7. ANNOTATED BIBLIOGRAPHY OF REFERENCES

Aabakken, J. *Power Technologies Data Book: Third Edition*. (Golden, CO: National Renewable Energy Laboratory, April 2005). <http://www.nrel.gov/analysis/power_databook/>.
-A very useful statistical compendium of a wide range of facts and figures pertaining to the electric power sector. Focus is on the United States. Also includes technology overviews of several advanced and renewable energy technologies.

Aiken, Richard, et al. *Coal-Based Integrated Gasification Combined Cycle: Market Penetration Strategies and Recommendations*. (Booz Allen Hamilton, Sept. 2004).
<http://www.netl.doe.gov/technologies/coalpower/gasification/pubs/pdf/Coal%20Gasification%20Report%20-%20Chapters.pdf>.
-A report prepared for the National Energy Technology Laboratory, the DOE's only national lab devoted to fossil energy technologies. Looks at the market potential for the use of typical coal-based IGCC plant in the U.S. from 2004 to 2025. Identifies a number of recommendations designed to enhance IGCC market penetration opportunities given the uncertainties of the future based upon the latest views and data from experts in the industry, as well as detailed economic and financial modeling and analyses of recent relevant investment decisions.

American Petroleum Institute. "The End of the RFG Oxygenate Mandate in 2006". (Washington D.C.: American Petroleum Institute, March 2006).
<http://api-ec.api.org/filelibrary/End-of%20Oxy-Mandate-2006.pdf>
-Discussion of the ramifications of the repeal to the 2% oxygenate content requirements for RFG and the federal ban on the use of Methyl Tertiary Butyl Ether (MTBE) that were by the Energy Policy Act of 2005.

ANL – See Argonne National Laboratory

Argonne National Laboratory. *GREET 1.6*. (Argonne, IL: Argonne National Laboratory, April 2005).
<http://www.transportation.anl.gov/software/GREET/>.
-The latest complete version of the GREET spreadsheet model. Utilized in this study to perform well-to-wheels analysis of various fuel production/vehicle system pathways. Developed by the Center for Transportation Research at Argonne National Labs, under the supervision of Michael Wang (see below).

_____. *GREET 1.7 Beta*. (Argonne, IL: Argonne National Laboratory, Jan. 2006).
<http://www.transportation.anl.gov/software/GREET/>.
-A public beta version of the next version of the GREET spreadsheet model from Argonne National Labs. This version of the model is not yet complete. Includes several new fuel production pathways and now includes a more fine-tuned range of forecast time horizons.

Argonne National Laboratory et al. *Total Energy Cycle Assessment of Electric and Conventional Vehicles: An Energy and Environmental Analysis, Vol. II: Appendices to Technical Report* (Washington, D.C.: Argonne National Laboratory, Jan. 1998).
-An early life cycle analysis of electric vehicles by ANL that was a precursor to the GM, ANL, et al. (2001) WtW study and the release of the first public version of the GREET model. An example of an attempt to estimate a region-specific marginal electricity mix for EVs.

Axeon Power, Ltd. "Rechargeable Lithium Batteries". *Custom Power Solutions*.
<http://www.axeonpower.com/lithiumS.htm>. Accessed 5/19/2006.
-The lithium ion rechargeable battery entry in Axeon Power's 'comprehensive' online battery knowledge base. Axeon Power is a European company delivering battery power solutions and their battery knowledge base is a useful collection of information on various battery cell chemistries and battery characteristics.

_____. "Nickel Metal Hydride Batteries". *Custom Power Solutions*. <http://www.axeonpower.com/nimh.htm>. Accessed 5/19/2006.
-The nickel metal hydride battery entry in Axeon Power's 'comprehensive' online battery knowledge base (see above).

BRI Energy, LLC. "Technology Summary". BRI Energy Process. March 18, 2006. <http://www.brienergy.com/pages/process01.html>. Accessed 5/16/2006.
-A description of the cellulosic ethanol production process developed by BRI Energy, a U.S.-based bioenergy company. BRI's process converts carbon-rich organic matter (i.e. biomass or coal) to ethanol by gasifying the organic matter and then feeding the resulting CO in the carbon-rich synthetic gas (syngas) to a patented microorganism which produces ethanol. Significant quantities of electricity can also be created from waste heat from the gasification process and the combustion of the still hydrogen-rich residual syngas. This process is very promising but is still in pre-commercialization stages. BRI recently announced plans to construct two pilot plants near Oak Ridge, TN, one using coal as a feedstock and the other using municipal solid waste. The plants could be constructed by the end of the decade.

