



DTE Energy[®]

Energy Policy and CO2 Mitigation Michigan

19th Annual Energy And Climate Change Seminar – 5/13/14

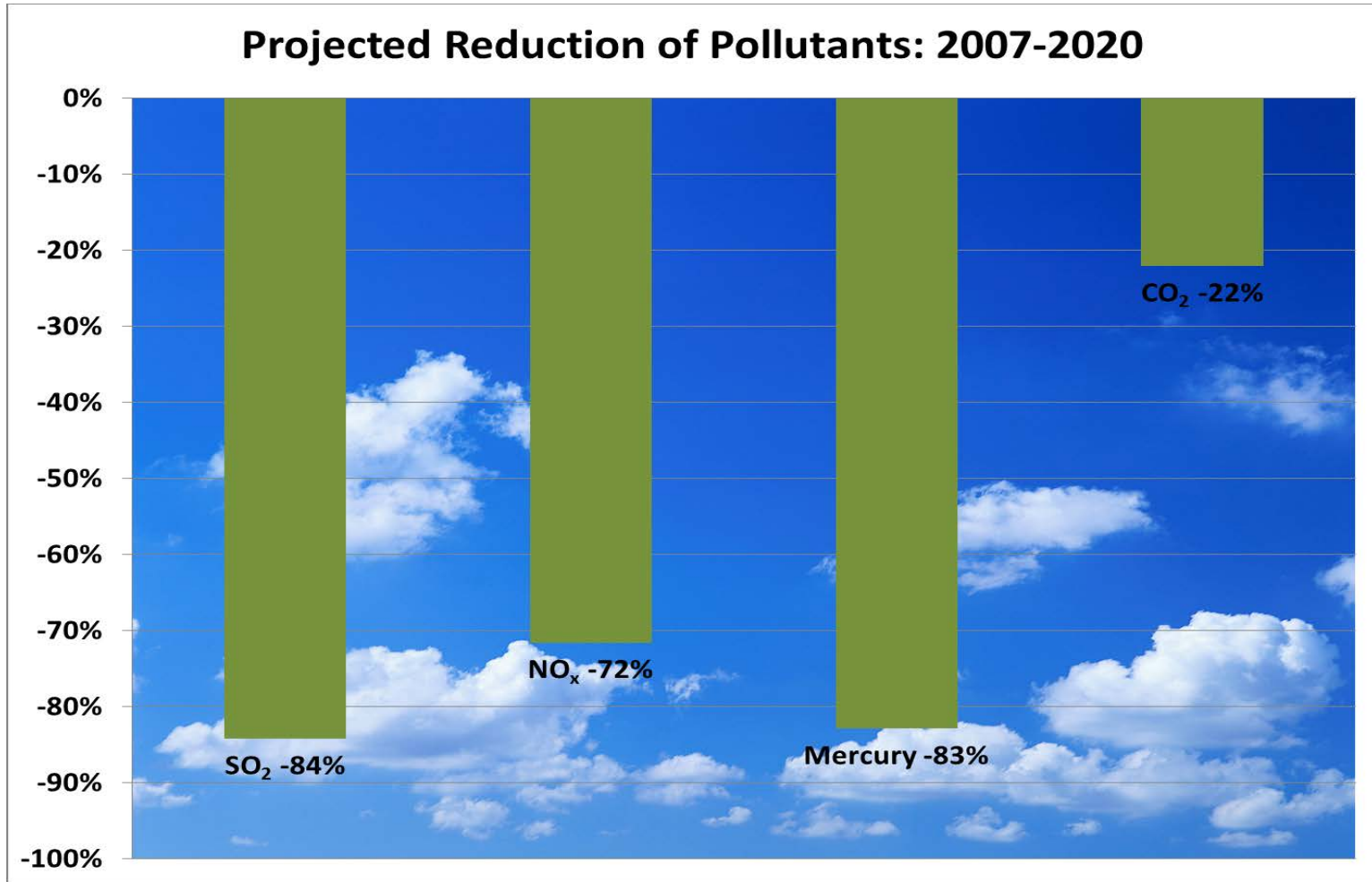
Skiles Boyd



Michigan Energy Policy - History

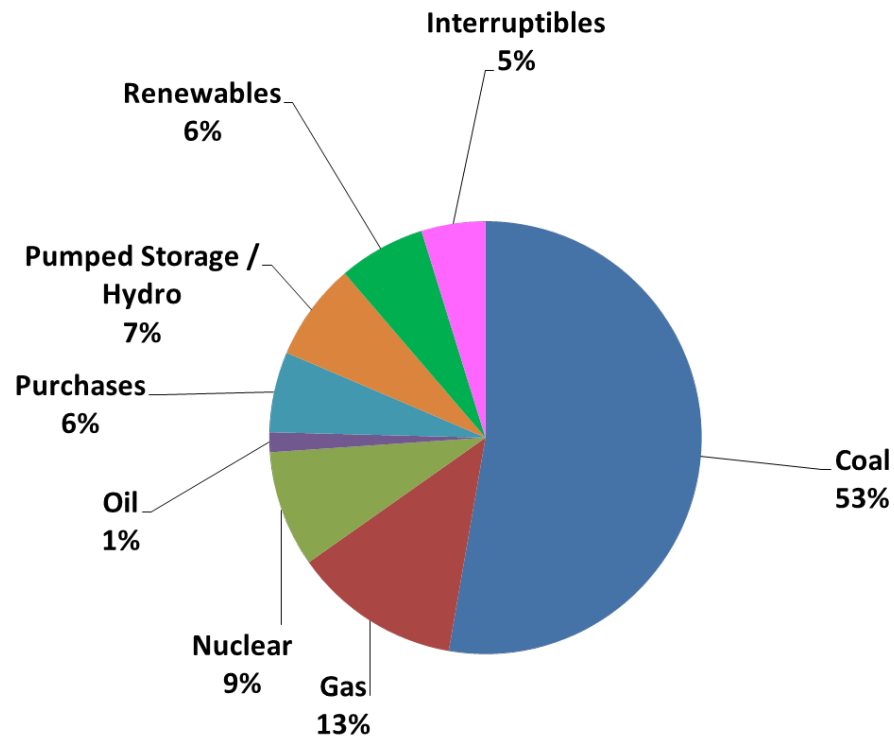
- Trend toward market vs. regulated structure and increased renewables
Customers (Industrial) free to enter/leave regulated structure
Low natural gas prices – leave / High natural gas prices - return
- 2008 Legislation
 - Brought all interested parties together (Utilities/Independent suppliers/Environmental Groups/Customer Groups)
 - Established plan to 2015
 - 10% Renewables
 - 5% Energy efficiency
 - 10% cap on customers direct to market suppliers
- 2009/2010 Economic Downturn
- Various efforts to increase/eliminate renewables standard and/or remove cap on direct purchase from independent generators
- 2012 Ballot proposal
 - 25% renewables by 2025
 - Failed

Air Emissions Reductions: Good News



Investments are making large differences in air quality

Capacity Resource Mix in 2013



- Governors Direction
 - Adaptability
 - Reasonable/Achievable/Efficient range of goals to 2025
 - Eliminate energy waste
 - Reduce coal – replace with renewables and natural gas
 - Reliability
 - Top quartile in outages and duration
 - Never experience significant outages due to lack of supply
 - Affordability
 - Below national average for residential combined energy bills
 - Ensure energy intensive industries can choose Michigan
 - Protection of the Environment
 - Energy Generation part of healthier future (Reduce mercury, sulfur dioxide and particulate)
 - Increase renewable portfolio based on relative cost, reliability and environmental benefits

Expect carbon emissions to continue downward trend

- President has an overall goal of a 17% reduction in greenhouse gas emissions from 2005 by 2020.
Through 2012, the Michigan's electric sector has achieved a 16.1% reduction from 2005 levels
- Shale gas, as a potential source for future electricity generation, is abundant and relatively low priced?
