

ENERGY POLICIES AND DIPLOMATIC RELATIONS WITH THE UNITED STATES

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CONTENT

- U.S. Diplomacy and Energy Sources
- Examination of energy policies of the countries:
 - Oil – Venezuela and Saudi Arabia
 - Coal – China and Australia
 - Nuclear – France and Japan and
 - Renewable – Germany and Spain
- Means to strengthen U.S. cooperation with those countries linked to their energy activities and to identify possible areas of cooperation for mutual benefits.
- Final Discussions and Recommendations

Chapter I

1.0 Introduction to U.S. Diplomacy and Energy Sources

- Appropriate energy policies will help strengthen diplomatic relations and increase the potential for developing strategic
- A determined and strategic energy policy

Chapter I

1.0 Introduction to U.S. Diplomacy and Energy Sources

- Energy is the fundamental force driving industries, business, and the transportation of goods and services to serve the world economies.
- Approximately 35 percent of the power that we use on Earth is provided by oil.
- What is the smartest way to bridge the gap and how do we do it?

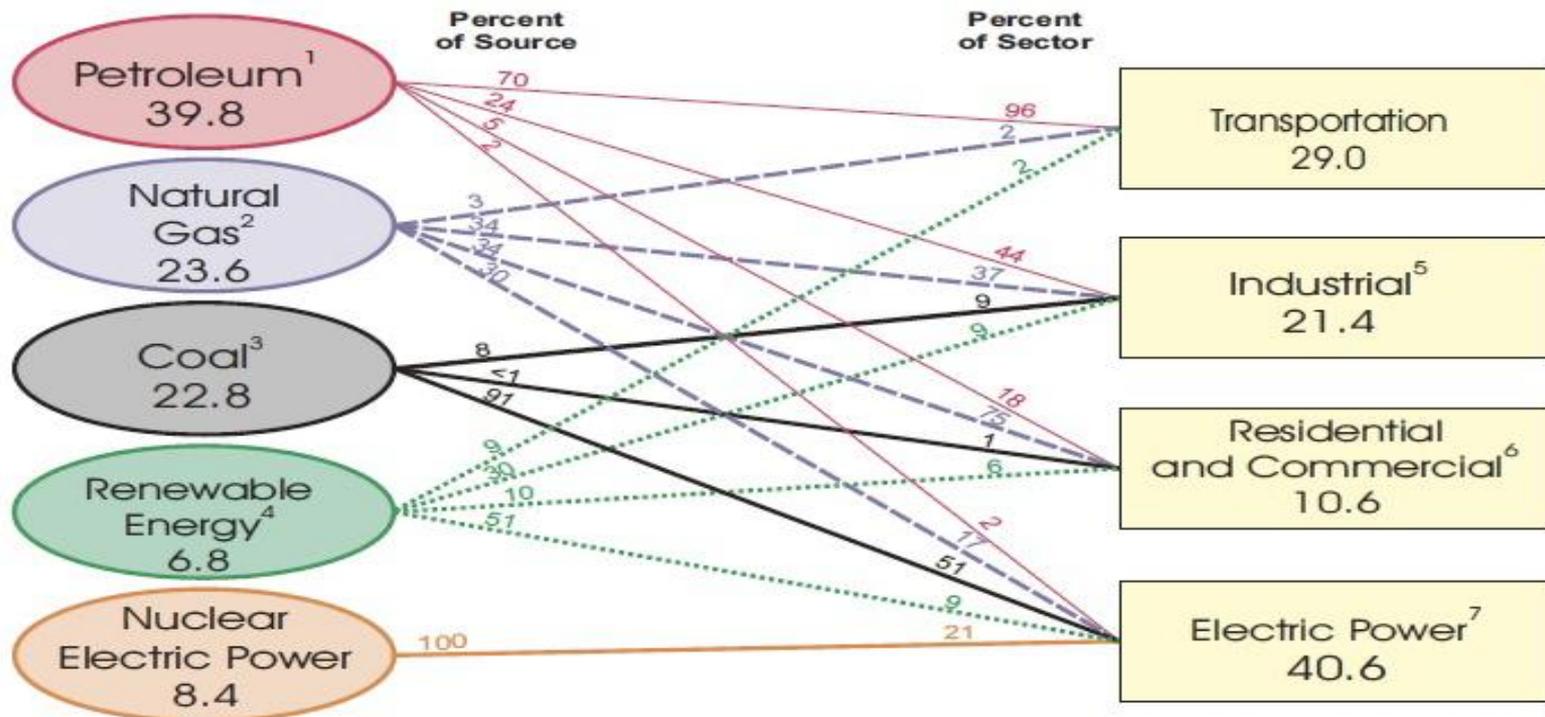
Chapter I

1.0 Introduction to U.S. Diplomacy and Energy Sources

- The creation of positive relations between the U.S. and the countries that produce oil, coal, nuclear, and renewable as their source.
- In this case, diplomatic approaches will involve means to improve U.S. cooperation with other countries linked to their energy activity and identify possible areas of collaboration for mutual benefits.
- Thus knowledge, diplomacy and policy experience on matters has helped us build ties between governments

CHAPTER I "U.S. ENERGY SOURCES AND SECTORS"

U.S. Primary Energy Consumption by Source and Sector, 2007
(Quadrillion Btu)



¹ Does not include 0.6 quadrillion Btu of fuel ethanol, which is included in "Renewable Energy."
² Includes supplemental gaseous fuels.
³ Includes less than 0.1 quadrillion Btu of coal coke net imports.
⁴ Includes conventional hydroelectric power, geothermal, solar/PV, wind, and biomass.
⁵ Includes industrial combined-heat-and-power (CHP) and industrial electricity-only plants.

⁶ Includes commercial combined-heat-and-power (CHP) and commercial electricity-only plants.
⁷ Electricity-only and combined-heat-and-power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public.
 Note: Sum of components may not equal 100 percent due to independent rounding.
 Sources: Energy Information Administration, *Annual Energy Review 2007*, Tables 1.3, 2.1b-2.1f and 10

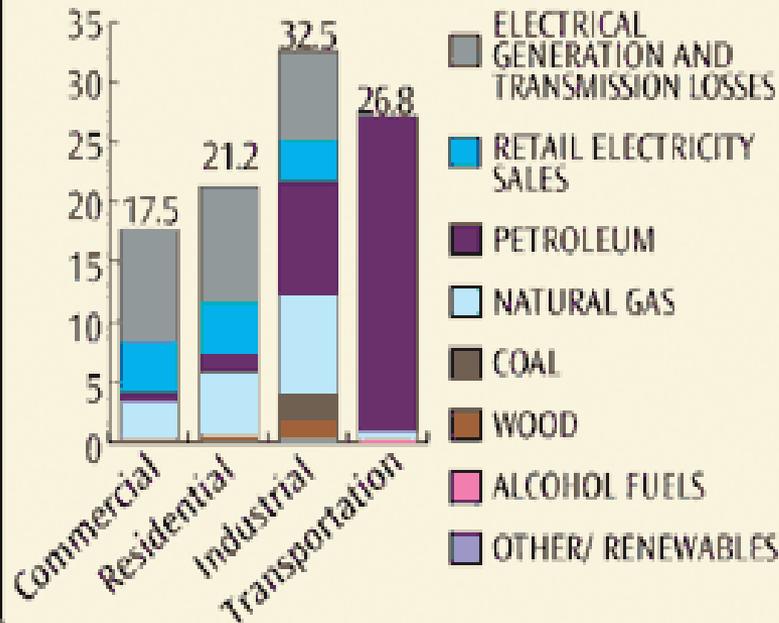
CHAPTER I "U.S. ENERGY SOURCES" CONTINUES

Which Regions Use How Much of Which Natural Energy Resource?
For Heat, Electricity, Transportation, Agriculture, Industry