Davis, Stacey C. and Susan W. Diegel. *Transportation Energy Data Book: Edition 24*. (Oak Ridge, TN: Oak Ridge National Laboratory, December 2004). <http://cta.ornl.gov/data/index.shtml>.
-A very useful statistical compendium of a wide range of facts and figures pertaining to transportation energy use. Focus is on the United States although figures for world petroleum production and consumption are included.

CIA – See United States Central Intelligence Agency

DasGupta, S. et al. A Long Range, Ultra-Safe, Low Cost Electric Vehicle. (Presented at EVS21, Monaco, April 2005, Electrovaya). <http://bioage.typepad.com/greencarcongress/docs/Electrovaya%20EVS21%20Paper.pdf>
-A paper from Canadian lithium-polymer battery manufacturer, Electrovaya, describing their Maya-100 electric vehicle. The Maya-100, an all-electric compact SUV, achieves an operating range of over 180 miles (300 km) using a 40 kWh lithium-polymer battery pack.

DOE – See United States Department of Energy.

EIA – See Energy Information Administration.

Electric Power Research Institute. *Advanced Batteries for Electric-Drive Vehicle: A Technology and Cost-Effectiveness Assessment for Battery Electric Vehicle, Power Assist Hybrid Electric Vehicles, and Plug-In Hybrid Electric Vehicles*. (Palo Alto, CA: Electric Power Research Institute, May 2004). <http://www.epriweb.com/public/000000000001009299.pdf>.
-A report prepared by the Electric Power Research Institute that assesses the state of advanced battery technology for electric-drive applications including power-assist hybrids, plug-in hybrids and battery electric vehicles. It also attempts to analyze the life cycle costs of these vehicles in an effort to determine production cost targets necessary for commercial viability.

Energy Information Administration. *Analysis of 10-precent Renewable Portfolio Standard*. (Washington D.C.: Energy Information Administration, May 2003). <http://www.eia.doe.gov/oiaf/servicerpt/rps2/index.html>
-This report analyzes the impacts of a nationwide 10% Renewable Portfolio Standard program as proposed in an amendment to energy legislation in the U.S. Senate in 2003 (the amendment was not enacted).

_____. *Annual Energy Outlook 2006: With Projections to 2030*. (Washington D.C.: Energy Information Administration, Feb. 2006). <http://www.eia.doe.gov/oiaf/aeo/index.html>. Supplemental tables: <http://www.eia.doe.gov/oiaf/aeo/supplement/index.html>.
-The latest annual energy-forecasting document from the EIA. The AEO2006 presents long-term of energy supply, demand and prices out to the year 2030. Includes detailed data and discussions for all sectors of energy production and consumption.

_____. *International Energy Outlook 2005*. (Washington D.C.: Energy Information Administration, July. 2005). <http://www.eia.doe.gov/oiaf/ieo/index.html>.
-The latest worldwide energy-forecasting document from the EIA. Presents international energy projections through 2025, including outlooks for major energy fuels and associated carbon dioxide emissions.

_____. "Typical Costs and Capacity of New Transmission Lines". *Upgrading Transmission Capacity for Wholesale Electric Power Trade*. June 2006.
<http://www.eia.doe.gov/cneaf/pubs_html/feat_trans_capacity/table2.html>. Accessed 5/2/2006.
-Table displaying the installation costs of AC electrical transmission lines. Reports costs ranging from $130,000 and $400,000 per mile for 115 kilovolt (kV) lines and $230,000 to $840,000 per mile for 250 kV lines (in 1995 dollars), not including right of way costs.

_____. "U.S. Imports by Country of Origin". *Energy Information Administration: Petroleum Navigator*. Energy Information Administration, DOE (EIA). March 27, 2006.
<http://tonto.eia.doe.gov/dnav/pet/pet_move_impcus_a2_nus_ep00_im0_mbbl_m.htm>. Accessed 4/25/2006.
-Frequently updated collection of statistics on United States petroleum imports. Data on total crude oil and products, crude oil only, petroleum products only and specific products. Sortable by product, import area, country. Data available by month or by year.

EPA – See United States Environmental Protection Agency.

EERE – See Energy Efficiency and Renewable Energy, Office of.

