

## THE EVOLUTION OF PARTICIPATORY POLICY- MAKING FOR REGIONAL POWER GRIDS

*Nicholas Johnson,\* Stephanie Lenhart,\* and Seth Blumsack\**

**Synopsis:** In the United States, Regional Transmission Organizations (RTOs) are critical for maintaining electric reliability and facilitating the shift toward more efficient and sustainable electric power systems. RTOs are voluntary member-driven organizations that engage hundreds of stakeholders in policy decisions affecting planning, markets, and operations. RTOs have evolved into highly complex and interdependent systems with internal feedback among and within RTO functions, and external feedback from emerging technologies and federal and state clean energy policies. In the PJM Interconnection, the expanded scope of responsibilities, complexity, and member body size has created tensions within the stakeholder processes that has led some to question the efficacy of existing decision-making structures. We develop a case study of recent tensions within the PJM stakeholder process and argue that the source of many of these tensions is a fundamental change in the organizational nature of PJM and other RTOs.

I. Introduction.....	534
II. PJM’s Organizational Structure .....	536
III. The Changing Stakeholder Environment in PJM.....	538
A. Interview Protocol .....	539
B. Outcomes .....	540
1. The Emerging Influence of New Policy Objectives.....	540
2. The Narrowing of Issues and Interests .....	541
3. Internal Reactions to Maintaining the Core Reliability Mission .....	542
IV. Evolution of Capacity Market.....	543
V. Conclusion.....	545
VI. Acknowledgements.....	546

---

\* Nicholas Johnson is an Assistant Professor of Sustainability and Economics at Principia College. His teaching and research focus on the intersection between energy and society, and he was a recent AAAS Fellow at the Department of Energy’s Policy Office.

\* Stephanie Lenhart is a Senior Research Associate in the Energy Policy Institute affiliated with the Center for Advanced Energy Research and an Assistant Research Professor in the School of Public Service at Boise State University. Dr. Lenhart examines institutional design, stakeholder participation, policy implementation, and the negotiation of authority. Recent work explores the governance of electricity systems and the exercise of power and agency in energy transitions with a focus on regional transmission organizations.

\* Seth Blumsack is Professor of Energy Policy and Economics and International Affairs in the Department of Energy and Mineral Engineering at Penn State University. He Co-Directs Penn State’s Center for Energy Law and Policy, and is on the External Faculty of the Santa Fe Institute.

## I. INTRODUCTION

“I’ve said it before and I’ll say it again – democracy simply doesn’t work!”  
 --Kent Brockman, *The Simpsons*

RTOs have become an established part of electricity production and delivery in the United States. The seven U.S. RTOs<sup>1</sup> manage approximately 70% of wholesale electricity supply<sup>2</sup> using combinations of administrative procedures and market mechanisms. As the independent regional transmission system operator and market organizer, the RTO is required by the Federal Energy Regulatory Commission’s (FERC) Order 2000 to have a “decision making process that is independent of control by any market participant or class of participants,”<sup>3</sup> and to include stakeholders in system governance.<sup>4</sup> “RTOs are organizations whose success depends on voluntary participation and engagement by a large number and variety of stakeholders, including transmission owners, generating companies, electric distribution utilities, industrial energy consumers, public consumer advocates and others.”<sup>5</sup> RTOs have become critical players in facilitating technological change in the electric power grid, including grid integration of renewable resources; including new market actors, such as energy storage and third-party demand response; and negotiating inter-technology competition, such as the increased use of natural gas in place of coal for power generation.<sup>6</sup> RTOs also need to accommodate state energy policy choices, such as renewable portfolio standards. “Despite the goal of achieving independence from any individual stakeholder or class of stakeholders, RTOs are subject to both political forces and technological innovations, placing them under continuous pressure to evolve.”<sup>7</sup>

To understand the dynamics of the changing context for RTO decision making better, we interviewed stakeholders who participate in the PJM stakeholder engagement process. Our study reveals perceptions among PJM management, staff and stakeholder members and identifies emerging tensions that have made it increasingly difficult to move some issues forward to resolution through PJM’s stakeholder process.<sup>8</sup> Key factors contributing to these tensions include:

---

1. Independent regional grid operators in North America go by several different names, including RTOs and Independent System Operators (ISOs). In this essay we use the term RTO in a general sense to encompass all such organizations.

2. *RTOs and ISOs*, FERC, <https://www.ferc.gov/industries-data/electric/power-sales-and-markets/rtos-and-isos> (last visited Oct. 12, 2023); *Midcontinent Independent System Operator Adding Four New Electric Territories in December*, EIA (Oct. 24, 2013) <http://www.eia.gov/todayinenergy/detail.cfm?id=13511>.

