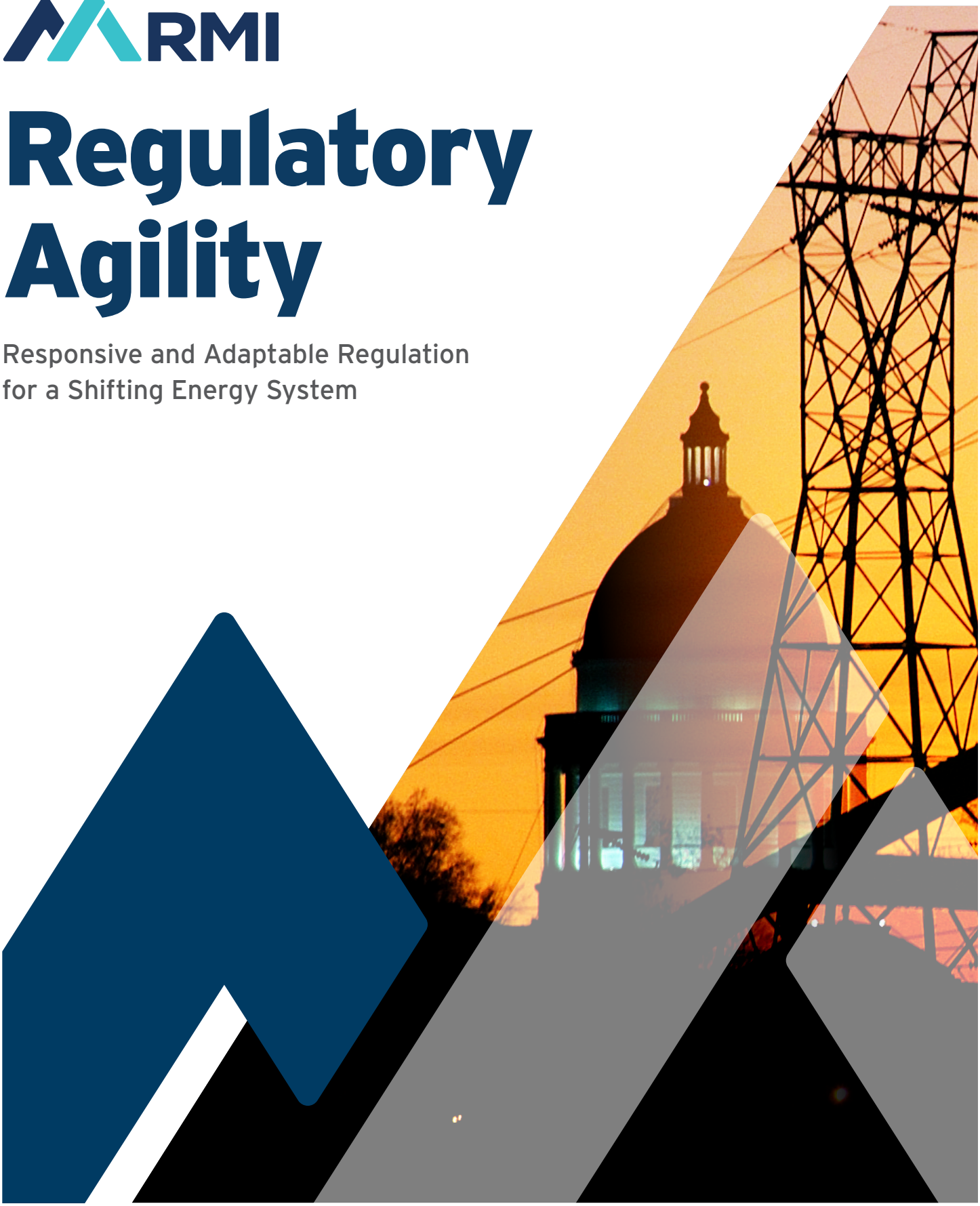
RMI

Regulatory Agility

Responsive and Adaptable Regulation for a Shifting Energy System



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Authors and Acknowledgments

Authors

Stephanie Bieler
Camden Burk
Katie Ebinger
Rachel Gold
Alex Walmsley

Authors listed alphabetically. All authors from RMI.

Contacts

Stephanie Bieler, stephanie.bieler@rmi.org
Rachel Gold, rgold@rmi.org

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About RMI

Rocky Mountain Institute (RMI) is an independent, nonpartisan nonprofit founded in 1982 that transforms global energy systems through market-driven solutions to secure a prosperous, resilient, clean energy future for all. In collaboration with businesses, policymakers, funders, communities, and other partners, RMI drives investment to scale clean energy solutions, reduce energy waste, and boost access to affordable clean energy in ways that enhance security, strengthen the economy, and improve people's livelihoods. RMI is active in over 60 countries.

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Preface

State public utilities commissions (PUCs) play a critical role in ensuring the health and economic vitality of families and businesses across the country. Major utilities' spending totaled approximately $320 billion in 2023, and PUCs have decision-making authority over utilities serving roughly 70% of US electricity customers.[1] State PUCs have historically been tasked with ensuring access to safe, reliable, and affordable energy services, but now face new and more complex responsibilities due to shifting economics, aging and fragile infrastructure, and new customer demands for cleaner and more transparent service. Although PUCs are uniquely positioned to orchestrate an equitable transition to meet these emerging needs, their institutional structures, processes, and staffing — all essential to PUC modernization — have struggled to keep pace.

In 2021 and 2022, RMI published three insight briefs on PUC modernization that included strategies and recommendations to support PUCs in equitably decarbonizing the electric sector.[2] The insight briefs covered PUCs' purpose, people, and processes as PUCs take on an expanding role while still meeting their historic mandate of ensuring safety, reliability and affordability. Recommendations included how to address the challenges of outdated interpretations of PUC authority, staff constraints, gaps in technical expertise, information asymmetry, processes that restrict PUCs to considering only the evidence entered on the record during proceedings, and a culture of risk aversion.

Since 2022, PUCs and legislatures across the United States have adopted a range of recommendations to support PUC modernization, such as passing legislation that updated and clarified PUC purposes and mandates,[i] establishing processes to engage stakeholders more effectively, and creating new staffing structures to ensure commissioner access to technical expertise.[3,ii]

Amid this progress, there have also been challenges. Modernization takes time and energy from PUCs with limited resources and can depend on both legislation and agency or state hiring procedures. Meanwhile, the pressures the public servants at PUCs face continue to grow as their mandates and workloads increase.

This fourth insight brief focuses on how PUCs can become more agile and effectively regulate today's evolving energy system while largely operating within the constraints posed by legislation, staffing, and budgets (see Exhibit 1, next page). While these constraints must be addressed through the deeper reforms referenced earlier in the series, this brief details specific actions PUCs can take to respond effectively to the context before them with regulatory agility, or the ability of PUCs to act with responsiveness, adaptability, and flexibility. Agility can better equip PUCs to continue their critical work in support of the public interest while navigating the increasing complexities and workload of energy regulation.

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i For example, the Massachusetts Department of Public Utilities has taken steps to establish procedural equity through the creation of Public Involvement Plans and advance distributional equity by opening a new proceeding on energy burden. Its expanded role in this space was supported by the Massachusetts Legislature passing the 2021 Climate Act, which amended the department's responsibilities to add equity, affordability, and reductions of greenhouse gas emissions to its list of existing priorities ("EEA and DPU Public Involvement Plans," Commonwealth of Massachusetts, accessed April 29, 2025, **https://www.mass.gov/info-details/eea-and-dpu-public-involvement-plans-pips**; *An Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy*, S. 9, The 192nd General Court of the Commonwealth of Massachusetts, 2021, **https://malegislature.gov/Laws/SessionLaws/Acts/2021/Chapter8**).

ii Connecticut, for example, established a Stakeholder Group Compensation Program to make funds available to groups representing the interests of residential utility customers residing in an environmental justice community, residential utility customers receiving protection as hardship cases, or small business customers, and to allow greater participation in proceedings.

Exhibit 1 **PUC modernization series**

Note: Each insight brief in the PUC modernization series, shown above, addresses a distinct aspect of PUC modernization beginning with their purpose, people, process, and, finally, agility.

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Incorporating Agility into Regulatory Frameworks

In many states, the traditional PUC mandate of ensuring safety, reliability, and affordability of electric service is expanding. Now, many PUC mandates address critical and immediate challenges including reducing greenhouse gas emissions, providing for resilience of electric service, replacing aging infrastructure, meeting uncertain energy demand, and supporting economic development needs. Additionally, there are rapid near-term changes happening to the grid due to the uncertain amount of load growth and the emergence of new technologies.[4] Novel solutions to address these challenges, such as flexible interconnection, changes to energy market and rate design, artificial intelligence (AI), and integrated gas and electric planning, present new decision points for utilities and increased workload for PUCs.[5]

Artificial intelligence and regulation

The use of AI is emerging as a tool for both PUCs and electric utilities to streamline processes and manage changes to the energy system.[iii] Utilities have begun to pilot AI for the purpose of managing distributed resources and target investments. For instance, Ameren Missouri has piloted AI technology to manage electric vehicle charging,[6] and Nevada Energy used AI to target recruitment for managed charging, which can support more targeted, cost-effective distribution investments.[7] While promising, this presents yet another new technology PUCs must regulate.

However, PUCs can also leverage this tool to enhance their regulatory capabilities. For example, the Nevada PUC used AI to find over $1 million in disallowances in Nevada Energy's most recent rate case.[8] While still an emerging technology, AI is an important tool that should be considered when trying to make processes more agile.

Between 2012 and 2024, the total number of dockets US PUCs managed increased by an average 4.7% annually, with a total increase of over 30,000.[iv] PUC workload increase has been matched with historically high requests from utilities for record-setting rate increases in 2021, 2022, and 2023.[9,v] The expanding mandate of PUCs and the increasing investment sums they oversee suggest that the way PUCs operate must evolve to effectively meet these challenges.

