



# DTE Energy<sup>®</sup>

## Energy Policy and CO2 Mitigation Michigan

### 19<sup>th</sup> Annual Energy And Climate Change Seminar – 5/13/14

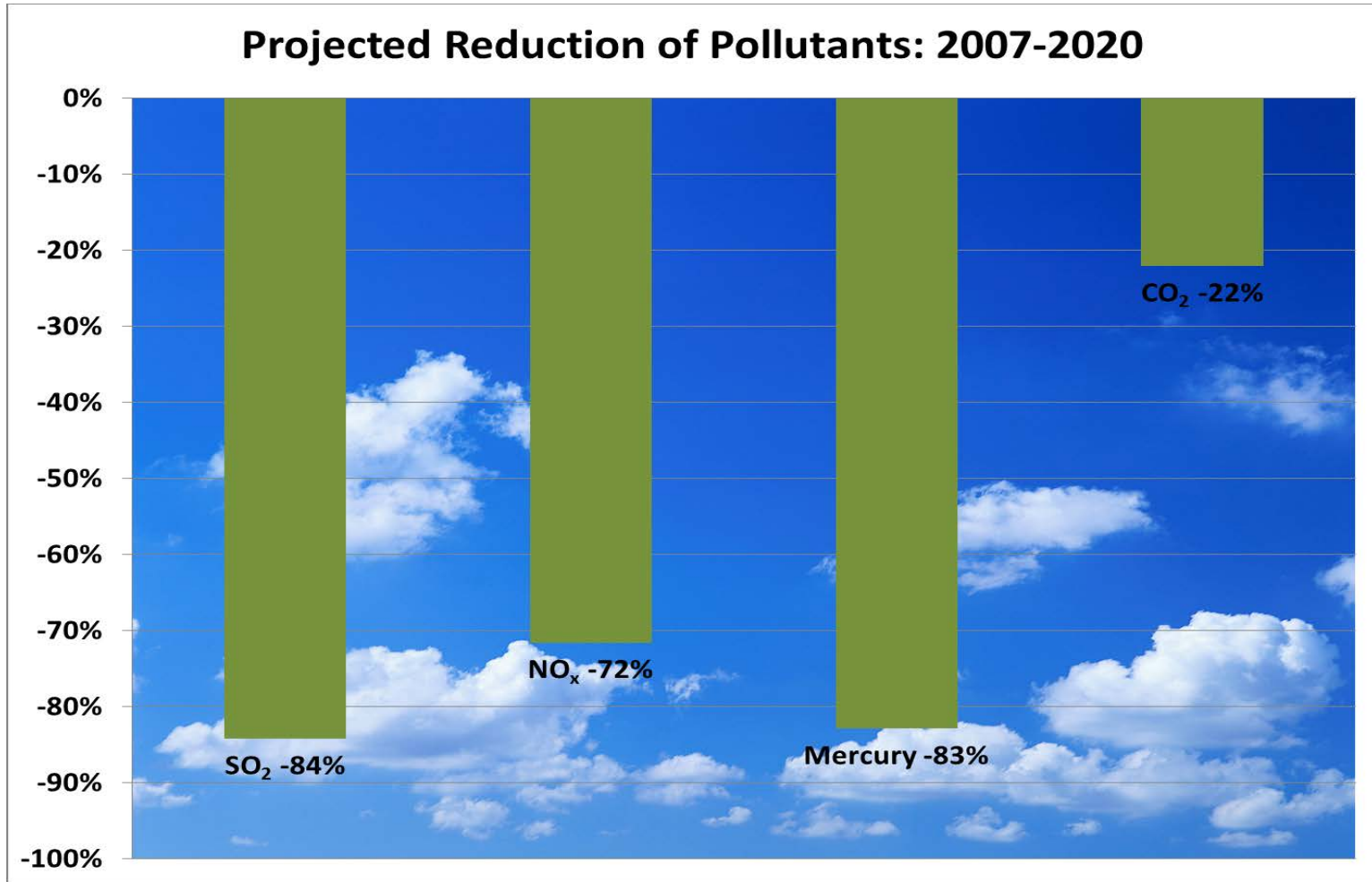
Skiles Boyd



# Michigan Energy Policy - History

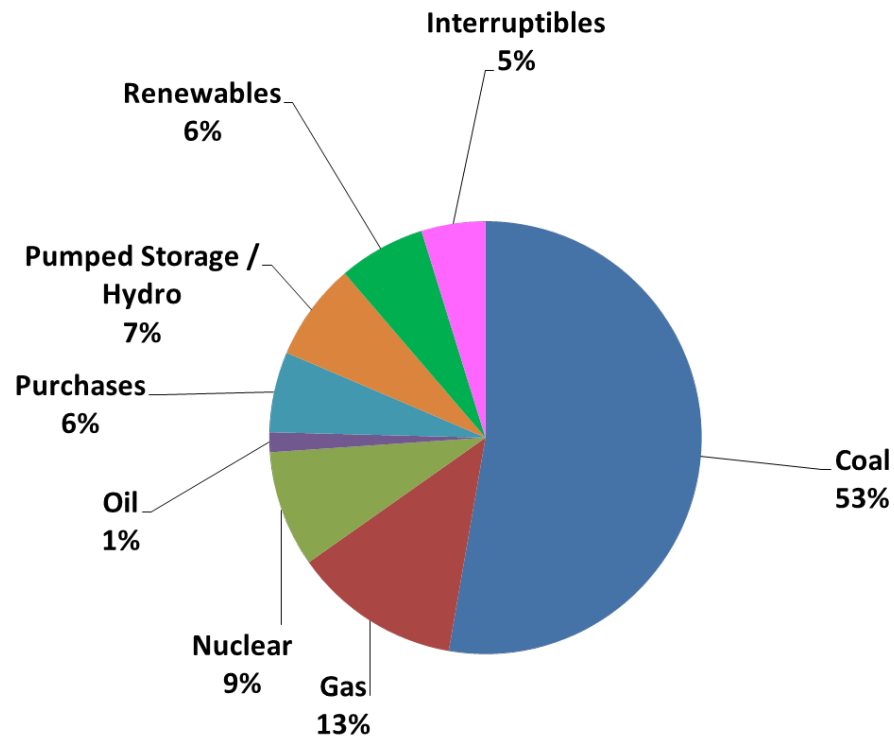
- Trend toward market vs. regulated structure and increased renewables  
Customers (Industrial) free to enter/leave regulated structure  
Low natural gas prices – leave / High natural gas prices - return
- 2008 Legislation
  - Brought all interested parties together (Utilities/Independent suppliers/Environmental 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 CO<sub>2</sub> 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