

2018 WESTERN LAMPAC LAS-VEGAS NEVADA



DONNIE COLSTON
DIRECTOR, UTILITY DEPARTMENT

IBEW MESSAGE

The IBEW supports a diverse, balanced and resilient energy portfolio that includes renewables like wind, solar and hydro, while preserving gas, and key baseload energy sources such as coal and nuclear.

- **Reliability**
 - 24-7
 - 30 – 60 day of fuel supply
- **Fuel Diversity**
 - Availability, reliability, cost, performance
- **Infrastructure**
 - electric / gas transmission lines

INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS





NERC
NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION



Federal Energy
Regulatory Commission

 **EPA**
United States
Environmental Protection
Agency



U.S. DEPARTMENT OF
ENERGY



California ISO

ercot 

 **pjm**[®]

BASELOAD, CLEAN,
RENEWABLE
ENERGY



U.S. DEPARTMENT OF **ENERGY**

Secretary of Energy: Rick Perry

- Reliability and Resiliency NOPR
- Federal Power Act 202 (c)
- Defense Production Act
- Small Modular Coal-Based
 - 'Power Plants of the Future'

INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS





Federal Energy Regulatory Commission

Chairman: Kevin J. McIntyre



Commissioners



Cheryl LaFleur



Richard Glick

The **Federal Energy Regulatory Commission**, or **FERC**, is an independent agency that regulates the interstate transmission of electricity, natural gas, and oil.

INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS



Acting Administrator: Andrew Wheeler

Executive Order 13777, “Enforcing the Regulatory Reform Agenda”

- **2012 MATTS Rule**
 - Supreme Court decision
 - Cost Benefit Analysis
 - Changes to MATS sent to OMB
- **Clean Power Plan**
 - Court of Appeals, abeyance
 - Testing courts patience
- **Affordable Clean Energy (ACE) rule**
 - EPA offers state guidance on technologies
 - States wide latitude
 - Inside the fence approach

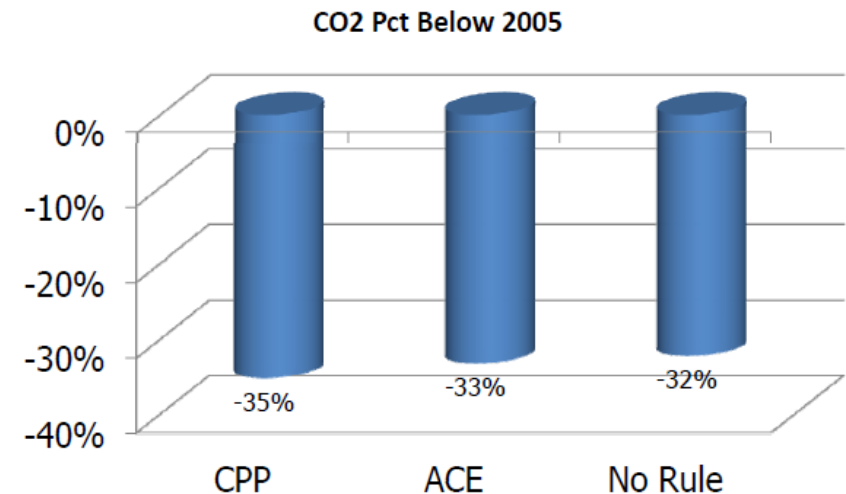
Affordable Clean Energy Rule

HOW IT WORKS

- **Step 1**
 - EPA would finalize guidelines that determine the Best System of Emission Reduction (BSER)
- **Step 2**
 - States have 3 years to prepare and submit a plan that establishes a standard of performance
- **Step 3**
 - EPA would have 12 months to determine its approvability.
 - If state does not submit a plan or ails to submit an approvable plan, EPA would have 2 years to develop a federal plan.

