	0.0	0.0	0.0	0.0	0.0	0.0
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Bio-Syngas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Syngas CNG	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.1	0.0 0.1	0.0 0.1	0.0 0.1
Bio-Syngas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Bio-Methanol	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Bio-Ethanol	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2
Gasoline	0.6	0.7	0.8	0.8	0.8	0.8	0.7	0.6	0.4	0.3
Total	0.6	0.8	0.8	0.9	1.0	1.0	1.1	1.0	0.9	0.9
Fuels for Cars, Regio	n INDIA (Linite: E	1/24								
Fuel	•	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Syngas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CNG	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
Biofuel(Diesel)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2
Diesel	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0
Bio-Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Ethanol	0.0	0.0	0.1	0.2	0.2	0.3	0.3	0.4	0.6	0.7
Gasoline	0.3	0.5	0.6	0.7	0.9	1.1	1.3	1.5	1.8	2.2
Total	0.4	0.6	0.8	1.0	1.2	1.5	1.8	2.2	2.8	3.4
Fuels for Cars, Regio	n I AM (I Inite: El	60								
Fuel		2010	2015	2020	2025	2030	2035	2040	2045	2050
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Syngas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CNG	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.3
Biofuel(Diesel)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diesel	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.3
<b>Bio-Methanol</b>	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0
Bio-Ethanol	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.3
Gasoline	0.8	1.0	1.1	1.2	1.3	1.2	1.1	0.8	0.7	0.6
Total	0.9	1.1	1.3	1.5	1.8	1.8	1.8	1.8	1.7	1.7
Fuels for Cars, Regio	n MEA (Linite: El	60								
Fuel	•	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Syngas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CNG	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Biofuel(Diesel)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diesel	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4
Bio-Methanol	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.1	0.1
Bio-Ethanol	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.3
Gasoline	1.0	1.2	1.4	1.6	1.7	1.7	1.5	1.3	0.9	0.7
Total	1.1	1.3	1.5	1.8	1.9	2.1	2.2	2.1	1.9	1.8
Fuels for Cars, Regio	n MFXICO (Units	: FJ/v)								
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Syngas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CNG	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
Biofuel(Diesel)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2
Bio-Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Ethanol	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2
Gasoline Total	0.7 0.7	0.8 0.8	0.9 1.0	1.0 1.0	1.0 1.1	1.0 1.2	0.9 1.2	0.8 1.2	0.6 1.1	0.5 1.0
Total	0.7	0.8	1.0	1.0	1.1	1.2	1.2	1.2	1.1	1.0
Fuels for Cars, Regio	n PACIFIC (Units:	EJ/y)								
Fuel	•	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electricity	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.3
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
Bio-Syngas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CNG	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.1
Biofuel(Diesel)	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Diesel Bie Methonel	0.4	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.2
Bio-Methanol	0.0	0.0	0.1	0.2	0.2	0.1	0.1	0.0	0.1	0.1
Bio-Ethanol Gasoline	0.0 3.0	0.0 3.2	0.1 3.0	0.2 2.6	0.2 2.1	0.1 1.7	0.2 1.3	0.2 0.9	0.3 0.5	0.3 0.3
Total	3.0	3.2	3.0	2.6	3.0	2.5	2.1	0.9	0.5	1.4
	5.4	5.0	5.0	5.4	5.0	2.5	2.1	1.0	1.0	1.4
Fuels for Cars, Regio	n RUSSIA (Units:	EJ/y)								
Fuel	•	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Syngas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

CNG	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Biofuel(Diesel)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diesel	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.1
Bio-Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Ethanol	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2
Gasoline	1.2	1.4	1.5	1.5	1.4	1.3	1.1	0.8	0.6	0.5
Total	1.2	1.4	1.5	1.6	1.6	1.6	1.5	1.3	1.2	1.1
Fuels for Cars, Region										
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electricity	0.0	0.0	0.0	0.1	0.2	0.4	0.6	0.9	1.4	1.8
Hydrogen	0.0	0.0	0.0	0.1	0.2	0.2	0.3	0.3	0.4	0.5
Bio-Syngas	0.0	0.0	0.2	0.4	0.6	0.5	0.4	0.3	0.1	0.1
CNG	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.5	0.5	0.5
Biofuel(Diesel)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diesel	0.1	0.1	0.2	0.4	0.6	1.0	1.2	1.1	1.0	0.8
Bio-Methanol	0.0	0.0	0.0	0.1	0.2	0.2	0.3	0.4	0.5	0.4
Bio-Ethanol	0.3	0.9	1.3	1.4	1.6	1.7	1.8	1.8	1.8	1.9
Gasoline	16.4	16.6	15.9	14.7	12.5	9.2	6.3	4.2	2.8	1.9
Total	16.8	17.6	17.7	17.2	15.9	13.4	11.1	9.6	8.5	7.8
Fuels for Cars, Region	•									
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electricity	0.0	0.0	0.0	0.1	0.1	0.2	0.4	0.6	0.8	1.0
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3
Bio-Syngas	0.0	0.0	0.1	0.2	0.2	0.2	0.1	0.1	0.0	0.0
CNG	0.0	0.0	0.1	0.1	0.2	0.3	0.5	0.5	0.4	0.4
Biofuel(Diesel)	0.0	0.0	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0
Diesel	1.9	1.6	1.3	1.1	1.3	1.3	1.2	1.0	0.9	0.8
Bio-Methanol	0.0	0.0	0.1	0.2	0.3	0.4	0.4	0.3	0.2	0.2
Bio-Ethanol	0.0	0.1	0.2	0.3	0.5	0.6	0.7	0.9	1.1	1.2
Gasoline	5.4	6.2	6.3	5.9	4.8	3.4	2.4	1.6	0.9	0.4
Total	7.3	7.9	8.2	8.1	7.6	6.6	5.8	5.0	4.5	4.2

### Fuel in Other Surface Transport and Aviation (EJ/y)

Fuel in Other Surface	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Other (Coal)	0.6	0.8	1.0	1.1	1.3	0.6	0.2	0.1	0.0	0.0
Gasoline	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.2	0.4	0.3
Diesel	39.4	39.3	40.8	42.0	43.8	46.5	49.2	51.5	54.0	56.0
Bio-Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Ethanol	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Syngas	0.0	0.0	0.1	1.0	0.2	0.1	0.0	0.0	0.0	0.0
CNG	0.3	0.4	0.2	0.2	0.4	0.5	0.6	0.5	0.4	0.3
Biofuel(Diesel)	0.1	0.5	1.0	1.3	1.2	0.8	0.8	0.8	0.6	0.8
Electricity	0.3	0.4	0.6	1.0	1.6	2.1	2.6	3.3	4.0	4.8
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-FT-Jetfuel	0.0	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.2
Jetfuel	10.2	10.5	11.6	12.8	14.3	15.9	17.7	19.6	21.7	23.7
Total	50.9	52.4	55.9	59.9	63.1	66.7	71.4	76.1	81.3	86.2
Fuel in Other Surface	Transport and Avia	tion, Region /	AFRICA (Units	: EJ/y)						
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Other (Coal)	0.0	0.0	0.1	0.1	0.1	0.2	0.0	0.0	0.0	0.0
Diesel	1.6	1.6	1.6	1.7	1.9	2.1	2.6	3.0	3.4	3.8
Bio-Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Ethanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Syngas	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
CNG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biofuel(Diesel)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.3
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
							0.0	0.0	0.0	0.0
Bio-FT-Jetfuel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
, ,	0.0 0.3	0.0 0.4	0.0 0.5	0.0 0.6	0.0 0.7	0.0 0.9	1.1	1.5	2.0	2.5
Bio-FT-Jetfuel									2.0 5.7	
Bio-FT-Jetfuel Jetfuel	0.3 2.0	0.4 2.1	0.5 2.3	0.6 2.5	0.7	0.9	1.1	1.5		
Bio-FT-Jetfuel Jetfuel Total	0.3 2.0	0.4 2.1	0.5 2.3	0.6 2.5	0.7	0.9	1.1	1.5		6.7
Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Fuel	0.3 2.0 Transport and Avia	0.4 2.1 tion, Region A	0.5 2.3 ASIA (Units: E	0.6 2.5 J/y)	0.7 2.9	0.9 3.4	1.1 3.9	1.5 4.7 <b>2040</b>	5.7	6.7 <b>2050</b>
Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface	0.3 2.0 Transport and Avia 2005	0.4 2.1 tion, Region / 2010	0.5 2.3 ASIA (Units: E 2015	0.6 2.5 J/y) 2020	0.7 2.9 2025	0.9 3.4 <b>2030</b>	1.1 3.9 2035	1.5 4.7	5.7 <b>2045</b>	6.7 <b>2050</b> 0.0
Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Fuel Other (Coal)	0.3 2.0 Transport and Avia 2005 0.0	0.4 2.1 tion, Region A 2010 0.0	0.5 2.3 ASIA (Units: E 2015 0.1	0.6 2.5 J/y) 2020 0.1	0.7 2.9 <b>2025</b> 0.1	0.9 3.4 <b>2030</b> 0.2	1.1 3.9 <b>2035</b> 0.0	1.5 4.7 <b>2040</b> 0.0	5.7 <b>2045</b> 0.0	2.5 6.7 <b>2050</b> 0.0 6.8 0.0