3. Order No. 719, *Wholesale Competition in Regions with Organized Electric Markets*, 125 FERC ¶ 61,071 at P 503 (2008); see also Kate Konschnik, *RTOGov: Exploring Links Between Market Decision-Making Processes and Outcomes*, NICHOLAS INST. ENV’T. POL’Y SOL., DUKE UNIV. (Sept. 2019) (detailing the governance requirement).

4. Order No. 719, *supra* note 3, at P 503.

5. Nicholas H. Johnson, Dissertation, *Studies in the Governance of Regional Transmission Organizations*, PENN STATE UNIV. 3 (Dec. 2021).

6. *Electric Competition*, FERC, <https://www.ferc.gov/industries-data/electric/power-sales-and-markets/electric-competition> (last accessed Oct 12, 2023).

7. Johnson, *supra* note 5, at 3.

8. See, e.g., Kyungjin Yoo & Seth Blumsack, *Can Capacity Markets be Designed by Democracy?*, J. OF REGUL. ECON., 127, 128 (Mar. 2018), <https://doi.org/10.1007/s11149-018-9354-1> [hereinafter *Can Capacity*

- The *emerging influence of new energy policy objectives* has broadened the original responsibilities of RTOs, changing the fundamental nature of RTOs as organizations. While energy policy originally focused RTOs on reliability and affordability, more recent policy choices at the state and federal level have had the result of putting RTOs in the position to meet additional policy goals for sustainability and technological innovation.
- As RTOs and their practices have matured and as their markets have opened to a broader array of participants, a *narrowing of both stakeholder interests and the scope of RTO decisions* has created tension by asking a diverse group of stakeholders to consider RTO rule changes that increasingly tend to establish apparent winners and losers.
- *Internal reactions* to these tensions by RTO staff reflect serious concern about the ability of RTOs to maintain their core reliability mission, but an increasingly active role by RTO staff in steering the stakeholder process through some issues raises questions among some stakeholders and RTO staff about the efficiency of the process and the spirit of Order 2000.

At the same time, the decision-making process has become more complex. The increasing complexity of the market systems managed by RTOs means that changes to RTO rules increasingly create unanticipated interactions within and across RTO markets and practices, where a change in one set of market rules can affect outcomes in other markets. These interactions lead to specific winners and losers among the RTO stakeholder population, and the losers in a specific situation naturally turn back to the stakeholder decision-making process for adjustments that will ameliorate their losses.

This essay takes a step toward a more systematic understanding of the tensions within RTOs, the processes used to address these tensions, and ultimately to identify needed mechanisms to balance the technical missions of RTOs with the need for increasingly inclusive stakeholder participation. We hope that this research will yield insights for refinement of RTO stakeholder processes as they continue to evolve in response to complex market, regulatory, and technical demands under which critical infrastructure decisions are made.

In the following Section, we first provide an overview of the differences in RTO governance structures and the drivers in their evolution. Section III presents the study methodology and results. We use our interview data to describe specific tensions that have arisen within the PJM stakeholder process. The relevance of these identified sources of tension are discussed in the context of capacity markets in Section IV, and we conclude in Section V.

## II. PJM'S ORGANIZATIONAL STRUCTURE

In general, RTO decision processes are complex and involve varying degrees of stakeholder involvement. There are differences in how much authority RTOs vest in stakeholder groups to craft RTO rule/protocol alternatives and decide which rule changes are filed before the FERC.

The PJM Board of Managers is an independent body that receives recommendations from standing committees of stakeholders representing specific industry sectors.<sup>9</sup> The stakeholder engagement process is structured, with a hierarchy of committees, sector representation, membership requirements, and voting.<sup>10</sup>

PJM has about 1,100 members<sup>11</sup> categorized in five membership sectors: Transmission Owners (fifty-one, 5%), Generators (340, 34%), Electricity Distributors (fifty-four, 5%), End Use Customers (forty-three, 4%), and Other Suppliers (558, 51%).<sup>12</sup> The Other Suppliers sector is significantly larger than the other sectors and is a highly heterogeneous group including power marketers, financial institutions, and municipal and cooperative utilities.<sup>13</sup>

Stakeholder-driven decision making at PJM usually involves a multi-layered and highly hierarchical structure.<sup>14</sup> For a stakeholder or group to change PJM's rules or protocols they must introduce the change in one of the thematic or issue-specific standing committees, working groups or task forces, and then manage it as it is deliberated in the Markets and Reliably Committee (MRC) and the Members Committee (MC) before moving on to the Board of Managers and, if needed, a formal filing with the FERC.<sup>15</sup> Uniquely among all RTOs, the PJM Members Committee has filing rights to the PJM Operating Agreement under section 205 of the Federal Power Act, so the MC can also go directly to FERC with revisions to the Operating Agreement that would fall under section 205 filings.<sup>16</sup> Appendix A shows how an issue moves through the stakeholder process beginning with an issue's creation, the development of a problem statement and formal charge, and to voting in the committee bodies on issue resolution.