Energy Efficiency and Renewable Energy, Office of. "Fuel Cells". *Hydrogen, Fuel Cells & Infrastructure Technologies Program*. April, 2006.
<http://www.eere.energy.gov/hydrogenandfuelcells/fuelcells/fc_types.html>. Accessed, 5/4/2006.
-Overview and description of the main varieties of fuel cells from the US Department of Energy's Office of Energy Efficiency and Renewable Energy. Includes descriptions of Proton Exchange Membrane, Molten Carbonate, Solid Oxide and other fuel cell varieties.

Farell, Alexander E., et al. "Ethanol Can Contribute to Energy and Environmental Goals". *Science* 311 (Jan 27, 2006): 506-508. <http://rael.berkeley.edu/EBAMM/FarrellEthanolScience012706.pdf>.
-Report on a study by University of California, Berkley, researchers that analyzed the findings of six well-to-wheels studies of ethanol from corn. The study found that those who reported that corn-based ethanol had a negative net energy return on investment "incorrectly ignored coproducts and used some obsolete data," concluding that in fact, corn-based ethanol is "much less petroleum-intensive than gasoline but [has] greenhouse gas emissions similar to gasoline." The report is supported by additional online material (see Farell, et al. (2006b) for below for more).

_____. *Supporting Online Material for: "Ethanol Can Contribute to Energy and Environmental Goals"*. (Berkley, CA: Univ. of California, Berkley, Jan 2006).
<http://rael.berkeley.edu/EBAMM/EBAMM_SOM_1_0.pdf>.
-Supporting materials that elaborate the above study (see Farell, et al. (2006a) above) as well as the ERG Biofuels Analysis Meta-Model (EBAMM) used in the study (see Farell, et al. (2006c) below). Includes a much more detailed discussion of the study's assumptions, methodology and findings than the above report.

Farell, et al. *ERG Biofuel Analysis Meta-Model* (spreadsheet). (Berkeley, CA: University of California Berkeley, Energy Research Group, Jan. 2006). <http://rael.berkeley.edu/EBAMM/EBAMM_1_0.xls>.
-Lifecycle spreadsheet 'meta-model' used to analyze six other well-to-wheels or lifecycle analysis of ethanol from corn (see Farell, et al. (2006a and 2006b) above). Ultimately used to construct own lifecycle analysis based on best inputs and assumptions from six studies analyzed. Probably the most accurate analysis of corn-based ethanol to date.

FHWA – See United States Department of Transportation, Federal Highway Administration.

General Motors, Argonne National Laboratory, et al. *Well-to-Wheel Energy Use and Greenhouse Gas Emissions of Advanced Fuel/Vehicle Systems – North American Analysis*. (Argonne, IL: Argonne National Laboratory, June 2001). <http://www.transportation.anl.gov/pdfs/TA/163.pdf>
-A well-to-wheels analysis by Argonne National Labs (ANL), General Motors and a consortium of energy companies including BP, ExxonMobil and Shell. Breaks things into well-to-tank (WTT) and tank-to-wheels sections. Based on ANL's GREET model. Includes traditional petroleum-based fuels, hydrogen from natural gas and electrolysis, conventional ethanol and cellulosic ethanol, CNG and methanol from natural gas. Focuses on 2005 and beyond. Study is extended by another WtW analysis from ANL in 2005 (see below).

_____. *Well-to-Wheels Analysis of Advanced Vehicle Systems – A North American Study of Energy Use, Greenhouse Gas Emissions, and Criteria Pollutant Emissions*. (Argonne, IL: Argonne National Labs, May 2005).
-A well-to-wheels analysis in a North American context by the Argonne National Laboratory (ANL) that extends a previous 2001 study North American study by GM and ANL (see above). Focuses on energy inputs, GHG emissions as well as criteria pollutant emissions (the only study to do so). Is based on ANL's GREET model. Includes traditional petroleum-based fuels, hydrogen from natural gas and electrolysis, conventional ethanol and cellulosic ethanol, CNG and methanol from natural gas. Focuses on model year 2010 GM full-sized truck running in 2016 as example vehicle.

GM – See General Motors.

Greene, D. and N. Tishchishyna, *The costs of oil dependence: A 2000 update*. (Oak Ridge, TN: Oak Ridge National Laboratory, May 2000). <www.ornl.gov/~webworks/cpr/v823/rpt/107319.pdf>.
-A study examining the economic costs of U.S. dependence on oil, particularly imported oil. Estimates that the effect on the U.S. economy of oil market upheavals over the past three decades at around $7 trillion. Estimates do not include military, political or strategic costs associated with oil imports.

