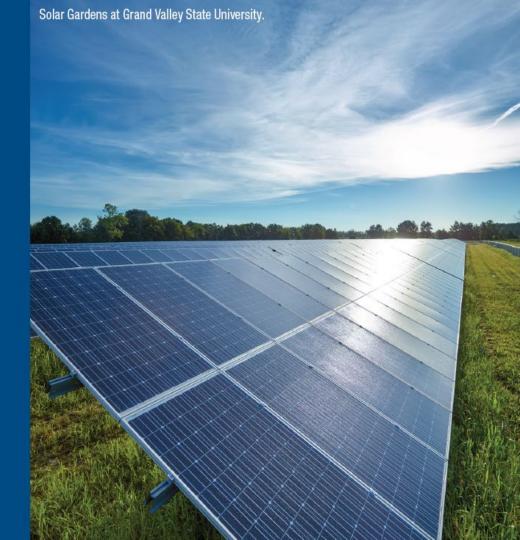
A New Energy Future for Michigan

Integrated Resource Plan will help lay the foundation for key decisions

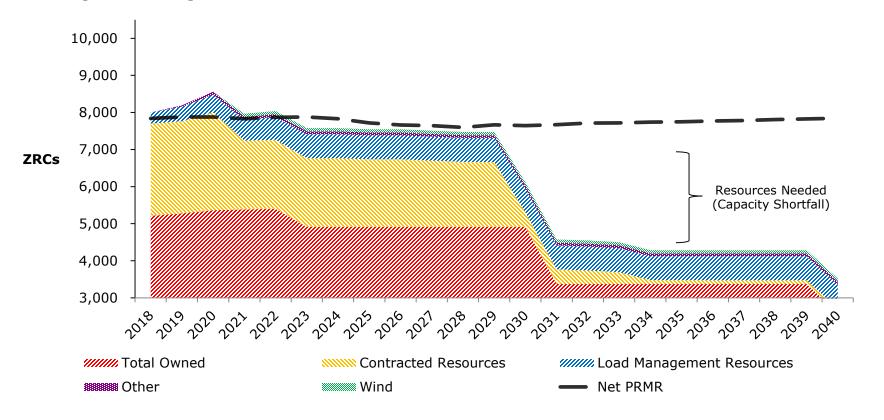
onsumers energy is seizing a once-in-ageneration opportunity to redefine our company and to help reshape Michigan's energy future. The plan is anchored by our triple bottom line of people, planet and prosperity.

If approved and implemented, our IRP would place us on a path to achieve these overarching clean energy goals by 2040:

- Zero coal use to generate electricity.
- 80 percent carbon emissions reduction.



Capacity Position





<u>IRP Future Worlds Analyzed</u>

Business as Usual



Sustained low natural gas prices and electric demand, no need for carbon regulation as a result of age-related coal retirements and renewable portfolio standards

Emerging Technologies



Technological advancements and economies of scale drive increase in clean energy (renewables, energy efficiency, demand response),

Environmental Policy



Stringent carbon
regulations drive
increased coal retirements
and higher reliance on
natural gas while clean
energy programs and
standards are raised

A Range of Supply Options





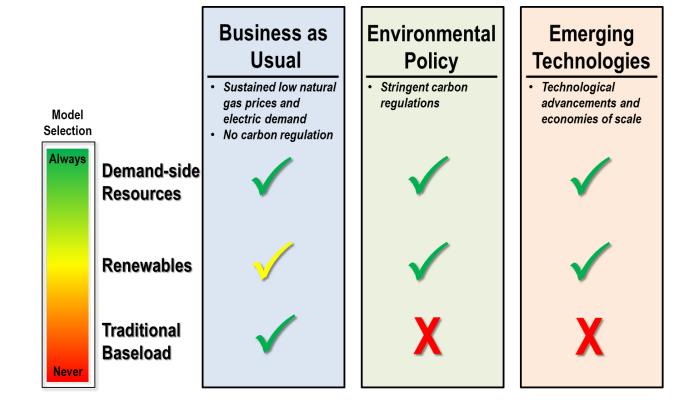








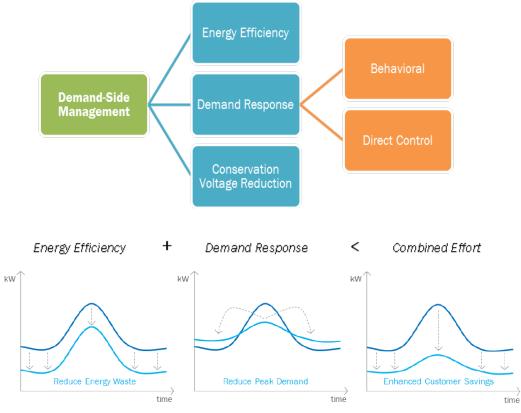
Modeling Results



Demand-Side Management Programs

 A suite of programs targeting residential, commercial, and industrial customers to reduce loads and stresses on the electrical system when needed most.

