# Assessing U.S. Electric Grid Operators' Governance: Transparency, Accessibility, Accountability

**Prepared on behalf of Slingshot** 



**Authors:** 

**Bryndis Woods, PhD** 

**Deja Garraway** 

**Alicia Zhang** 

Sagal Alisalad

**Sumera Patel** 

**Applied Economics Clinic** 

May 2025





## **Acknowledgements**

We extend deep gratitude to everyone that contributed to this assessment, including our twelve interview participants who provided invaluable insights, personal experiences, and resources. To the Tufts Urban and Environmental Policy and Planning students who conducted many of our interviews and spent an entire semester reviewing and synthesizing available information and resources—Cora Salzano, Paulina Casasola Mena, Trisha Pal, and Sadaf Bilal Ansari—thank you. Finally, thank you to Mireille Bejjani of Slingshot and Ada Statler of Earthjustice for your input, guidance, feedback and enthusiasm.

www.aeclinic.org Page 2 of 37



#### **Executive Summary**

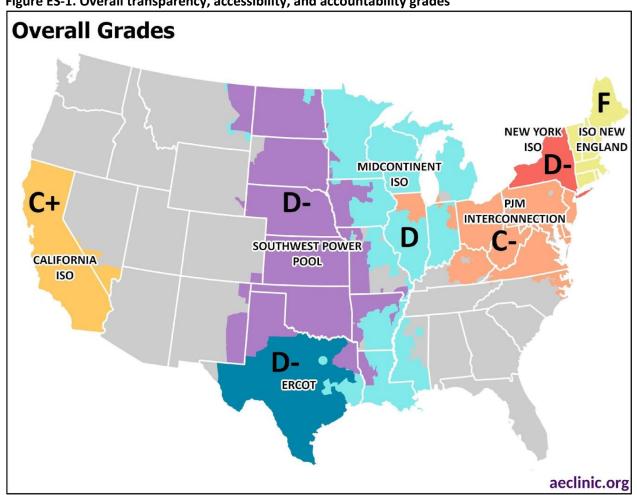
This report card scores the governance practices of the seven U.S. grid operators (ISOs/RTOs), evaluating transparency, accessibility, and accountability and finds room for a great deal of improvement.

None of the seven U.S. ISOs/RTOs perform particularly well in any assessment category and there is considerable room for improvement across ISOs/RTOs in terms of transparency, accessibility, and accountability.

**ISO-NE Interviewee:** [The electricity consumers] pay for everything. We are the reason the whole system exists. It's supposed to exist to serve us and our needs.

The highest overall grade was a C+ earned by CAISO due to its strong performance in the accountability category. The lowest overall grade was an F earned by ISO-NE due to its receiving a failing grade in the accessibility and accountability categories. The five remaining ISOs/RTOs (PJM, MISO, SPP, ERCOT and NYISO) each received an overall grade ranging from C- to D- (see Figure ES-1).

Figure ES-1. Overall transparency, accessibility, and accountability grades



www.aeclinic.org Page 3 of 37



On behalf of Slingshot and their participation in the broader, grassroots Fix the Grid campaign in New England, this Applied Economics Clinic (AEC) report card utilized approximately 250 sources—including ISO/RTO documents, research reports, and expert testimony—to develop and assign points across 34 metrics among three categories: **transparency** is making information and materials publicly available; **accessibility** is facilitating public awareness and involvement in ISO/RTO processes; and **accountability** is structuring governance and decision-making processes to incorporate viewpoints reflective of the diversity of the communities in each ISO/RTO territory. Category scores were assigned by adding the points awarded across all metrics in each category, calculated as a percentage of total possible points in that category (e.g. 34 points awarded across 14 metrics in the transparency category, out of 56 total possible points). Each ISO/RTO received an overall score for which transparency accounted for 15 percent of the total score, accessibility for 30 percent, and accountability for 55 percent, to reflect the relative importance and difficulty of each category.

Key findings include (see Table ES-1 below):

- Room for improvement: Four of the seven ISOs/RTOs earned an overall grade of D or D-, and one received an F, indicating that there are plenty of opportunities for grid operators to strengthen their transparency, accessibility, and accountability.
- Lowest scores in accessibility: The ISOs/RTOs earned the lowest grades overall in the accessibility category, indicating that grid operators should prioritize facilitating broad participation in their governance and decision-making processes.
- **Highest scores in transparency:** The ISOs/RTOs earned the highest grades overall in the transparency category, indicating that grid operators perform best in providing detailed, up-to-date, easily accessible information and resources.
- CAISO earned the top grade: The highest grade awarded across any category was a B+ earned by CAISO in the accountability category, followed by a B earned by PJM for transparency. All other grades were C or lower.
- Opportunities to do better: Every ISO/RTO except CAISO earned a failing grade in at least one
  category, indicating that each ISO/RTO has room for improvements, and can start with good
  governance practices that are already being employed by other ISOs/RTOs.

Table ES-1. Grades by category and by ISO/RTO

	CAISO	ERCOT	ISO-NE	MISO	NYISO	PJM	SPP
Transparency	С	F	С	C-	С	В	D
Accessibility	D+	D+	F	F	F	F	F
Accountability	B+	D	F	D+	D	C-	D
TOTAL	C+	D-	F	D	D-	C-	D-

www.aeclinic.org Page 4 of 37



# **Table of Contents** Introduction ......6 II. Electric Grid Operators ......8 ISO/RTO Governance ......9 III. Study Motivation and Analytical Approach ......12 IV.



#### I. Introduction

Electric grid operators, including Independent System Operators (ISOs) and Regional Transmission Organizations (RTOs), coordinate, control, and monitor the electric grid in a specific geographical area: They are the authority in charge of the entire electrical grid and all associated markets within their geography. As a result, electric grid operators are crucial actors in determining the energy mix in their geographic footprint, even if states retain the legal authority over directly determining their own energy resource mix. This practical reality has driven increased public interest in electric grid operators and their governance practices.

On behalf of Slingshot and their participation in the broader, grassroots Fix the Grid campaign in New England, this Applied Economics Clinic (AEC) report card evaluates the seven electric grid operators in the United States (see Table 1) across three governance focus areas: 1) transparency, 2) accessibility, and 3) accountability.<sup>1</sup>

Table 1. ISOs/RTOs

ISO/RTO Name	Acronym
California ISO	CAISO
Electric Reliability Council of Texas	ERCOT
ISO New England	ISO-NE
Midcontinent ISO	MISO
New York ISO	NYISO
PJMInterconnection	PJM
Southwest Power Pool	SPP

This study establishes a baseline for the performance of each ISO/RTO and identifies ways that ISOs/RTOs can become more publicly transparent and accessible as well as being accountable to the states and communities they serve. AEC's analytical approach included gathering and synthesizing publicly available data and information to develop a list of individual metrics and grading schemes as well as conducting 13 interviews with advocates and grid operator participants across the country to provide critical first-hand perspectives and insights and identify additional resources.

The main finding of this report card is that **none of the seven U.S. ISOs/RTOs perform particularly well** in *any* assessment category. In other words, U.S. grid operators should invest more effort into making their governance processes transparent, accessible, and accountable. Other key findings include:

- The highest overall grade was a C+ earned by CAISO.
- The lowest overall grade was an F earned by ISO-NE.

www.aeclinic.org Page 6 of 37

<sup>&</sup>lt;sup>1</sup> (1) Slingshot. N.d. "Power for People. Not Polluters." Available at: <a href="https://www.slingshot.org/">https://www.slingshot.org/</a>; (2) Fix The Grid. N.d. "Accelerating a just transition to a democratic, transparent and renewable electric grid." Available at: <a href="https://fix-the-grid.org/">https://fix-the-grid.org/</a>.



- Four of the seven ISOs/RTOs earned an overall grade of D or D-.
- The ISOs/RTOs earned the lowest grades overall in the accessibility category.
- The ISOs/RTOs earned the highest grades overall in the transparency category.
- The highest grade awarded across any category was a B+ earned by CAISO in the accountability category, followed by a B earned by PJM for transparency. All other grades were C or lower.
- Every ISO/RTO except CAISO earned a failing grade in at least one category.

