



GEOHERMAL

Drawdown Technical Assessment and Model References

AMPERE. (2014). AMPERE Database, Regions Definitions, EU FP7 AMPERE Project. Retrieved from: <https://secure.iiasa.ac.at/web-apps/ene/AMPEREDB/dsd?Action=htmlpage&page=about#regiondefs>

Axelsson, G., A. Gudmundsson, B. Steingrímsson, G. Palmason, H. Armansson, H. Tulinius, O. Flovenz, S. Björnsson and V. Stefansson. (2001). Sustainable production of geothermal energy: Suggested definition. *IGA News*, Quarterly No. 43. In, *Technology Roadmap: Geothermal Heat and Power*, International Energy Agency. 2011.

Bertani, R. (2012). Geothermal power generation in the world 2005–2010 update report. *Geothermics* 41: 1–29.

Bertani, R. (2015). Geothermal power generation in the world 2005–2010 update report. *Proceedings World Geothermal Congress 2015*. Melbourne, Australia, 19-25.

BNEF. (2014). *Sustainable energy in America 2014 factbook*. New York, NY: Bloomberg New Energy Finance. Retrieved from <http://about.bnef.com/white-papers/sustainable-energy-in-america-2014-factbook/>

WEC (2013). *World Energy Perspective: Cost of Energy Technologies*. World Energy Council, Bloomberg New Energy Finance. Retrieved from http://www.worldenergy.org/wp-content/uploads/2013/09/WEC_J1143_CostofTECHNOLOGIES_021013_WEB_Final.pdf

Bromley, C., Milou, B. (2011). Global geothermal deployment – the IEA roadmap for the future. Australia Geothermal Energy Conference, 2011.

Danish Energy Agency and Energinet. (2012). *Technology Data for Energy Plants Generation of Electricity and District Heating, Energy Storage and Energy Carrier Generation and Conversion*. Danish Energy Agency and Energinet.dk. Retrieved from: https://www.energinet.dk/SiteCollectionDocuments/Danske%20dokumenter/Forskning/Technology_data_for_energy_plants.pdf

Fridriksson, T., Mateos A., Audinet P., Orucu Y. (2016). Greenhouse gases from geothermal power production: Interim technical note. Energy Sector Management Assistance Program (ESMAP)/The World

Bank. Retrieved from
<https://openknowledge.worldbank.org/bitstream/handle/10986/24691/Greenhouse0gas0mal0power0production.pdf?sequence=1&isAllowed=y>

Goldstein, B.A., Gerardo, H., Tester, J., Bertani, B., Bromley, R., Gutierrez-Negrin, L., Huenges, E., Ragnarsson, H., Mongillo, A., Muraoka, MA. (2011). *Great expectations for geothermal energy to 2100*. Proceedings, Thirty-Sixth Workshop on Geothermal Reservoir Engineering. Stanford University, Stanford, CA.

Greenpeace. (2015). *World Energy [R]evolution, a sustainable world energy outlook*. Retrieved from: <http://www.greenpeace.org/international/Global/international/publications/climate/2015/Energy-Revolution-2015-Full.pdf>

Future360. (2016). Geothermal. Future 360, Inspiration for Early Adopters. Retrieved from <http://www.future360.tv/video/geothermal>

Hannam, P., Kyle, G., Smith, S. (2009). *Global deployment of geothermal energy using a new characterization in GCAM 1.0*. Pacific Northwest National Laboratory.

Hayward, J., Graham, P.W. (2013). A global and local endogenous experience curve model for projecting future uptake and cost of electricity generation technologies. *Energy Economics*, 40, 537-548. <https://doi.org/10.1016/j.eneco.2013.08.010>

Hondo, H. (2005). Life cycle GHG emission analysis of power generation systems: Japanese case. *Energy* 30 - 2042–2056. Retrieved from http://www.univie.ac.at/photovoltaik/umwelt/LCA_japanstudy.pdf

Holm A., Jennejohy D., Blodgett, L. (2012). Geothermal energy and greenhouse gas emissions. Geothermal Energy Association. Retrieved from http://www.geothermal.org/reports/GeothermalGreenhouseEmissionsNov2012GEA_web.pdf

IEA. (2011). *Technology road map: Geothermal heat and power*. Paris, France. Retrieved from http://www.iea.org/publications/freepublications/publication/Geothermal_roadmap.pdf

IEA. (2014). *Energy Technology Perspectives: Harnessing electricity's potential*. International Energy Agency. OECD/IEA, Paris. Retrieved from <http://www.iea.org/etp/etp2014/>

