



CHAPTER 30

For Further Information

GENERAL U.S. GOVERNMENT ENERGY WEB SITES

Energy Information Administration (EIA) <http://www.eia.doe.gov/>

EIA collects, analyzes and forecasts statistical data on energy. Each year, EIA updates the *Annual Energy Outlook*, a projection and analysis of U.S. energy supply, demand and prices through 2030. The projections are based on results from their National Energy Modeling System.

EIA also publishes individual “State Energy Profiles” that list general details on each state’s usage, generating capacity and fuel mix. These state profiles provide historical information from 1990 through 2005 and compare state totals with U.S. data for analysis and forecasting purposes.

National Renewable Energy Laboratory (NREL) <http://www.nrel.gov>

NREL is the premier federal laboratory for the research and development of renewable energy sources and improved energy efficiency.

U.S. Department of Energy (DOE) <http://www.energy.gov/>

DOE is responsible for implementing U.S. energy policy to ensure national, economic and energy security and for promoting scientific and technological innovation.

U.S. Environmental Protection Agency (EPA) <http://www.epa.gov/>

EPA leads the nation’s environmental science, research, education and assessment efforts. It develops and enforces

regulations, issues permits and distributes grants and financial assistance for research and education projects.

CRUDE OIL

EIA. “Basic Petroleum Statistics.” July 2007.
<http://www.eia.doe.gov/neic/quickfacts/quickoil.html>

EIA. “Refinery Capacity Report.” June 2007.
http://www.eia.doe.gov/oil_gas/petroleum/data_publications/refinery_capacity_data/refcapacity.html

EIA publishes annual reports on the nation’s oil consumption, production and usage. These reports rank states based on their share of national production and consumption.

EIA also publishes annual reports on U.S. and Texas crude oil refining capacity and any proposed additions to that capacity.

Michigan State University. “EnviroTools.”
<http://www.envirotools.org/>

This site defines common terms and processes in petroleum refining and provides a background on the industry and a technical explanation of how crude oil is refined. It also explains the environmental hazards associated with the industry and the market and environmental forces affecting it.

Ramos, Mary G. “Oil and Texas: A Cultural History.” *Texas Almanac, 2000-2001*. Dallas, Texas: Dallas Morning News, 2008.
<http://www.texasalmanac.com/history/highlights/oil/>

This article provides a brief history of the oil business in Texas, including a timeline of events, major oil finds, industry pioneers and the transformation of the Texas economy from a rural, agricultural base to a booming industrial power.



Texas State Historical Association. “East Texas Oilfield.” *The Handbook of Texas Online*, Austin, Texas, January 2008.
<http://www.tshaonline.org/handbook/online/articles/EE/doi1.html>

This article provides a brief history of the legendary East Texas Oilfield, located in and around the cities of Kilgore, Longview and Tyler.

Yergin, Daniel. *The Prize: The Epic Quest for Oil, Money & Power*. New York: Touchstone, 1991.

This book records the history, pioneers, financiers, tycoons and economic and political actions that shaped the development of the oil industry.

LIQUEFIED PETROLEUM GAS (LPG)

DOE. *Just the Basics: Liquefied Petroleum Gas*. Washington, D.C., August 2003.
http://www1.eere.energy.gov/vehicleandfuels/pdfs/basics/jtb_1pg.pdf

This brochure explains the basics of LPG as a transportation fuel. It includes details on emissions and safety issues, LPG production, production sources and fleet sizes.

Energy and Environmental Analysis, Inc. *Study of the Propane Industry’s Impact on U.S. and State Economics*. Arlington, Virginia, November 2004.
http://www.npga.org/files/public/Economic_Study_Propane_Value_Final.pdf

This report provides a detailed analysis of the effects of the propane industry in each state. It examines both direct and indirect contributions to the economy such as production, imports and the effect of growth in other sectors. The report also details the number of jobs associated with the propane industry.

National Propane Gas Association (NPGA)
<http://www.npga.org/i4a/pages/index.cfm?pageid=1>

This site lists a number of publications concerning propane and identifies federal

and state legislative issues important to the industry.

Propane Education and Research Council (PERC)
<http://www.propanecouncil.org/>

This site is a resource for data and reports pertaining to propane.

Railroad Commission of Texas (RRC), Alternative Fuels Research & Education Division. “Propane.”
<http://www.propane.tx.gov/>

This site offers information for the home and commercial use of propane, services for marketers of propane and a propane outlet directory.

NATURAL GAS

EIA. “Natural Gas.”
http://www.eia.doe.gov/oil_gas/natural_gas/info_glance/natural_gas.html

This site gives the basics on how natural gas is captured and used, and how it produces energy, as well as an introduction to the liquefied natural gas industry.

RRC. “Monthly Oil and Gas Production by Year, January 2002—February 2008.”
<http://www.rrc.state.tx.us/divisions/og/statistics/production/ogismcon.pdf>

This table summarizes Texas natural gas and oil production by month from January 2002 to February 2008.

Texas Comptroller of Public Accounts. “Natural Gas Production Tax.”
http://www.window.state.tx.us/taxinfo/nat_gas/

This page shows the types and amounts of state taxes collected on natural gas production and consumption.

COAL

DOE, Office of Fossil Energy
<http://www.fe.doe.gov/>

This office provides strategic information on all forms of fossil energy.



Freese, Barbara. *Coal: A Human History.* New York: Penguin Books, 2003.

This book describes how coal has shaped the daily life of mankind for centuries.

FutureGenAlliance

<http://www.futuregenalliance.org>

FutureGen was a multibillion-dollar federal project to construct and operate a state of the art, non-polluting coal-fired electricity generation plant. Carbon sequestration was a major component of the project. DOE decided in January 2008 not to fund the FutureGen project. See Chapter 7 for more information.

