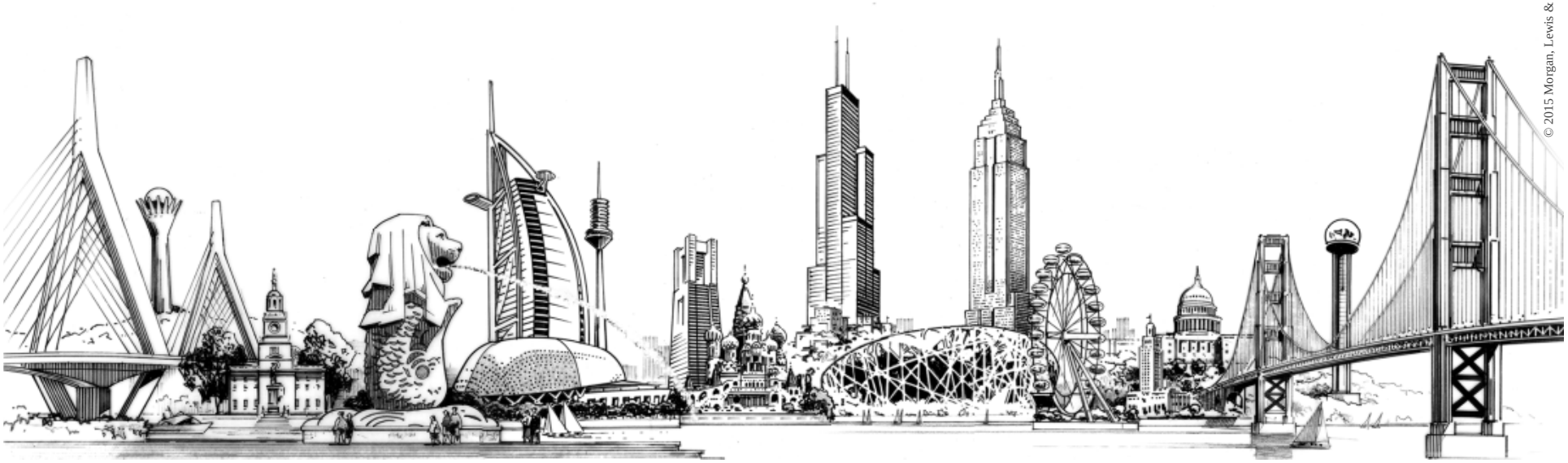
Morgan Lewis

REGULATORY TRENDS FOR 2016: ELECTRIC ENERGY

February 18, 2016



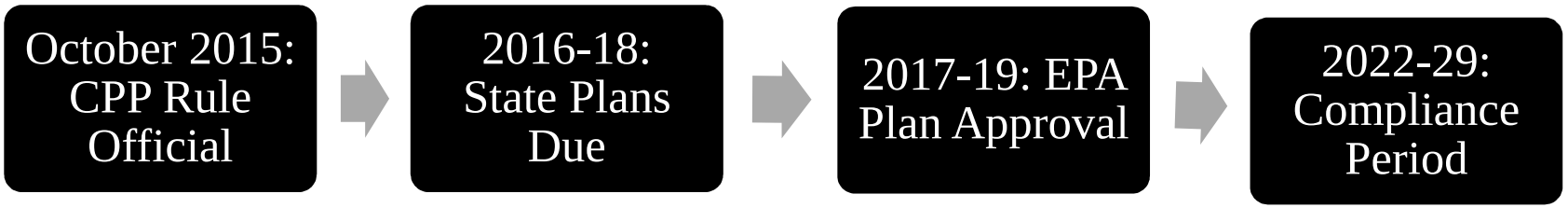
State of the Industry

- In the past several years, including 2015, the utility and power production industry has been faced with an effort to transition from and otherwise reduce reliance on coal-fired generation resources.
  - The transition has been driven by several factors, including:
    - Low cost and abundant supplies of natural gas from newly accessible production sources.
    - Incentives provided to and policy initiatives designed to encourage widespread deployment of renewable resources.
- Wind and solar development has increased, thereby resulting in substantial increases in wind and solar production generated in recent years.
- Storage technology development continues to evolve in a manner that making energy storage a cheaper and more feasible consideration for power producers.
- The EPA's issuance of the Clean Power Plan would drive these issues even more.
  - However, considerable uncertainty exists surrounding the EPA's Final Rule.