---

9. *An Introductory Guide for Participation in PJM Processes*, FERC, <https://www.ferc.gov/introductory-guide-participation-pjm-processes> (last accessed Oct. 12, 2023).

10. *Id.*

11. The information in this paragraph was obtained from the PJM membership list on September 15, 2023. *Member List*, PJM, <https://www.pjm.com/about-pjm/member-services/member-list.aspx> (last accessed Oct. 12, 2023).

12. *Id.*

13. *Id.*

14. Figure 2 author adaptation from *PJM Manual 34: PJM Stakeholder Process – Section 5: Structure of the Stakeholder Process*, PJM 25 (Jan. 25, 2023), <https://www.pjm.com/~media/documents/manuals/m34.ashx> [hereinafter *PJM Stakeholder Process*]; see also Johnson, *supra* note 5, at 18.

15. *Id.*

16. *Federal Law Guides Changes in PJM Governance Documents: Review standards under sections 205 and 206 of the Federal Power Act have a direct effect on how proposed revisions to PJM's governing documents are filed with, and reviewed by, the Federal Energy Regulatory Commission*, PJM 1-2 (July 20, 2023), <https://www.pjm.com/~media/about-pjm/newsroom/fact-sheets/federal-power-act-sections-205-and-206.ashx> [hereinafter *Federal Law Guides Changes in PJM Governance Documents*].



Figure 2: The PJM Stakeholder Process.<sup>17</sup>

Voting in the MRC and MC are highly structured and segmented by defined sectoral affiliations.<sup>18</sup> Voting in the subcommittees and working groups is done by a majority vote, and it is possible (and common) for multiple proposals to pass through to the MRC.<sup>19</sup> Voting in the MRC and the MC is done through sector-weighted voting with a two-thirds supermajority required for an issues to pass and go to the Board for final approval to file with FERC.<sup>20</sup>

The MC takes on particular importance since this Committee has the authority to over-ride decisions of the Board in some circumstances.<sup>21</sup> “It is also possible under certain circumstances for proposals to fail the MRC vote but still go to the MC for a vote if consensus building amongst stakeholders can be done to gain support for a modified proposal.”<sup>22</sup> “PJM’s Independent Market Monitor may make proposals to the MC that did not pass through the stakeholder process.”<sup>23</sup>

17. *PJM Stakeholder Process*, *supra* note 14, at 25; *see also* Johnson, *supra* note 5, at 18.

18. *Id.*

19. *PJM Stakeholder Process*, *supra* note 14, at 17.

20. *Can Capacity Markets be Designed by Democracy?*, *supra* note 8, at 131.

21. *Federal Law Guides Changes in PJM Governance Documents*, *supra* note 16, at 1-2 (outlining section 205 and 206 filings. Sections 205 and 206 of the Federal Power Act give FERC much of their authority over the transmitting and selling of interstate power by the electric power industry and are relevant to utility and RTO documents that are filed with and reviewed by FERC. Documents that are filed to FERC through section 205 need to show that the submitted changes are “just and reasonable.” Documents that are filed through section 206 must also prove that the current document is “unjust and unreasonable” which may be considerably more difficult to do and thus having section 205 filing rights is a powerful tool. In a disagreement between the MC and the PJM Board over the Operating Agreement, the PJM Board would have to utilize section 206 filing rights to try and override the MC. There are two other foundational documents in PJM. The PJM Board has section 205 filing authority over the Reliability Assurance Agreement. Section 205 filing authority over most of the Open Access Transmission Tariff is split between PJM Board and the PJM transmission owners.)