CPP and ACE Emission reductions

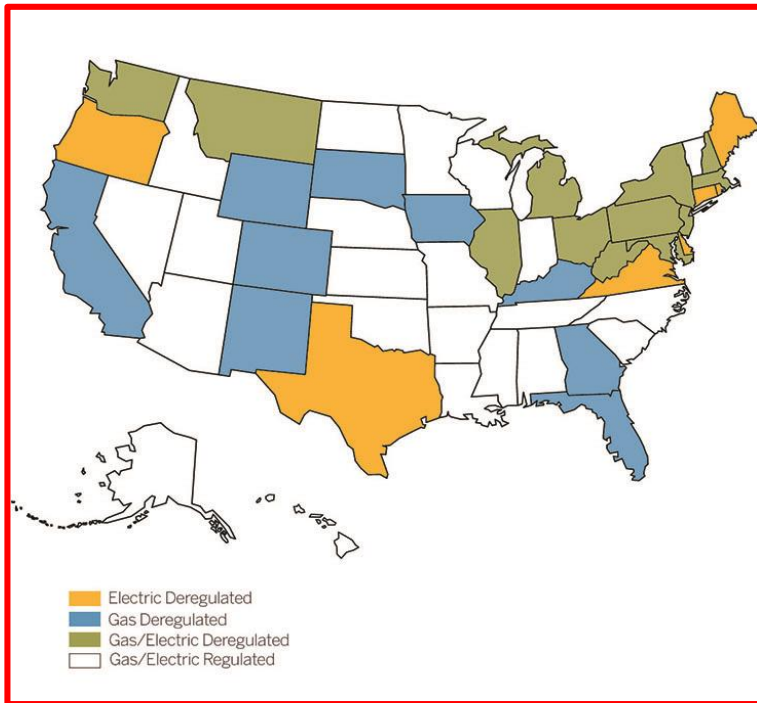
Both CPP and ACE meet 32% Paris Target (2025 EGU CO₂ emission reduction from 2005 levels)



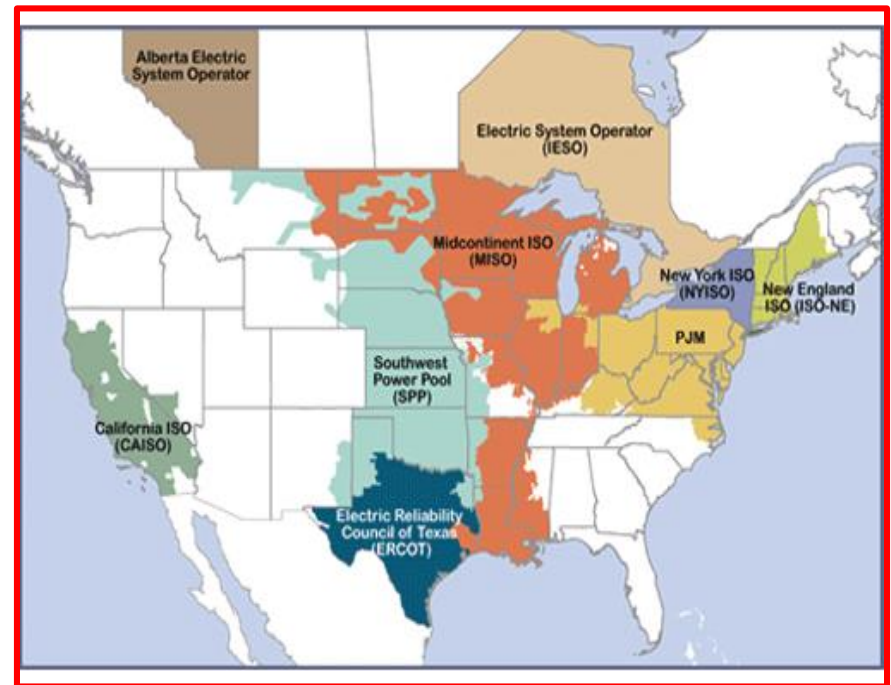
Source: US EPA ACE RIA (August 2018), Table 3-6.