Massachusetts Institute of Technology (MIT). *The Future of Coal: An Interdisciplinary MIT Study.* Cambridge, 2007.

<http://web.mit.edu/coal/>

This report provides valuable information on the current uses of coal and its impact on the world's economy and environment. The report was the subject of Congressional hearings in spring 2007.

RRC

<http://www.rrc.state.tx.us/>

RRC enforces Texas' mine reclamation laws.

Texas Commission on Environmental Quality (TCEQ)

<http://www.tceq.state.tx.us/>

TCEQ enforces state and federal environmental laws that affect all Texas energy producers and consumers.

World Coal Institute. *The Coal Resource: A Comprehensive Overview of Coal.* London, 2005.

http://www.worldcoal.org/assets_CM/files/pdf/thecoalresource.pdf

This report provides information on the past, present and future uses of coal. It

explains new technologies for coal and its global demand and supply.

NUCLEAR ENERGY

Federation of American Scientists (FAS)

<http://www.fas.org/index.html>

FAS was formed in 1945 by atomic scientists from the Manhattan Project who felt it was their ethical obligation to use their expertise to guarantee the safe and responsible application of nuclear energy. The FAS site contains a detailed explanation and diagram of the nuclear fuel cycle.

Nuclear Energy Institute (NEI)

<http://www.nei.org/>

NEI is the policy arm of the nuclear energy and technologies industry. It participates in both national and global policy-making. NEI's objective is to promote beneficial uses of nuclear energy and technologies in the U.S. and internationally.

Pew Center on Global Climate Change

<http://www.pewclimate.org/>

This site provides one explanation of global climate change and its causes and effects.

Union of Concerned Scientists (UCS)

<http://www.ucsusa.org/>

UCS is a nonprofit partnership of scientists and citizens whose mission is to ensure that all people have clean air, energy and transportation. UCS promotes solutions to global climate change and nuclear safety.

University of Wisconsin at Madison, College of Engineering. "University of Wisconsin Nuclear Reactor Tour."

<http://reactor.engr.wisc.edu/tour/reactor.htm>

This site explains how the University of Wisconsin nuclear reactor derives energy



from splitting uranium atoms and how nuclear reactors produce electricity.

U.S. Nuclear Regulatory Commission (NRC)
<http://www.nrc.gov/>

NRC licenses and regulates commercial nuclear power plants, radioactive waste and other uses of nuclear materials, including nuclear medicine.

World Nuclear Association
<http://www.world-nuclear.org/index.html>

The World Nuclear Association is a private international organization that promotes the worldwide use of nuclear power as a sustainable energy resource.

SOLAR ENERGY

American Solar Energy Society. *Tackling Climate Change in the U.S.: Potential Carbon Emissions Reductions from Energy Efficiency and Renewable Energy by 2030*, by Charles F. Kutscher, ed. Boulder, Colorado, January 2007.
http://ases.org/climatechange/climate_change.pdf

This report compiles papers on six renewable energy technologies presented at the National Solar Energy Conference (SOLAR 2006). Experts in the fields of solar, wind, biomass, biofuels and geothermal were asked to calculate the potential for accelerating the deployment of renewable energy technologies.

Bradford, Travis. *Solar Revolution: The Economic Transformation of the Global Energy Industry*. Cambridge, Massachusetts: MIT Press, 2006.

This book discusses the future of energy and the role that renewable energy will play, focusing on solar energy.

NREL. *Power Technologies Energy Data Book*, by Jorn Aabakken, ed. 4th ed. Golden, Colorado, August 2006.
http://www.nrel.gov/analysis/power_databook/

This report profiles the various renewable energy technologies. It includes maps that overlay natural resources of biomass,

geothermal, solar and wind energy with the national transmission grid and major electricity load centers. Another map shows current installed capacity, while a chart provides historic trends for generating capacity by state.

President's Council of Advisors on Science and Technology. *The Energy Imperative: Technology and the Role of Emerging Companies*. Washington, D.C., November 2006.
http://www.ostp.gov/pdf/pcast_energyimperative_final.pdf

This report makes recommendations for federal energy policy. It includes a discussion of global and national energy trends, the potential benefits of various technologies and federal government initiatives.

Renewable Energy Policy Project. "Federal Energy Subsidies: Not All Technologies are Created Equal," by Marshall Goldberg. *REPP: Renewable Energy Policy Project Research Report*. Washington, D.C., July 2000.
http://www.crest.org/repp_pubs/pdf/subsidies.pdf

This article provides information on federal subsidies for nuclear, wind, photovoltaic and solar thermal electricity-generating technologies. It includes subsidy estimates for select technologies.

The University of Texas at Austin, IC² Institute. *Opportunity on the Horizon: Photovoltaics in Texas*, by Bruce Kellison, Eliza Evans, Katharine Houlihan, Michael Hoffman, Michael Kuhn, Joel Serface, and Tuan Pham. Austin, Texas, June 2007.
<http://www.utexas.edu/ati/cei/documents/TexasSolarOpportunity2007.pdf>

This position paper details the solar industry in Texas. It provides information on the economic, public policy and technological benefits of growing the PV industry.

WIND ENERGY

DOE. *Annual Report on U.S. Wind Power Installation, Cost, and Performance Trends: 2006*, by Ryan Wiser and Mark Bolinger. Washington, D.C., May 2007.



<http://www1.eere.energy.gov/windandhydro/pdfs/41435.pdf>

This report provides an overview of key wind development trends in the United States. The report includes information on wind capacity growth, dominant wind turbine manufacturers, turbine size, wind power prices, and project performance and capital costs.