Other industries that face complex and evolving challenges have developed agile regulatory frameworks to meet emerging objectives and technology trends. For example, the World Economic Forum in 2020

iii HData, an AI company, developed an AI-powered platform that analyzes regulatory data to streamline reporting, decision-making, and rate case-making, among other regulatory processes (Trúc Nguyen, "HData Raises $10 Million to Accelerate Energy-Sector Data Intelligence," UtilityDive, 2024, **https://www.utilitydive.com/press-release/20240304-hdata-raises-10-million-to-accelerate-energy-sector-data-intelligence-1/**).

iv RMI analysis, based on total active dockets for all utilities by year of latest filing for all state PUCs and Federal Energy Regulatory Commission, based on Insight Engine data.

v Following the COVID-19 pandemic, delayed increases in investment are a possible cause of recent rate case request increases; however, this does not account for the historic highs in rate case requests.

developed an agile regulation framework for the "fourth industrial revolution," focusing on how regulators could effectively navigate new technological breakthroughs such as self-driving cars.[10] The National Academy of Public Administration similarly developed an agile regulatory framework for federal regulation in 2022.[11]

In this brief, we define regulatory agility as the ability of PUCs to act with responsiveness, adaptability, and operational flexibility to address the increasing complexities of energy regulation in support of their overall objectives. Each of these components of regulatory agility is outlined in Exhibit 2.

Regulatory agility emphasizes reaching policy objectives at pace and meeting deadlines within existing constraints posed by legislation,[vi] staffing, and budgets. Exhibit 3 highlights how, under an agile approach, adaptability and operational flexibility are dynamic and responsiveness is more consistent. In contrast, within a traditional approach, rigid processes and limited organizational capacity constrain adaptability and operational flexibility, which can reduce responsiveness and ultimately prevent a PUC from reaching deadlines and broader policy objectives.

Exhibit 2 Defining regulatory agility

Responsiveness	Adaptability	Operational Flexibility
The PUC can deliver required outputs and decisions in a timely manner and effectively respond to urgent issues.	The PUC can assess and react to changing external conditions, requirements, and stakeholder priorities.	The PUC has the tools, organizational design, teams, and management structures in place to respond to its workload effectively.

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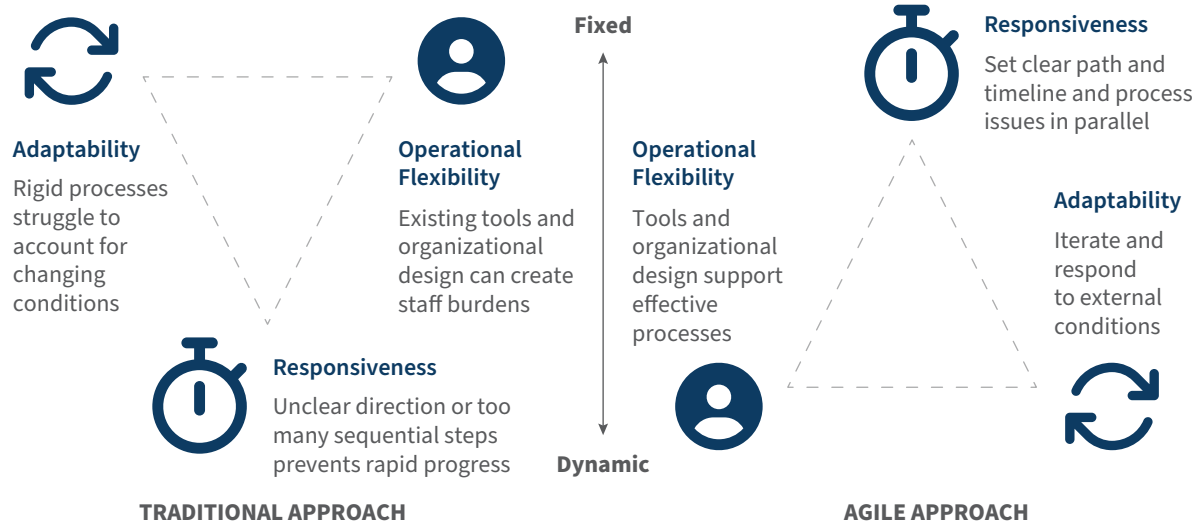
Exhibit 3 Traditional versus agile approaches to regulation



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vi Legislative changes frequently place new requirements on PUCs. This insight brief includes multiple case studies where a PUC responds to legislative changes in an agile manner. However, the insight brief does not make recommendations that seek legislative changes to enable PUC modernization. See earlier briefs in the PUC Modernization series for examples of legislative changes that can align PUC purpose with policy priorities, support the PUC workforce, and enable process improvements (PUC Modernization Issue Briefs, RMI, accessed April 29, 2025, **https://rmi.org/insight/puc-modernization-issue-briefs/**).

The recommendations to advance regulatory agility in this brief draw on a growing literature, most notably the global health response and vaccine development during the COVID-19 pandemic. Global demand for vaccines led regulators to adopt agile processes to effectively expedite trials, respond to the evolving virus, and mobilize resources to deliver effective and safe treatments at speed.[12] The borderless, high-priority, and existential nature of the COVID-19 pandemic mirrors the challenges currently faced in energy regulation. PUCs must keep the lights on and maintain energy affordability amid new state policy goals and a changing energy landscape with aging and vulnerable energy infrastructure. However, a key difference between the COVID-19 vaccine response and electric utility regulation is the duration of the changes required. Once the vaccines were widely available, the threat caused by COVID-19 was greatly lessened; in contrast, energy regulation challenges are growing year on year, and show no signs of slowing.

It is important to note that agile regulation does not simply refer to speed. Instead, agile regulatory processes should effectively meet evolving societal, economic, and environmental needs, delivering *responsiveness* in regulation.[vii] To appropriately meet these needs, regulators can be attentive to the fairness and inclusivity of their processes. Deliberate, early, and accessible stakeholder engagement can support the inclusion of a diverse set of viewpoints on utility regulatory topics, and in some cases faster decision-making, which is explored further in Focus Area 3 of this brief.

Regulatory agility can support PUCs to meet their growing mandate in a changing energy system. This brief focuses on three approaches to agile regulation:

1. **Build culture, systems, and workforce to advance agility:** Leadership and staff have a strong influence on a PUC's ability to implement agile processes. Leadership can help build systems that proactively set and communicate priorities for a PUC and ensure sufficient staff capacity to work on substantive and urgent issues.
2. **Refine docket processes to improve responsiveness and flexibility:** Make PUC work and workflows visible as regulations are developed and conduct parallel processing of activities where possible.
3. **Engage stakeholders early, inclusively, and accessibly:** Agile stakeholder engagement can incorporate feedback to streamline approval processes and encourage broader, more inclusive participation.

We provide a set of suggested priority actions that can be taken to deliver change for each identified focus area (see Exhibit 4, next page). This was developed from expert interviews and RMI research.

Who can take these priority actions?

In this insight brief, we focus on actions that state utility regulatory commissions themselves can take to improve the agility of their regulatory processes. Who is best equipped to take action will vary from state to state as well as from action to action. For any actions that include hiring and developing staff to advance agility, commissioners or executive directors are frequently best positioned to implement these changes. For updates to processes and stakeholder engagement, both commissioners and staff are able to take action depending on the state context, and in fact many of the case studies discussed in these sections were the result of processes implemented by staff.

vii This is a core tenet in several proposals for agile regulation frameworks, such as the one by the National Academy of Public Administration, *Agile Regulation: A Gateway to the Future*, 2022, p. 6, **https://s3.us-west-2.amazonaws.com/napa-2021/Agile-Regulation-Gateway-to-the-Future-Report.pdf**.

Exhibit 4 Focus areas and priority actions

FOCUS AREA 1: Build culture, systems, and workforce to advance agility
Build systems that proactively set priorities that align with the PUC's mandate and state goals to ensure the PUC is effectively set up to make progress on high-priority mandates.
Ensure staff members have the skills and resources required to adapt to the evolving energy space by proactively planning for sufficient staff capacity to meet expanding mandates and building staff knowledge on new and evolving topics.
Empower changemakers while maintaining institutional knowledge and experience to foster a culture of continuous improvement and equip commissioners and PUC staff leaders to navigate complex topics, multifaceted dockets, and organizational challenges more quickly.
FOCUS AREA 2: Refine docket processes to improve responsiveness and flexibility
Increase transparency around PUC scope expectations and objectives for dockets to enable utilities and stakeholders to submit effective proposals from the outset.
Increase coordination across dockets that address crosscutting issues to reduce the time staff spend getting up to speed on docket context, reduce duplicative efforts between dockets, and allow learnings from one docket to be more easily translated into similar dockets.
Create modular proceeding structures for concurrent rather than sequential progress to ensure progress or approvals can be made on each component simultaneously and create the flexibility to move more quickly or deliberately on each process component as needed.
FOCUS AREA 3: Engage stakeholders early, inclusively, and accessibly
Engage early and thoughtfully to ensure the right stakeholders are in the room, their time is used wisely, and their input is accounted for before and during the decision-making process to reduce the potential for slowdowns and duplicative or ineffective work.
Clearly identify high-priority information for stakeholders and define how stakeholder feedback will be used to enable underserved or underrepresented stakeholder groups to participate and provide timely input, in turn supporting more rapid PUC responses and decisions.
For emerging issues, create accessible opportunities to leverage stakeholders' expertise and understanding of new technologies, lived experiences, and local interests to support PUC decision-making and reduce some need for in-house expertise.

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Throughout this insight brief, we include examples of states that have taken steps to make their regulatory processes more agile, demonstrating the priority actions that PUCs can take (see Exhibit 5 for an overview). We chose our state examples based on interviews with industry experts who identified these states as leaders in advancing legislative goals and establishing agile processes. These individuals are listed in the acknowledgments.