22. Johnson, *supra* note 5, at 10.

23. *Id.*

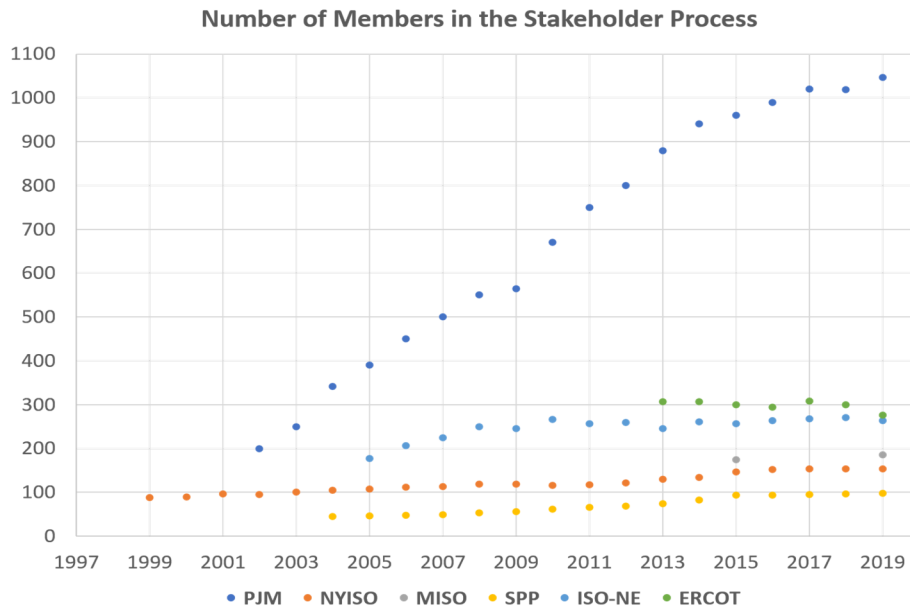


Figure 3:<sup>24</sup> “The Growth in RTO Membership. PJM membership data includes full, associate, and ex officio members. NYISO membership data represents both voting and non-voting organizations that belong to the Management Committee. ISO-NE membership data represents members of the Participant’s Committee that have voting rights. ERCOT membership data includes both corporate and (non-voting rights) associate members. All SPP members have voting rights. Limited historical data for MISO is available.”<sup>25</sup>

### III. THE CHANGING STAKEHOLDER ENVIRONMENT IN PJM

Some RTOs have shown substantial growth in membership, as shown in Figure 3.<sup>26</sup> PJM’s membership is notable for its growth, which has roughly quintupled since the late 1990s, but other RTOs have grown as well.<sup>27</sup> “SPP and MISO have more than doubled the number of members in their respective decision-making bodies.”<sup>28</sup> “ISO-NE and NYISO have also shown growth.”<sup>29</sup> The intensity of participation in the stakeholder process of members varies, with some choosing not to participate. Some members have multiple participants. The number of *market participants* (who do not participate in the stakeholder process) in each RTO far outnumber the number of members of each RTO.

The rapid growth in PJM stakeholder membership, along with its position as the largest RTO and a leader in electricity market design, motivates our focus on

24. *Id.* at 8.

25. Johnson, *supra* note 5, at 8.

26. *Id.* at 7. CAISO is not represented because their organizational structure does not contain a decision-making body comprised of member organizations.

27. *Id.*

28. *Id.*

29. Johnson, *supra* note 5, at 7.

how the character of PJM's stakeholder process has evolved and the forces driving that evolution. This case study discusses how both the context for decision making in PJM have evolved, and what tensions have arisen as a result. We conclude that this changing context consists of three interrelated factors. First, there has been a rapidly evolving policy context influencing decisions made about planning and operating the power grid. Second, there has also been an explosion in the number of organizations participating, or at least voting, in the decision-making process, with many of the new participants having narrow financial interests. Third, as RTOs and their markets have matured as institutions there has been a progressive narrowing of the kinds of issues that stakeholders are asked to consider; in particular these increasingly narrow issues tend to produce starkly different economic winners and losers.

Our case study consists of two parts.<sup>30</sup> The first is analysis of semi-structured interviews with PJM staff and stakeholders conducted in 2013 and 2014. This coincides with a period of growing tension within the PJM stakeholder process and includes the first (and, as of this writing, only) time that a backstop process known as the Enhanced Liaison Committee was triggered to resolve an issue that stakeholders could not.<sup>31</sup> The second part discusses PJM's approach to managing more recent stakeholder tensions, particularly around capacity market issues.

#### *A. Interview Protocol*

We conducted twenty-one semi-structured interviews with PJM stakeholders, staff, board members and others with deep knowledge about PJM's stakeholder process in 2013 and 2014. We asked about transmission planning and the integration of renewable energy, as well as about perceptions and interpretations of their own and other stakeholder interests for participating, and the formal and informal nature of communication within the stakeholder process. This initial information allowed us to fine tune our interview protocol<sup>32</sup> and later respondents were directly asked about the stakeholder process if they had not mentioned the topic previously.

Participants were chosen through purposeful sampling.<sup>33</sup> We identified initial participants by using recommendations from our research advisory committee. Next, PJM documents of committee meetings were used to identify individuals who were active and experienced in the organization. Here we targeted participants categorically, to get representation amongst all five-member categories, PJM staff, and other stakeholders who weren't necessarily members. At the end of each interview, we also asked participants if they felt that there was anyone in particular with whom we should talk.

---

30. *Id.* at 10 (including more detailed information on the construction of the case study method).

31. *PJM Stakeholder Process*, *supra* note 14, at 85-86; *see also Enhanced Liaison Committee – Capacity Performance*, PJM, <https://www.pjm.com/committees-and-groups/closed-groups/elc> (last visited Oct. 19, 2023) (detailing more information on the PJM Enhanced Liaison Committee which has been archived).