Greenpeace International and Global Wind Energy Council. *Global Wind Energy Outlook 2006*. Amsterdam, Netherlands, September 2006.
http://www.gwec.net/fileadmin/documents/Publications/GWEC_A4_0609_English.pdf

This report provides information on the status of wind power worldwide, discussing policy issues, environmental impacts, wind resources and the outlook for wind power.

Lawrence Berkeley National Laboratory. *Using the Federal Production Tax Credit to Build a Durable Market for Wind Power in the United States*, by Ryan Wiser, Mark Bolinger and Galen Barbose. Berkeley, California, November 2007.
<http://eetd.lbl.gov/EA/emp/reports/63583.pdf>

This report discusses the importance of the federal production tax credit (PTC) on wind power development in the United States. It includes information on the legislative history and design of the PTC. The report also provides information on the impact that frequent expiration/extension cycles of the PTC have on the wind industry.

NREL. *Wind Energy Update*, by Larry Flowers. Golden, Colorado, February 2008.
http://www.eere.energy.gov/windandhydro/windpoweringamerica/pdfs/wpa/wpa_update.pdf

This PowerPoint presentation provides an update on wind energy. It includes graphics, maps and illustrations on a wide variety of topics including capacity and cost trends, wind resource map, evolution of wind technology, wind as a percent of electricity consumption,

comparative generation costs and a list of the drivers of wind power.

Resources for the Future. *The Economic and Policy Setting of Renewable Energy: Where Do Things Stand?* by Joel Darmstadter. Washington, D.C., December 2003.
<http://www.rff.org/documents/RFF-DP-03-64.pdf>

This report discusses the status and prospects for renewable energy. It provides detailed information and illustrations on wind power.

ETHANOL

DOE. *Breaking the Biological Barriers to Cellulosic Ethanol: A Joint Research Agenda: A Research Roadmap Resulting from the Biomass to Biofuels Workshop, December 7-9, 2005, Rockville, Maryland*. Washington, D.C., June 2006.
<http://genomicsgtl.energy.gov/biofuels/2005workshop/b2blowres63006.pdf>

This comprehensive study contains information on the benefits and feasibility of biofuels, and discusses the use of systems biology to overcome barriers to cellulosic ethanol production. It also provides a wealth of detail on the biological processes involved in producing cellulosic ethanol.

DOE. “Genomics: GTL—Systems Biology for Energy and Environment.”
<http://genomicsgtl.energy.gov/biofuels/index.shtml>

This site provides a number of links to information on the use of biofuels for transportation, the ethanol production process and the benefits and challenges of cellulosic ethanol.

DOE. Oak Ridge National Laboratory (ORNL) and U.S. Department of Agriculture. *Biomass as Feedstock for a Bioenergy and Bioproducts Industry: The Technical Feasibility of a Billion-Ton Annual Supply*, by Robert Perlack, Lynn Wright, Anthony Turhollow, Robin Graham, Bryce Stokes, and Donald Erbach. Oak Ridge, Tennessee, April 2005.
http://www1.eere.energy.gov/biomass/pdfs/final_billionton_vision_report2.pdf



This publication estimates the amount of biomass resources likely to be available for energy production and other needs by the middle of the 21st century.

DTN. “DTN Ethanol Center.”

<http://www.dtnethanolcenter.com/>

This site offers the latest ethanol news, an ethanol blog and locations for ethanol production plants. It also provides information on various related industries including the corn, soybean and sugar markets.

Lawrence Livermore National Laboratory. *Health and Environmental Assessment of the Use of Ethanol as a Fuel Oxygenate: Report to the California Environmental Policy Council in Response to Executive Order D-5-99.* Livermore, California, December 1999.

<http://www-erd.llnl.gov/ethanol/etohdoc/index.html>

This report addresses the effects of using ethanol as a fuel oxygenate. Topics covered include impacts on human health, air quality, groundwater and surface water.

National Corn Growers Association. *2008 World of Corn.* Chesterfield, Missouri, 2008.

<http://www.ncga.com/WorldOfCorn/main/WOC%202008.pdf>

This report provides statistics on the amount of corn planted, harvested and consumed in the U.S., and facts about corn-based ethanol production.

Renewable Fuels Association

<http://www.ethanolrfa.org/>

This site reviews public policies related to renewable fuels and provides information on the ethanol industry as well as data on ethanol production. It also covers topics such as renewable fuels standards and available subsidies.

Texas State Energy Conservation Office (SECO)

<http://www.seco.cpa.state.tx.us/>

This site provides information on nearly every aspect of ethanol, including subsidies, availability in Texas, cellulosic

ethanol, Texas ethanol plants and issues affecting the ethanol industry.

BIODIESEL

Castor Oil.in. “Bio-diesel WWW Encyclopedia.”

http://www.castoroil.in/reference/plant_oils/uses/fuel/bio_fuels.html

This site provides a collection of resource links about biodiesel featuring information on all aspects of the product, from production to consumption.

EIA. *Biodiesel Performance, Costs, and Use*, by

Anthony Radich. Washington, D.C., June 2004.

<http://www.eia.doe.gov/oiaf/analysispaper/biodiesel/index.html>

This paper explains the procedures EIA uses to calculate the cost of biodiesel to consumers and producers.

EPA. “Biodiesel: Fat to Fuel.”

<http://www.epa.gov/region09/waste/biodiesel/index.html>

This site details the benefits of biodiesel, highlights funding opportunities and provides definitions and resources about this fuel source. Some regional information is available.

National Biodiesel Board. “Biodiesel: The Official Site of the National Biodiesel Board.”

<http://www.biodiesel.org>

The National Biodiesel Board is the national trade association of the U.S. biodiesel industry. The site provides fact sheets and other information on biodiesel and the industry. This site reports on the market for biodiesel and its environmental impact.