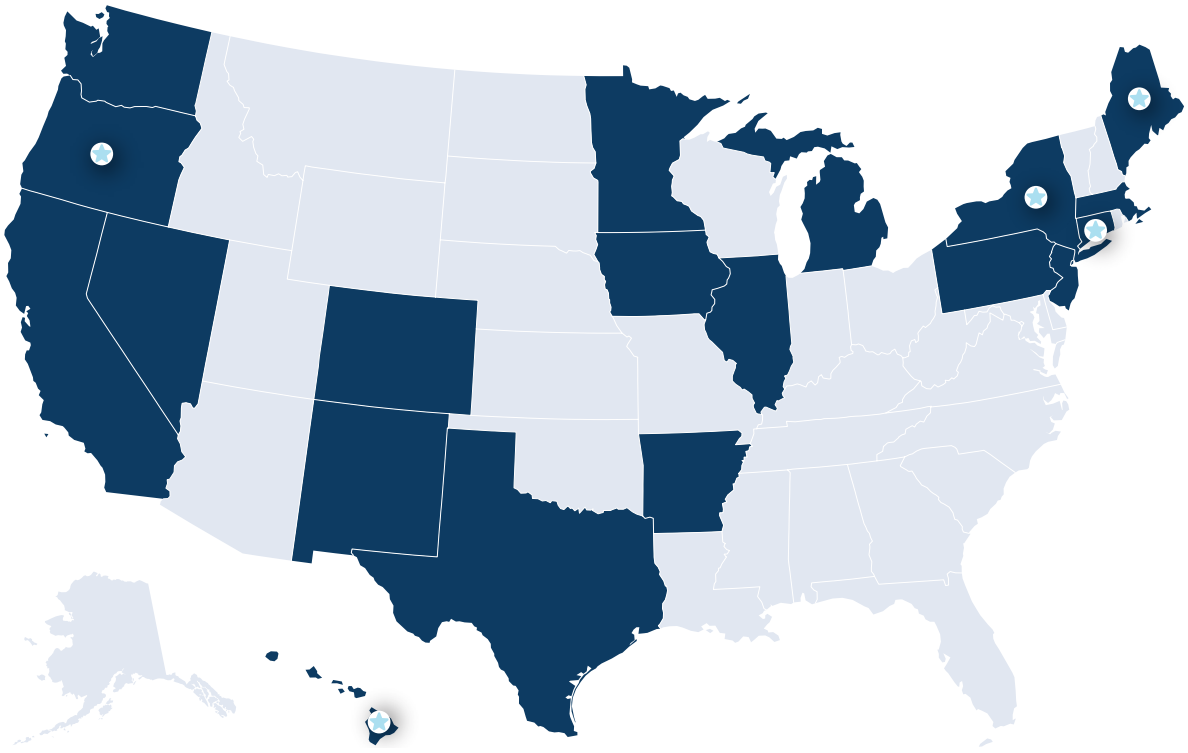
The stars indicate venues that we explore in more detail in our *PUCs in Practice* sections. We selected the five featured states for more extensive exploration in case studies because:

- They had a clear need for agility. All the commissions in our *PUCs in Practice* sections were required to take urgent action — whether to address affordability, accommodate new technologies, or respond to new legislative mandates or other issues.

- Our research revealed changes in outcomes that occurred as a result of these agile actions. Many other states have taken similar actions, but were not included as a PUC in Practice as the outcomes are yet to be determined or are more difficult to identify.

We gathered evidence for these case studies from a review of the relevant record and interviews with local decision makers or key stakeholders. A list of these stakeholders is included in the acknowledgments.

Exhibit 5 **Featured PUCs**



Note: The blue states are examples featured in the brief of states that have taken steps to make their regulatory decision-making processes more agile. The stars show venues that we have highlighted in greater detail, called *PUCs in Practice*. This map does not comprehensively depict all states that have taken actions to support regulatory agility.

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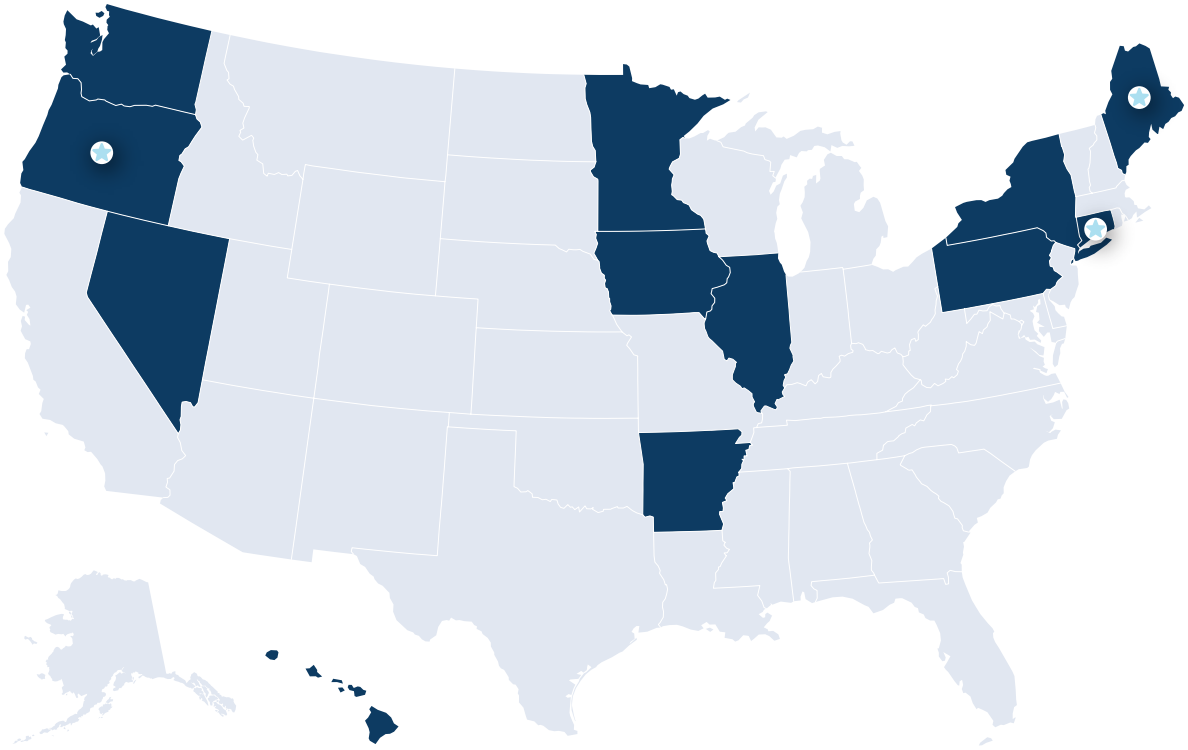
FOCUS AREA 1: Build Culture, Systems, and Workforce to Advance Agility

Leadership plays a critical role in shaping PUC organization, priorities, workflow, and culture. Fostering an innovative internal environment for staff is foundational to the adoption of the other regulatory agility strategies addressed in later sections. Transparently creating priorities as a PUC for how to effectively meet state goals and champion the public interest is integral for delivering on desired outcomes. Effective PUCs clearly define the public interest,[13] and use that understanding to articulate a clear set of goals that they can adjust over time as the needs of the public evolve. To meet these goals, agile PUCs develop teams with empowered and skilled staff that are able to effectively navigate changing environments. We include examples of actions that states are taking to create more agile teams and systems at their PUCs throughout this section (see Exhibit 6).

Exhibit 6 **States highlighted in Focus Area 1**



Note: These are examples of states that have worked to design PUC culture, internal processes, and workforce to advance agility. The stars indicate states that are highlighted in greater detail in this section under PUCs in Practice. This map does not comprehensively depict all states that have taken these actions.

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How does building culture, systems, and workforce advance regulatory agility?

Responsiveness: When PUC leadership sets and communicates a clear vision to staff, that direction helps build a more effective team.[viii] Two key indicators of team effectiveness are trust and communication. A McKinsey & Company analysis found that teams with trust are 3.3 times more efficient and teams with effective communication are 2.8 times more efficient.[14] Clear communication of a PUC's goals and priorities helps improve both trust and communication and ensures that staff members are clear on the PUC's purpose and goals. While it takes time to build effective trust and communication, research has shown that teams with these components are able to deliver more innovative and sustainable results in the long run.

Adaptability: Empowering changemakers, formally and informally, encourages PUC staff to be more innovative and constantly work to improve PUC processes. Change may range from relatively small decisions, like combining multiple dockets into one, to much larger updates like revamping a stakeholder engagement process. Regardless of size, it is becoming increasingly important to iterate and improve as the energy landscape evolves. To empower changemakers that can support institutional innovation, PUCs can recruit, retain, and support staff or leaders who are willing to test new approaches and processes and who have a shared vision for change. These change-oriented staff members help PUCs foster a culture of continuous improvement.[ix]

Operational flexibility: As PUCs are asked to take on new and more complex legislative mandates and regulate novel technologies, their need for new staff and technical resources is likely to increase. Proactively planning to ensure sufficient resources to meet these new objectives helps PUCs respond to their workload effectively. PUCs can also help build staff members' capacity and prepare them for changes in the energy sector by creating programs that can help develop staff skills. Proactively supplying staff with the time and technical knowledge to address the requirements of new legislation or regulate new technologies helps ensure that PUCs are positioned to meet the needs of the public. This can include both internal resources such as hiring new staff or staff training and external resources such as consultants. PUCs working with other parts of a state government to request the specific resources they need for a new or shifting responsibility can also help address capacity shortages proactively.[x]

Actions PUCs can take to create PUC culture, internal processes, and workforce to advance agility

Creating an agile workforce can be a lengthy process that typically requires iteration to accommodate state budgetary cycles and regulations. In Exhibit 7 (next pages), we summarize examples of steps that PUCs have taken to make their workforce more agile. We separate these steps into ***short term*** — actions that can be taken in the near term with comparatively less effort — and ***long term***, which includes actions that may require more substantial effort or restructuring to implement. We also include early examples of states that have implemented these steps.