ENERGY USE IN THE UNITED STATES

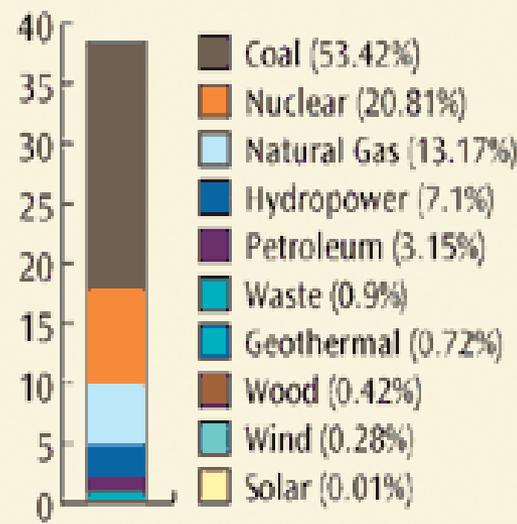
ENERGY CONSUMPTION

(Quadrillion Btu) Total: 98.1



ELECTRICITY GENERATION

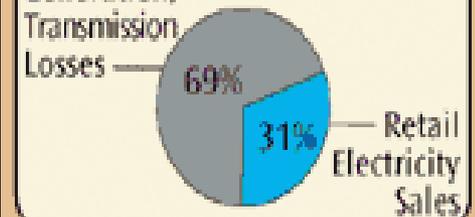
(Quadrillion Btu)