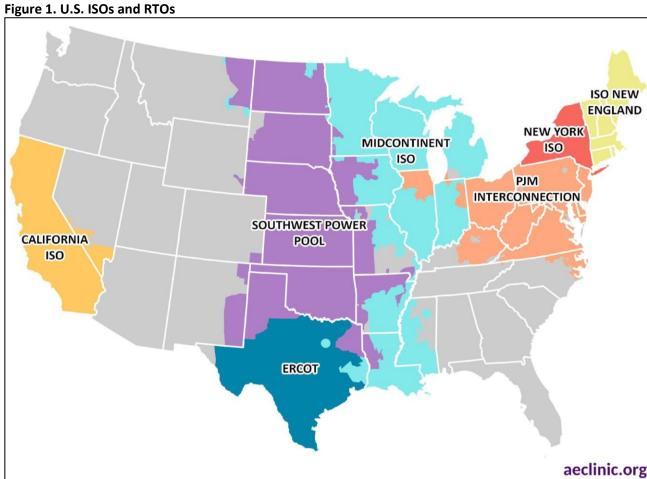
The report card is organized as follows: Section I provides a brief background of ISOs and RTOs, Section II summarizes the motivation for this assessment and the study's analytical approach, Section III presents key findings, and Section IV provides conclusions. The Appendices provide a list of the metrics that comprise the report card, detailed score and grade breakdowns, and a list of interview participants.

www.aeclinic.org Page 7 of 37



#### II. **Electric Grid Operators**

Independent System Operators (ISOs) and Regional Transmission Organizations (RTOs) are nongovernmental, non-profit organizations charged with coordinating, controlling, and monitoring the power grid—they are the authority in charge of the entire electric grid and all associated markets within their specific geographical area. There are seven ISOs and RTOs in the United States (see Figure 1 below). Non-ISO/RTO areas of the United States (any area in grey in Figure 1) are managed by individual utilities that are usually vertically integrated (i.e. they own and operate electric generation, transmission, and distribution resources) and are regulated by state public utility commissions (as well as the Federal Energy Regulatory Commission, FERC).<sup>2</sup>



U.S. ISOs and RTOs came into being in the late 1990s and early 2000s as a result of two FERC Orders: Order 888/889 in 1996—which established ISOs and wholesale markets (explained below in more detail) to create competition for electric supply—and Order 2000 in 1999—which established RTOs to encourage

Page 8 of 37 www.aeclinic.org

<sup>&</sup>lt;sup>2</sup> Federal Energy Regulatory Commission (FERC). 2025. "Energy Markets." Available at: https://www.ferc.gov/opp/energy-markets.



regional transmission planning.<sup>3</sup> All ISOs/RTOs are subject to FERC oversight and review, except ERCOT because its grid does not cross state lines.<sup>4</sup> The seven U.S. ISOs and RTOs operate two-thirds of all electricity delivered in the United States and are tasked with supplying affordable and reliable electricity and planning for regional transmission services.<sup>5</sup>

#### ISO/RTO Governance

ISOs and RTOs are non-profit organizations that collect the funds they need to operate from a portion of energy consumers' rates and fees paid by various entities involved in the generation, transmission, and distribution of electricity within the ISO/RTO service area. ISOs and RTOs have three primary roles: (1) operate three categories of markets associated with the electric grid (see below for more detail on markets, starting on page 11); (2) oversee the interconnection of new power generators to the grid; and (3) plan and allocate costs for building, maintaining, and ensuring the reliability of the transmission grid. ISO/RTO responsibilities have become areas of heightened attention given declining reliability (i.e. more outages), aging grid infrastructure, increasing electric demand, and the changing nature of the generation resource mix to incorporate more renewable and distributed energy resources (which often require new or upgraded transmission infrastructure).

ISO/RTO governance rules are generally laid out in governing documents (e.g. tariff, operating agreements, manuals, historical documents), but the ultimate decision-making body at every ISO/RTO is the Board of Directors ('Board'), where every ISO/RTO requires a simple Board majority for approval. Every ISO/RTO has four to six Board committees, but the committees themselves differ across each ISO/RTO. Common Board committees include markets-related committees, reliability-related committees and finance-related committees. All ISOs/RTOs have ten Board members, except CAISO, which has five. All ISOs/RTOs have a

www.aeclinic.org Page 9 of 37

<sup>&</sup>lt;sup>3</sup> (1) FERC. 2024. "RTOs and ISOs." Available at: <a href="https://www.ferc.gov/power-sales-and-markets/rtos-and-isos">https://www.ferc.gov/power-sales-and-markets/rtos-and-isos</a>; (2) Sustainable FERC Project. N.d. "RTO Backgrounders." Available at: <a href="https://sustainableferc.org/rto-backgrounders-2/">https://sustainableferc.org/rto-backgrounders-2/</a>.

<sup>4</sup> FERC. 2025. "An Introductory Guide to Electricity Markets Regulated by the Federal Energy Regulatory Commission." Available at: <a href="https://www.ferc.gov/introductory-guide-electricity-markets-regulated-federal-energy-regulatory-commission">https://www.ferc.gov/introductory-guide-electricity-markets-regulated-federal-energy-regulatory-commission</a>.

<sup>&</sup>lt;sup>5</sup> (1) Davis-Hup, L., Johnston, E., Khanna, M., & Mathur, S. N.d. "Independent System Operators (ISOs) & Carbon Pricing: An Explainer." *Climate Xchange*. Available at: <a href="https://climate-xchange.org/independent-system-operators-isos-carbon-pricing-an-explainer/">https://climate-xchange.org/independent-system-operators-isos-carbon-pricing-an-explainer/</a>; (2) Sustainable FERC Project. N.d. "RTO Backgrounders."; (3) ISO/RTO Council. N.d. "The IRC: Shaping Our Energy Future." Available at: <a href="https://isorto.org/">https://isorto.org/</a>.

<sup>&</sup>lt;sup>6</sup> (1) ISO New England. N.d. "The ISO's Funding and Budgeting Process." Available at: <a href="https://www.iso-ne.com/about/who-we-are/our-funding-and-budgeting-process">https://www.iso-ne.com/about/who-we-are/our-funding-and-budgeting-process</a>; (2) U.S. Energy Information Administration (EIA). April 4, 2011. "About 60% of the U.S. electric power supply is managed by RTOs." Available at: <a href="https://www.eia.gov/todayinenergy/detail.php?id=790">https://www.eia.gov/todayinenergy/detail.php?id=790</a>; (3) Wright & Talisman, P.C. February 17, 2020. \*RTO/ISO Fee Provisions for Public Interest Organizations. Available at: <a href="https://spp.org/documents/61548/cgc%20additional%20materials%2020200220.pdf">https://spp.org/documents/61548/cgc%20additional%20materials%2020200220.pdf</a>.

<sup>&</sup>lt;sup>7</sup> (1) FERC. 2025. "An Introductory Guide to Electricity Markets Regulated by the Federal Energy Regulatory Commission."; (2) Reeves, K. N.d. *Electric Transmission 201: Markets, ISO/RTOs and Grid Planning/Operations*. Available at: https://www.eesi.org/files/KevinReeves032614.pdf.

<sup>&</sup>lt;sup>8</sup> Kim, J. July 26, 2023. "Increasing Power Outages Don't Hit Everyone Equally." *Scientific American*. Available at: <a href="https://www.scientificamerican.com/article/increasing-power-outages-dont-hit-everyone-equally1/">https://www.scientificamerican.com/article/increasing-power-outages-dont-hit-everyone-equally1/</a>.



Board term duration of 3 years, except NYISO, where the term duration is 4 years.

All the ISOs/RTOs (except CAISO) also have a stakeholder process that is intended to engage ISO/RTO members and other stakeholders in decision-making processes and provide recommendations and advice to the Board. (Note: in this report card, any use of the word "stakeholder" refers to a participant in an ISO/RTO stakeholder process. Elsewhere, ISO/RTO members are sometimes referred to as "stakeholders"—we refer to them only as members and/or market participants). ISO/RTO stakeholder processes utilize various committees with weighted voting structures (where each sector receives a designated share of the total vote and sectors include designations such as transmission owners, generation entities, alternative resources, end users, or public interest groups); whether or not non-members are permitted to be formal stakeholders varies by ISO/RTO. CAISO does not have a committee structure for stakeholder participation, but its stakeholder engagement process is open to anyone and is facilitated according to topic. One of the total vote and sectors include designations are permitted to be formal stakeholders varies by ISO/RTO.

