A Thrill Packed Introduction To State Public Utility Commissions

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NARUC & Grants & Research

- NARUC members are the State PUCs
- G&R Dept. addresses research and facilitates dialogue on key questions facing Commissions
- 17 current projects covering infrastructure, environment, regulatory design, finance, security and other issues for the gas, water, electric, telecom sectors
- Demand-side & Clean Energy plays some role in about 1/2 of our projects


Partnerships with FCC, NCS, FERC, private sector, non-governmentals
Disclaimer

- These are opinions, not NARUC policy, nor policy of its members.
- There are 50 states + DC, with over 200 Commissioners. So there are at least 201 perspectives on everything, so I’ve had to be general.
- Everything will apply to some state, but there are exceptions to everything in here in some state too.
What is a Public Utility Commission?

- A quasi-judicial panel that sets the rates, terms, and conditions for the provision of essential services in the regulated utility sectors
  - (electric, gas, water, telephone, and sometimes transportation, ports, banks, petroleum, etc etc.)

- A commission has 3-7 members, staggered terms, bipartisan representation, appointed by Governors, Legislatures, or directly elected

- Focus on transparency, accountability, public participation, due process
### IOUs, Coops, and Munis

<table>
<thead>
<tr>
<th></th>
<th>Investor-Owned</th>
<th>Publicly Owned</th>
<th>Cooperatives</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of Organizations</strong></td>
<td>220</td>
<td>2,000</td>
<td>930</td>
<td>3,150</td>
</tr>
<tr>
<td><strong>Number of Total Customers</strong></td>
<td>102 m</td>
<td>20 m</td>
<td>17 m</td>
<td>140 m</td>
</tr>
<tr>
<td><strong>Size (median number of customers)</strong></td>
<td>400,000</td>
<td>2,000</td>
<td>12,500</td>
<td></td>
</tr>
<tr>
<td><strong>Customers, % of total</strong></td>
<td>73%</td>
<td>15%</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td><strong>Revenues, % of total</strong></td>
<td>76%</td>
<td>14%</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td><strong>kWh sales, % of total</strong></td>
<td>74%</td>
<td>16%</td>
<td>10%</td>
<td></td>
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</tbody>
</table>
Federal & State Jurisdiction

Who needs a mnemonic?
FERC jurisdiction is over “sale for resale”*

* Who doesn’t know what a mnemonic is?
Status of Electricity Restructuring

Source: Energy Information Administration, status as of April 2007
RTOs
Commission Activities in Electricity

- Set the rates, terms, and conditions of monopoly utility services
- Ensure reliable, affordable, clean electricity

Specific activities:
- Planning
- Siting
- Cost allocation and cost recovery
- Other stuff
Reliable:


*Electricity demand projections based on expected growth between 2006-2030*
Reliability

- Standard setting
  - Technical: NERC
  - Resource adequacy
  - Safety & security

- Review and approve plans

- Regular updates (annual or otherwise)

- Penalties for non-performance; incentives for high achievement
Affordable:

[Map showing residential average prices by state, with color codes for different price ranges, including:
- 6.21 to 7.48
- 7.50 to 8.28
- 8.34 to 8.87
- 9.01 to 11.74
- 12.51 to 20.70]
Estimated Cost of New Generation

- Nuclear
- Conventional Coal
- IGCC Coal
- Combined Cycle
- Combustion Turbine
- Wind
- Geothermal
- Concentrated Solar

Source: Compiled by FERC Staff from various sources. Cost estimates exclude carbon capture and sequestration costs.
Resource Planning

- IRP evaluates scenarios and chooses resource mix that has best reliability, affordability, and other desired attributes
- Even without IRP, portfolio management is gaining ground
Infrastructure Siting