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viii The PUC modernization brief *The People Element: Positioning PUCs for 21st-Century Success*, part of the first three RMI PUC modernization briefs, describes how to help position commissioners to lead and establish clear staff priorities in greater detail. For this brief, we focus on how to leverage leadership and priorities to support a more agile commission (Jessie Ciulla et al., *The People Element: Positioning PUCs for 21st-Century Success*, RMI, 2022, **https://rmi.org/insight/puc-modernization-issue-briefs/**).

ix This is one of many strategies a PUC can employ to build a more effective team. We focus here on how PUCs can build capacity to enable a more agile commission. The PUC modernization brief *The People Element: Positioning PUCs for 21st-Century Success* provides recommendations on how to help expand PUC capacity overall, as well as challenges and constraints PUCs can face when building capacity (Jessie Ciulla et al., *The People Element: Positioning PUCs for 21st-Century Success*, RMI, 2022, **https://rmi.org/insight/puc-modernization-issue-briefs/**).

x Additional PUC resources can include increasing utility fees, procurement of contractors, or additional staff in the budget depending on the state's approach to funding PUC operations.

Exhibit 7 Examples of steps that states have taken to create systems and a workforce to support agility

PRIORITY ACTION: Build systems that proactively set priorities that align with the PUC's mandate and state goals to ensure the PUC is effectively set up to make progress on high-priority mandates.

Short term

- Create a roadmap that identifies the PUC's priorities over the next several years.

Long term

- Publish a document, such as a decision or a white paper, that clearly defines the action a PUC will take to meet its mandate.
- Proactively identify and recommend needed regulatory updates to the legislature.

Early examples

- The Hawaiian PUC's "2024 Inclinations on the Future of Energy in Hawaii" proactively identifies the PUC's top priorities for infrastructure investment through 2030 to effectively meet its mandates for public safety, reliability, and resiliency in light of emerging challenges.[15] It follows a similar policy statement from 2014, which offered guidance for the Hawaii energy community and focused policy efforts on aligning business models with customer interests and public policy goals, particularly through grid planning, performance-based regulation, and customer programs.[16]

- There are two relevant examples from the Iowa Utilities Commission. First, the PUC designated a staff member to coordinate and update the rate case process.[17] Improvements to the process include more frequent meetings in the early stages to reduce time spent on the lengthy memo-writing process. When alignment between commissioners, staff, and stakeholders can happen early on, the process can progress more quickly overall by preventing redoing work when disagreements surface later. Second, the PUC submitted a study, conducted by a third party, to the state legislature that recommended updates to Iowa's utility rate laws including more frequent filing of general rate cases, examination of performance-based regulations, and recommended integrated resource planning.[18] While the legislature requested this review, the process led by the PUC has informed subsequent legislation introduced by the governor's office that would require electric utilities to file an integrated resource plan (IRP) once every five years.[19]

PRIORITY ACTION: Ensure staff members have the skills and resources required to adapt to the evolving energy space by proactively ensuring sufficient staff capacity to meet expanding mandates and building staff knowledge on new and changing topics.

Short term

- Utilize management and organizational tools to track project staffing and timing internally, such as using shared software tools for project management, including internal Gantt charts.

Long term

- Request additional resources from the legislature, including funding for staff, to increase capacity.
- Develop PUC internal training programs or make available external opportunities designed to expand staff knowledge and develop new skills.

Early examples

- The Illinois Commerce Commission lobbied for and received additional staff and budget to hire consultants to implement the state's Climate and Equitable Jobs Act.[20]
- In early 2024, the Pennsylvania Public Utility Commission (PAPUC) launched PAPUC Forward, and shared a new strategic plan for 2025–2029. In addition to identifying key objectives for the PUC, the Pennsylvania PUC Strategic Plan 2025–2029 sets out to train and prepare staff to be able to adapt to changes in the utility space.[21] The Pennsylvania PUC was also able to effectively respond to a surge of filings and rate cases that same year.[22]
- The Nevada PUC created a strategic plan in 2020 that in part outlines continued staff development and training across the commission.[23]

PRIORITY ACTION: Empower changemakers while maintaining institutional knowledge and experience to foster a culture of continuous improvement and to equip commissioners and PUC leaders to navigate complex topics, multifaceted dockets, and organizational challenges more quickly.

Short term

- Encourage staff to propose and, where in scope for their role, initiate new dockets.
- Utilize former senior staff or commissioners in an advisory role to bolster capacity and retain institutional knowledge.

Long term

- Compensate staff members when accomplishing urgent issues quickly, especially when additional time and resources are required.

Early examples

- The PUC staff in Minnesota created a report on grid modernization guidelines as part of initiating a proceeding on grid modernization.[24]
- The Washington Utilities and Transportation Commission (UTC) and the Arkansas Public Service Commission each took action to understand if and how utilities might consider federal funding, including from the Inflation Reduction Act, in their planning. The commissions took two approaches: Washington staff convened a working group on the topic, and the UTC ultimately issued a policy statement with specific guidance for utilities;[25] Arkansas issued an investigatory order with specific questions for utilities to address.[26]
- In New York, a former commissioner served as the chief program officer, helping bolster institutional knowledge at the commission.[27]

Who helps shape PUCs

Depending on the state, PUCs are organized differently under diverse statutes and therefore who is helping drive organizational change (whether it is a majority of commissioners, chair, or executive director) could vary. However, the more buy-in there is from leadership such as commissioners and executive directors, the more successful the agile implementation of proposed reforms will be.

Although this section focuses on actions that commissions can take to improve the agility of their regulatory processes, it is also important to note that legislatures can play a supportive role in helping provide PUCs with clear mandates and resources, and in some cases in helping appoint qualified commissioners. Many of the states highlighted in this section were supported by their legislatures, and state mandates and clear directives from the legislature are incredibly effective tools that can support PUC leaders who are looking to make changes in their state. The *Purpose: Aligning PUC Mandates with a Clean Energy Future* brief details how clear legislative mandates and legislative direction are effective tools to support PUC leaders with setting direction and establishing priorities.[28]

The case studies in the remainder of this section explore these themes more deeply and offer examples of PUC strategies to create agile teams.

PUCs in Practice: Connecticut advances equitable grid modernization with strong staff buy-in for change and leadership support

Summary: As part of its efforts to advance grid modernization, Connecticut created an Equitable Modern Grid Framework and developed 11 priority actions with associated dockets. These were created and processed efficiently, with decisions reached on nine dockets between 2019 and 2022. A cultural shift toward openness and clearly communicated PUC objectives allowed for changes to internal processes that ultimately supported agility.

Responsiveness ✓

Operational Flexibility ✓

In 2019, the Connecticut Public Utility Regulatory Authority (PURA), with support from a newly appointed commissioner with previous PUC staff experience, developed an interim decision that laid out an Equitable Modern Grid Framework for the state.[29,xi] The framework developed a clear set of goals for the commission, and specifically outlined four objectives: (1) advance the green economy, (2) enable a cost-effective transition to a decarbonized future, (3) expand access to reliable technologies, and (4) progress the energy affordability dialogue. PURA developed the decision to implement a state executive order that directed state agencies to advance grid modernization.[xii]

xi An interim decision is a PUC order that provides direction for later applications or filings in the same docket.

xii In September 2019, the Governor's Council on Climate Change issued an executive order requiring the council to work with all state agencies on preparing an updated adaptation and resilience plan by 2021 and directed the Department of Energy and Environmental Protection to evaluate pathways to transition to 100% clean energy by 2040 (Executive Order No. 3, State of Connecticut by His Excellency Ned Lamont, September 3, 2019, **https://portal.ct.gov/-/media/office-of-the-governor/executive-orders/lamont-executive-orders/executive-order-no-3.pdf?la=en**).

To achieve its four objectives, PURA established 11 dockets within two years to advance the priorities it established in the Equitable Modern Grid Framework. Between 2019 and 2022, PURA reached a final decision on 9 of the 11 dockets. Several factors contributed to the speed at which these were processed.

Strong buy-in from staff leadership was an important factor in PURA's ability to be agile in creating and carrying out the vision of the Equitable Modern Grid Framework. Not only was their technical expertise helpful, but they also hired and promoted staff who created change, helping shift the culture of the organization toward one more open to change and innovation. Staff members were also empowered to lead elements of the work and were trusted to develop innovative solutions aligned with the desired strategic outcomes. Clear PUC objectives also influenced hiring as recruits with a shared vision for the agency and the future electric grid applied to join the staff. This mindset was helpful for cultivating an innovative and agile team as well as attracting new talent.

Cultivating a culture of innovation allowed the team to be flexible as processes evolved. Internal staff structures were reorganized around priority areas and internal divisions were developed with areas of focus clearly aligned with the mission of equitable decarbonization. Some examples include clean and affordable energy; reliability, security, and resilience; and utility performance and analysis. Process changes included (1) regular, strategic planning efforts to identify new and existing priority workstreams; (2) developing planning tools to clearly identify deliverables for key dockets, potential areas of timing overlap between key dockets, and related priorities between overlapping dockets; and (3) clearly identifying topic areas assigned to staff so that as new priorities and requests arose, there was a straightforward system for reprioritizing or restaffing.

PUCs in Practice: Maine redirects its staffing resources and brings in external support to address a new directive from the legislature

Summary: When the Maine legislature directed the commission to implement integrated grid planning (IGP) in the state, the commission was able to proactively request additional resources to enable it to meet the deadline set by the legislature.

Adaptability ✓

Operational Flexibility ✓

In 2022, Maine's legislature passed "An Act Regarding Utility Accountability and Grid Planning for Maine's Clean Energy Future," which required utilities to conduct IGP and climate planning and directed the Maine PUC to staff three new positions and create performance metrics for utilities.[30] Utilities face penalties for poor performance on the metrics, which are used to incentivize utilities to improve their customer service and service quality.

The technical nature of the requirements in this act required additional PUC resources. The state legislature, in its directive to the PUC, requested that the PUC identify what resources would be needed for it to successfully implement IGP in a timely manner. To accurately estimate the resources required, the PUC opened a docket where stakeholders could provide feedback on what the process should entail and what resources would be of use to the commission.[31] The Maine PUC then released a report detailing the staff and resources they would need to comply with the new act.[32]

In the report to the legislature, the Maine PUC requested consultants to provide both technical assistance and stakeholder facilitation. It also requested a new, full-time staff position requiring a background in electrical engineering to assist with the development of priorities and evaluation of grid plans filed by the utilities. Ultimately, the commission met the requirements of the act using existing staff and their expertise in combination with consulting services for assistance in facilitating the stakeholder process, additional technical assistance, and straw proposal drafting. The commission also advised the legislature that future consulting needs would be reflected in subsequent budget proposals.