CLEAN POWER PLAN

Clean Power Plan: Overview

- Goal: 32% reduction in carbon dioxide emissions from this sector from 2005 levels by 2030
  - Interim goals would require reductions to begin by 2022 but measured "on average" between 2022 and 2029
  - State-Based Goals: EPA-established State baseline can be measured in tons of CO_2 per MWh or in total mass based tons



Clean Power Plan: Compliance Options

- Voluntary State compliance: State Implementation Plans
  1) Reduction in reliance on coal power
  2) Increased natural gas
  3) Increased renewables and new/uprated nuclear
  4) Others (see next slide)

- No voluntary State compliance: Federal Implementation Plan
  - EPA cannot compel a State to submit plans under section 111(d), so EPA would prescribe a plan for the State
  - Limited flexibility because of limitations on co-opting State regulatory authorities
  - Proposed rule for federal implementation plan has two options: an emission rate-based program and a mass-based emissions trading program
    - Going through notice and comment finalization

- Inter-state cooperation encouraged, but not required

Political Landscape

- The Obama Administration sees this as part of its legacy
  - 2016 submission deadline from States is not a coincidence
  - get it done before we're gone
- Some in Congress are opposed
  - Lisa Murkowski, Chairman of the Senate Energy Committee, has used FERC to counter the EPA agenda on climate change
  - Senator Mitch McConnell has urged States to refuse to draft SIPs
  - Legislation to delay implementation has been introduced
- Some States upset with reduction targets
- RTOs and NERC have raised reliability concerns
- FERC caught in the middle; wants to protect reliability but through cooperation with EPA

Legal Challenges

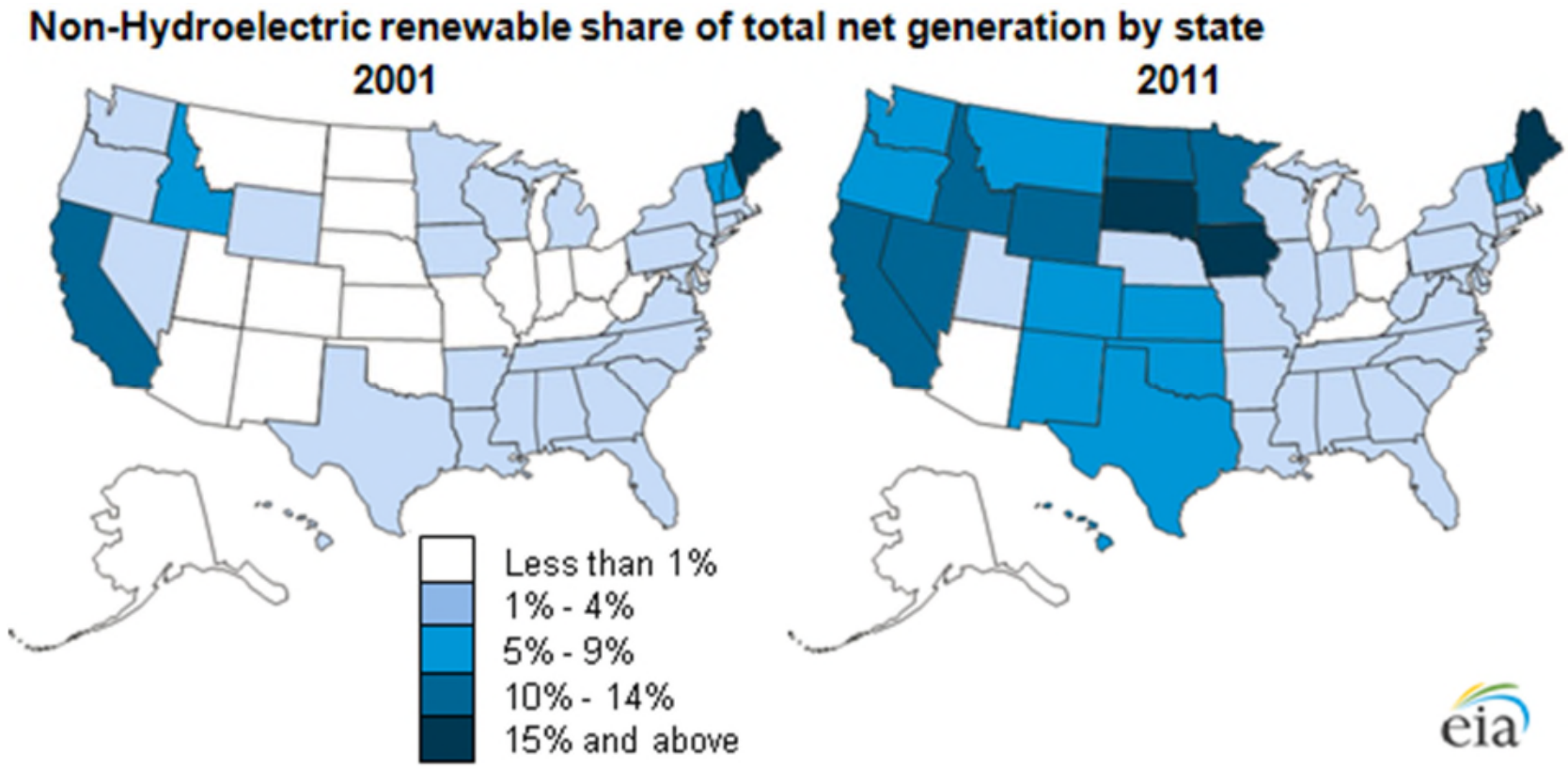
- **October 2015**: EPA formally publishes Final CPP Rule
- **November – December 2015**: Petitions for Review and motions to stay were filed
- **January 21, 2016:** Stay was denied by the D.C. Circuit Court
- **January 26, 2016:** Various parties seek stay from U.S. Supreme Court
- **February 9, 2016**: U.S. Supreme Court grants stay of CPP Final Rule
- **April 22, 2016**: Parties submit final briefs
- **June 2-3, 2016**: Oral arguments scheduled
- **November 2016/January 2017:** Presidential Election/Inauguration

