

The Role of the Regulator in Power Pools or Regional Markets

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The Role of the Regulator

- What is the role of regulators in power pools or regional markets?
- As one of my former professors said, the safest answer for a planner is . . .

It depends!

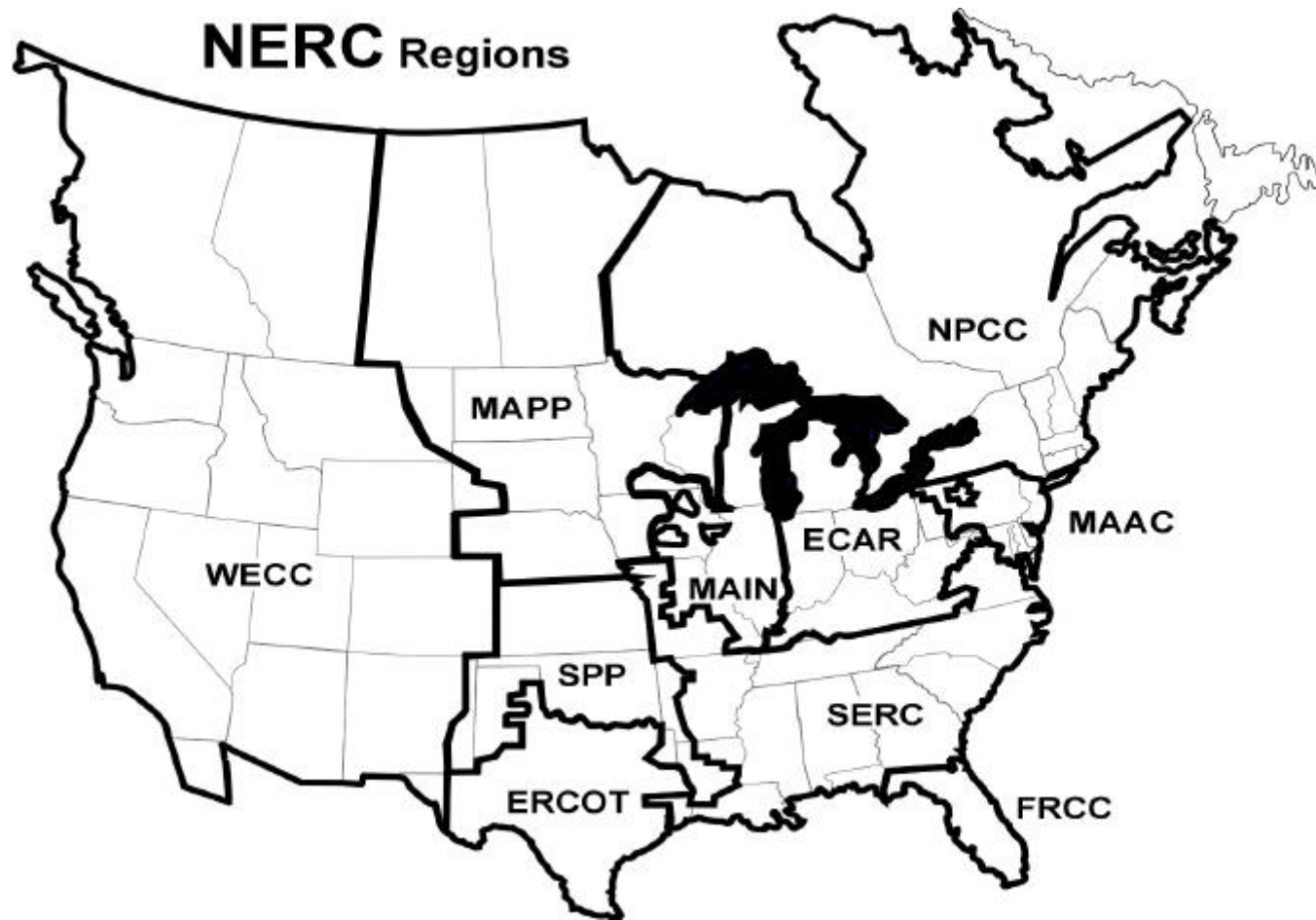
The Role of the Regulator

- *Depends on what?*
- On several issues, which are presented by way of examples with the following outline:
 - Quick overview of the electricity grid in the U.S.;
 - Description of the Mid-Atlantic region;
 - Some specific examples of the role of regulators in this region; and,
 - Summary of important points in this role and relationship.