Of course, individual states set their own policy priorities—including those that impact the energy sector, such as emission reduction commitments or clean energy mandates—and control which generation resources are built as well as the siting of transmission infrastructure (i.e. where transmission lines may be located). However, ISOs/RTOs are in charge of transmission planning and administer the markets that incentivize generation resources to be added (see the *Capacity Market* section below). These separate but complementary roles and responsibilities necessitate a considerable degree of coordination, so all the ISOs/RTOs (except CAISO and ERCOT) have a state commission or committee that provides input to the ISOs/RTOs and can raise issues for consideration in stakeholder processes. All state committees except MISO's (called the Organization of MISO states or 'OMS') are advisory-only, i.e. they do not have voting rights. Is

#### **Market Functions**

ISOs and RTOs generally operate three categories of markets, although they vary significantly in design: energy markets (day-ahead and real-time), a capacity market, and one or more ancillary services market(s).

www.aeclinic.org Page 10 of 37

<sup>&</sup>lt;sup>9</sup> Parent, C. A., Fisher, K. S., Cotton, W. R., & Clark, C. C. February 2021. *Governance Structure and Practices in the FERC Jurisdictional ISOs/RTOs*. Prepared on behalf of New England States Committee on Electricity. Available at: <a href="https://nescoe.com/resource-center/isorto-governance-feb2021/">https://nescoe.com/resource-center/isorto-governance-feb2021/</a>; (2) Barnett, D., et al. July 24, 2019. Letter to SPP board re membership fees. Available at: <a href="https://sustainableferc.org/wp-content/uploads/2020/08/Letter-to-SPP-board-re-membership-fees.pdf">https://sustainableferc.org/wp-content/uploads/2020/08/Letter-to-SPP-board-re-membership-fees.pdf</a>.

<sup>&</sup>lt;sup>10</sup> FERC. January 23, 2025. "Understanding and Participating in California ISO (CAISO) Processes." Available at: <a href="https://www.ferc.gov/understanding-and-participating-california-iso-caiso-processes.">https://www.ferc.gov/understanding-and-participating-california-iso-caiso-processes.</a>; 2) CAISO Stakeholder Center. February 23, 2023. Available at: <a href="https://stakeholdercenter.caiso.com/Comments/AllComments/B5AC2ADB-0C0A-4676-81E1-690A7EEFA90B">https://stakeholdercenter.caiso.com/Comments/AllComments/B5AC2ADB-0C0A-4676-81E1-690A7EEFA90B</a>.

<sup>&</sup>lt;sup>11</sup> Klass, A., Macey, J., Welton, S., & Wiseman, H. March 2024.

<sup>&</sup>lt;sup>12</sup> National Council on Electricity Policy. March 2022. *Engagement between States and Regional Transmission Organizations*. Available at: <a href="https://pubs.naruc.org/pub/6C1AA0FC-1866-DAAC-99FB-993D01E9FDA5">https://pubs.naruc.org/pub/6C1AA0FC-1866-DAAC-99FB-993D01E9FDA5</a>.

<sup>&</sup>lt;sup>13</sup> (1) National Council on Electricity Policy. March 2022.; (2) Parent, C. A., Fisher, K. S., Cotton, W. R., & Clark, C. C. February 2021.



Each market is intended to competitively, yet fairly, determine energy prices, supply, and demand. ISOs and RTOs are tasked with ensuring market competitiveness, selecting which power generators run based on energy and ancillary market results, and facilitating reliability via capacity markets that encourage investment in future generation and transmission resources.<sup>14</sup>

#### **Energy Markets**

Energy markets coordinate electric production to meet consumer demand. In an energy market, electric suppliers offer to sell their electricity for a specific price to load-serving entities that make bids for electricity to provide to their consumers. Energy markets allow ISOs/RTOs to decide which generators to run, and in which order, by organizing electric supply from least expensive to most expensive resource. Each selected supplier of energy receives the price that "cleared" the market—the highest price that was needed to meet demand.<sup>15</sup>

In a day-ahead energy market, electric suppliers make their offer to sell their electricity for a specific price one day before the electricity would be supplied, based on the ISOs/RTOs projection of demand for the next day. <sup>16</sup> Day-ahead markets represent the bulk of energy market transactions, but **real-time energy** markets are used to account for demand changes as they occur. In the real-time market, ISOs/RTOs can solicit bids from electric suppliers every five minutes and every hour to ensure that supply matches demand. <sup>17</sup>

#### **Capacity Market**

Capacity markets facilitate the purchase and sale of future electric generation capacity so that electric suppliers can meet their obligation to ensure that future supply covers forecasted demand plus a reserve margin (i.e. a little extra supply to ensure reliability). <sup>18</sup> In a capacity market, electric suppliers offer to sell their generation capacity to electric retailers in the future—essentially, promising to operate if needed. As with energy markets, electric capacity resources are organized from least expensive to most, the capacity market "clears" when supply meets demand, and each selected supplier receives the clearing price. <sup>19</sup> The capacity market's forward-looking structure is intended to account for the lead time needed to adjust power generation supply to match future demand.

#### **Ancillary Services Market**

Ancillary services markets (there may be one or more) facilitate the sale of backup resources that help ensure grid reliability by providing frequency regulation and backup power, maintaining the proper flow

www.aeclinic.org Page 11 of 37

<sup>&</sup>lt;sup>14</sup> Davis-Hup, L., Johnston, E., Khanna, M., & Mathur, S. N.d.

<sup>&</sup>lt;sup>15</sup> Cleary, K., and Palmer, K. March 3, 2020. *US Electricity Markets 101*. Prepared on behalf of Resources for the Future. Available at: <a href="https://www.rff.org/publications/explainers/us-electricity-markets-101/">https://www.rff.org/publications/explainers/us-electricity-markets-101/</a>.

<sup>&</sup>lt;sup>16</sup> Davis-Hup, L., Johnston, E., Khanna, M., & Mathur, S. N.d.

<sup>&</sup>lt;sup>17</sup> (1) Davis-Hup, L., Johnston, E., Khanna, M., & Mathur, S. N.d.; (2) Cleary, K., and Palmer, K. March 3, 2020.

<sup>&</sup>lt;sup>18</sup> Davis-Hup, L., Johnston, E., Khanna, M., & Mathur, S. N.d.

<sup>&</sup>lt;sup>19</sup> Cleary, K., and Palmer, K. March 3, 2020.



and direction of electricity, or providing power needed to restart the system after a blackout.<sup>20</sup>

## III. Study Motivation and Analytical Approach

This report card is produced on behalf of Slingshot and the broader Fix the Grid campaign, which aims to build a just, transparent, democratic, and renewable energy grid that is responsive to the needs of ratepayers (i.e. utility customers) and people living with climate catastrophe and pollution.<sup>21</sup> Put simply, the two issues that served as the impetus for this report card are:

- The key role that ISOs/RTOs play in the clean energy transition because of their ability to influence
  which power plants are built and operated, the transmission network that connects energy
  producers to energy consumers, and the assumptions and scopes built into crucial long-term
  planning studies and decisions, and
- The difficulty that everyday consumers of energy (referred to throughout this report card as just 'consumers'), community groups, and public representatives experience when attempting to participate in and meaningfully influence ISO/RTO processes and decision-making that impact them.

ISOs/RTOs are highly unusual organizations: They are non-profit organizations that are funded by a portion of energy consumers' rates and their for-profit business members and led by former for-profit executives. They are non-governmental organizations that are regulated by, and accountable to, governmental organizations. They operate—but do not own—the grid, and serve as a middle layer between electric suppliers and federal regulators (i.e. FERC).<sup>22</sup> They are intended to serve the public interest, but are private membership organizations.<sup>23</sup> The structural uniqueness of ISOs/RTOs creates tension when their obligation to market participants (i.e. ISO/RTO members like electric suppliers and transmission owners) and their obligation to the "public interest" are not easily aligned or—worse—are at odds.<sup>24</sup>

This report card assesses ISOs/RTOs across three governance categories that relate to their role in serving the "public interest" (see Table 2 below). AEC's analytical approach included the gathering and synthesis of publicly available data and information to develop a list of individual metrics and grading schemes. Approximately 250 sources were utilized to develop and assign grades across 34 metrics in total: 14 metrics in the transparency category, 6 metrics in the accessibility category, and 14 metrics in the accountability category. (Note that the complete metrics workbook is available on AEC's website). The

www.aeclinic.org Page 12 of 37

<sup>&</sup>lt;sup>20</sup> (1) Davis-Hup, L., Johnston, E., Khanna, M., & Mathur, S. N.d.; (2) Cleary, K., and Palmer, K. March 3, 2020.

