# Monthly Retail Choice Regulatory Bulletin

CALPINE ENERGY SOLUTIONS

October 2024

## Executive Summary & Introduction

1. The U.S. Supreme Court rejected "emergency applications" by utilities and independent power producers seeking to put a hold on EPA rules that require coal and gas-fired power plants to install carbon capture and sequestration systems at 90% efficiency by 2032.
2. The U.S. Department of Commerce has levied preliminary tariffs, as high as 292.61%, on solar cell imports from four Southeast Asian countries for circumventing tariffs on Chinese-made components.
3. PJM plans to delay its capacity auction for 2026/27 delivery year by six months to give it time to respond to the Sierra Club's complaint at the FERC.
4. FERC approved MISO's Direct Loss of Load capacity accreditation methodology to be implemented by the 2028/29 capacity auction.
5. FERC has issued a rule that bars payments to generation plants for reactive power within the standard power factor range.
6. AEP Ohio and other stakeholders have submitted a "settlement agreement" to the PUC of Ohio for approval that sets terms and conditions for connecting data centers to its grid.
7. According to Bain & Company, data centers could account for 44% of U.S. electricity load growth from 2023 to 2028, and U.S. utilities are facing "overwhelming demand" as generative AI has created a boom in data centers.
8. With the completed sale of its 50% interest in South Fork Wind and Revolution Wind projects, Eversource Energy has exited the offshore wind business.

## 1.1 Assessment Approach

Our analysis of the Regulatory risk(s) to our customers is summarized in the rating(s) categories defined below:

**Potential Financial Impact to Customer(s):**

| Symbol | Description |
|---|---|
| $+ | Signifies potential increase in costs |
| $- | Signifies potential decrease in costs |

**Magnitude of Risk to Customer(s):**

| Symbol | Description | Description |
|---|---|---|
|  | Major Impact | Represents a regulatory or policy change that is in the process of being enacted by Regulators (i.e., PUC, ISO, FERC, EDC) and is expected to result in a meaningful increase in cost(s) to load; likely require immediate action. |
|  | Medium Impact | Represents a regulatory or policy change that is in the proposal process and being sponsored by one or more ISO stakeholders. Most of these Risk's will likely be elevated to RED. Medium Impact issues will require involvement but we expect to have time to coordinate load on these type(s) of issues. |
|  | Actively Monitor | Represents a regulatory or policy discussions or trends that may evolve to either RED or ORANGE categories. No immediate action item for load. |
|  | For Your Information | Industry developments or information, while not directly impacting the customer, may be of interest or import to the customer. |

## 2.0 Overall Assessment

We have identified various issues that coalesce with the ratings categories described above. Notwithstanding, these are the Regulatory or Policy issues we consider extremely relevant to our retail customers*. With respect to this Bulletin, the six categories which appear to represent the most significant impacts to retail customers are identified below and categorized according to ISO:



*Where appropriate, we have provided links to articles and other relevant information for reference purposes.

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## 2.1 Policy

| Issue# | Rating | Issue | Impact | Action/Result |
|---|---|---|---|---|
| **2.1a EPA** | $+ | **The U.S. Supreme Court rejected "emergency applications" by utilities and independent power producers seeking to put a hold on EPA rules that limit carbon emissions from power plants—*requiring coal and gas-fired power plants set to operate past 2039 to install carbon capture and sequestration systems at 90% efficiency*—with compliance beginning 2032.**<br>DP: Supreme Court rejects request to stay EPA power plant GHG emissions rule | The U.S. Court of Appeals for the D.C. Circuit is expected to make a decision in the case before compliance work needs to start in June 2025.<br>However, the outcome of the presidential election in November is likely to affect the litigation over the EPA rule. If Harris wins the election and the D.C. Circuit upholds the rule, the litigation will likely be decided by the Supreme Court. | If Trump wins, the EPA Power Plant rule is expected to be repealed, regardless of the outcome of the proceedings before the D.C. Circuit.<br>*(See our May 2024 Regulatory Bulletin, Sec. 2.1a for more on the EPA rule.)* |
| **2.1b U.S.** | $+ | **The U.S Department of Commerce has made a preliminary *affirmative determination in a countervailing duty investigation* into solar cell imports from four Southeast Asian countries—Cambodia, Malaysia, Thailand and Vietnam—and set preliminary duties on those imports.**<br>The preliminary tariffs established by Commerce are as high as 292.61% for four companies based in Vietnam.<br>Reuters: US sets preliminary new duties on solar imports from Southeast Asia | Commerce determined last year that the four Southeast Asian countries had been used by solar panel manufacturers to circumvent tariffs on Chinese-made components.<br>The American Alliance for Solar Manufacturing Trade Committee—which includes First Solar, Convalt Energy, Meyer Berger, Mission Solar, REC Silicon and Swift Solar—filed petitions with Commerce and the U.S. International Trade Commission in April seeking antidumping and countervailing duties be imposed on crystalline silicon solar cell imports from the four countries. | The alliance's petition had been criticized by renewable energy groups like the American Council on Renewable Energy, who say that the new tariffs could hinder American solar deployment.<br>A final order will be issued in April 2025.These four countries are also under investigation for illegal dumping and face a preliminary anti-dumping determination in November. |