Electricity Grid in the U.S.

- The North American Electric Reliability Council (NERC) ensures that the bulk electric system in North America is reliable, adequate and secure.
- Formed in 1968, NERC is a not-for-profit corporation whose members are ten Regional Reliability Councils.
- The members of these councils: investor-owned utilities; federal power agencies; rural electric cooperatives; state, municipal and provincial utilities; independent power producers; power marketers; and end-use customers. [Source: www.nerc.com]

Electricity Grid in the U.S.



Electricity Grid in the U.S.

- **Western Interconnection:**
Western Electricity Coordinating Council (WECC; nearly 11 states, 2 Canadian provinces, and a small part of Mexico)
- **Electric Reliability Council of Texas**
(ERCOT; most of the State of Texas)

Electricity Grid in the U.S.

- **Eastern Interconnection**

(nearly 36 states and rest of Canada)

- ECAR: East Central Area Reliability Coordination Agreement
- FRCC: Florida Reliability Coordinating Council
- MAAC: Mid-Atlantic Area Council
- MAIN: Mid-America Interconnected Network, Inc.
- MAPP: Mid-Continent Area Power Pool
- NPCC: Northeast Power Coordinating Council
- SERC: Southeastern Electric Reliability Council
- SPP: Southwest Power Pool, Inc.

Mid-Atlantic Region / PJM

- PJM Interconnection, LLC, (PJM) is a regional transmission organization (RTO) in the Mid-Atlantic region of the United States, and serves the whole of MAAC and parts of ECAR. [Source: www.pjm.com]
- PJM began as a power pool in 1927, an association of utilities in Pennsylvania, New Jersey, and Maryland. Later, utilities from Delaware and the District of Columbia joined this power pool.

Mid-Atlantic Region / PJM

- PJM ensures the reliability of the largest electric grid in North America by coordinating the movement of electricity in all or parts of Delaware, Maryland, New Jersey, Ohio, Pennsylvania, Virginia, West Virginia and the District of Columbia.
- These states are in the MAAC and ECAR regional reliability councils.
- PJM, acting neutrally and independently, operates the largest wholesale electricity market in the world.

Mid-Atlantic Region / PJM

- PJM manages a sophisticated regional planning process for generation and transmission expansion to assure future electric reliability.
- PJM's service area has:
 - a population of more than 25 million; and,
 - a peak demand of nearly 64,000 megawatts.
- PJM facilitates a collaborative stakeholder process, and has more than 200 members who buy and sell power, arrange transmission service, schedule contract purchases, etc.

Mid-Atlantic Region / PJM

- Since PJM deals with the wholesale transaction of electricity, it is under the jurisdiction of the Federal Energy Regulatory Commission (FERC).
- In 1997, PJM became an independent system operator (ISO) an independent company and began operating a wholesale energy market.
- In July 2001, PJM operated under provisional regional transmission organization (RTO) status and, in December 2002, it was granted full RTO status by the FERC.

Federal / State Jurisdictions

- In a very simplistic delineation, jurisdiction of wholesale power transactions in the U.S. is under the FERC; jurisdiction of retail power transactions is under individual state utility commissions.
- As such, PJM is not under the jurisdiction of any of the state utility commissions.

PJM's Relationship With States

- During the creation of PJM as an ISO in 1997, stakeholders recognized that it was important to include and keep state utility commissions informed of all matters since any action in the wholesale energy markets and transmission area ultimately affects the retail end-use electricity customers.
- These end-use customers' retail rates are under the jurisdiction of the state utility commissions.

PJM's Relationship With States

- In 1998, PJM and state utility commissions in the PJM region signed a Memorandum of Understanding (MOU) to create a State Commission Liaison Committee.
- The State Committee recognized the important role that state regulators have in ensuring the success of PJM and its energy markets.
- The State Committee is a direct channel of communication between PJM's Board of Managers and all state commissioners in the PJM region.

