

Bibliography

- Aden, A., Ruth, M., et al. "Lignocellulosic Biomass to Ethanol Process Design and Economics Utilizing Co-Current Dilute Acid Prehydrolysis and Enzymatic Hydrolysis for Corn Stover," National Renewable Energy Laboratory, NREL/TP-510-32438 (2002), <http://www1.eere.energy.gov/biomass/pdfs/32438.pdf>.
- Advanced Ethanol Council. (2012). "Cellulosic Biofuels Industry Progress Report 2012-2013," http://ethanolrfa.3cdn.net/d9d44cd750f32071c6_h2m6vaik3.pdf.
- Bacovsky, D., Ludwiczek, N., Ognissanto, M., Wörgetter, M. (2013). "Status of Advanced Biofuels Demonstration Facilities in 2012: A Report to IEA Bioenergy Task 39," http://demoplants.bioenergy2020.eu/files/Demoplants_Report_Final.pdf.
- Baer, W.S., et al. (1976). "Analysis of Federally Funded Demonstration Projects: Executive Summary." RAND
- Biotechnology Industry Organization. *Biobased Chemicals and Products: A New Driver for Green Jobs*, March 10, 2010, <http://www.bio.org/articles/biobased-chemicals-and-products-new-driver-green-jobs>.
- Bozell, J.J. and Petersen, G.R. (2010). "Technology development for the production of biobased products from biorefinery carbohydrates – the US Department of Energy "Top 10" revisited." *Green Chemistry* 4(1). DOI:10.1039/B922014C.
- Chen, X., et al. (2012). "The impacts of deacetylation prior to dilute pretreatment on the bioethanol process." *Biotechnology for Biofuels* 5(8).
- Chundawat, S., Beckham, G., et al. (2011). "Deconstruction of Lignocellulosic Biomass to Fuels and Chemicals." *The Annual Review of Chemical and Biomolecular Engineering* 2(1). <http://www.annualreviews.org/doi/abs/10.1146/annurev-chembioeng-061010-114205>.
- Dale, V.H., Efroymsen, R.A., Kline, K.L., Langholtz, M.H., Leiby, P.N., Oladosu, G.A., Davis, M.R., Downing, M.E., Hilliard, M.R. (2013a). "Indicators for assessing socioeconomic sustainability of bioenergy systems: A short list of practical measures." *Ecological Indicators* 26(1).
- Davis et al. "Process Design and Economics for the Conversion of Lignocellulosic Biomass to Hydrocarbons: Dilute-Acid and Enzymatic Deconstruction of Biomass to Sugars and Biological Conversion of Sugars to Hydrocarbons," National Renewable Energy Laboratory, NREL/TP-5100-60223 (2013), <http://www.nrel.gov/docs/fy14osti/60223.pdf>.
- Davis, R., Fishman, D., Frank, E., et al. "Renewable Diesel from Algal Lipids: An Integrated Baseline for Cost, Emissions, and Resource Potential from a Harmonized Model," Argonne National Laboratory, ANL/ESDA/12-4 (2012), <http://greet.es.anl.gov/publication-algae-harmonization-2012>.
- Davis, R., Kinchin, C., Markham, J., Tan, E.C.D. et al. "Process Design and Economics for the Conversion of Algal Biomass to Biofuels," National Renewable Laboratory (2014).
- Efroymsen, R.A., Dale, V.H., Kline, K.L., McBride, A.C., Bielicki, J.M., Smith, R.L., Parish, E.S., Schweizer, P.E., Shaw, D.M. (2012). "Environmental indicators of biofuel sustainability: What about context?" *Environmental Management*, DOI 10.1007/s00267-012-9907-5.

http://web.ornl.gov/sci/ees/cbes/Publications/Efroymsonetal2012biofuelindicatorcontextEMfinal10%201007_s00267-012-9907-5.pdf

Executive Office of the President, *The President's Climate Action Plan*, June 2013,
<http://www.whitehouse.gov/sites/default/files/image/president27sclimateactionplan.pdf>.

Food and Agriculture Organization of the United Nations. "Bioenergy and Food Security,"
<http://www.fao.org/bioenergy/foodsecurity/befs/en/>.