Hirsch, Robert L. et al. *Peaking of World Oil Production: Impacts, Mitigation, and Risk Management*. (National Energy Technology Laboratory, Feb. 2005. <http://www.hilltoplancers.org/stories/hirsch0502.pdf>.
-A peak oil study focusing less on predicting when it will occur but on predicting its impacts and formulating successful mitigation strategies. Often referred to as the 'Hirsch Report' after coauthor Robert Hirsch.

Honda Motor Company. "Honda to Begin Producing Next Generation FCX Hydrogen Fuel Cell Vehicle". *News Release 2006*. Jan. 8, 2006. <http://world.honda.com/news/2006/4060108FCX/>. Accessed 5/18/2006.
-Press release from Honda announcing the motor company's plans to begin production of their second generation FCX fuel cell vehicle by the end of the decade. 2nd generation FCX is first fuel cell prototype to feature greater than 300 mile range typically considered requisite for a production fuel cell vehicle. Costs are still a barrier though.

IEA – See International Energy Agency.

Intergovernmental Panel on Climatic Change. *Climate Change 1995: The Science of Climate Change, Contribution of Working Group I to the Second Assessment Report of the Intergovernmental Panel on Climate Change*. (Cambridge, MA: Cambridge University Press, 1996). <http://www.ipcc.ch/pub/reports.htm>
-Details of the proceedings of the 1995 working group session of the authoritative Intergovernmental Panel on Climate Change. The findings and recommendations of the IPCC were adopted by the signatories to the 1997 Kyoto Protocol to the United Nations Framework Convention on Climate Change.

International Energy Agency. "Pulverised coal combustion (PCC)". *IEA Clean Coal Centre*. <http://www.iea-coal.org.uk/content/default.asp?PageID=65>. Accessed 5/13/2006.
-A website from the IEA's Clean Coal Centre describing pulverized coal power plants.

_____. "Integrated gasification combined cycle (IGCC)". *IEA Clean Coal Centre*. <http://www.iea-coal.org.uk/content/default.asp?PageId=74>. Accessed 5/13/2006.
-A website from the IEA's Clean Coal Centre describing integrated gasification combined cycle coal power plants.

Iogen, Corp. "Cellulose Ethanol is Ready to Go". *News*. April 21, 2004.
<http://www.iogen.ca/news_events/press_releases/2004_04_21.html>. Accessed 5/16/2006.
-Press release from Canadian cellulosic ethanol company documenting the first commercial sale of ethanol derived from cellulosic biomass.

Iogen, Corp. "Process". *Cellulose Ethanol*. 2005.
<http://www.iogen.ca/cellulose_ethanol/what_is_ethanol/process.html>. Accessed 5/16/2006.
-A brief description of Iogen, Corp.'s enzymatic hydrolysis process for the production of cellulosic ethanol.

IPCC – See Intergovernmental Panel on Climate Change.

Ivy, Johanna. *Summary of Electrolytic Hydrogen Production*. (Golden, CO: National Renewable Energy Laboratory, Sept 2004). <http://www.nrel.gov/docs/fy04osti/36734.pdf>
-A report that provides a technical and economic overview of the electrolytic hydrogen production systems commercially available as of December 2003. Provides detailed economic analysis of three scenarios for distributed (forecourt) electrolytic hydrogen production: a small neighborhood system (~20 kg H2 per day), a small fueling station (100 kg/day) and a typical station (1000 kg/day). Concludes the hydrogen selling prices were \$19.01/kg, \$8.09/kg, and \$4.15/kg H_2 respectively for the scenarios above.

Kottenstette, R. and J. Cotrell. *Hydrogen Storage in Wind Turbine Towers: Cost Analysis and Conceptual Design*. (Golden, CO: National Renewable Energy Laboratory, Sept. 2003).
-A paper examining the potential use of wind turbine towers for hydrogen storage. Opens up the possibility of using the towers for storage of hydrogen used to 'firm' wind farm output at little incremental installation/manufacturing cost for the storage capacity. Of particular interest to those interested in using hydrogen to transmit energy from remote stranded wind potential (i.e., in the Great Plains) to demand centers.

Leighty, William C, et al. *Compressorless Hydrogen Transmission Pipelines Deliver Large-scale Stranded Renewable Energy at Competitive Cost*. (Presented at "Power Gen Renewable Energy and Fuels", Los Vegas, NV, April 2006).
<http://www.leightyfoundation.org/files/PGRE-Apr06-LasVegas-FINAL-6Feb06.pdf>.
-A paper discussing options for tapping 'stranded' renewable energy sources – i.e., sources located a prohibitive distance from existing transmission infrastructure. Presents pipelining gaseous hydrogen produced on site by high pressure electrolysis units to urban centers as an option for utilizing these resources. Models a 1000 MW wind farm located in the Great Plains, delivering exclusively hydrogen fuel, via a new gaseous hydrogen pipeline, to an urban market at least 200 miles distant.

