



**NARUC**

*Serving the consumer interest  
by seeking to improve the  
quality and effectiveness  
of public utility regulation  
in America.*

# Challenges of Regulation of the Electric Industry in the United States

**ACERCA/NARUC Meeting**

**June 4, 2009**

**Managua, Nicaragua**

**Jess Totten, Public Utility Commission of Texas**



# Topics

- Electric Industry Long-term Trends
- Economic Regulation
- Prices
- Recent Challenges
  - Regional Transmission Organizations
  - Renewable Energy
- NARUC Role



# Long-term Trends

- Technological development
  - Increased generation efficiency
  - Fuel diversification
  - Transmission, distribution devices
  - Communications and information
- Changes in infrastructure
  - Interconnection of transmission systems
  - Interconnection of new generation facilities



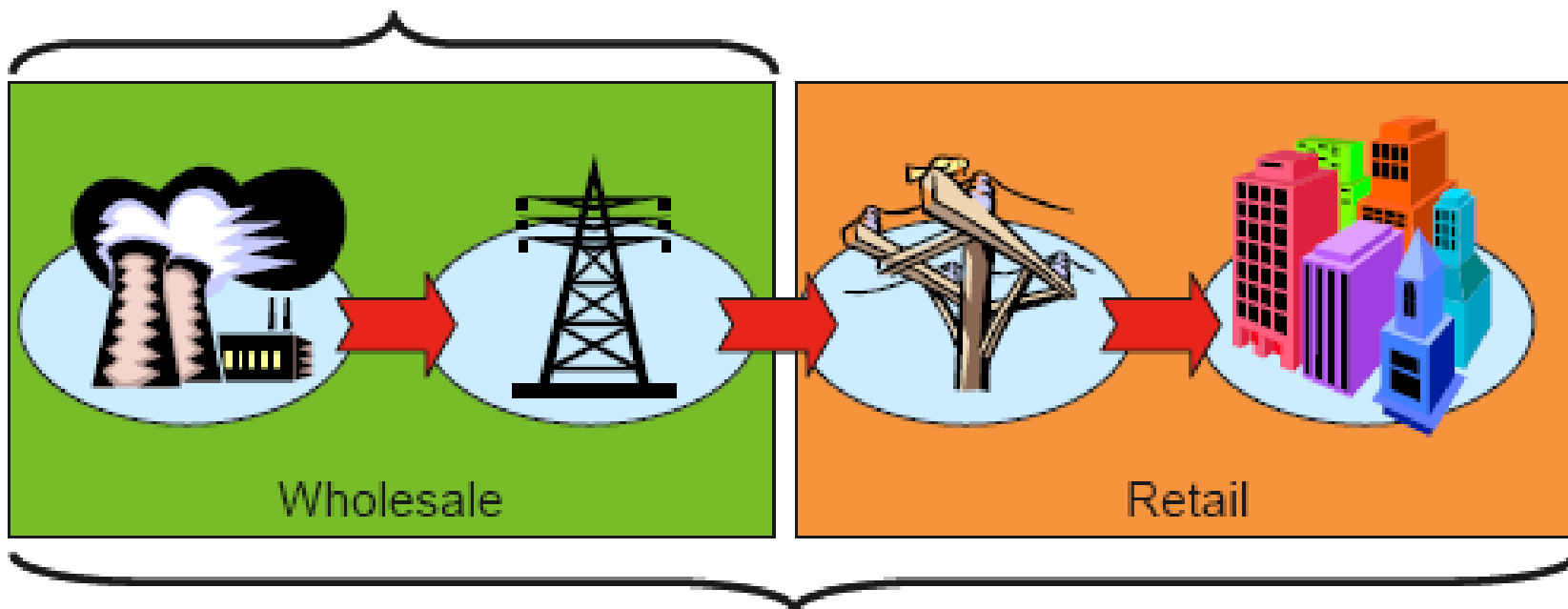
## Long-term Trends

- Role of electricity in the economy
  - Electricity has become more important in meeting needs of business and domestic consumers
- Air emissions
  - Reducing emissions from electric generation has been important in meeting acid-rain and ozone standards
  - Electric generation is a key industry in meeting future global warming rules