PUCs in Practice: Oregon commissioners lead the PUC through an evolving policy and energy environment

Summary: The Oregon commission proactively created work plans to prepare for a new legislative directive to adapt to changes in the electricity system. Experienced leaders, who supported their staff's initiating and implementing new ideas, made it possible to address the changes to the regulatory environment without being caught off guard.

Adaptability ✓

Operational Flexibility ✓

The Oregon PUC offers an example of how experienced commissioners receptive to new ideas can create roadmaps and iterate new policies to effectively navigate the changing energy environment.[33] In response to legislation that created the opportunity for the commission to identify changes to respond to industry trends and support new policy objectives (without compromising existing service), the Oregon PUC crafted an inclusive, innovative process for stakeholder education and engagement. This process led to a roadmap that identified six areas where it recommended taking action.[34] Similarly, in 2021, the PUC put together work plans in response to new directives from the legislature.[35] Since then, the PUC has made policy decisions, created guidelines, and developed new programs that have evolved its role in planning, climate change policy, equity and energy burden, load flexibility and distributed energy resources (DERs), and wildfire risk mitigation.

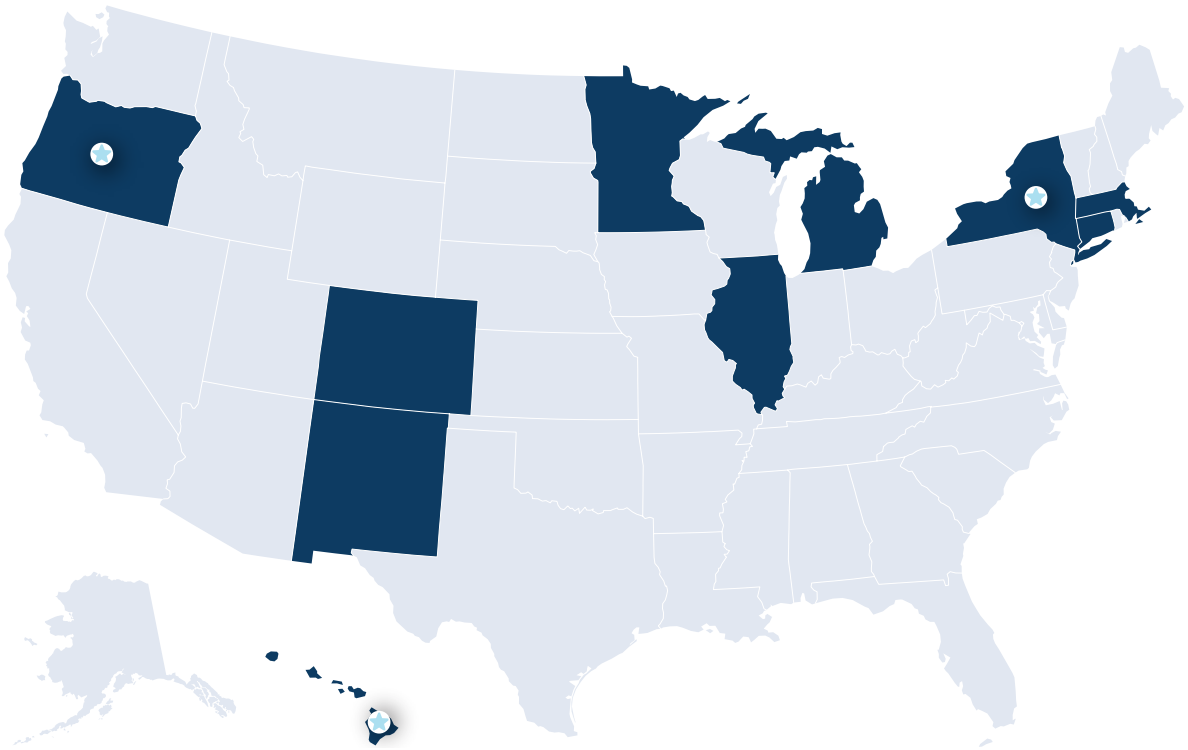
One factor that has helped commissioners make advances in the energy sector is their past energy experience, which among the three commissioners includes electric utility business models, state regulation, clean energy development, energy councils, and utility commission advocacy.[36] The commissioners have also been willing to try out new ideas and receive feedback from staff on what to prioritize and implement. They also empower staff members to initiate proceedings if they deem it necessary. For example, commission staff initiated a new proceeding in October 2024 designed to update IRP guidelines in response to new policies and technologies.[37] The initial workshop for the docket opened with remarks from the chair indicating that leadership supported staff in this effort.[38]

If PUC commissioners do not have prior staff experience or a certain expertise, they can engage with commissioners from other states to share best practices and learn about approaches that were successful in supporting culture, systems, and workforce to advance agility. The National Association of Regulatory Utility Commissioners is one such organization that promotes the exchange of ideas among commissioners.[39]

FOCUS AREA 2: Refine Docket Processes to Improve Responsiveness and Flexibility

Regulatory dockets are the main venue for PUCs to engage stakeholders and make regulatory decisions. By design, any final decisions issued by PUCs at the end of a docketed process must be based on the record in the docket and must show a reasoned decision-making process.[xiii] Therefore, in all dockets, PUCs rightly must take the time to review proposals and gather information from stakeholders. Allowing time to thoughtfully deliberate on these tasks is important and should not be truncated in a desire for speed. However, improved coordination, parallel processing, and increased transparency can all help commissions achieve outcomes with improved speed and fewer duplicative efforts. We include examples of actions that states are taking to create more agile teams and systems at their PUCs throughout this section (see Exhibit 8 for a summary of the states covered in this section).

Exhibit 8 States highlighted in Focus Area 2



Note: These are examples of states that have worked to refine their docket processes to improve responsiveness and flexibility. The stars indicate states that are highlighted in greater detail in this section as PUCs in Practice. This map does not comprehensively depict all states that have taken these actions.

RMI Graphic

xiii This is set forth by state administrative procedure acts, which govern how state agencies create and issue regulations. For example, the Colorado Administrative Procedure Act states that "the rules promulgated by the agency shall be based on the record" (State Administrative Procedure Act, State of Colorado, effective May 28, 2024, **https://www.sos.state.co.us/pubs/info_center/laws/Title24/Title24Article4.html**).

How does refining docket processes advance regulatory agility?

Responsiveness: Solving individual components of complex problems sequentially creates a large number of dependencies and can lead to bottlenecks if a single component takes a long time to solve. Parallel processing can speed up timelines, allow for collaboration, and improve outcomes through iteration. Addressing different aspects of a problem simultaneously in different working groups or dockets allows the flexibility to make progress on one process component without having to wait for other components to be completed. For example, during the COVID-19 pandemic, the Food and Drug Administration issued guidance that allowed vaccine companies to use data from similar products to inform manufacturing decisions rather than waiting until vaccines received approval to make such decisions.[40] This flexibility allowed companies to prepare for large-scale manufacturing ahead of the vaccine approval so they could distribute the vaccines more quickly.

Adaptability: In a regulatory environment that is constantly changing, transparency ensures that regulators are engaging the public by providing more opportunities for collaboration and iteration with stakeholders. In a constantly changing environment, transparency also builds credibility for the commission and allows the public and other stakeholders to provide well-informed feedback. Conversely, a lack of transparency and inconsistent communication can lead to loss of public trust and make it more difficult to effectively make progress on issues that require stakeholder engagement, a key lesson learned from public agencies during the COVID pandemic.[41]

Operational flexibility: New crosscutting issues, such as projected load growth from data centers and manufacturing, can appear in many different dockets and contexts, often require staff to get up to speed about a new technology or piece of legislation, and must be addressed with consistency. Increased coordination may be required to ensure that new crosscutting issues are addressed effectively across all dockets. Proactively identifying crosscutting issues and cross-staffing on dockets that address these issues can reduce duplicative efforts between dockets and allow learnings from one docket to be more easily translated to similar dockets.

Actions PUCs can take to make docket processes more agile

In Exhibit 9 (next pages), we identify three priority actions that PUCs can take to help improve the responsiveness, adaptability, and operational flexibility of docket processes. We also provide examples of steps that PUCs have taken to implement these priority actions in their states. We separate these steps into short term — actions that can be taken in the near term with comparatively less effort — and long term, which includes actions that may require more substantial effort or restructuring to implement. We also include early examples of states that have implemented these steps.

Exhibit 9 Examples of steps that states have taken to refine docket processes to support agility

PRIORITY ACTION: Increase transparency around PUC scope expectations and objectives for dockets. Appropriate levels of communication will vary depending on the nature of the docket, but examples can include draft guidelines, white papers or proposals, principles, and regular updates about how stakeholder inputs are being used.

Short term

- Keep the public appraised of progress by conducting regular meetings or publishing information in the form of newsletters or press releases.
- Share a draft of the PUC's proposal at the start of the process or, in the absence of a preconference hearing, coordinate a kickoff meeting to explain process and lay out expectations.

Long term

- Create guidelines for utilities ahead of planning processes to establish what is expected up front.
- Design an open drafting process.

Early examples

- The Ohio PUC released the *PowerForward* report in 2017, a roadmap for distribution planning in the state.[42] The report clearly outlines the PUC's objectives and its vision for enabling grid modernization in the state.
- The Michigan Public Service Commission has a well-curated web page with clear updates on the PUC's activities, as well as a new podcast to educate the public and provide insights on emerging issues.[43]
- Throughout the grid modernization planning process in the spring of 2022, the New Mexico Public Regulation Commission held biweekly webinars to share updates on the process and get regular feedback from stakeholders.[44]

PRIORITY ACTION: Increase coordination across dockets that deal with crosscutting issues. Cross-staffing and information sharing can reduce redundancies in work when dockets cover crosscutting issues. Another option for improved coordination is combining or aligning the timing of similar or related dockets and topics.