Source: US EIA Annual Energy Review 2003
<www.eia.doe.gov/emeu/aer/pdf/aer.pdf>

ELECTRICITY USE

Generation/
Transmission
Losses



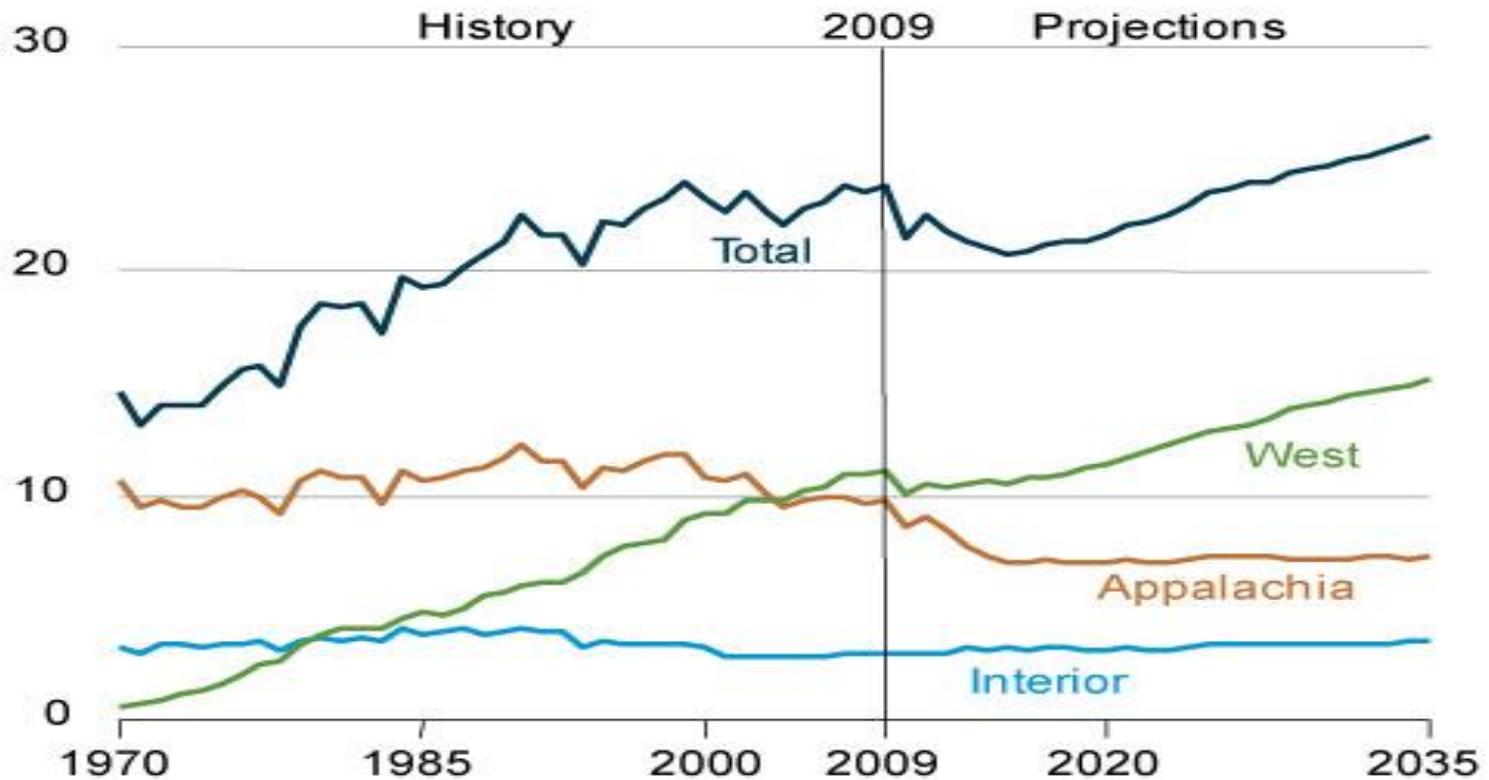
PETROLEUM IMPORTS



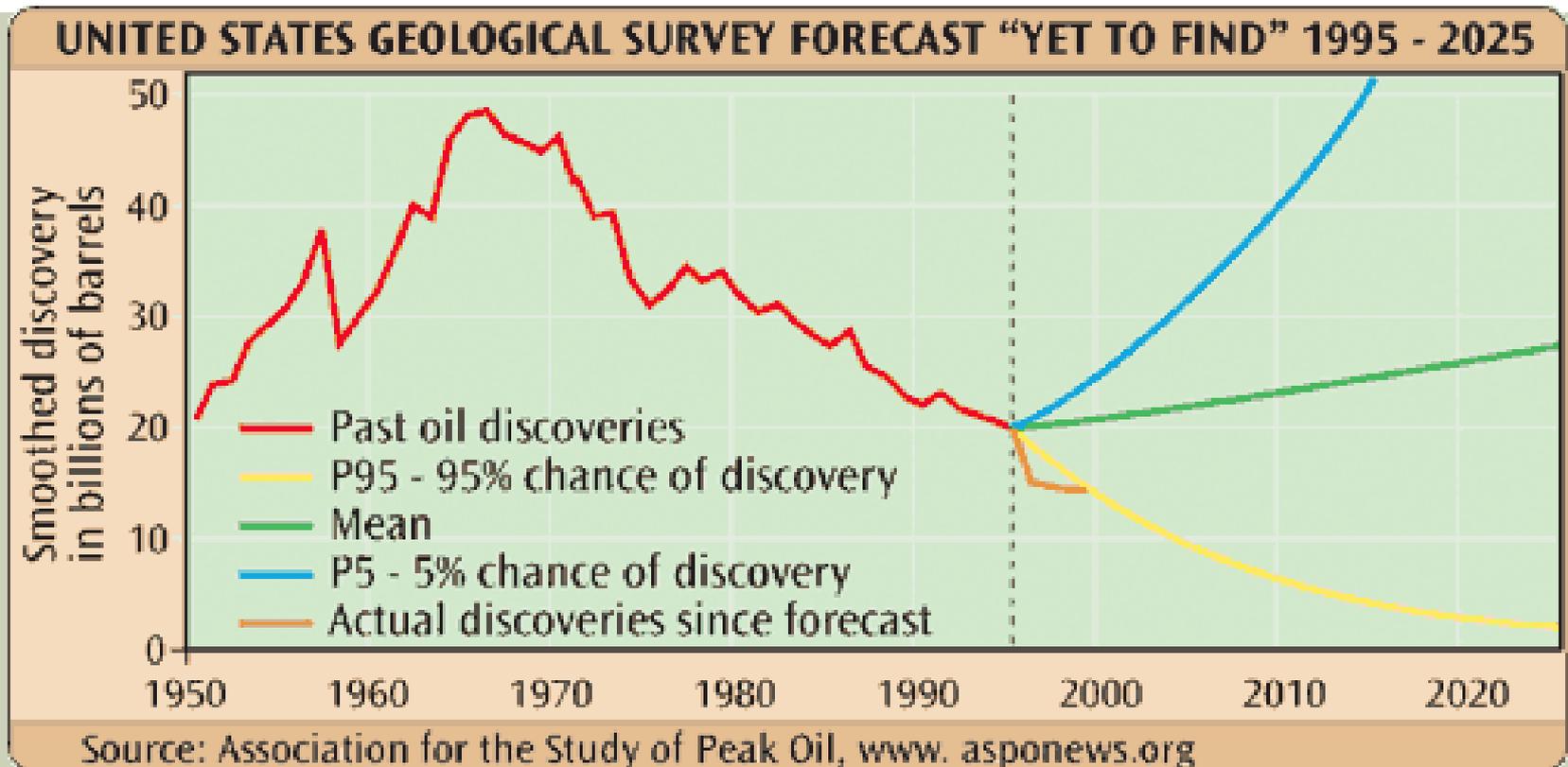
CHAPTER I "U.S. ENERGY SOURCES" CONTINUES