DISTRIBUTED GENERATION: NEW DEPLOYMENT

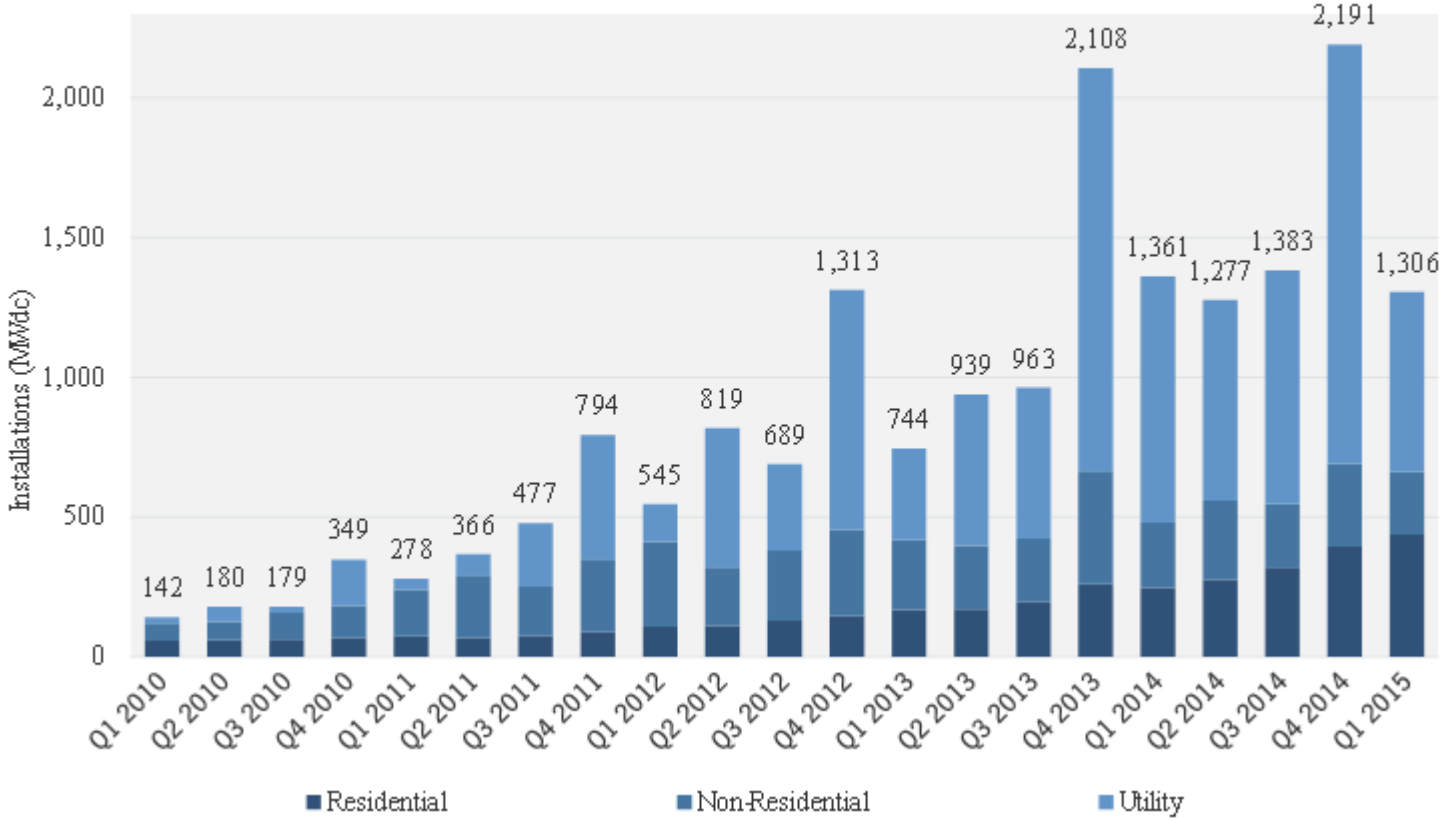
Distributed Generation: What is It?

- Power generation at the point of consumption
  - Also referred to as decentralized energy
- Typically produced by small scale generating technologies that are connected to the electric power grid
  - These technologies are referred to as distributed energy resources.
- Includes cogeneration and small power production.
  - Currently, renewable energy projects are the prime example of distributed generation.

Distributed Generation: What is It?