Bio-Syngas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CNG	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biofuel(Diesel)	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Electricity	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.5
Hydrogen Bio-FT-Jetfuel	0.0 0.0	0.0 0.0	0.0	0.0	0.0 0.0	0.0 0.0	0.0	0.0 0.0	0.0	0.0
Jetfuel	0.0	0.0	0.0 1.1	0.0 1.4	0.0	2.0	0.0 2.2	2.5	0.0 2.8	0.0 3.0
Total	4.9	5.1	5.8	1.4 6.6	7.4	8.1	8.7	2.5 9.3	2.8 9.9	10.4
lotal	4.5	5.1	5.0	0.0	7.4	0.1	0.7	5.5	5.5	10.4
Fuel in Other Surface Trai	nsport and Avia	tion, Region	BRAZIL (Units	: EJ/y)						
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Other (Coal)	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Diesel Bio-Methanol	1.0	1.0	1.0	1.1	1.1	1.3	1.4	1.5	1.6	1.7
Bio-Ethanol	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0	0.0 0.0	0.0 0.0	0.0 0.0
Bio-Syngas	0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0
CNG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biofuel(Diesel)	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
Electricity	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-FT-Jetfuel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Jetfuel	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.6
Total	1.2	1.3	1.4	1.5	1.7	1.8	2.0	2.2	2.3	2.5
Fuel in Other Surface Trai	nsport and Avia	tion, Region (	CANADA (Uni	ts: FI/v)						
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Other (Coal)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diesel	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.7	0.7	0.7
Bio-Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Ethanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Syngas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CNG Riefwel/Discell	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biofuel(Diesel) Electricity	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.1	0.0 0.1	0.0 0.1	0.0 0.1	0.0 0.1
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Bio-FT-Jetfuel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Jetfuel	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
Total	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1
Fuel in Other Curfees Tree		tion Dealers		F1/4						
Fuel in Other Surface Tran					2025	2030	2035	2040	2045	2050
Fuel	2005	2010	2015	2020	<b>2025</b> 0.7	<b>2030</b> 0.2	<b>2035</b> 0.1	<b>2040</b> 0.0	<b>2045</b> 0.0	<b>2050</b> 0.0
					<b>2025</b> 0.7 6.3	<b>2030</b> 0.2 6.9	<b>2035</b> 0.1 7.3	<b>2040</b> 0.0 7.6	<b>2045</b> 0.0 7.9	<b>2050</b> 0.0 8.1
Fuel Other (Coal)	<b>2005</b> 0.6	<b>2010</b> 0.6	<b>2015</b> 0.6	<b>2020</b> 0.7	0.7	0.2	0.1	0.0	0.0	0.0
Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol	<b>2005</b> 0.6 3.6	<b>2010</b> 0.6 4.5	<b>2015</b> 0.6 5.2	<b>2020</b> 0.7 5.8	0.7 6.3	0.2 6.9	0.1 7.3	0.0 7.6	0.0 7.9	0.0 8.1
Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Biofuel(Diesel)	2005 0.6 3.6 0.0 0.0 0.0	2010 0.6 4.5 0.0 0.0 0.0	2015 0.6 5.2 0.0 0.0 0.0	2020 0.7 5.8 0.0 0.0 0.0	0.7 6.3 0.0 0.0 0.0	0.2 6.9 0.0 0.0 0.0	0.1 7.3 0.0 0.0 0.0	0.0 7.6 0.0 0.0 0.0	0.0 7.9 0.0 0.0 0.0	0.0 8.1 0.0 0.0 0.0
Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Biofuel(Diesel) Electricity	2005 0.6 3.6 0.0 0.0 0.0 0.0	2010 0.6 4.5 0.0 0.0 0.0 0.0	2015 0.6 5.2 0.0 0.0 0.0 0.0	2020 0.7 5.8 0.0 0.0 0.0 0.1	0.7 6.3 0.0 0.0 0.0 0.2	0.2 6.9 0.0 0.0 0.0 0.0 0.3	0.1 7.3 0.0 0.0 0.0 0.0 0.3	0.0 7.6 0.0 0.0 0.0 0.0 0.4	0.0 7.9 0.0 0.0 0.0 0.0 0.6	0.0 8.1 0.0 0.0 0.0 0.7
Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Biofuel(Diesel) Electricity Hydrogen	2005 0.6 3.6 0.0 0.0 0.0 0.0 0.0	2010 0.6 4.5 0.0 0.0 0.0 0.0 0.0	2015 0.6 5.2 0.0 0.0 0.0 0.1 0.1	2020 0.7 5.8 0.0 0.0 0.0 0.1 0.0	0.7 6.3 0.0 0.0 0.0 0.2 0.0	0.2 6.9 0.0 0.0 0.0 0.0 0.3 0.0	0.1 7.3 0.0 0.0 0.0 0.3 0.0	0.0 7.6 0.0 0.0 0.0 0.0 0.4 0.0	0.0 7.9 0.0 0.0 0.0 0.0 0.6 0.0	0.0 8.1 0.0 0.0 0.0 0.7 0.0
Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel	2005 0.6 3.6 0.0 0.0 0.0 0.0 0.0 0.0	2010 0.6 4.5 0.0 0.0 0.0 0.0 0.0 0.0	2015 0.6 5.2 0.0 0.0 0.0 0.1 0.0 0.0	2020 0.7 5.8 0.0 0.0 0.0 0.1 0.0 0.0	0.7 6.3 0.0 0.0 0.0 0.0 0.2 0.0 0.0	0.2 6.9 0.0 0.0 0.0 0.0 0.3 0.0 0.0	0.1 7.3 0.0 0.0 0.0 0.3 0.0 0.0	0.0 7.6 0.0 0.0 0.0 0.0 0.4 0.0 0.0	0.0 7.9 0.0 0.0 0.0 0.0 0.6 0.0 0.0	0.0 8.1 0.0 0.0 0.0 0.7 0.0 0.0
Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel	2005 0.6 3.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2010 0.6 4.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2015 0.6 5.2 0.0 0.0 0.0 0.1 0.0 0.0 1.0	2020 0.7 5.8 0.0 0.0 0.0 0.1 0.0 0.0 1.2	0.7 6.3 0.0 0.0 0.0 0.2 0.0 0.0 1.5	0.2 6.9 0.0 0.0 0.0 0.3 0.0 0.0 1.7	0.1 7.3 0.0 0.0 0.0 0.3 0.0 0.0 2.0	0.0 7.6 0.0 0.0 0.0 0.0 0.4 0.0 0.0 2.2	0.0 7.9 0.0 0.0 0.0 0.0 0.6 0.0 0.0 2.4	0.0 8.1 0.0 0.0 0.0 0.7 0.0 0.0 0.0 2.6
Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel	2005 0.6 3.6 0.0 0.0 0.0 0.0 0.0 0.0	2010 0.6 4.5 0.0 0.0 0.0 0.0 0.0 0.0	2015 0.6 5.2 0.0 0.0 0.0 0.1 0.0 0.0	2020 0.7 5.8 0.0 0.0 0.0 0.1 0.0 0.0	0.7 6.3 0.0 0.0 0.0 0.0 0.2 0.0 0.0	0.2 6.9 0.0 0.0 0.0 0.0 0.3 0.0 0.0	0.1 7.3 0.0 0.0 0.0 0.3 0.0 0.0	0.0 7.6 0.0 0.0 0.0 0.0 0.4 0.0 0.0	0.0 7.9 0.0 0.0 0.0 0.0 0.6 0.0 0.0	0.0 8.1 0.0 0.0 0.0 0.7 0.0 0.0
Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel	2005 0.6 3.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 4.8	2010 0.6 4.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.7 5.9	2015 0.6 5.2 0.0 0.0 0.0 0.1 0.0 0.0 1.0 6.9	2020 0.7 5.8 0.0 0.0 0.1 0.0 0.0 1.2 7.8	0.7 6.3 0.0 0.0 0.0 0.2 0.0 0.0 1.5	0.2 6.9 0.0 0.0 0.0 0.3 0.0 0.0 1.7	0.1 7.3 0.0 0.0 0.0 0.3 0.0 0.0 2.0	0.0 7.6 0.0 0.0 0.0 0.0 0.4 0.0 0.0 2.2	0.0 7.9 0.0 0.0 0.0 0.0 0.6 0.0 0.0 2.4	0.0 8.1 0.0 0.0 0.0 0.7 0.0 0.0 0.0 2.6
Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tran Fuel	2005 0.6 3.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 4.8 nsport and Avia 2005	2010 0.6 4.5 0.0 0.0 0.0 0.0 0.0 0.7 5.9 tion, Region	2015 0.6 5.2 0.0 0.0 0.1 0.0 0.0 1.0 6.9 EEUR (Units: 1 2015	2020 0.7 5.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.2 7.8 EJ/y) 2020	0.7 6.3 0.0 0.0 0.0 0.0 0.0 1.5 8.7 <b>2025</b>	0.2 6.9 0.0 0.0 0.3 0.0 0.0 1.7 9.1 <b>2030</b>	0.1 7.3 0.0 0.0 0.0 0.3 0.0 2.0 9.7 <b>2035</b>	0.0 7.6 0.0 0.0 0.0 0.4 0.0 2.2 10.3 <b>2040</b>	0.0 7.9 0.0 0.0 0.0 0.0 0.0 2.4 10.9 <b>2045</b>	0.0 8.1 0.0 0.0 0.7 0.0 2.6 11.4 <b>2050</b>
Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bioluel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tran Fuel Other (Coal)	2005 0.6 3.6 0.0 0.0 0.0 0.0 0.0 0.0 0.6 4.8 nsport and Avia 2005 0.0	2010 0.6 4.5 0.0 0.0 0.0 0.0 0.0 0.7 5.9 tion, Region 2010	2015 0.6 5.2 0.0 0.0 0.1 0.0 1.0 6.9 EEUR (Units: 1 2015 0.0	2020 0.7 5.8 0.0 0.0 0.0 0.0 0.0 1.2 7.8 EJ/y) 2020 0.0	0.7 6.3 0.0 0.0 0.2 0.0 0.0 1.5 8.7 <b>2025</b> 0.0	0.2 6.9 0.0 0.0 0.3 0.0 1.7 9.1 <b>2030</b> 0.0	0.1 7.3 0.0 0.0 0.3 0.0 2.0 9.7 <b>2035</b> 0.0	0.0 7.6 0.0 0.0 0.0 0.4 0.0 2.2 10.3 <b>2040</b> 0.0	0.0 7.9 0.0 0.0 0.0 0.0 0.0 2.4 10.9 <b>2045</b> 0.0	0.0 8.1 0.0 0.0 0.7 0.0 2.6 11.4 <b>2050</b> 0.0
Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tran Fuel Other (Coal) Diesel	2005 0.6 3.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 4.8 msport and Avia 2005 0.0 0.3	2010 0.6 4.5 0.0 0.0 0.0 0.0 0.0 0.0 0.7 5.9 tion, Region 2010 0.0 0.3	2015 0.6 5.2 0.0 0.0 0.0 0.0 0.0 1.0 6.9 EEUR (Units: 1 2015 0.0 0.3	2020 0.7 5.8 0.0 0.0 0.0 0.0 0.0 1.2 7.8 EJ/y) 2020 0.0 0.3	0.7 6.3 0.0 0.0 0.2 0.0 0.0 1.5 8.7 <b>2025</b> 0.0 0.3	0.2 6.9 0.0 0.0 0.3 0.0 0.0 1.7 9.1 <b>2030</b> 0.0 0.3	0.1 7.3 0.0 0.0 0.3 0.0 2.0 9.7 <b>2035</b> 0.0 0.4	0.0 7.6 0.0 0.0 0.0 0.0 0.0 2.2 10.3 <b>2040</b> 0.0 0.4	0.0 7.9 0.0 0.0 0.0 0.0 0.0 2.4 10.9 <b>2045</b> 0.0 0.4	0.0 8.1 0.0 0.0 0.7 0.0 2.6 11.4 <b>2050</b> 0.0 0.4
Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tran Fuel Other (Coal) Diesel Bio-Methanol	2005 0.6 3.6 0.0 0.0 0.0 0.0 0.0 0.0 4.8 nsport and Avia 2005 0.0 0.3 0.0	2010 0.6 4.5 0.0 0.0 0.0 0.0 0.0 0.0 0.7 5.9 tion, Region 2010 0.0 0.3 0.0	2015 0.6 5.2 0.0 0.0 0.0 0.1 0.0 1.0 6.9 EEUR (Units: I 2015 0.0 0.3 0.0	2020 0.7 5.8 0.0 0.0 0.0 0.0 0.0 1.2 7.8 EJ/y) 2020 0.0 0.3 0.0	0.7 6.3 0.0 0.0 0.2 0.0 1.5 8.7 <b>2025</b> 0.0 0.3 0.0	0.2 6.9 0.0 0.0 0.3 0.0 1.7 9.1 <b>2030</b> 0.0 0.3 0.0	0.1 7.3 0.0 0.0 0.3 0.0 2.0 9.7 <b>2035</b> 0.0 0.4 0.0	0.0 7.6 0.0 0.0 0.0 0.0 2.2 10.3 <b>2040</b> 0.0 0.4 0.0	0.0 7.9 0.0 0.0 0.0 0.0 2.4 10.9 <b>2045</b> 0.0 0.4 0.0	0.0 8.1 0.0 0.0 0.7 0.0 2.6 11.4 <b>2050</b> 0.0 0.4 0.0
Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tran Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol	2005 0.6 3.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 4.8 nsport and Avia 2005 0.0 0.3 0.0 0.0	2010 0.6 4.5 0.0 0.0 0.0 0.0 0.0 0.7 5.9 tion, Region 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2015 0.6 5.2 0.0 0.0 0.0 0.1 0.0 1.0 6.9 EEUR (Units: I 2015 0.0 0.3 0.0 0.0 0.0	2020 0.7 5.8 0.0 0.0 0.0 0.0 1.2 7.8 EJ/y) 2020 0.0 0.0 0.0 0.0 0.0	0.7 6.3 0.0 0.0 0.2 0.0 1.5 8.7 <b>2025</b> 0.0 0.3 0.0 0.3	0.2 6.9 0.0 0.0 0.3 0.0 1.7 9.1 <b>2030</b> 0.0 0.3 0.0 0.0	0.1 7.3 0.0 0.0 0.3 0.0 2.0 9.7 <b>2035</b> 0.0 0.4 0.0 0.0	0.0 7.6 0.0 0.0 0.4 0.0 2.2 10.3 <b>2040</b> 0.0 0.4 0.0 0.0	0.0 7.9 0.0 0.0 0.0 0.0 2.4 10.9 <b>2045</b> 0.0 0.4 0.0 0.0	0.0 8.1 0.0 0.0 0.7 0.0 2.6 11.4 <b>2050</b> 0.0 0.4 0.0 0.0
Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tran Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Bio-Syngas	2005 0.6 3.6 0.0 0.0 0.0 0.0 0.0 0.0 0.6 4.8 nsport and Avia 2005 0.0 0.3 0.0 0.0 0.0	2010 0.6 4.5 0.0 0.0 0.0 0.0 0.0 0.7 5.9 tion, Region 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2015 0.6 5.2 0.0 0.0 0.0 0.1 0.0 1.0 6.9 EEUR (Units: I 2015 0.0 0.3 0.0 0.0 0.0 0.0	2020 0.7 5.8 0.0 0.0 0.0 0.0 0.0 1.2 7.8 2020 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.7 6.3 0.0 0.0 0.2 0.0 1.5 8.7 <b>2025</b> 0.0 0.3 0.0 0.3 0.0 0.0	0.2 6.9 0.0 0.0 0.3 0.0 1.7 9.1 <b>2030</b> 0.0 0.3 0.0 0.0 0.0 0.0	0.1 7.3 0.0 0.0 0.3 0.0 2.0 9.7 <b>2035</b> 0.0 0.4 0.0 0.0 0.0	0.0 7.6 0.0 0.0 0.4 0.0 2.2 10.3 <b>2040</b> 0.0 0.4 0.0 0.0 0.0 0.0	0.0 7.9 0.0 0.0 0.0 0.0 2.4 10.9 <b>2045</b> 0.0 0.4 0.0 0.0 0.0	0.0 8.1 0.0 0.0 0.7 0.0 2.6 11.4 <b>2050</b> 0.0 0.4 0.0 0.0 0.0 0.0
Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tran Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol	2005 0.6 3.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 4.8 nsport and Avia 2005 0.0 0.3 0.0 0.0	2010 0.6 4.5 0.0 0.0 0.0 0.0 0.0 0.7 5.9 tion, Region 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2015 0.6 5.2 0.0 0.0 0.0 0.1 0.0 1.0 6.9 EEUR (Units: I 2015 0.0 0.3 0.0 0.0 0.0	2020 0.7 5.8 0.0 0.0 0.0 0.0 1.2 7.8 EJ/y) 2020 0.0 0.0 0.0 0.0 0.0	0.7 6.3 0.0 0.0 0.2 0.0 1.5 8.7 <b>2025</b> 0.0 0.3 0.0 0.3	0.2 6.9 0.0 0.0 0.3 0.0 1.7 9.1 <b>2030</b> 0.0 0.3 0.0 0.0	0.1 7.3 0.0 0.0 0.3 0.0 2.0 9.7 <b>2035</b> 0.0 0.4 0.0 0.0	0.0 7.6 0.0 0.0 0.4 0.0 2.2 10.3 <b>2040</b> 0.0 0.4 0.0 0.0	0.0 7.9 0.0 0.0 0.0 0.0 2.4 10.9 <b>2045</b> 0.0 0.4 0.0 0.0	0.0 8.1 0.0 0.0 0.7 0.0 2.6 11.4 <b>2050</b> 0.0 0.4 0.0 0.0
Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Trans Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG	2005 0.6 3.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2010 0.6 4.5 0.0 0.0 0.0 0.0 0.0 0.0 0.7 5.9 100, Region 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2015 0.6 5.2 0.0 0.0 0.0 0.1 0.0 1.0 6.9 EEUR (Units: 2015 0.0 0.3 0.0 0.0 0.0 0.0 0.0 0.0	2020 0.7 5.8 0.0 0.0 0.0 0.0 1.2 7.8 EJ/y) 2020 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.7 6.3 0.0 0.0 0.0 0.0 1.5 8.7 <b>2025</b> 0.0 0.3 0.0 0.3 0.0 0.0 0.0	0.2 6.9 0.0 0.0 0.0 0.0 1.7 9.1 <b>2030</b> 0.0 0.3 0.0 0.0 0.0 0.0 0.0	0.1 7.3 0.0 0.0 0.0 2.0 9.7 <b>2035</b> 0.0 0.4 0.0 0.0 0.0 0.0 0.0	0.0 7.6 0.0 0.0 0.0 2.2 10.3 <b>2040</b> 0.0 0.4 0.0 0.0 0.0 0.0 0.0	0.0 7.9 0.0 0.0 0.0 2.4 10.9 2045 0.0 0.4 0.0 0.0 0.0 0.0 0.0	0.0 8.1 0.0 0.0 0.7 0.0 2.6 11.4 <b>2050</b> 0.0 0.0 0.4 0.0 0.0 0.0 0.0 0.0
Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tran Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel)	2005 0.6 3.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2010 0.6 4.5 0.0 0.0 0.0 0.0 0.0 0.0 0.7 5.9 tion, Region 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2015 0.6 5.2 0.0 0.0 0.1 0.0 0.0 1.0 6.9 EEUR (Units: 1 2015 0.0 0.3 0.0 0.3 0.0 0.0 0.0 0.0	2020 0.7 5.8 0.0 0.0 0.0 0.0 1.2 7.8 2020 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.7 6.3 0.0 0.0 0.0 1.5 8.7 <b>2025</b> 0.0 0.3 0.0 0.0 0.0 0.0 0.0 0.0	0.2 6.9 0.0 0.0 0.0 1.7 9.1 <b>2030</b> 0.0 0.3 0.0 0.0 0.0 0.0 0.0 0.0	0.1 7.3 0.0 0.0 0.0 2.0 9.7 <b>2035</b> 0.0 0.4 0.0 0.0 0.0 0.0 0.0	0.0 7.6 0.0 0.0 0.0 2.2 10.3 <b>2040</b> 0.0 0.4 0.0 0.0 0.0 0.0 0.0 0.0	0.0 7.9 0.0 0.0 0.0 2.4 10.9 2045 0.0 0.4 0.0 0.0 0.0 0.0 0.0	0.0 8.1 0.0 0.0 0.0 2.6 11.4 <b>2050</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tran Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel	2005 0.6 3.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2010 0.6 4.5 0.0 0.0 0.0 0.0 0.0 0.0 0.7 5.9 tion, Region 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	2015 0.6 5.2 0.0 0.0 0.0 0.1 0.0 0.0 1.0 6.9 EEUR (Units: 1 2015 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	2020 0.7 5.8 0.0 0.0 0.0 0.0 1.2 7.8 2020 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.7 6.3 0.0 0.0 0.2 0.0 1.5 8.7 <b>2025</b> 0.0 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.2 6.9 0.0 0.0 0.0 1.7 9.1 <b>2030</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.1 7.3 0.0 0.0 0.0 2.0 9.7 <b>2035</b> 0.0 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 7.6 0.0 0.0 0.4 0.0 2.2 10.3 <b>2040</b> 0.0 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 7.9 0.0 0.0 0.0 2.4 10.9 2045 0.0 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 8.1 0.0 0.0 0.7 0.0 2.6 11.4 <b>2050</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Trans Fuel in Other Surface Trans Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Bio-FT-Jetfuel Jetfuel	2005 0.6 3.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2010 0.6 4.5 0.0 0.0 0.0 0.0 0.0 0.0 0.7 5.9 tion, Region 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	2015 0.6 5.2 0.0 0.0 0.0 0.0 0.0 1.0 6.9 EEUR (Units: 1 2015 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	2020 0.7 5.8 0.0 0.0 0.0 0.0 1.2 7.8 2020 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.7 6.3 0.0 0.0 0.2 0.0 1.5 8.7 <b>2025</b> 0.0 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.2 6.9 0.0 0.0 0.0 1.7 9.1 <b>2030</b> 0.0 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.1 7.3 0.0 0.0 0.0 2.0 9.7 <b>2035</b> 0.0 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 7.6 0.0 0.0 0.4 0.0 2.2 10.3 <b>2040</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 7.9 0.0 0.0 0.0 2.4 10.9 <b>2045</b> 0.0 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 8.1 0.0 0.0 0.7 0.0 2.6 11.4 <b>2050</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tran Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel	2005 0.6 3.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2010 0.6 4.5 0.0 0.0 0.0 0.0 0.0 0.0 0.7 5.9 tion, Region 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	2015 0.6 5.2 0.0 0.0 0.0 0.1 0.0 0.0 1.0 6.9 EEUR (Units: 1 2015 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	2020 0.7 5.8 0.0 0.0 0.0 0.0 1.2 7.8 2020 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.7 6.3 0.0 0.0 0.2 0.0 1.5 8.7 <b>2025</b> 0.0 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.2 6.9 0.0 0.0 0.0 1.7 9.1 <b>2030</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.1 7.3 0.0 0.0 0.0 2.0 9.7 <b>2035</b> 0.0 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 7.6 0.0 0.0 0.4 0.0 2.2 10.3 <b>2040</b> 0.0 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 7.9 0.0 0.0 0.0 2.4 10.9 2045 0.0 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 8.1 0.0 0.0 0.7 0.0 2.6 11.4 <b>2050</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tran Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total	2005 0.6 3.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2010 0.6 4.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2015 0.6 5.2 0.0 0.0 0.0 0.0 0.0 1.0 6.9 EEUR (Units: 1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	2020 0.7 5.8 0.0 0.0 0.0 0.0 1.2 7.8 2020 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.7 6.3 0.0 0.0 0.2 0.0 1.5 8.7 <b>2025</b> 0.0 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.2 6.9 0.0 0.0 0.0 1.7 9.1 <b>2030</b> 0.0 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.1 7.3 0.0 0.0 0.0 2.0 9.7 <b>2035</b> 0.0 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 7.6 0.0 0.0 0.4 0.0 2.2 10.3 <b>2040</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 7.9 0.0 0.0 0.0 2.4 10.9 <b>2045</b> 0.0 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 8.1 0.0 0.0 0.7 0.0 2.6 11.4 <b>2050</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Trans Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Bio-FT-Jetfuel Jetfuel	2005 0.6 3.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2010 0.6 4.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2015 0.6 5.2 0.0 0.0 0.0 0.0 0.0 1.0 6.9 EEUR (Units: 1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	2020 0.7 5.8 0.0 0.0 0.0 0.0 1.2 7.8 2020 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.7 6.3 0.0 0.0 0.2 0.0 1.5 8.7 <b>2025</b> 0.0 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.2 6.9 0.0 0.0 0.0 1.7 9.1 <b>2030</b> 0.0 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.1 7.3 0.0 0.0 0.0 2.0 9.7 <b>2035</b> 0.0 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 7.6 0.0 0.0 0.4 0.0 2.2 10.3 <b>2040</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 7.9 0.0 0.0 0.0 2.4 10.9 <b>2045</b> 0.0 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 8.1 0.0 0.0 0.7 0.0 2.6 11.4 <b>2050</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
Fuel         Other (Coal)         Diesel         Bio-Methanol         Bio-Ethanol         Bio-Ethanol         Bio-FT-Jetfuel         Jetfuel         Total         Fuel in Other Surface Transfered         Fuel in Other Surface Transfered         Bio-FT-Jetfuel         Jetfuel         Total         Sio-Rethanol         Bio-Ethanol         Bio-Ethanol         Bio-Ethanol         Bio-Ethanol         Bio-FT-Jetfuel         Jetfuel(Diesel)         Electricity         Hydrogen         Bio-FT-Jetfuel         Jetfuel         Total	2005 0.6 3.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2010 0.6 4.5 0.0 0.0 0.0 0.0 0.0 0.7 5.9 tion, Region 1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	2015 0.6 5.2 0.0 0.0 0.0 0.0 0.0 1.0 0.0 1.0 0.0 0	2020 0.7 5.8 0.0 0.0 0.0 0.0 1.2 7.8 2020 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.7 6.3 0.0 0.0 0.2 0.0 1.5 8.7 <b>2025</b> 0.0 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.2 6.9 0.0 0.0 0.0 1.7 9.1 <b>2030</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.1 7.3 0.0 0.0 0.0 2.0 9.7 <b>2035</b> 0.0 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 7.6 0.0 0.0 0.0 2.2 10.3 <b>2040</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 7.9 0.0 0.0 0.0 2.4 10.9 <b>2045</b> 0.0 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 8.1 0.0 0.0 0.0 2.6 11.4 <b>2050</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Bio-Ft-Jetfuel Jetfuel Total Fuel in Other Surface Tran Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total	2005 0.6 3.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 4.8 nsport and Avia 2005 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2010 0.6 4.5 0.0 0.0 0.0 0.0 0.0 0.0 0.7 5.9 tion, Region 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2015 0.6 5.2 0.0 0.0 0.0 0.0 0.0 1.0 0.0 1.0 0.0 0	2020 0.7 5.8 0.0 0.0 0.0 0.0 1.2 7.8 2020 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.7 6.3 0.0 0.0 0.0 1.5 8.7 <b>2025</b> 0.0 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.2 6.9 0.0 0.0 1.7 9.1 <b>2030</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.1 7.3 0.0 0.0 0.0 2.0 9.7 <b>2035</b> 0.0 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 7.6 0.0 0.0 0.0 2.2 10.3 <b>2040</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 7.9 0.0 0.0 0.0 2.4 10.9 <b>2045</b> 0.0 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 8.1 0.0 0.0 0.0 2.6 11.4 <b>2050</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tran Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tran Fuel Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tran Fuel in Other Surface Tran Fuel in Other Surface Tran Fuel Other (Coal) Diesel Bio-Methanol	2005 0.6 3.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2010 0.6 4.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2015 0.6 5.2 0.0 0.0 0.0 0.0 0.0 1.0 6.9 EEUR (Units: I 2015 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	2020 0.7 5.8 0.0 0.0 0.0 0.0 1.2 7.8 2020 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.7 6.3 0.0 0.0 0.0 1.5 8.7 <b>2025</b> 0.0 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.2 6.9 0.0 0.0 0.0 1.7 9.1 2030 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.1 7.3 0.0 0.0 0.0 2.0 9.7 2035 0.0 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 7.6 0.0 0.0 0.0 2.2 10.3 2040 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 7.9 0.0 0.0 0.0 2.4 10.9 2045 0.0 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 8.1 0.0 0.0 0.0 2.6 11.4 2050 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Ft-Jetfuel Jetfuel Total Fuel in Other Surface Tran Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-FT-Jetfuel Jetfuel Total Fuel CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tran Fuel Other (Coal) Diesel Bio-FT-Jetfuel Jetfuel Total	2005 0.6 3.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2010 0.6 4.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2015 0.6 5.2 0.0 0.0 0.0 0.0 0.0 1.0 6.9 EEUR (Units: I 2015 EEUR (Units: CI 2015 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	2020 0.7 5.8 0.0 0.0 0.0 0.0 1.2 7.8 2020 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.7 6.3 0.0 0.0 0.0 1.5 8.7 <b>2025</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.2 6.9 0.0 0.0 0.0 1.7 9.1 2030 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.1 7.3 0.0 0.0 0.0 2.0 9.7 2035 0.0 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 7.6 0.0 0.0 0.0 2.2 10.3 2040 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 7.9 0.0 0.0 0.0 2.4 10.9 2045 0.0 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 8.1 0.0 0.0 0.0 2.6 11.4 2050 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Fuel         Other (Coal)         Diesel         Bio-Methanol         Bio-Ethanol         Bio-Ethanol         Bio-Ethanol         Bio-Ethanol         Bio-Ft-Jetfuel         Jetfuel         Total         Fuel in Other Surface Transform         Fuel         Other (Coal)         Diesel         Bio-Ethanol         Bio-Ethanol         Bio-Syngas         CNG         Biofuel(Diesel)         Electricity         Hydrogen         Bio-FT-Jetfuel         Jetfuel         Total         Fuel in Other Surface Transform         Fuel in Other Surface Transform         Fuel in Other Surface Transform         Fuel         Other (Coal)         Diesel         Bio-Methanol	2005 0.6 3.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2010 0.6 4.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2015 0.6 5.2 0.0 0.0 0.0 0.0 0.0 1.0 6.9 EEUR (Units: I 2015 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	2020 0.7 5.8 0.0 0.0 0.0 0.0 1.2 7.8 2020 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.7 6.3 0.0 0.0 0.0 1.5 8.7 <b>2025</b> 0.0 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.2 6.9 0.0 0.0 0.0 1.7 9.1 2030 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.1 7.3 0.0 0.0 0.0 2.0 9.7 2035 0.0 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 7.6 0.0 0.0 0.0 2.2 10.3 2040 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 7.9 0.0 0.0 0.0 2.4 10.9 2045 0.0 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 8.1 0.0 0.0 0.0 2.6 11.4 2050 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Biofuel(Diesel)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.2
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-FT-Jetfuel Jetfuel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.1	0.1 1.8	0.1 1.9	0.1 2.1	0.2 2.3	0.2 2.4	0.2 2.6	0.2 2.8	0.3 3.0	0.3 3.3
TOLAI	1.5	1.8	1.9	2.1	2.3	2.4	2.0	2.8	3.0	5.5
Fuel in Other Surface Tra	ansport and Avia	tion, Region	INDIA (Units:	EJ/y)						
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Other (Coal)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.3
Diesel	0.9	1.1	0.9	1.0	1.1	1.2	1.3	1.4	1.6	1.9
Bio-Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Ethanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Syngas CNG	0.0 0.0	0.0 0.1	0.0	0.0 0.2	0.0 0.2	0.0 0.3	0.0 0.4	0.0 0.3	0.0 0.2	0.0 0.2
Biofuel(Diesel)	0.0	0.1	0.1	0.2	0.2	0.3	0.4	0.3	0.2	0.2
Electricity	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-FT-Jetfuel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Jetfuel	0.1	0.2	0.3	0.3	0.4	0.5	0.6	0.8	1.0	1.1
Total	1.1	1.4	1.6	1.8	2.1	2.4	2.8	3.2	3.6	4.0
Fuel in Other Surface Tra		-			2025	2020	2025	2040	2045	2050
Fuel Other (Coal)	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Other (Coal) Diesel	0.0 2.9	0.0 3.2	0.0 3.5	0.0 3.7	0.0 4.0	0.0 4.4	0.0 4.7	0.0 4.9	0.0 5.1	0.0 5.2
Bio-Methanol	0.0	0.0	0.0	0.0	4.0	0.0	4.7	0.0	0.0	0.0
Bio-Ethanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Syngas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CNG	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biofuel(Diesel)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.4	0.5
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-FT-Jetfuel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Jetfuel	0.2	0.2	0.3	0.4	0.4	0.5	0.6	0.6	0.7	0.8
Total	3.3	3.6	3.9	4.2	4.6	5.0	5.4	5.8	6.2	6.6
Fuel in Other Surface Tra	ansport and Avia	tion, Region	MFA (Units: F	:1/v)						
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Fuel Other (Coal)	<b>2005</b> 0.0	<b>2010</b> 0.0	<b>2015</b> 0.0	<b>2020</b> 0.0	<b>2025</b> 0.0	<b>2030</b> 0.0	<b>2035</b> 0.0	<b>2040</b> 0.0	<b>2045</b> 0.0	<b>2050</b> 0.0
Other (Coal) Gasoline Diesel	0.0 0.0 3.5	0.0 0.0 3.8	0.0 0.0 3.9	0.0 0.0 4.0	0.0 0.0 4.3	0.0 0.0 4.6	0.0 0.0 5.1	0.0 0.0 5.6	0.0 0.0 6.0	0.0 0.0 6.2
Other (Coal) Gasoline Diesel Bio-Methanol	0.0 0.0 3.5 0.0	0.0 0.0 3.8 0.0	0.0 0.0 3.9 0.0	0.0 0.0 4.0 0.0	0.0 0.0 4.3 0.0	0.0 0.0 4.6 0.0	0.0 0.0 5.1 0.0	0.0 0.0 5.6 0.0	0.0 0.0 6.0 0.0	0.0 0.0 6.2 0.0
Other (Coal) Gasoline Diesel Bio-Methanol Bio-Ethanol	0.0 0.0 3.5 0.0 0.0	0.0 0.0 3.8 0.0 0.0	0.0 0.0 3.9 0.0 0.0	0.0 0.0 4.0 0.0 0.0	0.0 0.0 4.3 0.0 0.0	0.0 0.0 4.6 0.0 0.0	0.0 0.0 5.1 0.0 0.0	0.0 0.0 5.6 0.0 0.0	0.0 0.0 6.0 0.0 0.0	0.0 0.0 6.2 0.0 0.0
Other (Coal) Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas	0.0 0.0 3.5 0.0 0.0 0.0	0.0 0.0 3.8 0.0 0.0 0.0	0.0 0.0 3.9 0.0 0.0 0.0	0.0 0.0 4.0 0.0 0.0 0.1	0.0 0.0 4.3 0.0 0.0 0.0	0.0 0.0 4.6 0.0 0.0 0.0	0.0 0.0 5.1 0.0 0.0 0.0	0.0 0.0 5.6 0.0 0.0 0.0	0.0 0.0 6.0 0.0 0.0 0.0 0.0	0.0 0.0 6.2 0.0 0.0 0.0
Other (Coal) Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG	0.0 0.0 3.5 0.0 0.0 0.0 0.0	0.0 0.0 3.8 0.0 0.0 0.0 0.0	0.0 0.0 3.9 0.0 0.0 0.0 0.0	0.0 0.0 4.0 0.0 0.0 0.1 0.0	0.0 0.0 4.3 0.0 0.0 0.0 0.0 0.0	0.0 0.0 4.6 0.0 0.0 0.0 0.0 0.0	0.0 0.0 5.1 0.0 0.0 0.0 0.0	0.0 0.0 5.6 0.0 0.0 0.0 0.0	0.0 0.0 6.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 6.2 0.0 0.0 0.0 0.0
Other (Coal) Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel)	0.0 0.0 3.5 0.0 0.0 0.0 0.0 0.0	0.0 0.0 3.8 0.0 0.0 0.0 0.0 0.0	0.0 0.0 3.9 0.0 0.0 0.0 0.0 0.0	0.0 0.0 4.0 0.0 0.0 0.1 0.0 0.1	0.0 0.0 4.3 0.0 0.0 0.0 0.0 0.0 0.1	0.0 0.0 4.6 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 5.1 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 5.6 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 6.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 6.2 0.0 0.0 0.0 0.0 0.0 0.0
Other (Coal) Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity	0.0 0.0 3.5 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 3.8 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 4.0 0.0 0.0 0.1 0.0 0.1 0.0	0.0 0.0 4.3 0.0 0.0 0.0 0.0 0.1 0.0	0.0 0.0 4.6 0.0 0.0 0.0 0.0 0.0 0.0 0.1	0.0 0.0 5.1 0.0 0.0 0.0 0.0 0.0 0.0 0.1	0.0 0.0 5.6 0.0 0.0 0.0 0.0 0.0 0.0 0.2	0.0 0.0 6.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 6.2 0.0 0.0 0.0 0.0 0.0 0.0 0.5
Other (Coal) Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel)	0.0 0.0 3.5 0.0 0.0 0.0 0.0 0.0	0.0 0.0 3.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 3.9 0.0 0.0 0.0 0.0 0.0	0.0 0.0 4.0 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.0	0.0 0.0 4.3 0.0 0.0 0.0 0.0 0.1 0.0 0.0 0.0	0.0 0.0 4.6 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 5.1 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.0	0.0 0.0 5.6 0.0 0.0 0.0 0.0 0.0 0.0 0.2 0.0	0.0 0.0 6.0 0.0 0.0 0.0 0.0 0.0 0.0 0.3 0.0	0.0 0.0 6.2 0.0 0.0 0.0 0.0 0.0 0.0 0.5 0.0
Other (Coal) Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen	0.0 0.0 3.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 3.8 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 4.0 0.0 0.0 0.1 0.0 0.1 0.0	0.0 0.0 4.3 0.0 0.0 0.0 0.0 0.1 0.0	0.0 0.0 4.6 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.0	0.0 0.0 5.1 0.0 0.0 0.0 0.0 0.0 0.0 0.1	0.0 0.0 5.6 0.0 0.0 0.0 0.0 0.0 0.0 0.2	0.0 0.0 6.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 6.2 0.0 0.0 0.0 0.0 0.0 0.0 0.5 0.0 0.0
Other (Coal) Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel	0.0 0.0 3.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 3.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 4.0 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.0	0.0 0.0 4.3 0.0 0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0	0.0 0.0 4.6 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.0 0.0	0.0 0.0 5.1 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.0 0.0	0.0 0.0 5.6 0.0 0.0 0.0 0.0 0.0 0.0 0.2 0.0 0.0	0.0 0.0 6.0 0.0 0.0 0.0 0.0 0.0 0.0 0.3 0.0 0.0	0.0 0.0 6.2 0.0 0.0 0.0 0.0 0.0 0.0 0.5 0.0
Other (Coal) Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total	0.0 0.0 3.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 3.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 4.0 0.0 0.1 0.0 0.1 0.0 0.0 0.0 0.0 0.7 4.9	0.0 0.0 4.3 0.0 0.0 0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0	0.0 0.0 4.6 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.0 0.0 0.0	0.0 0.0 5.1 0.0 0.0 0.0 0.0 0.0 0.1 0.0 0.0 1.1	0.0 0.0 5.6 0.0 0.0 0.0 0.0 0.0 0.2 0.0 0.0 1.3	0.0 0.0 6.0 0.0 0.0 0.0 0.0 0.0 0.0 0.3 0.0 0.0 1.5	0.0 0.0 6.2 0.0 0.0 0.0 0.0 0.0 0.5 0.0 0.0 1.8
Other (Coal) Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total	0.0 0.0 3.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 3.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 4.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.7 4.9 ***********************************	0.0 0.0 4.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 4.6 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.0 0.0 0.0	0.0 0.0 5.1 0.0 0.0 0.0 0.0 0.0 0.1 0.0 0.0 0.1 0.0 0.0	0.0 0.0 5.6 0.0 0.0 0.0 0.0 0.0 0.2 0.0 0.0 1.3 7.0	0.0 0.0 6.0 0.0 0.0 0.0 0.0 0.0 0.0 0.3 0.0 0.0 1.5 7.8	0.0 0.0 6.2 0.0 0.0 0.0 0.0 0.0 0.5 0.0 0.0 1.8 8.5
Other (Coal) Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tra Fuel	0.0 0.0 3.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 3.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 4.0 0.0 0.1 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 4.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 4.6 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.0 0.0 0.0	0.0 0.0 5.1 0.0 0.0 0.0 0.0 0.0 0.1 0.0 0.0 1.1 6.3	0.0 0.0 5.6 0.0 0.0 0.0 0.0 0.0 0.2 0.0 0.0 1.3 7.0	0.0 0.0 6.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 6.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.8 8.5 2050
Other (Coal) Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tra Fuel Other (Coal)	0.0 0.0 3.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 3.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0	0.0 0.0 4.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 4.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 5.1 0.0 0.0 0.0 0.0 0.0 0.1 0.0 0.0 1.1 6.3 2035 0.0	0.0 0.0 5.6 0.0 0.0 0.0 0.0 0.0 0.0 1.3 7.0 <b>2040</b> 0.0	0.0 0.0 6.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 6.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.8 8.5 <b>2050</b> 0.0
Other (Coal) Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tra Fuel Other (Coal) Diesel	0.0 0.0 3.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 3.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.5 4.4 tion, Region 2010 0.0 1.3	0.0 0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 4.0 0.0 0.1 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 4.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 4.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 5.1 0.0 0.0 0.0 0.0 0.0 0.1 0.0 0.0 1.1 6.3 <b>2035</b> 0.0 1.8	0.0 0.0 5.6 0.0 0.0 0.0 0.0 0.0 0.0 1.3 7.0 <b>2040</b> 0.0 1.9	0.0 0.0 6.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 6.2 0.0 0.0 0.0 0.0 0.0 0.0 1.8 8.5 <b>2050</b> 0.0 2.0
Other (Coal) Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tra Fuel Other (Coal)	0.0 0.0 3.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 3.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0	0.0 0.0 4.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 4.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 5.1 0.0 0.0 0.0 0.0 0.0 0.1 0.0 0.0 1.1 6.3 2035 0.0	0.0 0.0 5.6 0.0 0.0 0.0 0.0 0.0 0.0 1.3 7.0 <b>2040</b> 0.0	0.0 0.0 6.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 6.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.8 8.5 <b>2050</b> 0.0
Other (Coal) Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tra Fuel Other (Coal) Diesel Bio-Methanol	0.0 0.0 3.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 3.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.5 4.4 tion, Region 2010 0.0 1.3 0.0	0.0 0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 4.0 0.0 0.1 0.0 0.1 0.0 0.0 0.0 0.0 0.0 4.9 <b>2020</b> 0.0 0.1 4.4 0.0	0.0 0.0 4.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 4.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 5.7 <b>2030</b> 0.0 1.6 0.0	0.0           0.0           0.0           5.1           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.1           0.0           0.1           0.0           1.1           6.3           2035           0.0           1.8           0.0	0.0 0.0 5.6 0.0 0.0 0.0 0.0 0.0 0.0 1.3 7.0 <b>2040</b> 0.0 1.9 0.0	0.0 0.0 6.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 6.2 0.0 0.0 0.0 0.0 0.0 0.0 1.8 8.5 <b>2050</b> 0.0 2.0 0.0
Other (Coal) Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tra Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol	0.0 0.0 3.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 3.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.5 4.4 tion, Region 2010 0.0 1.3 0.0 0.0	0.0 0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 4.0 0.0 0.1 0.0 0.1 0.0 0.0 0.0 0.0 0.0 4.9 <b>2020</b> 0.0 1.4 0.0 0.0	0.0 0.0 4.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 4.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 5.7 <b>2030</b> 0.0 1.6 0.0 0.0	0.0           0.0           0.0           5.1           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.1           0.0           0.1           0.0           1.1           6.3           2035           0.0           1.8           0.0           0.0	0.0 0.0 5.6 0.0 0.0 0.0 0.0 0.0 0.0 1.3 7.0 <b>2040</b> 0.0 1.9 0.0 0.0	0.0 0.0 6.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 6.2 0.0 0.0 0.0 0.0 0.0 0.0 1.8 8.5 <b>2050</b> 0.0 0.0 2.0 0.0 0.0
Other (Coal) Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tra Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Biofuel(Diesel)	0.0 0.0 3.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 3.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.5 4.4 tion, Region 2010 0.0 1.3 0.0 0.0 0.0	0.0 0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 4.0 0.0 0.1 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 4.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 4.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 5.7 <b>2030</b> 0.0 1.6 0.0 0.0 0.0	0.0           0.0           0.0           5.1           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.1           0.0           0.1           0.0           1.1           6.3           2035           0.0           1.8           0.0           0.0           0.0	0.0 0.0 5.6 0.0 0.0 0.0 0.0 0.0 1.3 7.0 <b>2040</b> 0.0 1.9 0.0 0.0 0.0 0.0	0.0 0.0 6.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 6.2 0.0 0.0 0.0 0.0 0.0 0.0 1.8 8.5 <b>2050</b> 0.0 0.0 2.0 0.0 0.0 0.0 0.0
Other (Coal) Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tra Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel	0.0 0.0 3.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 3.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.5 4.4 tion, Region 2010 0.0 1.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.6 4.6 <b>MEXICO (Unit</b> <b>2015</b> 0.0 1.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 4.0 0.0 0.1 0.0 0.1 0.0 0.0 0.0 0.0 0.0 55: EJ/y) 2020 0.0 1.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 4.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 5.2 <b>2025</b> 0.0 1.5 0.0 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 4.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 5.7 <b>2030</b> 0.0 1.6 0.0 0.0 0.0 0.0 0.0	0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.1           0.0           0.1           0.0           1.1           6.3           2035           0.0           1.8           0.0           0.1           0.0           0.1           0.0           0.1           0.0	0.0 0.0 5.6 0.0 0.0 0.0 0.0 0.0 1.3 7.0 2040 0.0 1.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 6.2 0.0 0.0 0.0 0.0 0.0 1.8 8.5 <b>2050</b> 0.0 2.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Other (Coal) Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tra Fuel Other (Coal) Diesel Bio-Methanol Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel	0.0 0.0 3.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 3.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 5 4.4 tion, Region 2010 0.0 1.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 4.6 <b>MEXICO (Unit</b> <b>2015</b> 0.0 1.3 0.0 1.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 4.0 0.0 0.1 0.0 0.1 0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 1.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 4.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 5.2 <b>2025</b> 0.0 1.5 0.0 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 4.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 5.7 <b>2030</b> 0.0 1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.1           0.0           0.1           0.0           1.1           6.3           2035           0.0           1.8           0.0           0.0           0.1           0.0           0.1           0.0           0.3	0.0 0.0 5.6 0.0 0.0 0.0 0.0 0.0 1.3 7.0 2040 0.0 1.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 6.2 0.0 0.0 0.0 0.0 0.0 1.8 8.5 <b>2050</b> 0.0 2.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Other (Coal) Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tra Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel	0.0 0.0 3.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 3.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.5 4.4 tion, Region 2010 0.0 1.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.6 4.6 <b>MEXICO (Unit</b> <b>2015</b> 0.0 1.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 4.0 0.0 0.1 0.0 0.1 0.0 0.0 0.0 0.0 0.0 55: EJ/y) 2020 0.0 1.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 4.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 5.2 <b>2025</b> 0.0 1.5 0.0 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 4.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 5.7 <b>2030</b> 0.0 1.6 0.0 0.0 0.0 0.0 0.0	0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.1           0.0           0.1           0.0           1.1           6.3           2035           0.0           1.8           0.0           0.1           0.0           0.1           0.0           0.1           0.0	0.0 0.0 5.6 0.0 0.0 0.0 0.0 0.0 1.3 7.0 2040 0.0 1.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 6.2 0.0 0.0 0.0 0.0 0.0 1.8 8.5 <b>2050</b> 0.0 2.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Other (Coal) Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tra Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total	ansport and Avia 2005 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 3.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.3 0.0 0.0 1.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 4.0 0.0 0.1 0.0 0.1 0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 4.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 5.2 <b>2025</b> 0.0 1.5 0.0 1.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 4.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 5.7 <b>2030</b> 0.0 1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.1           0.0           0.1           0.0           1.1           6.3           2035           0.0           1.8           0.0           0.0           0.1           0.0           0.1           0.0           0.3	0.0 0.0 5.6 0.0 0.0 0.0 0.0 0.0 1.3 7.0 2040 0.0 1.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 6.2 0.0 0.0 0.0 0.0 0.0 1.8 8.5 <b>2050</b> 0.0 2.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Other (Coal) Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tra Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tra	0.0 0.0 3.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 3.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 4.0 0.0 0.1 0.0 0.1 0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 0.0 1.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0           0.0           0.0           4.3           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           1.5           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.1.8	0.0 0.0 4.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0           0.0           0.0           0.0           5.1           0.0           0.0           0.0           0.0           0.0           0.0           0.1           0.0           0.1           0.0           1.1           6.3           2035           0.0           1.8           0.0           0.1           0.0           0.1           0.0           0.0           0.0           0.3           2.2	0.0 0.0 5.6 0.0 0.0 0.0 0.0 0.0 1.3 7.0 <b>2040</b> 0.0 1.9 0.0 0.0 0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.4 2.3	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 6.2 0.0 0.0 0.0 0.0 0.0 1.8 8.5 <b>2050</b> 0.0 2.0 0.0 0.0 0.0 0.0 0.0 0.2 0.0 0.0
Other (Coal) Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tra Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tra Fuel	ansport and Avia 2005 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 3.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.3 0.0 0.0 1.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 4.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 1.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2025 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           1.6           0.0           0.0           0.0           0.1           0.0           0.1           0.0           0.3           1.9           2030	2035 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.1 6.3 2035 0.0 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.2 2035	0.0 0.0 5.6 0.0 0.0 0.0 0.0 0.0 1.3 7.0 2040 0.0 1.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2045 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.0 0.0 6.2 0.0 0.0 0.0 0.0 1.8 8.5 <b>2050</b> 0.0 2.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Other (Coal) Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tra Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tra	0.0 0.0 3.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 3.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 4.0 0.0 0.1 0.0 0.1 0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 0.0 1.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0           0.0           0.0           4.3           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           1.5           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.1.8	0.0 0.0 4.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0           0.0           0.0           0.0           5.1           0.0           0.0           0.0           0.0           0.0           0.0           0.1           0.0           0.1           0.0           1.1           6.3           2035           0.0           1.8           0.0           0.1           0.0           0.1           0.0           0.0           0.0           0.3           2.2	0.0 0.0 5.6 0.0 0.0 0.0 0.0 0.0 1.3 7.0 <b>2040</b> 0.0 1.9 0.0 0.0 0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.4 2.3	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 6.2 0.0 0.0 0.0 0.0 0.0 1.8 8.5 <b>2050</b> 0.0 2.0 0.0 0.0 0.0 0.0 0.0 0.2 0.0 0.0
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Other (Coal) Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tra Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tra Fuel Gio-Ethanol Bio-FT-Jetfuel Jetfuel Total	ansport and Avia 2005 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 3.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.5 4.4 tion, Region 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 4.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 1.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0           0.0           0.0           4.3           0.0	0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           1.6           0.0           0.1           0.0           0.1           0.0           0.1           0.0           0.3           1.9           2030           0.0           0.0	0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.1           0.0           0.1           0.0           1.1           6.3           2035           0.0           0.1           0.0           0.1           0.0           0.1           0.0           0.3           2.2           2035           0.0           0.0	0.0 0.0 5.6 0.0 0.0 0.0 0.0 0.0 1.3 7.0 0.0 1.3 7.0 <b>2040</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.8 8.5 <b>2050</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
Other (Coal) Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tra Fuel Other (Coal) Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Biofuel(Diesel) Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total Fuel in Other Surface Tra Fuel Gother (Coal) Diesel Bio-FT-Jetfuel Jetfuel Total	ansport and Avia 2005 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 3.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 3.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.0 4.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.4 0.0 0.0 0.0 1.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0           0.0           0.0           4.3           0.0	0.0 0.0 4.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.1           0.0           1.1           6.3           2035           0.0           0.1           0.0           0.1           0.0           0.1           0.0           0.3           2.2           2035           0.0           0.0           2.2	0.0 0.0 5.6 0.0 0.0 0.0 0.0 0.0 1.3 7.0 0.0 1.3 7.0 <b>2040</b> 0.0 0.0 0.0 0.0 0.0 0.1 0.0 0.0 0.0 0.4 2.3	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.8 8.5 <b>2050</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0