# Economic Regulation

Federal Jurisdiction

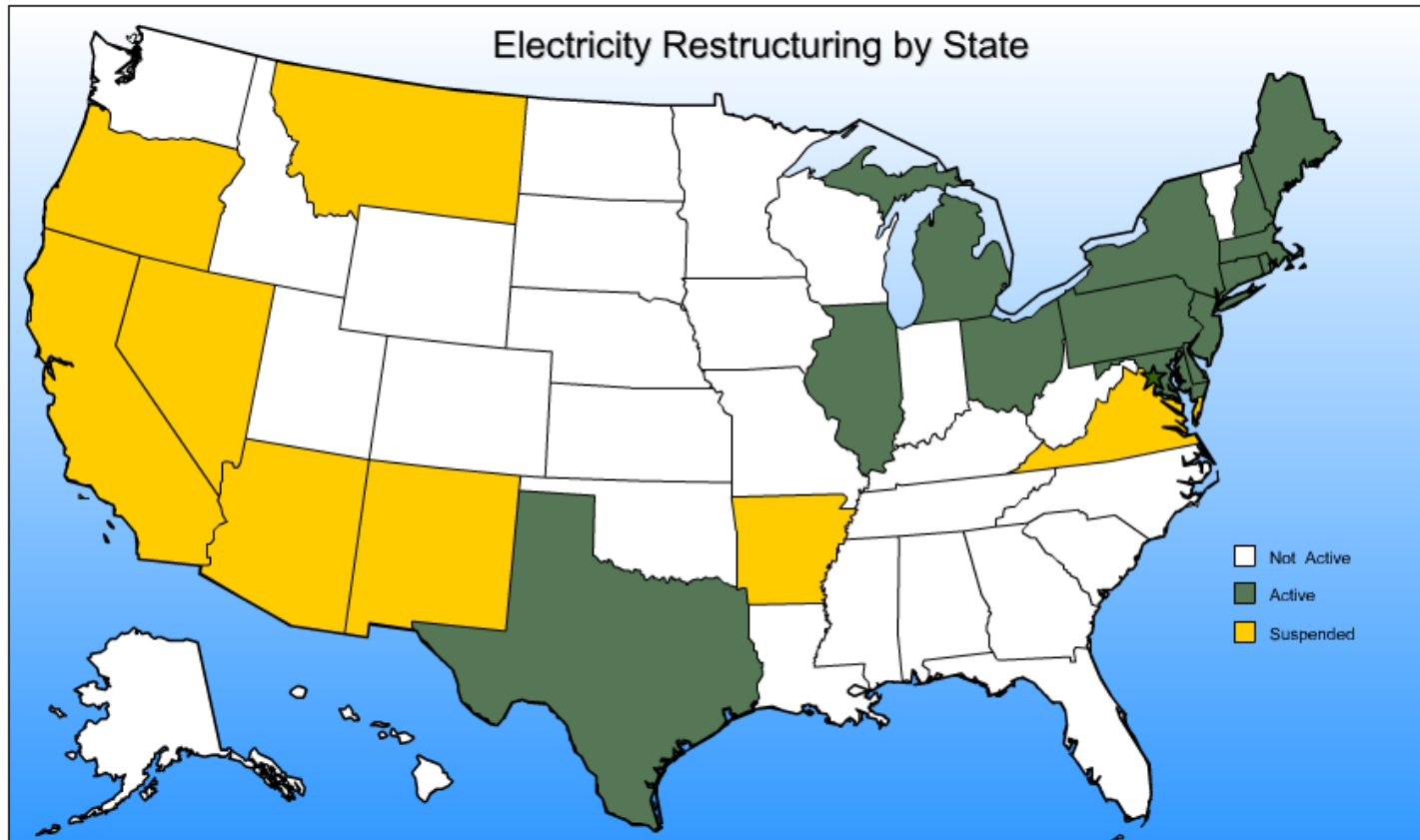


State Jurisdiction – Facility Siting, Distribution, Retail Rates

Industry regulation in the US is shared between federal and state government



# Pricing policies differ

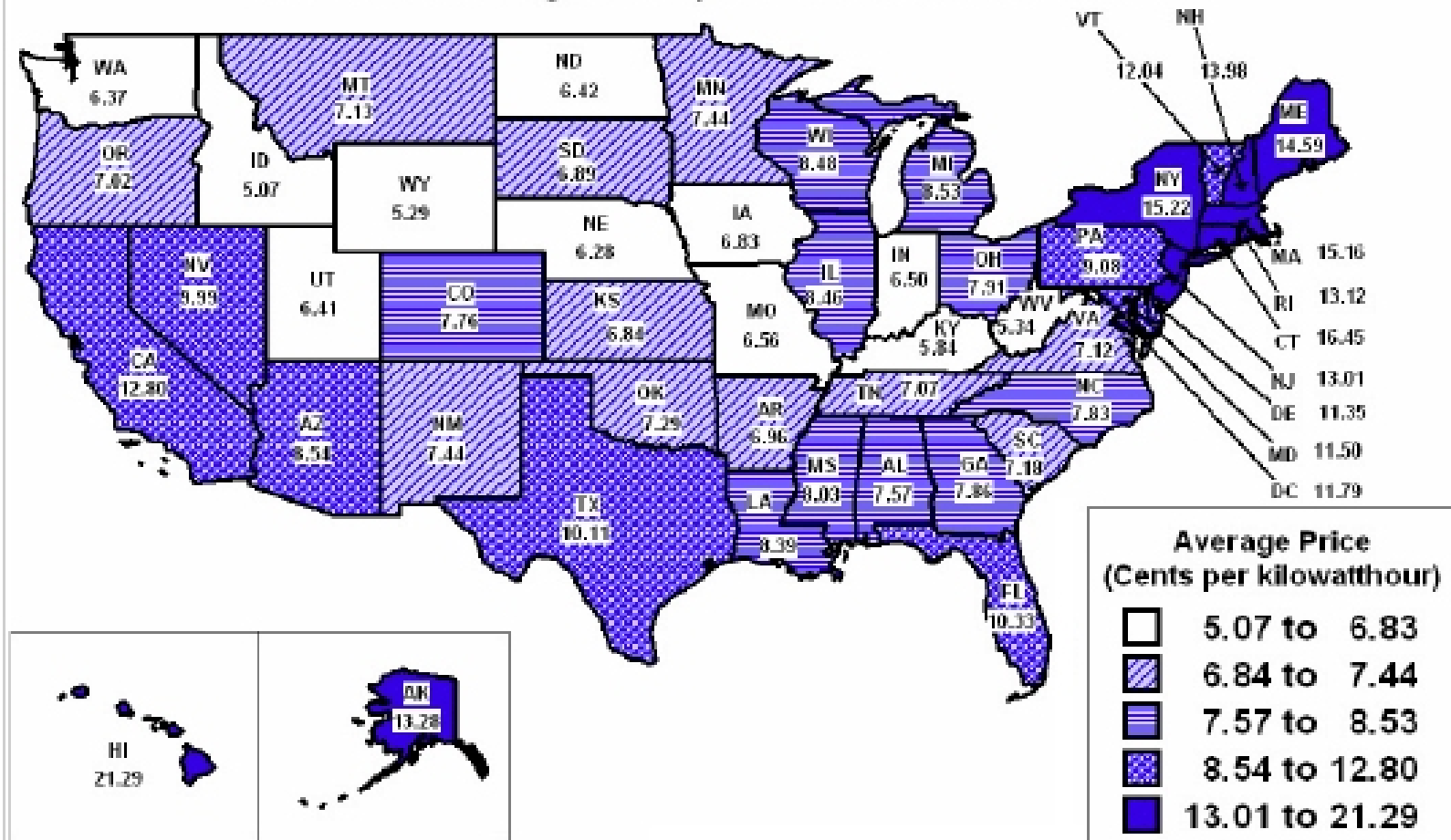