Frost, J.W. (2005). "Redefining Chemical Manufacture—Replacing Petroleum with Plant-Derived Feedstocks." *Industrial Biotechnology*. 1, 23–24.

Gummerman, E., Marnay, C. (2004). "Learning and Cost Reductions for Generating Technologies in the National Energy Modeling System (NEMS)." LBNL-52559. Ernest Orlando Lawrence Berkeley National Laboratory, University of California Berkeley.

Harvey, B.C., Mylemans, H.A. (2013). "1-Hexene: A renewable C6 platform for full-performance jet and diesel fuels." *Green Chemistry* 2(1). DOI:10.1039/c3gc41554f.

Hess, J., Wright, C., et al. "Uniform-Format Solid Feedstock Supply System: A Commodity-Scale Design to Produce an Infrastructure-Compatible Bulk Solid from Lignocellulosic Biomass," Idaho National Laboratory, INL/EXT-08-14752 (2009), www.inl.gov/bioenergy/uni-form-feedstock.

Holladay J.E., White J.F., et al. "Top Value-Added Chemicals from Biomass: II. Results of Screening for Potential Candidates from Biorefinery Lignin." (2007). Richland, WA: Pacific Northwest National Laboratory.

Humbird, D., Davis, R., et al. "Process Design and Economics for Biochemical Conversion of Lignocellulosic Biomass to Ethanol: Dilute Acid Pretreatment and Enzymatic Hydrolysis of Corn Stover," NREL TP-510-47763 (2011), Golden, CO: National Renewable Energy Laboratory, <http://www.nrel.gov/biomass/pdfs/47764.pdf>.

Jones et al. "Process Design and Economics for the Conversion of Algal Biomass to Hydrocarbons: Whole Algae Hydrothermal Liquefaction and Upgrading," PNNL-23227 (2014),
http://www.pnnl.gov/main/publications/external/technical_reports/PNNL-23227.pdf .

Jones, S. et al. "Process Design and Economics for the Conversion of Lignocellulosic Biomass to Hydrocarbon Fuels: Fast Pyrolysis and Hydrotreating Bio-Oil Pathway." PNNL-23053. (2013). Richland, WA: Pacific Northwest National Laboratory.
http://www.pnnl.gov/main/publications/external/technical_reports/PNNL-23053.pdf.

Jones, S.B., Valkenburg, C.W., Walton, et al. "Production of Gasoline and Diesel from Biomass Via Fast Pyrolysis, Hydrotreating and Hydrocracking: A Design Case," PNNL-18284 (2009), Richland, WA: Pacific Northwest National Laboratory,
http://www.pnnl.gov/main/publications/external/technical_reports/pnnl-18284.pdf.

Jones, S.B., Zhu, Y., Snowden-Swan, L.J., Anderson, D.B., Hallen, R.T., Schmidt, A.J., Albrecht, K.A., Elliott, D.C. "Whole Algae Hydrothermal Liquefaction: 2014 State of Technology Pacific Northwest Laboratory, June 2014.