- EPA proposed new greenhouse gas emission standards for new electricity generation sources. Made new coal-fired plants very unlikely
- The EPA plans to propose standards for existing and modified sources by June 1, 2014
 - The Clean Air Act was not written to address greenhouse gas emissions and Sections to be used have not been tested in court
 - Plans to finalize existing source standards by June 1, 2015 and require State Implementation Plans by June, 2016
 - Keys will be level of reduction, and time and flexibility to achieve



It is critical that all affected parties participate in the development of the carbon standards and implementation plans



- Opportunity to make significant progress on greenhouse gas emission reductions within the industry
 - Other regulations have already driven some fleet transition
 - Cost of renewable and natural gas generation has reduced
 - Much of existing coal fleet is aging
- Clean Air Act not ideal for greenhouse gas regulation, but it is what we have
- The cost is likely significant
 - Some generation fleet transition cost would have to occur regardless
 - Opportunity to establish direction for the future
 - Short implementation time would result in customer price shock
 - Is there enough available gas (and transmission) and electricity capacity?
 - Transitioning the fleet some, over a reasonable timeframe has advantages
 - Reduces CO₂ significantly
 - Reduces other emissions
 - Potentially diversifies generation (renewables, energy efficiency, natural gas, remaining coal)

What is Happening in Michigan?

- We are talking/evaluating options on carbon requirements
 - Public Service Commission staff
 - Michigan Department of Environmental Quality
 - Customer Groups
 - Environmental Groups
- We are talking about/evaluating Michigan energy policy options
 - Regulated vs. open market based
 - Renewables opportunities
 - Efficiency opportunities (best structure to encourage)
- We are starting to discuss how to tie together in the best interest of Michigan



Questions/Discussion