CNG	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Biofuel(Diesel)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.2	0.0	0.2
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0
Bio-FT-Jetfuel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Jetfuel	0.9	0.8	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.
Total	3.9	3.6	3.5	3.4	3.4	3.4	3.4	3.5	3.5	3.
Total	5.5	5.0	5.5	5.4	5.4	5.4	5.4	5.5	5.5	J.
Fuel in Other Surface	Fransport and Avia	tion, Region	RUSSIA (Units	:: EJ/y)						
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	205
Other (Coal)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Diesel	0.6	0.6	0.9	0.8	0.8	0.8	0.9	0.9	1.0	1.
Bio-Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Bio-Ethanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Bio-Syngas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
CNG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Biofuel(Diesel)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Electricity	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Bio-FT-Jetfuel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Jetfuel	0.4	0.5	0.6	0.6	0.7	0.8	1.0	1.1	1.3	1.
Total	1.1	1.2	1.6	1.6	1.6	1.7	1.9	2.1	2.4	2.
Fuel in Other Surface										
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	205
Other (Coal)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Diesel	6.9	6.3	6.3	6.2	6.1	6.1	6.1	5.9	6.0	6.
Bio-Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Bio-Ethanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Bio-Syngas	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.
CNG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Biofuel(Diesel)	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.
Electricity	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.5	0.5	0.
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Bio-FT-Jetfuel	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.
Jetfuel	3.5	3.4	3.4	3.5	3.7	3.8	4.0	4.2	4.3	4.
Total	10.4	9.7	9.9	10.7	10.2	10.4	10.6	10.8	11.1	11.
Fuel in Other Confere		tion Design		F14-3						
Fuel in Other Surface <sup>-</sup> Fuel	2005	2010 2010	2015	EJ/Y) 2020	2025	2030	2035	2040	2045	205
Other (Coal)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diesel	7.7	6.8	6.5	6.2	6.1	6.4	6.5	6.7	7.0	7.3
Bio-Methanol	0.0	0.0	0.0	0.2	0.0	0.4	0.0	0.0	0.0	0.0
Bio-Ethanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Bio-Syngas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
CNG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0. 0.
Biofuel(Diesel)	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.
DIVINEINDIESEN	0.1	0.3	0.5	0.3	0.4 0.5	0.2	0.2	0.1 0.6	0.0	
		0.1								0.
Electricity	0.0		0.0	0.0	0.0	0.0 0.1	0.0 0.1	0.0 0.0	0.0 0.0	0. 0.
Electricity Hydrogen	0.0		0.2	0.2						
Electricity Hydrogen Bio-FT-Jetfuel	0.0	0.1	0.2	0.3	0.2					
Electricity Hydrogen Bio-FT-Jetfuel Jetfuel Total			0.2 2.3 9.7	0.3 2.4 9.8	0.2 2.6 9.8	2.8 10.0	2.9 10.3	3.0 10.6	3.1 10.8	3.: 11.(

Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Other (Coal)	0.6	0.8	1.0	1.1	1.3	0.6	0.2	0.1	0.0	0.0
Jetfuels	10.2	10.5	11.6	12.8	14.3	15.9	17.7	19.6	21.7	23.7
Bio-Jetfuels	0.0	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.2
Gasoline	34.9	38.4	38.8	38.2	35.2	30.4	25.7	21.4	17.5	14.4
Diesel	42.2	41.9	43.5	44.8	47.3	50.5	53.6	56.3	59.1	61.3
Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Methanol	0.0	0.1	0.4	0.8	1.1	1.4	1.5	1.6	1.6	1.3
Bio-Ethanol	0.6	1.5	2.4	2.8	3.5	3.9	4.4	5.1	6.0	7.2
Bio-Syngas	0.0	0.0	0.5	1.6	1.1	0.8	0.5	0.4	0.2	0.1
CNG	0.4	0.7	0.7	0.9	1.5	2.3	3.2	3.6	3.6	3.4
Biofuel(Diesel)	0.1	0.5	1.1	1.7	1.4	0.9	0.9	0.8	0.8	1.0
Electricity	0.3	0.4	0.8	1.4	2.2	3.1	4.2	5.8	7.6	9.4
Hydrogen	0.0	0.0	0.1	0.2	0.4	0.6	0.8	1.0	1.2	1.5
Total	89.4	95.0	101.1	106.7	109.5	110.5	112.9	115.7	119.4	123.6

Fuels in All Transport, Region AFRICA (Units: EJ/y)

Fuel	2005		2010	2015	2020	2025	2030	2035	2040	2045	2050
Other (Coal)		0.0	0.0	0.1	0.1	0.1	0.2	0.0	0.0	0.0	0.0
Jetfuels		0.3	0.4	0.5	0.6	0.7	0.9	1.1	1.5	2.0	2.5
Bio-Jetfuels		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline		0.9	1.2	1.4	1.7	1.9	1.9	1.8	1.6	1.3	1.2
Diesel Bio-Methanol		1.7 0.0	1.7 0.0	1.7 0.0	1.8 0.0	2.0 0.1	2.3 0.1	2.7 0.1	3.2 0.1	3.8 0.1	4.3 0.1
Bio-Ethanol		0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
Bio-Syngas		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
CNG		0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.2
Biofuel(Diesel)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity		0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.3	0.5
Hydrogen		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total		3.0	3.4	3.9	4.5	5.1	5.7	6.4	7.1	8.0	9.0
Fuels in All Transport,	Region ASIA	Units	FJ/v)								
Fuel	2005		2010	2015	2020	2025	2030	2035	2040	2045	2050
Other (Coal)		0.0	0.0	0.1	0.1	0.1	0.2	0.0	0.0	0.0	0.0
Jetfuels		0.7	0.9	1.1	1.4	1.7	2.0	2.2	2.5	2.8	3.0
Bio-Jetfuels		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline		1.5	1.9	2.1	2.4	2.5	2.5	2.6	2.6	2.4	2.1
Diesel Bie Mathemal		4.2	4.1	4.5	4.9	5.4	5.9	6.4	6.8	7.2	7.7
Bio-Methanol Bio-Ethanol		0.0	0.0	0.0	0.1	0.1	0.2 0.2	0.3 0.2	0.3 0.2	0.2	0.1
Bio-Ethanol Bio-Syngas		0.0 0.0	0.0 0.0	0.0 0.0	0.1 0.1	0.1 0.0	0.2	0.2	0.2	0.3 0.0	0.5
CNG		0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.5	0.0
Biofuel(Diesel)		0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Electricity		0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.6	0.8
Hydrogen		0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
Total		6.4	7.0	8.1	9.3	10.4	11.5	12.4	13.3	14.1	14.8
Fuels in All Transport,	Region BRA7	l (llni	te FI/v)								
Fuel	2005		2010	2015	2020	2025	2030	2035	2040	2045	2050
Other (Coal)		0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Jetfuels		0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.6
Bio-Jetfuels		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline		0.9	0.9	1.2	1.2	1.2	1.2	1.1	0.8	0.5	0.3
Diesel		1.0	1.1	1.1	1.2	1.3	1.4	1.6	1.8	1.9	1.9
Bio-Methanol		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Bio-Ethanol		0.2	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.6
Bio-Syngas CNG		0.0 0.1	0.0 0.1	0.0 0.1	0.0 0.1	0.0 0.2	0.0 0.2	0.0 0.3	0.0 0.2	0.0 0.2	0.0
Biofuel(Diesel)		0.1	0.1	0.1	0.1	0.2	0.2	0.5	0.2	0.2	0.2
Electricity		0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3
Hydrogen		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total		2.4	2.8	3.1	3.3	3.5	3.6	3.8	3.9	4.0	4.1
Fuels in All Transport,			······································								
Fuel	2005 2005	<b>DA (</b> 0	2010	2015	2020	2025	2030	2035	2040	2045	2050
Other (Coal)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Jetfuels		0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
Bio-Jetfuels		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline		1.2	1.2	1.1	1.1	1.0	0.8	0.6	0.4	0.2	0.1
Diesel		0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8
Bio-Methanol		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Ethanol		0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.2
Bio-Syngas CNG		0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.1	0.0 0.1	0.0 0.1	0.0 0.1	0.0
Biofuel(Diesel)		0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0
Electricity		0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.2	0.0
Hydrogen		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total		2.2	2.2	2.2	2.2	2.2	2.0	1.9	1.8	1.8	1.8
	Region CHIN/ 2005	A (Unit	ts: EJ/y) 2010	2015	2020	2025	2030	2035	2040	2045	2050
Fuels in All Transport, I	2003	0.6	0.6	0.6	0.7	2025	0.2	0.1	0.0	2045	2050
Fuel				0.0		1.5	1.7	2.0	2.2	2.4	2.6
Fuel Other (Coal)				10	17					£. <del>,</del> , , , , , , , , , , , , , , , , , ,	2.0
Fuel Other (Coal) Jetfuels		0.6	0.7	1.0 0.0	1.2 0.0					0.0	0.0
Fuel Other (Coal) Jetfuels Bio-Jetfuels				1.0 0.0 1.1	1.2 0.0 1.4	0.0	0.0	0.0	0.0	0.0 3.4	
Fuel Other (Coal) Jetfuels Bio-Jetfuels		0.6 0.0	0.7 0.0	0.0	0.0	0.0	0.0	0.0	0.0		3.0
Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel		0.6 0.0 0.6	0.7 0.0 0.9	0.0 1.1	0.0 1.4	0.0 1.9	0.0 2.3	0.0 2.9	0.0 3.2	3.4	3.0 8.9
Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline		0.6 0.0 0.6 3.7	0.7 0.0 0.9 4.7	0.0 1.1 5.6	0.0 1.4 6.3	0.0 1.9 6.8	0.0 2.3 7.4	0.0 2.9 7.8	0.0 3.2 8.1	3.4 8.5	3.0 8.9 0.0
Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Methanol		0.6 0.0 0.6 3.7 0.0	0.7 0.0 0.9 4.7 0.0	0.0 1.1 5.6 0.0	0.0 1.4 6.3 0.0	0.0 1.9 6.8 0.0	0.0 2.3 7.4 0.0	0.0 2.9 7.8 0.0	0.0 3.2 8.1 0.0	3.4 8.5 0.0	0.0 3.0 8.9 0.0 0.1 0.4 0.0