WOOD

Federal Energy Management Program (FEMP). “Biomass Cofiring in Coal-Fired Boilers.”

Federal Technology Alert. Washington, D.C.,

May 2004.

http://www1.eere.energy.gov/femp/pdfs/fta_biomass_cofiring.pdf



This report examines the cofiring of fossil fuels with wood waste as a method for reducing operating costs, reducing pollution and expanding the use of renewable energy. It includes a case study and discusses implementation barriers for cofiring operations.

FEMP. Biomass Energy—Focus on Wood Waste. Washington, D.C., July 2004.
http://www1.eere.energy.gov/femp/pdfs/bamf_woodwaste.pdf

This publication examines wood-fired biomass and the benefits of wood-waste fuels, explaining their potential and providing examples of successful energy projects using wood waste.

Nacogdoches Power, LLC. “Project Info.”
<http://www.nacogdochespower.com/ProjectInfo.html>

Nacogdoches Power is a joint venture between Bay Corp Holdings and Energy Management, two companies that own a variety of electricity generation facilities throughout the northeastern U.S. Nacogdoches Power is building a 100 megawatt wood-fired biomass facility in Sacul, Texas. This site provides a brief description of the project.

NREL. *The Value of the Benefits of U.S. Biomass Power.* Golden, Colorado, November 1999.

This report discusses the positive and negative aspects of the use of wood-fired biomass for electricity generation.

ORNL. *Processing Cost Analysis for Biomass Feedstocks,* by Phillip Badger. Oak Ridge, Tennessee, October 2002.
<http://bioenergy.ornl.gov/pdfs/ornlm-2002199.pdf>

This report focuses on the various processes involved in generating electricity from forest and mill residues and urban waste including fuel handling, storing and processing. It also discusses various combustion systems used and environmental factors affecting the industry.

Texas Forest Service (TFS). *Biomass from Logging Residue and Mill Residue in East Texas, 2005,* by Weihuan Xu and Burl Carraway. College Station, Texas, May 2007.
<http://txforestservicetamu.edu/uploadedFiles/Sustainable/econdev/TXloggingmillresidue2005.pdf>

TFS is a division of the Texas A&M University System, charged with directing all forest interests in Texas. This publication discusses the availability of wood residues in a 43-county area of East Texas and provides estimates of the amount of logging and mill residue available.

Texas Forestry Association (TFA)
<http://www.texasforestry.org/>

TFA is a nonprofit trade group of more than 3,200 Texas foresters that promotes the industry in Texas.

FEEDLOT BIOMASS

American Society of Agricultural and Biological Engineers. “Feedlot Manure as Reburn Fuel for NO_x Reduction in Coal Fired Plants,” by K. Annamali, B. Thien, J. Sweeten, K. Heflin and L.W. Greene. *Proceedings of the Third International Conference on Air Pollution from Agricultural Operations*, Research Triangle Park, N.C., October 12-15, 2003. St. Joseph, Michigan, 2003.

This publication, written by a group of Texas A&M System researchers, discusses the use of manure as a reburn fuel.

EPA. *AgSTAR Handbook,* 2nd ed. Washington, D.C., January 2008.
<http://www.epa.gov/agstar/resources/handbook.html>

This publication discusses methane generation from manure, to help farmers evaluate the prospects for using anaerobic generation.

NREL. *Methane Recovery from Animal Manures: The Current Opportunities Casebook,* by P. Lusk. Washington, D.C., September 1998.
<http://www.nrel.gov/docs/fy99osti/25145.pdf>



This publication focuses on methane generation from manure, emphasizing anaerobic digestion.

LANDFILL GAS

EPA. *An Overview of Landfill Gas Energy in the United States.* Washington, D.C., May 2007.
<http://epa.gov/lmop/docs/overview.pdf>

This site describes the federal Landfill Methane Outreach Program, which promotes the development of landfill gas energy, and provides an overview of how landfill gas is converted to energy and why the process is beneficial to the environment.

EPA. “Trash to Treasure: Landfills as an Energy Resource,” by Rachel Goldstein. *District Energy*, Third Quarter 2006.
<http://www.epa.gov/landfill/docs/3q06landfill.pdf>

This reprinted article provides a brief but comprehensive overview of the use of landfill gas for energy.

NREL. *Managing America’s Solid Waste*, by J.A. Phillips. Golden, Colorado, September 1998.
<http://www.nrel.gov/docs/legosti/fy98/25035.pdf>

This report is a comprehensive study on all aspects of waste disposal, including its history and interviews with key personnel.

TCEQ. *Municipal Solid Waste in Texas: A Year in Review: FY 2005 Data Summary and Analysis.* Austin, Texas, June 2006.
http://www.tceq.state.tx.us/assets/public/comm_exec/pubs/as/187_06.pdf

This report on Texas solid waste disposal provides facts and figures about solid waste generation, disposal and prevention of damage.

MUNICIPAL WASTE COMBUSTION

EPA. “Municipal Solid Waste in the United States: 2006 Facts and Figures.” Washington, D.C., January 2008.
<http://www.epa.gov/epaoswer/non-hw/muncpl/msw99.htm>

This site provides facts and figures about U.S. solid waste generation and disposal.

Integrated Waste Services Association. *The 2007 IWSA Directory of Waste-to-Energy Plants*, by Ted Michaels. Washington, D.C., October 2007.
http://www.wte.org/docs/IWSA_2007_Directory.pdf

This is a comprehensive survey of waste-to-energy facilities in the U.S., with useful maps and charts about the field. Information on each plant includes trash capacity, energy capacity, startup date, use of technology, owner, operator, continuous emissions monitors and air pollution control systems.