Leighty, William C. and Geoffrey Keith. *Transmitting 4,000 MW of New Windpower from North Dakota to Chicago: New HVDC Electric Lines or Hydrogen Pipeline* (Presented at the "International Conference on Hydrogen Age of Asia", Tokyo, Nov. 2001).
<http://www.leightyfoundation.org/files/ND-Chicago-HVDC-H2pipeline.pdf>.
-The first of Leighty, et al.'s papers discussing options for utilizing remote, stranded renewables using the example of a large Great Plains wind facility. Considers both high voltage direct current (HVDC) transmission lines and pipelined hydrogen.

Manitoba Hydro. "Nelson River DC Transmission System". *Our Facilities*. <http://www.hydro.mb.ca/our_facilities/ts_nelson.shtml>. Accessed 5/4/2006.
-Brief description of Manitoba Hydro's Neslon River DC Transmission System, a high capacity HVDC line linking hydropower facilities on the Nelson River in northern Manitoba, Canada, with the city of Winnepeg 895 km distant.

Mazza, Patrick and Roel Hammerschlag. *Carrying the Energy Future: Comparing Hydrogen and Electricity for Transmission, Storage and Transportation*. (Seattle, WA: Institute for Lifecycle Environmental Assessment, June 2004). <http://www.ilea.org/downloads/MazzaHammerschlag.pdf>.
-A study that compares hydrogen from renewable sources with its main competitors in its three main capacities: energy carrier, energy storage and transportation fuel. Based around the assumption: given that while renewables are in theory unlimited, they are in practice limited and before we invest in significant new infrastructure for a hydrogen economy, we ought to compare hydrogen to other options and attempt to maximize environmental benefit of renewable sources. Concludes that in each area, other competitors offer more efficient options for utilizing energy from renewable sources.

Mitsubishi Motor Company. "Mitsubishi Motors lineup at 76th Geneva Motor Show". *Motor Show*. Feb. 28, 2006. <http://media.mitsubishi-motors.com/pressrelease/e/motorshow/detail1424.html>. Accessed 5/19/2006.
-A press release from Mitsubishi describing their Concept-EZ MIEV, a compact mono-box electric vehicle using lithium ion batteries. The Concept-EZ has an operating range of 75 mi (120 km).

Morrison, Christine, E. *Production of Ethanol from the Fermentation of Synthesis Gas*. (Mississippi State , MS: Mississippi State Univ, Aug. 2004).
-A masters thesis discussing in detail the production of cellulosic ethanol via the fermentation of synthesis gas. Such a process is being commercialized by BRI Energy, LLC (see BRI Energy, 2006 above) and is a very promising cellulosic ethanol production process that can utilize a very wide range of carbon-rich organic matter as feedstock including municipal solid waste, dedicated biomass energy crops and even coal.

Oak Ridge National Laboratory. "Biofuels from Switchgrass: Greener Energy Pastures". *Bioenergy Feedstock Information Network*. 1998. <http://bioenergy.ornl.gov/papers/misc/switgrs.html>. Accessed 3/18/2006.
-Introduction to switchgrass as a feedstock for cellulosic ethanol production from Oak Ridge National Labs (ORNL). Discusses ORNL's working on biofuels from herbaceous biomass as part of the Biofuels Feedstock Development Program.

_____. "Biofuels from Trees: Renewable Energy Research Branches Out". *Bioenergy Feedstock Information Network*. 1998. <http://bioenergy.ornl.gov/papers/misc/trees.html>. Accessed 3/18/2006.
-Introduction to trees as a feedstock for cellulosic ethanol production from Oak Ridge National Labs (ORNL). Discusses ORNL's working on biofuels from woody biomass as part of the Biofuels Feedstock Development Program.

Office of the President of the United States of America. "2006 State of the Union". *The White House*. <http://www.whitehouse.gov/stateoftheunion/2006/>. Accessed 4/22/2006.
-The full text of President George W. Bush's 2006 State of the Union Address. President Bush devoted four paragraphs and two minutes and fifteen seconds of the address to energy issues, declaring, "America is addicted to oil" and unveiling his 'Advanced Energy Initiative.'