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## 2.2 Capacity / System Reliability

| Issue# | Rating | Issue | Impact | Action/Result |
|---|---|---|---|---|
| **2.2a PJM** | **$+** | **PJM plans to delay its upcoming base residual capacity auction (BRA) for the 2026/27 delivery year by about six months to give it time to respond to the Sierra Club's complaint at the FERC, proposing rule changes at the RTO to allow reliability must-run power plants in its capacity auctions which would result in lower prices.**<br><br>Concerns were also raised by the PJM market monitor, the Organization of PJM States, Inc. (OPSI) and the Maryland Public Service Commission. OPSI protested that not including Talen Energy's power plants designated as Reliability Must Run (RMR) in the 2026/27 capacity auction will result in billions in additional capacity costs.<br><br>The PJM Power Providers Group (P3), which represents independent power producers, also called for capacity market changes, noting that recent changes to the demand curve used to set capacity prices increase the likelihood of "boom/bust" auction results. | PJM said that the issues raised in the Sierra Club complaint, as well as from the other stakeholders, are complex and affect other aspects of the capacity market design. The RTO said that it wants to address capacity market reform holistically and not just the RMR issue in isolation, and that the delay will give it time to devise changes to the capacity construct to improve market certainty.<br><br>**Recent capacity price trends**<br><br>Recall that after the 2025/26 BRA cleared at $270/MW-day for the RTO *(see our August PJM Capacity Special Report)*, PJM said:<br><br>***"The significantly higher prices in this auction confirm our concerns that the supply/demand balance is tightening across the RTO. The market is sending a price signal that should incent investment in resources."***<br><br>The declining capacity auction prices over the past decade, through 2024/25, have correspondingly resulted in a reduction in new generation capacity placed in service, with less than 2 GW of mostly solar resources in 2024. | **How tight is PJM's supply/demand balance today?**<br><br>According to PJM, it had 16 GW of "excess" capacity in the 2024/25 delivery year, which provided a degree of reliability cushion. However, that excess capacity has declined to just 0.5 GW for the 2025/26 delivery year for a number of reasons.<br><br>**What are the next steps?**<br><br>PJM has filed its request for delay at FERC, which upon approval, the 2026/27 BRA (currently scheduled for December 2024) will likely be delayed until June 2025, while the 2027/28 and 2028/29 BRAs, currently scheduled for June and December 2025, respectively, will be pushed back accordingly.<br><br>Calpine Energy Solutions will keep you apprised of further developments as they become available. Please contact your Calpine sales representative if you have further questions.<br><br>*(See our October 16th Special Report for more on the capacity auction delay.)* |

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## 2.2 Capacity / System Reliability

| Issue# | Rating | Issue | Impact | Action/Result |
|---|---|---|---|---|
| **2.2b MISO** | $+ | **FERC approved MISO's proposal (ER24-1638), filed in March, to overhaul its capacity accreditation rules to better reflect the reliability contributions of weather-dependent wind and solar resources, as well as thermal generators.**<br><br>The new Direct Loss of Load (DLOL) method applies a two-step approach, a forward looking, probabilistic first step and a historical, deterministic second step:<br><br>MISO filed accreditation approach with FERC as next phase of Resource Adequacy reform | Step 1) Measures a resource's expected marginal contribution to reliability using Resource Class-level performance during the loss of load expectation (LOLE) analysis, including a Monte Carlo probabilistic simulation using 30 years of correlated load and weather data;<br><br>Step 2) Uses historical resource-level performance during Tier 1 and Tier 2 Resource Adequacy (RA) hours currently used under MISO's Tariff to accredit individual resources within their respective Resource Classes. | Those periods are defined as "critical hours" where available excess generation is less than or equal to 3% of demand in that hour. The total number of critical hours has been capped at 1,950 hours per season.<br><br>The DLOL methodology will be implemented over a three-year transition period, with full implementation beginning the 2028/29 delivery year. |
| **2.2c U.S.** | $+ | **According to Bain & Company, data centers could account for 44% of U.S. electricity load growth from 2023 to 2028, and some utilities may need to increase their annual generation by more than 25% over the next three years in order to meet rising electricity demand led by data centers and AI.**<br><br>Bain: Utilities must reinvent themselves to harness the AI-driven data center boom | U.S. utilities are facing potentially "overwhelming demand" after nearly two decades of stagnant growth, as the late 2022 breakthrough in generative AI created a boom in data centers, occurring at the same time electricity demand increased from reshoring of manufacturing and vehicle electrification.<br><br>Utilities will need to generate 10% to 19% in additional revenue over their previous projections, resulting in customer bill increases by 1% annually—on top of the 7% to 9% bill growth previously forecast through 2032, according to Bain. | According to EPRI, U.S. data center load is expected to grow to nearly 21 GW in 2024, up from 19 GW in 2023 and could consume more than 9% of U.S. electricity generation by 2030, double today's share.<br><br>Bain believes that some hyperscale data center developers will need to invest their own capital to assist with the grid buildout, as well as build their own gas-fired generation. Such generators can then serve the grid as a virtual power plant or as demand response, providing secondary value.<br><br>*(See our January 2022 Regulatory Bulletin, Sec. 2.1h for more on EPRI's prior load growth forecast.)* |