Lehman College. “Introduction to Municipal Solid Waste Incineration,” by Marjorie J. Clarke. Paper presented at the Air and Waste Management Association Annual Meeting, Baltimore, Maryland, June 23-27, 2002. New York City.
<http://www.geo.hunter.cuny.edu/~mclarke/IntroMSWincineration.htm>

This paper on the science of municipal solid waste incineration contains illustrations and an extensive list of references.

Waste-to-Energy Research and Technology Council. “The ABC of Integrated Waste Management (IWM).” New York City.
<http://www.seas.columbia.edu/earth/wtert/faq.html>

This site provides a list of frequently asked questions about IWM, answered by the group representing the waste-to-energy industry. The site explains the costs, benefits and processes of IWM.

HYDROELECTRICITY

American Society of Civil Engineers. “Report Card for America’s Infrastructure: Dams.”
<http://www.asce.org/reportcard/2005/page.cfm?id=23>

This article looks at dam safety and the present condition of the nation’s dams, and provides recommendations for action.

Banks, Jimmy and John E. Babcock. *Corralling the Colorado: The First Fifty Years of the Lower*



Colorado River Authority. Austin, Texas: Eakin Press, 1988.

This book is a comprehensive history of the development of the Highland Lakes and the quasi-governmental agency that controls them.

EPA. eGRID, Version 2.1. Washington, D.C., April 2007.
<http://www.epa.gov/cleanenergy/energy-resources/egrid/index.html>

The Emissions & Generation Resource Integrated Database (eGRID) is a comprehensive inventory of the environmental effects of U.S. electric power systems, including air emissions data. eGRID2006 Version 2.1 contains the complete release of year 2004 data, organized to reflect the owner, operator and electric grid configuration as of October 1, 2006.

Foundation for Water and Energy Education. "Education."
<http://fwee.org/education.html>

The foundation's Web site provides educational resources about hydropower, hydroelectric generation, environmental impacts and current issues.

Franklin and Eleanor Roosevelt Institute. *TVA: Electricity for All.* Hyde Park, New York, 2003.
<http://newdeal.feri.org/tva/index.htm>

This site provides information about the Tennessee Valley Authority and its hydroelectric dams, built as a result of the New Deal and the rural electrification program of the 1930s.

International Rivers Network. *Fizzy Science: Loosening the Hydro Industry's Grip on Reservoir Greenhouse Gas Emissions Research,* by Patrick McCully. Berkeley, California, November 2006.
<http://internationalrivers.org/files/FizzyScience2006.pdf>

This paper examines the controversy in the scientific community over greenhouse gas emissions from reservoirs. It discusses

this technical and often-misunderstood issue in a clear and straightforward manner.

Texas Water Development Board (TWDB). *2007 State Water Plan.* Austin, Texas, November 2006.
http://www.twdb.state.tx.us/publications/reports/State_Water_Plan/2007/2007StateWaterPlan/2007StateWaterPlan.htm

Texas water law requires the TWDB to produce a state water plan to provide for the development, management and conservation of Texas' water resources. The plan also must provide responses for drought conditions. The state water plan incorporates regional water plans from the state's 16 water planning regions.

OCEAN POWER

Center for Energy and the Global Environment. "Southern New England Wave Energy Resource Potential," by George Hagerman. Paper presented at *Building Energy 2001*, Tufts University, Boston, Massachusetts, March 23, 2001.
http://ctinnovations.com/pdfs/S_New_Engl_Wave_Energy_Resource_Potential.pdf

This technical paper contains information about the wave energy potential of a specific U.S. location, discusses differences in the power of New England and British waves and reviews areas in Japan doing wave research.

Electric Power Research Institute. *Final Summary Report: Project Definition Study—Offshore Wave Power Feasibility Demonstration Project,* by Roger Bedard, George Hagerman, Mirko Previsic, Omar Siddiqui, Robert Thresher, and Bonnie Ram. Palo Alto, California, September 2005.
http://www.epri.com/oceanenergy/attachments/wave/reports/009_Final_Report_RB_Rev_2_092205.pdf

This report discusses the wave power potential of five U.S. sites as well as possible devices and plant designs.

European Commission. "Energy Research: Introduction to Ocean Energy Systems."



http://ec.europa.eu/research/energy/nn/nn_rt/nn_rt_oes/article_1128_en.htm

This European Union site on the subject of ocean energy describes some of the research and development projects the European Commission is supporting.

Ocean Renewable Energy Coalition. *Ocean Energy Report for 2005*, by Carolyn Elefant and Sean O'Neill. Peterborough, New Hampshire: RenewableEnergyWorld.com, January 9, 2006. <http://www.renewableenergyworld.com/rea/news/infocus/story?id=41396>

This article provides a thorough summary of events in the ocean power arena in 2005. It is a useful resource on a relatively new technology.

Research Institute for Sustainable Energy (RISE). "Information Portal – Wave." Perth, Australia: Murdoch University, August 5, 2006. <http://www.rise.org.au/info/Tech/wave/index.html>

This Australian site provides a primer on wave energy devices, with photos, explanatory diagrams and links to further information.

Scottish Enterprise. *Marine Renewable (Wave and Tidal) Opportunity Review: Introduction to the Marine Renewable Sector*. Glasgow, Scotland, December 2005. <http://oceanrenewable.com/wp-content/uploads/2007/03/oregreport.pdf>

This paper provides an extensive introduction to the Scottish ocean energy sector, covering subjects such as project life-cycles and supply chains. It also reviews ocean energy elsewhere in the world.

State of Hawaii. "Ocean Thermal Energy." Honolulu, Hawaii: March 20, 2007. <http://hawaii.gov/dbedt/info/energy/renewable/otec>

This site offers information and history about ocean thermal energy conversion (OTEC). All U.S. OTEC activity to date has taken place in Hawaii.