- Kenney et al. "Feedstock Supply System Design and Economics for Conversion of Lignocellulosic Biomass to Hydrocarbon Fuels-Conversion pathway: biological conversion of sugars to hydrocarbons." INL/EXT-13-30342 (2013), <https://inlportal.inl.gov/portal/server.pt?open=512&objID=421&parentname=CommunityPage&parentid=4&mode=2>.
- Koonin, S.E., Gopstein, A.M. "Accelerating the Pace of Energy Change." *Issues in Science and Technology*, Winter 2011.
- Lovins, A., et al, *Winning the Oil Endgame: Innovation for Profits, Jobs, and Security*, Rocky Mountain Institute (2004).
- Marton, A. (2011). "Research Spotlight: Getting off on the Right Foot – Innovative Projects." Independent Project Analysis Newsletter, 3(1).
- McBride A., Dale, V.H. Baskaran, L., Downing, M., Eaton, L., Efrogmson, R.A., Garten, C., Kline, K.L., Jager, H., Mulholland, P., Parish, E., Schweizer, P., Storey, J. (2011). "Indicators to support environmental sustainability of bioenergy systems." *Ecological Indicators* 11(1).
- Merrow, E.W. (1989). "An Analysis of Cost Improvement in Chemical Process Technologies," RAND R-3357-DOE.
- Muth, D., Bryden, K.M. (2012). "An Integrated Model for Assessment of Sustainable Agricultural Residue Removal Limits for Bioenergy Systems." *Environmental Modelling and Software*. 39(1).
- Muth, D., Jacobson, J., Cafferty, K., Jeffers, R. "Define feedstock baseline scenario and assumptions for the \$80/DT target based on INL design report and feedstock logistics projects." ID#: 1.6.1.2.DL.4, 11.2.4.2.A.DL.2. Joule, WBS #: 1.6.1.2/11.2.4.2, Completion Date: 3/31/13, INL/EXT-14-31569.
- National Renewable Energy Laboratory, "What Is a Biorefinery?" (2009). <http://www.nrel.gov/biomass/biorefinery.html>.
- National Science Foundation, *The Roadway to Partial Petroleum Replacement with Biomass-Derived Fuels—A Report Along the Way*, (2010).
- Oak Ridge National Laboratory. (2005). "Stage-Gate Management in the Biomass Program: Revision 2," http://feedstockreview.ornl.gov/pdf/stage_gate_management_guide.pdf.
- Oak Ridge National Laboratory. (2013). *Transportation Energy Data Book, Edition 32*.
- Peters, M. S., Timmerhaus, K.D., West, R.E. "Plant Design and Economics for Chemical Engineers," (2003).
- Phillips, S., Aden, A., et al. "Thermochemical Ethanol via Indirect Gasification and Mixed Alcohol Synthesis of Lignocellulosic Biomass," National Renewable Energy Laboratory, NREL/TP-510-41168 (2007), <http://www.nrel.gov/docs/fy07osti/41168.pdf>.
- Renewable Fuels Association, *Battling for the Barrel: Ethanol Industry Outlook* (2013), <http://ethanolrfa.org/page/-/PDFs/RFA%202013%20Ethanol%20Industry%20Outlook.pdf?nocdn=1>.

- Searcy, E., Hess, J., Wright, C., Kenney, K., Jacobson, J. “State of Technology Assessment of Costs of Southern Pine for FY10 Gasification,” October 2010, INL/LTD-10-20306.
- Standlee, C. “Advanced Ethanol: Coming Online.” National Ethanol Conference. February 18, 2014. Orlando, FL.
- U.S. Congress, *Energy Independence and Security Act of 2007* (2007), Washington: Government Printing Office, <http://www.gpo.gov/fdsys/pkg/BILLS-110hr6enr/pdf/BILLS-110hr6enr.pdf>.
- U. S. Congress: Senate Energy and Natural Resources Committee, *Oversight Hearing on Oil Shale Development Efforts*, 109th Congress, 1st session, April 12, 2005.
- U.S. Department of Agriculture. “USDA Biofuels Strategic Production Report” (2010), http://www.usda.gov/documents/USDA_Biofuels_Report_6232010.pdf.
- U.S. Department of Commerce: Bureau of Economic Analysis, *National Income and Product Accounts: Table 1.1.9*, http://www.bea.gov/iTable/index_nipa.cfm.
- U.S. Department of Energy: Alternative Fuels Data Center, *Global Ethanol Production* (2013), <http://www.afdc.energy.gov/data/10331>.
- U.S. Department of Energy. *Annual Energy Outlook 2007: Biofuels in the U.S. Transportation Sector, Table 11* (2007), Washington: Government Printing Office. <http://www.eia.doe.gov/oiaf/analysispaper/biomass.html>.
- U.S. Department of Energy, *Annual Energy Outlook 2009: Table 112* (2009), Washington: Government Printing Office, http://www.eia.doe.gov/oiaf/archive/aeo09/supplement/suptab_112.xls.
- U.S. Department of Energy, *Annual Energy Outlook 2012: High Oil Price Case, Table 70* (2012), Washington: Government Printing Office.
- U.S. Department of Energy, *Annual Energy Outlook 2012: Table 131* (2012), Washington: Government Printing Office, http://www.eia.gov/oiaf/aeo/supplement/suptab_131.xlsx.
- U.S. Department of Energy, *Annual Energy Outlook 2012 with Projections to 2035* (2012), Washington: Government Printing Office, DOE/EIA-0383.
- U.S. Department of Energy, *Annual Energy Outlook 2013 with Projections to 2040*, http://www.eia.gov/forecasts/archive/aeo13/source_oil_all.cfm#tighthoil.
- U.S. Department of Energy, *Annual Energy Outlook 2014 with Projections to 2040*.
- U.S. Department of Energy. “Bioenergy Knowledge Discovery Framework,” <http://www.bioenergykdf.net>.
- U.S. Department of Energy: Bioenergy Technologies Office, *Multi-Year Program Plan 2007–2012* (2005), Washington: Government Printing Office.
- U.S. Department of Energy: Bioenergy Technologies Office, *2013 Peer Review Report* (2014), Washington: Government Printing Office, http://www1.eere.energy.gov/bioenergy/pdfs/2013_peer_review.pdf.