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## 2.2 Capacity / System Reliability

| Issue# | Rating | Issue | Impact | Action/Result |
|---|---|---|---|---|
| **2.2d PJM/ OH** | **$+** | **AEP Ohio, PUCO staff, Ohio Consumers' Counsel (OCC), Ohio Energy Group, Ohio Partners for Affordable Energy, and Walmart asked the Public Utilities Commission of Ohio (PUCO) to approve a settlement agreement that sets terms and conditions for connecting data centers to the grid—and reject an earlier proposal made by Amazon, Google, Microsoft, Meta, and Constellation.**<br><br>The OCC said the settlement protects Ohio utility ratepayers from footing the bill for data center expansion.<br><br>PG: AEP Ohio reaches potential settlement on contested data center proposal | The AEP Ohio-led settlement agreement requires data centers larger than 25 MW to pay for at least 85% of the energy they expect to need, even if they use less (i.e. demand charge), to cover the cost of infrastructure needed to deliver electricity to the facilities. It also requires data centers to show they are financially viable, pay an exit fee if their project is canceled or they can't meet obligations of their electric service agreement (ESA), which can be as long as 12 years, including a 4-year ramp-up period.<br><br>The agreement differs from the Amazon-led proposal in that the latter agreement's contractual term is shorter and its exit fees and demand charges are lower. | The PUCO decision comes as U.S. utilities are facing an increasing number of data center interconnection requests that are also growing in size.<br><br>**Indiana Michigan Power, an AEP utility, estimates that hyperscale data centers will use 35 million MWh annually by 2030, compared to 32 million MWh annual load from current residential load.**<br><br>According to an EPSA survey, about 60% of utilities said they have service requests from data centers with demand greater than 500 MW and 48% have received requests for facilities with demand larger than 1 GW. *Almost half of the 25 utilities surveyed have data center requests that exceed 50% of their system peak demand.* |

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## 2.4 Ancillary Services

| Issue# | Rating | Issue | Impact | Action/Result |
|---|---|---|---|---|
| 2.4a FERC | $- | **FERC issued a rule that bars payments to generation plants for reactive power within the standard power factor range. As a result, generators who provide reactive power will only be paid when the transmission provider asks or directs the facility outside the "deadband" range.**<br>MB: FERC ends reactive power compensation | Generating facilities must either produce or absorb reactive power for the transmission system to maintain required voltage levels.<br>Only PJM, ISO-NE and NYISO pay generators for reactive power. The PJM market monitor said the ISO paid generators $388 million in 2023 for reactive capability, while NYISO and ISO-NE paid $75 million and $18 million, respectively. | FERC Chairman Phillips said, "This is about affordability and we're doing all that we can to address prices for consumers." |

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## 2.6 Industry Development

| Issue# | Rating | Issue | Impact | Action/Result |
|---|---|---|---|---|
| **2.6a U.S./ OSW** |  | **Eversource Energy completed the sale of its 50% interest in South Fork Wind and Revolution Wind offshore wind projects to Global Infrastructure Partners' Skyborn Renewables for $745 million, taking a net loss of $520 million for the third quarter of 2024.**<br>Offshore: Eversource Energy exits offshore wind business | In March, the 130-MW South Fork Wind offshore wind project became the first utility-scale offshore wind farm in the U.S. to complete construction. The 704-MW Revolution Wind project is expected to be fully operational and deliver power to Rhode island and Connecticut by 2026. | Eversource said that with the sale, it has divested all ownership interest in the offshore wind business. The company sold its 50% stake in an uncommitted lease area offshore Massachusetts to Orsted for $625 million in 2023.<br>Eversource said it is committed to operate as a pure-play regulated pipes and wires utility going forward. |

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## 3.0 Contact Information

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**Public/ISO Regulatory Contacts:**

- PJM - http://pjm.com/about-pjm/who-we-are/contact-us.aspx
- MISO - https://www.misoenergy.org/AboutUs/ContactUs/Pages/ContactUs.aspx
- NEISO - http://iso-ne.com/contact/contact_us.jsp
- NYISO - http://www.nyiso.com/public/markets_operations/services/customer_support/index.jsp
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