



Transition to Renewable Energy in Michigan

Building a Partnership

Presentation to the House Energy Committee

Chair Rep. Joe Ballino

Min Vice-Chair Rep. Donna Lasinski

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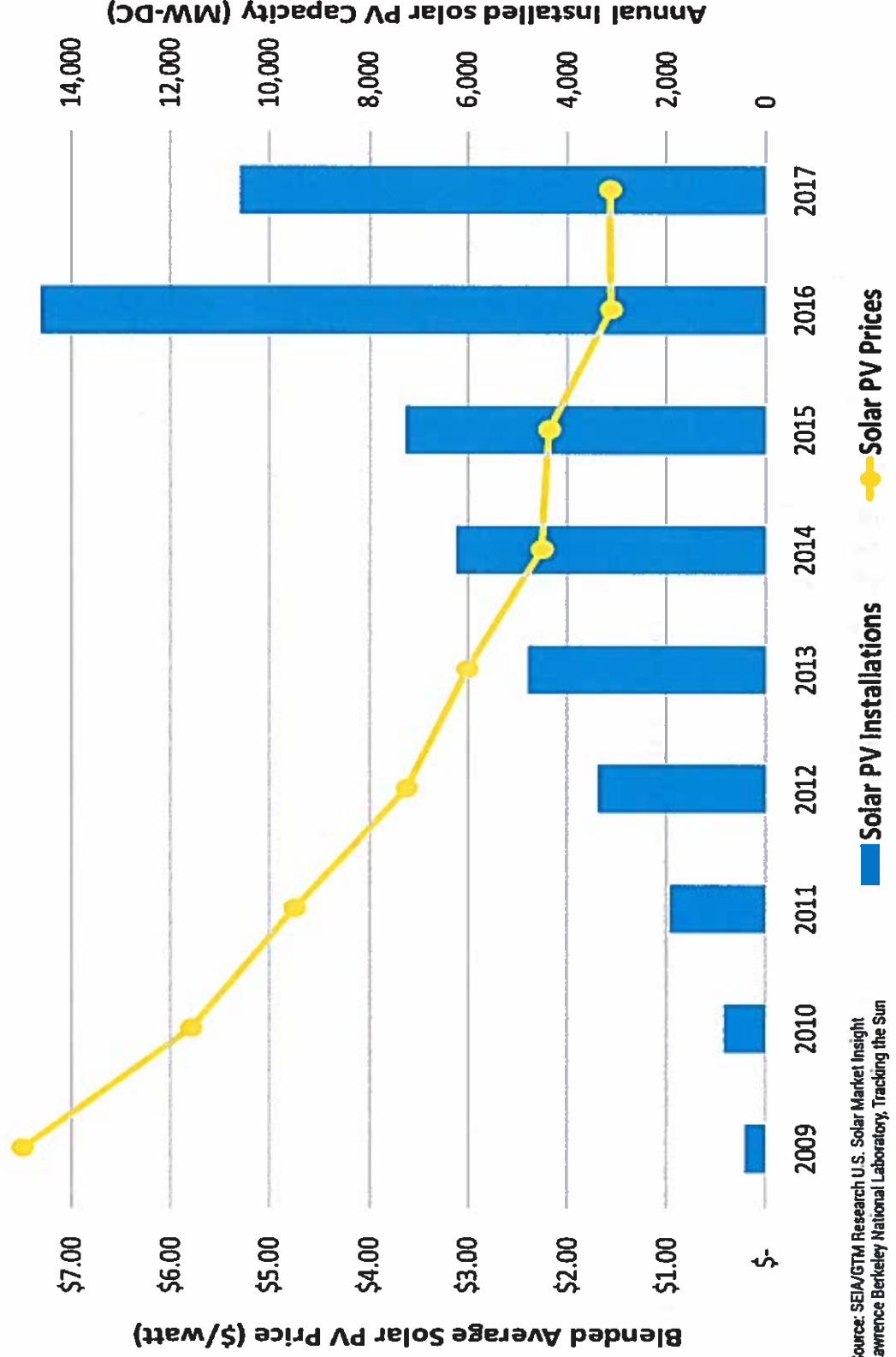
Great Lakes Renewable Energy Association (GLREA)

- A non-profit Trade Association
- Membership consists of
 - Businesses that install Renewable Energy Systems, mainly solar.
 - Individuals that own solar or support expansion of renewable energy.
- Goals:
 - Get utilities to produce more solar and wind energy.
 - Give business, farmers and homeowners the option and the freedom to choose to install their own renewable energy system.
- Organize energy fairs, educational events, PSC work.
- GLREA www.glrea.org

The Growing Renewable Energy Market in Michigan

- **Business, Farmers and Homeowners want:**
 - Lower costing electricity.
 - *Predictable* energy pricing.
 - Clean electricity.
- **Utility Energy Costs Keep Increasing**
 - Almost yearly increases.
 - Hard to plan for.
- **Electricity can be Generated by Renewables at less cost.**
 - Sunshine and wind is free!
 - High cost of utility electricity is prompting people to install their own energy systems.
 - Solar power is maximized at ‘peak’ demand time when utility power is the most expensive.
 - 2015 Congress extended the 30% Federal Investment Tax Credit for another 5 years.