CNG Biofuel(Diesel)		0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.1 0.0	0.1 0.0	0.1 0.0	0.2 0.0	0.2 0.0	0.3 0.0
Electricity		0.0	0.0	0.0	0.0	0.2	0.3	0.4	0.5	0.0	0.0
Hydrogen		0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
Total		5.6	7.1	8.4	9.9	11.3	12.2	13.4	14.6	15.7	16.4
		<i></i>									
Fuels in All Transport, Re Fuel	2005 2005	(Units	: EJ/y) 2010	2015	2020	2025	2030	2035	2040	2045	2050
Other (Coal)	2005	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
letfuels		0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Bio-Jetfuels		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline		0.4	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.1	0.1
Diesel		0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4
Bio-Methanol		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Ethanol		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Bio-Syngas		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biofuel (Diesel) Electricity		0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.1	0.0 0.1	0.0
Hydrogen		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Total		0.0	0.0	0.0	0.0	0.9	0.0	0.8	0.0	0.8	0.0
lotal		0.7	0.0	0.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0
uels in All Transport, Re	•	Jnits:									
Fuel Other (Coal)	2005	0.0	<b>2010</b> 0.0	<b>2015</b> 0.1	<b>2020</b> 0.1	<b>2025</b> 0.1	<b>2030</b> 0.0	<b>2035</b> 0.0	<b>2040</b> 0.0	<b>2045</b> 0.0	<b>2050</b> 0.0
letfuels		0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Bio-Jetfuels		0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.0
Gasoline		0.6	0.0	0.8	0.8	0.8	0.8	0.7	0.6	0.4	0.0
Diesel		1.5	1.6	1.7	1.8	1.9	2.1	2.2	2.4	2.7	2.8
Bio-Methanol		0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Bio-Ethanol		0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2
Bio-Syngas		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CNG		0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Biofuel(Diesel)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity		0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.3
Hydrogen Total		0.0 2.2	0.0 2.5	0.0 2.8	0.0 3.0	0.0 3.3	0.0 3.4	0.0 3.6	0.0 3.8	0.0 3.9	0.0 4.1
Total		2.2	2.5	2.0	5.0	5.5	5.4	5.0	5.0	3.9	4.1
Fuels in All Transport, Re	-	(Unit									
Fuel Other (Ceel)	2005	0.0	2010	2015	2020	<b>2025</b> 0.0	<b>2030</b> 0.0	2035	2040	2045	2050
Other (Coal)			0.0 0.2	0.0 0.3	0.0 0.3	0.0	0.0	0.0 0.6	0.0 0.8	0.0 1.0	0.0
latfuals											11
		0.1									
Bio-Jetfuels		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Jetfuels Gasoline											0.0
Bio-Jetfuels Gasoline Diesel		0.0 0.3 1.0	0.0 0.5	0.0 0.6 1.0	0.0 0.7 1.1	0.0 0.9	0.0 1.1 1.3	0.0 1.3	0.0 1.7	0.0 2.2 1.6	0.0 2.5 1.9
Bio-Jetfuels Gasoline Diesel Bio-Methanol		0.0 0.3	0.0 0.5 1.2	0.0 0.6	0.0 0.7	0.0 0.9 1.2	0.0 1.1	0.0 1.3 1.4	0.0 1.7 1.5	0.0 2.2	0.0 2.5 1.9 0.0
Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol		0.0 0.3 1.0 0.0	0.0 0.5 1.2 0.0	0.0 0.6 1.0 0.0	0.0 0.7 1.1 0.0	0.0 0.9 1.2 0.0	0.0 1.1 1.3 0.0	0.0 1.3 1.4 0.0	0.0 1.7 1.5 0.0	0.0 2.2 1.6 0.0	0.0 2.5 1.9 0.0 0.7
Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG		0.0 0.3 1.0 0.0 0.0 0.0 0.0	0.0 0.5 1.2 0.0 0.0 0.0 0.1	0.0 0.6 1.0 0.0 0.1 0.0 0.1	0.0 0.7 1.1 0.0 0.2 0.0 0.2	0.0 0.9 1.2 0.0 0.2 0.0 0.3	0.0 1.1 1.3 0.0 0.3 0.0 0.3	0.0 1.3 1.4 0.0 0.3 0.0 0.5	0.0 1.7 1.5 0.0 0.4 0.0 0.4	0.0 2.2 1.6 0.0 0.6 0.0 0.3	0.0 2.5 1.9 0.0 0.7 0.0 0.3
Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel)		0.0 0.3 1.0 0.0 0.0 0.0 0.0 0.0	0.0 0.5 1.2 0.0 0.0 0.0 0.1 0.0	0.0 0.6 1.0 0.0 0.1 0.0 0.1 0.2	0.0 0.7 1.1 0.0 0.2 0.0 0.2 0.3	0.0 0.9 1.2 0.0 0.2 0.0 0.3 0.3	0.0 1.1 1.3 0.0 0.3 0.0 0.3 0.3	0.0 1.3 1.4 0.0 0.3 0.0 0.5 0.3	0.0 1.7 1.5 0.0 0.4 0.0 0.4 0.4	0.0 2.2 1.6 0.0 0.6 0.0 0.3 0.4	0.0 2.5 1.9 0.0 0.7 0.0 0.3 0.5
Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity		0.0 0.3 1.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.5 1.2 0.0 0.0 0.0 0.1 0.0 0.0	0.0 0.6 1.0 0.0 0.1 0.0 0.1 0.2 0.0	0.0 0.7 1.1 0.0 0.2 0.0 0.2 0.3 0.0	0.0 0.9 1.2 0.0 0.2 0.0 0.3 0.3 0.1	0.0 1.1 1.3 0.0 0.3 0.0 0.3 0.3 0.3 0.1	0.0 1.3 1.4 0.0 0.3 0.0 0.5 0.3 0.1	0.0 1.7 1.5 0.0 0.4 0.0 0.4 0.4 0.2	0.0 2.2 1.6 0.0 0.6 0.0 0.3 0.4 0.2	0.0 2.5 1.9 0.0 0.7 0.0 0.3 0.5 0.3
Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen		0.0 0.3 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.5 1.2 0.0 0.0 0.0 0.1 0.0 0.0 0.0	0.0 0.6 1.0 0.0 0.1 0.0 0.1 0.2 0.0 0.0	0.0 0.7 1.1 0.0 0.2 0.0 0.2 0.3 0.0 0.0	0.0 0.9 1.2 0.0 0.2 0.0 0.3 0.3 0.1 0.0	0.0 1.1 1.3 0.0 0.3 0.0 0.3 0.3 0.3 0.1 0.0	0.0 1.3 1.4 0.0 0.3 0.0 0.5 0.3 0.1 0.0	0.0 1.7 1.5 0.0 0.4 0.4 0.4 0.4 0.2 0.0	0.0 2.2 1.6 0.0 0.6 0.0 0.3 0.4 0.2 0.0	0.0 2.5 1.9 0.0 0.7 0.0 0.3 0.5 0.3 0.0
Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen		0.0 0.3 1.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.5 1.2 0.0 0.0 0.0 0.1 0.0 0.0	0.0 0.6 1.0 0.0 0.1 0.0 0.1 0.2 0.0	0.0 0.7 1.1 0.0 0.2 0.0 0.2 0.3 0.0	0.0 0.9 1.2 0.0 0.2 0.0 0.3 0.3 0.1	0.0 1.1 1.3 0.0 0.3 0.0 0.3 0.3 0.3 0.1	0.0 1.3 1.4 0.0 0.3 0.0 0.5 0.3 0.1	0.0 1.7 1.5 0.0 0.4 0.0 0.4 0.4 0.2	0.0 2.2 1.6 0.0 0.6 0.0 0.3 0.4 0.2	0.0 2.5 1.9 0.0 0.7 0.0 0.3 0.5 0.3 0.0
Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Total Fuels in All Transport, Re	• •	0.0 0.3 1.0 0.0 0.0 0.0 0.0 0.0 0.0 1.5	0.0 0.5 1.2 0.0 0.0 0.0 0.0 0.0 0.0 2.0 EJ/y)	0.0 0.6 1.0 0.1 0.0 0.1 0.2 0.0 0.0 2.3	0.0 0.7 1.1 0.0 0.2 0.0 0.2 0.3 0.0 0.0 2.8	0.0 0.9 1.2 0.0 0.2 0.0 0.3 0.3 0.1 0.0 3.3	0.0 1.1 1.3 0.0 0.3 0.3 0.3 0.3 0.1 0.0 3.9	0.0 1.3 1.4 0.0 0.3 0.0 0.5 0.3 0.1 0.0 4.6	0.0 1.7 1.5 0.0 0.4 0.4 0.4 0.4 0.2 0.0 5.4	0.0 2.2 1.6 0.0 0.6 0.0 0.3 0.4 0.2 0.0 6.4	0.0 2.5 1.9 0.0 0.7 0.0 0.3 0.5 0.3 0.0 7.4
Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Total Fuels in All Transport, Re	egion LAM ( 2005	0.0 0.3 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.5 Units:	0.0 0.5 1.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.0 EJ/y) 2010	0.0 0.6 1.0 0.1 0.0 0.1 0.2 0.0 0.0 2.3 <b>2015</b>	0.0 0.7 1.1 0.0 0.2 0.0 0.2 0.3 0.0 0.0 2.8 <b>2020</b>	0.0 0.9 1.2 0.0 0.2 0.0 0.3 0.3 0.1 0.0 3.3 <b>2025</b>	0.0 1.1 1.3 0.0 0.3 0.3 0.3 0.1 0.0 3.9 <b>2030</b>	0.0 1.3 1.4 0.0 0.3 0.0 0.5 0.3 0.1 0.0 4.6 <b>2035</b>	0.0 1.7 1.5 0.0 0.4 0.4 0.4 0.4 0.2 0.0 5.4 <b>2040</b>	0.0 2.2 1.6 0.0 0.6 0.0 0.3 0.4 0.2 0.0 6.4 <b>2045</b>	0.0 2.5 1.9 0.0 0.7 0.0 0.3 0.5 0.3 0.0 7.4 <b>2050</b>
Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Total Fuels in All Transport, Re Fuel Other (Coal)	• •	0.0 0.3 1.0 0.0 0.0 0.0 0.0 0.0 0.0 1.5 Units:	0.0 0.5 1.2 0.0 0.0 0.0 0.0 0.0 0.0 2.0 EJ/y) 2010 0.0	0.0 0.6 1.0 0.1 0.0 0.1 0.2 0.0 0.0 2.3 <b>2015</b> 0.0	0.0 0.7 1.1 0.0 0.2 0.3 0.0 0.0 2.8 <b>2020</b> 0.0	0.0 0.9 1.2 0.0 0.2 0.0 0.3 0.3 0.1 0.0 3.3 <b>2025</b> 0.0	0.0 1.1 1.3 0.0 0.3 0.3 0.3 0.1 0.0 3.9 <b>2030</b> 0.0	0.0 1.3 1.4 0.0 0.3 0.0 0.5 0.3 0.1 0.0 4.6 2035 0.0	0.0 1.7 1.5 0.0 0.4 0.4 0.4 0.2 0.0 5.4 <b>2040</b> 0.0	0.0 2.2 1.6 0.0 0.6 0.0 0.3 0.4 0.2 0.0 6.4 <b>2045</b> 0.0	0.0 2.5 1.9 0.0 0.7 0.0 0.3 0.5 0.3 0.0 7.4 <b>2050</b> 0.0
Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Total Fuels in All Transport, Re Fuel Other (Coal) Jetfuels	• •	0.0 0.3 1.0 0.0 0.0 0.0 0.0 0.0 0.0 1.5 Units: 0.0 0.2	0.0 0.5 1.2 0.0 0.0 0.0 0.0 0.0 0.0 2.0 EJ/y) 2010 0.0 0.0 0.2	0.0 0.6 1.0 0.1 0.0 0.1 0.2 0.0 0.0 2.3 <b>2015</b> 0.0 0.3	0.0 0.7 1.1 0.0 0.2 0.3 0.0 0.0 2.8 <b>2020</b> 0.0 0.0 0.4	0.0 0.9 1.2 0.0 0.2 0.0 0.3 0.3 0.1 0.0 3.3 <b>2025</b> 0.0 0.4	0.0 1.1 1.3 0.0 0.3 0.3 0.1 0.0 3.9 2030 0.0 0.5	0.0 1.3 1.4 0.0 0.3 0.0 0.5 0.3 0.1 0.0 4.6 2035 0.0 0.6	0.0 1.7 1.5 0.0 0.4 0.4 0.4 0.2 0.0 5.4 <b>2040</b> 0.0 0.0 0.6	0.0 2.2 1.6 0.0 0.3 0.4 0.2 0.0 6.4 <b>2045</b> 0.0 0.7	0.0 2.5 1.9 0.0 0.7 0.0 0.3 0.5 0.3 0.0 7.4 <b>2050</b> 0.0 0.8
Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Total Fuels in All Transport, Re Fuel Other (Coal) Jetfuels Bio-Jetfuels	• •	0.0 0.3 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.5 Units: 0.0 0.2 0.0	0.0 0.5 1.2 0.0 0.0 0.0 0.0 0.0 2.0 <b>EJ/y)</b> <b>2010</b> 0.0 0.0 0.2 0.0	0.0 0.6 1.0 0.1 0.1 0.2 0.0 0.0 2.3 <b>2015</b> 0.0 0.3 0.0	0.0 0.7 1.1 0.0 0.2 0.0 0.2 0.3 0.0 0.0 2.8 <b>2020</b> 0.0 0.0 0.4 0.0	0.0 0.9 1.2 0.0 0.2 0.0 0.3 0.3 0.1 0.0 3.3 <b>2025</b> 0.0 0.4 0.0	0.0 1.1 1.3 0.0 0.3 0.3 0.1 0.0 3.9 2030 0.0 0.5 0.0	0.0 1.3 1.4 0.0 0.3 0.0 0.5 0.3 0.1 0.0 4.6 <b>2035</b> 0.0 0.6 0.0	0.0 1.7 1.5 0.0 0.4 0.4 0.4 0.2 0.0 5.4 <b>2040</b> 0.0 0.6 0.0	0.0 2.2 1.6 0.0 0.3 0.4 0.2 0.0 6.4 <b>2045</b> 0.0 0.7 0.0	0.0 2.5 1.9 0.0 0.7 0.0 0.3 0.5 0.3 0.0 7.4 <b>2050</b> 0.0 0.8 0.0
Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Total Fuels in All Transport, Re Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline	• •	0.0 0.3 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.5 <b>Units:</b> 0.0 0.2 0.0 0.8	0.0 0.5 1.2 0.0 0.0 0.0 0.0 0.0 0.0 <b>EJ/y</b> ) <b>2010</b> 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.6 1.0 0.1 0.0 0.1 0.0 0.0 2.3 <b>2015</b> 0.0 0.3 0.0 1.1	0.0 0.7 1.1 0.0 0.2 0.0 0.2 0.3 0.0 0.0 2.8 <b>2020</b> 0.0 0.0 0.4 0.0 1.2	0.0 0.9 1.2 0.0 0.2 0.0 0.3 0.3 0.1 0.0 3.3 <b>2025</b> 0.0 0.4 0.0 1.3	0.0 1.1 1.3 0.0 0.3 0.3 0.1 0.0 3.9 2030 0.0 0.5 0.0 1.2	0.0 1.3 1.4 0.0 0.3 0.0 0.5 0.3 0.1 0.0 4.6 <b>2035</b> 0.0 0.6 0.0 1.1	0.0 1.7 1.5 0.0 0.4 0.4 0.4 0.2 0.0 5.4 <b>2040</b> 0.0 0.6 0.0 0.8	0.0 2.2 1.6 0.0 0.3 0.4 0.2 0.0 6.4 <b>2045</b> 0.0 0.7 0.0 0.7	0.0 2.5 1.9 0.0 0.7 0.0 0.3 0.5 0.3 0.0 7.4 <b>2050</b> 0.0 0.8 0.0 0.8 0.0
Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Total Fuels in All Transport, Re Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel	• •	0.0 0.3 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.5 Units: 0.0 0.2 0.0	0.0 0.5 1.2 0.0 0.0 0.0 0.0 0.0 2.0 <b>EJ/y)</b> <b>2010</b> 0.0 0.0 0.2 0.0	0.0 0.6 1.0 0.1 0.1 0.2 0.0 0.0 2.3 <b>2015</b> 0.0 0.3 0.0	0.0 0.7 1.1 0.0 0.2 0.3 0.0 0.0 2.8 <b>2020</b> 0.0 0.0 0.0 0.4 0.0 0.4 0.0 1.2 3.8	0.0 0.9 1.2 0.0 0.2 0.0 0.3 0.3 0.1 0.0 3.3 <b>2025</b> 0.0 0.4 0.0	0.0 1.1 1.3 0.0 0.3 0.3 0.1 0.0 3.9 2030 0.0 0.5 0.0 1.2 4.4	0.0 1.3 1.4 0.0 0.3 0.0 0.5 0.3 0.1 0.0 4.6 <b>2035</b> 0.0 0.6 0.0	0.0 1.7 1.5 0.0 0.4 0.4 0.4 0.2 0.0 5.4 <b>2040</b> 0.0 0.6 0.0	0.0 2.2 1.6 0.0 0.3 0.4 0.2 0.0 6.4 <b>2045</b> 0.0 0.7 0.0 0.7 5.3	0.0 2.5 1.9 0.0 0.7 0.0 0.3 0.5 0.3 0.0 7.4 <b>2050</b> 0.0 0.0 0.8 0.0 0.8 0.0 0.6 5.5
Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Total Fuels in All Transport, Re Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol	• •	0.0 0.3 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.5 <b>Units:</b> 0.0 0.2 0.0 0.8 2.9	0.0 0.5 1.2 0.0 0.0 0.0 0.0 0.0 0.0 5 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.6 1.0 0.1 0.2 0.0 0.0 2.3 <b>2015</b> 0.0 0.3 0.0 1.1 3.5	0.0 0.7 1.1 0.0 0.2 0.0 0.2 0.3 0.0 0.0 2.8 <b>2020</b> 0.0 0.0 0.4 0.0 1.2	0.0 0.9 1.2 0.0 0.3 0.3 0.1 0.0 3.3 <b>2025</b> 0.0 0.4 0.0 1.3 4.1	0.0 1.1 1.3 0.0 0.3 0.3 0.1 0.0 3.9 2030 0.0 0.5 0.0 1.2	0.0 1.3 1.4 0.0 0.3 0.0 0.5 0.3 0.1 0.0 4.6 <b>2035</b> 0.0 0.6 0.0 1.1 4.8	0.0 1.7 1.5 0.0 0.4 0.4 0.2 0.0 5.4 <b>2040</b> 0.0 0.6 0.0 0.8 5.1	0.0 2.2 1.6 0.0 0.3 0.4 0.2 0.0 6.4 <b>2045</b> 0.0 0.7 0.0 0.7	0.0 2.5 1.9 0.0 0.7 0.0 0.3 0.5 0.3 0.0 7.4 <b>2050</b> 0.0 0.8 0.0 0.8 0.0 0.6 5.5 0.0
Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Total Fuels in All Transport, Re Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol	• •	0.0 0.3 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.5 <b>Units:</b> 0.0 0.2 0.0 0.8 2.9 0.0	0.0 0.5 1.2 0.0 0.0 0.0 0.0 0.0 0.0 5 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.6 1.0 0.1 0.2 0.0 0.0 2.3 <b>2015</b> 0.0 0.3 0.0 1.1 3.5 0.0	0.0 0.7 1.1 0.0 0.2 0.3 0.0 0.0 2.8 <b>2020</b> 0.0 0.0 0.0 0.4 0.0 1.2 3.8 0.0	0.0 0.9 1.2 0.0 0.3 0.3 0.1 0.0 3.3 <b>2025</b> 0.0 0.4 0.0 1.3 4.1 0.1	0.0 1.1 1.3 0.0 0.3 0.3 0.1 0.0 3.9 <b>2030</b> 0.0 0.5 0.0 1.2 4.4 0.1	0.0 1.3 1.4 0.0 0.3 0.0 0.5 0.3 0.1 0.0 4.6 <b>2035</b> 0.0 0.6 0.0 1.1 4.8 0.1	0.0 1.7 1.5 0.0 0.4 0.4 0.2 0.0 5.4 <b>2040</b> 0.0 0.6 0.0 0.8 5.1 0.1	0.0 2.2 1.6 0.0 0.3 0.4 0.2 0.0 6.4 <b>2045</b> 0.0 0.7 0.0 0.7 5.3 0.1	0.0 2.5 1.9 0.0 0.7 0.0 0.3 0.5 0.3 0.0 7.4 <b>2050</b> 0.0 0.8 0.0 0.8 0.0 0.6 5.5 0.0 0.3
Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Total Fuels in All Transport, Re Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas	• •	0.0 0.3 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.5 <b>Units:</b> 0.0 0.0 0.2 0.0 0.8 2.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.5 1.2 0.0 0.0 0.0 0.0 0.0 2.0 EJ/y) 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.6 1.0 0.1 0.2 0.0 0.0 2.3 <b>2015</b> 0.0 0.3 0.0 1.1 3.5 0.0 0.0	0.0 0.7 1.1 0.0 0.2 0.3 0.0 0.0 2.8 <b>2020</b> 0.0 0.4 0.0 0.4 0.0 1.2 3.8 0.0 0.1 1.0 0.0	0.0 0.9 1.2 0.0 0.3 0.3 0.1 0.0 3.3 <b>2025</b> 0.0 0.4 0.0 1.3 4.1 0.1 0.1 0.1	0.0 1.1 1.3 0.0 0.3 0.3 0.1 0.0 3.9 <b>2030</b> 0.5 0.0 1.2 4.4 0.1 0.1 0.0 0.3	0.0 1.3 1.4 0.0 0.3 0.0 0.5 0.3 0.1 0.0 4.6 <b>2035</b> 0.0 0.6 0.0 1.1 4.8 0.1 0.1 0.0 0.3	0.0 1.7 1.5 0.0 0.4 0.4 0.2 0.0 5.4 <b>2040</b> 0.0 0.6 0.0 0.8 5.1 0.1 0.2	0.0 2.2 1.6 0.0 0.3 0.4 0.2 0.0 6.4 <b>2045</b> 0.0 0.7 0.0 0.7 5.3 0.1 0.2	0.0 2.5 1.9 0.0 0.7 0.0 0.3 0.5 0.3 0.0 7.4 <b>2050</b> 0.0 0.8 0.0 0.6 5.5 0.0 0.3 0.0
Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Total Fuels in All Transport, Re Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Jetfuels Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel)	• •	0.0 0.3 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.5 <b>Units:</b> 0.0 0.0 0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.5 1.2 0.0 0.0 0.0 0.0 2.0 EJ/y) 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.6 1.0 0.1 0.2 0.0 0.0 2.3 <b>2015</b> 0.0 0.3 0.0 1.1 3.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.7 1.1 0.0 0.2 0.3 0.0 0.0 2.8 <b>2020</b> 0.0 0.4 0.0 1.2 3.8 0.0 0.1 1.2 3.8 0.0 0.1	0.0 0.9 1.2 0.0 0.3 0.3 0.1 0.0 3.3 <b>2025</b> 0.0 0.4 0.0 1.3 4.1 0.1 0.1 0.1 0.2 0.0	0.0 1.1 1.3 0.0 0.3 0.3 0.1 0.0 3.9 <b>2030</b> 0.0 0.5 0.0 1.2 4.4 0.1 0.1 0.0 0.3 0.0 0.5 0.0 0.0	0.0 1.3 1.4 0.0 0.3 0.0 0.5 0.3 0.1 0.0 4.6 <b>2035</b> 0.0 0.6 0.0 1.1 4.8 0.1 0.1 0.1 0.0 0.3 0.0 0.5 0.0 0.5 0.3 0.0 0.5 0.3 0.0 0.5 0.3 0.0 0.5 0.3 0.0 0.5 0.3 0.0 0.5 0.3 0.0 0.5 0.3 0.1 0.0 0.5 0.3 0.1 0.0 0.5 0.3 0.1 0.0 0.5 0.3 0.1 0.0 0.5 0.3 0.1 0.0 0.5 0.3 0.1 0.0 0.5 0.3 0.1 0.0 0.5 0.5 0.5 0.5 0.5 0.5 0.5	0.0 1.7 1.5 0.0 0.4 0.4 0.2 0.0 5.4 <b>2040</b> 0.0 0.6 0.0 0.8 5.1 0.1 0.2 0.0 0.4 0.0 0.4 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.5 0.4 0.0 0.5 0.5 0.5 0.5 0.5 0.5 0.5	0.0 2.2 1.6 0.0 0.3 0.4 0.2 0.0 6.4 <b>2045</b> 0.0 0.7 0.7 0.0 0.7 5.3 0.1 0.2 0.0 0.4 0.0	0.0 2.5 1.9 0.0 0.7 0.0 0.3 0.5 0.3 0.0 7.4 <b>2050</b> 0.0 0.8 0.0 0.6 5.5 0.0 0.3 0.0 0.4
Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Total Fuels in All Transport, Ref Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity	• •	0.0 0.3 1.0 0.0 0.0 0.0 0.0 0.0 0.0 1.5 Units: 0.0 0.2 0.0 0.2 0.0 0.0 0.2 0.0 0.0	0.0 0.5 1.2 0.0 0.0 0.0 0.0 2.0 EJ/y) 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.6 1.0 0.1 0.2 0.0 0.0 2.3 <b>2015</b> 0.0 0.3 0.0 1.1 3.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.7 1.1 0.0 0.2 0.3 0.0 0.0 2.8 <b>2020</b> 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.1 2.3.8 0.0 0.1 0.0 0.1 0.0	0.0 0.9 1.2 0.0 0.3 0.3 0.1 0.0 3.3 <b>2025</b> 0.0 0.4 0.0 1.3 4.1 0.1 0.1 0.1 0.2 0.0 0.2 0.0 0.1	0.0 1.1 1.3 0.0 0.3 0.3 0.1 0.0 3.9 2030 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.2 4.4 0.1 0.1 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.0	0.0 1.3 1.4 0.0 0.3 0.1 0.0 4.6 <b>2035</b> 0.0 0.6 0.0 0.6 0.0 1.1 4.8 0.1 0.1 0.0 0.3 0.0 0.2	0.0 1.7 1.5 0.0 0.4 0.2 0.0 5.4 <b>2040</b> 0.0 0.6 0.6 0.6 0.8 5.1 0.1 0.2 0.0 0.4 0.0 0.8 5.1 0.1 0.2 0.0 0.4 0.0 0.4 0.2 0.0 0.4 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.5 0.4 0.0 0.0 0.5 0.5 0.0 0.0 0.0 0.0	0.0 2.2 1.6 0.0 0.3 0.4 0.2 0.0 6.4 <b>2045</b> 0.0 0.7 0.7 5.3 0.1 0.2 0.0 0.7 5.3 0.1 0.2	0.0 2.5 1.9 0.0 0.7 0.0 0.3 0.5 0.3 0.0 7.4 <b>2050</b> 0.0 0.8 0.0 0.6 5.5 0.0 0.3 0.0 0.3 0.0 0.4 0.0 0.4
Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Total Fuels in All Transport, Ref Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen	• •	0.0 0.3 1.0 0.0 0.0 0.0 0.0 0.0 0.0 1.5 <b>Units:</b> 0.0 0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.5 1.2 0.0 0.0 0.0 0.0 2.0 EJ/y) 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.6 1.0 0.1 0.2 0.0 0.0 2.3 <b>2015</b> 0.0 0.3 0.0 0.0 1.1 3.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.7 1.1 0.0 0.2 0.3 0.0 0.0 2.8 <b>2020</b> 0.0 0.4 0.0 0.4 0.0 0.1 2.3.8 0.0 0.1 0.0 0.1 0.0 0.2 0.1 0.0 0.0	0.0 0.9 1.2 0.0 0.3 0.3 0.1 0.0 3.3 <b>2025</b> 0.0 0.4 0.0 1.3 4.1 0.1 0.1 0.1 0.1 0.2 0.0 0.1 0.0	0.0 1.1 1.3 0.0 0.3 0.3 0.1 0.0 3.9 <b>2030</b> 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.2 4.4 0.1 0.1 0.0 0.3 0.0 0.1 0.0 0.5 0.0 0.5 0.5 0.5 0.5 0.5	0.0 1.3 1.4 0.0 0.3 0.0 0.5 0.3 0.1 0.0 4.6 <b>2035</b> 0.0 0.6 0.0 0.1 1.1 4.8 0.1 0.1 0.1 0.0 0.3 0.0 0.2 0.0 0.2 0.0	0.0 1.7 1.5 0.0 0.4 0.2 0.0 5.4 <b>2040</b> 0.0 0.6 0.0 0.8 5.1 0.1 0.2 0.0 0.8 5.1 0.1 0.2 0.0 0.4 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.5 0.4 0.0 0.5 0.0 0.0 0.0 0.0 0.0 0.0	0.0 2.2 1.6 0.0 0.3 0.4 0.2 0.0 6.4 <b>2045</b> 0.0 0.7 0.7 5.3 0.1 0.2 0.0 0.7 5.3 0.1 0.2 0.0 0.4 0.0	0.0 2.5 1.9 0.0 0.7 0.0 0.3 0.5 0.3 0.0 7.4 <b>2050</b> 0.0 0.8 0.0 0.6 5.5 0.0 0.3 0.0 0.4 0.0 0.4
Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Total Fuels in All Transport, Ref Fuel Other (Coal) letfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen	• •	0.0 0.3 1.0 0.0 0.0 0.0 0.0 0.0 0.0 1.5 Units: 0.0 0.2 0.0 0.2 0.0 0.0 0.2 0.0 0.0	0.0 0.5 1.2 0.0 0.0 0.0 0.0 2.0 EJ/y) 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.6 1.0 0.1 0.2 0.0 0.0 2.3 <b>2015</b> 0.0 0.3 0.0 1.1 3.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.7 1.1 0.0 0.2 0.3 0.0 0.0 2.8 <b>2020</b> 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.1 2.3.8 0.0 0.1 0.0 0.1 0.0	0.0 0.9 1.2 0.0 0.3 0.3 0.1 0.0 3.3 <b>2025</b> 0.0 0.4 0.0 1.3 4.1 0.1 0.1 0.1 0.2 0.0 0.2 0.0 0.1	0.0 1.1 1.3 0.0 0.3 0.3 0.1 0.0 3.9 2030 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.2 4.4 0.1 0.1 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.0	0.0 1.3 1.4 0.0 0.3 0.1 0.0 4.6 <b>2035</b> 0.0 0.6 0.0 0.6 0.0 1.1 4.8 0.1 0.1 0.0 0.3 0.0 0.2	0.0 1.7 1.5 0.0 0.4 0.2 0.0 5.4 <b>2040</b> 0.0 0.6 0.6 0.6 0.8 5.1 0.1 0.2 0.0 0.4 0.0 0.8 5.1 0.1 0.2 0.0 0.4 0.0 0.4 0.2 0.0 0.4 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.5 0.4 0.0 0.0 0.5 0.5 0.0 0.0 0.0 0.0	0.0 2.2 1.6 0.0 0.3 0.4 0.2 0.0 6.4 <b>2045</b> 0.0 0.7 0.7 5.3 0.1 0.2 0.0 0.7 5.3 0.1	0.0 2.5 1.9 0.0 0.7 0.0 0.3 0.5 0.3 0.0 7.4 <b>2050</b> 0.0 0.8 0.0 0.6 5.5 0.0 0.3 0.0 0.4 0.0 0.4
Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Total Fuels in All Transport, Ref Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Total	2005	0.0 0.3 1.0 0.0 0.0 0.0 0.0 0.0 1.5 Units: 0.0 0.2 0.0 0.0 0.0 0.2 0.0 0.0	0.0 0.5 1.2 0.0 0.0 0.0 0.0 2.0 EJ/y) 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.6 1.0 0.1 0.2 0.0 0.0 2.3 <b>2015</b> 0.0 0.3 0.0 0.0 1.1 3.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.7 1.1 0.0 0.2 0.3 0.0 0.0 2.8 <b>2020</b> 0.0 0.4 0.0 0.4 0.0 0.1 2.3.8 0.0 0.1 0.0 0.1 0.0 0.2 0.1 0.0 0.0	0.0 0.9 1.2 0.0 0.3 0.3 0.1 0.0 3.3 <b>2025</b> 0.0 0.4 0.0 1.3 4.1 0.1 0.1 0.1 0.1 0.2 0.0 0.1 0.0	0.0 1.1 1.3 0.0 0.3 0.3 0.1 0.0 3.9 <b>2030</b> 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.2 4.4 0.1 0.1 0.0 0.3 0.0 0.1 0.0 0.5 0.0 0.5 0.5 0.5 0.5 0.5	0.0 1.3 1.4 0.0 0.3 0.0 0.5 0.3 0.1 0.0 4.6 <b>2035</b> 0.0 0.6 0.0 0.1 1.1 4.8 0.1 0.1 0.1 0.0 0.3 0.0 0.2 0.0 0.2 0.0	0.0 1.7 1.5 0.0 0.4 0.2 0.0 5.4 <b>2040</b> 0.0 0.6 0.0 0.8 5.1 0.1 0.2 0.0 0.8 5.1 0.1 0.2 0.0 0.4 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.5 0.4 0.0 0.5 0.0 0.0 0.0 0.0 0.0 0.0	0.0 2.2 1.6 0.0 0.3 0.4 0.2 0.0 6.4 <b>2045</b> 0.0 0.7 0.7 5.3 0.1 0.2 0.0 0.7 5.3 0.1 0.2 0.0 0.4 0.0	0.0 2.5 1.9 0.0 0.7 0.0 0.3 0.5 0.3 0.0 7.4 <b>2050</b> 0.0 0.8 0.0 0.6 5.5 0.0 0.3 0.0 0.4 0.4 0.0
Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Total Fuels in All Transport, Ref Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Total	2005	0.0 0.3 1.0 0.0 0.0 0.0 0.0 0.0 1.5 Units: 0.0 0.2 0.0 0.0 0.0 0.2 0.0 0.0	0.0 0.5 1.2 0.0 0.0 0.0 0.0 2.0 EJ/y) 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.6 1.0 0.1 0.2 0.0 0.0 2.3 <b>2015</b> 0.0 0.3 0.0 0.0 1.1 3.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.7 1.1 0.0 0.2 0.3 0.0 0.0 2.8 <b>2020</b> 0.0 0.4 0.0 0.4 0.0 0.1 2.3.8 0.0 0.1 0.0 0.1 0.0 0.2 0.1 0.0 0.0	0.0 0.9 1.2 0.0 0.3 0.3 0.1 0.0 3.3 <b>2025</b> 0.0 0.4 0.0 1.3 4.1 0.1 0.1 0.1 0.1 0.2 0.0 0.1 0.0	0.0 1.1 1.3 0.0 0.3 0.3 0.1 0.0 3.9 <b>2030</b> 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.2 4.4 0.1 0.1 0.0 0.3 0.0 0.1 0.0 0.3 0.0 0.1 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.0	0.0 1.3 1.4 0.0 0.3 0.0 0.5 0.3 0.1 0.0 4.6 <b>2035</b> 0.0 0.6 0.0 0.1 1.1 4.8 0.1 0.1 0.1 0.0 0.3 0.0 0.2 0.0 0.2 0.0	0.0 1.7 1.5 0.0 0.4 0.2 0.0 5.4 <b>2040</b> 0.0 0.6 0.0 0.8 5.1 0.1 0.2 0.0 0.8 5.1 0.1 0.2 0.0 0.4 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.4 0.2 0.0 0.5 0.4 0.0 0.5 0.0 0.0 0.0 0.0 0.0 0.0	0.0 2.2 1.6 0.0 0.3 0.4 0.2 0.0 6.4 <b>2045</b> 0.0 0.7 0.7 5.3 0.1 0.2 0.0 0.7 5.3 0.1 0.2 0.0 0.4 0.0	0.0 2.5 1.9 0.0 0.7 0.0 0.3 0.5 0.3 0.0 7.4 <b>2050</b> 0.0 0.8 0.0 0.6 5.5 0.0 0.3 0.0 0.4 0.0
Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Total Fuels in All Transport, Ref Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Total Fuels in All Transport, Ref	2005	0.0 0.3 1.0 0.0 0.0 0.0 0.0 0.0 1.5 Units: 0.0 0.2 0.0 0.0 0.0 0.2 0.0 0.0	0.0 0.5 1.2 0.0 0.0 0.0 0.0 0.0 0.0 2010 0.0 0.0 0.0 0.0 1.0 3.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.6 1.0 0.1 0.2 0.0 0.0 2.3 <b>2015</b> 0.0 0.3 0.0 1.1 3.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.7 1.1 0.0 0.2 0.3 0.0 0.0 2.8 <b>2020</b> 0.0 0.4 0.0 1.2 3.8 0.0 0.1 2.3.8 0.0 0.1 0.0 0.2 0.1 0.0 0.2 5.8	0.0 0.9 1.2 0.0 0.3 0.3 0.1 0.0 3.3 <b>2025</b> 0.0 0.4 0.0 1.3 4.1 0.1 0.1 0.1 0.2 0.0 0.2 0.0 0.4	0.0 1.1 1.3 0.0 0.3 0.1 0.0 3.9 2030 0.0 0.5 0.0 1.2 4.4 0.1 0.1 0.0 0.3 0.0 0.5 0.0 1.2 4.4 0.1 0.1 0.0 0.3 0.0 0.5 0.5	0.0 1.3 1.4 0.0 0.3 0.1 0.0 4.6 <b>2035</b> 0.0 0.6 0.0 1.1 4.8 0.1 0.1 0.1 0.3 0.0 0.3 0.0 0.5 1.1 4.8 0.1 0.1 0.0 0.5 1.1 1.1 0.0 0.5 0.0 1.1 1.1 0.0 0.5 0.0 1.1 0.0 0.5 0.0 0.5 0.3 0.0 0.5 0.3 0.0 0.5 0.3 0.0 0.5 0.3 0.0 0.5 0.3 0.0 0.5 0.3 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.5 0.0 0.0	0.0 1.7 1.5 0.0 0.4 0.4 0.2 0.0 5.4 <b>2040</b> 0.0 0.6 0.0 0.8 5.1 0.1 0.2 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.5 4 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 2.2 1.6 0.0 0.3 0.4 0.2 0.0 6.4 <b>2045</b> 0.0 0.7 5.3 0.1 0.2 0.0 0.7 5.3 0.1 0.2 0.0 0.4 0.0 0.4 0.0 0.4	0.0 2.5 1.9 0.0 0.7 0.0 0.3 0.5 0.3 0.0 7.4 <b>2050</b> 0.0 0.8 0.0 0.6 5.5 0.0 0.3 0.0 0.3 0.0 0.4 0.0 0.4 0.0 0.3 2.5 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.0
Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Total Fuels in All Transport, Ref Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Total Fuels in All Transport, Ref	2005	0.0 0.3 1.0 0.0 0.0 0.0 0.0 0.0 1.5 <b>Units:</b> 0.0 0.2 0.0 0.2 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.5 1.2 0.0 0.0 0.0 0.0 2.0 EJ/y) 2010 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.6 1.0 0.1 0.2 0.0 0.0 2.3 <b>2015</b> 0.0 0.3 0.0 0.3 0.0 1.1 3.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.2 2.00 5.2	0.0 0.7 1.1 0.0 0.2 0.3 0.0 0.0 2.8 <b>2020</b> 0.0 0.4 0.0 1.2 3.8 0.0 0.1 2.3.8 0.0 0.1 0.0 0.2 0.1 0.0 0.2 0.1 0.0 0.2 8 0.0 0.0 2.8 0.0 0.0 0.0 2.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	0.0 0.9 1.2 0.0 0.3 0.3 0.1 0.0 3.3 <b>2025</b> 0.0 0.4 0.0 1.3 4.1 0.1 0.1 0.1 0.2 0.0 0.2 0.0 0.1 0.2 0.0 0.4	0.0 1.1 1.3 0.0 0.3 0.1 0.0 3.9 2030 0.0 0.5 0.0 0.5 0.0 1.2 4.4 0.1 0.1 0.1 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.3 0.0 0.5 0.0 0.0	0.0 1.3 1.4 0.0 0.3 0.1 0.0 4.6 <b>2035</b> 0.0 0.6 0.0 1.1 4.8 0.1 0.1 0.1 0.0 0.3 0.0 0.3 0.0 0.5 <b>2035</b> <b>2035</b>	0.0 1.7 1.5 0.0 0.4 0.2 0.0 5.4 <b>2040</b> 0.0 0.6 0.0 0.8 5.1 0.1 0.2 0.0 0.8 5.1 0.1 0.2 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.0	0.0 2.2 1.6 0.0 0.3 0.4 0.2 0.0 6.4 <b>2045</b> 0.0 0.7 5.3 0.1 0.2 0.0 0.7 5.3 0.1 0.2 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.7 5.3 0.1 0.2 0.0 0.0 0.7 7 0.0 0.0 0.7 7 0.0 0.0 0.0	2.5 1.9 0.0 0.7 0.0 0.3 0.0 7.4 <b>2050</b> 0.0 0.8 0.0 0.6 5.5 0.0 0.3 0.0 0.4 0.0 0.4 0.0 0.6 5.2