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# Prices differ

U.S. Total Average Price per kilowatthour is 9.13 Cents



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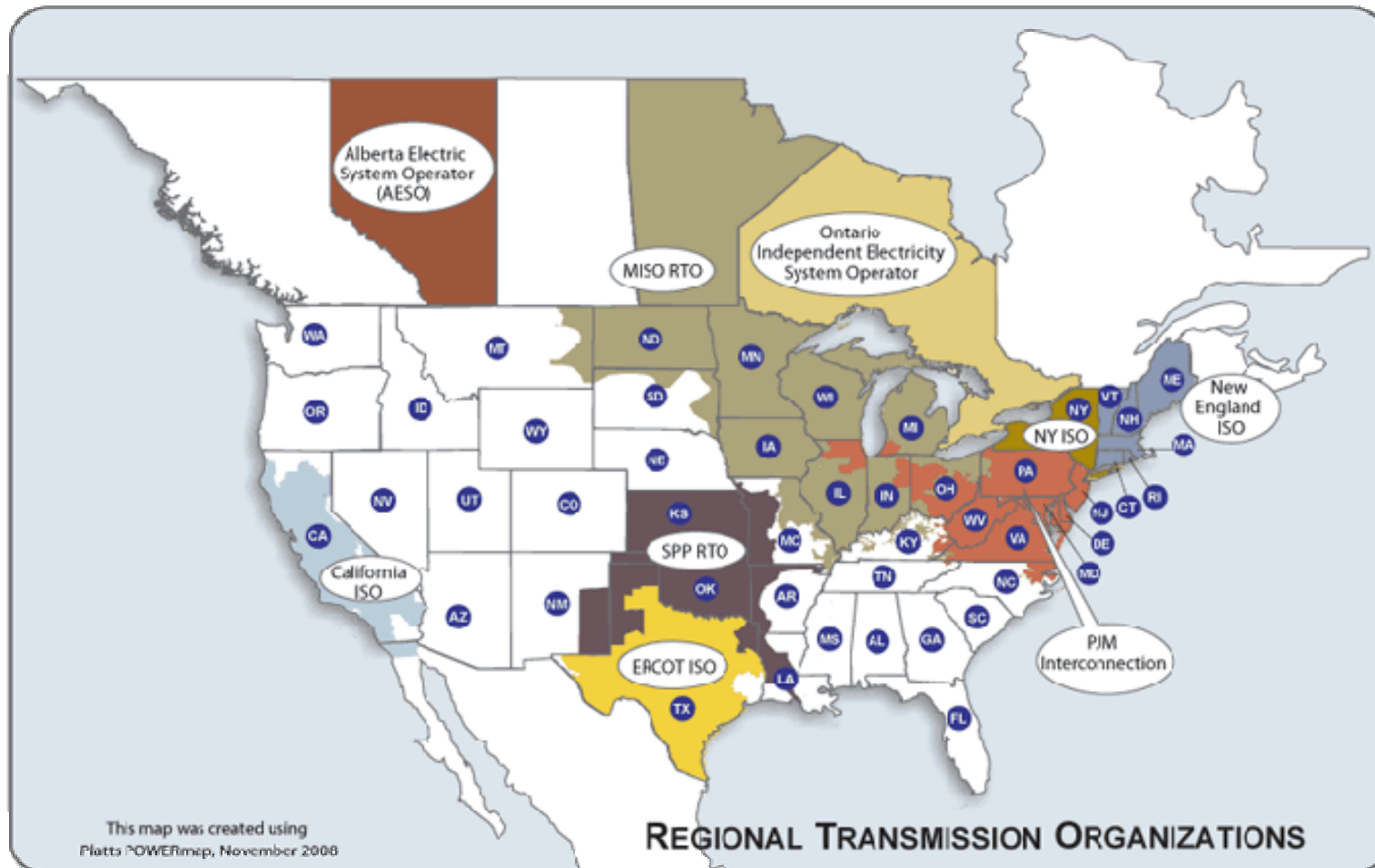
# Regional Transmission Organizations

- Adopted to foster competition
  - Operate energy markets
  - Maintain reliable interconnected electric systems
- Most RTOs are regulated by federal government
- States have an interest in success of market operations and level of reliability





# Regional Transmission Organizations



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# Regional Transmission Organizations

