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Commissioners

Market Liberalization - Electricity Market Competition (wholesale)

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Maine Public Utilities Commission

May 13, 2015

AGENDA

1. Review EU energy legislation
2. United States structural model(s)
3. Role of regulators
 - a) Federal
 - b) State
4. Other entities, e.g., Independent System Operators (ISO) and Regional Transmission Organizations (RTO); utilities; competitive entities.

Some Objectives of Directive 2009/72/EC

- Common rules for creation of a fully operational internal market in electricity
- Retail choice for all consumers
- Cross border access for new suppliers of electricity
- Incentives for producers to invest in new power generation
- Unbundling of supply and production from system operations

United States Structural Models

Bundled Electricity Markets

- Vertically Integrated Investor Owned Electric Utilities; service remains “bundled” with a monopoly utility as sole supplier of power to retail customers.
- Rate of return regulation by state regulator for retail sales from the utility to its customers (usually a large percentage of utility revenue/sales)
- Wholesale sales regulated by the federal regulator who ensures non-discriminatory transmission access and fair rates (usually a smaller percentage of utility revenue/sales)
- Wholesale customers are usually public power utilities buying power to serve their load through bilateral transactions.

United States Structural Models

Unbundled Electricity Markets

- RTOs or ISOs perform network balancing function through power exchange, administer market rules, and support system planning.
 - Federally regulated
- Transmission and Distribution (T&D) functions are regulated
 - T&D costs are charged to load at regulated rates – suppliers generally do not have to arrange for path
 - Transmission is federally regulated; Distribution is state regulated
 - Network service; point-to-point service
 - Transmission cost socialization

United States Structural Models

Unbundled Electricity Markets

- Generation Companies are competitive
- Suppliers are competitive entities that provide power for wholesale and/or retail.
- Consumers may choose their electricity supplier
- States appoint a “Provider Of Last Resort” (POLR) for consumers that do not have another supplier

United States Structural Models

Public Power

- Large geographic regions of the United States receive power from “public power” entities such as cooperatively owned public power utilities (Co-ops) or municipally owned public power utilities (Munis).
- Cooperatively owned utilities are managed by elected boards.
 - Rates do not fall under state regulation.
 - Sales for resale or transmission of power for resale by public power utilities are federally regulated.
- Municipal utilities are managed as part of the other responsibilities for town management
 - Rates do not fall under state regulation.
 - Sales for resale or transmission of power for resale by public power utilities are federally regulated.

United States Structural Models

Independent System Administrator (Maine)