Patzek, Tad W. "Thermodynamics of the Corn-Ethanol Biofuel Cycle". *Critical Reviews in Plant Sciences*, 23(6) (2004): 519-567. <http://dx.doi.org/10.1080/07352680490886905>.
-One of the controversial studies published by U.C. Berkley researcher Tad Patzek (see Pimentel and Patzek (2005) below) that concludes that corn-based ethanol actually consumes more energy than it yields. This study was analyzed by Farell, et al. (2006a and 2006b) above who found that it inaccurately addressed the allocation of credits for co-products and includes some input data that is either old and poorly

representative of current practice or was so poorly documented that the validity of the assumptions could not be determined.

Perlack, Robert D., et al. *Biomass as Feedstock for a Bioenergy and Bioproducts Industry: the Technical Feasability of a Billion-Ton Annual Supply*. (Oak Ridge, TN: Oak Ridge National Laboratory, April 2005). <http://www1.eere.energy.gov/biomass/pdfs/final_billionton_vision_report2.pdf>.
-An assessment of the feasibility of securing a billion-ton annual supply of biomass as a feedstock for bioenergy and bioproducts industries prepared by Oak Ridge National Labs for the USDA. Concludes that over 1.3 billion dry tons of biomass would be available by the mid-21st century, enough to meet more than one-third of current U.S. demand for transportation fuels.

Pimentel, David and Tad W. Patzek. "Ethanol Production Using Corn, Switchgrass, and Wood; Biodiesel Production Using Soybean and Sunflower". *Natural Resource Research*, 14(1) (2005): 65-76. <http://www.springerlink.com/index/R1552355771656V0.pdf>
-Another controversial study from U.C. Berkley researcher Tad Patzek (Patzek (2004) above) and Cornell professor David Pimentel that concludes that corn-based ethanol actually consumes more energy than it yields. This study was analyzed by Farell, et al. (2006a and 2006b) above who found that it inaccurately addressed the allocation of credits for co-products and includes some input data that is either old and poorly representative of current practice or was so poorly documented that the validity of the assumptions could not be determined.

Ramage, Michael P. *The Hydrogen Economy: Opportunities, Costs, Barriers and R&D Needs*. (Presented before the U.S. House of Representatives, Committee on Science, March 3, 2004).
-Written statement of Congressional testimony from the National Research Council of the National Academies of Science and Engineering on the prospects and challenges of the future 'hydrogen economy'. Reports significant challenges to developing PEM fuel cells for automotive use and solutions to these challenges are uncertain. Given these challenges, considers near-term DOE milestones for FCVs "unrealistically aggressive."

Reuters. "Kuwait oil reserves only half official estimate – PIW". *Reuters*. Jan. 20, 2006. <http://today.reuters.com/business/newsarticle.aspx?type=tnBusinessNews&storyID=nL20548125&imageid=&cap=>. Accessed 4/22/2006.
-A report from the international news agency that reveals OPEC oil exporter Kuwait's oil reserves are only half official reports. An example of how OPEC nations often provide grossly overoptimistic public estimates of their reserves in order to boost production quotes (which are tied to reserves).

Rudervall, Roberto, et al. *High Voltage Direct Current (HVDC) Transmission Systems Technology Review Paper*. (Presented at "Energy Week 2000", Washington, D.C., March 2000). <http://library.abb.com/GLOBAL/SCOT/scot221.nsf/VerityDisplay/9E64DAB39F71129BC1256FDA004F7783/$File/Energyweek00.pdf>.
-A technical paper reviewing the history, advantages, disadvantages and applications of HVDC transmission lines. Authors are from Swedish engineering firm, ABB Power Systems, the world's leader in HVDC transmission lines.

R.W. Beck, Inc. "Natural Gas Transmission Pipeline Construction Cost". *Oil and Gas Bulletin*. (R.W. Beck, 2003). <http://www.rwbeck.com/market/energy/oil_gas/O-GBulletin-Pipeline_Cap_Cost.pdf>.
-Short document from an engineering consulting firm summarizing industry data on the installation costs of natural gas pipelines.

Sanna, Lucy. "Driving the Solution: the Plug-in Hybrid Vehicle". *EPRI Journal* (Fall 2005): 8-17. <http://www.epriweb.com/public/000000000001012885.pdf>.
-An excellent introduction to plug-in hybrid electric vehicles (PHEV) with a focus on EPRI's work with DaimlerChrysler AG on a PHEV version of their popular Dodge Sprinter. Six PHEV Sprinters with various configurations recently began field-testing and the Sprinter will likely be the first commercially available PHEV to hit the market.