Short term

- Share information between staff members working on similar topics.
- Identify crosscutting issues relevant to multiple proceedings and coordinate work to reduce redundancies in relevant research.

Long term

- Assign PUC staff members to multiple dockets that cover similar topics.
- Coordinate timing of related dockets.

Early examples

- In 2024, the Colorado PUC released a Staff Capstone report that outlines how equity can be considered across PUC functions, as mandated by Senate Bill 21-272.[45]
- The Illinois Commerce Commission explicitly coordinated its rate case proceedings with the multiyear IGP process.[xiv]
- In Massachusetts, a late 2023 order relating to cost recovery for gas infrastructure, Order 20-80, was followed closely by Order 24-15 on gas rates given the close relationship between the two topics.[46] Order 20-80 clearly identified connections to other dockets and issues, including climate compliance metrics in separate performance-based regulation filings.

PRIORITY ACTION: Create modular proceeding structures for concurrent rather than sequential progress. This can include opening multiple dockets that operate in parallel or advancing different components of a single docket in parallel.

Short term

- Create multiple working groups to address different components of an issue in parallel.

Long term

- Process related utility requests (such as power purchase agreements) in parallel.

Early examples

- The Hawaii PUC processed seven similar solar power purchase agreements in parallel to get affordable energy online more quickly.[xv]
- The New York Department of Public Service created two separate working groups to address the technical and policy implications of updated DER interconnection guidelines in parallel to be able to make progress on both topics.[xvi]

xiv The coordination between the integrated grid plan and the multiyear rate plan was established via legislation in Act 220 ILCS5/16-108.18 (Public Utilities Act, Illinois General Assembly, **https://www.ilga.gov/legislation/ilcs/ilcs4.asp?DocName=022000050HArt%2E+XIX&ActID=1277&ChapterID=23&SeqStart=43000000&SeqEnd=44300000**).

xv Discussed more later in this section as a part of PUCs in Practice.

xvi Discussed more later in this section as a part of PUCs in Practice.

The case studies in the remainder of this section explore these themes more deeply and offer specific examples of docket refinement that help make PUC decision-making more agile.

PUCs in Practice: Hawaii commission coordinates approval of seven separate power purchase agreements simultaneously

Summary: When Hawaiian Electric Company (HECO) submitted seven solar-plus-storage contracts to the PUC for approval, the commission was faced with the possibility of a multiyear approval process for vital and cost-effective energy resources. To get the resources online more quickly, the commission changed its strategy from sequentially processing each contract one at a time to processing all seven contracts at once in parallel dockets. By allowing each approval to proceed at its own pace while cross-staffing on each of the seven dockets to minimize duplicative efforts, the commission was able to process six of the seven projects in three months rather than its typical timeline of nine months to two years per project.

Responsiveness ✓

Adaptability ✓

Operational Flexibility ✓

Roughly 75% of Hawaii's net electricity generation is derived from expensive imported petroleum, resulting in the highest electricity rates in the United States.[47] To address these prices and the threat of climate change, in 2015 Hawaii was the first state to set a target of 100% renewable energy by 2040.[48] The Hawaii PUC has a vital role to play in reviewing and approving clean energy infrastructure investments to meet the state target.

In January 2019, HECO submitted seven solar-plus-storage contracts to the PUC for approval.[49] The proposed price charged to customers for energy from these projects was $0.12/kilowatt-hour (kWh) or less at a time when fossil fuel alternatives were priced at around $0.15/kWh. Under normal circumstances, the PUC would consider each proposal one at a time in a process that could take 9 to 24 months for each project. In total, the proceedings could have taken years to review, which would have delayed progress toward the state's clean energy goals as well as affordable energy access and put intense pressure on limited staff resources. Given the urgency of building out this infrastructure and the desire to meet state energy goals, the Hawaii PUC made a significant effort to expedite the approval process. It cleared six of the seven projects by March of the same year — just three months after the proposals were submitted.[50]

The Hawaii PUC deliberately prioritized review of the solar-storage projects given their potential to generate clean, low-cost electricity. To expedite review, the Hawaii PUC set internal timelines and streamlined the procedures. Where possible, the Hawaii PUC combined dockets in its review process, taking advantage of similarities between the projects' technology, pricing, and siting. It also assigned common staff across these dockets and provided the tools and organizational structures to support information sharing, allowing staff to coordinate effectively.[xvii] Outside factors also contributed to the success of this process: the state legislature and governor supported the effort, and the PUC rewarded employees for their additional efforts to process so many proposals simultaneously.

xvii For example, the commission renovated its building, which allowed all full-time Oahu commission staff to be in the same building, allowing for increased collaboration (Annual Report for Fiscal Year 2019, State of Hawaii Public Utilities Commission, 2019, **https://puc.hawaii.gov/wp-content/uploads/2020/01/FY19-PUC-Annual-Report_FINAL.pdf**).

PUCs in Practice: New York commission modifies the way it responds to interconnection queue problems by addressing different aspects of the problem in parallel

Summary: In response to an unprecedented number of new interconnection requests for DERs, the New York commission separated its Interconnection Working Group into two to improve different components of the interconnection process. The separation enabled the commission to make progress on both the technical and policy aspects of the interconnection process, and the working groups have remained in place to support further changes as technologies continue to evolve.

Responsiveness ✓

Adaptability ✓

Operational Flexibility ✓

The start of the Community Solar Program in New York in 2017 resulted in an unprecedented number of new interconnection requests. At the same time, the New York Commission was faced with the need to start accounting for distributed storage coming online, which was not covered by New York's existing Standardized Interconnection Requirements (SIR).[51]

Faced with the need to develop new and more effective guidelines for interconnection, the commission separated the state's Interconnection Working Group into two distinct groups: the Interconnection Policy Working Group and the Interconnection Technical Working Group. Each group was designed to tackle different aspects of the interconnection process.[xviii] The technical working group aimed to resolve technical barriers and challenges associated with the DER interconnection process, such as what information was needed in an interconnection application. The policy working group aimed to resolve policy challenges associated with interconnection, such as issues with queue management, cost sharing, and rate design.

Each working group contributed recommendations and templates to support streamlining New York's interconnection process and updating the SIR in New York State. Their inputs allowed the commission to make sweeping changes in 2018, only a year after the Community Solar Program was initiated. These improvements included technical screens to identify projects that could be fast-tracked and avoid the long queue, enhanced metering and performance standards, new interconnection rules for larger projects up to 5 megawatts, and inclusion of solar-plus-storage technologies in the standards.[52,xix] Since then, both working groups have continued to operate, and the commission has continued to update interconnection standards as new technologies have emerged (such as the update in 2023 for smart inverters).[53]

xviii Siloing can lead to confusion or redundancy, which PUCs can manage by clear up-front and continued communication.

xix The Interconnection Policy Working Group put forth recommendations to improve the state's interconnection requirements by adding requirements around cost sharing, which improved the application for community solar across the state. The Interconnection Technical Working Group put forth recommendations around technical parameters for interconnection ("Public Service Commission Action Helps Pave the Way for Community Solar in the Empire State," Coalition for Community Solar Access, January 24, 2017, **https://communitysolaraccess.org/news/new-york-regulators-adopt-joint-utility-solar-proposal-to-improve-interconnection-process**; "Coordinated Electric System Interconnect Review Template," Joint Utilities of New York, August 2018, **https://dps.ny.gov/system/files/documents/2022/11/ju-cesir-template-v1.1-8-14-2018_0.pdf**).

PUCs in Practice: Oregon PUC creates transparent process for updating IRP reporting guidelines

Summary: The Oregon PUC identified a need to update its IRP guidelines as the planning process becomes increasingly complex due to new clean energy legislation. To set clear expectations for what guidelines they aimed to update, commission staff members shared a straw proposal, developed with help from experts, at the start of the docket, which included an explanation of their motivations for the update. Creating a transparent process and setting expectations early helped reduce back-and-forth with stakeholders on a broad and complex issue and allowed for more effective iterations on the proposal guidelines.

Responsiveness ✓

Adaptability ✓

The Oregon state legislature passed a clean energy bill in 2021 that established decarbonization targets for the investor-owned utilities operating within the state.[54] To support decarbonization via effective planning, the Oregon PUC is currently updating its IRP guidelines to develop a more streamlined process that supports the state's expanding policy goals.[55]

The PUC created a transparent process for how it would go about updating the guidelines and shared the process with stakeholders in a straw proposal at the start of the docket.[56] The proposed guidelines include information on what to include in a needs assessment, how to demonstrate and incorporate public input, instructions on portfolio resource analyses, guidance for clean energy plans (plans focused on community-based actions for utilities to meet their clean energy milestones), and more. Commission staff also hosted a workshop at the start of the project to share the goals of the proceeding, the timeline for providing feedback, and the motivation for developing new guidelines.[57] This clear process will allow for enhanced collaboration for updating the guidelines for the IRP process.