PJM's Relationship With States

- State commissioners meet at least once annually with the PJM's Board of Managers as well as on an "as-needed" basis.
- It is important to note that state commissions are not members of PJM since there may be instances when a state commission may have to intervene in a PJM filing before FERC. Incidentally, FERC automatically informs any state that may be affected by such a filing.

PJM's Relationship With States

- Within this Committee, a Staff Liaison Committee was also created to facilitate regular communication between PJM staff and state commission staff.
- The staff members meet more frequently (in-person or via teleconference) and often participate in PJM's other committee discussions as observers.
- While PJM deals with transmission and wholesale market issues, there are several examples when PJM has responded to state commission requests for information and investigations.

Example 1

- Almost all of the states in the PJM region have restructured their electricity utility industry and deregulated generation.
- This means that, within certain regulations, generation can be built anywhere by anybody in these states.
- The energy output is sold either as a bilateral contract or in PJM's open market.
- But the states' responsibility of retail rates are still in effect, and retail rates eventually are dependent on wholesale market prices.

Example 1

- A state does not want an instance whereby a wholesale generator manipulates the market to raise prices.
- But since generation is deregulated, a state commission has no jurisdiction over it.
- One state commission believed there was market power abuse and requested that PJM investigate.
- PJM did so and produced a confidential report for that state commission.

Example 2

- Nearly all states have in their enabling statutes the need for “safe and reliable” service.
- Again, reliability standards are administered on a regional level.
- In most cases, state commissions have accepted PJM’s expertise in this matter but have not given up its responsibility of reliability standards.
- That is, if a state believes it needs more reserve margin for reliable service, it can set a higher reserve margin.

Example 2

- There has not been the need to test this issue but the relationship between PJM and the states have ensured that reliability is not compromised.
- If there is a scheduled or unscheduled outage in the region, PJM immediately sends e-mails to designated technical and non-technical personnel in the affected states.

Example 3

- Under several state restructuring acts, load serving entities (LSEs) have to report the fuel mix of the electricity supplied and emissions disclosure.
- Since wholesale energy is transacted on a regional basis and LSEs may serve multiple states, it is nearly impossible to do this on a state-by-state basis.
- PJM recognized the need for a tracking system to enable the LSEs report to each state and began the creation of a Generation Attributes Tracking System (GATS).

Example 3

- GATS would allow an LSE to meet the reporting requirements of various states in the region.
- This is another example of the coordination between PJM and the state commissions.

Application of Model

- **Does this model apply to other states and regions in the U.S.?**
- *That is not known, but the FERC is aware of this MOU model.*
- **Does this apply to other countries and/or regions in another continent?**
- *Maybe not, since the dichotomy of the U.S. federal-state relationship may not apply to other countries and/or regions such as southern Africa.*

Important Issues

- **What are important issues in the relationship between regulators and power pools and regional market?**
- Clearly define jurisdictional powers and issues.
- Do not create unnecessary rules and regulations that may hinder the development of an energy market.
- Regulatory role does not necessarily mean enforcement all the time; these days the role is more “fluid” – a regulator needs to be informed.

Important Issues

- While enforcement of regulations to prevent abuse is still key, the first action during an outage is not necessarily “to point fingers” but rather to ensure that the utility can restore service immediately and the regulator can provide reasonable information to legislators and other government officials as well as the public.
- Create a “living” document that each party endorses/approves; “living” indicates the need for constant revisions.

Important Issues

- Create a clear line of communication and identify key positions in all organizations; these should include technical and non-technical personnel.
- Schedule regular meetings – in person or via teleconference; meetings can always be cancelled if there is no substantive agenda. But do meet at least once annually – it is always good to put faces to names one sees regularly.

Finally . . .

- Everyone is aware that in real estate, the “mantra” is location, location, location!
- In this case it is ***communication! communication! communication!***
- In closing, please remember that this presentation used PJM and the states in that region as an example but generalized most of the issues (*apologies if this presentation was over-simplified*).

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