Shapouri, Hosein, et al. *The 2001 Net Energy Balance of Corn Ethanol*. (Washington D.C.: US Department of Agriculture, 2004). <http://www.iowacorn.org/ethanol/documents/energy_balance_001.pdf>.
-The latest USDA study of the net energy balance of corn ethanol. Concludes that, when credits for co-products are taken into account, corn ethanol yields 67% more energy than it takes to produce. Utilizes the latest survey of US corn producers and the 2001 U.S. survey of ethanol plants. Farell, et al. (2006a and 2006b, see above) conclude that Shapouri, et al.'s data is usually the most reliable of the six corn ethanol studies they examine.

Stantiford, Stuart. "ASPO-USA Denver Conference Report." *The Oil Drum.* Nov. 12, 2005. <http://www.theoildrum.com/story/2005/11/12/0150/4833>. Accessed 11/20/2005.
-A report on the preceding of the Association for the Study of Peak Oil-USA's conference in Denver in November, 2005. *The Oil Drum* is a website promoting a 'community discussion of peak oil' and is a widely read forum and news site for the online peak oil weblog community.

Stringer, John. "The Challenge for the Grid of the 21st Century" (presentation). Delivered at "Nanotechnology and Energy: Storage and the Grid" Conference, Rice University Nov. 2005.
-A presentation on issues facing grid management by Dr. John Stringer, technical director, Electric Power Research Institute.

United States Central Intelligence Agency. "Rank Order – Oil – proved reserves". *The World Factbook*. April 20, 2006. <http://www.cia.gov/cia/publications/factbook/rankorder/2178rank.html>. Accessed 4/25/2006.
-Listing and ranking of proven world oil reserves by country.

_____. "Rank Order – Natural Gas – proved reserves". *The World Factbook*. April 20, 2006. <http://www.cia.gov/cia/publications/factbook/rankorder/2179rank.html>. Accessed 4/26/2006.
-Listing and ranking of proven world natubal gas reserves by country.

United States Department of Energy. "An Energy Overview of Mexico". *DOE Fossil Energy – International Initiatives and Agreements*. Oct. 2, 2002. <http://www.geni.org/globalenergy/library/national_energy_grid/mexico/LatinAmericanPowerGuide.shtml>. Accessed 4/25/2006.
-An overview of various energy sectors in Mexico. Includes information on the oil, natural gas and electricity sectors.

_____. "Oil". *Energy*. <http://www.energy.gov/engine/content.do?BT_CODE=OIL>. Accessed 11/20/2005.
-Very basic facts and info on U.S. oil consumption.

United States Department of Transportation, Federal Highway Administration. "Emissions Standards". *Transportation Air Quality – Selected Facts and Figures*. <http://www.fhwa.dot.gov/environment/aqfactbk/factbk12.htm> Accessed 4/24/2006.
-Summary of historical and current federal highway vehicle emissions standards.

United States Environmental Protection Agency. *Fact Sheet: Clean Air Interstate Rule (CAIR) – Clean Air, Healthier Lives, and a Strong America*. (Washington D.C.: US Environmental Protection Agency, March 2005). <http://www.epa.gov/cair/pdfs/cair_final_fact.pdf>
-Fact sheet describing the Clean Air Interstate Rule. Enacted in March, 2005, the rule enacts a mandatory cap and trade system on emissions of sulfur dioxide (SO2) and nitrogen oxides (NOx) for power plants in 28 eastern states and the District of Columbia.

_____. "National Ambient Air Quality Standards (NAAQS)". Air and Radiation. March 1, 06. <http://www.epa.gof/air/criteria.html>. Accessed 4/22/2006.
-A listing of the National Ambient Air Quality standards for criteria pollutants regulated by the EPA.

_____. *Summary of Light-Duty Vehicle Emissions Standards.* (Washington D.C.: US Environmental Protection Agency). <http://www.epa.gov/emissweb/detailedchart.pdf>.
-A summary fact sheet of Tier 1 and Tier 2 federal emissions standards for light-duty vehicles.

Walsh, Marie E., et al. "Biomass Feedstock Availability in the United States: 1999 State Level Analysis". April 30, 1999 (updated Jan. 2000). <http://bioenergy.ornl.gov/resourcedata/index.html>. Accessed 5/13/2006.
-An analysis of biomass feedstock availability for bioenergy uses. Examines availability of various feedstocks (e.g., switchgrass, agricultural and forestry waste, etc.) on a state-by-state basis. Likely a precursor to the Perlack (2005) study above.