ENERGY MARKETS

Regulated/Deregulated States



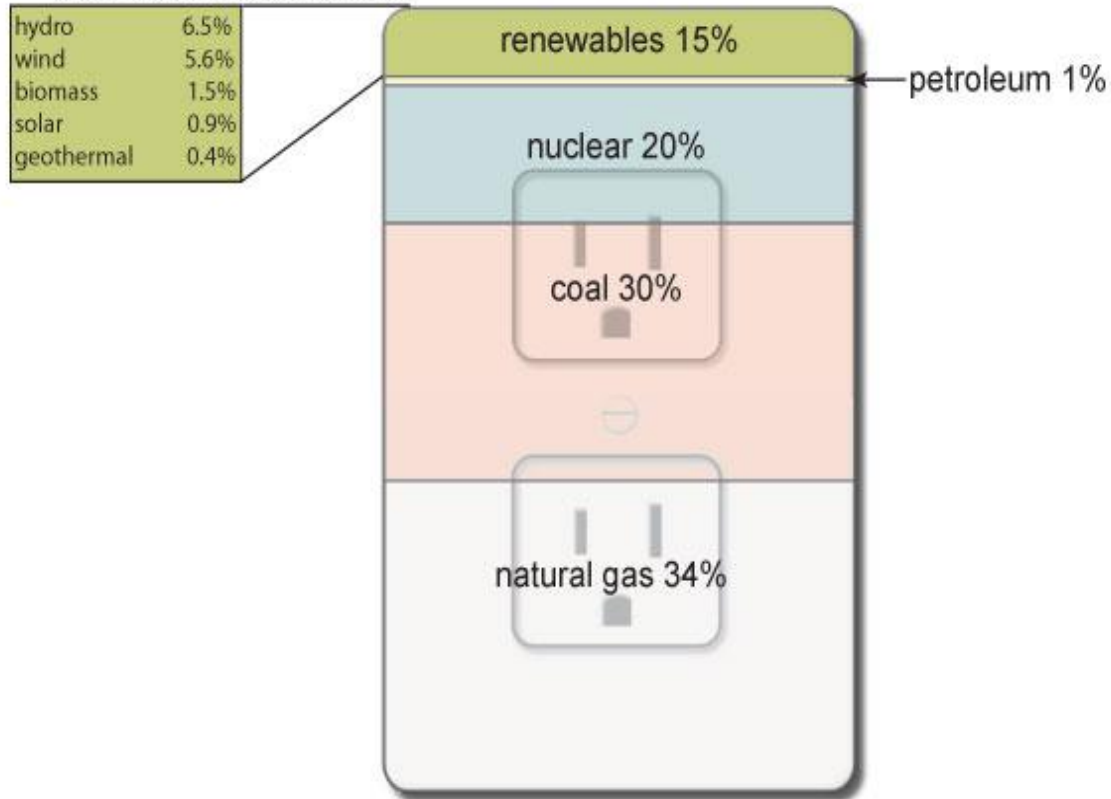
Regional Transmission Operator / Independent System Operator



Sources of U.S. Electricity Generation

Sources of U.S. electricity generation, 2016

Total = 4.1 trillion kilowatthours



Note: Electricity generation from utility-scale facilities.

Source: U.S. Energy Information Administration, *Electric Power Monthly*, February 2017, preliminary data for 2016