Weiss, Peter. "Oceans of Electricity: New Technologies Convert the Motion of Waves into Watts." *Science News*, April 14, 2001.

<http://www.sciencenews.org/articles/20010414/bob12.asp>

This article provides a history and other information about the potential of wave energy.

GEOTHERMAL ENERGY

American Solar Energy Society. *Tackling Climate Change in the U.S.: Potential Carbon Emissions Reductions from Geothermal Power by 2030*, by Martin Vorum and Jefferson Tester. Boulder, Colorado. http://www.ases.org/climatechange/toc/09_geothermal.pdf

This report summarizes various reports on the potential for geothermal energy in the U.S. It includes a good discussion of the obstacles and benefits involved in the development of geothermal resources.

Carrier Corporation, United Technologies Research Center and Chena Hot Springs Resort. "Power Production from a Moderate-Temperature Geothermal Resource," by Joost J. Brasz, Bruce P. Biederman, and Gwen Holdmann. Paper presented at the GRC Annual Meeting, Reno, Nevada, September 25-28, 2005. <http://www.yourownpower.com/Power/grc%20paper.pdf>

This technical paper explains Organic Rankine Cycle technology, which can produce electricity from non-traditional heat sources such as lower-temperature geothermal resources and waste heat from other processes. The authors are associated with the companies that created the Chena Hot Springs system in Alaska.

DOE. *Federal Geothermal Research Program Update: Fiscal Year 2002*. Washington, D.C., September 2003. http://www1.eere.energy.gov/geothermal/pdfs/fy02_program_review.pdf



This report provides background into the goals for geothermal energy development in the U.S.

DOE. “Geothermal Technologies Program.”

Washington, D.C., March 19, 2008.

<http://www1.eere.energy.gov/geothermal/>

This is the main portal for geothermal information of all kinds, including information on how geothermal power plants and EGS systems work.

Louisiana State University, Basin Research Institute. *Gulf Coast Geopressured-Geothermal Program Summary Report Compilation*, by Chacko J. John, Gina Maciasz and Brian J. Harder. Washington, D.C.: DOE, June 1998. <http://www.osti.gov/bridge/servlets/purl/661414-sdGF56/webviewable/661414.PDF>

This report describes a geothermal power plant in Brazoria County that produced electricity for several months in 1989 and 1990.

MIT. *The Future of Geothermal Energy: Impact of Enhanced Geothermal Systems (EGS) on the United States in the 21st Century—An Assessment by an MIT-led Interdisciplinary Panel*.

Cambridge, Massachusetts, 2006.

http://geothermal.inel.gov/publications/future_of_geothermal_energy.pdf

This in-depth report covers the subject of Enhanced (or Engineered) Geothermal Systems (EGS) and their potential in the U.S. The report suggests that a modest investment in R&D could produce 100,000 megawatts of electrical generation capacity within 50 years.

NREL. *Geothermal—The Energy Under Our Feet: Geothermal Resource Estimates for the United States*, by Bruce D. Green and R. Gerald Nix. Golden, Colorado, November 2006.

<http://www.nrel.gov/docs/fy07osti/40665.pdf>

This report details a workshop for geothermal experts conducted by the National Renewable Energy Laboratory. It provides estimates of domestic geo-

thermal resources as well as more general information about geothermal energy.

SECO. “Texas Geothermal Energy.”

http://www.seco.cpa.state.tx.us/re_geothermal.htm

This site on geothermal energy contains information about geothermal resources in the U.S. and Texas, as well as various ways to use geothermal energy.

University of Texas of the Permian Basin.

Geopowering Texas: A Report to the Texas State Energy Conservation Office on Developing the Geothermal Energy Resource of Texas, by Richard Erdlac, Jr. Austin, Texas: SECO, January 2007.

http://www.seco.cpa.state.tx.us/zzz_re/re_geopowering2007.pdf

This report compiles information about the development of geothermal energy in Texas. It explores the possibilities of using oil and gas well data to develop geothermal resources, with an emphasis on West Texas.

HYDROGEN

SECO. *Accelerating the Commercialization of Fuel Cells in Texas*. Austin, Texas, 2002.

http://www.seco.cpa.state.tx.us/zzz_feulcell-initiative/fciac_finalreport.pdf

This plan, prepared in response to a legislative mandate, provides both background and recommendations for accelerating the commercialization of fuel cells.

State of California. “California Hydrogen Highway.”

<http://www.hydrogenhighway.ca.gov/>

This site provides information about California’s progress towards developing hydrogen-based transportation in the state.

Texas Department of Transportation (Tx-DOT). *TxDOT Strategic Plan for Hydrogen Vehicles and Fueling Stations*. Austin, Texas, August 2006.

http://www.utexas.edu/research/ctr/pdf_reports/0_5590_1.pdf



This plan, prepared in response to a legislative mandate, defines a path for TxDOT to follow in encouraging the introduction of hydrogen as a fuel in Texas.

EFFICIENCY AND CONSERVATION

American Council for an Energy-Efficient Economy (ACEEE). *Potential for Energy Efficiency, Demand Response, and Onsite Renewable Energy to Meet Texas's Growing Electricity Needs*, by Neal Elliott, Maggie Eldridge, Anna Shipley, John 'Skip' Laitner, Steven Nadel, Alison Silverstein, Bruce Hedman and Mike Sloan. Washington, D.C., March 2007.
<http://www.aceee.org/pubs/e073.htm>

This report examines Texas' efficiency resources. It explains levels of energy efficiency, how to make use of them and the resulting costs and benefits.