- U.S. Department of Energy. *Conversion Technologies for Advanced Biofuels Workshop Report* (2013), Washington, D.C.: Government Printing Office. Manuscript in preparation.
- U.S. Department of Energy. DOE Order 413.3B, Program and Project Management for the Acquisition of Capital Assets, <https://www.directives.doe.gov/directives-documents/0413.3-BOrder-b/view>.
- U.S. Department of Energy: Energy Efficiency and Renewable Energy, *EERE Guide for Managing General Program Evaluation Studies: Getting the Information You Need* (2006), Washington: Government Printing Office, http://energy.gov/sites/prod/files/2013/11/f5/evaluation_mgmt_guide_final_2006_0.pdf.
- U.S. Department of Energy: Energy Efficiency and Renewable Energy, *Peer Review Guide* (2004), Washington: Government Printing Office, <http://www1.eere.energy.gov/analysis/pdfs/2004peerreviewguide.pdf>.
- U.S. Department of Energy, *Intermediate Ethanol Blends* (2013), http://www1.eere.energy.gov/vehiclesandfuels/technologies/fuels/ethanol_blends.html.
- U.S. Department of Energy, *International Energy Outlook 2013* (2013), Washington: Government Printing Office, DOE/EIA-0484.
- U.S. Department of Energy, *Monthly Energy Review* (December 2013), Washington: Government Printing Office, DOE/EIA-0035.
- U.S. Department of Energy, *Most states have Renewable Portfolio Standards*, February 3, 2012.
- U.S. Department of Energy. *National Algal Biofuels Technology Roadmap* (2010), Washington: Government Printing Office, http://www1.eere.energy.gov/biomass/pdfs/algal_biofuels_roadmap.pdf.
- U.S. Department of Energy, *Top Value Added Chemicals from Biomass: Volume I—Results of Screening for Potential Candidates from Sugars and Synthesis Gas* (2004).
- U.S. Department of Energy. (2011). *U.S. Billion-Ton Update: Biomass Supply for a Bioenergy and Bioproducts Industry*. R.D. Perlack and B.J. Stokes (Leads), ORNL/TM-2011/224. Oak Ridge National Laboratory, Oak Ridge, TN. http://www1.eere.energy.gov/biomass/pdfs/billion_ton_update.pdf.
- U.S. Energy Information Administration, *Annual Energy Review* (2014), <http://www.eia.gov/totalenergy/data/annual/>.
- U.S. Energy Information Administration, *Direct Federal Financial Interventions and Subsidies in Energy in Fiscal Year 2010*, (July 2011), <http://www.eia.gov/analysis/requests/subsidy/pdf/subsidy.pdf>.
- Vimmerstedt, L. J., Bush, B. W. “Effects of Deployment Investment on the Growth of the Biofuels Industry” (2013), NREL/TP-6A20-60802, Golden, CO: National Renewable Energy Laboratory, <http://www.nrel.gov/docs/fy14osti/60802.pdf>.
- Werpy, T.A., Holladay, J.E., et al. “Top Value-Added Chemicals from Biomass: I. Results of Screening for Potential Candidates from Sugars and Synthesis Gas.” PNNL-14808 (2004), Richland, WA: Pacific Northwest National Laboratory.

WIPO/PCT WO2012/166267 A2 Patent: Method to Convert Fermentation Mixture into Fuels. (2012).

World Energy Council, “Survey of Energy Resources” (2010),
http://www.worldenergy.org/documents/ser_2010_report_1.pdf.