

Facets of Fossil Fuels

by

Nathan Robertus

RECEIVED JAN 8 2009

January 4, 2008

Petroleum, coal, and natural gas have been the United States' main source of fuel for centuries. Many people, however, uphold the opinion that these fossil fuels, though a part of our past, should not be a part of our future. It is this idea that has driven the inventions of many renewable energy sources. However, it is quite unlikely that we will abandon fossil fuels in the years to come.

Today, fossil fuels produce about eighty-six percent<sup>1</sup> of the energy we use yearly, as opposed to the meager six percent<sup>1</sup> that comes from renewable energy sources; the rest being generated with nuclear power plants. One reason for this could be because of the many objections to several of the renewable energy sources. Wind power, for instance, causes concern from some because the windmills have the potential to harm birds. Dams are also highly disputed because they can harm fish. The only renewable energy source that does not seem to be detrimental to the environment is solar energy. This type of renewable energy, however, has problems as well. It is quite dependent on the weather, and is useless during the night or when it is cloudy. Another cause for the dominance of fossil fuels could be that these renewable energy sources are very expensive to produce. Dams, windmills and solar panels cost a large amount of money to build and maintain. All in all, because of these drawbacks, as well as those who object to such sources of renewable energy, petroleum, coal, and natural gas will most likely still be used in the future.

Thirty years ago, the fossil fuels composed around ninety percent<sup>1</sup> of our fuel needs. Today, that percentage has dropped to around eighty-six percent<sup>1</sup>, and it is predicted that in the next twenty years, these fuels are to compose around seventy-nine percent<sup>2</sup> of our energy needs.

There are several sectors that are greatly impacted by different fossil fuels. The transportation sector is most impacted by petroleum, as ninety-six<sup>3</sup> percent of its energy comes from this source. Natural gas is most prominent in the residential and commercial areas, taking up seventy-five<sup>3</sup> percent of that sector's input. Lastly, coal is consumed most by electric power, about fifty-one<sup>3</sup> percent of electricity's consumption.

"Big Oil" companies are all over the world, and much of the oil we use is supplied by them. "Big Oil" companies actually supply ninety-five percent<sup>4</sup> of the oil we own, with only five percent coming from international oil companies. Our national oil consumption is expected to increase six percent<sup>2</sup> in the next twenty years, increasing to approximately 40.85 quadrillion<sup>2</sup> btu's, or British Thermal Units. China and India produce about six percent<sup>5</sup> of the world's energy supply; however they have some incredibly low standards of living, with one-third of the poor people of the world living in India<sup>6</sup>. Any change in the living standards, however, would almost invariably skyrocket the cost per barrel of oil. Though most of the petroleum we use comes from Canada, Saudi Arabia and Mexico<sup>7</sup>, an increase in price would be present, most affecting the transportation and industrial sectors<sup>3</sup>. However, we cannot blame the Chinese and Indians for trying to raise their standard of living. In America, we live very well, and it is not fair for us to blame them for increasing the way people live to a level that still is far below ours. If anything, we should start to conserve more fuel, as well as produce more, not try to blame someone else.

The U.S. consumes so much energy annually, that if we were to use only half of our energy per capita, we would use an amount that is comparable to that of Eurasia and the Middle East combined<sup>8</sup>. However, if our country were to decrease our energy

consumption, our standard of living would not be decreased too drastically. It would still be far, far above the low standard that is the Middle East and China. Such changes would affect us in that many industries would need to either shut down, or use more fuel-efficient techniques in accomplishing their objectives. This could lead to the abandonment of the manufacturing of many unnecessary indulgences Americans buy frequently. We would not be able to have our homes as warm in the winter, or as cool in the summer, and we would need to drive quite a bit less. This might include moving closer to where one works, or buying a more fuel-efficient vehicle. Conservation is very important to the energy crisis. We need to preserve what we have for years to come, and we also need to think of other countries as well. We, as Americans, enjoy many conveniences that many nations do not have. If we stop using so much of the world's energy supplies, there will be more left for those who need it most.