ACEEE. *The Economic Benefits of an Energy Efficiency and Onsite Renewable Energy Strategy to Meet Growing Electricity Needs in Texas*, by John 'Skip' Laitner, R. Neal Elliott and Maggie Eldridge. Washington, D.C., September 2007.
<http://www.aceee.org/pubs/e076.htm>

This follow-up report forecasts the macroeconomic effects of the policy recommendations outlined in the previous report, concluding that they are cost-effective and would provide an economic stimulus while reducing air emissions significantly.

DOE. "Energy Efficiency and Renewable Energy."
<http://www.eere.energy.gov/>

This site provides good information available about conserving and using energy efficiently, as well as links to other renewable energy sites.

DOE. "Energy Savers: Tips on Saving Energy & Money at Home."
http://www1.eere.energy.gov/consumer/tips/save_energy.html

This site provides energy and money-saving tips.

DOE and EPA. *National Action Plan for Energy Efficiency: A Plan Developed by More than 50 Leading Organizations in Pursuit of Energy Savings and Environmental Benefits through Electric and Natural Gas Energy Efficiency*. Washington, D.C., July 2006.
http://www.epa.gov/cleanenergy/documents/napee/napee_report.pdf

DOE and EPA released this National Action Plan to encourage a sustainable, aggressive national commitment to energy efficiency. The plan enumerates the barriers to increased energy efficiency. It was developed by more than 50 participants representing state utility commissions, power companies, large retailers, state energy offices (including SECO) and consumer advocates.

Frontier Associates. "Texas Energy Efficiency." Austin, Texas.
<http://www.texasefficiency.com/>

This site, supported by investor-owned utilities, provides information on the utility efficiency programs required by the 1999 Texas Legislature.

McKinsey Global Institute. *Curbing Global Energy Demand Growth: The Energy Productivity Opportunity* by Florian Bressand, Diana Farrell, Pedro Haas, Fabrice Morin, Scott Nyquist, Jaana Remes, Sebastian Roemer, Matt Rogers, Jaeson Rosenfeld, and Jonathan Woetzel. San Francisco, California, May 2007.
http://www.mckinsey.com/mgi/reports/pdfs/Curbing_Global_Energy/MGI_Curbing_Global_Energy_full_report.pdf

This is an in-depth sector case study covering buildings, transportation, and industries. It highlights how policies and investments in existing technologies that yield an internal rate of return of 10 percent or higher can contribute to a reduction in global energy demand growth.

Western Governors' Association (WGA). *Clean Energy, a Strong Economy and a Healthy Environment: Report of the Clean and Diversified Energy Advisory Committee to the Western*



Governors. Denver, Colorado, June 2006.
<http://www.westgov.org/wga/meetings/am2006/CDEAC06.pdf>

This report presents the findings and recommendations of a task force that examined existing energy efficiency programs and the potential for additional savings within the 18 states of the WGA region. It also describes the benefits of the adoption of a set of “Best Energy Practices” for the WGA states, as well as market failures and barriers that restrict greater investment in energy efficiency.

DIRECT USE

EIA. “Official Energy Statistics from the U.S. Government.”

<http://www.eia.doe.gov/>

EIA publishes individual State Energy Profiles that list details on usage, generating capacity, fuel mix, etc. The profiles provide historical information from 1990 through 2005, and report the state information as a percentage of U.S. totals for analysis and forecasting purposes.

TRANSPORTATION

Aspen Institute. *Energy Markets and Global Politics: 2006 Forum on Global Energy, Economy and Security*, by Leonard L. Coburn. Washington D.C., 2006.

http://www.aspeninstitute.org/atf/cf/{DEB6F227-659B-4EC8-8F84-8DF23CA704F5}/EE_ENERGY_MARKETS_AND_GLOBAL_POLITICS_I.PDF
 (Part I); and

http://www.aspeninstitute.org/atf/cf/{DEB6F227-659B-4EC8-8F84-8DF23CA704F5}/EE_ENERGY_MARKETS_AND_GLOBAL_POLITICS_II.PDF
 (Part II)

This publication discusses the effect of global politics and burgeoning global energy markets on the U.S. transportation industry.

Auto Alliance. “Resources and Tools: Alternative Fuel Autos are Everywhere.”

http://www.discoveralternatives.org/Resources_and_Tools_AFAs_Everywhere.php

This site lists the number of alternative fuel vehicles operating in the nation and in each state.

EIA. “Table S7. Transportation Sector Energy Consumption Estimates, 2005.”

http://www.eia.doe.gov/emeu/states/sep_sum/html/sum_btu_tra.html

This site details transportation usage in the U.S., including the types of fuel used by each state and sector as well as the types of fuel produced.

National Museum of American History. “America on the Move.”

http://americanhistory.si.edu/ONTHEMOVE/themes/story_48_1.html

This site provides several videos about the history of the transportation industry and its effect on the U.S. economy and lifestyle.

ORNL. *Transportation Energy Data Book*, 26th ed., by Stacy C. Davis and Susan W. Diegel. Oak Ridge, Tennessee, 2007.

<http://cta.ornl.gov/data/download26.shtml>

This 26th edition is a statistical compendium prepared and published by the Oak Ridge National Laboratory. It is designed as a desktop reference with statistics and information on transportation activity as well as factors that influence transportation energy use.

U.S. Government Accountability Office (GAO). *Crude Oil: Uncertainty about Future Oil Supply Makes It Important to Develop a Strategy for Addressing a Peak and Decline in Oil Production*. Washington, D.C., February 2007.

<http://www.gao.gov/new.items/d07283.pdf>

This publication considers when worldwide oil production could peak and assesses the potential for transportation technologies to mitigate the consequences



of a decline in oil production. It also examines federal efforts to reduce uncertainty about peak oil production and how to lessen the consequences of a decline.

ELECTRICITY

EIA. "Electricity Generating Capacity."