32. MATTHEW B. MILES & A. MICHAEL HUBERMAN, AN EXPANDED SOURCEBOOK – QUALITATIVE DATA ANALYSIS (SAGE Publications, Rebecca Holland ed., 2nd ed. 1994).

33. THOMAS R. LINDLOF & BRYAN C. TAYLOR, QUALITATIVE COMMUNICATION RESEARCH METHODS 120-23 (SAGE Publications, 3rd ed. 2011).

Quotes used in this paper are representative of ideas shared by multiple respondents and shown as (PJM-XX). The raw interview data is on file with the authors, consistent with policies established through the Institutional Review Board at Pennsylvania State University.

### *B. Outcomes*

Respondents identified challenges with the stakeholder process that we categorized into three factors: (1) The increasingly complex *policy influence* on the decisions that the stakeholder process is asked to make; (2) the narrowing *scope* of decisions and narrowing *interests* of individual stakeholders; and (3) the *internal response* by PJM to tension in the stakeholder process. We now turn to a discussion of each of these three factors.

#### 1. The Emerging Influence of New Policy Objectives

In the initial years of the PJM RTO, the organizational mission of maintaining electric reliability was highly aligned with the missions of the electric utilities whose transmission responsibilities PJM was assuming.<sup>34</sup> This mission was also familiar to the primary stakeholders participating in developing rules for PJM, and those stakeholders were fewer in number.<sup>35</sup> The interviewees who were involved with the earliest days of PJM RTO expressed some sense of lost comradery that made things seem simpler (even if the issues themselves were complex).

Proposed policy and rule changes within the RTO had costs and benefits, and created winners and losers, but our interview participants described an environment in which decisions were ultimately made in light of the critical reliability mission, as described by one participant:

The nature of the problems in the beginning were isolated. You could work on one area and make a fix and be oblivious to the surrounding areas. As things got more interconnected and interdependent that wasn't working. The nature of the problem-solving got more difficult. (PJM-02)

Some of our interview participants pointed towards a shifting set of responsibilities within the RTO, driven primarily by changes in the policy environment. RTOs have increasingly been viewed not only as the keepers of a reliable power grid, but also as market-makers and promoters of economic efficiency (following the issuance of Order 2000);<sup>36</sup> a mechanism to absorb renewable power generation investments to comply with state Renewable Portfolio Standards and federal climate regulation; and the means to accommodate new technologies wanting to participate in electricity markets such as demand response and energy storage.

The expansion of RTO responsibilities appears to have had two related impacts on the functioning of the stakeholder process. First, it expanded the size and diversity of PJM's voting membership, as highlighted in Figure 2. Second, it created complex interactions between rule changes that did not exist before. This additional complexity has induced reinforcing feedbacks with a change in one set

---

34. *Can Capacity Markets be Designed by Democracy?*, *supra* note 8, at 128.

35. *Id.*

36. Order No. 2000, *Regional Transmission Organizations*, 89 FERC ¶ 61,285 (1999).



of rules inducing a need for more rules and additional complexity. As put by two stakeholders:

It's the complexity of the rules that I think is really throwing a lot of people off . . . If you got one rule that's designed on how FTRs are funded, there's five or six other things that could affect that FTR under funding. Peeling that onion back has been very difficult. It was simple when we started. . . . Now, as the years have gone by and we keep on having this plethora of rule changes—because 'oh, we didn't think of that' or 'oh, that's not working. (PJM-03)

Most of the conflicts, within our industry, have, if you think about it, they don't come from the operation of the system. They come from the fact that we have broader public policy goals, that aren't enshrined at the federal level . . . a lot of them are state initiatives, because we have no agreement on what our energy policy should be. (PJM-04)

## 2. The Narrowing of Issues and Interests

As PJM's markets have evolved, it has faced a narrowing of issues that the stakeholder process is asked to address. At the same time, the scope of its markets has grown to encompass a large number of new stakeholders beyond the integrated utilities whose service territories make up the physical footprint of PJM. Many of these new stakeholders have narrowly defined business interests in specific markets or products within the PJM footprint, differing from the interests of the vertically-integrated utilities that comprised PJM's initial membership.

As (PJM-06) said:

We probably have [fewer] of the big policy decisions. In the beginning I think there was more policy direction, big ticket decisions of how the industry wanted to move particularly under open access deregulation. The members had a better understanding of getting their arms around that. Maybe because most of them didn't necessarily know how ultimately financially that would impact them. As we matured and the details are getting much more specific . . . it's less about what necessarily is what's good for the industry. It's much more now just coming out with this either impacts my business or doesn't.