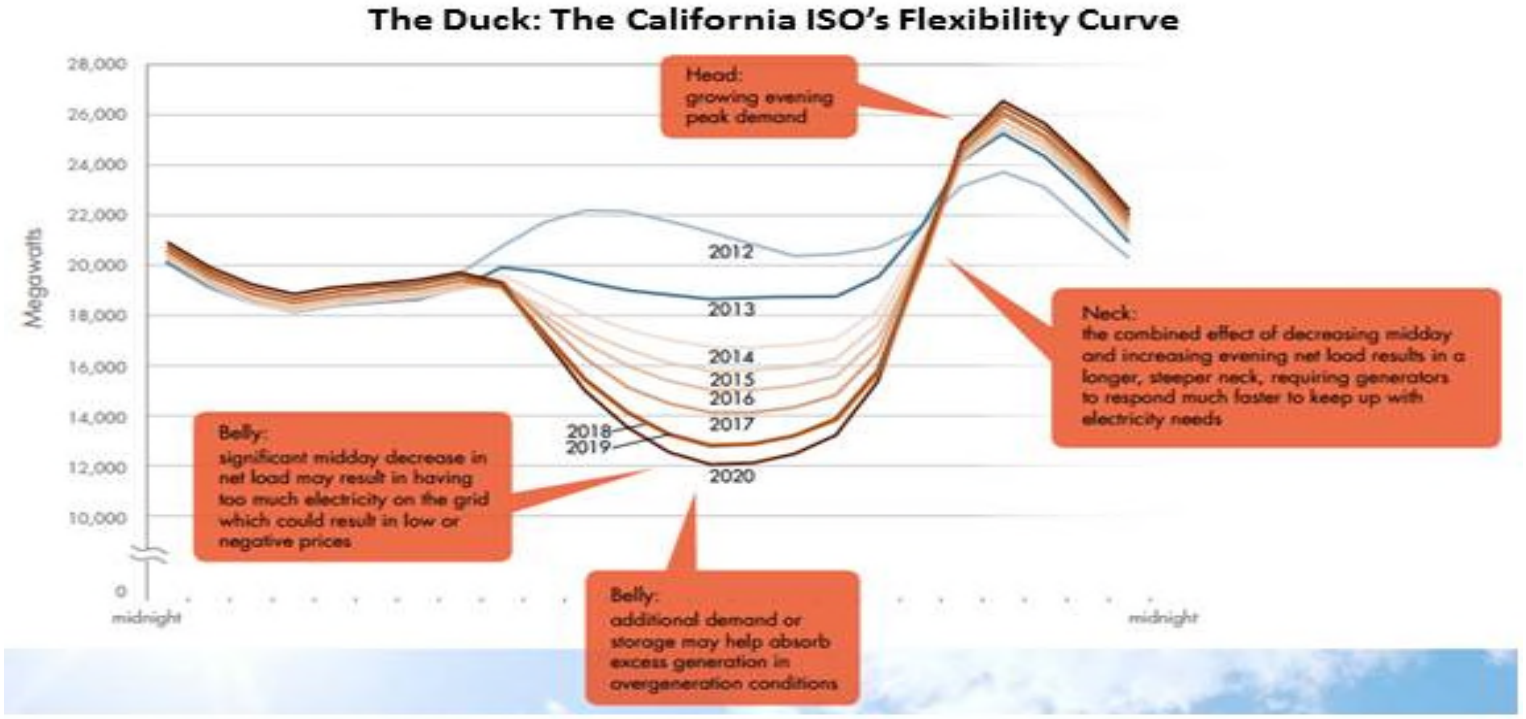


Distributed Generation: What is It?



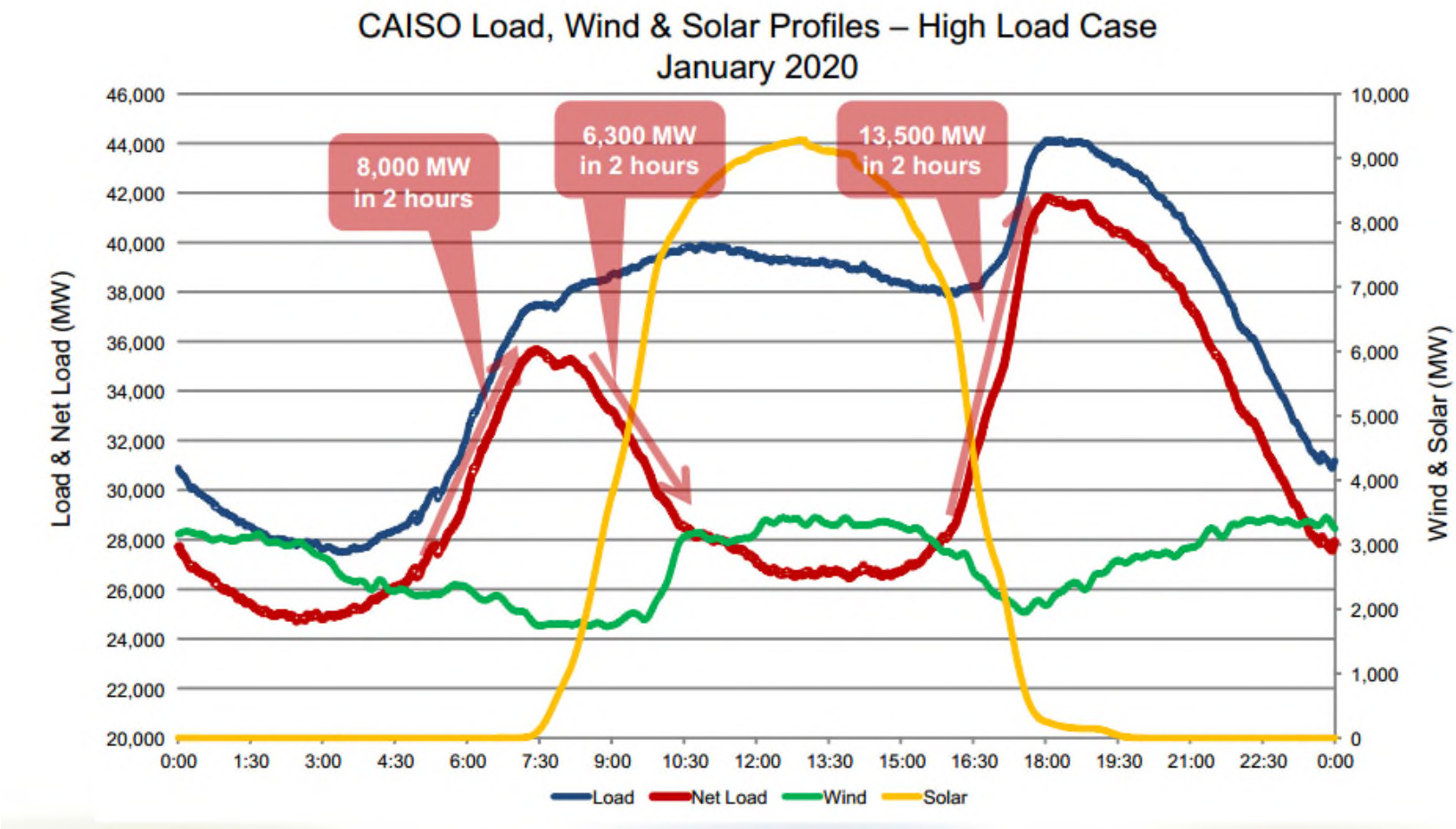
Distributed Generation: Operational Issues