U.S. coal production projected to rebound by 2014

Figure 101. Coal production by region, 1970-2035
(quadrillion Btu)



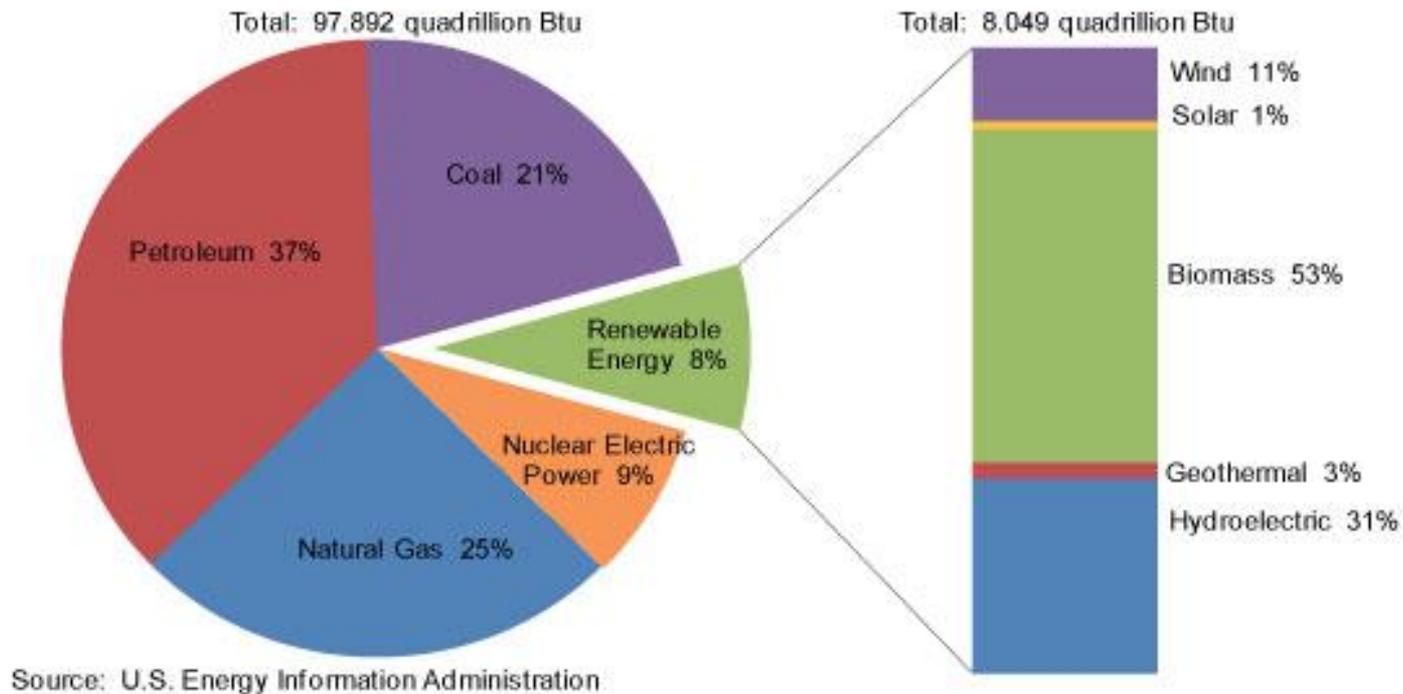
CHAPTER I “U.S. ENERGY SOURCES” CONTINUES