The result was described by our interview participants as “pocketbooking” - voting in response to clearly delineated financial positions. Pocketbooking is a natural response towards the increasingly narrow and technical issues put before stakeholders under PJM processes. Several of our respondents reported that this development has made compromise and informal collaboration more difficult, with one stakeholder explaining:

In PJM in particular, much of the infighting about rule changes is on narrow and detailed parts of the rules that naturally, as you winnow down a problem, you have less degrees of freedom to move and less room for compromise . . . I don't want to diminish the potential for cost impact . . . the stakes are high—but it just leaves stakeholders with less room to move. (PJM-07)

In other words, stakeholders have become more focused on economic impacts of specific decisions and less focused on the broader reliability mandate that was a cornerstone for vertically integrated utilities. In response, the PJM staff has had to participate in a more active manner to fill the void due to their mandate to maintain reliability.

### 3. Internal Reactions to Maintaining the Core Reliability Mission

PJM stakeholders described ways in which PJM, through actions by its staff and other initiatives related to policy formation within the RTO, has begun to play a more active role in the stakeholder process. One stakeholder (PJM-08) described how “the perception, always, is that PJM is doing more and more stuff on its own or, let me say, being less flexible in some of the solutions that it’s looking for.”

Perhaps explaining this perceived shift, we also found a shared perception among PJM staff that the increased difficulty of stakeholder coordination may threaten reliability of the electricity system – viewed within PJM as the primary mission of the RTO.

While PJM and other RTOs have many different responsibilities, electric reliability tends to be internally prioritized. As one customer-side stakeholder put it,

I think they have to because they have certain absolute responsibilities, and I think that there are some things that are entirely within PJM’s purview. It’s their responsibility. The reliability stuff is theirs, and they can’t not perform that function because stakeholders can’t agree on how to move forward. (PJM-08)

This view was echoed by a state regulator: “Reliability really is the fundamental reason that the [PJM] board will [go over stakeholder heads]—if they can’t get a stakeholder consensus, will go forward [to the FERC] with something” (PJM-04). If policy changes relevant to electric reliability are contentious, then a tension is created between this critical mission of the RTO (and the focus of the PJM staff) to keep the grid functioning and the desire to drive stakeholder groups to consensus.

Discussions of this tension among our interview participants revealed some willingness to defer to the expertise of PJM’s staff, its market monitor and ultimately to the FERC. This deference appears to cut across sectoral or other interest lines among the PJM stakeholders. Ultimately, the increasingly active role taken by PJM, according to the perceptions of our interview participants, may not simply be necessary but also welcome. Some stakeholder comments reflected the view that PJM management or the board will recognize sub-optimal actions taken by the stakeholder process and will take steps to correct those sub-optimal actions. One board member explained that members rely on PJM management and the Board to balance conflicting interests and that members have stated:

We have to vote this way because we represent our members and this is their interest, but in the end, we know that the PJM management and the board will do the right thing, even if we vote for what they know in their hearts is the wrong thing. (PJM-09)

Some control has been ceded to PJM’s independent market monitor, who has in some cases been viewed as a safety valve. Some issues take a great deal of time to understand the long-term ramifications of. One respondent told us,

. . . just below the surface [of some stakeholder issues] is a very significant conflict. Sometimes it’s only all supposing things because people don’t have the time or the energy to deal with all of it. People just let things go . . . [and] voted in favor of things which are clearly against their own interest . . . and said, “We know [the market monitor will] take care of it if anything comes up.” (PJM-10)

## IV. EVOLUTION OF CAPACITY MARKET

Tensions within PJM's stakeholder process have arisen over multiple issues, but perhaps none more so than over PJM's capacity market. The capacity market is a mechanism used to ensure that the RTO will have enough power generation capacity to meet future peak electricity demand, plus some extra capacity for reserve. This construct is important for PJM because it is one of the chief mechanisms that PJM uses to ensure adequate future electricity supply. It has also been a highly contentious issue for over a decade.

Multiple policy drivers external to PJM affect the PJM capacity market. These are largely state-led and mostly related to environmental policy. When PJM's electricity markets first opened in 1997, none of the states in its footprint had Renewable Portfolio Standards, meant to encourage growth in renewable and low-carbon power generation. Today all PJM states (and DC) have some variation of an RPS, except for Kentucky and West Virginia.<sup>37</sup> In 2011, two states attempted to subsidize new generation specifically to affect capacity market prices, according to the market monitor.<sup>38</sup> More recently, states have begun subsidizing existing nuclear plants.<sup>39</sup> Outside of capacity market affects, PJM is now needing to determine how the mix of exogenous carbon pricing markets (at state, regional, and RTO levels) will affect PJM, and in 2019 created a new senior task force to address the questions.<sup>40</sup>

Second, the narrowing of issues and interests has been particularly clear within the capacity market. Because the capacity market is set up to allow RTOs to meet regulatory requirements with respect to resource adequacy, price outcomes in capacity markets can be driven by the administrative rules determined through the stakeholder process. Generators naturally benefit from rules that support higher capacity prices, and customer-side interests benefit from lower prices. Stakeholder behavior in capacity market deliberations has reflected this. The narrowing of interests can also be seen in the results of MC votes since 2014, where there is strong evidence of bloc voting.<sup>41</sup>

Third, PJM's response to these conflicting interests has been to take a more active role in market development by making unilateral decisions, relying on alternative processes or looking to FERC for solutions. Because capacity markets have been controversial and the financial stakes have been high, the PJM stake-

---

37. A map showing the status of state RPS policies. *Renewable & Clean Energy Standards*, DSIRE (Nov. 2022) <https://ncsolarcen-prod.s3.amazonaws.com/wp-content/uploads/2022/11/RPS-CES-Nov2022.pdf>.