IEA and NEA (2010). *Projected Costs of Generating Electricity – edition 2010*. Organisation for Economic Co-operation and Development - International Energy Agency and Nuclear Energy Agency. France. Retrieved from <http://www.worldenergyoutlook.org/media/weowebiste/energymodel/ProjectedCostsofGeneratingElectricity2010.pdf>

IEA and NEA (2015). *Projected Costs of Generating Electricity – edition 2015*. Organisation for Economic Co-operation and Development - International Energy Agency and Nuclear Energy Agency. France. Retrieved from <https://www.oecd-neo.org/nnd/pubs/2015/7057-proj-costs-electricity-2015.pdf>

IEA. (2016b). *Energy Technology Perspectives 2016 - Towards Sustainable Urban Energy Systems*. International Energy Agency. OECD/IEA, Paris. Retrieved from: https://www.iea.org/publications/freepublications/publication/EnergyTechnologyPerspectives2016_ExecutiveSummary_EnglishVersion.pdf

IPCC. (2011). *Geothermal energy*. IPCC Special Report on Renewable Energy Sources and Climate Change Mitigation. Retrieved from http://srren.ipcc-wg3.de/report/IPCC_SRREN_Ch04.pdf

IPCC. (2014). *Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Edenhofer, O., R. Pichs-Madruga, Y. Sokona, E. Farahani, S. Kadner, K. Seyboth, A. Adler, I. Baum, S. Brunner, P. Eickemeier, B. Kriemann, J. Savolainen, S. Schlömer, C. von Stechow, T. Zwickel and J.C. Minx (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA Retrieved from: https://www.ipcc.ch/pdf/assessment-report/ar5/wg3/ipcc_wg3_ar5_full.pdf

GEA. (2014). *Annual U.S. & global geothermal power production report*. Geothermal Energy Association. Retrieved from <http://geo-energy.org/events/2014%20Annual%20US%20&%20Global%20Geothermal%20Power%20Production%20Report%20Final.pdf>.

Lacal, R., Jaeger-Waldau, A., Vellei, M., Sigfusson, B., et al. (2014). ETRI 2014 - Energy Technology Reference Indicator projections for 2010-2050. Ed. Carlsson, J. *Joint Research Center. Publications Office of the European Union*. Retrieved from <http://publications.jrc.ec.europa.eu/repository/handle/JRC92496>

Lazard. (2016). *Lazard's Levelized Cost of Energy Analysis – Version 10.0*. Retrieved from <https://www.lazard.com/perspective/levelized-cost-of-energy-analysis-100/>

Masanet, E., Chag, Y., Gopal, A., Larsen, P., Morrow III, W., Sathre, R., Shehabi, A., Zhai, P. (2013). Life cycle assessment of electric power systems. *Annu. Rev. Environ. Resour*, 38:107–36. Doi: 10.1146/annurev-environ-010710-100408

NETL (2013). *Power Generation Technology Comparison from a Life Cycle Perspective*. National Energy Technology Laboratory. Retrieved from <https://www.netl.doe.gov/File%20Library/Research/Energy%20Analysis/Life%20Cycle%20Analysis/Technology-Assessment-Compilation-Report.pdf>

Rubin E. S., Azevedo I. M. L., Jaramillo P., Yeh S. (2015). A review of learning rates for electricity supply technologies. *Energy Policy*, 86 p. 198 – 218.

Simoës, S., Nijs, W., Ruiz, P., Sgobbi, A., Radu, D., et al. (2013). *The JRC-EU-TIMES model - Assessing the long-term role of the SET Plan Energy Technologies*. Joint Research Center. Publications Office of the European Union. Retrieved from <http://publications.jrc.ec.europa.eu/repository/handle/JRC85804>

Tester, J.W., Anderson, B., Batchelor, A., Blackwell, D., DiPippo, R., Drake, E., Garnish, J., Livesay, B., Moore, M.C., Nichols, K. (2006). The future of geothermal energy: Impact of enhanced geothermal

systems (egs) on the United States in the 21st century. *Massachusetts Institute of Technology* 209.
Retrieved from http://geo-energy.org/reports/future_geo_energy.pdf

Turkenburg, W. C., Arent, D., Bertani, R., Faaij, A., Hand, M., Krewitt, W., Larson, E. et al. (2012).
Chapter 11 - Renewable Energy. In *Global Energy Assessment - Toward a Sustainable Future*, 761–900.
Cambridge University Press, Cambridge, UK and New York, NY, USA and the International Institute for
Applied Systems Analysis, Laxenburg, Austria. Retrieved from
<http://www.iiasa.ac.at/web/home/research/Flagship-Projects/Global-Energy-Assessment/Chapte11.en.html>

Rev.12/2017