- Several Commissions have specific Siting Boards
- All commissions have some role in siting, even if indirect
  - Generation
  - Transmission
  - Inside the “city gates” gas infrastructure
  - Demand-side programs
- Local role in some states
- Quasi-judicial proceedings
  - Evidentiary hearings, site visits, conditional approvals
- Coordination among states
- Backstop interstate siting authority
Multiple agencies share oversight of siting (7)
Non-PUC agency has primary siting authority (2)
Multi-agency siting board (8)
PUC has primary siting authority (28)
No regularized oversight of siting (6)

Cost recovery

- The regulatory compact is that a utility will have a monopoly and will have a hard time going broke because the rates are set to cover cost of service and revenue requirement.
- A description of a rate case.
- Warren Buffet: “This should be a good business to be in, but not a Great business.”
- Cost recovery as a balance between regulatory certainty and a risk-based incentive for innovation.
- Efficiency and decoupling and revenue, oh my!
Administer other programs

- Gas
- Managing RPS
- Managing efficiency programs
- Managing climate- and enviro-related programs (RGGI, loading orders, etc.)
- Overseeing public benefits funds
- Emergency preparedness & interdependencies
- Coordinate with other agencies
Renewable Portfolio Standards

www.dsireusa.org / April 2010

29 states + DC have an RPS
(6 states have goals)

CA: 33% x 2020
OR: 25% x 2025 (large utilities)*
5% - 10% x 2025 (smaller utilities)
NV: 25% x 2025*
WA: 15% x 2020*
MT: 15% x 2015
CO: 30% by 2020 (IOUs)
10% by 2020 (co-ops & large munis)*
AZ: 15% x 2025
NM: 20% x 2020 (IOUs)
10% x 2020 (co-ops)
TX: 5,880 MW x 2015
HI: 40% x 2030

State renewable portfolio standard
State renewable portfolio goal
Solar water heating eligible

Minimum solar or customer-sited requirement
Extra credit for solar or customer-sited renewables
Includes non-renewable alternative resources

VT: (1) RE meets any increase in retail sales x 2012;
(2) 20% RE & CHP x 2017
ME: 30% x 2000
New RE: 10% x 2017
NH: 23.8% x 2025
MA: 22.1% x 2020
New RE: 15% x 2020 (+1% annually thereafter)
RI: 16% x 2020
CT: 23% x 2020
PA: ~18% x 2021†
NJ: 22.5% x 2021
MD: 20% x 2022
DE: 20% x 2020*
DC: 20% x 2020

* extra credit for solar or customer-sited renewables
† includes non-renewable alternative resources
States with System Benefits Funds

Source: Pew Center on Global Climate Change
Climate Policy by State

Regional Initiatives

Source: Pew Center on Global Climate Change
Challenging Reliable, Affordable, Clean

- Regulators care about resource adequacy first and foremost, demand is growing and new supply is tough to get.

- The “golden era” of declining prices is probably over, and some big bills are coming due.

- Climate seen as a revolution-sized challenge facing the sector. Is it a trumping constraint or a third, equal factor in review?

“We cannot solve the most serious problems using the same thinking that created them.”

- Albert Einstein
Climate Legislation

Illustration of Economy-wide Emission Reduction Targets
Legislative Proposals Introduced in the 110th Congress as of December 1, 2008
The Many Charms Of Efficiency

Costs less than a power plant!
Pays you back – now with local benefits!
NIMBY-proof!
Terrorist-proof!
Hurricane-proof!
Hugo Chavez-proof!
Easy to install: no wires or pipes!
100% NOx and SOx-free!
Legal everywhere, and Yucca-free!
Bird / Bat-friendly!
Good-looking!
More Popular Every Day!
Conclusions

- State regulators play a broad role with wide-ranging responsibilities
- Regulatory policy has been an important driver for choices made about the electric system we have today
- The electricity system is changing and regulatory policy may need to change with it
- All supply choices are important to consider
- Energy efficiency appears to be the “no regrets” choice no matter what supply choices we make
I Will Now Confront Your Most Challenging Questions!

Or! Later if you prefer!

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