

Consumers Energy's Experimental Advanced Renewable Program (EARP)

Michigan Renewable Energy Program

Lansing, MI

April 28, 2010



Renewable Energy Plan Update

- **Renewable energy mandate created by Public Act 295 of 2008**
 - **Additional 500 MW of New Renewable Capacity by 2015**
 - **≈3.5 Million Megawatt-Hours per year by 2015**
 - **More than double the Company's existing Renewable Energy Generation and Purchases**

- **Incremental Costs were estimated at \$78 Million / Year (2009 REP).**
- **Current estimates are \$23 Million / Year beginning Sept 2011**
 - **Recovered through flat customer surcharge**
 - **Surcharges set at or below caps set in PA 295**
 - ◆ **Initially \$2.50/month for residential customers**
 - ◆ **Initially \$3.70 to \$16.58/month for commercial customers**
 - ◆ **Surcharges expected to be reduced in Sept 2011**

- **Experimental Advanced Renewable Program (EARP)**
 - **2 MW Solar PV under Standard Offer Contract**
 - **\$14.5 Million**

What Is a Standard Offer Contract?

- **A contract established at a published price with standardized terms and conditions for energy produced by specific technologies.**
- **Prices designed to cover the cost of installing, operating, and maintaining a generator with a reasonable return on the investment.**
 - **The price also considers of the cost of financing, taxes, tax credits, and other incentives.**
- **One of many mechanisms that can be used to increase the penetration of renewable energy.**

Experimental Advanced Renewable Program

- **Program was available to all Consumers Energy electric distribution customers.**
 - **Customer must own the system.**
- **Solar Energy Feed-in Tariff Pilot.**
 - **2,000 kW Solar Photovoltaic Energy.**
 - **500 kW reserved for residential customers.**
- **Size of system determines rate class.**
 - **Residential Systems - 1 kW to 20 kW**
 - **Commercial Systems - 20 kW to 150 kW**
- **100% of Capacity has been awarded**

Experimental Advanced Renewable Program

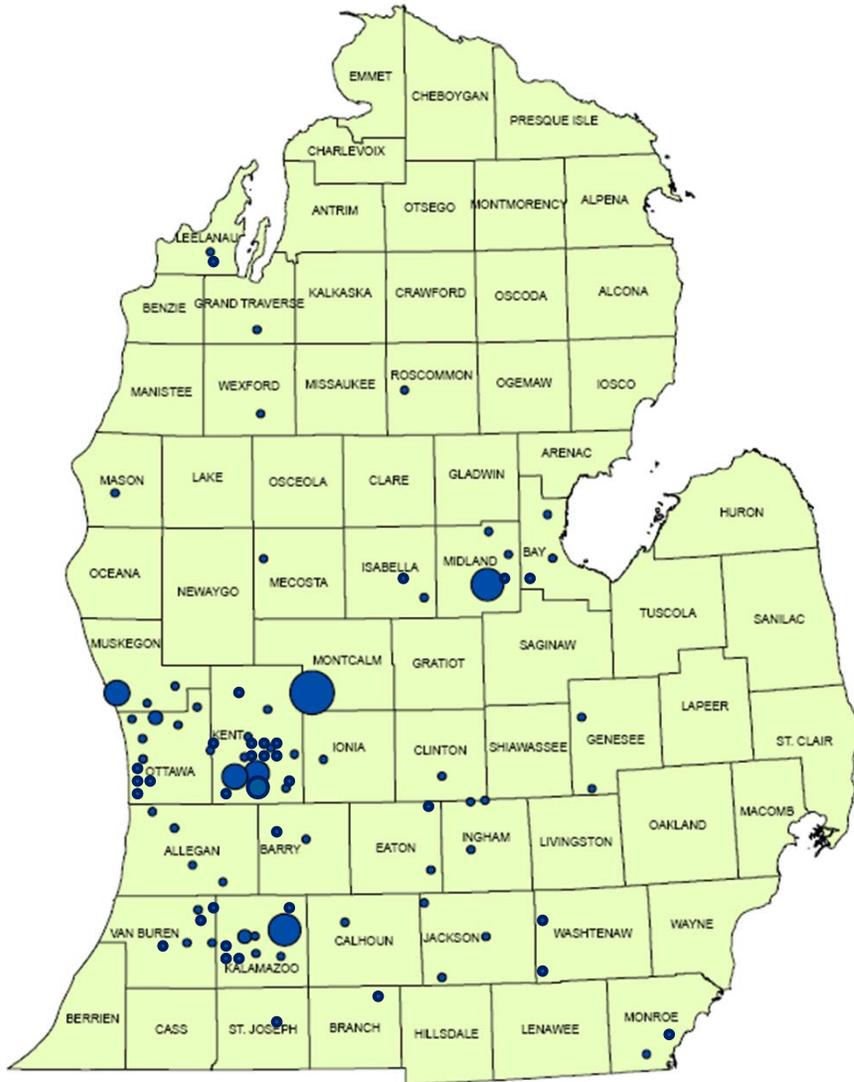
- **Customers are offered fixed contracts for up to 12 years.**

Customer Class	1 st Phase		2 nd Phase	
	Residential	65.0¢/kWh	200 kW	52.5¢/kWh
Commercial	45.0¢/kWh	833 kW	37.5¢/kWh	687 kW

- **Consumers purchases all of the solar energy system's output.**
 - **Purchase includes Energy, Capacity and Renewable Energy Credits (RECs).**



EARP Program Update thru March 2011



- **≈ 1,975 kW Online**
- **≈ 1,370 MWh Generated**
- **≈ 4,300 RECs created**
- **≈ 2,000 kW expected to be online by 5/1/11**
- **≈ 15.4% Avg Capacity Factor**

Future of EARP

- **Enhancement of Existing Procedures**
 - **Billing Challenges**
 - **Advanced Metering**
 - **Regular Customer Correspondence**

- **Data Analysis Topics**
 - **Solar Production Trends in Michigan**
 - **Best Practices**
 - **Economic Feasibility**
 - **Standard Offer Contract Conclusions**

Midland



Haslett



Midland



Holland



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Grand Rapids



Jackson



Questions?