- Variability in distributed generation may not provide sufficient stability and grid support. Conventional generation resources will be required to ramp up and down at levels and in timeframes that the generation may not be able to accomplish. (*i.e.* "Duck Curve").



(the ISO's *Building A Sustainable Energy Future; 2014-2016 Strategic Plan*)

Distributed Generation: Operational Issues



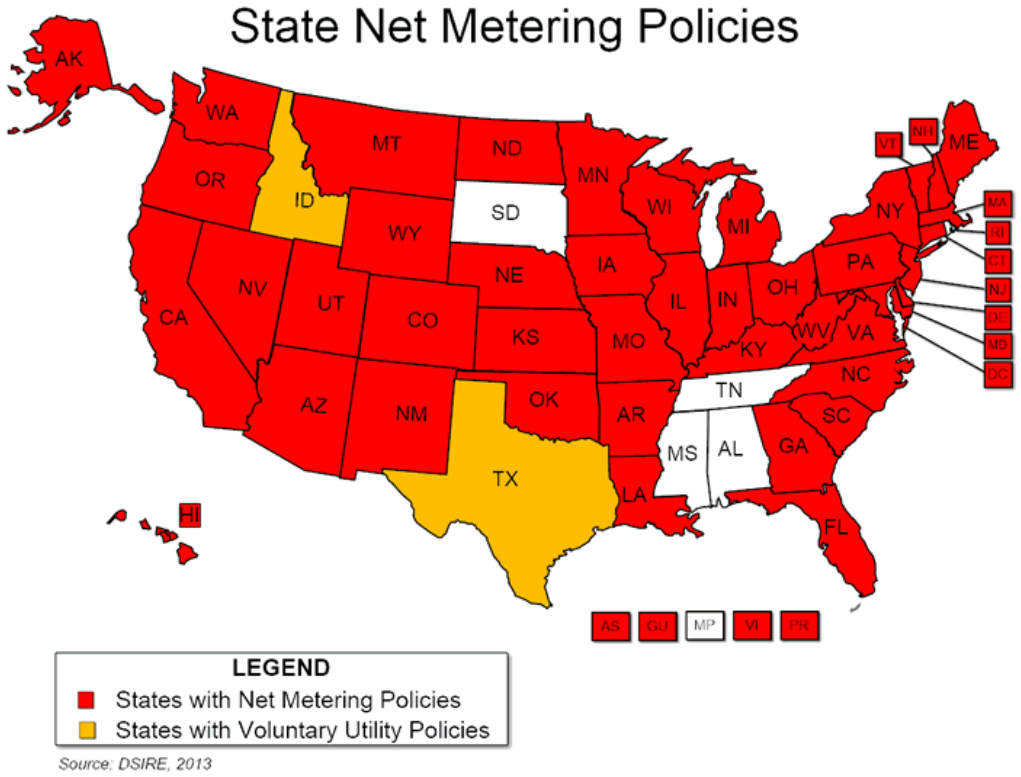
Distributed Generation: Cost Issues

- Increased distributed generation could produce a revenue shortfall for utilities.
  - Distributed generation customers are compensated when they provide excess power to the grid.
  - Other retail customers could subsidize the customers with distributed generation.
- Utilities will need to make capital investments to ensure the grid operates in a stable manner as more distributed generation resources are deployed onto a system originally designed for one-way power flows.
- Utilities will confront difficulties in recovering costs if units are only running after steep ramp-up periods.

DISTRIBUTED GENERATION: REGULATORY POLICIES

Relationship with Net Metering

- In its simplest form:
  - Distributed generation is the act of producing electricity at or near its point of use:
  - Net metering refers to the manner in which a utility provider calculates the quantity and value of that electricity before it enters the electrical grid.
- Net metering is effectively a billing convention.



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Net Metering Policies

- Capacity limits regulate the system size of net metered installations in a variety of aspects and vary widely across states. Capacity limits can be determined by a kilowatt-based limit or a percentage limit.
  - State policies also determine the rate that power producers receive for the production put onto the grid from distributed generation resources.
- Net metering policies were introduced to encourage the growth of distributed generation systems when they first came to market years ago. While net metering policies vary by state, customers with rooftop solar or other distributed generation systems usually are credited at the full retail electricity rate for any electricity they sell to electric companies via the grid.
  - The full retail electricity rate includes not only the cost of the power but also all of the fixed costs of the poles, wires, meters, advanced technologies, and other infrastructure that make the electric grid safe, reliable, and able to accommodate solar panels or other distributed generation systems.
- Revisions in state net metering policies can effectively encourage or discourage deployment of distributed generation.

Net Metering Policies

- Nevada:
  - December 2015: The Nevada PUC votes to increase the fixed charge for NV Energy customers who own rooftop solar from $12.75 per month to $38.51 per month in phased increases over four years.
  - Over the same period, the credit solar customers receive for net excess energy they send back to the grid will fall from the retail electricity rate of 1 cents per kW/h to 2.6 cents per kW/h.
- California:
  - December 2015: The California PUC proposes revisions to the state net metering program that declines to impose any demand charges, grid access charges, installed capacity fees, standby fees, or similar fixed charges on net metering residential customers.
  - Rates paid to the customers would remain at the retail rate.
  - Customers would be required to pay a one-time interconnection fee (approximately $75 - $150) and a non-bypassable charge used to fund low-income and efficiency programs.

State Market Structure Reforms

- In April 2014, the New York Public Service Commission kicked off the REV proposal with a groundbreaking straw proposal.
  - The staff of the regulatory body laid out a vision for the regulated utility as a "Distribution System Platform (DSP) Provider" — akin to an air traffic controller that coordinates and facilitates the deployment of various distributed energy resources on the grid.
- "Functional Center" is the "Distributed System Platform Provider" ("DSP"), with responsibility for integrated system planning, grid operations, and market operations
- Evolution of traditional utility capital plans to "Distributed System Implementation Plan"
- DSPs responsible for:
  - Integrating DER into current electricity delivery system, with services and pricing that supports greater penetration of both DER and grid-scale renewable supply ("DER providers will be viewed as customers and partners, rather than competitors")
  - Operating standardized market across the state
  - Coordinating and optimizing retail and wholesale operations, with "concerted action" by NYISO, DSPs, regulators and market participants

State Market Structure Reforms

- Utilities are required to serve as Distributed System Platform ("DSP") providers
  - The PSC believes that utilities are best positioned to do so, and "[h]aving the utility expand its responsibility to include DSP functionality enhances the opportunity for integrated operation of the distribution system and for realizing the economic value of DER investment"
  - "By expanding the role of the utilities to include DSP functions, utilities will have the regulatory obligation, operational capability, and economic incentive to optimize the use of DER"
  - "The most efficient way to execute a dynamic system is to have a single entity oversee planning, grid operations and market operations"
- Concerns about utility market power addressed as follows:
  - Utilities will not own DER "where a market participant can and will provide these services"
  - Basic ratemaking reforms, to be considered in Track 2, will "reward utilities for outcomes that benefit customers and achieve our objectives"
  - The PSC will monitor utility-as-DSP-provider performance closely
  - The PSC will develop dispute resolution to curb "activities that deter DER investments"
  - The PSC will explore separation of DSP and standard utility operations
  - If DSP providers are not meeting the REV objectives, the PSC will consider substitutes

State or Federal Regulation?

- Under FERC precedent, no wholesale sale occurs unless a net metering participant makes a net sale of energy over the billing period.
  - *Sun Edison, LLC*, 129 FERC 61,146 (2009), *granting reh'g*, 131 FERC 61,213 (2010); *MidAmerican Energy Co.*, 94 FERC 61,340 (2001).
- *Sun Edison* a one-month netting period.
  - "Where a net metering participant (i.e., the end-use customer that is the purchaser of the solar-generated electric energy from SunEdison) does not, in turn, make a net sale to a utility, the sale of electric energy by SunEdison to the end-use customer is not a sale for resale, and our jurisdiction under the FPA is not implicated."

State or Federal Regulation?

- In another context addressing station power, the D.C. Circuit rejected the proposition that a netting interval can be used to determine how much energy is available at wholesale.
- In a series of station power cases, the D.C. Circuit found that a netting interval is a kind of billing convention that determines how much a generator will be assessed for retail charges.
  - *Calpine Corp. v. FERC*, 702 F.3d 41 (D.C. Cir. 2012); *Southern California Edison v. FERC*, 603 F.3d 996 (D.C. Cir. 2010).

RTO/ISO DEVELOPMENTS

FERC v. EPSA

- **Supreme Court Upholds FERC Order 745**
  - Order 745 (2011) requires that suppliers of demand response resources who participate in RTO/ISO day-ahead and real-time energy markets be paid the same locational marginal price (LMP) that generators are paid.
  - On appeal, the U.S. Court of Appeals for the D.C. Circuit set aside Order 745, finding that demand response is a retail activity, beyond FERC's jurisdiction to regulate. The court also found FERC's conclusion that demand response providers should be paid the LMP to be arbitrary and capricious.
  - The Supreme Court disagreed with the D.C. Circuit. The Supreme Court ruled:
    - Demand response is a practice that affects wholesale rates.
    - Order 745 did not regulate retail sales.
    - Compensating demand response providers at the LMP is not arbitrary and capricious.
  - Supreme Court decision removes uncertainty about demand response participation in RTO/ISO energy and capacity markets.

Upcoming Supreme Court Case

- FERC jurisdiction is again on the Supreme Court's docket in *Hughes v. Talen Energy Marketing* and *CPV Maryland, LLC v. Talen Energy Marketing*.
- The cases call into question the efforts of two state programs to incent new generation development with payments to supplement PJM capacity market prices.
  - New Jersey and Maryland created programs that would have provided winning generation developers a "contract for differences," whereby the local utility and its ratepayers pay the developer the difference between a price approved by the state commission and what the successful bidder earns selling energy and capacity in PJM's markets.
- Courts of Appeals for Third Circuit and Fourth Circuit ruled these programs were preempted by the Federal Power Act.

Western Market Expansion

- CAISO Energy Imbalance Market Expansion:
  - CAISO expands its real-time energy imbalance market
  - PacifiCorp, NV Energy have joined
  - Arizona Public Service Company and Puget Sound Energy to join in 2016
  - Portland General Electric to join in 2017
- Ongoing SPP Expansion:
  - Integrated System: Western Area Power Administration's Upper Great Plains Region, Basin Electric Power Cooperative, and Heartland Consumers Power District

Transmission Planning

- FERC Order 1000 (2011) established certain ground rules that allow nonincumbent developers to construct and own regional transmission planning projects.
- Order 1000 fosters competition in the development of certain transmission projects.
- Public utilities' efforts to establish transmission planning processes compliant with Order 1000, including in ISO/RTO regions, are generally complete.
- Appeals of aspects of the RTOs' compliance with Order 1000 are pending.
- We will see more disputes arising in the selection of a project developer in RTO processes
  - Artificial Island (PJM)

Pending FERC Rulemakings

- **Connected Entity Data Rulemaking (RM15-23)**
  - Proposal: Each market participant would provide to the RTO and ISO, which in turn would provide to FERC and market monitoring units, a list of the market participant's "Connected Entities," with a description of the nature of the relationship of each Connected Entity.
  - Connected Entity:
    - An entity that owns, controls, or holds with power to vote, 10 percent or more of the ownership instruments of the market participant, or an entity 10 percent or more of whose ownership instruments are owned, controlled, or held with power to vote, directly or indirectly, by a market participant; or an entity engaged in Commission-jurisdictional markets that is under common control with the market participant
    - CEOs, CFOs, chief compliance officers, and traders
    - Holders or issuers of a debt interest or structured transaction that gives them the right to share in the market participant's profitability, above a *de minimis amount*, or that is convertible to an ownership interest that, in connection with other ownership interests, gives the entity, directly or indirectly, 10 percent or more of the ownership instruments of the market participant; or an entity 10 percent of more of whose ownership instruments could, with the conversion of debt or structured products and in combination with other ownership interests, be owned or controlled, directly or indirectly, by a market participant
    - Entities that have entered into tolling agreements, energy management agreements, asset management agreements, operating management agreement, etc., with the market participant.

Pending FERC Rulemakings

- **Settlement Intervals and Shortage Pricing Rulemaking (RM15-24)**
  - Proposal: Each RTO and ISO would settle energy transactions in its real-time markets at the same time interval it dispatches energy and settle operating reserves transactions in its real-time markets at the same time interval it prices operating reserves.
    - FERC is concerned with possible distortions in price signals that may occur due to misalignments between settlement and dispatch intervals. Example: RTOs/ISOs may dispatch resources every five minutes but perform settlements based on an hourly integrated price.
  - Proposal: Each RTO/ISO also would trigger shortage pricing for any dispatch interval during which a shortage of energy or operating reserves occurs.
    - RTO/ISO rules may require a shortage to last a certain duration before triggering scarcity pricing, which could result in prices failing to reflect reliability and the true value of the resources responding to a dispatch signal.
- **Offer Caps Rulemaking (RM16-5)**
  - Proposal: Each RTO and ISO would cap each resource's incremental energy offer to the higher of $1,000/MWh or that resource's verified cost-based incremental energy offer.
  - FERC is concerned that a $1,000/MWh cap, which exists in many RTO/ISO energy markets, may be too low.