Wang, Michael. *Development and Use of GREET 1.6 Fuel-Cycle Model for Transportation Fuels and Vehicle Technologies.* (Argonne, IL: Argonne National Laboratory, June 2001). <http://www.transportation.anl.gov/pdfs/TA/153.pdf>.
-Description of the development and use of the Greenhouse gases, Regulated Emissions, and Energy use in Transportation model, Version 1.6, developed by Argonne National Labs. Only includes overview of changes made in Version 1.6. See Wang, 1999 below for more details on methodologies and development of GREET. Note: GREET 1.6 was utilized by both the GM, ANL, et al. 2001 and 2005 studies (see above).

_____. *GREET 1.5: Transportation Fuel-Cycle Model.* (Argonne, IL: Argonne National Laboratory, Aug. 1999). <http://www.transportation.anl.gov/software/GREET/publications.html>.
-Extensive (400+ pages) technical report detailing development, methodologies, use and results of the Greenhouse gases, Regulated Emissions, and Energy use in Transportation model, version 1.5 developed by Argonne National Labs. Includes unchanged portions of technical reports of previous GREET versions, eliminating the need to refer to previous reports. Divided into two volumes: Volume 1 presents GREET 1.5 development and use and discussions of fuel-cycle energy and emission results for passenger cars; Volume 2, comprising four appendices, presents detailed fuel-cycle results for passenger cars, light-duty trucks 1, and light-duty trucks 2.

_____. *GREET 1.5a: Changes from GREET 1.5.* (Argonne, IL: Argonne National Laboratory, Jan. 2000). <http://www.transportation.anl.gov/pdfs/TA/150.pdf>.
-Updated documentation of the GREET model reflecting changes made between versions 1.5 and 1.5a. Note: GREET 1.5a was utilized in Wang and Huang 1999 (see below).

Wang, Michael and H.S. Huang. A Full Fuel-Cycle Analysis of Energy and Emissions Impacts of Transportation Fuels Produced from Natural Gas. (Argonne, IL: Argonne National Laboratory, Dec. 1999). <http://www.transportation.anl.gov/pdfs/TA/13.pdf>.
-The first published well-to-wheels analysis from ANL utilizing the GREET model (in this case version 1.5a, see Wang, 2000 above). Examines a broad range of fuel production/vehicle system pathways utilizing natural gas as a primary feedstock as well as gasoline and diesel as baseline fuels.

Wang, Michael, Hanjie Lee, and John Molburg. "Allocation of Energy Use in Petroleum Refineries to Petroleum Products: Implications for Life-Cycle Energy Use and Emission Inventory of Petroleum Transportation Fuels." *International Journal of Life Cycle Assessment* 9.1 (2004): 34-44. <http://www.transportation.anl.gov/software/GREET/pdfs/IJLCA-2004.pdf>.
-Discusses various methodologies used to allocate energy use and emissions associated with petroleum refineries to the various petroleum products these refineries produce. Describes methodology used in GREET model and its limitations. Details an alternative approach based on energy and mass balances of individual refining processes within a refinery.

Weiss, Malcolm A., et al. *Comparative Assessment of Fuel Cell Cars.* (Cambridge, MA: Massachusetts Institute of Technology, Feb. 2003). <http://lfee.mit.edu/public/LFEE_2003-001_RP.pdf>.
-A life cycle assessment of ICE and fuel cell vehicles commercially available by ~2023. Builds on earlier life cycle vehicle assessment: Weiss, Malcolm A. et al. *On the Road in 2020: A Life-cycle Analysis of New Automobile Technologies.* (Cambridge, MA: MIT Energy Laboratory, Oct. 2000).

Wu, May, Ye Wu, and Michael Wang. *Mobility Chains Analysis of Technologies for Passenger Cars and Light-Duty Vehicles Fueled With Biofuels: Application of the GREET Model to the Role of Biomass in America's Energy Future (RBAEF) Project*. (Argonne, Il: Argonne National Laboratory, May 2005). <http://www.transportation.anl.gov/pdfs/TA/344.pdf>
-A well-to-wheels analysis of six biomass fuel pathways using the GREET model. Study performed by Argonne National Lab as part of the multi-institution Role of Biomass in America's Energy Future Project. Focuses on three biofuels – ethanol, Fischer-Tropsch diesel (bio-FTD) and dimethyl ether bio-DME) – from cellulosic biomass feedstocks. Concludes that biofuels offer significant savings in fossil and petroleum energy consumption.