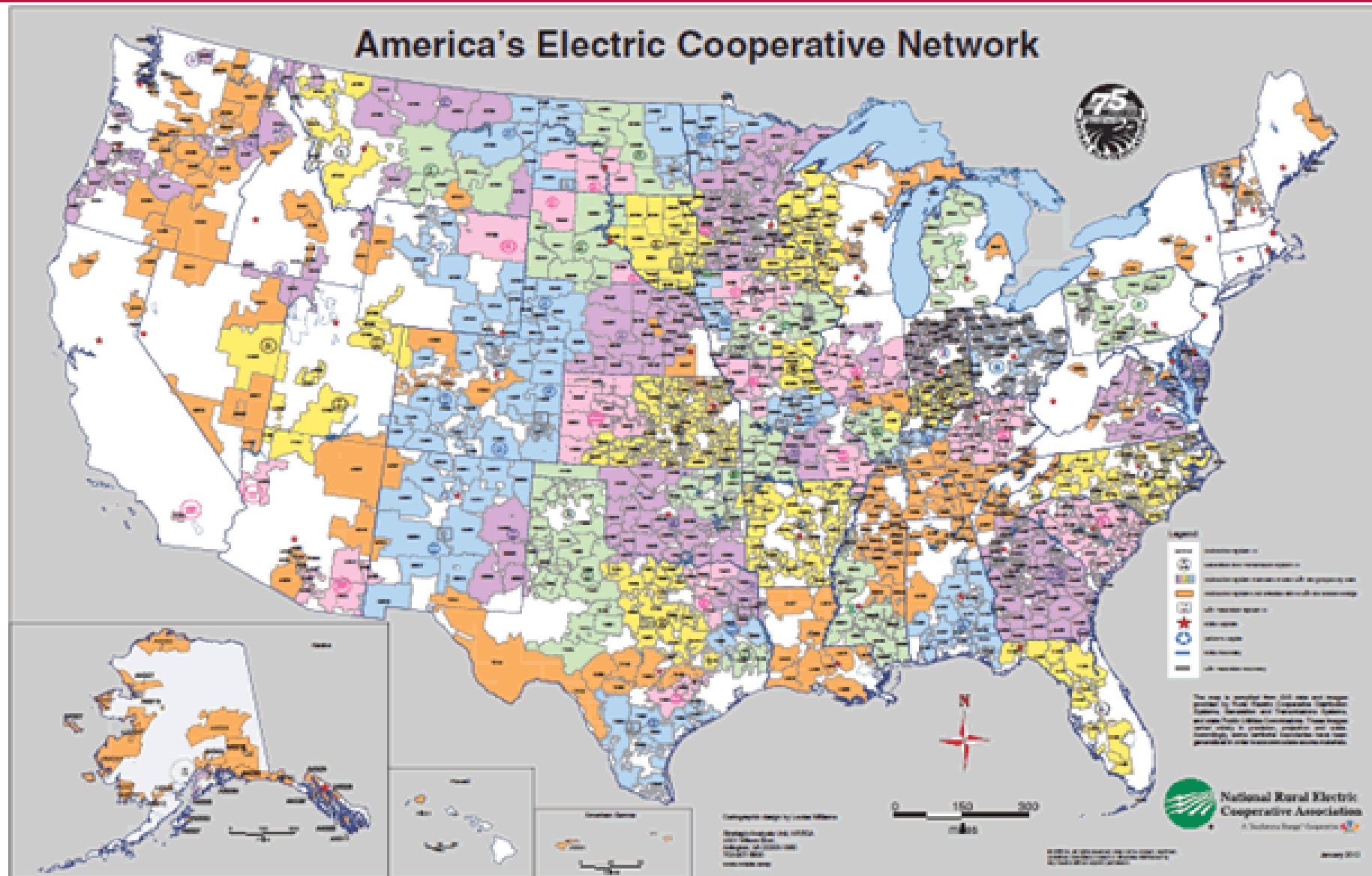
- A small part of Maine is connected to the Canadian power grid which does not have the same rules for competition as does the US
- This part of the Maine system is electrically separate from the rest of Maine; interconnected with a foreign utility that has a limited market
- Unbundled service in this part of Maine is through bilateral contracts.
- An “Independent System Administrator” is responsible for managing the bilateral contracts and purchasing balancing energy in this part of Maine.