<sup>&</sup>lt;sup>21</sup> Fix The Grid. N.d. "Accelerating a just transition to a democratic, transparent and renewable electric grid."

<sup>&</sup>lt;sup>22</sup> Kavulla, T. August 2019. *Problems in Electricity Market Governance: An Assessment*. Prepared on behalf of R Street. Available at: <a href="https://www.rstreet.org/wp-content/uploads/2019/08/FINAL-RSTREET180.pdf">https://www.rstreet.org/wp-content/uploads/2019/08/FINAL-RSTREET180.pdf</a>.

<sup>&</sup>lt;sup>23</sup> Klass, A., Macey, J., Welton, S., & Wiseman, H. March 2024. *The Key to Electric Grid Reliability: Modernizing Governance.* 

<sup>&</sup>lt;sup>24</sup> Dworkin, M. H., and Goldwasser, R. A. 2007. *Ensuring Consideration of the Public Interest in the Governance and Accountability of Regional Transmission Organizations*. *Energy Law Journal, Washington, Volume 28*(2), pp. 543-601. Available at: https://www.proquest.com/docview/213058474?sourcetype=Scholarly%20Journals.



grading scheme utilized a "full point," "half point," or "no point" framework (with a few exceptions, see *Appendix A: List of metrics* for more detail). In addition, AEC conducted 13 interviews with advocates and grid operator participants across the country to provide critical first-hand perspectives and insights (see *Appendix C: Interview participants* for more detail).

**Table 2. Assessment categories** 

1) Transparency	How openly ISOs/RTOs share information, data, and resources
2) Accessibility	How ISO/RTO communications and decision- making processes facilitate participation and input
3) Accountability	How ISO/RTO decision-making ensures broad representation and collective influence

To assign grades, each ISOs/RTOs points were added up in each category and calculated as a percentage of total possible points in that category. Overall scores were weighted such that transparency accounted for 15 percent of the total score, accessibility accounted for 30 percent, and accountability accounted for 55 percent. The assigned weights were developed in collaboration with Slingshot to reflect each category's relative difficulty, importance, and impact in terms of their role in serving the public interest. <sup>25</sup> Transparency involves making information and materials publicly available, which requires the least amount of effort on behalf of the ISO/RTO. Accessibility involves facilitating public awareness, involvement, and input in ISO/RTO processes by—for example—tackling language barriers, translating complex, technical information to accommodate diverse audiences, or considering meeting logistics, which requires additional effort. Lastly, accountability involves structuring governance and decision-making processes to incorporate and represent viewpoints reflective of the diversity of the communities in each ISO/RTO territory, and requires the greatest degree of effort to build, maintain, and evolve decision-making that truly reflects the people and communities impacted by those decisions.

The main finding of this report card is that **none of the seven U.S. ISOs/RTOs perform particularly well** in any assessment category: utilizing a traditional A-to-F grading scale, the percentage of total possible points received by the seven ISOs/RTOs would have resulted in "F" grades in about two-thirds of instances. However, assigning an "F" grade in most instances does not help to differentiate between ISOs/RTOs or between categories—therefore, we have adjusted the grading scale to reflect a broader range of grades,

content/uploads/2023/06/ACEG Transmission Planning and Development Report Card.pdf.

www.aeclinic.org Page 13 of 37

<sup>&</sup>lt;sup>25</sup> The use of a weighted average has precedent in scorecards of this nature. See, for example: Americans for a Clean Energy Grid. June 2023. "Transmission Planning and Development Regional Report Card." Available at: <a href="https://www.cleanenergygrid.org/wp-">https://www.cleanenergygrid.org/wp-</a>



with a B+ being the highest possible grade (see Table 3 below and *Appendix B: Scorecard results* for more detail on grade assignments).

**Table 3. Grading Rubric** 

Grades							
B+	82-90%						
В	80-82%						
C+	76-80%						
С	64-76%						
C-	60-63%						
D+	55-59%						
D	52-54%						
D-	50-51%						
F	<50%						

www.aeclinic.org Page 14 of 37



## IV. Key Findings

The main finding of this report card is that none of the ISOs/RTOs perform particularly well in any assessment category.

The overall grades for each ISO/RTO region are shown in Figure 2 and Table 4 below. The key findings of this report card include:

- CAISO receives the highest overall grade of any ISO/RTO with a C+. This grade is driven by CAISO's strong performance in the accountability category due to its inclusive stakeholder process and formalized procedures for public interest representation, input, and collaboration.
- **ISO-NE** receives the lowest overall grade of any ISO/RTO with an F. Its two failing grades in the accessibility and accountability categories drive this grade, reflecting ISO-NE's exclusive stakeholder process and inaccessible, opaque Board proceedings.
- The other ISO/RTO regions all receive overall grades ranging from C- to D-, indicating that there is considerable room for improvement across U.S. ISOs/RTOs in terms of transparency, accessibility, and accountability.
- The ISOs/RTOs earned the highest grades overall in the transparency category, indicating that while ISOs/RTOs are generally making information available, more work must be done to make decision-making processes accessible and accountable.

www.aeclinic.org Page 15 of 37



Figure 2. Overall transparency, accessibility, and accountability grades

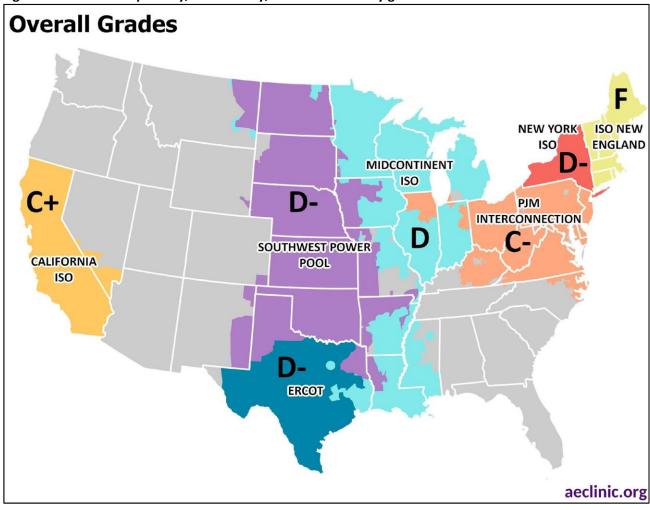


Table 4. Overall grades and grades by category

	CAISO	ERCOT	ISO-NE	MISO	NYISO	PJM	SPP
Transparency	С	F	С	C-	С	В	D
Accessibility	D+	D+	F	F	F	F	F
Accountability	B+	D	F	D+	D	C-	D
TOTAL	C+	D-	F	D	D-	C-	D-

www.aeclinic.org Page 16 of 37

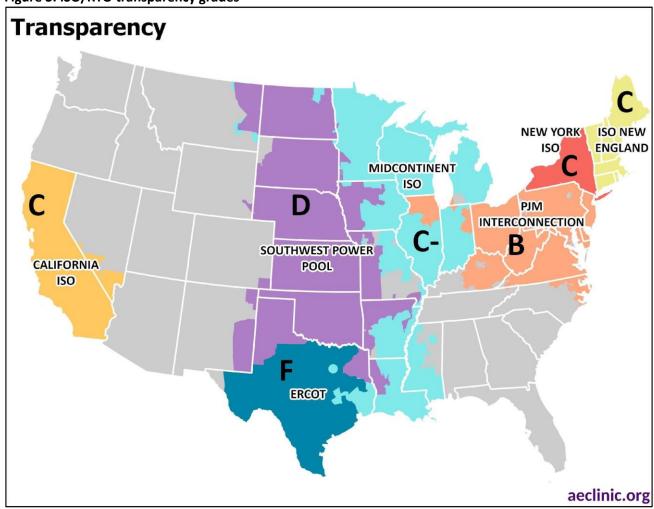


#### **Transparency**

Transparency metrics indicate how openly ISOs/RTOs share information, data, and resources. These metrics include the availability of information regarding meetings, greenhouse gas emissions, transmission planning, and markets, in addition to board and stakeholder votes.