- According to a report by the U.S. Energy Information Administration, during the next two decades U.S. energy demands are projected to rise by 62% for Liquid Natural Gas, 33% for oil and 45% for electricity.

CHAPTER I “U.S. ENERGY SOURCES” CONTINUES

Figure 1. Renewable energy consumption in the nation's energy supply, 2010



This figure, 8% of the U.S. energy consumption is met by Renewable Energy sources. Wind power meets 11% of nation's energy supply, Solar meets 1%, Biomass meets 53%, Geothermal 3% and Hydroelectric meets 31% in energy supply.

CHAPTER 2 - VENEZUELA

- Creating bilateral cooperation with Venezuela on a variety of issues such as: Counterterrorism, Counter-narcotics, Energy, Commercial etc.
- Venezuela is one of the main routes for trafficking illegal narcotics out of Colombia due to a nonjudgmental and corrupt environment in Venezuela.
- U.S. goods account for 25% of imports from Venezuela and about 60% of Venezuelan export go to the United States

CHAPTER 2 - VENEZUELA

- Venezuela is the U.S. one of the largest oil exporters.
- First of all, the U.S. government should have the desire to create better relations with Latin America as well as the need for Chavez to change his image.
- A more diplomatic approach is likely to prove more effective in bringing the desired results in both countries and it could start by developing strong cooperation for mutual benefits

CHAPTER 3 – SAUDI ARABIA

- Both countries share mutual concerns regarding the security of the region, oil trade, and sustainable development
- The two countries have established close discussions regarding international, economic, and development matters such as the Middle East peace process and shared common interests in the Gulf.
- Saudi Arabia is one of the primary sources of oil imports for the United States, which provides more than one million barrels/day of oil to the U.S. market

CHAPTER 3 – SAUDI ARABIA

- By increasing educational and professional interactions and co-developed cultural activities.
- The Obama administration should promote U.S. - Saudi collaboration on global counterterrorism and regional security issues.
- Some of the areas where these two countries could cooperate and achieve mutual benefits are:
 - U.S. - Saudi military cooperation
 - Counterterrorism and,
 - U.S. Arms Sales to Saudi Arabia

CHAPTER 4 – GATES TO REENFORCE U.S RELATIONS WITH AUSTRALIA

- Diplomatic relations between U.S. and Australia are strong
- Advancing science and technology proposals to tackle environmental challenges.
- Both governments should aim towards regular consultancy and review continues cooperative activities.

CHAPTER 5 – A STRATEGIC ECONOMIC ENGAGEMENT COULD STRENGTHEN U.S. – CHINESE TIES

- In order for China to become more energy efficient; it needs to reduce green house gasses.
- China has to use clean energy technology
- The demand for clean energy technology opens opportunities in the market for international companies with sustainable business operations
- They must achieve them through industrial, commercial and residential sectors.

CHAPTER 5 – A STRATEGIC ECONOMIC ENGAGEMENT COULD STRENGTHEN U.S. – CHINESE TIES

- U.S. firms should expect an increasing demand in China for confirmed, high quality products and services
- Join forces cooperatively addressing climate imperative as well developing business between the two countries.

CHAPTER 6 – JAPAN'S ANALYSIS BRIEF

- The support of future energy policies by increasing the environmental performances of the vehicles.
- The U.S. can link the cooperation with Japan in developing certain requirements, as well as metrics and methodologies to appraise fuel efficiency.
- The Toyota Prius is the world's first hybrid vehicle produced by Japan that runs on electricity and gasoline.