Desel3.53.94.04.14.34.75.35.86.36.3Bio-Hethanol0.00.00.00.10.10.10.20.20.10.0Bio-Syngas0.00.	Gasoline										
Bio-Methanol0.00.00.00.10.10.10.10.20.20.10.0Bio-Styngas0.0											0.7
Bio-Ethanol0.00.00.10.10.10.00.00.00.0CNG0.00.00.00.00.00.00.00.00.00.00.00.0CNG0.0											6.5 0.1
Bio-Syngas0.00.00.00.10.00.00.00.00.0Biofer([Dise1]0.00.00.00.10.10.10.00.00.00.10.10.00.0Iteriticity0.0 <td></td> <td>0.1</td>											0.1
CNG         0.0         0.1         0.0         0.0         0.1         0.1         0.0         0.0         0.0           Biofue((Disen)         0.0 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.0</td></t<>											0.0
Biofue(Disent)0.00.00.00.00.10.10.00.00.00.0Hydrogen0.00											0.1
Hydrogen Total0.00.00.00.00.00.00.00.00.00.00.00.0Total20052010201520202025203020352030203520402045205Other (Cal)0.0											0.0
Torial         5.0         5.7         6.1         6.6         7.2         7.8         8.5         9.1         9.7         10           Fuel         2005         2010         2015         220         222         230         0.0	Electricity	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.6
Protein All Transport, Region MEXICO (Units: EI/y)         vol         vol<           vol        <	Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fuel         2005         2015         2020         2025         2030         2035         2040         2045         2050           Other (Coal)         0.0	Total	5.0	5.7	6.1	6.6	7.2	7.8	8.5	9.1	9.7	10.2
Fuel         2005         2015         2020         2025         2030         2035         2040         2045         2050           Other (Coal)         0.0	Fuels in All Trenenert	Degion MEVICO (II)									
Other (Coal)         O.0           Jetfuels         O.1         O.1         O.0		<b>U</b> (		2015	2020	2025	2030	2035	20/10	20/15	2050
Jettine's         0.1         0.1         0.2         0.2         0.2         0.3         0.3         0.4         0.4         0.4           Bio-Jetrivel's         0.0											0.0
Gasoline0.70.80.91.01.01.00.90.80.60Diesel1.21.31.41.51.71.82.00.22.22.2Bio-Methanol0.0 </td <td>• •</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.4</td>	• •										0.4
Diesel1.21.31.31.41.51.71.82.02.22.2Bio-Methanol0.0 </td <td>Bio-Jetfuels</td> <td>0.0</td>	Bio-Jetfuels	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bio-Methanol0.0 </td <td>Gasoline</td> <td>0.7</td> <td>0.8</td> <td>0.9</td> <td>1.0</td> <td>1.0</td> <td>1.0</td> <td>0.9</td> <td>0.8</td> <td>0.6</td> <td>0.5</td>	Gasoline	0.7	0.8	0.9	1.0	1.0	1.0	0.9	0.8	0.6	0.5
Bio-Ethanol0.0 <td></td> <td>2.2</td>											2.2
Bio-Syngas0.0 <td></td> <td>0.0</td>											0.0
CNG         0.0 <td></td> <td>0.2</td>											0.2
Biofuel(Diesel)         0.0											0.0
Electricity         0.0 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.1</td></th<>											0.1
Hydrogen0.00.00.00.00.00.00.00.00.00.0Total1.92.22.52.62.93.13.33.53.63Fuels in All Transport, Region PACIFIC (Urits: EV/FFuel200520102025202020252030203520402045205Other (Coal)0.0 <th< td=""><td>• •</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.0</td></th<>	• •										0.0
Total         1.9         2.2         2.5         2.6         2.9         3.1         3.3         3.5         3.6         3.5           Fuels in All Transport, Region PACIFIC (Units: EJ/y)         Fuel         2005         2010         2015         2020         2025         2030         2035         2040         2045         205           Other (Coal)         0.0<											0.0
Fuel         2005         2010         2015         2020         2025         2030         2035         2040         2045         2050           Other (Cai)         0.0											3.7
Fuel         2005         2010         2015         2020         2025         2030         2035         2040         2045         2050           Other (Cai)         0.0											
Other (Coal)0.00.00.00.00.00.00.00.00.00.0Jettuels0.00.00.00.00.00.00.00.00.00.00.00.0Gasoline3.03.63.02.62.11.71.30.90.50.0Diesel3.42.62.72.62.62.52.52.52.52.52.52.52.52.52.53.00.0Diesel3.42.62.72.62.00.10.00.00.10.00		• •							~~~~		
Jettues         0.9         0.8         0.9         0.0											2050 0.0
Bio-Jetfuels         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0           Gasoline         3.0         3.6         3.0         2.6         2.1         1.7         1.3         0.0         0.5         0           Diesel         3.4         2.6         2.7         2.6         2.5         3.5         0.0	• •										1.0
Gasoline         3.0         3.6         3.0         2.6         2.1         1.7         1.3         0.9         0.5         0.0           Diesel         3.4         2.6         2.7         2.6         2.6         2.5         3.6         0.0         0											0.0
Diesel         3.4         2.6         2.7         2.6         2.6         2.5         2.5         2.5         2.5           Bio-Methanol         0.0         0.1         0.2         0.2         0.1         0.1         0.0         0.1         0.0           Bio-Syngas         0.0											0.3
Bio-Ethanol0.00.00.10.20.20.10.20.20.30.0Bio-Syngas0.00.00.00.00.00.00.00.00.00.00.00.0CNG0.00.00.00.10.10.10.10.00.00.00.00.0Biofuel(Disel)0.00.00.00.10.10.10.0<											2.5
Bio-Syngas         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0           CNG         0.0         0.0         0.0         0.1         0.1         0.2         0.2         0.2         0.2         0.0           Biofuel(Diesel)         0.0         0.0         0.1         0.1         0.1         0.0         0.0         0.0         0.0           Hydrogen         0.0	Bio-Methanol	0.0	0.1	0.1	0.2	0.2	0.1	0.1	0.0	0.1	0.1
CNG         0.0         0.0         0.0         0.1         0.1         0.2         0.2         0.2         0.2         0.2           Biofuel(Diesel)         0.0         0.0         0.1         0.1         0.1         0.0         <	Bio-Ethanol	0.0	0.0	0.1	0.2	0.2	0.1	0.2	0.2	0.3	0.3
Biofuel(Diesel)         0.0         0.0         0.1         0.1         0.1         0.0         0.0         0.0         0.0           Electricity         0.0											0.0
Electricity         0.0         0.0         0.1         0.1         0.2         0.3         0.3         0.4         0.5         0.0           Hydrogen         0.0         0.0         0.0         0.0         0.0         0.1         0.0											0.1
Hydrogen0.00.00.00.00.00.10.10.10.1Total7.37.27.16.96.55.95.55.35.15.5Fuels in All Transport, Region RUSSIA (Urits: El/y)Vertue <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.0</td></t<>											0.0
Total       7.3       7.2       7.1       6.9       6.5       5.9       5.3       5.1       5.5         Fuels in All Transport, Region RUSSIA (Units: EJ/y)       Fuel       2005       2010       2015       2020       2025       2030       2035       2040       2045       2055         Other (Coal)       0.0 <td></td> <td>0.5 0.1</td>											0.5 0.1
Fuels in All Transport, Region RUSSIA (Units: EJ/y)         2010         2015         2020         2025         2030         2035         2040         2045         205           Other (Coal)         0.0 <td></td>											
Fuel2005201020152020202520302035204020452055Other (Coal)0.0<	Total						5.5	5.5	5.5		
Other (Coal)         0.0 <t< th=""><th></th><th>7.5</th><th>7.2</th><th>7.1</th><th>0.9</th><th>0.5</th><th></th><th></th><th></th><th>5.1</th><th>5.0</th></t<>		7.5	7.2	7.1	0.9	0.5				5.1	5.0
Jetfuels         0.4         0.5         0.6         0.6         0.7         0.8         1.0         1.1         1.3         1.1           Bio-Jetfuels         0.0	Fuels in All Transport,			7.1	0.9	0.5				5.1	5.0
Bio-Jetfuels         0.0 <t< th=""><th></th><th>Region RUSSIA (Un</th><th>its: EJ/y)</th><th></th><th></th><th></th><th>2030</th><th>2035</th><th>2040</th><th></th><th>2050</th></t<>		Region RUSSIA (Un	its: EJ/y)				2030	2035	2040		2050
Gasoline         1.2         1.4         1.5         1.5         1.4         1.3         1.1         0.8         0.6         0.0           Diesel         0.6         0.6         0.9         0.9         0.8         0.9         1.0         1.1         1.2         1.1           Bio-Methanol         0.0	Fuel Other (Coal)	<b>Region RUSSIA (Un</b> <b>2005</b> 0.0	its: EJ/y) 2010 0.0	<b>2015</b> 0.0	<b>2020</b> 0.0	<b>2025</b> 0.0	0.0	0.0	0.0	<b>2045</b> 0.0	<b>2050</b> 0.0
Diesel         0.6         0.6         0.9         0.9         0.8         0.9         1.0         1.1         1.2         1           Bio-Methanol         0.0 <th< td=""><td>Fuel Other (Coal) Jetfuels</td><td>Region RUSSIA (Un 2005 0.0 0.4</td><td>its: EJ/y) 2010 0.0 0.5</td><td><b>2015</b> 0.0 0.6</td><td><b>2020</b> 0.0 0.6</td><td><b>2025</b> 0.0 0.7</td><td>0.0 0.8</td><td>0.0 1.0</td><td>0.0 1.1</td><td><b>2045</b> 0.0 1.3</td><td><b>2050</b> 0.0 1.4</td></th<>	Fuel Other (Coal) Jetfuels	Region RUSSIA (Un 2005 0.0 0.4	its: EJ/y) 2010 0.0 0.5	<b>2015</b> 0.0 0.6	<b>2020</b> 0.0 0.6	<b>2025</b> 0.0 0.7	0.0 0.8	0.0 1.0	0.0 1.1	<b>2045</b> 0.0 1.3	<b>2050</b> 0.0 1.4
Bio-Methanol         0.0 <t< th=""><th>Fuel Other (Coal) Jetfuels Bio-Jetfuels</th><th>Region RUSSIA (Un 2005 0.0 0.4 0.0</th><th>its: EJ/y) 2010 0.0 0.5 0.0</th><th><b>2015</b> 0.0 0.6 0.0</th><th><b>2020</b> 0.0 0.6 0.0</th><th><b>2025</b> 0.0 0.7 0.0</th><th>0.0 0.8 0.0</th><th>0.0 1.0 0.0</th><th>0.0 1.1 0.0</th><th><b>2045</b> 0.0 1.3 0.0</th><th><b>2050</b> 0.0 1.4 0.0</th></t<>	Fuel Other (Coal) Jetfuels Bio-Jetfuels	Region RUSSIA (Un 2005 0.0 0.4 0.0	its: EJ/y) 2010 0.0 0.5 0.0	<b>2015</b> 0.0 0.6 0.0	<b>2020</b> 0.0 0.6 0.0	<b>2025</b> 0.0 0.7 0.0	0.0 0.8 0.0	0.0 1.0 0.0	0.0 1.1 0.0	<b>2045</b> 0.0 1.3 0.0	<b>2050</b> 0.0 1.4 0.0
Bio-Ethanol         0.0         0.0         0.0         0.0         0.0         0.1         0.1         0.1         0.2         0.0           Bio-Syngas         0.0         0.0         0.0         0.1         0.0	Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline	Region RUSSIA (Un 2005 0.0 0.4 0.0 1.2	its: EJ/y) 2010 0.0 0.5 0.0 1.4	<b>2015</b> 0.0 0.6 0.0 1.5	<b>2020</b> 0.0 0.6 0.0 1.5	<b>2025</b> 0.0 0.7 0.0 1.4	0.0 0.8 0.0 1.3	0.0 1.0 0.0 1.1	0.0 1.1 0.0 0.8	<b>2045</b> 0.0 1.3 0.0 0.6	<b>2050</b> 0.0 1.4 0.0 0.5
Bio-Syngas         0.0	Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel	Region RUSSIA (Un 2005 0.0 0.4 0.0 1.2 0.6	its: EJ/y) 2010 0.0 0.5 0.0 1.4 0.6	<b>2015</b> 0.0 0.6 0.0 1.5 0.9	<b>2020</b> 0.0 0.6 0.0 1.5 0.9	<b>2025</b> 0.0 0.7 0.0 1.4 0.8	0.0 0.8 0.0 1.3 0.9	0.0 1.0 0.0 1.1 1.0	0.0 1.1 0.0 0.8 1.1	<b>2045</b> 0.0 1.3 0.0 0.6 1.2	<b>2050</b> 0.0 1.4 0.0 0.5 1.2
Biofuel(Diesel)         0.0	Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol	Region RUSSIA (Un 2005 0.0 0.4 0.0 1.2 0.6 0.0	its: EJ/y) 2010 0.0 0.5 0.0 1.4 0.6 0.0	<b>2015</b> 0.0 0.6 0.0 1.5 0.9 0.0	<b>2020</b> 0.0 0.6 0.0 1.5 0.9 0.0	2025 0.0 0.7 0.0 1.4 0.8 0.0	0.0 0.8 0.0 1.3 0.9 0.0	0.0 1.0 0.0 1.1 1.0 0.0	0.0 1.1 0.0 0.8 1.1 0.0	2045 0.0 1.3 0.0 0.6 1.2 0.0	<b>2050</b> 0.0 1.4 0.0 0.5
Electricity         0.1 <th< th=""><th>Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol</th><th>Region RUSSIA (Un 2005 0.0 0.4 0.0 1.2 0.6 0.0 0.0</th><th>its: EJ/y) 2010 0.0 0.5 0.0 1.4 0.6 0.0 0.0</th><th><b>2015</b> 0.0 0.6 0.0 1.5 0.9 0.0 0.0</th><th><b>2020</b> 0.0 0.6 0.0 1.5 0.9 0.0 0.0</th><th>2025 0.0 0.7 0.0 1.4 0.8 0.0 0.0</th><th>0.0 0.8 0.0 1.3 0.9 0.0 0.1</th><th>0.0 1.0 0.0 1.1 1.0 0.0 0.1</th><th>0.0 1.1 0.0 0.8 1.1 0.0 0.1</th><th>2045 0.0 1.3 0.0 0.6 1.2 0.0 0.2</th><th>2050 0.0 1.4 0.0 0.5 1.2 0.0</th></th<>	Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol	Region RUSSIA (Un 2005 0.0 0.4 0.0 1.2 0.6 0.0 0.0	its: EJ/y) 2010 0.0 0.5 0.0 1.4 0.6 0.0 0.0	<b>2015</b> 0.0 0.6 0.0 1.5 0.9 0.0 0.0	<b>2020</b> 0.0 0.6 0.0 1.5 0.9 0.0 0.0	2025 0.0 0.7 0.0 1.4 0.8 0.0 0.0	0.0 0.8 0.0 1.3 0.9 0.0 0.1	0.0 1.0 0.0 1.1 1.0 0.0 0.1	0.0 1.1 0.0 0.8 1.1 0.0 0.1	2045 0.0 1.3 0.0 0.6 1.2 0.0 0.2	2050 0.0 1.4 0.0 0.5 1.2 0.0
Hydrogen         0.0         0.	Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG	Region RUSSIA (Un 2005 0.0 0.4 0.0 1.2 0.6 0.0 0.0 0.0	its: EJ/y) 2010 0.0 0.5 0.0 1.4 0.6 0.0 0.0 0.0 0.0	2015 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.0 0.0	2020 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.0 0.1	2025 0.0 0.7 0.0 1.4 0.8 0.0 0.0 0.0	0.0 0.8 0.0 1.3 0.9 0.0 0.1 0.0 0.1	0.0 1.0 0.0 1.1 1.0 0.0 0.1 0.0	0.0 1.1 0.0 0.8 1.1 0.0 0.1 0.0	2045 0.0 1.3 0.0 0.6 1.2 0.0 0.2 0.0 0.1	2050 0.0 1.4 0.0 0.5 1.2 0.0 0.2
Total       2.3       2.6       3.1       3.2       3.3       3.3       3.4       3.5       3.6       3         Fuels in All Transport, Region USA (Units: EJ/y)       2010       2010       2015       2020       2025       2030       2035       2040       2045       2055         Other (Coal)       0.0	Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel)	Region RUSSIA (Un 2005 0.0 0.4 0.0 1.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0	its: EJ/y) 2010 0.0 0.5 0.0 1.4 0.6 0.0 0.0 0.0 0.0 0.0 0.0	<b>2015</b> 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.0 0.0 0.0	2020 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.0 0.1 0.0 0.0	2025 0.0 0.7 0.0 1.4 0.8 0.0 0.0 0.0 0.0 0.1 0.0	0.0 0.8 0.0 1.3 0.9 0.0 0.1 0.0 0.1 0.0	0.0 1.0 0.0 1.1 1.0 0.0 0.1 0.0 0.1 0.0 0.1 0.0	0.0 1.1 0.0 0.8 1.1 0.0 0.1 0.0 0.1 0.0	2045 0.0 1.3 0.0 0.6 1.2 0.0 0.2 0.0 0.1 0.0	2050 0.0 1.4 0.0 0.5 1.2 0.0 0.2 0.0 0.1 0.0
Fuels in All Transport, Region USA (Units: EJ/y)         2010         2015         2020         2023         2030         2030         2040         2045         2055           Other (Coal)         0.0	Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity	Region RUSSIA (Un 2005 0.0 0.4 0.0 1.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0	its: EJ/y) 2010 0.0 0.5 0.0 1.4 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2015 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2020 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.0 0.1	2025 0.0 0.7 0.0 1.4 0.8 0.0 0.0 0.0 0.0 0.1	0.0 0.8 0.0 1.3 0.9 0.0 0.1 0.0 0.1 0.0 0.1	0.0 1.0 0.0 1.1 1.0 0.0 0.1 0.0 0.1 0.0 0.1	0.0 1.1 0.0 0.8 1.1 0.0 0.1 0.0 0.1 0.0 0.1	2045 0.0 1.3 0.0 0.6 1.2 0.0 0.2 0.0 0.1 0.0 0.2	2050 0.0 1.4 0.0 5 1.2 0.0 0.2 0.0 0.1 0.0 0.2
Fuel         2005         2010         2015         2020         2025         2030         2035         2040         2045         205           Other (Coal)         0.0	Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen	Region RUSSIA (Un 2005 0.0 0.4 0.0 1.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	its: EJ/y) 2010 0.0 0.5 0.0 1.4 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2015 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.0	2020 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.1 0.0 0.0 0.1 0.0	2025 0.0 0.7 0.0 1.4 0.8 0.0 0.0 0.0 0.0 0.1 0.0 0.1 0.0	0.0 0.8 0.0 1.3 0.9 0.0 0.1 0.0 0.1 0.0 0.1 0.0	0.0 1.0 0.0 1.1 1.0 0.0 0.1 0.0 0.1 0.0 0.1 0.0	0.0 1.1 0.0 0.8 1.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0	2045 0.0 1.3 0.0 0.6 1.2 0.0 0.2 0.0 0.1 0.0 0.2 0.0	2050 0.0 1.4 0.0 5 1.2 0.0 0.2 0.0 0.1 0.0 0.2 0.0
Fuel         2005         2010         2015         2020         2025         2030         2035         2040         2045         205           Other (Coal)         0.0	Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen	Region RUSSIA (Un 2005 0.0 0.4 0.0 1.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	its: EJ/y) 2010 0.0 0.5 0.0 1.4 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2015 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.0	2020 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.1 0.0 0.0 0.1 0.0	2025 0.0 0.7 0.0 1.4 0.8 0.0 0.0 0.0 0.0 0.1 0.0 0.1 0.0	0.0 0.8 0.0 1.3 0.9 0.0 0.1 0.0 0.1 0.0 0.1 0.0	0.0 1.0 0.0 1.1 1.0 0.0 0.1 0.0 0.1 0.0 0.1 0.0	0.0 1.1 0.0 0.8 1.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0	2045 0.0 1.3 0.0 0.6 1.2 0.0 0.2 0.0 0.1 0.0 0.2 0.0	2050 0.0 1.4 0.0 5 1.2 0.0 0.2 0.0 0.1 0.0 0.2
Other (Coal)         0.0 <t< th=""><th>Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Total</th><th>Region RUSSIA (Un 2005 0.0 0.4 0.0 1.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0</th><th>its: EJ/y) 2010 0.0 0.5 0.0 1.4 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0</th><th>2015 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.0</th><th>2020 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.1 0.0 0.0 0.1 0.0</th><th>2025 0.0 0.7 0.0 1.4 0.8 0.0 0.0 0.0 0.0 0.1 0.0 0.1 0.0</th><th>0.0 0.8 0.0 1.3 0.9 0.0 0.1 0.0 0.1 0.0 0.1 0.0</th><th>0.0 1.0 0.0 1.1 1.0 0.0 0.1 0.0 0.1 0.0 0.1 0.0</th><th>0.0 1.1 0.0 0.8 1.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0</th><th>2045 0.0 1.3 0.0 0.6 1.2 0.0 0.2 0.0 0.1 0.0 0.2 0.0</th><th>2050 0.0 1.4 0.0 5 1.2 0.0 0.2 0.0 0.1 0.0 0.2 0.0</th></t<>	Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Total	Region RUSSIA (Un 2005 0.0 0.4 0.0 1.2 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	its: EJ/y) 2010 0.0 0.5 0.0 1.4 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2015 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.0	2020 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.1 0.0 0.0 0.1 0.0	2025 0.0 0.7 0.0 1.4 0.8 0.0 0.0 0.0 0.0 0.1 0.0 0.1 0.0	0.0 0.8 0.0 1.3 0.9 0.0 0.1 0.0 0.1 0.0 0.1 0.0	0.0 1.0 0.0 1.1 1.0 0.0 0.1 0.0 0.1 0.0 0.1 0.0	0.0 1.1 0.0 0.8 1.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0	2045 0.0 1.3 0.0 0.6 1.2 0.0 0.2 0.0 0.1 0.0 0.2 0.0	2050 0.0 1.4 0.0 5 1.2 0.0 0.2 0.0 0.1 0.0 0.2 0.0
Bio-Jetfuels         0.0         0.0         0.0         0.1         0.1         0.1         0.0         0.1         0.0           Gasoline         16.4         16.6         15.9         14.7         12.5         9.2         6.3         4.2         2.8         1           Diesel         6.9         6.4         6.5         6.6         6.8         7.1         7.3         7.0         6.9         6.9           Bio-Methanol         0.0         0.0         0.1         0.2         0.2         0.3         0.4         0.5         0.0	Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Total	Region RUSSIA (Un 2005           0.0           0.4           0.0           1.2           0.6           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.1           0.0           2.3           Region USA (Units:	its: EJ/y) 2010 0.0 0.5 0.0 1.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2015 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2020 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0 3.2	2025 0.0 0.7 0.0 1.4 0.8 0.0 0.0 0.0 0.1 0.0 0.1 0.0 0.3.3	0.0 0.8 0.0 1.3 0.9 0.0 0.1 0.0 0.1 0.0 0.1 0.0 3.3	0.0 1.0 0.0 1.1 1.0 0.0 0.1 0.0 0.1 0.0 0.1 0.0 3.4	0.0 1.1 0.0 0.8 1.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 3.5	2045 0.0 1.3 0.0 0.6 1.2 0.0 0.2 0.0 0.1 0.0 0.2 0.0 3.6	2050 0.0 1.4 0.0 5 1.2 0.0 0.2 0.0 0.1 0.0 0.2 0.0
Gasoline         16.4         16.6         15.9         14.7         12.5         9.2         6.3         4.2         2.8         1           Diesel         6.9         6.4         6.5         6.6         6.8         7.1         7.3         7.0         6.9         6.9           Bio-Methanol         0.0         0.0         0.1         0.2         0.2         0.3         0.4         0.5         0.0	Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Total	Region RUSSIA (Un           2005           0.0           0.4           0.0           1.2           0.6           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.1           0.0           2.3           Region USA (Units:           2005	its: EJ/y) 2010 0.0 0.5 0.0 1.4 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2015 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.1	2020 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.1 0.0 0.0 0.0 0.0 3.2 2020	2025 0.0 0.7 0.0 1.4 0.8 0.0 0.0 0.0 0.1 0.0 0.1 0.0 0.3.3 2025	0.0 0.8 0.0 1.3 0.9 0.0 0.1 0.0 0.1 0.0 0.1 0.0 3.3 2030	0.0 1.0 0.0 1.1 1.0 0.0 0.1 0.0 0.1 0.0 0.1 0.0 3.4 <b>2035</b>	0.0 1.1 0.0 0.8 1.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 2040	2045 0.0 1.3 0.0 0.6 1.2 0.0 0.2 0.0 0.1 0.0 0.2 0.0 3.6 2045	2050 0.0 1.4 0.0 5 1.2 0.0 0.2 0.0 0.1 0.0 0.2 0.0 0.3.7
Diesel         6.9         6.4         6.5         6.6         6.8         7.1         7.3         7.0         6.9         6           Bio-Methanol         0.0         0.0         0.1         0.2         0.2         0.3         0.4         0.5         0	Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Total Fuels in All Transport, Fuel Other (Coal)	Region RUSSIA (Un 2005           0.0           0.4           0.0           1.2           0.6           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.1           0.0           2.3           Region USA (Units: 2005           0.0           3.5	its: EJ/y) 2010 0.0 0.0 1.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2.6 EJ/y) 2010 0.0 3.4	2015 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.0 3.1	2020 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.1 0.0 0.1 0.0 0.1 0.0 2020 0.0 3.5	2025 0.0 0.7 0.0 1.4 0.8 0.0 0.0 0.0 0.1 0.0 0.1 0.0 3.3 2025 0.0 3.7	0.0 0.8 0.0 1.3 0.9 0.0 0.1 0.0 0.1 0.0 0.1 0.0 3.3 <b>2030</b> 0.0 3.8	0.0 1.0 0.0 1.1 1.0 0.0 0.1 0.0 0.1 0.0 0.1 0.0 3.4 2035 0.0	0.0 0.0 1.1 0.0 0.8 1.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 3.5 <b>2040</b> 0.0	2045 0.0 1.3 0.0 0.6 1.2 0.0 0.2 0.0 0.1 0.0 0.2 0.0 3.6 2045 0.0 4.3	2050 0.0 1.4 0.0 5 1.2 0.0 0.2 0.0 0.1 0.0 0.2 0.0 0.1 0.0 3.7 2050
Bio-Methanol         0.0         0.0         0.0         0.1         0.2         0.2         0.3         0.4         0.5         0	Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Total Fuels in All Transport, I Fuel Other (Coal) Jetfuels Bio-Jetfuels	Region RUSSIA (Un 2005           0.0           0.4           0.0           1.2           0.6           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.1           0.0           2.3           Region USA (Units: 2005           0.0           3.5           0.0	its: EJ/y) 2010 0.0 0.0 0.0 1.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2015 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.0 3.1 2015 0.0 3.4 0.0	2020 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.1 0.0 0.1 0.0 0.1 0.0 3.2 2020 0.0 3.5 0.0	2025 0.0 0.7 0.0 1.4 0.8 0.0 0.0 0.0 0.1 0.0 0.1 0.0 3.3 2025 0.0 3.7 0.1	0.0 0.8 0.0 1.3 0.9 0.0 0.1 0.0 0.1 0.0 3.3 <b>2030</b> 0.0 3.8 0.1	0.0 1.0 0.0 1.1 1.0 0.0 0.1 0.0 0.1 0.0 3.4 <b>2035</b> 0.0 4.0 0.1	0.0 0.0 1.1 0.0 0.8 1.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 3.5 <b>2040</b> 0.0 4.2 0.0	2045 0.0 1.3 0.0 0.6 1.2 0.0 0.2 0.0 0.1 0.0 3.6 2045 0.0 4.3 0.1	2050 0.0 1.4 0.0 0.5 1.2 0.0 0.2 0.0 0.1 0.0 0.0 3.7 2050 0.0 4.4 0.1
	Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline Diesel Bio-Methanol Bio-Ethanol Bio-Ethanol Bio-Syngas CNG Biofuel(Diesel) Electricity Hydrogen Total Fuels in All Transport, I Fuel Other (Coal) Jetfuels Bio-Jetfuels Gasoline	Region RUSSIA (Un 2005           0.0           0.4           0.0           1.2           0.6           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.1           0.0           2.3           Region USA (Units: 2005           0.0           3.5           0.0           16.4	its: EJ/y) 2010 0.0 0.0 1.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2015 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.0 3.1 2015 0.0 3.4 0.0 3.4 0.0 15.9	2020 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.1 0.0 0.1 0.0 3.2 2020 0.0 3.5 0.0 14.7	2025 0.0 0.7 0.0 1.4 0.8 0.0 0.0 0.0 0.1 0.0 0.1 0.0 3.3 3 2025 0.0 3.7 0.1 12.5	0.0 0.8 0.0 1.3 0.9 0.0 0.1 0.0 0.1 0.0 3.3 <b>2030</b> 0.0 3.8 0.1 9.2	0.0 1.0 0.0 1.1 1.0 0.0 0.1 0.0 0.1 0.0 0.1 0.0 3.4 2035 0.0 4.0 0.1 6.3	0.0 0.0 1.1 0.0 0.8 1.1 0.0 0.0	2045 0.0 1.3 0.0 0.6 1.2 0.0 0.2 0.0 0.1 0.0 3.6 2045 0.0 4.3 0.1 2.8	2050 0.0 1.4 0.0 0.5 1.2 0.0 0.2 0.0 0.1 0.0 0.2 0.0 3.7 2050 0.0 4.4 0.1 1.9
	FuelOther (Coal)JetfuelsBio-JetfuelsGasolineDieselBio-MethanolBio-EthanolBio-EthanolBio-EthanolBio-EthanolBio-EthanolBio-EthanolBio-EthanolBio-EthanolBio-SyngasCNGBiofuel(Diesel)ElectricityHydrogenTotalFuels in All Transport,FuelOther (Coal)JetfuelsBio-JetfuelsGasolineDiesel	Region RUSSIA (Un 2005           0.0           0.4           0.0           1.2           0.6           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.1           0.0           2.3           Region USA (Units: 2005           0.0           3.5           0.0           16.4           6.9	its: EJ/y) 2010 0.0 0.0 1.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2015 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.0 3.1 2015 0.0 3.4 0.0 15.9 6.5	2020 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.1 0.0 0.1 0.0 3.2 2020 0.0 3.5 0.0 14.7 6.6	2025 0.0 0.7 0.0 1.4 0.8 0.0 0.0 0.0 0.1 0.0 0.1 0.0 3.3 3 2025 0.0 3.7 0.1 12.5 6.8	0.0 0.8 0.0 1.3 0.9 0.0 0.1 0.0 0.1 0.0 0.1 0.0 3.3 <b>2030</b> 0.0 3.8 0.1 9.2 7.1	0.0 1.0 0.0 1.1 1.0 0.0 0.1 0.0 0.1 0.0 3.4 <b>2035</b> 0.0 4.0 0.1 6.3 7.3	0.0 0.0 1.1 0.0 0.8 1.1 0.0 0.0	2045 0.0 1.3 0.0 0.6 1.2 0.0 0.2 0.0 0.1 0.0 0.2 0.0 3.6 2045 0.0 4.3 0.1 2.8 6.9	2050 0.0 1.4 0.0 0.5 1.2 0.0 0.2 0.0 0.1 0.0 0.2 0.0 3.7 2050 0.0 4.4 0.1 1.9 6.9
	FuelOther (Coal)JetfuelsBio-JetfuelsGasolineDieselBio-MethanolBio-EthanolBio-EthanolBio-EthanolBio-EthanolBio-EthanolBio-EthanolBio-EthanolBio-EthanolBio-SyngasCNGBiofuel(Diesel)ElectricityHydrogenTotalFuels in All Transport, IFuelsOther (Coal)JetfuelsBio-JetfuelsGasolineDieselBio-Methanol	Region RUSSIA (Un 2005           0.0           0.4           0.0           1.2           0.6           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.1           0.0           2.3           Region USA (Units:           2005           0.0           3.5           0.0           16.4           6.9           0.0	its: EJ/y) 2010 0.0 0.0 1.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2015 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.0 3.1 2015 0.0 3.4 0.0 15.9 6.5 0.0	2020 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.1 0.0 0.1 0.0 3.2 2020 0.0 3.5 0.0 14.7 6.6 0.1	2025 0.0 0.7 0.0 1.4 0.8 0.0 0.0 0.0 0.1 0.0 0.1 0.0 3.3 3 2025 0.0 3.7 0.1 12.5 6.8 0.2	0.0 0.8 0.0 1.3 0.9 0.0 0.1 0.0 0.1 0.0 3.3 <b>2030</b> 0.0 3.8 0.1 9.2 7.1 0.2	0.0 1.0 0.0 1.1 1.0 0.0 0.1 0.0 0.1 0.0 0.1 0.0 3.4 <b>2035</b> 0.0 4.0 0.1 6.3 7.3 0.3	0.0 0.0 1.1 0.0 0.8 1.1 0.0 0.0	2045 0.0 1.3 0.0 0.6 1.2 0.0 0.2 0.0 0.1 0.0 0.2 0.0 3.6 2045 0.0 4.3 0.1 2.8 6.9 0.5	2050 0.0 1.4 0.0 0.5 1.2 0.0 0.2 0.0 0.1 0.0 0.2 0.0 3.7 2050 0.0 4.4 0.1 1.9 6.9 0.4
	FuelOther (Coal)JetfuelsBio-JetfuelsGasolineDieselBio-MethanolBio-EthanolBio-EthanolBio-EthanolBiofuel(Diesel)ElectricityHydrogenTotalFuels in All Transport,FuelsOther (Coal)JetfuelsBio-JetfuelsGasolineDieselBio-MethanolBio-MethanolBio-Methanol	Region RUSSIA (Un 2005           0.0           0.4           0.0           1.2           0.6           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.1           0.0           2.3           Region USA (Units: 2005           0.0           3.5           0.0           16.4           6.9           0.0           0.3	its: EJ/y) 2010 0.0 0.0 1.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2015 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2020 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.1 0.0 0.1 0.0 3.2 2020 0.0 3.5 0.0 14.7 6.6 0.1 1.4	2025 0.0 0.7 0.0 1.4 0.8 0.0 0.0 0.0 0.1 0.0 0.1 0.0 3.3 3 2025 0.0 3.7 0.1 12.5 6.8 0.2 1.6	0.0 0.8 0.0 1.3 0.9 0.0 0.1 0.0 0.1 0.0 3.3 <b>2030</b> 0.0 3.8 0.1 9.2 7.1 0.2 1.7	0.0 1.0 0.0 1.1 1.0 0.0 0.1 0.0 0.1 0.0 0.1 0.0 3.4 <b>2035</b> 0.0 4.0 0.1 6.3 7.3 0.3 1.8	0.0 0.0 1.1 0.0 0.8 1.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 3.5 <b>2040</b> 0.0 4.2 0.0 4.2 7.0 0.4 1.8	2045 0.0 1.3 0.0 0.6 1.2 0.0 0.2 0.0 0.1 0.0 0.2 0.0 3.6 2045 0.0 4.3 0.1 2.8 6.9 0.5 1.8	2050 0.0 1.4 0.0 0.5 1.2 0.0 0.2 0.0 0.1 0.0 0.2 0.0 3.7 2050 0.0 4.4 0.1 1.9 6.9 0.4 1.9
	FuelOther (Coal)JetfuelsBio-JetfuelsGasolineDieselBio-MethanolBio-EthanolBio-EthanolBiofuel(Diesel)ElectricityHydrogenTotalVother (Coal)JetfuelsBio-JetfuelsBio-JetfuelsBio-JetfuelsBio-JetfuelsBio-JetfuelsBio-JetfuelsBio-JetfuelsBio-JetfuelsBio-JetfuelsBio-JetfuelsBio-MethanolBio-Styngas	Region RUSSIA (Un 2005           0.0           0.4           0.0           1.2           0.6           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.1           0.0           2.3           Region USA (Units: 2005           0.0           3.5           0.0           3.5           0.0           3.5           0.0           3.5           0.0           3.5           0.0           3.5           0.0           3.5           0.0           3.5           0.0           3.5           0.0           0.3           0.0	<pre>its: EJ/y) 2010 0.0 0.0 0.0 1.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0</pre>	2015 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2020 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.1 0.0 0.1 0.0 3.2 2020 0.0 3.5 0.0 14.7 6.6 0.1 1.4 1.1	2025 0.0 0.7 0.0 1.4 0.8 0.0 0.0 0.1 0.0 0.1 0.0 0.1 0.0 3.3 3 2025 0.0 3.7 0.1 12.5 6.8 0.2 1.6 0.7	0.0 0.8 0.0 1.3 0.9 0.0 0.1 0.0 0.1 0.0 3.3 <b>2030</b> 0.0 3.8 0.1 9.2 7.1 0.2 1.7 0.5	0.0 1.0 0.0 1.1 1.0 0.0 0.1 0.0 0.1 0.0 0.1 0.0 3.4 <b>2035</b> 0.0 4.0 0.1 6.3 7.3 0.3 1.8 0.4	0.0 0.0 1.1 0.0 0.8 1.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 3.5 <b>2040</b> 0.0 4.2 0.0 4.2 7.0 0.4 1.8 0.3	2045 0.0 1.3 0.0 0.6 1.2 0.0 0.2 0.0 0.1 0.0 0.2 0.0 3.6 2045 0.0 4.3 0.1 2.8 6.9 0.5 1.8 0.1	2050 0.0 1.4 0.0 0.5 1.2 0.0 0.2 0.0 0.1 0.0 0.2 0.0 3.7 2050 0.0 4.4 0.1 1.9 6.9 0.4 1.9 0.1
	FuelOther (Coal)JetfuelsBio-JetfuelsGasolineDieselBio-MethanolBio-EthanolBio-SyngasCNGBiofuel(Diesel)ElectricityHydrogenTotalVother (Coal)JetfuelsBio-JetfuelsGasolineDieselBio-JetfuelsBio-JetfuelsBio-JetfuelsBio-JetfuelsDieselBio-MethanolBio-SyngasCNG	Region RUSSIA (Un 2005           0.0           0.4           0.0           1.2           0.6           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           2.3           Region USA (Units: 2005           0.0           3.5           0.0           3.5           0.0           3.5           0.0           3.5           0.0           3.5           0.0           3.5           0.0           3.5           0.0           0.3           0.0           0.3           0.0           0.3           0.0	its: EJ/y) 2010 0.0 0.0 0.0 1.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2015 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2020 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.1 0.0 0.1 0.0 3.2 2020 0.0 3.5 0.0 14.7 6.6 0.1 1.4 1.1	2025 0.0 1.4 0.8 0.0 0.0 0.0 0.1 0.0 0.1 0.0 0.1 0.0 3.3 2025 0.0 3.7 0.1 12.5 6.8 0.2 1.6 0.7 0.0	0.0 0.8 0.0 1.3 0.9 0.0 0.1 0.0 0.1 0.0 3.3 <b>2030</b> 0.0 3.8 0.1 9.2 7.1 0.2 1.7 0.5 0.2	0.0 1.0 0.0 1.1 1.0 0.0 0.1 0.0 0.1 0.0 0.1 0.0 3.4 <b>2035</b> 0.0 4.0 0.1 6.3 7.3 0.3 1.8 0.4 0.3	0.0 0.0 1.1 0.0 0.8 1.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 3.5 <b>2040</b> 0.0 4.2 0.0 4.2 7.0 0.4 1.8 0.3 0.5	2045 0.0 1.3 0.0 0.6 1.2 0.0 0.2 0.0 0.1 0.0 0.2 0.0 3.6 2045 0.0 4.3 0.1 2.8 6.9 0.5 1.8 0.1 0.6	2050 0.0 1.4 0.0 0.5 1.2 0.0 0.2 0.0 0.1 0.0 0.2 0.0 0.2 0.0 3.7 2050 0.0 4.4 0.1 1.9 6.9 0.4 1.9 0.1 0.5
•	FuelOther (Coal)JetfuelsBio-JetfuelsGasolineDieselBio-MethanolBio-EthanolBio-SyngasCNGBiofuel(Diesel)ElectricityHydrogenTotalVuels in All Transport, I FuelOther (Coal)JetfuelsBio-JetfuelsBio-JetfuelsBio-JetfuelsBio-JetfuelsBio-JetfuelsDieselBio-MethanolBio-SyngasCNGBiofuel(Diesel)	Region RUSSIA (Un 2005           0.0           0.4           0.0           1.2           0.6           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           2.3           Region USA (Units: 2005           0.0           3.5           0.0           3.5           0.0           3.5           0.0           3.5           0.0           0.0           0.0           0.3           0.0           0.3           0.0           0.0	its: EJ/y) 2010 0.0 0.0 1.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	2015 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2020 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.1 0.0 0.1 0.0 3.2 2020 0.0 3.5 0.0 14.7 6.6 0.1 1.4 1.1 0.0 0.1	2025 0.0 1.4 0.8 0.0 0.0 0.0 0.1 0.0 0.1 0.0 0.1 0.0 3.3 3 2025 0.0 3.7 0.1 12.5 6.8 0.2 1.6 0.7 0.0 0.2	0.0 0.8 0.0 1.3 0.9 0.0 0.1 0.0 0.1 0.0 3.3 <b>2030</b> 0.0 3.8 0.1 9.2 7.1 0.2 1.7 0.5 0.2 0.2	0.0 1.0 0.0 1.1 1.0 0.0 0.1 0.0 0.1 0.0 0.1 0.0 3.4 <b>2035</b> 0.0 4.0 0.1 6.3 7.3 0.3 1.8 0.4 0.3 0.2	0.0 0.0 1.1 0.0 0.8 1.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 3.5 <b>2040</b> 0.0 4.2 7.0 0.4 1.8 0.3 0.5 0.1	2045 0.0 1.3 0.0 0.6 1.2 0.0 0.2 0.0 0.1 0.0 0.2 0.0 3.6 2045 0.0 4.3 0.1 2.8 6.9 0.5 1.8 0.1 0.6 0.2	2050 0.0 1.4 0.0 0.5 1.2 0.0 0.2 0.0 0.1 0.0 0.2 0.0 3.7 2050 0.0 4.4 0.1 1.9 6.9 0.4 1.9 0.4 1.9 0.1 0.5 0.3
	FuelOther (Coal)JetfuelsBio-JetfuelsGasolineDieselBio-MethanolBio-EthanolBio-SyngasCNGBiofuel(Diesel)ElectricityHydrogenTotalFuels in All Transport, I FuelOther (Coal)JetfuelsBio-JetfuelsBio-JetfuelsBio-JetfuelsBio-JetfuelsDieselBio-MethanolBio-SyngasCNGBio-SyngasCNGBiofuel(Diesel)Electricity	Region RUSSIA (Un 2005           0.0           0.4           0.0           1.2           0.6           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           2.3           Region USA (Units:           2005           0.0           16.4           6.9           0.0           0.3           0.0           0.3           0.0           0.3           0.0           0.0           0.0           0.0	<pre>its: EJ/y) 2010 0.0 0.0 0.0 1.4 0.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0</pre>	2015 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2020 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.0 0.0 0.0 0.1 0.0 3.2 2020 0.0 3.5 0.0 14.7 6.6 0.1 1.4 1.1 0.0 0.1 0.2	2025 0.0 0.7 0.0 1.4 0.8 0.0 0.0 0.1 0.0 0.1 0.0 0.1 0.0 3.3 2025 0.0 3.7 0.1 12.5 6.8 0.2 1.6 0.2 1.6 0.7 0.0 0.2 0.3	0.0 0.8 0.0 1.3 0.9 0.0 0.1 0.0 0.1 0.0 3.3 <b>2030</b> 0.0 3.8 0.1 9.2 7.1 0.2 7.1 0.2 1.7 0.5 0.2 0.2 0.6	0.0 1.0 0.0 1.1 1.0 0.0 0.1 0.0 0.1 0.0 3.4 <b>2035</b> 0.0 4.0 0.1 6.3 7.3 0.3 1.8 0.4 0.3 0.2 0.9	0.0 0.0 1.1 0.0 0.8 1.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 3.5 <b>2040</b> 0.0 4.2 7.0 0.4 1.8 0.3 0.5 0.1 1.4	2045 0.0 1.3 0.0 0.2 0.0 0.2 0.0 0.1 0.0 0.2 0.0 3.6 2045 0.0 4.3 0.1 2.88 0.0 4.3 0.1 2.88 0.5 1.8 0.1 0.5 1.8 0.1 0.5 1.8 0.1 0.5 1.8 0.5 1.8 0.1 0.5 1.8 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	2050 0.0 1.4 0.0 0.5 1.2 0.0 0.2 0.0 0.1 0.0 3.7 2050 0.0 4.4 0.1 1.9 6.9 0.4 1.9 6.9 0.4 1.9 0.1
Total 27.3 27.3 27.6 27.9 26.2 23.8 21.7 20.3 19.6 19	FuelOther (Coal)JetfuelsBio-JetfuelsGasolineDieselBio-MethanolBio-EthanolBio-SyngasCNGBiofuel(Diesel)ElectricityHydrogenTotalFuels in All Transport, I FuelOther (Coal)JetfuelsBio-JetfuelsBio-JetfuelsBio-JetfuelsBio-SyngasCNGBio-SyngasCNGBio-EthanolBio-SyngasCNGBiofuel(Diesel)ElectricityHydrogen	Region RUSSIA (Un 2005           0.0           0.4           0.0           1.2           0.6           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.1           0.0           2.3           Region USA (Units:           2005           0.0           16.4           6.9           0.0           0.3           0.0           0.3           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0	<pre>its: EJ/y) 2010 0.0 0.0 0.0 1.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0</pre>	2015 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2020 0.0 0.6 0.0 1.5 0.9 0.0 0.0 0.1 0.0 0.1 0.0 3.2 2020 0.0 3.5 0.0 14.7 6.6 0.1 1.4 4 1.1 1.4 1.1	2025 0.0 0.7 0.0 1.4 0.8 0.0 0.0 0.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 3.3 2025 0.0 3.7 0.1 12.5 6.8 0.2 1.6 0.7 0.0 0.2 0.3 3 0.2	0.0 0.8 0.0 1.3 0.9 0.0 0.1 0.0 0.1 0.0 3.3 <b>2030</b> 0.0 3.3 <b>2030</b> 0.0 3.8 0.1 9.2 7.1 0.2 7.1 0.2 1.7 0.5 0.2 0.2 0.6 0.2	0.0 1.0 0.0 1.1 1.0 0.0 0.1 0.0 0.1 0.0 3.4 <b>2035</b> 0.0 4.0 0.1 6.3 7.3 0.3 1.8 0.4 0.3 0.2 0.9 0.3	0.0 0.0 1.1 0.0 0.8 1.1 0.0 0.1 0.0 0.1 0.0 0.1 0.0 3.5 <b>2040</b> 0.0 4.2 7.0 0.4 1.8 0.3 0.5 0.1 1.4 0.3	2045 0.0 1.3 0.0 0.2 0.0 0.1 0.0 0.2 0.0 0.1 0.0 0.2 0.0 3.6 2045 0.0 4.3 0.1 2.8 6.9 0.5 1.8 0.1 0.6 0.2 1.9 0.4	2050 0. 1. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.