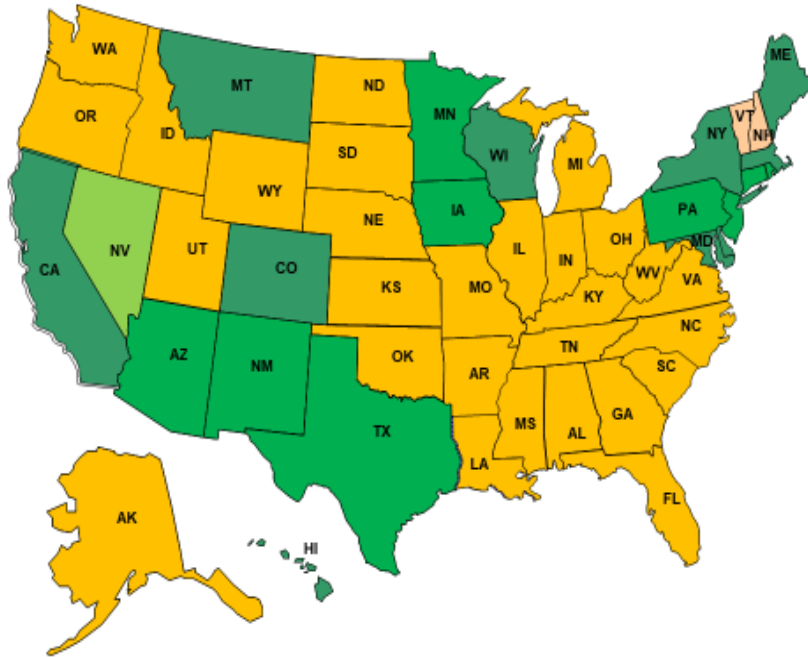


INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS



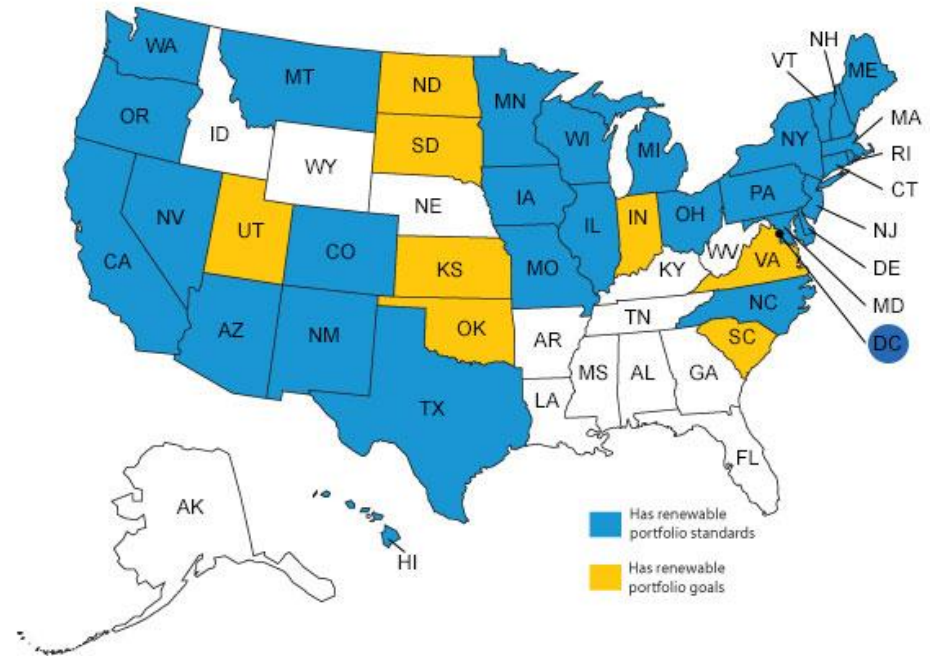
States driving renewable standards

States with Renewable Standards 2005



- States with Renewable Electricity Standards in 2005
- States with Amended Renewable Electricity Standards in 2005

Most states have renewable portfolio standards and goals



Source: Database of State Incentives for Renewable Energy (as of June 2016)

Clean/Renewable Energy

- Vogtle Nuclear
- South Carolina / Santee Cooper Nuclear units
- Hawaii 100% renewable by 2045
- California 100% carbon free by 2045
- MIT Study
- Challenges to Grid Reliability
 - Labor/Management must be part of the discussion for change
 - Resilience and preparedness
 - Skilled workforce
 - Negative impact on middleclass jobs



BEAVER VALLEY NUCLEAR PLANT



INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS



Baseload Generation

NERC

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

- Utilities continue move away from baseload
- 50 gigawatts have retired since 2012
- FERC reports another 26 gigawatts will retire by 2020
- First Energy retiring 7,145 MW
 - Retire 3,128 Nuclear
 - Retire 4,017 Coal/Oil
- 28 gigawatts of renewable energy came online in 2017

Synopsis of NERC Reliability Assessments

The Changing Resource Mix and the Impacts of Conventional Generation Retirements

The rapid changes occurring in the generation resource mix and technologies are altering the operational characteristics of the grid and will challenge system planners and operators to maintain reliability.