Of the three categories, the ISOs/RTOs earned the highest grades overall in transparency because ISOs/RTOs provide detailed, up-to-date, easily accessible information on critical issues like public meetings and webinars, decision-making processes and voting results, power outages, planned retirements, and proposed transmission projects. Only one ISO/RTO receives a failing grade (ERCOT) and only one ISO/RTO receives a D grade (SPP)—the remaining ISOs/RTOs receive a C- grade or higher. However, the transparency category receives the lowest weighting—15 percent of the total score (see *Section III: Study Motivation and Analytical Approach* for the reasoning for grading weights). The transparency grades for each ISO/RTO region are shown in Figure 3 below.





www.aeclinic.org Page 17 of 37



**PJM receives the highest transparency grade** of any ISO/RTO with a B, due to its detailed, up-to-date, easily accessible information on a wide range of topics including but not limited to information about public meetings and webinars, greenhouse gas emissions data, proposed transmission projects, utility outages, and stakeholder and Board voting results (see *Appendix B: Scorecard results* for a complete list of transparency metrics and scores). PJM's B grade for transparency is the second highest grade received in any category (surpassed only by CAISO's B+ grade for accountability).

**ERCOT receives the lowest transparency grade** of any ISO/RTO with an F, because it fails to provide detailed, up-to-date, easily accessible information on critical issues like decision-making processes, inspections and maintenance, market monitoring reports, or planned generator retirements.

Three of the ISOs/RTOs shared a C grade—CAISO, ISO-NE, and NYISO. Despite this identical grade, CAISO, ISO-NE, and NYISO only scored the same on two of the 14 transparency metrics, illustrating a larger trend in our analysis: Overall, ISOs/RTOs do not perform particularly well in any assessment category, but they perform poorly in different ways.

Interviewees across the ISO/RTO regions agreed that ISOs/RTOs generally do a good job making information available, but a certain amount of knowledge and resources is required to know where to look, to understand, and to engage meaningfully.

**General ISO/RTO Interviewee:** It's really hard, unless you're an expert in the industry, to understand...it's really not very consumable for the average stakeholder.

**PJM Interviewee:** You really have to know what you're doing to navigate [the website] properly. Even for me, and I'm a voting member of PJM.

**ISO-NE Interviewee:** In a way, there's almost too much transparency in that there's tons of information available that most people can't really understand.

One of the primary criticisms that interviewees had regarding transparency concerned voting results at the Board level and at the stakeholder level.

**CAISO Interviewee:** The decision-making structure is unclear to us. It is somewhat opaque. It is not like the [California Public Utilities Commission], for instance, that has very clear rules of how decisions are made.

**General ISO/RTO Interviewee:** There's been a call for greater transparency around voting...a lot of a lot of advocates have been pushing...to know who's voting for what.

To improve their transparency, the ISOs/RTOs could:

 Identify where they could—but are not—providing detailed, up-to-date information: for example, ERCOT, MISO and SPP do not provide publicly available greenhouse gas emissions data but CAISO, ISO-NE, MISO and PJM do.

www.aeclinic.org Page 18 of 37



- Ensure that there are no barriers to accessing information: for example, ensuring that you do not need to create an account to access information about ISO/RTO market monitor reports.
- Make sure that information about decision-making processes is clear, concise and thorough: for example, make sure all voting results are public and there are clear and concise resources available explaining how decisions are made.

www.aeclinic.org Page 19 of 37



#### Accessibility

Accountability metrics indicate how well ISO/RTO communications, meetings, and decision-making processes facilitate participation and input from diverse parties and perspectives. These metrics include the availability of Board meeting materials, language access, resources to support participation from public interest advocates, and whether meetings are open to the public.

Of the three categories, the ISOs/RTOs receive the lowest grades overall in accessibility. Only two ISOs/RTOs receive a passing grade (CAISO and ERCOT). Overall, the ISOs/RTOs fail to provide language accessibility or participation assistance for public interest entities and many ISOs/RTOs also fail to make Board meetings accessible: not all meetings are open to the public and Board meeting materials are not consistently provided. The accessibility category is weighted at 30 percent of the overall score (see *Section III: Study Motivation and Analytical Approach* for the reasoning for grading weights). The accessibility grades for each ISO/RTO region are shown in Figure 4 below.

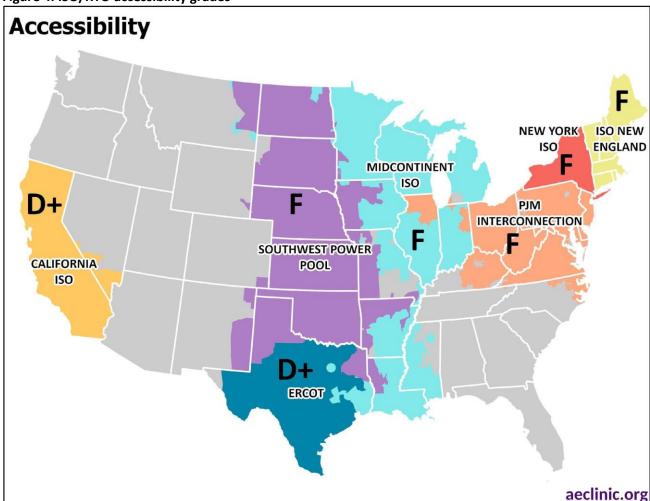


Figure 4. ISO/RTO accessibility grades

www.aeclinic.org Page 20 of 37



Five of the seven ISOs/RTOs (ISO-NE, MISO, NYISO, PJM and SPP) receive failing grades for failing to provide easily accessible documentation related to Board proceedings, for failing to consistently make their Board meetings open to the public, and for failing to provide accessibility measures for non-English and limited English parties or consumer advocates and other public interest entities. CAISO and ERCOT receive the highest accessibility grades, each with a D+, because their Board meetings are open to the public and documentation related to Board meetings is provided, and because a variety of their educational materials are easily accessible and easy-to-understand (see *Appendix B: Scorecard results* for a complete list of accessibility metrics and scores).

Interviewees across ISO/RTO regions noted a lack of language accessibility and emphasized that public interest organizations are not a recognized constituency—consumer advocates are the closest thing—and that engagement is geared towards ISO/RTO participants, not the "public."

**PJM Interviewee:** Public interest organizations and environmental organizations don't have a vote.

**ISO-NE Interviewee:** If you want to get involved...you have to be a member of [ISO-NE's stakeholder advisory body].<sup>26</sup>

**ERCOT Interviewee:** ERCOT has lots of opportunities for what they call stakeholder participation, but you need to qualify as a stakeholder to participate...there is no real general public participation in ERCOT's proceedings.

**ISO-NE Interviewee:** Everything that transpires at ISO-NE and [ISO-NE's stakeholder advisory body] takes place exclusively in English. There isn't any effort to translate any of the documents into any other languages.

**General ISO/RTO Interviewee:** In a lot of the ISO/RTO settings, there's just not a lot of room—formally or informally—for non-voting member stakeholder engagement. So, incumbent processes and incumbent players really dictate the rules.

Interviewees also stressed the importance of resources for stakeholder engagement, where PJM is currently the only U.S. ISO/RTO that offers financial support for its stakeholder process participants.

**PJM Interviewee:** I really appreciate that there is actual financial support for consumer advocates to participate [in PJM stakeholder processes]...as far as I know, no other ISO/RTO has a formalized funding mechanism like that.

**ISO-NE Interviewee:** PJM funds all the consumer advocates so that they can hire technical consultants and cover more meetings.

www.aeclinic.org Page 21 of 37

<sup>&</sup>lt;sup>26</sup> The New England Power Pool (NEPOOL) is ISO-NE's stakeholder advisory body. See more at: <a href="https://nepool.com/about-nepool/">https://nepool.com/about-nepool/</a>.



**CAISO Interviewee:** Stakeholder groups require a lot of time and lots of discussion. Quite frankly, a group like mine does not have the resources. We have the resources to do all the work at the California Public Utilities Commission because there's intervener compensation.