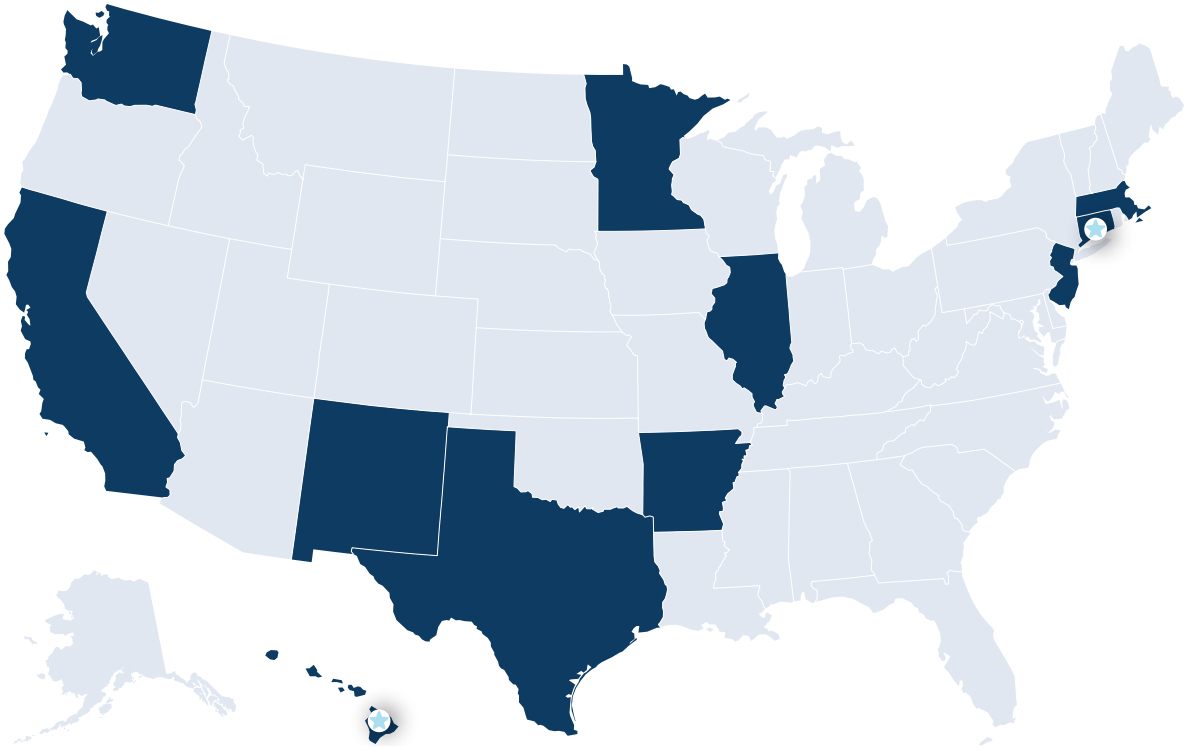
Although this workshop was initiated by staff, it was aided by opening remarks from the commission chair to indicate support for updating the guidelines. By supporting staff in proactively providing a straw proposal at the start of the process, the commission set clear expectations for docket participants and allowed them to provide more meaningful feedback to the PUC.

FOCUS AREA 3: Engage Stakeholders Early, Inclusively, and Accessibly

Stakeholder engagement is a vital part of the PUC decision-making process, whether PUCs are conducting the engagement process themselves or setting parameters for utilities to do so. When diverse stakeholders are engaged meaningfully, PUCs and utilities are better equipped to meet the needs of the public in a constantly evolving energy landscape.[xx] For example, Austin Energy, a municipal utility, works closely with an advisory working group to ensure that its Energy Resource, Generation, and Climate Protection Plan meets the city's environmental, efficiency, and affordability goals and includes traditional voices, such as commercial and industrial customers, as well as people who represent low-income communities.[58]

However, engagement not implemented thoughtfully also has the potential to slow decision-making processes and create burdens for PUCs, utilities, and other stakeholders. PUCs can consider agile approaches to stakeholder engagement to share and receive information on regulatory processes while mitigating the risk of burdensome or inaccessible engagement.

Exhibit 10 States highlighted in Focus Area 3



Note: Examples of places that have worked to include stakeholders early, inclusively, and accessibly. The stars indicate locations that are featured in this section. Great Britain is also featured in this section but is not shown on the map. This map does not comprehensively depict all states that have taken these actions.

RMI Graphic

xx Additional examples of meaningful stakeholder engagement are highlighted in *Reimagining Resource Planning* (**https://rmi.org/insight/reimagining-resource-planning/**).

How does engaging stakeholders early, inclusively, and accessibly advance regulatory agility?

Responsiveness: When stakeholders are engaged effectively, commissions can enable negotiation and allow stakeholders to provide their perspectives to enable more durable solutions. Negotiated settlements do not guarantee effective outcomes. However, PUCs can offer guidance to direct stakeholders' efforts early in the process, improving the likelihood that settlements reduce iteration and litigation costs and free up PUC staff resources. Early engagement can also result in early consensus on potential solutions. As a result, when already-discussed solutions go through a formal docket process, they can proceed faster, avoiding drawn-out back-and-forth between parties, focusing time on remaining contentious issues.

However, stakeholder engagement facilitated by PUCs has a high up-front resource requirement. Engaging with stakeholders takes significant time and effort, which is made difficult by existing limitations on PUC staff capacity. When done constructively, the time taken in early informal sessions can offset time that would have been spent in later formal proceedings. Modern methods of communication, including well-designed virtual meetings and online surveys, can also lower the time and effort required to host engagement with stakeholders.

Adaptability: Stakeholders have finite capacity to engage in dockets and clearly identifying information they consider high priority will ensure they are able to provide their input where it is most needed. In addition to identifying priority information, making it readily available in digestible formats helps stakeholders stay up to date on key issues and provide timely input. Timely input from stakeholders helps better inform PUCs about changing external conditions and stakeholder priorities and enables PUCs to adjust proceedings more quickly, rather than finding significant challenges later when it may be more difficult or time-consuming to adjust course.[xxi] Including the correct stakeholders in the room also ensures that decisions meet actual grid and public needs.

Operational flexibility: Stakeholder engagement can elicit diverse ideas and take pressure off PUCs to generate all potential solutions or have extensive technical expertise in emerging areas. Stakeholders can contribute to policymaking through comments but can also be third-party technical advisors or can submit proposals themselves, allowing for more perspectives and expertise beyond the PUC to be meaningfully included in the decision-making process. Including public voices in the policy drafting process also allows for meaningful stakeholder input. For example, the UK Department for Environment, Food & Rural Affairs created an open policymaking toolkit to provide policymakers with tools to create a drafting process that better centers stakeholder feedback.[59]

Actions PUCs can take to improve stakeholder engagement practices in service of agility

In Exhibit 11 (next page), we summarize examples of steps that states can take to include stakeholders more effectively in their regulatory processes. We separate these steps into short term — actions that can be taken in the near term with comparatively less effort — and long term, which includes actions that may require more substantial effort or restructuring to implement. We also include early examples of states that have implemented these steps.

xxi Early and frequent stakeholder engagement is well observed to support positive outcomes. In the medical field, for instance, studies that engage stakeholders early and often have improved patient outcomes (Maurer et al., "Understanding the Influence and Impact of Stakeholder Engagement in Patient-Centered Outcome Research: A Qualitative Study," *Journal of General Internal Medicine*, March 29, 2022, **https://pmc.ncbi.nlm.nih.gov/articles/PMC8993962/**).

Exhibit 11 Examples of steps that states have taken to improve stakeholder engagement to support agility

PRIORITY ACTION: Engage early and thoughtfully to ensure the right stakeholders are in the room, their time is used wisely, and their input is accounted for before and during the decision-making process.

Short term

- Hold meetings at convenient and varied times and locations to make them more accessible to different stakeholders.
- Proactively identify and engage stakeholders relevant to a particular proceeding through targeted and culturally relevant outreach (including email using relevant listservs, mailers, or in-person meetings translated to relevant languages).[xxii]

Long term

- Develop guidelines for tailoring engagement strategies to different communities.
- Create guidelines for identifying when proceedings will be relevant to different communities.
- Remove barriers to stakeholder participation, such as requiring attorneys to participate in a proceeding.

Early examples

- In 2024, the Massachusetts Department of Public Utilities and the Executive Office of Energy and Environmental Affairs drafted public involvement plan guidelines that provide details on how both institutions will leverage quality community engagement in proceedings, including instructions to proactively identify appropriate dockets and impacted communities to adequately involve relevant stakeholders.[60]
- When developing its Equitable Energy Upgrade Program, the Illinois Commerce Commission intentionally scheduled stakeholder meetings at varied times of day to maximize accessibility. This choice enabled participation from working individuals, caregivers, and those with nontraditional schedules, fostering more inclusive and representative input.[61]

xxii Consider relevant stakeholder types, such as populations with the following characteristics: proximity to energy infrastructure such as grid infrastructure (substations and transformers, fossil fuel generation, and renewable generation), majority low income, median age greater than 65 years, tribal entities, high pollution burden or rates of asthma, high unemployment rate, communities of color, limited English proficiency, high energy burden, rural populations or low population density, and educational attainment.

PRIORITY ACTION: Clearly identify high-priority information for stakeholders and how stakeholder feedback will be used to enable underserved or underrepresented stakeholder groups to participate and provide timely input, in turn supporting quicker PUC responses and decisions.

Short term

- Create fact sheets that summarize proceedings or identify important facts and timelines for input.
- Create a website that is easy for stakeholders to navigate and includes important updates.
- Share guidelines on the scope of the engagement, approach, timeline, intended outcomes, and decision-making framework to create transparency.[62]

Long term

- Make commissions more accessible to stakeholders through channels such as educational videos, podcasts, live chat features, and help lines.

Early examples

- The California PUC website includes fact sheets on relevant issues for customers, many of which are available in multiple languages.[63]
- The Minnesota PUC published educational videos on its website to teach the public about the purpose of PUCs and how to get involved.[64]
- The Washington UTC landing page is one example of an effective PUC website that is easy for stakeholders to navigate.[65] It highlights what is new for the commission, including current dockets; has a live chat feature with a records analyst; and has quick links to direct users to key information.

PRIORITY ACTION: For emerging issues, create opportunities to leverage stakeholders' expertise and understanding of existing programs, new technologies, lived experiences, and local interests that can support PUC decision-making and avoid some need for in-house expertise.

Short term

- Create a request for information or proposals on a topic for the PUC to review.
- Convene third-party stakeholders in an advisory capacity to provide input throughout planning processes and methodology development.

Long term

- Allow stakeholders to participate in the policy drafting process or create a process that is centered on stakeholder feedback.

Early examples

- The New Jersey Board of Public Utilities requested stakeholder proposals to help it effectively administer funding from the Home Efficiency Rebates and the Home Electrification and Appliance Rebates program, with a specific focus on how to address electrification needs of multifamily and low- to moderate-income households.[66]
- When providing feedback on a utility's forecasting methodology for its integrated grid plan, the Hawaii PUC utilized stakeholder knowledge through the creation of a third-party technical advisory panel that included neutral stakeholders with extensive knowledge of utility planning processes.[67]
- Arkansas' stakeholder group Parties Working Collaboratively provides advice on emerging issues for energy efficiency program design. It has raised the level of dialogue and recommendations to the commission, enabling more informed input from diverse parties.[68]

The case studies in the remainder of this section explore these themes more deeply and offer specific examples of stakeholder engagement strategies that help make PUC decision-making more agile.