Impact of Premature Retirements:
Conventional units, such as coal plants, provide frequency support services as a function of their large spinning generators and governor-control settings along with reactive support for voltage control.

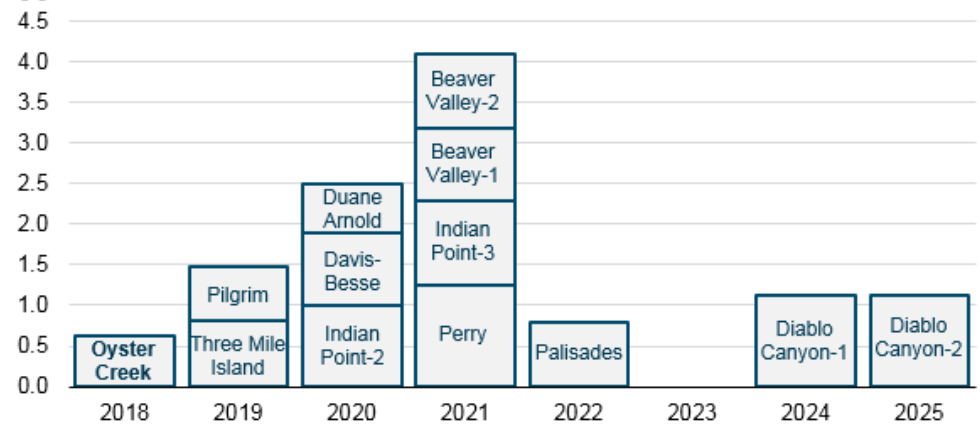
INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS



Clean Baseload Energy, Nuclear

- **Illinois**
 - Quad Cities
 - Clinton
- **New York**
 - Fitzpatrick
 - Nine Mile
 - Ginna
- **Connecticut**
- **New Jersey**
 - Salem
 - Hope Creek
- **Ohio**
 - Davis-Besse
 - Perry 1
- **Pennsylvania**
 - Beaver Valley
 - Units 1 & 2

Announced nuclear reactor retirement generation capacities (2018-2025)
gigawatts



These nuclear plants provide 24/7/365 electricity that does not release carbon dioxide or other air pollutants. Recent history shows that this generation will be overwhelmingly replaced by power from fossil fuel plants, which will make environmental goals impossible to achieve. We also know that electricity prices for consumers rise in the aftermath of plant closures.

INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS





FirstEnergy[®]

- **First Energy CEO, Chuck Jones**
 - Uncompetitive,
 - Selling Generation regardless
 - Exiting deregulated markets
- **First Energy Files bankruptcy April 2018**
- **Cannot compete in wholesale markets**
- **Decommissioning 3 Nuclear facilities**
- **2 Studies on impact – < 5 thousand jobs**
- **Creditors Board – IBEW representative**
- **Retention Program**
- **Announces all coal generation stations to retire, August 2018**

INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS



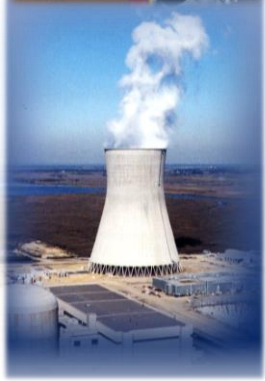
Congressional Action Needed

- Reliability is jeopardized
- Local economy is jeopardized
- Jobs are being jeopardized



President Stephenson;
“Going forward, America needs a truly bipartisan energy plan that can effectively combat global warming, encourage the development of alternative forms of energy such as wind, solar and clean coal and investment in energy grid modernization.





QUESTIONS ?

Thanks for your time

INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS

