

## Regulatory, Policy, and Technology Trends Digest July 8, 2025

Dear DCFlex Advisor,

Thank you for your participation in DCFlex, which explores how flexible data center operations can support the electric grid, enable better asset utilization, and advance the energy transition. We are pleased to issue our third "Regulatory, Policy, and Technology Trends Digest", a product of *Workstream 2 – Transformational Utility Programs*, which showcases notable developments and trends in regulations, policies, power agreements, and energy technologies relevant to data centers, large load flexibility, and their integration with the grid.

#### In this Issue

#### Major legislation: Texas signs new interconnection rules into law

On June 20<sup>th</sup>, Texas finalized Senate Bill 6 (SB6), a landmark law reshaping how large load customers, including data centers, interconnect with the ERCOT grid. The law introduces a suite of new requirements aimed at enhancing grid reliability amid surging demand from hyperscale facilities. It mandates both cost-sharing and transparency in interconnection processes, while also establishing mandatory and voluntary demand management programs.

Key provisions of SB6 include discussions of financial commitments, co-location arrangements, load curtailment and generation deployment, disclosure requirements, new reliability service, and transmission cost allocation. This law is the first large legislative effort for integrating large, flexible loads into grid operations while safeguarding reliability.

Notably, SB6 does not include language from a previous version of the bill, which had required the Public Utilities Commission of Texas to allow for expedited interconnection for certain large loads that either provide behind-the-meter generation that can serve 100% of the customer's load or commit to providing load flexibility for 10 years.

#### Further Reading:

- EPRI Quick Insight: Texas SB6 Explained
- Senate Bill 6

#### Retail Tariffs:

While Texas SB6 was seminal legislation, the definition and treatment of large load customers in other states is evolving incrementally. This edition highlights legislation recently signed by Governors in Oregon and Maryland requiring new rates for large loads, and a new law in South Carolina allowing utilities to offer discounted rates to certain large customers. The definitions of large load customers in the laws passed in these three states vary significantly.

- Oregon law requires new customer class for large loads
- Maryland Next Generation Energy Act requires new rate for large loads
- South Carolina allows discounted rates for "transformational" customers

#### Wholesale Markets:

As discussed above, Texas SB6 provides one framework for thinking about large load impacts on both wholesale markets and retail rates. Other states and ISOs/RTOs have formed task force groups to consider similar rules, which will be updated in this newsletter as they formalize plans. In SPP there is a new Provisional Load Process, which allows additional load requests by transmission customers, even if there are not enough designated generation resources when they apply. MISO's ERAS proposal, as mentioned in the last newsletter, was approved by FERC in June with stricter eligibility criteria. While working on a long-term framework, AESO is capping total capacity of new large loads at 1,200 MW in 2027/2028 to ensure grid reliability. Lastly, FERC held a technical conference on resource adequacy. One major topic was the need for updated load forecasting considering large loads and reassessing planning reserve margins.

- SPP's Proposed New Provisional Load Process
- MISO's Revised ERAS Gains FERC Approval
- FERC Technical Conference: Resource Adequacy Under Review
- Alberta Electricity System Operator (AESO) develops Interim Plan for Large Load Connections
- Ontario proposes legislation requiring data centers to obtain approval before connecting to the grid

<u>Technologies Powering Data Centers</u>: A mix of traditional and emerging generation technologies are being tapped for supplemental and bridge power for new data centers. Established natural gas technologies lead these recent announcements, though in parallel, smaller-scale cleaner energy options are also being evaluated in various designs.

- Ohio regulators approve 200 MW behind-the-meter natural gas plant for Meta
- Google enters power purchase agreement for Nuclear Fusion
- Amazon and Talen Energy Expand Nuclear Energy Relationship

#### **Retail Tariffs**

#### Oregon law requires new customer class for large loads

On June 16, 2025, Oregon Gov. Tina Kotek approved <a href="HB 3546">HB 3546</a>, which directs the Oregon Public Utilities Commission to establish a new customer category for large energy use facilities with demand of 20 MW or more and classified under NAICS code 518210, defined as "Computing Infrastructure Providers, Data Processing, Web Hosting, and Related Services". This new customer class, which essentially describes data centers without explicitly using term, will be distinct from other commercial and industrial classes and will have its own tariff schedule. The law addresses cost allocation and requires the new tariff to mitigate unwarranted cost shifts to other customers. In addition, large load customers must enter into electric service contracts with the utility that include, as applicable, transmission, distribution, energy, capacity and/or ancillary electricity services. The contract must have a term of 10 years or longer; obligates the customer to a minimum payment amount; and may include a charge for demand in excess of the contracted peak demand specified in the tariff schedule.

### Maryland Next Generation Energy Act requires new rate for large loads

On May 20, 2025, Maryland Gov. Wes Moore signed into law joint legislation (<u>HB1035</u> and <u>SB0937</u>), also known as the "Next Generation Energy Act." The law requires the state's utilities to develop a specific rate schedule for large load customers with 100 MW of demand and a load factor over 80%. The new rate would not apply to existing large load customers if their demand does not increase by more than 25 MW. To protect residential customers from financial risks, the tariff must provide for load ramp periods, minimum billing demand, long-term contractual commitments, exit fees, collateral requirements, penalties if the customer delays or cancels a project, and cost allocation that does not result in unreasonable subsidization by other customers.

The law authorizes the Maryland Public Services Commission (PSC) to apply specified costs to commercial or industrial customers who take service directly from a retail electric supplier "in a way that bypasses interconnection" with the transmission and distribution system – or distribution services – with the exception of customers with on-site generation. This includes any direct or indirect costs for retail service that would have otherwise been applied, along with any wholesale costs shifted to other customers. Cut from the final version was previously included language requiring that co-located generation for large loads must meet 100% of the customer's load and obtain any Certification of Public Convenience & Necessity (CPCN) permits required for construction.

#### South Carolina allows discounted rates for "transformational" customers

South Carolina Gov. Henry McMaster signed <u>H. 3309</u>, the South Carolina Energy Security Act, on May 12, 2025. The law allows electric utilities to offer special terms and conditions – including lower rates – to commercial or industrial "transformational" customers that bring to the state (1) an additional 50 MW, (2) 500 new employees, and (3) \$100 million of capital investment following the utility's service approval. These customer agreements are capped at 10 years. The utility may offer the customer interruptible and real-time pricing options and riders for other clean energy attributes. The discounted rates may not be lower than 25% less than the utility's marginal cost of service for that customer. In addition, the act provides the utility the ability to expedite the interconnection of a renewable energy facility to be constructed by the customer at its location. The law includes terms related to consumer protection and cross-customer class-subsidization. However, the bill signed by Gov. McMaster did not include provisions from a previous version of the bill specifically for data centers, such as longer contract terms with a minimum of 15 years; minimum billing requirements; exit fees; and collateral requirements. Further reading: Gov. McMaster News Release

## Wholesale Markets

## SPP's Proposed New Provisional Load Process

To address the surge in large load interconnection requests, the Southwest Power Pool (SPP) has proposed a new <u>Provisional Load Process</u>, submitted to FERC on June 4, 2025. This process would allow transmission customers to request load additions even if they lack sufficient designated generation resources at the time of application. The goal is to streamline studies and planning while ensuring that new load growth is backed by adequate capacity. If approved, the process would take effect on August 4, 2025, and represent a significant shift in how SPP manages resource adequacy and transmission planning for large, often data center-driven, loads.

Key features of the Provisional Load Process include:

- Pre-study generation requirement: Load requests will be paired with planned as opposed to designated – generation capacity before entering the study process.
- New cost allocation rules: Network upgrade costs identified through this process would be directly assigned to the requesting customer until firm service is granted, which is different from current practice which is base-plan funded.
- Expanded eligibility: Enables study of load additions without requiring existing designated resources to fully cover the forecasted load.

### MISO's Revised ERAS Gains FERC Approval

Following an initial rejection by FERC in April 2025, the Midcontinent Independent System Operator (MISO) submitted a <u>revised Expedited Resource Addition Study</u> (<u>ERAS</u>) <u>proposal</u>, which was approved on June 26, 2025, under <u>Docket No. ER24-2046-000</u>. The original filing was criticized for lacking sufficient guardrails to prevent speculative projects from clogging the queue—concerns that mirrored the very backlogs the proposal aimed to resolve.

In response, MISO's revised version introduced stricter eligibility criteria, including enhanced site control, early milestone payments, and commercial readiness demonstrations. This might begin a trend toward faster processes for resources that are ready to connect, rather than those simply in the queue earlier. The approved framework is now positioned to accelerate the integration of generation resources, particularly those supporting large, flexible loads like data centers, while preserving queue discipline and system reliability. This process will only apply to generation interconnection, as there is no current equivalent process for loads overseen by FERC.

## FERC Technical Conference: Resource Adequacy Under Review

FERC's two-day <u>Technical Conference on Resource Adequacy</u> (June 4–5, 2025) brought together system operators, regulators, utilities, and large load stakeholders to assess how growing electricity demand, particularly from data centers is challenging conventional planning frameworks. The conference underscored the need for evolving planning tools and operational strategies to maintain reliability while accommodating rapid, concentrated load growth. Discussions emphasized better alignment of forecasting practices with emerging load profiles, revisiting reserve margin requirements in high-growth areas, and enabling business models that integrate flexible consumption and onsite generation.

#### Key themes included:

- The need for updated load forecasting standards to capture large load developments with greater accuracy.
- Re-evaluation of planning reserve margins to reflect regional demand surges and reliability risk.
- Consideration of co-located generation and flexible load operations as tools for maintaining grid balance and enhancing resource adequacy.

## Alberta Electricity System Operator (AESO) develops Interim Plan for Large Load Connections

AESO has seen a surge in large load connection applications primarily driven by AI data centers, a total of 16,229 MW in cumulative requests for installation by 2029 were submitted since Q1:24 compared to Alberta's current peak demand of 12,384 MW. In response, AESO has set an interim limit of 1,200 MW for new large loads to be connected by 2027/2028 to ensure grid reliability while supporting near-term development. Assuming no additional requests are submitted, this cap represents 7% of the total projects. AESO is also implementing a limit assignment process for allocating the 1,200 MW among eligible projects and is drafting technical interconnection requirements.

AESO is in the process of developing a comprehensive long-term framework for future large load connections that includes new ISO tariff structures, updated Alberta reliability standards, enhanced transmission planning, and industry and government engagement.

# Ontario proposes legislation requiring data centers to obtain approval before connecting to the grid

The Legislative Assembly of Ontario (Canada) introduced <u>Bill 40</u>, "<u>Protect Ontario by Securing Affordable Energy for Generations Act, 2025</u>" on June 3, 2025, that, if passed, will require data centers to obtain approval before connecting to the grid. Currently, electric utilities are required to accept interconnection requests from any data centers, regardless of economic impact or energy consumption needs. The intent of this legislation is for the Independent Electricity System Operator (IESO) of Ontario to prioritize interconnection requests from data centers based on strategic and economic benefits, including enhancing provincial competitiveness and energy security.

Current requests from data centers to interconnect with the IESO grid represent approximately 30 percent of the province's peak demand in 2024. Electricity demand from data centers is expected to represent 13 percent of Ontario's new electricity demand by 2035.

## **Technologies Powering Data Centers**

To keep up with the continued demand for AI and cloud services, data center developers are actively exploring supplemental and bridge power solutions under various configurations (e.g., on-site, behind the meter, co-located). Natural gas fueled technologies are continuing to lead the trend where grid capacity is limited. In parallel, several smaller-scale pilots are exploring clean energy applications as well (e.g., nuclear, fuel cells, hydrogen, carbon capture).

- Ohio regulators approve the construction of a 200 MW natural gas plant to provide behind-the-meter power to Meta's data center being built in New Albany.
  - Approved by the Ohio Power Siting Board (OPSB) on June 9, 2025.
  - Construction of power plant and electrical substation estimated for completion in Q3 2026.
- Google to Buy Power from Nuclear Fusion. On June 30, 2025, Google announced a
  power purchase agreement with Massachusetts-based energy startup
  Commonwealth Fusion Systems (CFS) for 200 MW from its future inaugural ARC
  nuclear fusion power plant, planned to come online "in the early 2030s" in
  Chesterfield County, Virgina. Financial terms have not been disclosed. Google has
  been an investor in CFS since 2021. CFS claims that ARC will be the first grid-scale
  fusion power plant in the world.
- Amazon and Talen Energy Expand Nuclear Energy Relationship. On June 11, 2025, independent power producer Talen Energy announced an expansion of its existing power purchase agreement with Amazon to provide up to 1,920 MW from its Susquehanna nuclear plant to Amazon' adjacent AWS data center campus. The power delivery schedule will ramp over time, expecting to reach full capacity by 2032 to support AI and other cloud technologies for AWS through 2042. The existing co-located behind-the-meter configuration between the Susquehanna plant and the AWS data center will transition to a "front-of-the-meter" arrangement after the completion of transmission reconfigurations expected in the Spring of 2026. Under the terms of the new agreement, Susquehanna will supply power to the PJM grid, with Talen acting as the retail electric generation supplier to Amazon, and PPL Electric Utilities responsible for transmission and delivery.

## Other news

Johns Hopkins University's State Playbook for Managing Data Center-Driven Load Growth

As states confront the dual challenge of supporting data center-driven economic growth while maintaining grid reliability, a new <a href="State Playbook">State Playbook</a> for Managing Data Center-Driven Load Growth from Johns Hopkins University offers a menu of options. The playbook outlines actionable strategies for policymakers to manage large load integration, emphasizing both infrastructure planning and regulatory innovation. It introduces the concept of "BeYOnCE" (Bring Your Own Clean Energy) and other tools to align data center development with clean energy and reliability goals.

Key recommendations include:

- Tailored tariffs and non-firm service options to reflect the unique load profiles of data centers.
- Grid modernization cost-sharing mechanisms to ensure equitable infrastructure investment.
- Clean energy content requirements, including the "BeYOnCE" framework to promote renewable procurement.
- "Bring Your Own Energy" mandates that require large loads to self-supply or offset their demand with new clean resources.

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Each Regulatory, Policy, and Technology Trends Digest issue is a curated selection of timely and impactful regulatory and policy highlights with succinct contextual commentary and resources for deeper dives. Our aim is for these digests to become essential reading to provide you with broad perspective and insight.

DCFlex will continue to monitor relevant regulatory and policy developments and keep you informed of key filings, proceedings, decisions, and their implications.

We welcome your feedback! Contact <a href="DCFlex@epri.com">DCFlex@epri.com</a>.

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