**ISO-NE Interviewee:** It's very difficult to participate meaningfully because it requires a ton of resources.

To improve their accessibility, the ISOs/RTOs could:

- Provide language access: for example, provide translation and interpretation services by default or by request.
- Facilitate consumer advocates or other public interest entity participation: for example, provide dedicated funding sources for public interest entities to participate in stakeholder processes or waive fees for public interest entity participation.
- Make all Board meetings open to the public: for example, provide in-person and remote public
  participation options, include public comment in the meeting agenda, and ensure that all meeting
  materials are publicly available.

www.aeclinic.org Page 22 of 37

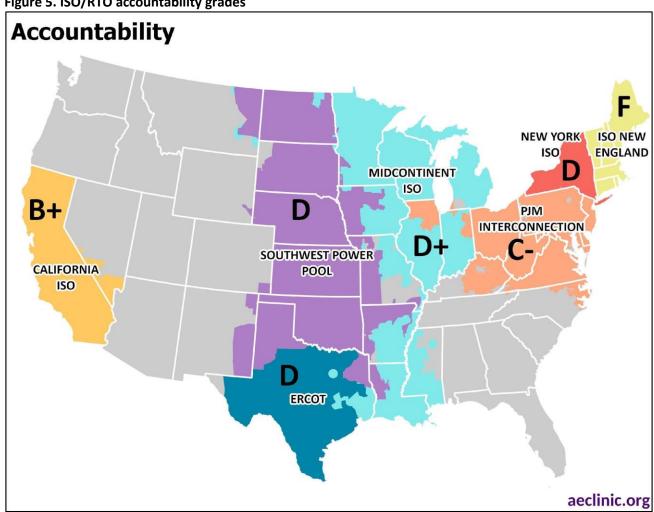


#### **Accountability**

Accountability metrics indicate whether ISO/RTO decision-making processes facilitate broad, diverse representation and allow for meaningful input and influence, especially from public interest entities. These metrics include several measures of Board composition, established channels for input from states, consumer representation, and public participation.

The ISOs/RTOs had the widest range of performance (receiving grades from an F to a B+) in the accountability category, where they performed better overall than in accessibility but worse than transparency. Overall, the ISOs/RTOs performed better regarding specific requirements for Board members (like a maximum number of terms they may serve or specific criteria to be nominated) but worse regarding shared input and decision-making procedures (like a stakeholder process open to anyone, undemocratic Board voting processes, or shared filing rights). The accountability category accounted for 55 percent of the total score (see Section III: Study Motivation and Analytical Approach for the reasoning for grading weights). The accountability grades for each ISO/RTO region are shown in Figure 5 below.





www.aeclinic.org Page 23 of 37



CAISO receives the highest accountability grade of any ISO/RTO—and the highest grade awarded in the scorecard—with a B+, due to its: open and inclusive stakeholder process; formalized procedures for input and collaboration with stakeholders, public interest representatives, and state representatives; mandated consumer representation on decision-making bodies; and established plans to meet the state's relevant climate and clean energy goals (see *Appendix B: Scorecard results* for a complete list of accountability metrics and scores). CAISO's B+ grade in the accountability category is one of only two instances where ISOs/RTOs received a 'B' level grade (the other is PJM's B grade for transparency).

**ISO-NE** receives the lowest accountability grade of any ISO/RTO with an F, due to its: closed stakeholder process (ISO-NE is the only ISO/RTO where stakeholder meetings are not open to the public); failure to explicitly address how to meet New England states' relevant climate and clean energy goals; lack of streamlined public comment process; and entrenched leadership (i.e. leadership has been the same for more than 10 years).

PJM receives the second highest grade with a C- because (among other things) its Board members are required to have expertise in transmission systems, markets and trading, law and regulation, or utility operations and PJM has issued plans (including forecasted retirements and renewable capacity additions) that were established in collaboration with state governments. The remaining four ISOs/RTOs (ERCOT, MISO, NYISO, and SPP) each receive D+ or D grades (MISO received a D+ and ERCOT, NYISO and SPP received Ds). Metrics that earned MISO a slightly higher grade include a formalized procedure for input from state representatives, stakeholder representation in decision-making, and a more democratic Board member selection process.

Interviewees across ISO/RTO regions agreed that ISOs/RTOs give preference to transmission and generation owners because of their participation in the markets and systems that constitute ISOs/RTOs raison-d'être, and that weighted voting structures usually favor them as well.

**PJM Interviewee:** The vote of someone whose whole business model is building transmission lines or running generation outweighs folks who don't have a profit motivation...the power is too skewed towards the profit seeking end of the spectrum.

**ISO-NE Interviewee:** There are eight sectors, and each of those sectors has 12.5% of the voting power. End users are only one sector...but we are the reason the whole system exists...we're paying for it. It doesn't make any sense. If I got every environmental group and every plausible consumer advocate to join the end user sector, it would not increase our degree of influence because we'd still collectively be just 12.5% of the voting power.

Interviewees also noted the way in which ISO/RTO Board members—the ultimate decision-makers at each ISO/RTO—are often utility insiders who are selected in opaque ways.

**General ISO/RTO Interviewee:** [ISO/RTO Boards] are less representative of you know, diverse constituents, as opposed to just being industry experts.

www.aeclinic.org Page 24 of 37



**ISO-NE Interviewee:** The process of choosing Board members is the epitome of the secret backroom process that's anything but transparent...The perspective of people who have been utility executives is what dominates on the Board of ISO-NE.

**ERCOT Interviewee:** At ERCOT, there's certainly no transparency in [the Board selection] process...Nobody knows what the conversations are.

Unlike other ISOs/RTOs, CAISO Board members are politically appointed and have specific expertise requirements. Interviewees from non-CAISO ISO/RTO regions often noted a lack of formalized input mechanisms from state representatives.

**CAISO Interviewee:** CAISO Board members are appointed by the Governor and confirmed by the state senate...and there are criteria in terms of sectors that need to be represented... Why that matters is because it means that California policymakers have control of California energy policy.

**PJM Interviewee:** There is a group called the Organization of PJM States, and they can advise PJM, but PJM is not beholden to them through votes or anything like that.

**ISO-NE Interviewee:** The New England States Committee on Electricity (NESCOE) doesn't have a vote in ISO-NE.

To improve their accountability, the ISOs/RTOs could:

- Establish clear criteria for Board members and their appointment: for example, ensure that Board at least one Board member is a community representative and that Board members must receive the support of ISO/RTO stakeholder process participants, ISO/RTO members, and state leadership to be approved.
- Make ISO/RTO stakeholder processes open to anyone: for example, ensure that any interested party may participate as a formal ISO/RTO stakeholder.
- Ensure that state representatives can provide input and participate in decision-making: for example, create a formal procedure for discussion, collaboration, and input from state representatives in ISO/RTO decision-making processes.

www.aeclinic.org Page 25 of 37



#### V. Conclusions and Recommendations

ISOs/RTOs are important because they play a key role in deciding which power plants are built, which power plants are run, and what transmission infrastructure is needed to connect producers of energy to consumers of energy. ISOs/RTOs were created with the goal of providing more affordable and reliable power to consumers. <sup>27</sup> However, everyday consumers, community groups, and public representatives often find it difficult to understand, participate in, and meaningfully influence ISO/RTO processes and decision-making that impact them, which is why it is important to assess ISO/RTO performance in the areas of transparency, accessibility and accountability—all of which are crucial to giving the public they serve a voice.

This report card establishes a baseline for the performance of the seven U.S. ISO/RTO in the areas of transparency, accessibility and accountability to the public they serve. Based on 13 interviews with advocates and grid operator participants across the country and the synthesis of approximately 250 publicly available sources to develop 34 metrics, we find that **none of the seven U.S. ISOs/RTOs perform particularly well** in any assessment category and there is considerable room for improvement across U.S. ISOs/RTOs in terms of transparency, accessibility, and accountability. CAISO receives the highest grade overall, indicating that other ISOs/RTOs can look to CAISO for potential improvements, particularly in the accountability category where they scored highest. ISO-NE receives the lowest grade overall, indicating that ISO-NE has the greatest number of improvements to make.