Fuels in All Transport, Re	gion WEUR (Unit	s: EJ/y)								
Fuel	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Other (Coal)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Jetfuels	2.2	2.2	2.3	2.4	2.6	2.8	2.9	3.0	3.1	3.2
Bio-Jetfuels	0.0	0.1	0.2	0.3	0.2	0.1	0.1	0.0	0.0	0.0
Gasoline	5.4	6.2	6.3	5.9	4.8	3.4	2.4	1.6	0.9	0.4
Diesel	9.6	8.4	7.8	7.4	7.4	7.7	7.7	7.8	7.9	7.8
Bio-Methanol	0.0	0.0	0.1	0.2	0.3	0.4	0.4	0.3	0.2	0.2
Bio-Ethanol	0.0	0.1	0.2	0.3	0.5	0.6	0.7	0.9	1.1	1.2
Bio-Syngas	0.0	0.0	0.1	0.2	0.2	0.2	0.1	0.1	0.0	0.0
CNG	0.0	0.0	0.1	0.1	0.2	0.3	0.5	0.5	0.4	0.4
Biofuel(Diesel)	0.1	0.3	0.6	0.8	0.5	0.3	0.3	0.2	0.1	0.1
Electricity	0.1	0.1	0.2	0.4	0.7	0.8	1.0	1.2	1.4	1.6
Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3
Total	17.5	17.5	17.9	17.9	17.4	16.7	16.1	15.6	15.3	15.2

# Technology Mix (billion v-km/y)

Technology Mix of Mileage	e for Cars (Unit	s: billion v-k	m/y)							
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	0	1	117	288	536	894	1414	2168	3156	4298
Hydrogen Fuel Cell	0	0	58	140	275	438	587	824	1023	1359
Hydrogen Hybrid	0	0	26	59	111	177	223	276	287	279
Gas Fuel Hybrid	0	0	99	232	409	647	964	1177	1209	1274
Gas Fuel ICEV	51	104	232	395	603	708	773	813	761	700
Liquid Fuel Plug-in	0	0	120	313	624	1115	1832	2923	4222	4895
Liquid Fuel Hybrid	11	79	347	777	1471	2578	4067	4901	5675	6905
Liquid Fuel ICEV	10652	11788	12377	12614	12235	11238	9728	8486	7529	6679
Total	10714	11972	13376	14818	16263	17793	19589	21568	23862	26389
	10711	110/1	10070	1.010	10100	17755	10000	21000	20002	20000
Technology Mix of Mileage	e for Cars, Regi	on AFRICA (l	Jnits: billion v	/-km/y)						
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	0	0	3	9	16	27	43	66	98	97
Hydrogen Fuel Cell	0	0	1	3	7	13	16	22	29	25
Hydrogen Hybrid	0	0	3	5	9	14	20	29	25	22
Gas Fuel Hybrid	0	0	3	6	11	17	25	37	52	72
Gas Fuel ICEV	1	3	7	12	17	25	34	46	40	34
Liquid Fuel Plug-in	0	0	3	9	18	33	56	86	129	201
Liquid Fuel Hybrid	0	2	9	21	40	71	120	200	328	535
Liquid Fuel ICEV	222	282	344	419	493	522	527	505	489	466
Total	223	288	373	484	612	721	842	991	1190	1452
Technology Mix of Mileage	-									
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	0	0	6	15	29	49	77	120	184	260
Hydrogen Fuel Cell	0	0	2	7	15	25	33	44	57	75
Hydrogen Hybrid	0	0	5	10	16	25	37	52	71	61
Gas Fuel Hybrid	0	0	5	11	20	31	46	66	94	130
Gas Fuel ICEV	8	15	24	35	49	68	91	121	131	113
Liquid Fuel Plug-in	0	0	6	16	33	59	102	165	248	376
Liquid Fuel Hybrid	0	4	17	39	73	129	219	363	596	970
Liquid Fuel ICEV	207		EOC	700	766	842	913	952	969	935
	397	494	586							
Total	404	494 512	650	833	1001	1227	1517	1882	2350	2921
	404	512	650	833			1517	1882	2350	
Technology Mix of Mileage	404 e for Cars, Regi	512 on BRAZIL (L	650 Inits: billion v	833 <b>/-km/y)</b>	1001	1227				2921
Technology Mix of Mileage Technology	404 e for Cars, Regi 2005	512 on BRAZIL (L 2010	650 Inits: billion v 2015	833 /-km/y) 2020	1001 2025	1227 2030	2035	2040	2045	2921 <b>2050</b>
Technology Mix of Mileage Technology Electric Vehicle	404 e for Cars, Regi 2005 0	512 on BRAZIL (L 2010 0	650 Inits: billion v 2015 4	833 <b>/-km/y)</b> <b>2020</b> 9	1001 <b>2025</b> 17	1227 <b>2030</b> 29	<b>2035</b> 46	<b>2040</b> 70	<b>2045</b> 102	2921 <b>2050</b> 113
Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell	404 e for Cars, Regi 2005 0 0	512 on BRAZIL (L 2010 0 0	650 Inits: billion v 2015 4 1	833 <b>/-km/y)</b> 2020 9 2	1001 2025 17 6	1227 <b>2030</b> 29 10	<b>2035</b> 46 14	<b>2040</b> 70 19	<b>2045</b> 102 26	2921 2050 113 35
Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid	404 e for Cars, Regi 2005 0 0 0	512 on BRAZIL (L 2010 0 0 0	650 Inits: billion v 2015 4 1 3	833 km/y) 2020 9 2 6	1001 2025 17 6 9	1227 2030 29 10 14	<b>2035</b> 46 14 20	<b>2040</b> 70 19 28	<b>2045</b> 102 26 24	2921 2050 113 35 21
Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid	404 e for Cars, Regi 2005 0 0 0 0	512 on BRAZIL (U 2010 0 0 0 0	650 Inits: billion v 2015 4 1 3 3	833 km/y) 2020 9 2 6 7	1001 2025 17 6 9 12	1227 2030 29 10 14 18	<b>2035</b> 46 14 20 27	<b>2040</b> 70 19 28 39	<b>2045</b> 102 26 24 55	2921 2050 113 35 21 51
Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV	404 e for Cars, Regi 2005 0 0 0 0 10	512 on BRAZIL (L 2010 0 0 0 0 16	650 Inits: billion v 2015 4 1 3 3 23	833 km/y) 2020 9 2 6 7 32	1001 2025 17 6 9 12 43	1227 2030 29 10 14 18 58	<b>2035</b> 46 14 20 27 77	<b>2040</b> 70 19 28 39 70	<b>2045</b> 102 26 24 55 60	2921 2050 113 35 21 51 52
Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in	404 e for Cars, Regi 2005 0 0 0 0 10 0	512 on BRAZIL (L 2010 0 0 0 16 0	650 Inits: billion v 2015 4 1 3 3 23 4	833 km/y) 2020 9 2 6 7 32 10	1001 <b>2025</b> 17 6 9 12 43 19	1227 2030 29 10 14 18 58 35	2035 46 14 20 27 77 58	2040 70 19 28 39 70 87	<b>2045</b> 102 26 24 55 60 134	2921 2050 113 35 21 51 51 52 200
Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid	404 e for Cars, Regi 2005 0 0 0 0 10 0 0 0 0	512 on BRAZIL (L 2010 0 0 0 16 0 3	650 Inits: billion v 2015 4 1 3 3 23 4 11	833 km/y) 2020 9 2 6 7 32 10 25	1001 <b>2025</b> 17 6 9 12 43 19 46	1227 2030 29 10 14 18 58 35 81	2035 46 14 20 27 77 58 137	2040 70 19 28 39 70 87 226	2045 102 26 24 55 60 134 364	2921 2050 113 35 21 51 52 200 471
Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV	404 e for Cars, Regi 2005 0 0 0 0 10 0 0 0 301	512 on BRAZIL (L 2010 0 0 0 16 0 3 372	650 Inits: billion v 2015 4 1 3 3 23 4 11 430	833 km/y) 2020 9 2 6 7 32 10 25 445	1001 <b>2025</b> 17 6 9 12 43 19 46 446	1227 2030 29 10 14 18 58 35 81 446	2035 46 14 20 27 77 58 137 422	2040 70 19 28 39 70 87 226 384	2045 102 26 24 55 60 134 364 297	2921 2050 113 35 21 51 52 200 471 229
Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid	404 e for Cars, Regi 2005 0 0 0 0 10 0 0 0 0	512 on BRAZIL (L 2010 0 0 0 16 0 3	650 Inits: billion v 2015 4 1 3 3 23 4 11	833 km/y) 2020 9 2 6 7 32 10 25	1001 <b>2025</b> 17 6 9 12 43 19 46	1227 2030 29 10 14 18 58 35 81	2035 46 14 20 27 77 58 137	2040 70 19 28 39 70 87 226	2045 102 26 24 55 60 134 364	2921 2050 113 35 21 51 52 200 471
Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV	404 e for Cars, Regi 2005 0 0 0 0 10 0 0 301 311	512 on BRAZIL (L 2010 0 0 0 0 16 0 3 372 390	650 Inits: billion v 2015 4 1 3 3 23 4 11 430 478	833 km/y) 2020 9 2 6 7 32 10 25 445 534	1001 <b>2025</b> 17 6 9 12 43 19 46 446	1227 2030 29 10 14 18 58 35 81 446	2035 46 14 20 27 77 58 137 422	2040 70 19 28 39 70 87 226 384	2045 102 26 24 55 60 134 364 297	2921 2050 113 35 21 51 52 200 471 229
Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total	404 e for Cars, Regi 2005 0 0 0 0 10 0 0 301 311	512 on BRAZIL (L 2010 0 0 0 0 16 0 3 372 390	650 Inits: billion v 2015 4 1 3 3 23 4 11 430 478	833 km/y) 2020 9 2 6 7 32 10 25 445 534	1001 <b>2025</b> 17 6 9 12 43 19 46 446	1227 2030 29 10 14 18 58 35 81 446	2035 46 14 20 27 77 58 137 422	2040 70 19 28 39 70 87 226 384	2045 102 26 24 55 60 134 364 297	2921 2050 113 35 21 51 52 200 471 229
Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage	404 e for Cars, Regi 2005 0 0 0 0 10 0 0 0 301 311 e for Cars, Regi	512 on BRAZIL (L 2010 0 0 0 16 0 3 372 390 on CANADA	650 Inits: billion v 2015 4 1 3 3 23 4 11 430 478 (Units: billion	833 km/y) 2020 9 2 6 7 32 10 25 445 534 	1001 2025 17 6 9 12 43 19 46 446 598	1227 2030 29 10 14 18 58 35 81 446 690	2035 46 14 20 27 77 58 137 422 801	2040 70 19 28 39 70 87 226 384 923	2045 102 26 24 55 60 134 364 297 1063	2921 2050 113 35 21 51 52 200 471 229 1173
Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Hybrid Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage Technology	404 e for Cars, Regi 2005 0 0 0 10 0 0 301 311 e for Cars, Regi 2005	512 on BRAZIL (L 2010 0 0 0 16 0 3 372 390 on CANADA 2010	650 Inits: billion v 2015 4 1 3 23 4 11 430 478 (Units: billior 2015	833 km/y) 2020 9 2 6 7 32 10 25 445 534 	1001 2025 17 6 9 12 43 19 46 446 598 2025	1227 2030 29 10 14 18 58 35 81 446 690 2030	2035 46 14 20 27 77 58 137 422 801 2035	2040 70 19 28 39 70 87 226 384 923 2040	2045 102 26 24 55 60 134 364 297 1063 2045	2921 2050 113 35 21 51 52 200 471 229 1173 2050
Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Hybrid Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage Technology Electric Vehicle	404 e for Cars, Regi 2005 0 0 0 10 0 301 311 e for Cars, Regi 2005 0	512 on BRAZIL (L 2010 0 0 0 16 0 3 372 390 on CANADA 2010 0	650 10 115: billion v 2015 4 1 3 23 4 11 430 478 (Units: billion 2015 3	833 km/y) 2020 9 2 6 7 32 10 25 445 534 	1001 2025 17 6 9 12 43 19 43 19 46 446 598 2025 15	1227 2030 29 10 14 18 58 35 81 446 690 2030 25	2035 46 14 20 27 77 58 137 422 801 801 2035 39	2040 70 19 28 39 70 87 226 384 923 223 2240 59	2045 102 26 24 55 60 134 364 297 1063 2045 88	2921 2050 113 35 21 51 52 200 471 229 1173 2050 125
Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Hybrid Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Mileage Technology Electric Vehicle Hydrogen Fuel Cell	404 e for Cars, Regi 2005 0 0 0 10 0 0 301 311 e for Cars, Regi 2005 0 0	512 on BRAZIL (L 2010 0 0 0 16 0 3 372 390 on CANADA 2010 0 0 0	650 10 its: billion v 2015 4 1 3 23 4 11 430 478 (Units: billion 2015 3 0	833 km/y) 2020 9 2 6 7 32 10 25 445 534 	1001 2025 17 6 9 12 43 19 46 446 598 2025 15 5	1227 2030 29 10 14 18 58 35 81 446 690 2030 25 8	2035 46 14 20 27 77 58 137 422 801 2035 39 12	2040 70 19 28 39 70 87 226 384 923 223 2040 59 18	2045 102 26 24 55 60 134 364 297 1063 2045 88 88 25	2921 2050 113 35 21 51 52 200 471 229 1173 2050 125 35