One very good tip for conserving oil is turning off the lights. Many people do not consider where electricity comes from, and think it is a "clean" source of energy. Electricity is generated from power companies, which all create electricity from fossil fuels. By turning off the lights, we decrease the demand for electricity, which in turn decreases the amount of fossil fuels that must be used to create electricity.

Fossil fuels will be a major source of energy for years to come, and we need to be wise in how we use them. We can definitely conserve much more energy as a nation than we currently do, as well as use renewable energy sources for a larger percentage of our consumption than they are now. We do not need to run away from or stop using fossil fuels; we just need to use them more carefully.

Footnotes

<sup>1</sup> <http://www.eia.doe.gov/emeu/aer/txt/ptb0103.html>

<sup>2</sup> [http://www.eia.doe.gov/oiaf/aeo/aeoref\\_tab.html](http://www.eia.doe.gov/oiaf/aeo/aeoref_tab.html)

<sup>3</sup> [http://www.eia.doe.gov/emeu/aer/pecss\\_diagram.html](http://www.eia.doe.gov/emeu/aer/pecss_diagram.html)

<sup>4</sup> [http://www.economist.com/opinion/displaystory.cfm?story\\_id=7276986](http://www.economist.com/opinion/displaystory.cfm?story_id=7276986)

<sup>5</sup> <http://tonto.eia.doe.gov/country/index.cfm>

<sup>6</sup> [http://timesofindia.indiatimes.com/India/One-third\\_of\\_worlds\\_poor\\_in\\_India/articleshow/3409374.cms](http://timesofindia.indiatimes.com/India/One-third_of_worlds_poor_in_India/articleshow/3409374.cms)

<sup>7</sup> [http://www.eia.doe.gov/pub/oil\\_gas/petroleum/data\\_publications/company\\_level\\_imports/current/import.html](http://www.eia.doe.gov/pub/oil_gas/petroleum/data_publications/company_level_imports/current/import.html)

<sup>8</sup> <http://www.eia.doe.gov/emeu/international/oilconsumption.html>

## Bibliography

- “Country Energy Profiles” Energy Information Administration; Energy Information Administration; Accessed 2 Jan. 2009  
<<http://tonto.eia.doe.gov/country/index.cfm>>
- “Crude Oil and Total Petroleum Imports Top 15 Countries” Energy Information Administration; Energy Information Administration; Accessed 3 Jan. 2009  
<[http://www.eia.doe.gov/pub/oil\\_gas/petroleum/data\\_publications/company\\_level\\_imports/current/import.html](http://www.eia.doe.gov/pub/oil_gas/petroleum/data_publications/company_level_imports/current/import.html)>
- “Energy Geopolitics” Michael J. Economides; Accessed 1 Jan. 2009  
<[http://www.montanapetroleum.org/index.php?pr=Annual\\_Meeting\\_Presentations](http://www.montanapetroleum.org/index.php?pr=Annual_Meeting_Presentations)>
- “One-third of the world’s poor in India: Survey” The Times of India; Accessed 3 Jan. 2009 <[http://timesofindia.indiatimes.com/India/One-third\\_of\\_worlds\\_poor\\_in\\_India/articleshow/3409374.cms](http://timesofindia.indiatimes.com/India/One-third_of_worlds_poor_in_India/articleshow/3409374.cms)>
- “Primary energy consumption by source” Energy Information Administration Energy Information Administration; Accessed 3 Jan. 2009  
<<http://www.eia.doe.gov/emeu/aer/txt/ptb0103.html>>
- “Really Big Oil” The Economist; economist.com; Accessed 1 Jan. 2009  
<[http://www.economist.com/opinion/displaystory.cfm?story\\_id=7276986](http://www.economist.com/opinion/displaystory.cfm?story_id=7276986)>
- “US Primary Energy Consumption by Source and Sector” Energy Information Administration Energy Information Administration; Accessed 2 Jan. 2009  
<[http://www.eia.doe.gov/emeu/aer/pecss\\_diagram.html](http://www.eia.doe.gov/emeu/aer/pecss_diagram.html)>