Based on the results of this report card, key recommendations for improvement include:

- Transparent decision-making: make all ISO/RTO stakeholder meetings and Board meetings public, make all voting results public.
- Translate and summarize technical information: make information digestible and understandable
  for the entire public by, for example, including executive summaries with links to more detailed
  information.
- **Provide language access:** provide translation and interpretation services for non-English and/or limited English speakers.
- Facilitate participation of public interest entities: provide technical, logistical, and financial
  assistance to ensure that public interest entities can participate on equal footing with ISO/RTO
  market participant members.
- **Diversify the decision-makers:** establish criteria to ensure that Board members represent a variety of backgrounds and perspectives, including consumer representation.
- **Democratize:** ISO/RTO stakeholder engagement processes should be open to all interested parties; Board members should be voted on by members and stakeholders alike.

www.aeclinic.org Page 26 of 37

<sup>&</sup>lt;sup>27</sup> ISO/RTO Council. N.d. "The IRC: Shaping Our Energy Future."



#### **Appendix A: List of metrics**

This Appendix presents the list of metrics utilized in the analysis and the grading scheme associated with each metric. A total of 250 sources were utilized to develop and assign grades across 34 metrics in total: 14 metrics in the transparency category, 6 metrics in the accessibility category, and 14 metrics in the accountability category. The grading scheme utilized a "full points," "half points," or "no points" framework—where full points was a score of 4, half points was a score of 2, and no points was a score of 0. There are a few exceptions, where scores of 4/3/2/1/0 were awarded (see metrics #7, #8, #11 and #14 under transparency and metric #9 under accountability—Note that the complete metrics workbook is available upon request).

#### Transparency Metrics (14 total)

- 1. Availability of information about meetings and webinars
  - a. Notifications of upcoming meetings and webinars are clear and accessible; agendas are provided beforehand, minutes and/or recordings are provided afterwards (4)
  - b. Meeting schedule provided, but agendas/materials/minutes/recordings are not consistently provided (2)
  - c. Meeting schedule provided, but no meeting materials (0)
- 2. Availability of information about planned generator retirements
  - a. Plans are extensive and clear (4)
  - b. Plans exist but lack detail (i.e. do not specify which plants will be retired and when) (2)
  - c. No (0)
- 3. Board votes are public
  - a. Voting results by Board member or committee are publicly reported (4)
  - b. Voting outcomes are shared and members are named when they oppose or abstain (3)
  - c. Voting outcomes are shared and members are named if they abstain (2)
  - d. Only voting outcomes are shared (1)
  - e. No information available on voting results or outcomes (0)
- 4. Provides detailed energy supply mix data (i.e. generation mix, operating costs, etc.)
  - a. Energy supply mix is clearly displayed by zone including generation mix, operating costs and additional info (information is provided regularly e.g. on monthly, quarterly, or annual basis and information is available within the last year) (4)
  - b. Energy supply mix is displayed but not by zone (2)

www.aeclinic.org Page 27 of 37



- c. Energy supply mix is outdated and/or limited (i.e. information is not provided regularly or no information has been provided within the last year; information lacks detail on generation mix or operating costs of individual power plants) (0)
- 5. Provides detailed greenhouse gas (GHG) emission data
  - a. GHG data are fully available by zone (4)
  - b. GHG data are fully available but not by zone (2)
  - c. No (0)
- 6. Provides detailed information about demand response program
  - a. ISO/RTO provides detailed, understandable information on all services and programs (i.e. writing is for a general audience, participation information provided) (4)
  - b. Information is available but lacking detail (i.e. information on services and programs may be listed, but information on how to participate, potential savings, what the program entails, etc. is missing) and/or information is difficult to obtain (i.e. barriers to access) (2)
  - c. Information is very limited and/or outdated (0)
- 7. Provides detailed information about proposed transmission projects
  - a. Provides annual transmission reports with short-term and long-term projections with robust scenario modeling for each region (i.e. including load growth, existing generation, interconnection requirements, etc.) (4)
  - Provides annual transmission reports with long-term projections with robust scenario modeling for each region (i.e. including load growth, existing generation, interconnection requirements, etc.) (3)
  - c. Provides annual transmission reports with long-term projections with limited scenario modeling for each region (e.g. analyze only load growth) (2)
  - d. Provides annual transmission reports that lack detail (e.g. provides summary of results without methods) (1)
  - e. Does not provide annual transmission reports (0)
- 8. Provides detailed information on demand and load forecasts
  - a. Produces annual 15-year or longer forecast, disaggregates load forecast geographically, has a load dashboard (4)
  - b. Produces annual 10-year or longer forecast, disaggregates load forecast geographically, has a load dashboard (3)
  - c. Produces annual 10-year or longer forecast, does not disaggregate, has a load dashboard(2)

www.aeclinic.org Page 28 of 37



- d. Produces seasonal 5-year forecast (1)
- e. Does not produce annual forecast and/or does not have load dashboard (0)
- 9. Provides detailed, updated information on outages and non-performance
  - a. Detailed information is available on website, separated by zone, and updated within last year (i.e. where, when, why outages occurred and how they were resolved) (4)
  - b. Information is outdated and/or limited (i.e. no information has been provided within the last year or outages are reported but lack detail on where, when, why) and/or information is not separated by zone (2)
  - c. No, or information is not publicly available (0)
- 10. Provides information about decision-making processes
  - a. Provides detail about decision-making processes, including overall process, voting eligibility and process, criteria for pass/fail, and information is succinct and easy to understand for general audience (4)
  - b. Provides detail about decision-making process, but is not succinct or easy to understand for general audience (2)
  - c. Information about decision-making process lacks detail and is not easily accessible (0)
- 11. Provides information about market monitoring unit (MMUs) including MMU data
  - a. Average of:
    - i. Detailed information is available on website and updated quarterly (i.e. MMU function, requirements, and findings) (4)
    - ii. Information is reported less than quarterly or lacking detail (i.e. information is unclear or missing regarding MMU function, requirements, and/or findings) and/or information is difficult to obtain (i.e. barrier to access: inactive links, need an account) (2)
    - iii. Information provided irregularly or difficult to obtain (0)
  - b. And:
    - i. MMU provides 9 or more types of data (4)
    - ii. MMU provides 5 to 8 types of data (2)
    - iii. MMU provides 4 or fewer types of data (0)
- 12. Provides robust market information, including market results and any proposed market changes
  - a. Information about markets and market changes is published regularly, accessible, and up to date (4)

www.aeclinic.org Page 29 of 37



- b. Information is available but outdated and/or does not provide information regarding proposed market changes (2)
- c. No market information available or information is difficult to obtain (i.e. barrier to access: inactive links, need an account) (0)
- 13. Provides up to date information on inspections and maintenance
  - a. Provides up to date (i.e. within the last year) information on inspections and maintenance (4)
  - b. Information is outdated and/or limited (i.e. no documents provided within last year, information is unclear or lacks detail, information is censored) (2)
  - c. No information available (0)
- 14. Stakeholder votes are public
  - a. Stakeholder votes are public and individually identified (4)
  - b. Voting outcomes are shared and all types of votes are numerically identified (3)
  - c. Voting outcomes are shared and some members are named or some numerical results provided (2)
  - d. Only voting outcomes are shared (1)
  - e. Stakeholder votes are not public or stakeholders do not vote (0)

## **Accessibility Metrics (6 total)**

- 1. Availability of Board meeting materials
  - a. Board meeting recordings and minutes are available and provided regularly (4)
  - b. Board meeting materials are regularly provided but no recordings (2)
  - c. Board meeting materials are not regularly provided (0)
- 2. Availability of educational materials
  - a. Website provides access to a variety (e.g. e-modules, webinars, reports) of in-depth educational materials, including both ISO/RTO-specific and general energy market educational materials (4)
  - Website includes both ISO/RTO-specific and general energy market educational materials,
     but lack depth and/or variety (2)
  - c. No educational materials present on website/barrier to access (0)
- 3. Availability of interpreters
  - a. Yes (4)

www.aeclinic.org Page 30 of 37

- b. No (0)
- 4. Board meetings open to the public
  - a. Board meetings are open to the public and allow public comment (4)
  - b. Public Board meetings are held infrequently (2)
  - c. Meetings are not open to the public (0)
- 5. Funding or fee-free participation for consumer advocates or other public interest entities
  - a. ISO/RTO provides funding for consumer advocates or other public interest entities (4)
  - b. ISO/RTO waives fees or has fee-free participation for consumer advocates and other public interest entities (2)
  - c. No (0)
- 6. Website available in non-English language(s)
  - a. Website is translated into at least one other language (4)
  - b. Website is not readily available in non-English languages (0)