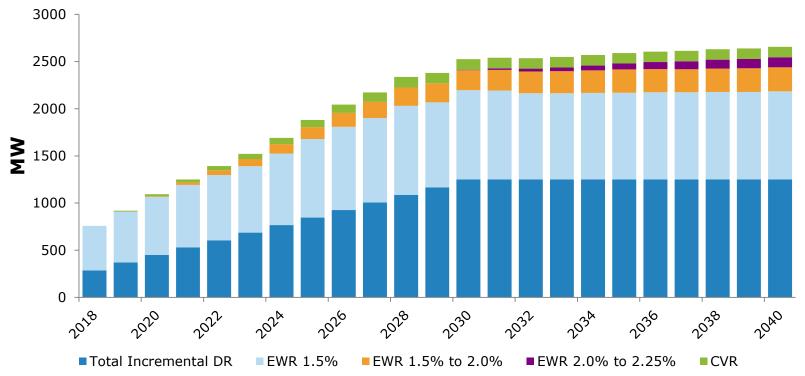
 Customer savings are enhanced through synergies from shared technology platforms.





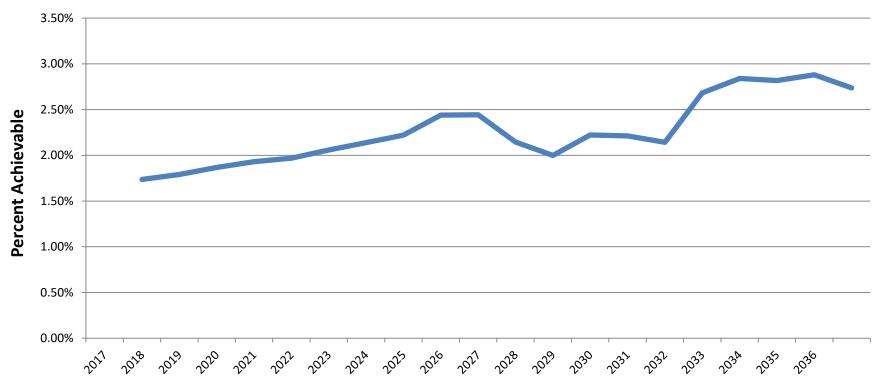
Demand-Side Resources

DSM Projected MW Reductions from 2018 Levels



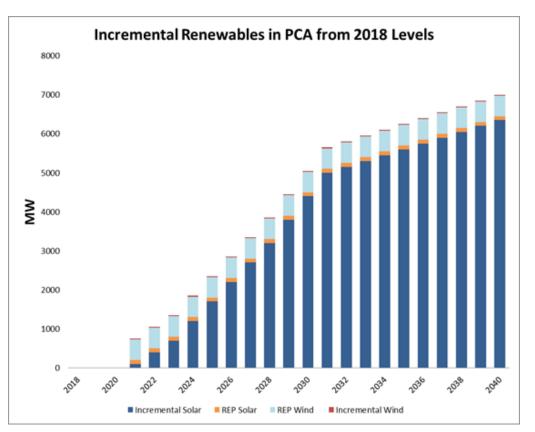
Energy Efficiency Potential

Incremental EE Savings



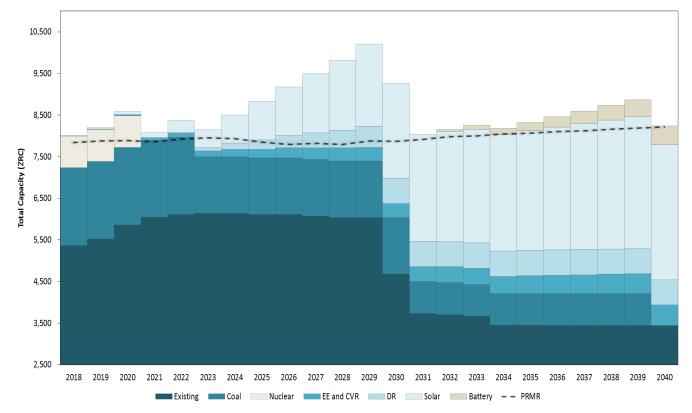
Proposed Solar Growth

Incremental and modular type growth of solar in the mid-2020s helps ensure system reliability and affordability as these new resources added to the electric system.





Incremental and Modular Plan



- Growth is
 Incremental and
 modular
- Planning Ahead to offset future capacity needs
- Ensures
 reliability and
 affordability
 because
 resources are
 incremental and
 modular



Cleaner Energy Future

- Transition to Zero Coal by 2040
- Leveraging grid modernization and virtual "power plants" to create a leaner supply
- Solar additions that can be implemented in increments and a modular fashion