Cost of Solar Has Decreased Dramatically



Source: SEIA/GTM Research U.S. Solar Market Insight
Lawrence Berkeley National Laboratory, Tracking the Sun

MI Receives Plenty of Sunshine to Support Solar – 4.5 kWh per day

- **Arizona** 6.5 – 7.0 kilowatt hours per day
- **Colorado** 5.5 – 6.0
- **Michigan** 4.5 – 5.0
- **New Jersey** 4.0 – 4.5
- **Germany** 3.5 – 4.0 similar to Alaska

Benefits of Renewable Energy

- Savings on electric energy. Therefore can invest more into business, farm or home.
- Supports economic development.
- Creation of new jobs in Michigan
 - 9,800 jobs in renewable energy field
 - [https://www.michigan.gov/documents/mpsc/2019 Feb 15 Report PA 295 Renewable Energy 646445 7.pdf](https://www.michigan.gov/documents/mpsc/2019_Feb_15_Report_PA_295_Renewable_Energy_646445_7.pdf)
 - 122,264 total of ‘clean energy jobs’
 - www.cleanjobsmidwest.com

Michigan's Renewable Energy Statutory Framework

- Public Act 295 enacted in 2008 required utilities to:
 - have 10% Renewable Portfolio Standard (RPS), which means that 10% of the electricity they generate must come from renewable energy sources by 2015. They did.
 - connect 3rd party renewable energy systems to the Grid through *net metering*, which allows for excess energy generated to be uploaded to the Grid and the owner receives a credit at the retail rate (15 cents per kWh).
- As a result of PA 295, utility's started building wind and solar installations and homeowners, farmers and business started installing their own energy systems.
- Public Acts 341 and 342 enacted in 2016 updated the energy law:
 - Changed 'net metering' to 'distributed energy'
 - Public Service Commission to establish a distributed energy tariff.
 - Renewable Portfolio Standard (RPS) was increased to 15% by 2021.

Michigan's Energy Usage

- **Michigan**
 - Imports: 100% coal, 97% oil and 80% natural gas.
 - Exports: \$26 billion each year to pay for coal, oil, natural gas. This is a lot of money leaving MI *every year* that would be much better if kept in Michigan.
- **In 2017**
 - Coal was used for generating 37% of electricity in Michigan, down from 50% in 2014.
 - 26% natural gas, 29% nuclear, 8% renewable (It was almost 0% in 2008).
 - US Energy Information Administration <https://www.eia.gov/state/?sid=MI>
- **Renewables**
 - 69% wind, 13% hydro-electric, 7% bio-mass, 4% solar and 3% municipal solid waste.
 - https://www.michigan.gov/documents/mpsc/2019_Feb_15_Report_PA_295_Renewable_Energy_646445_7.pdf

Key Challenges Today

- **Establishing a fair ‘distributed energy tariff’.**
 - Required by 2016 energy law
 - In front of the Public Service Commission right now in U-20162 with DTE.
- **Establishing fair rules on Property Taxes on Solar**
 - Ann Arbor raised property taxes on homes for installing solar, prior to home being sold.
 - Legislature last session passed two bills to prevent that.
 - Gov. Snyder vetoed the bills.
 - Rep. Bronna Kahle introduced HB 4068, 4069
 - Sen. Tom Barrett introduced SB 47, 48

Will Anything Stop this Transition?

- No. The transition to renewable energy is occurring because **market forces** are pushing this change because it costs less to produce renewable energy.
 - Coal is dirty, causes health problems and is no longer cost competitive to wind, solar and natural gas.
- The world scientific community is 97% in agreement on climate change.
 - DTE and Consumers is working to reduce carbon emissions.
- Continued growth of the ‘Internet of Things’
 - New technology provides real-time information about use of electricity.
 - Business and Homeowners have **more information** and more **control** of usage and thus more **empowered** to make financial decisions regarding energy use.

Conclusion

Renewable Energy is Good for Michigan

- **Provides Lower Costing Electricity**
 - Utility rates keep increasing.
 - Renewables cost less with free fuel (sun, wind).
 - With your own energy system, cost is predictable.
- **Supports Economic Development and Creates Jobs**
 - Renewable Energy is a growing industry that creates new jobs.
- **Protects the Environment and Promotes Better Health**
 - Renewables are clean energy, causes no air or water pollution.
 - Better public health, reduce asthma, lung disease and cancer.