CHAPTER 6 – JAPAN'S ANALYSIS BRIEF

- The U.S. could link the cooperation with Japan and encourage an increase of hybrid vehicles use in the U.S.
- Nevertheless, the purpose of this achievement is to emit the smallest amount of emissions for a given dollar.

CHAPTER 6 – JAPAN’S ANALYSIS BRIEF

	Fuel Miles Per Gallon 1	Gallons of Fuel Used/100,000 miles 2	Tons of Greenhouse gas Emissions tons/100,00 miles 3	Fuel Cost 100,000 miles based on DOE GREET model 4	Fuel Cost per 100,000 miles based on Contractor analysis 5	Total Ownership cost based on Contractor analysis 6
Hybrid Sedan (Toyota Prius)	46	2174	26.7	\$6,987	\$6,007	\$21,066
Gasoline Sedan (Chevy Impala)	22	4545	55.3	\$14,653	\$12,561	\$22,932
Small Hybrid SUV 4WD-4cyl, automatic (Ford Escape)	28	3571	44	\$11,493	\$9,211	\$25,912
E85 Sedan (Chevy Impala)	17	5882	43.3	\$12,347	\$11,949	\$22,320
Small Gasoline SUV 4WD-6cyl (Ford Escape)	19	5263	64	\$16,099	\$14,554	\$27,193

CHAPTER 6 – JAPAN'S ANALYSIS BRIEF

- Further develop environmental performance and the road efficiency movement.
- Some of the key topics to be considered for further collaboration would be:
 - Continuing activities on fuel efficiency of heavy-duty vehicles
 - Further developing for a worldwide accepted method for the certification of heavy-duty hybrid electric vehicles and,
 - Computer simulations use to calculate fuel efficiency of vehicle configurations and usage

CHAPTER 7 – FRANCE’S ANALYSIS BRIEF

- Expanding their cooperation to better manage Sodium-Cooled Fast Reactor (SFR) Prototype development
- Identifying mutual safety principles and important technical innovations to decrease operating, capital, and maintenance costs.
- The teamwork between U.S. and French leaders will enable significant debates on power levels, reactor types, fuel types and a proper agenda for the possible deployment of prototype facilities.

CHAPTER 8 – GERMANY'S ANALYSIS BRIEF

- They should further collaborate in order to tackle common challenges of climate change, energy security, and economic growth.
- Maintain a stable climate and sustainable energy, since both are crucial to their economies and to their security.
- They can continue working together on climate and energy policy and make a difference.

CHAPTER 8 – GERMANY'S ANALYSIS BRIEF

- By joining their main players in politics, business and society, they create a platform
- Therefore, by working together U.S. and Germany can face challenges of a global economic recession and the increasing of global greenhouse gas emissions will only help to develop their relationship.

CHAPTER 9 - SPAIN

- Discuss various aspects related to energy dependence, security of supply, energy efficiency and renewable energy.
- The U.S government is constantly promoting this industry because it wants it to have an even more important role in energy efficiency.
- “Spain maintained its plan to adopt electric vehicles and to put in circulation a million electric cars by 2014”

CHAPTER 9 - SPAIN

- This mode of transportation is backed by President Obama who has set a goal of having a million plug-in hybrid vehicles on the road by 2015.
- Both of these countries should have the will to work together and come to agreements on renewable energy matters.

FINAL DISCUSSIONS AND RECCOMENDATIONS

- Recommended areas that could be of great interest:
 - Develop global energy safety by applying a new diplomatic approach and cooperation with foreign governments and entities;
 - Encourage consistent, diverse, and sustainable sources of all types of energy;
 - Reduce global dependence on oil and natural gas energy sources;
 - Expand availability of renewable and clean energy sources worldwide;

FINAL DISCUSSIONS AND RECCOMENDATIONS CONTINUES

- Get more involved in energy collaboration to improve strategic partnerships that develop peace, security and democratic success and,
- The U.S. should work with both producer and consumer countries and find common favorable solutions.
- The result of these policies will show an improvement in future energy policies and diplomatic relations between the U.S. and the countries the United State will seek to collaborate in order to achieve these goals.

QUESTIONS AND ANSWERS

