

3. How do Michigan's costs for renewable energy compare to the cost of existing generation and to the cost of new non-renewables generation today?

The costs to develop wind and solar projects in Michigan have declined since the 2008 passage of Act 295. Comparing the total weighted average levelized costs for renewable energy reported annually in the Commission's REPORT ON THE IMPLEMENTATION OF THE P.A. 295 RENEWABLE ENERGY STANDARD AND THE COST-EFFECTIVENESS OF THE ENERGY STANDARDS, shows the steady downward trend in renewable energy costs – largely due to decreased utility-scale wind energy costs. Total weighted average levelized costs for Act 295 renewable energy contracts were \$98.68 per MWh, \$91.19 per MWh and \$82.54 in the 2011, 2102 and 2013 reports, respectively. These costs include the benefit of federal tax treatment. The first Act 295 wind contract filed in 2009 had a levelized cost of \$116 per MWh compared to the most recent wind energy contract filing for DTE Electric's and NextEra's Pheasant Run wind farm with a levelized cost of \$49 per MWh.

Using the most recently approved cost of service data for Consumers Energy and DTE Electric, the weighted average overall power supply cost for both companies is \$64 per MWh. This includes all existing generated and purchased power with transmission costs removed.

The Commission Staff, with input from a group of electric providers, developed a combined cycle natural gas plant levelized cost of \$66.23 per MWh in 2013 dollars for a plant entering service in 2016.

The Energy Information Administration (EIA) makes projections of levelized costs for various types of electric generation. The EIA costs are provided in 2011 dollars for plants entering service in 2018 and are overnight cost estimates. EIA provided the levelized cost of renewable and non-renewable energy in its Annual Energy Outlook 2013 Early Release. EIA projects an advanced coal plant levelized cost range of \$123.00 per MWh to \$135.50 per MWh and a natural gas combined cycle plant cost range of \$65.60 per MWh to \$67.10 per MWh.

Source:

MPSC's Report on the Implementation of the P.A. 295 Renewable Energy Standard and the Cost-Effectiveness of the Energy Standards -

http://www.michigan.gov/documents/mpsc/implementation_of_PA295_renewable_energy_411615_7.pdf

Staff Combined Cycle Natural Gas Plant Levelized Cost -

<http://efile.mpvc.state.mi.us/efile/docs/15800/0036.pdf>

EIA Annual Energy Outlook 2013 Early Release -

http://www.eia.gov/forecasts/aeo/er/electricity_generation.cfm