<http://www.eia.doe.gov/cneaf/electricity/page/capacity/capacity.html>

EIA publishes annual reports on electricity generating capacity that include data on existing electric generating units listed by state. This site details electric generating unit additions by state for 2005 and 2006, and lists proposed generation units by state, company and plant for 2008. It includes counts of plant generators by energy source.

Houston Advanced Research Center and Institute for Energy, Law and Enterprise, University of Houston Law Center. *Guide to Electric Power in Texas*, 3rd ed. Houston, Texas, January 2003.

http://www.beg.utexas.edu/energyecon/documents/guide_electric_power_texas_2003.pdf

This guide was prepared to provide a comprehensive and balanced educational resource for a wide range of retail customer groups.

Public Utility Commission of Texas (PUC). *2007 Report to the 80th Texas Legislature: Scope of Competition in Electric Markets in Texas*. Austin, Texas, January 2007.

<http://www.puc.state.tx.us/electric/reports/scope/index.cfm>

PUC publishes information every two years on the status of deregulation in the Texas electricity market.

PUC. *The State of Texas Official Guide to Electric Choice: Everything You Need to Know About Choosing an Electric Company that's Right for You*. Austin, Texas, June 2007.

http://www.powertochoose.org/_files/_pdf/Consumerguide_eng.pdf

This brochure is intended to help consumers understand recent changes in Texas' electric market. To learn more,

call the Texas Electric Choice Answer Center toll-free at (866) PWR-4-TEX [(866)797-4839]; TTY users should dial 7-1-1 in Texas.

SUBSIDIES ACROSS FUEL SOURCES

Bezdek, Robert and Robert Wending. "A Half Century of U.S. Federal Government Energy Incentives: Value, Distribution, and Policy Implications" *International Journal of Global Energy Issues*, 2007.

This article estimates federal government energy subsidies for the last 50 years. It also advocates for expanded federal support for renewable energy.

EIA. *Federal Financial Interventions and Subsidies in Energy Markets 1999: Primary Energy*. Washington, D.C., September 1999.

[http://www.eia.doe.gov/oiaf/servicert/subsidy/pdf/sroiaf\(99\)03.pdf](http://www.eia.doe.gov/oiaf/servicert/subsidy/pdf/sroiaf(99)03.pdf)

This report examines direct federal payments to producers or consumers of primary energy sources and discusses federal assistance for research and development of primary energy sources.

GAO. *Federal Electricity Subsidies: Information on Research Funding, Tax Expenditures, and Other Activities that Support Electricity Production*. Washington, D.C., October 2007.

<http://www.gao.gov/new.items/d08102.pdf>

This report provides information on DOE federal funding for electricity-related research and development, including funding by type of fuel. It also reviews the tax expenditures the federal government provides to subsidize electricity production, again citing expenditures by type of fuel. The report details ways the government subsidizes electricity through federal power entities, the Department of Agriculture and the Price-Anderson Act.

Koplow, Douglas. *Federal Energy Subsidies: Energy, Environmental, and Fiscal Impacts*. Washington, D.C.: Alliance to Save Energy, April 1993.

http://www.earthtrack.net/earthtrack/library/Fed%20Subsidies_1993%20Main%20Report.pdf



This report on 1989 federal subsidies to the energy sector explains their scope and their role in the promotion of U.S. energy policy. It recommends a subsidy pattern for renewable, nonpolluting energy and energy efficiency to meet our environmental, fiscal, economic and national security goals.

Koplow, Douglas. **“Memorandum to Jason Grumet and Drew Kodjak, National Commission on Energy Policy. Federal Subsidies to Energy in 2003 – A First Look,”** Cambridge, Massachusetts: Earth Track, July 30, 2004.
<http://www.earthtrack.net/earthtrack/library/FedSubs2003.pdf>

This memorandum evaluates more than 75 federal subsidies to energy. It explains how the federal government subsidizes this sector of the economy and how much these programs are worth to the private sector.

SUBSIDIES RELATED TO OIL AND GAS

Congressional Research Service. *Oil and Gas Tax Subsidies: Current Status and Analysis*, by Salvatore Lazzari. Washington, D.C., February 27, 2007.
<http://www.ncseonline.org/NLE/CRSreports/07March/RL33763.pdf>

This report reviews oil and gas tax subsidies including those targeted for repeal by the CLEAN Energy Act of 2007.

GAO. *GAO Briefing on Oil and Gas Royalties*. Washington, D.C., March 27, 2006.
<http://www.nytimes.com/packages/pdf/business/29lease.pdf>

This report examines the impact of various factors on oil and gas royalty revenues from 2001 to 2005 and the financial impact of royalty relief in the Gulf of Mexico.

SUBSIDIES RELATED TO RENEWABLES

EIA. *Incentives, Mandates, and Government Programs for Promoting Renewable Energy*, by Mark Gielecki, Fred Mayes and Lawrence Prete. Washington, D.C., February 2001.
http://www.eia.doe.gov/cneaf/solar.renewables/rea_issues/incent.html

This report weighs the effectiveness of federal and state subsidies, mandates and support programs, including research and development, in furthering growth in electric generation and capacity. It states that some renewable facilities have failed because cost reductions have not kept pace with cost declines occurring in natural gas-fired generation.

MIT. *Federal Tax Policy towards Energy*, by Gilbert Metcalf. Cambridge, Massachusetts, January 2007.
http://web.mit.edu/globalchange/www/MITJPSPGC_Rpt142.pdf

This report surveys the impact of tax subsidies derived from the Energy Policy Act of 2005. It argues that tax subsidies for domestic oil production on world oil supply and prices have little global impact. The report also states that nuclear power and renewable electricity sources benefit from depreciation and that tax credits make clean coal technologies cost-competitive with pulverized coal. It contends that tax credits for wind and biomass are cost-competitive with those for natural gas.