Liquid Fuel Plug-in	0	0	3	9	17	31	50	80	129	155
Liquid Fuel Hybrid	0	3	11	24	44	77	130	141	121	105
Liquid Fuel ICEV	313	329	333	326	302	258	187	137	102	79
Total	314	332	360	387	415	440	466	491	516	541
Technology Mix of Milea										
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	0	0	4	11	21	36	57	90	140	216
Hydrogen Fuel Cell	0	0	4	10	16	24	33	40	51	64
Hydrogen Hybrid	0	0	3	6	10	15	22	31	43	58
Gas Fuel Hybrid	0	0	3	7	12	19	28	40	57	79
Gas Fuel ICEV	1	3	7	12	18	26	36	49	65	86
Liquid Fuel Plug-in	0	0	4	12	23	42	72	110	156	233
Liquid Fuel Hybrid	0	2	11	24	47	82	140	233	377	583
Liquid Fuel ICEV	213	305	401	531	650	792	943	1073	1168	1170
Total	213	310	438	613	797	1037	1332	1668	2057	249
Technology Mix of Milea	ge for Cars, Regio	on EEUR (Un	its: billion v-k	(m/y)						
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	0	0	0	2	4	7	12	18	28	4
Hydrogen Fuel Cell	0	0	0	0	0	1	3	5	7	1
Hydrogen Hybrid	0	0	0	0	0	0	0	0	0	(
Gas Fuel Hybrid	0	0	1	3	5	8	12	17	16	14
Gas Fuel ICEV	0	1	2	4	6	8	9	7	6	
Liquid Fuel Plug-in	0	0	1	4	7	13	21	34	54	7
Liquid Fuel Hybrid	0	1	5	10	18	32	54	66	62	5
Liquid Fuel ICEV	131	142	145	145	139	121	94	68	51	3
Total	131	144	155	167	180	191	205	216	225	23
Technology Mix of Milea	ge for Cars, Regio	on FSU (Unit	s: billion v-kn	n/v)						
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	0	0	2	5	9	15	24	36	47	5
Hydrogen Fuel Cell	0	0	0	1	1	3	5	7	6	!
Hydrogen Hybrid	0	0	0	2	3	6	9	10	8	
Gas Fuel Hybrid	0	0	2	4	7	11	16	23	32	4
Gas Fuel ICEV	0	2	4	7	10	15	21	21	18	1
Liquid Fuel Plug-in	0	0	2	5	10	19	32	52	79	9
Liquid Fuel Hybrid	0	2	6	14	26	45	76	126	204	27
Liquid Fuel ICEV	179	214	233	251	267	279	278	248	184	13
Total	180	218	249	287	334	392	460	522	579	628
Technology Mix of Milea	an for Cars Rogi		vite: hillion v	km (v)						
Technology Wix of Whee	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	2003	0	2013	4	2023	12	2033	32	49	2030
Hydrogen Fuel Cell	0	0	2	3	6	9	13	18	22	29
Hydrogen Hybrid	0	0		2	3	5	8	-	15	2:
Gas Fuel Hybrid	0	0	1	2	4	7	10	11 14	20	28
Gas Fuel ICEV										
	1	2	4	6	9	12	17	22	29	39
Liquid Fuel Plug-in	0	0	2	4	8	15	25	42	70	10:
Liquid Fuel Hybrid	0	1	4	9	18	31	53	88	144	23
Liquid Fuel ICEV Total	111 112	149 153	196 211	261 292	316 371	384 475	468 614	571 798	702 1051	859 138
					5/1	4/3	014	130	1031	120
Technology Mix of Milea Technology	ge for Cars, Regio 2005	on LAM (Uni 2010	ts: billion v-k 2015	m/y) 2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	0	0	3	2020	13	2030	34	53	80	2030
			J		7	11	15	20	27	3!
Hydrogen Fuel Coll			1			11	15	20	27	1
	0	0	1	4		11		23		5
Hydrogen Hybrid	0 0	0 0	2	4	7	11 14		20	A.)	
Hydrogen Hybrid Gas Fuel Hybrid	0 0 0	0 0 0	2 2	4 5	7 9	14	20	29 133	42 115	
Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV	0 0 0 22	0 0 0 25	2 2 34	4 5 46	7 9 60	14 79	20 103	133	115	9
Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in	0 0 22 0	0 0 0 25 0	2 2 34 3	4 5 46 7	7 9 60 15	14 79 26	20 103 45	133 70	115 105	99 16
Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid	0 0 22 0 0	0 0 25 0 2	2 2 34 3 8	4 5 46 7 18	7 9 60 15 35	14 79 26 61	20 103 45 102	133 70 170	115 105 276	9 16 43
Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV	0 0 22 0 0 211	0 0 25 0 2 266	2 2 34 3 8 310	4 5 46 7 18 358	7 9 60 15 35 409	14 79 26 61 400	20 103 45 102 388	133 70 170 345	115 105 276 326	99 16 43 25
Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total	0 0 22 0 0 211 233	0 0 25 0 2 2 66 293	2 2 34 3 8 310 362	4 5 46 7 18 358 449	7 9 60 15 35	14 79 26 61	20 103 45 102	133 70 170	115 105 276	99 16 43 25
Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Milea	0 0 22 0 0 211 233 ge for Cars, Regio	0 0 25 0 2 266 293	2 2 34 3 8 310 362 ts: billion v-k	4 5 46 7 18 358 449 m/y)	7 9 60 15 35 409 555	14 79 26 61 400 623	20 103 45 102 388 725	133 70 170 345 844	115 105 276 326 990	9 16 43 25 115
Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Milea Technology	0 0 22 0 0 211 233 ge for Cars, Regio 2005	0 0 25 0 266 293 0n MEA (Uni 2010	2 2 34 3 310 362 ts: billion v-k 2015	4 5 46 7 18 358 449 m/y) 2020	7 9 60 15 35 409 555	14 79 26 61 400 623 <b>2030</b>	20 103 45 102 388 725 2035	133 70 170 345 844 <b>2040</b>	115 105 276 326 990 <b>2045</b>	99 16 43 25 115 2050
Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Milea Technology Electric Vehicle	0 0 22 0 0 211 233 see for Cars, Regio 2005 0	0 0 25 0 266 293 0n MEA (Uni 2010 0	2 2 34 3 3 8 310 362 ts: billion v-k 2015 3	4 5 46 7 18 358 449 <b>m/y)</b> 2020 8	7 9 60 15 35 409 555 <b>2025</b> 15	14 79 26 61 400 623 <b>2030</b> 25	20 103 45 102 388 725 <b>2035</b> 40	133 70 170 345 844 <b>2040</b> 62	115 105 276 326 990 <b>2045</b> 86	99 16 43 25 115 <b>2050</b> 7
Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Milea Technology Electric Vehicle Hydrogen Fuel Cell	0 0 22 0 0 211 233 see for Cars, Regio 2005 0 0	0 0 25 0 266 293 0n MEA (Uni 2010 0 0	2 2 34 3 8 310 362 ts: billion v-k 2015 3 0	4 5 46 7 18 358 449 <b>m/y)</b> 2020 8 3	7 9 60 15 35 409 555 <b>2025</b> 15 7	14 79 26 61 400 623 <b>2030</b> 25 12	20 103 45 102 388 725 <b>2035</b> 40 17	133 70 170 345 844 <b>2040</b> 62 23	115 105 276 326 990 <b>2045</b> 86 21	99 16 43 25 115 <b>2050</b> 7
Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Milea Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid	0 0 22 0 0 211 233 see for Cars, Regio 2005 0 0 0	0 0 25 0 2 266 293 0n MEA (Uni 2010 0 0 0	2 2 34 3 8 310 362 ts: billion v-k 2015 3 0 2	4 5 46 7 8 358 449 <b>m/y)</b> 2020 8 3 5	7 9 60 15 35 409 555 <b>2025</b> 15 7 8	14 79 26 61 400 623 <b>2030</b> 25 12 13	20 103 45 102 388 725 <b>2035</b> 40 17 19	133 70 170 345 844 <b>2040</b> 62 23 27	115 105 276 326 990 <b>2045</b> 86 21 23	99 16 43 25 115 <b>2050</b> 74 18
Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Milea Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid	0 0 22 0 0 211 233 see for Cars, Regio 2005 0 0 0 0 0	0 0 25 0 2 266 293 0n MEA (Uni 2010 0 0 0 0	2 2 34 3 8 310 362 ts: billion v-k 2015 3 0 2 2 2	4 5 46 7 8 358 449 <b>m/y)</b> 2020 8 3 5 6	7 9 60 15 35 409 555 <b>2025</b> 15 7 8 10	14 79 26 61 400 623 <b>2030</b> 25 12 13 16	20 103 45 102 388 725 <b>2035</b> 40 17 19 24	133 70 170 345 844 <b>2040</b> 62 23 27 34	115 105 276 326 990 <b>2045</b> 86 21 23 48	99 16 43 25 115 <b>2050</b> 74 18 20 6
Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Milea Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV	0 0 22 0 0 211 233 see for Cars, Regio 2005 0 0 0 0 0 1	0 0 25 0 2 266 293 0n MEA (Uni 2010 0 0 0 0 0	2 2 34 3 8 310 362 ts: billion v-k 2015 3 0 2 2 2 7	4 5 46 7 8 358 449 <b>m/y)</b> 2020 8 3 5 6 12	7 9 60 15 35 409 555 <b>2025</b> 15 7 8 10 17	14 79 26 61 400 623 <b>2030</b> 25 12 13 16 25	20 103 45 102 388 725 <b>2035</b> 40 17 19 24 34	133 70 170 345 844 <b>2040</b> 62 23 27 34 32	115 105 276 326 990 <b>2045</b> 86 21 23 48 28	99 16 43 25 115 <b>2050</b> 74 18 20 6 24
Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Milea Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in	0 0 22 0 0 211 233 see for Cars, Regio 2005 0 0 0 0 1 0	0 0 25 0 2 266 293 0 0 <b>MEA (Uni</b> 2010 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 2 34 3 8 310 362 ts: billion v-k 2015 3 0 2 2 2 7 3	4 5 46 7 8 358 449 <b>m/y)</b> 2020 8 3 5 6 12 9	7 9 60 15 35 409 555 <b>2025</b> 15 7 8 10 17	14 79 26 61 400 623 <b>2030</b> 25 12 13 16 25 31	20 103 45 102 388 725 <b>2035</b> 40 17 19 24 34 53	133 70 170 345 844 <b>2040</b> 62 23 27 34 32 79	115 105 276 326 990 <b>2045</b> 86 21 23 48 28 28 120	999 162 255 1156 <b>2050</b> 74 18 20 67 24 67 24
Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Liquid Fuel Hybrid Liquid Fuel ICEV Total Technology Mix of Milea Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV	0 0 22 0 0 211 233 see for Cars, Regio 2005 0 0 0 0 0 1	0 0 25 0 2 266 293 0n MEA (Uni 2010 0 0 0 0 0	2 2 34 3 8 310 362 ts: billion v-k 2015 3 0 2 2 2 7	4 5 46 7 8 358 449 <b>m/y)</b> 2020 8 3 5 6 12	7 9 60 15 35 409 555 <b>2025</b> 15 7 8 10 17	14 79 26 61 400 623 <b>2030</b> 25 12 13 16 25	20 103 45 102 388 725 <b>2035</b> 40 17 19 24 34	133 70 170 345 844 <b>2040</b> 62 23 27 34 32	115 105 276 326 990 <b>2045</b> 86 21 23 48 28	99 162 435 253 1156

Total	273	330	409	514	610	722	836	952	1072	1191
Technology Mix of Milea	age for Cars, Regi	on MEXICO (	Units: billion	v-km/y)						
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	0	0	2	5	9	14	23	35	41	45
Hydrogen Fuel Cell	0	0	0	1	3	6	9	12	16	21
Hydrogen Hybrid	0	0	1	2	4	7	10	14	13	11
Gas Fuel Hybrid	0	0	2	4	6	10	15	22	31	42
Gas Fuel ICEV	0	0	2	4	6	10	14	20	17	15
Liquid Fuel Plug-in	0	0	2	5	10	18	30	51	79	107
Liquid Fuel Hybrid	0	2	6	13	25	43	73	120	197	288
Liquid Fuel ICEV	172	213	251	265	285	298	302	281	255	197
Total	172	215	265	299	348	405	476	555	648	724
Technology Mix of Milea	ge for Cars. Regi	on PACIFIC (	Units: billion	v-km/v)						
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	0	0	10	25	46	76	120	181	260	364
Hydrogen Fuel Cell	0	0	4	15	27	41	59	83	113	152
Hydrogen Hybrid	0	0	4	7	14	12	10	9	8	6
Gas Fuel Hybrid	0	0	9	20	36	57	85	82	71	61
Gas Fuel ICEV	0	0	9	20	34	29	25	22	19	16
Liquid Fuel Plug-in	0	0	9 10	20	53	29 92	25 149	243	277	244
		-	39							
Liquid Fuel Hybrid	3	13		82	152	253	303	262	226	195
Liquid Fuel ICEV Total	969 972	1025 1038	1018 1103	954 1150	822 1183	638 1198	452 1204	329 1210	245 1218	188 1227
		<b>D</b> . (0)								
Technology Mix of Milea Technology	age for Cars, Regi 2005	on RUSSIA (L 2010	2015	v-km/y) 2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	2003	2010	1	5	11	19	32	51	58	2030
	0	0	0		2		2		8	
Hydrogen Fuel Cell		-		1		2		5	-	13
Hydrogen Hybrid	0	0	0	0	2	5	6	5	4	4
Gas Fuel Hybrid	0	0	3	7	12	20	29	42	59	83
Gas Fuel ICEV	0	3	6	11	17	25	29	25	22	19
Liquid Fuel Plug-in	0	0	4	10	19	35	58	89	109	94
Liquid Fuel Hybrid	0	3	12	25	48	84	141	232	318	398
Liquid Fuel ICEV	334	407	432	452	458	440	397	301	220	166
Total	334	412	457	511	568	628	695	750	800	841
Technology Mix of Milea										
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	0	1	44	107	196	325	510	780	1156	1638
Hydrogen Fuel Cell	0	0	43	90	149	217	260	361	402	544
Hydrogen Hybrid	0	0	0	4	17	38	34	29	25	25
Gas Fuel Hybrid	0	0	37	86	153	241	360	444	383	330
Gas Fuel ICEV	2	10	50	100	165	143	123	106	91	79
Liquid Fuel Plug-in	0	0	43	113	224	404	655	1047	1685	1925
Liquid Fuel Hybrid	6	32	132	293	551	968	1639	1767	1524	1315
Liquid Fuel ICEV	4097	4311	4307	4149	3789	3195	2282	1648	1223	931
Total	4105	4354	4656	4941	5244	5530	5863	6182	6490	6788
Technology Mix of Milea	age for Cars, Regi	on WEUR (U	nits: billion v	-km/y)						
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	0	0	29	70	129	214	337	513	738	1032
Hydrogen Fuel Cell	0	0	0	0	25	56	96	147	213	296
Hydrogen Hybrid	0	0	0	0	0	0	0	0	0	0
Gas Fuel Hybrid	0	0	25	58	102	161	240	248	214	184
Gas Fuel ICEV	4	19	49	88	136	101	151	130	112	97
Liquid Fuel Plug-in	0	19	29	75	136	263	424	687	848	786
Liquid Fuel Hybrid	0	7	29 65	159	309	263 551	424 760	710	848 612	528
										709
Liquid Fuel ICEV	2731	2955	3012	2907	2599	2094	1545	1148	876	
Total	2736	2982	3209	3356	3449	3514	3553	3584	3613	3632

# Technology Mix for Cars (million)

Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	0	0	8	19	36	60	95	146	212	288
Hydrogen Fuel Cell	0	0	3	8	17	28	38	54	68	91
Hydrogen Hybrid	0	0	2	4	7	12	15	18	19	18
Gas Fuel Hybrid	0	0	7	16	28	44	65	79	81	86
Gas Fuel ICEV	3	7	16	27	41	49	53	55	52	47
Liquid Fuel Plug-in	0 0	0	8 7	21 17	42 35	75 62	124 88	197	279 121	320 142
Diesel Type Hybrid Gasoline Type Hybrid	1	5	17	35	55 64	111	88 181	103 220	257	32
Diesel Type ICEV	1 84	75	76	82	94	103	101	110	120	12
Gasoline Type ICEV	636	73	763	773	735	656	554	464	390	333
Total	723	810	906	1002	1098	1199	1317	1447	1598	176
	, 20	010	500	1001	1050	1100	1017		1000	1/0
Technology Mix for Cars, R	-			2020	2025	2020	2025	2040	2045	205
Technology Electric Vehicle	2005	2010	2015	2020	2025	2030	2035	2040	2045	205
	0	0	0	1	1	2	3	5 2	8 2	
Hydrogen Fuel Cell	0	0	0 0	0 0	1	1	2	2	2	
Hydrogen Hybrid Gas Fuel Hybrid	0	0	0	1	1	1	2	2	4	
Gas Fuel ICEV	0	0	1	1	1	2	2	4	3	
Liquid Fuel Plug-in	0	0	0	1	1	2	4	4	11	1
Diesel Type Hybrid	0	0	0	1	1	2	4	6	11	1
Gasoline Type Hybrid	0	0	1	1	2	4	6	10	10	2
Diesel Type ICEV	2	2	2	2	2	4	5	7	17	1
Gasoline Type ICEV	16	21	26	32	38	40	39	35	30	2
Total	10	23	30	40	50	59	69	81	97	11
Technology Mix for Cars, R				2020	2025	2020	2025	2040	2045	205
Technology Electric Vehicle	<b>2005</b>	<b>2010</b> 0	<b>2015</b> 0	2020	2025	<b>2030</b> 3	<b>2035</b> 5	<b>2040</b> 8	<b>2045</b> 12	<b>20</b> 5
Hydrogen Fuel Cell	0	0	0	0	1	2	2	3	4	L
Hydrogen Hybrid	0	0	0	1	1	2	2	3	4	
Gas Fuel Hybrid	0	0	0	1	1	2	3	4	6	
Gas Fuel ICEV	0	1	1	2	3	4	6	8	8	
Liquid Fuel Plug-in	0	0	0	1	2	4	6	10	16	2
Diesel Type Hybrid	0	0	0	1	2	3	5	8	13	2
Gasoline Type Hybrid	0	0	1	2	3	5	9	15	24	4
Diesel Type ICEV	0	0	0	1	2	3	5	8	13	1
Gasoline Type ICEV	25	31	37	43	47	50	53	52	48	4
Total	25	32	41	52	63	77	95	118	148	18
Technology Mix for Cars, R	ogion PBA7	l (llnitern	villion)							
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	205
Electric Vehicle	0	0	0	1	1	2	3	4	7	
Hydrogen Fuel Cell	0	0	0	0	0	1	1	1	2	
Hydrogen Hybrid	0	0	0	0	1	1	1	2	1	
Gas Fuel Hybrid	0	0	0	0	1	1	2	2	3	
Gas Fuel ICEV	1	1	1	2	3	4	5	4	4	
Liquid Fuel Plug-in	0	0	0	1	1	2	4	5	8	1
Diesel Type Hybrid	0	0	0	0	1	2	3	5	8	
Gasoline Type Hybrid	0	0	1	1	2	3	6	10	15	2
Diesel Type ICEV	1	1	2	3	3	3	4	6	6	
Gasoline Type ICEV	18	22	25	25	25	25	22	18	13	1
Total	20	25	30	34	38	43	50	58	67	7
Technology Mix for Cars, R	egion CANA	DA (Units	million)							
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	205
Electric Vehicle	0	0	0	0	1	1	2	4	5	
Hydrogen Fuel Cell	0	0	0	0	0	0	1	1	2	
Hydrogen Hybrid	0	0	0	0	0	1	1	1	0	
Gas Fuel Hybrid	0	0	0	0	1	1	2	2	2	
Gas Fuel ICEV	0	0	0	0	1	1	1	0	0	
Liquid Fuel Plug-in	0	0	0	1	1	2	3	5	8	
Diesel Type Hybrid	0	0	0	0	1	2	3	2	2	
Gasoline Type Hybrid	0	0	0	1	2	3	5	6	5	
Diesel Type ICEV	0	1	1	1	2	2	2	2	2	
Gasoline Type ICEV	18	19	19	18	16	13	9	6	5	
Total	19	20	21	23	25	26	28	29	31	3
Technology Mix for Cars, R	egion CHIN/	(Units: m	illion)							
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	205

Hydrogen Fuel Cell	0	0 0	0 0	1 0	1 1	2	2 1	3 2	3 3	4
Hydrogen Hybrid Gas Fuel Hybrid	0	0	0	0	1	1	2	2	3 4	4
Gas Fuel ICEV	0	0	0	1	1	2	2	3	4	6
Liquid Fuel Plug-in	0	0	0	1	2	3	5	7	10	16
Diesel Type Hybrid	0	0	0	1	1	2	3	5	9	14
Gasoline Type Hybrid	0	0	1	1	2	4	6	10	17	25
Diesel Type ICEV	3	4	7	10	10	9	10	11	13	18
Gasoline Type ICEV Total	12	16	20	25	34	44	53	61	65	60
lotal	14	21	29	41	53	69	89	111	137	166
Technology Mix for Cars		•	•							
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	205
Electric Vehicle	0	0	0	0	0	1	1	1	2	3
Hydrogen Fuel Cell Hydrogen Hybrid	0	0	0	0 0	0 0	0 0	0 0	0	0	:
Gas Fuel Hybrid	0	0	0	0	0	1	1	1	1	
Gas Fuel ICEV	0	0	0	0	1	1	1	1	1	(
Liquid Fuel Plug-in	0	0	0	0	1	1	2	3	4	(
Diesel Type Hybrid	0	0	0	0	1	1	2	1	1	:
Gasoline Type Hybrid	0	0	0	1	1	2	3	4	4	-
Diesel Type ICEV	0	0	0	0	1	1	1	1	1	-
Gasoline Type ICEV Total	10 11	11 12	12 13	11 14	11 15	9 16	6 17	4 18	3 18	19
	11	12	12	14	13	10	1/	10	10	13
Technology Mix for Cars										
Technology Electric Vehicle	<b>2005</b> 0	<b>2010</b> 0	<b>2015</b> 0	<b>2020</b> 0	<b>2025</b> 1	<b>2030</b> 1	<b>2035</b> 2	<b>2040</b> 3	<b>2045</b> 3	205
Hydrogen Fuel Cell	0	0	0	0	0	0	2	3	3 0	
Hydrogen Hybrid	0	0	0	0	0	0	1	1	1	
Gas Fuel Hybrid	0	0	0	0	1	1	1	2	2	1
Gas Fuel ICEV	0	0	0	1	1	1	2	2	1	:
Liquid Fuel Plug-in	0	0	0	0	1	1	2	4	6	
Diesel Type Hybrid	0	0	0	0	1	1	2	3	6	!
Gasoline Type Hybrid	0	0	0	1	1	2	4	6	10	10
Diesel Type ICEV Gasoline Type ICEV	1	0 16	1 17	1 18	1 19	1 20	2 19	4 15	3 11	:
Total	13	10	17	22	25	30	35	40	44	48
Technology Mix for Cars		•	•	2020	2025	2020	2025	2040	2045	2054
Technology Electric Vehicle	<b>2005</b> 0	<b>2010</b> 0	<b>2015</b> 0	<b>2020</b> 0	<b>2025</b> 0	<b>2030</b> 1	<b>2035</b> 1	<b>2040</b> 2	<b>2045</b> 3	205
Hydrogen Fuel Cell	0	0	0	0	0	1	1	1	1	
Hydrogen Hybrid	0	0	0	0	0	0	1	1	1	-
Gas Fuel Hybrid	0	0	0	0	0	0	1	1	1	2
Gas Fuel ICEV	0	0	0	0	1	1	1	1	2	3
Liquid Fuel Plug-in	0	0	0	0	1	1	2	3	5	7
Diesel Type Hybrid	0	0	0	0	0	1	1	2	3	5
Gasoline Type Hybrid	0	0	0	0	1	1	2	4	7	1:
Diesel Type ICEV Gasoline Type ICEV	2	2 8	1 12	1 16	1 20	1 24	2 29	3 35	4 43	6 52
Total	7	10	12	10	20	32	41	53	43 70	92
Technology Mix for Core				15	25	52				
	, Region LAM (		ion)						~~~~	
Technology	2005	2010	ion) 2015	2020	2025	2030	<b>2035</b>	<b>2040</b> 3	<b>2045</b>	
Technology Electric Vehicle			ion)				<b>2035</b> 2 1	<b>2040</b> 3	<b>2045</b> 5 2	(
Technology Electric Vehicle Hydrogen Fuel Cell	<b>2005</b> 0	<b>2010</b> 0	ion) 2015 0	<b>2020</b> 0	<b>2025</b> 1	<b>2030</b> 1	2	3	5	(
Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid	<b>2005</b> 0 0	<b>2010</b> 0 0	ion) 2015 0 0	<b>2020</b> 0 0	<b>2025</b> 1 0	<b>2030</b> 1 1	2 1	3 1	5	
Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV	2005 0 0 0 0 1	2010 0 0 0 0 2	ion) 2015 0 0 0 0 2	<b>2020</b> 0 0 0 0 3	<b>2025</b> 1 0 0 1 4	<b>2030</b> 1 1 1 1 5	2 1 1 1 6	3 1 1 2 8	5 2 1 3 7	(
Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in	2005 0 0 0 1 0	2010 0 0 0 0 2 0	ion) 2015 0 0 0 0 2 0	<b>2020</b> 0 0 0 0 3 0	<b>2025</b> 1 0 0 1 4 1	<b>2030</b> 1 1 1 1 5 2 2	2 1 1 1 6 3	3 1 1 2 8 4	5 2 1 3 7 7	( 2 2 ( 1)
Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid	2005 0 0 0 1 0 0 0	2010 0 0 0 0 2 0 0 0	ion) 2015 0 0 0 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0	2020 0 0 0 0 0 3 0 0 0	2025 1 0 0 1 4 1 1 1	2030 1 1 1 1 5 2 2 1	2 1 1 6 3 2	3 1 1 2 8 4 4	5 2 1 3 7 7 6	
Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid	2005 0 0 0 1 0 0 0 0	2010 0 0 0 0 2 0 0 0 0 0 0	ion) 2015 0 0 0 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0	2020 0 0 0 0 3 0 0 0 1	2025 1 0 0 1 4 1 1 1	2030 1 1 1 1 5 2 1 3	2 1 1 6 3 2 4	3 1 1 2 8 4 4 4 7	5 2 1 3 7 7 6 12	( 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV	2005 0 0 0 1 0 0 0 0 0 0	2010 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ion) 2015 0 0 0 0 2 0 0 0 0 0 0 0	2020 0 0 0 3 3 0 0 0 1 1	2025 1 0 1 4 1 1 1 1 1 1	2030 1 1 1 1 5 2 2 1 3 3 1	2 1 1 6 3 2 4 2	3 1 2 8 4 4 7 4	5 2 1 3 7 7 6 12 6	( 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV	2005 0 0 0 1 0 0 0 0	2010 0 0 0 0 2 0 0 0 0 0 0	ion) 2015 0 0 0 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0	2020 0 0 0 0 3 0 0 0 1	2025 1 0 0 1 4 1 1 1	2030 1 1 1 1 5 2 1 3	2 1 1 6 3 2 4	3 1 2 8 4 4 4 7	5 2 1 3 7 7 6 12	
Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV	2005 0 0 0 1 0 0 0 0 0 1 3 15	2010 0 0 0 2 0 0 0 0 0 0 0 1 6 18	ion) 2015 0 0 0 2 0 0 0 0 0 0 0 19 23	2020 0 0 0 3 0 0 0 1 1 1 22	2025 1 0 0 1 4 1 1 1 1 1 25	2030 1 1 1 5 2 1 3 1 24	2 1 1 6 3 2 4 2 2 22	3 1 2 8 4 4 7 7 4 18	5 2 1 3 7 7 6 12 6 15	
Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total	2005 0 0 0 1 0 0 0 0 13 15 5, Region MEA (	2010 0 0 0 2 0 0 0 0 0 16 18 Units: mill	ion) 2015 0 0 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 2 3 ion)	2020 0 0 0 3 0 0 1 1 1 22 28	2025 1 0 1 4 1 1 1 1 25 35	2030 1 1 1 5 2 1 3 1 24 39	2 1 1 6 3 2 4 2 22 46	3 1 2 8 4 4 7 4 18 53	5 2 1 3 7 7 6 12 6 15 62	( 2 2 ( 10 10 10 11 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars Technology	2005 0 0 1 0 0 0 13 15 5, Region MEA ( 2005	2010 0 0 2 0 0 0 0 16 18 Units: mill 2010	ion) 2015 0 0 0 2 0 0 0 0 0 0 0 19 23 ion) 2015	2020 0 0 0 3 3 0 0 0 1 1 2 2 8 28	2025 1 0 1 4 1 1 1 1 25 35 2025	2030 1 1 1 1 5 2 1 3 1 24 39 2030	2 1 1 6 3 2 4 2 2 2 2 4 6 <b>2035</b>	3 1 2 8 4 4 7 4 18 53 <b>2040</b>	5 2 1 3 7 6 12 6 15 62 <b>2045</b>	( 2 2 2 2 2 2 2 2 2 0 5
Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars Technology Electric Vehicle	2005 0 0 1 0 0 0 13 15 5, Region MEA ( 2005 0	2010 0 0 2 0 0 0 0 16 18 Units: mill 2010 0	ion) 2015 0 0 0 2 0 0 0 0 0 0 19 23 ion) 2015 0	2020 0 0 0 3 3 0 0 0 1 1 1 2 2 8 2 8 2 28 2020 0	2025 1 0 1 4 1 1 1 25 35 2025 1	2030 1 1 1 1 5 2 1 3 1 24 39 2030 1	2 1 1 6 3 2 4 2 2 2 2 4 6 <b>2035</b> 2	3 1 2 8 4 4 7 4 18 53 <b>2040</b> 4	5 2 1 3 7 6 12 6 15 62 2045 5	( ( ( ( ( ( ( ( ( ( ( ( ( (
Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars Technology Electric Vehicle Hydrogen Fuel Cell	2005 0 0 1 0 0 0 13 15 5, Region MEA ( 2005	2010 0 0 2 0 0 0 0 16 18 Units: mill 2010	ion) 2015 0 0 0 2 0 0 0 0 0 0 0 19 23 ion) 2015	2020 0 0 0 3 3 0 0 0 1 1 2 2 8 28	2025 1 0 1 4 1 1 1 1 25 35 2025	2030 1 1 1 1 5 2 1 3 1 24 39 2030	2 1 1 6 3 2 4 2 2 2 2 4 6 <b>2035</b>	3 1 2 8 4 4 7 4 18 53 <b>2040</b>	5 2 1 3 7 6 12 6 15 62 <b>2045</b>	( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )
Technology Mix for Cars Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid	2005 0 0 0 1 0 0 0 13 15 5, Region MEA ( 2005 0 0	2010 0 0 0 2 0 0 0 0 16 18 Units: mill 2010 0 0 0 0 0 0 0 0 0 0 0 0 0	ion) 2015 0 0 0 2 0 0 0 0 0 0 19 23 ion) 2015 0 0 0 0 0 0 0 0 0 0 0 0 0	2020 0 0 0 3 0 0 0 1 1 1 2 2 8 2 8 2 28 2 020 0 0 0	2025 1 0 1 4 1 1 1 1 1 25 35 35 2025 1 0	2030 1 1 1 1 5 2 1 3 1 24 39 2030 1 1	2 1 1 6 3 2 4 2 2 2 4 6 <b>2035</b> 2 1	3 1 2 8 4 4 7 4 18 53 <b>2040</b> 4 1	5 2 1 3 7 6 12 6 15 62 2045 5 1	e 2 2 6 10 10 10 10 11 7 3 2050 2 2 11 7 3
Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid	2005 0 0 1 0 0 0 0 13 15 5, Region MEA ( 2005 0 0 0 0 0	2010 0 0 0 2 0 0 0 0 16 18 Units: mill 2010 0 0 0 0 0 0 0 0 0 0 0 0 0	ion) 2015 0 0 0 2 0 0 0 0 0 19 23 ion) 2015 0 0 0 0 0 0 0 0 0 0 0 0 0	2020 0 0 0 3 3 0 0 1 1 1 22 28 28 228 2020 0 0 0 0 0 0	2025 1 0 1 4 1 1 1 1 1 25 35 35 2025 1 0 0	2030 1 1 1 1 5 2 2 1 3 1 24 39 224 39 2030 1 1 1 1	2 1 1 6 3 2 4 4 2 2 2 4 6 <b>2035</b> 2 1 1	3 1 2 8 4 4 7 4 18 53 53 <b>2040</b> 4 1 1	5 2 1 3 7 7 6 12 6 15 62 2045 5 1 1	2050 6 6 2 2 1 1 4 4 6 6 10 10 10 10 10 10 10 10 10 10 10 10 10