38. Joe Bowring, *Capacity Markets in PJM*, 2 *ECON. OF ENERGY AND ENVTL. POL'Y* 47, 63 (Sept. 2013) <https://www.jstor.org/stable/26189456>.

39. Such subsidies in Illinois were upheld by the 7<sup>th</sup> Circuit Court of Appeals. *Elec. Power Supply Ass'n v. Star*, 904 F.3d 518, 518 (7th Cir. 2018).

40. *Carbon Pricing Senior Task Force (CPSTF) Final Report*, PJM (Nov. 2021) <https://www.pjm.com/-/media/committees-groups/committees/mc/2021/20211115-webinar/20211115-item-07o-cpstf-report.ashx>; The PJM Carbon Pricing Senior Task Force was closed in 2021, but information is archived. See *Carbon Pricing Senior Task Force*, PJM, <https://www.pjm.com/committees-and-groups/closed-groups/cpstf> (last visited Oct. 19, 2023).

41. *Can Capacity Markets be Designed by Democracy?*, *supra* note 8, at 134; *The Political Complexity of Regional Electricity Policy Formation*, *supra* note 8, at 15.

holder process has exhibited repeated difficulties in supporting decisions on capacity market rules. The stakeholder process has not been able to move forward a set of administrative rules for the capacity market since 2011. On three separate occasions (2011, 2014 and 2018) stakeholders rejected every set of capacity market rules put before them, with supply-side interests voting down proposals that would tend to depress prices and customer-side interests voting down proposals that would tend to increase prices. In each of these cases, PJM responded to the stalemate in the stakeholder process. In 2011, after stakeholders voted down every set of capacity market rule changes (including a proposal to make no changes to the rules at all), the PJM Board selected the set of rules most preferred by PJM staff. In 2014, the PJM Board triggered an alternative mechanism for stakeholder engagement rather than take unilateral action. This alternative stakeholder mechanism, known as the Enhanced Liaison Committee (ELC), involves stakeholders forming organic coalitions that present proposals directly to the Board.<sup>42</sup> The Board ultimately makes the decision (and in this case files the changes with FERC).<sup>43</sup> In 2018, PJM asked FERC to convene a settlement process rather than prolong fundamental disagreements among stakeholders.

The capacity market serves as a useful example of how a changing policy environment and evolving focus of stakeholder interests have combined to introduce tensions in PJM's stakeholder process, affecting its ability to advance issue. The internal responses of the PJM Board to these tensions illustrate a more fundamental regulatory tension in the design of RTOs themselves. FERC has charged RTOs with a fundamental mission to maintain a reliable power grid and ensuring resource adequacy is a core aspect of that mission.<sup>44</sup> FERC has also sought to ensure a prominent role for stakeholder-driven decision making within RTOs. In PJM, that has resulted in a particularly high level of formal authority within the stakeholder group.<sup>45</sup> When these design goals for RTOs have clashed, as they have repeatedly involved PJM's capacity market, the organizational response by PJM has been to support the reliability mission in ways that reveal the organization's preferences.<sup>46</sup> These responses – which constitute backstop mechanisms for organizational decision-making – represent a valid part of RTO stakeholder responses whose structure and function have received relatively little attention in the emerging RTO governance literature.<sup>47</sup>

---

42. Christina Simeone, *PJM governance: Can Reforms Improve Outcomes?*, KLEINMAN CTR. FOR ENERGY POLICY 32 (May 2017), <https://kleinmanenergy.upenn.edu/wp-content/uploads/2020/08/PJM-Governance-Reforms-1.pdf>.

43. *Id.* at 33.

44. Michael H. Dworkin & Rachel Aslin Goldwasser, *Ensuring Consideration of the Public Interest in the Governance and Accountability in Regional Transmission Organizations*, 28 ENERGY L.J. 543, n.46 (2007), [https://www.eba-net.org/wp-content/uploads/2023/02/10-Governance\\_of\\_RTOs.pdf](https://www.eba-net.org/wp-content/uploads/2023/02/10-Governance_of_RTOs.pdf).