#### **Accountability Metrics (14 total)**

- 1. Board member appointment
  - a. Appointed by non-Board bodies only (i.e. governor, stakeholders, or PUCs) (4)
  - b. Appointed by member vote (2)
  - c. Appointed by selection committee or without a voting process (0)
- 2. Board participation requires specific experience
  - a. Requires lived experience, work experience, or specific energy-related credentials (4)
  - b. Experience is desired but not required (0)
- 3. Designated consumer representation on Board or committees
  - a. Designated consumer representative on the Board (4)
  - b. Consumer representation via committee/council (2)
  - c. No consumer representation (0)
- 4. Formal procedure for input from state representatives
  - a. Formal procedure exists for state representatives to provide input (4)
  - b. State representatives may provide input, but there is no formal procedure in place (2)
  - c. There is no evidence of formal input from state representatives (0)

www.aeclinic.org Page 31 of 37

- 5. Length of tenure of current President/CEO
  - a. Less than five years (4)
  - b. Five to ten years (2)
  - c. More than ten years (0)
- 6. Market updates to facilitate clean energy integration
  - a. Market updates have considered clean energy integration (4)
  - b. Market updates have occurred, but clean energy was not considered (0)
- 7. Max number of Board terms
  - a. Three (4)
  - b. Five (2)
  - c. No max (0)
- 8. Plans to meet demand while reaching relevant state climate/energy goals
  - a. Clear outline of how to meet anticipated demand while achieving relevant state climate/energy goals (4)
  - b. Addresses state climate/energy goals, but plans to help achieve them are vague or absent(2)
  - c. Does not address state climate/energy goals (0)
- 9. Provides streamlined and accessible public comment process
  - a. 4 points possible:
  - Public comment happens regularly, and comment process is formal and streamlined (2 points)
  - c. Submitted public comments are publicly available (1 point)
  - d. No account needed to submit public comments (1 point)
- 10. Stakeholder meetings are open to the public
  - a. Yes (4)
  - b. No (0)
- 11. Stakeholder process is open to all participants
  - a. Stakeholder process open to anyone (4)
  - b. Stakeholders are limited, but non-members and non-market participants may be formal stakeholders (2)

www.aeclinic.org Page 32 of 37



- c. Only members and/or market participants may be stakeholders (0)
- 12. Stakeholder input to Board
  - a. Stakeholders vote before matter can be brought to Board (4)
  - b. Advisory capacity only (2)
  - c. Informal input only (0)
- 13. State representatives have FERC filing rights
  - a. Yes (4)
  - b. State reps hold limited filing rights (2)
  - c. No (0)
- 14. Transmission owners have exclusive FERC filing rights
  - a. No (4)
  - b. Yes, but approval process needed before filing (2)
  - c. Yes, and no approval threshold needed (0)

www.aeclinic.org Page 33 of 37



## **Appendix B: Scorecard results**

Table 6, Table 7, and Table 8 below show the scores and grades for each metric and each ISO/RTO across in the transparency, accessibility and accountability categories, respectively. As discussed above in the *Study Motivation and Analytical Approach* section, if this report card had utilized a traditional A-to-F grading scale, the percentage of total possible points received by the seven ISOs/RTOs would have resulted in "F" grades about two-thirds of instances (see Table 6, Table 7, and Table 8 below). To reflect a broader range of grades, we adjusted the grading scale (see Table 5). The grading scale was determined by distinguishing scores among and between the ISOs/RTOs as much as possible. For example, the total spread across all grades was large (the lowest grade was 17% and highest grade was 84%), but scores tended to be clustered in the 50-70% range, so grade ranges needed to be smaller there than in the higher ends of the grading rubric (e.g. 50-51% versus 82-90%).

**Table 5. Grading Rubric** 

Grades								
B+	82-90%							
В	80-82%							
C+	76-80%							
С	64-76%							
C-	60-63%							
D+	55-59%							
D	52-54%							
D-	50-51%							
F	<50%							

www.aeclinic.org Page 34 of 37



## **Transparency Scores**

Table 6. Transparency scores and grades

No.	Metric	CAISO	ERCOT	ISO-NE	MSO	NYISO	MLP	SPP
1	Availability of information about meetings and we binars	4	4	2	0	2	2	4
2	Availability of information about planned generator retirements	4	0	4	2	4	4	2
3	Board votes are public	1	3	4	2	1	2	3
4	Provides detailed energy supply mix data (i.e. generation mix, operating costs, etc.)	2	2	2	0	4	4	0
5	Provides detailed GHG emission data	2	0	2	4	0	2	0
6	Provides detailed information about demand response program	4	2	4	4	4	4	0
7	Provides detailed information about proposed transmission projects	2	0	3	2	4	3	1
8	Provides detailed information on demand and load forecasts	3	2	3	0	4	4	1
9	Provides detailed, updated information on outages and non-performance	2	2	0	2	2	4	4
10	Provides information about decision-making processes	2	0	2	4	4	4	4
11	Provides information about market monitoring unit (MMUs) including MMU data	2	0	2	3	1	4	3
12	Provides robust market information, including market results and any proposed market changes	4	4	2	4	2	4	4
13	Provides up-to-date information on inspections and maintenance	4	0	4	4	2	2	2
14	Stakeholder votes are public	0	4	2	3	2	3	1
	SUM	36	23	36	34	36	46	29
	TOTALPOSSIBLE	56	56	56	56	56	56	56
	SHARE OF TOTAL	64%	41%	64%	61%	64%	82%	52%
	GRADES	С	F	С	C-	С	В	D

## **Accessibility Scores**

Table 7. Accessibility scores and grades

No.	Metric	CAISO	ERCOT	ISO-NE	MSO	NYISO	PJM	SPP
1	Availability of Board meeting materials	4	2	0	0	2	2	2
2	Availability of educational materials	4	4	4	0	4	2	0
3	Availability of interpreters	0	0	0	0	0	0	0
4	Board meetings open to the public	4	4	2	4	0	0	4
5	Funding or fee-free participation for consumer advocates or other public interest entities	2	0	0	0	0	4	2
6	Website available in non-English language(s)	0	4	0	0	0	0	0
	SUM	14	14	6	4	6	8	8
	TOTALPOSSIBLE	24	24	24	24	24	24	24
	SHARE OF TOTAL		58%	25%	17%	25%	33%	33%
	GRADES	D+	D+	F	F	F	F	F

www.aeclinic.org Page 35 of 37



# **Accountability Scores**

#### Table 8. Accountability scores and grades

No.	Metric	CAISO	ERCOT	ISO-NE	MSO	NYISO	PJM	SPP
1	Board member appointment	4	0	2	2	0	2	2
2	Board participation requires specific experience	4	4	4	4	0	4	4
3	Designated consumer representation on Board or committees	4	4	2	0	2	2	0
4	Formal procedure for input from state representatives	4	0	4	4	2	2	4
5	Length of tenure of current President/CEO	4	4	0	0	2	4	4
6	Market updates to facilitate clean energy integration	4	4	0	0	0	0	4
7	Max number of Board terms	0	4	4	4	4	2	0
8	Plans to meet demand while reaching relevant state climate/energy goals	4	0	4	2	4	4	2
9	Provides streamlined and accessible public comment process	3	1	1	4	2	2	2
11	Stakeholder process is open to all participants	4	0	2	2	2	2	0
12	Stakeholder input to Board	0	4	2	2	4	4	2
13	State representatives have FERC filing rights	4	0	2	2	2	0	2
14	Transmission owners have exclusive FERC filing rights	4	0	0	2	2	2	0
	SUM	47	29	27	32	30	34	30
	TO TAL POSSIBLE		56	56	56	56	56	56
	SHARE OF TO TAL	84%	52%	48%	57%	54%	61%	54%
	GRADES	B+	D	F	D+	D	C-	D

www.aeclinic.org Page 36 of 37



## **Appendix C: Interview participants**

The quotes presented in this report are from six interviews that were recorded and transcribed. An additional six interviews were conducted but were not recorded and transcribed.

CAISO, 3 interview participants

**ERCOT, 1** interview participant

ISO-NE, 3 interview participants

MISO, 1 interview participant

NYISO, 1 interview participant

PJM, 2 interview participants

**General, 1 interview participant** 

www.aeclinic.org Page 37 of 37