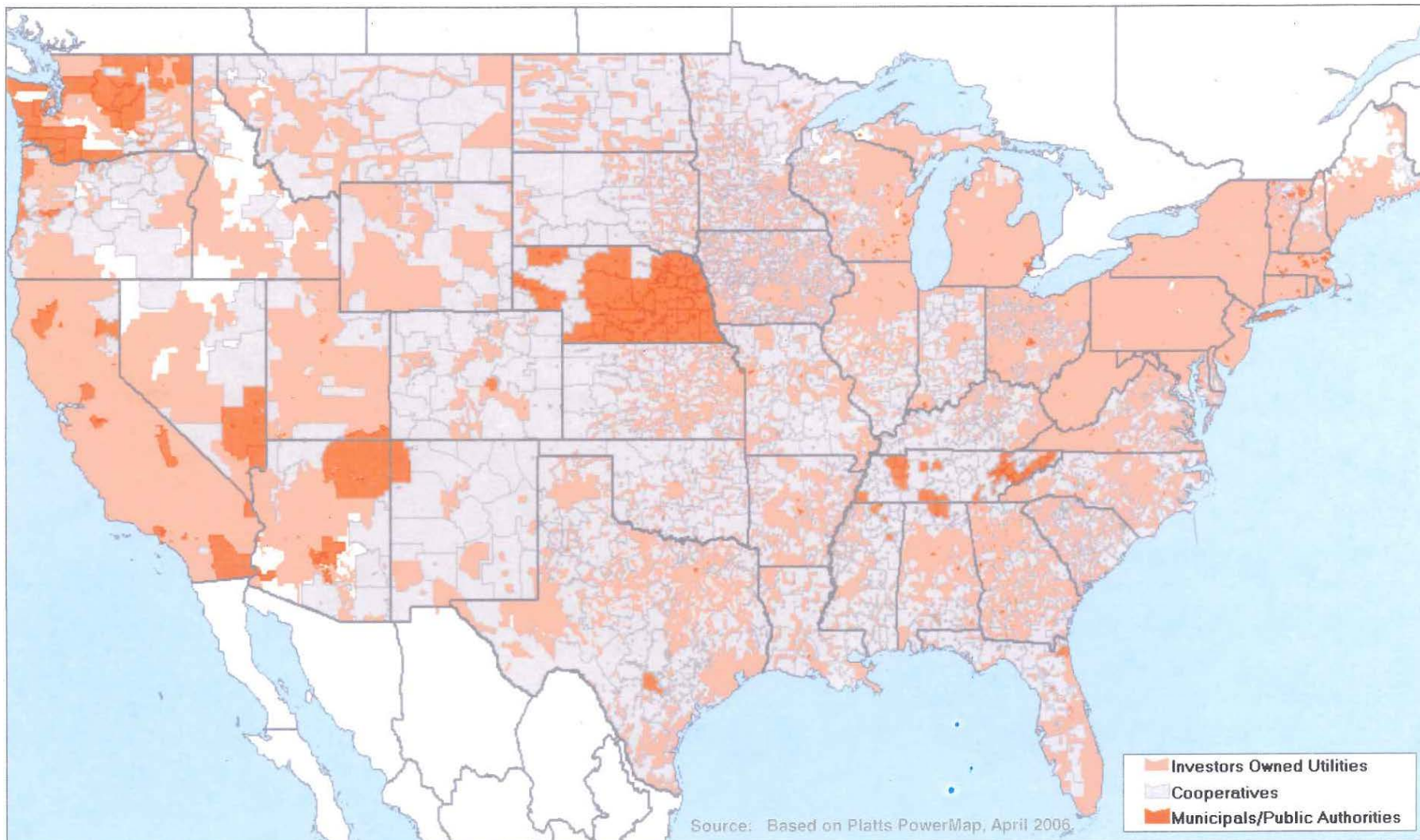
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Utility Ownership Patterns



Role of Regulators - Bundled Markets

Federal Regulation

- Transmission rates for interstate commerce
- Wholesale power sales – inter and intra state
- Authority for reliability of bulk electric system

State Regulation

- Set rates for retail sales based on regulated functions of electric utility.
- Oversee utility integrated resource planning.
- Authorize construction of transmission and generation facilities

Role of Regulators - Unbundled Markets

Federal Regulation

- Transmission rates for interstate commerce (greater volume in unbundled industry)
- Wholesale power sales – inter and intra state
- Market rules for power exchanges.
- Authority for reliability of bulk electric system
- Grant market rate authority

State Regulation

- Oversee provision of POLR service.
- Oversee resource planning.
- Service quality of distribution function
- Set portfolio standards
- Authorize construction of transmission and generation facilities
- License competitive providers

Role of Utilities

Unbundled Markets

- Transmission and distribution delivery service
 - Service quality
- Metering and billing
 - Collect revenues for T&D services
 - Collect revenue for competitive entities and POLR

Bundled Markets

- Retail services
 - Generation, transmission, and distribution.
 - Service quality
- Metering and billing
- Resource planning
- Wholesale Services
 - Sales for resale
 - Transmission for interstate commerce.

Thank you. We would be happy to answer any additional questions you may have.

Questions?