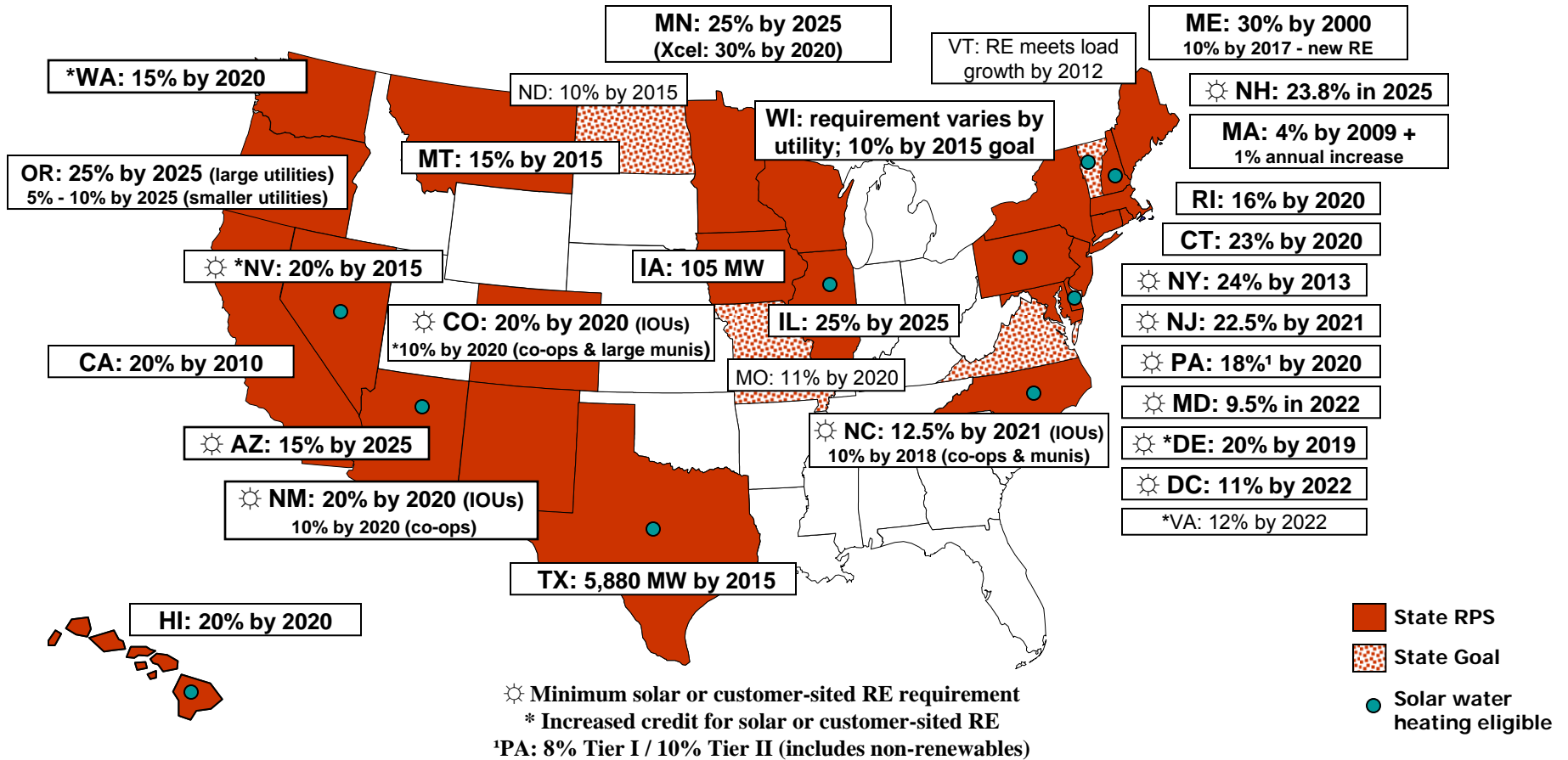
- Federal regulation, approval of tariffs
  - Private sector owners of electric facilities participate in management, usually through advisory committees
  - State government may also participate in management through advisory committee
- Key issues
  - Transmission operations, market operations, reliability, interconnection of new resources, incentive for new generation facilities



# Renewable Energy

- Texas has implemented successful renewable energy program
  - Over 6,000 mw of wind energy installed in 9 years
- Policies supporting renewable energy
  - Renewable portfolio standard and credit trading program
  - Supportive transmission policies

# Renewables Portfolio Standards





# NARUC supports good regulation

- Coordination among state and federal regulators
- Education
- Information on industry developments
- Source of information for Congress from state regulators