45. Simeone, *supra* note 42; Stephanie Lenhart & Dalten Fox, *Participatory democracy in dynamic contexts: A review of regional transmission organization governance in the United States*, 83 ENERGY RSCH. & SOC. SCI. (Jan. 2022), <https://doi.org/10.1016/j.erss.2021.102345>.

46. *Can Capacity Markets be Designed by Democracy?*, *supra* note 8; *The Political Complexity of Regional Electricity Policy Formation*, *supra* note 8.

47. This literature is growing, but highly relevant examples include: Dworkin, *supra* note 44; EMERY ROE & PAUL R. SCHULMAN, *High Reliability Management: Operating on the Edge* (Stanford Univ. Press 2008); Jonathan Raab & Patrick Field, *An Assessment of PJM's Governance and Stakeholder Process*, RAAB ASSOC. &

The nature of backstop solutions to stakeholder stasis has continued to evolve in ways that increase the authority of PJM within its own stakeholder process. One outcome of ongoing tensions over capacity market design was the 2019 development of a stakeholder processes called The Critical Issues Fast Path (CIFP).<sup>48</sup> Like the ELC, the CIFP is intended to be used only rarely and for particularly important and contentious issues. This companion to the ELC acts as a hybrid model of decision-making by giving PJM more control over the timeline and solution proposal than it would otherwise have, but still allowing members to vote on PJM's solution and any proposed alternative solutions.

## V. CONCLUSION

RTOs are highly complex organizations that will continue to be critical focal points for electricity policy implementation in North America. These complex organizations have been evolving in ways that reflect the complexity of industry feedbacks induced by policy change. State and federal policies have opened the doors to new types of participants in RTO markets, and in an effort to accommodate these new participants (whose business models tend to be highly focused) RTOs have allowed their missions to broaden. These broader missions have, in turn, induced fundamental organizational change that has been reflected in tensions arising within stakeholder-driven decision processes.

PJM's increased role in the stakeholder process represents a series of evolutionary steps in response to the changing industry and regulatory environment. This evolution is important in that it highlights tensions between differing views of PJM as an organization. It also encapsulates one of the major challenges in increasing the level of participatory decision-making in all areas of the U.S. power grid. On the one hand, the internal culture of PJM views PJM as operating with a clearly-defined reliability mission and deference towards expertise consistent with that mission. On the other hand, PJM's more diverse stakeholders view PJM as a forum to further and negotiate their own narrow interests.

The broadening stakeholder positions, the increased diversity of stakeholder interests, and the evolution of demands on PJM, have made reaching decisions on some issues within PJM much more difficult. To the extent that FERC, PJM and other RTOs may build new mechanisms for more inclusive stakeholder decision-making, these tensions are likely to persist and even grow. We suggest that the development of appropriate backstop mechanisms and clear delineation of high-priority organizational goals will need to be integrated into reforms around RTO governance and stakeholder participation and not assembled *ex post* once existing

---

CONSENSUS BLDG. INST. (Oct. 1, 2009), <http://www.raabassociates.org/Articles/PJM%20GAST%20Final%20Phase%20I%20Report.pdf>; Stephanie Lenhart, et al., *Electricity governance and the Western energy imbalance market in the United States: The necessity of interorganizational collaboration*, 19 ENERGY RSCH. SOC. SCI., 94–107 (2016), <https://doi.org/10.1016/j.erss.2016.05.015>; Mark James, et al., *How the RTO stakeholder process affects market efficiency*, R STREET (Oct. 5, 2017), <https://www.rstreet.org/wp-content/uploads/2018/04/112-1.pdf>; Christina E. Simeone, *Reforming FERC's RTO/ISO stakeholder governance principles*, 34 THE ELECTRICITY J. (June 2021), <https://doi.org/10.1016/j.tej.2021.106954>.

48. *PJM Stakeholder Process*, *supra* note 14, at 61.

processes have stopped functioning. Despite these challenges, we perceived a belief in the system among some participants that have been active for many years. One stakeholder commented,

It's not [any longer] the Wild West, where we just have to throw up a market design, and hope that it works, and then tweak it over the years, as we've done. I think things used to be easier to get through, meaning we didn't have to go through all this process, and if we had the votes, we could just trample on everybody. There [now] may be some frustration with that because that isn't any longer the case. There's a fairly onerous process in place, and sometimes it is too onerous for its own good. Other times it gives us all time to stop, and think, and usually, I think, work out a better solution. (PJM-08)

#### VI. ACKNOWLEDGEMENTS

The authors acknowledge support from the National Science Foundation under award SES-1261670, the Alfred P. Sloan Foundation under award 2022-17193 and also to the Alfred P. Sloan Foundation's support of the workshop "The Nature of Technological Transition and Innovation in the Electricity Industry," held at the Santa Fe Institute in April 2016. An earlier version of this paper was discussed at that workshop, and we thank the participants for their insightful comments.