Diesel Type Hybrid	0	0	0	0 1	1	1	2 5	4	6	10
Gasoline Type Hybrid Diesel Type ICEV	0	0	0	1	2	3 2	5	8	12 6	20 6
Gasoline Type ICEV	14	17	21	24	27	28	27	24	17	12
Total	14	17	23	24	35	41	47	24 54	61	68
10101	15	15	23	25	55	.1	17	51	01	00
Technology Mix for Cars, R	U	•	,							
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	0	0	0	0	1	1	2	3	3	4
Hydrogen Fuel Cell	0	0	0 0	0 0	0 0	0	1	1	1	2
Hydrogen Hybrid Gas Fuel Hybrid	0	0	0	0	1	1	1	2	3	4
Gas Fuel ICEV	0	0	0	0	1	1	1	2	2	1
Liquid Fuel Plug-in	0	0	0	0	1	2	3	4	7	9
Diesel Type Hybrid	0	0	0	0	1	1	2	4	6	8
Gasoline Type Hybrid	0	0	0	1	1	3	4	7	11	18
Diesel Type ICEV	0	0	0	1	1	1	2	4	5	5
Gasoline Type ICEV	15	19	22	23	24	25	24	21	17	13
Total	15	19	23	26	31	36	42	49	57	64
Technology Mix for Cars, R		IC (Linite: r	nillion)							
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	0	0	1	2	4	6	10	14	21	29
Hydrogen Fuel Cell	0	0	0	1	2	3	5	7	9	13
Hydrogen Hybrid	0	0	0	1	1	1	1	1	1	1
Gas Fuel Hybrid	0	0	1	2	3	5	7	7	6	5
Gas Fuel ICEV	0	0	1	2	3	2	2	2	2	1
Liquid Fuel Plug-in	0	0	1	2	4	7	12	20	23	20
Diesel Type Hybrid	0	0	1	2	4	6	5	5	4	3
Gasoline Type Hybrid	0	1	3	5	9	15	20	17	15	13
Diesel Type ICEV	10	9	8 75	8 69	9 58	9	8 29	7	6	5
Gasoline Type ICEV Total	69 79	75 85	75 90	69 94	58 97	43 98	29 98	20 99	14 99	10 100
Total	15	05	50	54	57	50	50	55	55	100
Technology Mix for Cars, R	egion RUSSI	A (Units: r	nillion)							
Technology	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electric Vehicle	0	0	0	0	1	1	2	4	4	5
Hydrogen Fuel Cell	0	0	0 0	0 0	0 0	0	0 0	0 0	1 0	1
Hydrogen Hybrid	0			0	0	0	0	0	0	0
	0						2	3	5	
Gas Fuel Hybrid	0	0	0	1	1	2	2	3	5	6
Gas Fuel Hybrid Gas Fuel ICEV	0 0 0						2 2 4	3 2 7	5 2 8	6 1
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in	0	0	0	1 1	1 1	2 2	2	2	2	6 1
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid	0 0	0 0 0	0 0 0	1 1 1	1 1 1	2 2 3	2 4	2 7	2 8	6 1 7
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid	0 0 0	0 0 0 0	0 0 0 0	1 1 1 1	1 1 1 1	2 2 3 2	2 4 4	2 7 6	2 8 6	6 1 7 6
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV	0 0 0 0 25	0 0 0 0 0 0 31	0 0 0 0 1 0 32	1 1 1 1 1 1 33	1 1 1 2 1 33	2 2 3 2 4 2 31	2 4 4 7 4 26	2 7 6 11 4 19	2 8 6 18 4 13	6 1 7 6 25 3 9
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV	0 0 0 0	0 0 0 0 0	0 0 0 0 1 0	1 1 1 1 1 1	1 1 1 1 2 1	2 2 3 2 4 2	2 4 4 7 4	2 7 6 11 4	2 8 6 18 4	6 1 7 6 25 3
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total	0 0 0 0 25 25	0 0 0 0 0 0 31 31	0 0 0 1 0 32 35	1 1 1 1 1 1 33	1 1 1 2 1 33	2 2 3 2 4 2 31	2 4 4 7 4 26	2 7 6 11 4 19	2 8 6 18 4 13	6 1 7 6 25 3 9
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R	0 0 0 0 25 25	0 0 0 0 0 0 31 31	0 0 0 1 0 32 35	1 1 1 1 1 1 33	1 1 1 2 1 33	2 2 3 2 4 2 31	2 4 4 7 4 26	2 7 6 11 4 19	2 8 6 18 4 13	6 1 7 6 25 3 9 64
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R Technology Electric Vehicle	0 0 0 25 25 egion USA (I 2005 0	0 0 0 0 31 31 31 Jnits: milli 2010 0	0 0 1 0 32 35 on) 2015 2	1 1 1 1 33 39 <b>2020</b> 6	1 1 1 2 1 33 43 <b>2025</b> 11	2 2 3 2 4 2 31 48 <b>2030</b> 18	2 4 7 4 26 53 <b>2035</b> 28	2 7 6 11 4 19 57 <b>2040</b> 43	2 8 6 18 4 13 61 <b>2045</b> 64	6 1 7 6 25 3 9 64 <b>2050</b> 91
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R Technology Electric Vehicle Hydrogen Fuel Cell	0 0 0 25 25 egion USA (I 2005 0 0	0 0 0 0 31 31 31 Jnits: milli 2010 0 0	0 0 0 1 0 32 35 0n) 2015 2 2 2 2	1 1 1 1 33 39 <b>2020</b> 6 5	1 1 1 2 1 33 43 <b>2025</b> 11 8	2 2 3 2 4 2 31 48 <b>2030</b> 18 12	2 4 7 26 53 <b>2035</b> 28 14	2 7 6 11 4 19 57 <b>2040</b> 43 19	2 8 6 18 4 13 61 <b>2045</b> 64 21	6 1 7 6 25 3 9 64 <b>2050</b> 91 29
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid	0 0 0 25 25 egion USA (I 2005 0 0	0 0 0 0 31 31 31 <b>Jnits: milli</b> 2010 0 0 0	0 0 0 1 0 32 35 0n) 2015 2 2 2 0	1 1 1 33 39 <b>2020</b> 6 5 0	1 1 1 2 1 33 43 <b>2025</b> 11 8 1	2 2 3 4 2 31 48 <b>2030</b> 18 12 2	2 4 4 26 53 <b>2035</b> 28 14 2	2 7 6 11 4 19 57 <b>2040</b> 43 19 2	2 8 6 18 4 13 61 <b>2045</b> 64 21 1	6 1 7 6 25 3 9 64 <b>2050</b> 91 29 1
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid	0 0 0 25 25 egion USA (I 2005 0 0 0	0 0 0 0 31 31 31 <b>Jnits: milli</b> 2010 0 0 0 0	0 0 0 1 32 35 0n) 2015 2 2 2 0 2	1 1 1 33 39 <b>2020</b> 6 5 0 5	1 1 1 2 1 33 43 <b>2025</b> 11 8 1 8	2 2 3 4 2 31 48 <b>2030</b> 18 12 2 2 13	2 4 7 4 26 53 <b>2035</b> 28 14 2 19	2 7 6 11 4 19 57 <b>2040</b> 43 19 2 23	2 8 6 18 4 13 61 <b>2045</b> 64 21 1 20	6 1 7 6 25 3 9 64 <b>2050</b> 91 29 1 29 1
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV	0 0 0 25 25 egion USA (I 2005 0 0 0 0	0 0 0 0 31 31 31 Jnits: milli 2010 0 0 0 0 1	0 0 0 1 0 32 35 0 0 ) 2015 2 2 0 0 2 3	1 1 1 33 39 <b>2020</b> 6 5 0 5 5	1 1 1 2 1 33 43 <b>2025</b> 11 8 1 8 9	2 2 3 4 2 31 48 <b>2030</b> 18 12 2 2 13 8	2 4 7 4 26 53 <b>2035</b> 28 14 2 19 6	2 7 6 11 4 19 57 <b>2040</b> 43 19 2 23 6	2 8 6 18 4 13 61 <b>2045</b> 64 21 1 20 5	6 1 7 6 25 3 9 64 <b>2050</b> 91 29 1 29 1 7 4
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R Technology Mix for Cars, R Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in	0 0 0 25 25 egion USA (I 2005 0 0 0 0 0 0 0	0 0 0 0 31 31 31 <b>Jnits: milli</b> 2010 0 0 0 0 1 0	0 0 0 1 32 35 0n) 2015 2 2 2 0 2 3 3 2	1 1 1 33 39 <b>2020</b> 6 5 0 5 5 5 6	1 1 1 2 1 33 43 <b>2025</b> 11 8 1 8 9 12	2 2 3 4 2 31 48 <b>2030</b> 18 12 2 13 8 22	2 4 7 4 26 53 <b>2035</b> 28 14 2 19 6 35	2 7 6 11 4 19 57 <b>2040</b> 43 19 2 23 6 56	2 8 6 18 4 13 61 <b>2045</b> 64 21 1 20 5 89	6 1 7 6 25 3 9 64 <b>2050</b> 91 29 1 17 4 102
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid	0 0 0 25 25 <b>egion USA (1</b> 2005 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 31 31 31 <b>Jnits: milli</b> 2010 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 1 0 32 35 0 0 0 2 2 0 0 2 3 2 0 2 2 3 2 2 2 2 2 2	1 1 1 33 39 <b>2020</b> 6 5 0 6 5 5 6 5	1 1 1 2 1 33 43 <b>2025</b> 11 8 1 8 9 12 10	2 2 3 4 2 31 48 <b>2030</b> 18 12 2 13 8 22 13	2 4 7 4 26 53 2035 28 14 2 8 14 2 19 6 35 31	2 7 6 11 4 19 57 <b>2040</b> 43 19 2 23 6 56 32	2 8 6 18 4 13 61 <b>2045</b> 64 21 1 20 5 89 27	6 1 7 6 25 3 9 64 <b>2050</b> 91 29 1 17 4 102 23
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid	0 0 0 25 25 egion USA (I 2005 0 0 0 0 0 0 0	0 0 0 0 31 31 31 <b>Jnits: milli</b> 2010 0 0 0 0 1 0	0 0 0 1 32 35 0n) 2015 2 2 2 0 2 3 3 2	1 1 1 33 39 <b>2020</b> 6 5 0 5 5 5 6	1 1 1 2 1 33 43 <b>2025</b> 11 8 1 8 9 12	2 2 3 4 2 31 48 <b>2030</b> 18 12 2 13 8 22	2 4 7 4 26 53 <b>2035</b> 28 14 2 19 6 35	2 7 6 11 4 19 57 <b>2040</b> 43 19 2 23 6 56	2 8 6 18 4 13 61 <b>2045</b> 64 21 1 20 5 89	6 1 7 6 25 3 9 64 <b>2050</b> 91 29 1 1 7 4 102 23 47
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV	0 0 0 25 25 <b>egion USA (I</b> 2005 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 31 31 31 <b>Jnits: milli</b> <b>2010</b> 0 0 0 0 1 0 0 2	0 0 0 1 0 32 35 0 0 0 2 2 0 0 2 3 2 0 2 3 2 2 3 2 2 3 5	1 1 1 33 39 <b>2020</b> 6 5 0 5 5 6 5 5 6 5 11	1 1 1 2 1 33 43 <b>2025</b> 11 8 1 8 9 12 10 19	2 2 3 4 2 31 48 2030 18 12 2 13 8 22 13 8 22 18 34	2 4 7 4 26 53 2035 28 14 2 19 6 35 31 56	2 7 6 11 4 19 57 <b>2040</b> 43 19 2 23 6 56 32 6 32 63	2 8 6 18 4 13 61 <b>2045</b> 64 21 1 20 5 89 27 54	6 1 7 6 25 3 9 64 <b>2050</b> 91 29 1 17 7 4 102 23 47 11
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV	0 0 0 25 25 <b>egion USA (1</b> 2005 0 0 0 0 0 0 0 0 0 0 0 1	0 0 0 0 31 31 31 <b>Jnits: milli</b> <b>2010</b> 0 0 0 0 0 0 0 0 0 0 1 0 0 2 1	0 0 0 1 0 32 35 0 0 2 2 2 0 2 2 3 2 2 3 2 2 3 2 2 3 3 2 2 3 3 3 2 2 3 3	1 1 1 33 39 <b>2020</b> 6 5 5 5 5 6 5 5 5 6 5 5	1 1 1 2 1 33 43 <b>2025</b> 11 8 1 8 9 12 10 19 11	2 2 3 4 2 31 48 2 2 31 48 2 2 18 3 8 22 18 34 19	2 4 7 4 26 53 2035 28 14 2 19 6 35 31 56 17	2 7 6 11 4 19 57 <b>2040</b> 43 19 2 23 6 56 32 6 56 32 63 15	2 8 6 18 4 13 61 2045 64 21 1 200 5 89 27 54 13	6 1 7 6 25 3 9 64 <b>2050</b> 91 29 1 17 4 102 23 47 11
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Diesel Type Hybrid Diesel Type ICEV Gasoline Type ICEV	0 0 0 25 25 <b>Region USA (U</b> 2005 0 0 0 0 0 0 0 0 0 0 0 0 1 221 222	0 0 0 0 31 31 31 <b>Jnits: milli</b> 2010 0 0 0 0 0 1 0 0 0 2 1 1 232 235	0 0 0 1 32 35 <b>2015</b> 2015 2 2 0 0 2 3 3 2 3 2 3 2 3 2 3 3 2 3 3 2 30 2 52	1 1 1 33 39 <b>2020</b> 6 5 5 6 5 5 6 5 5 6 5 11 6 219	1 1 1 2 1 33 43 <b>2025</b> 11 8 1 8 9 12 10 19 11 194	2 2 3 4 2 31 48 2 2 31 48 2 2 13 8 22 13 8 22 13 8 22 13 8 22 13 8 34 19 154	2 4 4 7 4 26 53 28 14 2 8 14 2 19 6 35 31 56 17 107	2 7 6 11 4 19 57 <b>2040</b> 43 19 2 23 6 56 32 6 56 32 63 15 76	2 8 6 18 4 13 61 2045 64 21 1 200 5 89 27 54 13 55	6 1 7 6 25 3 9 64 <b>2050</b> 91 29 1 17 7 4 102 23 47 11
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Diesel Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R	0 0 0 25 25 <b>egion USA (U</b> 2005 0 0 0 0 0 0 0 0 0 0 0 1 221 222 222	0 0 0 0 31 31 31 <b>Units: milli</b> 2010 0 0 0 0 0 1 0 0 0 1 2 32 235 <b>:</b> (Units: m	0 0 0 1 32 35 <b>on)</b> 2015 2 2 2 0 0 2 2 3 3 2 2 3 2 3 2 3 2 3 3 2 3 3 2 3 3 2 3 3 2 3 3 2 3 3 2 3 5 5 3 3 2 3 5 5 5 5	1 1 1 33 39 <b>2020</b> 6 5 5 5 6 5 5 5 6 5 11 6 219 267	1 1 1 2 1 33 43 <b>2025</b> 11 8 1 8 9 9 12 10 19 11 194 283	2 2 3 4 2 31 48 2 0 30 18 12 2 13 8 22 13 8 22 18 34 19 154 299	2 4 4 26 53 2035 28 14 2 9 6 35 31 6 56 17 107 317	2 7 6 11 4 19 57 <b>2040</b> 43 19 2 23 6 56 32 6 32 63 32 576 334	2 8 6 18 4 13 61 <b>2045</b> 64 21 1 20 5 8 9 27 55 8 7 55 351	6 1 7 6 25 3 9 64 <b>2050</b> 91 29 1 17 4 102 23 47 11 141 367
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Diesel Type Hybrid Diesel Type ICEV Gasoline Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R	0 0 0 25 25 <b>egion USA (U</b> 2005 0 0 0 0 0 0 0 0 0 0 0 0 1 221 222 222 egion WEUR 2005	0 0 0 0 31 31 31 <b>Units: milli</b> 2010 0 0 0 0 0 0 1 0 0 0 1 2 32 235 3 4 (Units: m 2010	0 0 0 1 32 35 <b>001</b> <b>2015</b> 2 2 0 0 2 2 3 3 2 2 0 0 2 2 3 3 2 2 3 3 2 2 0 0 2 2 3 3 2 2 0 0 2 2 3 3 3 2 3 5 3 3 2 3 5 5 3 3 2 3 5 5 5 5	1 1 1 3 3 3 9 <b>2020</b> 6 5 5 5 5 5 5 5 6 5 5 1 1 1 6 2 19 267 <b>2020</b>	1 1 1 2 1 33 43 <b>2025</b> 11 8 1 8 9 12 10 19 11 194 283 <b>2025</b>	2 2 3 4 2 31 48 2030 18 12 2 13 8 22 13 8 22 13 8 22 13 34 19 154 299	2 4 4 26 53 2035 28 14 2 19 6 35 31 6 55 31 56 17 107 317	2 7 6 11 4 19 57 <b>2040</b> 43 19 2 23 6 56 56 32 63 15 76 334 <b>2040</b>	2 8 6 18 4 13 61 2045 64 21 1 20 5 8 9 7 5 5 8 9 7 5 4 13 55 351	6 1 7 6 25 3 9 64 <b>2050</b> 91 29 1 17 4 102 23 47 11 141 367 <b>2050</b>
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Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Diesel Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R Technology Electric Vehicle Hydrogen Fuel Cell	0 0 0 25 25 egion USA (U 2005 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 31 31 31 <b>Units: milli</b> 2010 0 0 0 0 0 0 1 0 0 0 1 0 0 2 1 232 235 8 (Units: m 2010 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 1 32 35 <b>on)</b> 2015 2 2 0 0 2 2 3 3 2 2 0 0 2 2 3 3 2 2 0 0 2 2 5 3 3 2 20 0 2 5 3 3 2 20 5 3 3 2 20 5 3 3 2 20 5 5 3 3 2 20 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	1 1 1 3 3 3 9 <b>2020</b> 6 5 5 5 5 5 5 5 6 5 5 1 1 1 6 2 19 267 <b>2020</b>	1 1 1 2 1 33 43 43 <b>2025</b> 11 8 9 9 12 10 9 12 10 11 194 283 <b>2025</b> 10	2 2 3 4 2 31 48 2030 18 12 2 13 8 22 13 8 22 13 8 22 13 34 19 154 299	2 4 4 26 53 2035 28 14 2035 31 6 35 31 6 5 7 107 317 2035 27	2 7 6 11 4 19 57 <b>2040</b> 43 19 2 23 6 56 56 32 63 15 76 334 <b>2040</b>	2 8 6 18 4 13 61 2045 64 21 1 1 20 5 89 27 58 9 27 54 13 55 351 2045 59	6 1 7 6 25 3 9 64 2050 91 29 1 17 4 102 23 47 11 41 367 2050 83 25
Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Diesel Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Fuel Cell Hydrogen Hybrid	0 0 0 25 25 <b>egion USA (U</b> 2005 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 31 31 31 <b>Jnits: milli</b> 2010 0 0 0 0 0 1 0 0 0 1 0 0 2 1 232 235 8 (Units: m 2010 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 1 32 35 <b>001</b> <b>2015</b> 2 0 2 2 3 3 2 2 3 3 2 2 5 3 3 230 252 <b>illion)</b> <b>2015</b> 2 3 3 2 3 2 3 2 3 2 3 2 3 2 3 3 2 3 3 2 3 5 3 3 2 3 5 3 3 3 3	1 1 1 3 3 3 9 <b>2020</b> 6 5 5 6 5 5 6 5 5 1 1 1 6 2 19 267 <b>2020</b> 6 0 7 10 1 6 2 19 267	1 1 1 2 1 33 43 2025 11 8 1 8 9 12 10 9 12 10 19 11 194 283 2025 10 2 10 2 10 2 10 10 10 10 10 10 10 10 10 10	2 2 3 4 2 31 48 2030 18 12 2 13 8 22 13 8 22 13 8 22 13 8 22 13 3 4 19 154 299 2030 17 5	2 4 4 26 53 2035 28 14 2035 31 6 35 31 6 56 17 107 317 2035 27 8	2 7 6 11 4 9 57 <b>2040</b> 43 19 2 23 6 56 32 23 6 56 32 33 4 576 334	2 8 6 18 4 13 61 2045 64 21 1 20 5 89 27 59 13 55 351 2045 59 18	66 11 77 66 255 3 9 64 91 29 11 29 11 77 4 102 23 477 111 41 367 2050 83 255 0
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Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Gasoline Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid Diesel Type Hybrid Diesel Type ICEV Gasoline Type ICEV Total Technology Mix for Cars, R Technology Electric Vehicle Hydrogen Fuel Cell Hydrogen Fuel Cell Hydrogen Fuel Cell Hydrogen Fuel Cell Hydrogen Fuel Cell Hydrogen Fuel Cell Hydrogen Hybrid Gas Fuel Hybrid Gas Fuel Hybrid Gas Fuel ICEV Liquid Fuel Plug-in Diesel Type Hybrid	0 0 0 25 25 25 25 25 25 20 0 0 0 0 0 0 0	0 0 0 0 31 31 31 <b>Jnits: milli</b> 2010 0 0 0 0 1 232 235 2 (Units: m 2010 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 1 0 32 35 20 2 2 0 2 2 0 2 2 3 2 3 2 3 2 3 2 3 2	1 1 1 1 1 3 3 3 9 2020 6 5 1 1 6 5 1 1 6 2 19 267 2020 6 5 11 6 2 19 267 2020 6 5 11 6 5 11 6 5 11 6 5 5 11 6 5 5 11 6 5 5 11 6 5 5 11 6 5 5 11 6 5 5 11 6 5 5 11 6 5 5 11 6 5 5 11 6 5 5 11 6 5 5 11 6 5 5 11 6 5 5 11 6 5 5 11 6 5 5 11 6 5 5 11 6 5 5 11 6 5 5 11 6 5 7 7 6 5 5 11 6 5 7 7 7 7 7 7 7 7 7 7 7 7 7	1 1 1 1 2 1 33 43 2025 11 8 1 8 9 12 10 19 11 194 283 2025 10 2 0 8 11 194 283 2025 10 11 194 283 2025 10 11 194 283 2025 10 11 194 283 2025 10 11 194 283 2025 10 11 194 283 2025 10 11 194 283 10 11 194 283 10 11 194 283 10 11 194 283 10 11 194 283 10 11 194 283 10 11 194 283 10 11 194 283 10 11 194 283 10 11 194 283 10 11 194 283 10 11 194 283 10 11 194 283 10 11 194 283 11 194 283 11 11 194 283 10 11 194 283 11 194 283 10 11 194 283 10 11 194 283 10 11 194 283 10 11 194 283 10 11 194 283 11 11 194 283 11 11 194 283 11 11 194 283 11 11 194 283 11 11 15 15 15 15 15 15 15 15	2 2 3 2 4 2 31 48 2 2 31 48 12 2 13 8 22 13 8 22 13 8 34 19 154 299 2030 17 5 0 13 15 21 19 26	2 4 4 7 4 26 53 28 14 2 19 6 35 31 56 17 107 317 2035 27 8 0 20 13 35 19 43	2 7 6 11 4 19 57 2040 43 19 2 23 6 56 32 63 56 32 63 15 76 334 2040 41 12 0 21 11 57 717 42	2 8 6 18 4 13 61 2045 5 89 27 54 13 55 351 2045 59 18 0 18 9 70 14 36	6 1 7 6 25 3 9 9 64 <b>2050</b> 91 29 1 17 4 102 23 47 11 41 367 <b>2050</b> 83 25 0 15 8 8 65 12 31

#### **CO2** Emission

CO2-Emission f	rom Cars (Units	s: GtCO2/y)								
Region	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
USA	1.1	1.2	1.1	1.0	0.9	0.7	0.5	0.4	0.3	0.2
RUSSIA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PACIFIC	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0
MEXICO	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
MEA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
LAM	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
INDIA	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2
FSU	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0
WEUR	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.2	0.2	0.1
EEUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHINA	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3
CANADA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
BRAZIL	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
ASIA	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
AFRICA	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total	2.6	2.8	2.9	2.9	2.8	2.5	2.3	2.0	1.7	1.5

	(Units: GtCO2/y)									
Region	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
USA	1.9	1.9	1.9	1.8	1.7	1.5	1.4	1.3	1.2	1.1
RUSSIA	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
PACIFIC	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.3
MEXICO	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
MEA	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.7	0.7
LAM	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5
INDIA	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4
FSU	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
WEUR	1.3	1.2	1.2	1.2	1.1	1.1	1.0	1.0	1.0	0.9
EEUR	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CHINA	0.5	0.6	0.7	0.8	0.9	0.9	1.0	1.1	1.1	1.1
CANADA	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
BRAZIL	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
ASIA	0.5	0.5	0.6	0.7	0.8	0.8	0.9	1.0	1.0	1.0
AFRICA	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6
Total	6.5	6.8	7.1	7.4	7.6	7.6	7.7	7.9	7.9	7.9