RETURN ON EQUITY

Return on Equity

- *State ROEs for electric utilities*
  - Regulatory Research Associates report declines in allowed ROEs at the states over the past several years. Average authorized ROE was 9.85% in 2015, 9.91% in 2014, 10.03% in 2013, 10.17% in 2012, 10.29% in 2011.
- *FERC ROEs for electric utilities*
  - Many complaints filed since 2011, seeking to lower electric utility ROEs.
  - Opinion 531 (2013) sets forth new, 2-step DCF methodology for electric utilities' ROEs.
  - Opinion 531 also recognizes that when capital market conditions are anomalous, this may affect accuracy of the DCF methodology, and so electric utilities that own transmission may get upward adjustment in their base ROE.
  - In a recent Initial Decision in the MISO case, ALJ found conditions anomalous and recommended a base ROE of 10.32%.
  - In recent ROE cases, some state agencies and customer groups have advocated to lower electric utility ROEs to below 9%.

NATURAL GAS IMPACTS

Role of Natural Gas

- Continued efforts to improve utility and natural gas pipeline coordination
  - Order 787 amends the Commission's regulations to provide explicit authority to interstate natural gas pipelines and public utilities that own, operate, or control facilities used for the transmission of electric energy in interstate commerce to share non-public, operational information with each other for the purpose of promoting reliable service or operational planning on either the public utility's or pipeline's system.
  - Order 809 aims at improving coordination of wholesale natural gas and electricity market scheduling, and ensuring reliable and efficient operation of both interstate natural gas pipeline and electricity systems.
    - FERC adopted the proposal to move the Timely Nomination Cycle deadline for scheduling gas transportation from 11:30 a.m. Central Clock Time (CCT) to 1 p.m. CCT, and the proposal to add a third intraday nomination cycle during the gas operating day to help shippers adjust their scheduling to reflect changes in demand. FERC is requiring RTOs and ISOs to revise their tariffs in order to coordinate their day-ahead markets with the natural gas pipeline changes required by the rule.
    - The rule also permits transportation shippers of natural gas on interstate pipelines to become party to multi-party transportation contracts. Under such contracts, multiple shippers may be a party to the same transportation capacity on a pipeline. The contracts are designed to provide gas-fired generators with flexibility in managing capacity rights. In order to comply with FERC's shipper-must-have-title requirements, the party's to such multi-party contracts must remain jointly and severally liable for the capacity.

Role of Natural Gas

- Natural gas pipeline rates
  - Several major rate cases settled in the second half of 2015
    - *e.g.*, Gulf South, Florida Gas Transmission
  - Five rate cases initiated in the last month
    - Tuscarora, Columbia Gulf, Iroquois, ANR, Empire
  - Additional rate cases expected in 2016
    - *e.g.*, Transcontinental, Dominion

CORPORATE RESTRUCTURING

Utility Consolidation

- Mergers, acquisitions, and divestitures activity at FERC has increased
  - 2012: 145 formal applications
  - 2013: 155
  - 2014: 150
  - 2015: 218
  - 2016: 68 (YTD); annualized approximately 192 – but this does not include customary Autumn filing "bumps"
- Overwhelming Majority: Generator-Related Transactions
- This transaction head-count includes many transactions involving "Qualifying Facility" generators, but excludes numerous exempt transactions involving only smaller QFs that are not otherwise subject to FERC jurisdiction

Utility Consolidation FERC Activity

- Clarification that FERC will not exercise M&A regulatory jurisdiction as to purely passive limited partner and similar investors in fund and co-investment vehicles
  - Fund managers and GPs that hold control positions in FERC-regulated electric businesses remain subject to FERC M&A regulation, absent an applicable technical exemption
  - Non-passive (voting) fund-entity investments in FERC-regulated businesses and assets likewise remain subject to FERC M&A regulation, absent an applicable technical exemption
- Restoration of prior case law: Cogeneration QFs and certain Small Power QFs remain largely immune from FERC M&A regulation
- Confirmation from FERC that passive, publicly-listed limited partnership interests are not ordinarily subject to FERC M&A regulation

Utility Consolidation: Expectations

- Continued Generating business/asset transactions
- Fewer transactions requiring direct FERC pre-consummation approval, due to the restoration of some previous “QF” immunities from M&A regulation
- Continued portfolio transactions involving fund-based investors
- Rigid interpretations of FERC’s “hold harmless” policies, immunizing all customers from any transaction costs
- Continued Non-U.S. person investments in U.S. electrics – both GenCos and Utilities

Our Global Reach

Africa
Asia Pacific
Europe
Latin America
Middle East
North America

Our Locations

Almaty
Astana
Beijing
Boston
Brussels
Chicago
Dallas
Dubai
Frankfurt
Hartford
Houston
London
Los Angeles
Miami
Moscow
New York
Orange County
Paris
Philadelphia
Pittsburgh
Princeton
San Francisco
Santa Monica
Silicon Valley
Singapore
Tokyo
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