PUCs in Practice: Great Britain's energy market regulator employs novel open access drafting and nonsector stakeholder engagement to develop effective data and digitalization policies

Summary: Ofgem, the Office of Gas and Electricity Markets (Great Britain's energy regulator), engaged with nonsector stakeholders using open access drafting to share progress as it developed and iterated on an energy system digitalization policy. Stakeholders had opportunities for frequent visibility into policy wording and ongoing feedback, which supported its ability to view, understand, and comment on the draft during its development, mitigating expected pushback at a later date.

Responsiveness ✓

Adaptability ✓

Operational Flexibility ✓

As Ofgem, the energy market regulator of Great Britain, worked to transition its grid to a decarbonized future in response to 2019 legislation,[69] the need for improved energy system digitalization and effective energy data management became increasingly clear. Energy data sharing is vital to enable energy and service providers to develop cost-effective solutions to decarbonization challenges. Effective regulation of how this data is prepared, secured, and managed is considered essential by both Ofgem and the legislature.

To aid in the development of an enabling regulatory regime to support energy system digitalization, Ofgem, Innovate UK, and the Great Britain Department for Business, Energy and Industrial Strategy contracted Energy Systems Catapult (ESC) to create a first draft of energy data best practice guidelines, focusing on examples and learnings from other industries, before moving forward with a full stakeholder process for further iterations and ultimately utility adoption and regulation. Both this initial work, and later iterations, centered on bold stakeholder engagement to support a new area of energy system regulation using two key methods: expanding stakeholder engagement efforts to nonsector stakeholders, and using open drafting to increase transparency in policy development.

The initial iteration of the energy data best practice guidelines, led by ESC, took input from across sectors not usually engaged in energy policy development, including telecoms, logistics, and information technology. After the first draft, Ofgem took ownership of the work and held workshops to get further stakeholder input for drafting. Emphasis was placed on being inclusive in creating the energy data best practices.[70] Ofgem employed open drafting, whereby the policy draft and the latest edits were visible online on the organization's Confluence web page.[xxiii] Only staff could edit the document, but it was fully visible to the public.

xxiii Ofgem posted versions of the report with track changes to its website, along with stakeholder feedback that was provided as a part of the process ("Consultation on Data Best Practice Guidance and Digitalisation Strategy and Action Plan guidance," Ofgem, accessed April 4, 2025, **https://www.ofgem.gov.uk/consultation/consultation-data-best-practice-guidance-and-digitalisation-strategy-and-action-plan-guidance**).

Open drafting increased transparency and stakeholder ability to provide relevant feedback, allowing Ofgem to leverage stakeholders' strengths and expertise. This open environment also helped give stakeholders a greater sense of ownership over the final policy since their feedback was considered throughout the process. Such visibility can support accessible and inclusive decision-making, but it can also increase efficiency by reducing friction during approval processes. Finally, having drafts iterated in public gave stakeholders the opportunity to understand Ofgem's thinking and start preparing for how these guidelines could affect their organizations in the future.

By the time Ofgem initiated the formal policy process in May 2021, there was strong support for the policy, and the procedure moved quickly without any major objections or revisions required, with final publication taking place in November 2021. The early stakeholder engagement and feedback allowed Ofgem to minimize concerns from stakeholders during the formal process. Other market participants are now drawing on the success of these data best practices,[71] and they have also been replicated as a set of practices for some competitions funded by Innovate UK.[72]

PUCs in Practice: Connecticut commission uses Solutions Days, Innovation Funnel, and regular reviews to boost stakeholder engagement in energy storage program design

Summary: Connecticut PURA used Solutions Days and an Innovation Funnel process to gather stakeholder input on the design of a new battery storage program. The process allowed stakeholders to engage informally and submit proposals for a new battery storage program in advance of the formal proceeding, enabling PURA to incorporate feedback and iterate on the program design. Structured and iterative stakeholder engagement through repeated, low-effort asks saved time overall and increased stakeholder participation.

Adaptability ✓

Operational Flexibility ✓

In 2019, PURA sought to create a regulatory framework that would enable it to meet emerging core state policy objectives, including economy-wide decarbonization; a more resilient, reliable, and secure system; increased energy affordability; and the growth of a green economy.[xxiv] PURA memorialized its goals in a 2019 draft decision announcing its ambition to study strategies for building an equitable, modern grid in the state.[73,xxv] One of these programs focused on electric energy storage, targeting ways to add battery capacity to the grid and build an in-state storage industry.

xxiv PURA's regulatory framework was in response to state legislation that promoted a clean and modern electric grid in Connecticut (*An Act Concerning A Green Economy And Environmental Protection*, Public Act No. 19-35, State of Connecticut, June 28, 2019, **https://www.cga.ct.gov/2019/ACT/pa/pdf/2019PA-00035-R00HB-05002-PA.pdf**).

xxv This decision outlined 11 key research areas to support the growth of a green economy, enable a cost-effective energy transition, increase customer access to a resilient grid, and advance dialogue around energy affordability. For each of these 11 subjects, PURA designed a thorough and coordinated process with clear timelines, straw proposals, and numerous opportunities for stakeholder input both in formal and informal venues ("PURA's Framework for an Equitable Modern Grid," PURA, accessed November 26, 2024, **https://portal.ct.gov/pura/electric/grid-modernization/grid-modernization**).

PURA employed an Innovation Funnel process to describe and explain the battery storage program design and stakeholder engagement approach.[74,xxvi] The first phase of the proceeding centered on two Solution Days in November 2019, where stakeholders could share their input with PURA in an informal setting.[xxvii] The Solution Days provided an opportunity for commissioners and staff to learn about new technologies and strategies from participants, and facilitated discussion that helped inform the scope of the opportunity put forth by PURA.[75] This was followed, in phase two, by a request for program design proposals in May 2020, soliciting a total of nine proposals from electric distribution companies, solar developers, the Connecticut Green Bank, and energy storage and DER associations to inform the final program design.[76]

PURA then initiated a formal review process enabling further iteration on the proposed battery storage program design, issuing a first straw proposal in January 2021, a proposed decision in July 2021, and a final decision later that same month.[77] Between each decision in the formal process, stakeholders provided feedback informally that allowed the commission to iterate on program design. This process helped center stakeholders in the draft creation process, ensuring the program helped meet the needs of both the utilities and other stakeholders who were not previously included in program development in Connecticut. This order of operations can reduce time-consuming friction at the end of a proceeding by allowing stakeholders to provide their input early in the process.

To support enduring adaptability given the constantly evolving field, the final decision is not static. The program, now called Energy Storage Solutions, includes an annual review to track metrics of success and make changes as necessary.[78] Regular assessments give PURA the ability to respond and adapt the plan to unexpected changes in technology, economics, or policy as the energy transition progresses. Regular reviews also increase overall transparency of the program and allow stakeholders to continue to have insight into program performance.

xxvi An Innovation Funnel was an approach used by PURA to develop a proposed program design. It began with gathering a broad set of ideas from stakeholders and then refining the ideas in several stages to eventually develop a concrete program design proposal.

xxvii Solution Days was a term used by PURA to describe specific days set aside to engage stakeholders in-person. The goal of the Solution Days was to cast a wide net to maximize input on potential energy storage program designs and goals around the country. Attendees included two investor-owned electric distribution companies, the Office of Consumer Council, the Acadia Center, Renew Northeast, Solar Connecticut, Navigant, Autumn Lane Energy, and the Connecticut Fund for the Environment (Docket No. 17-12-03RE03 PURA Investigation into Distribution System Planning of the Electric Distribution Companies — Electric Storage, "Technical Meeting Attendance Sheet," November 14, 2019, **https://www.dpuc.state.ct.us/2nddockcurr.nsf/8e6fc37a54110e3e852576190052b64d/b3702e14946ed02e8525875200798bc4/$FILE/20191118103634.pdf**).

PUCs in Practice: Hawaii PUC leveraged informal stakeholder engagement to expedite response to new legislative expectations on double pole removal

Summary: In response to legislation urging the removal of double poles, the Hawaii PUC implemented an informal stakeholder engagement process to gather information on the issue and allow stakeholders to collaborate. The stakeholders developed a collective solution for the PUC to respond to and approve. This process allowed the PUC to share clear expectations with stakeholders and presented opportunities for increased stakeholder collaboration. By the time a docket was formally opened, stakeholders and the PUC had already made significant progress toward potential solutions and any protests had been raised and managed, speeding up the overall process.

Responsiveness ✓

Adaptability ✓

In 2018, HECO had 8,000 double poles on Oahu alone due to telephone lines, communication equipment, streetlights, and other assets owned by third parties not being transferred to new poles.[xxviii] HECO and Hawaiian Telcom pledged to remove these double poles in 2018, but by 2023, it was clear they were far behind on meeting their goal. To mitigate the safety and infrastructure risks posed by double poles, in 2023 the Hawaii state legislature passed a resolution directing the PUC to speed up the removal of double poles in the state.[79] This clear directive from the legislature, coupled with ineffectual efforts to date, stimulated the PUC to respond rapidly.

The Hawaii PUC began by proactively engaging with the relevant stakeholders, including pole owners, Hawaii Telecom, and the consumer advocate, outside of a formal proceeding. This gave the commission an opportunity to learn more about the challenges with double pole removal and foster solution-oriented collaboration between stakeholders and the PUC.[xxix] Between July and December 2023, the PUC met several times with, and requested data from, HECO in a nondocketed context to build up a base understanding of the issue.[80]

The stakeholders convened two subcommittees focused on different parts of the double pole challenge in parallel to other meetings taking place between HECO and individual stakeholders. Collectively, this allowed a large amount of collaborative work time, all of which took place before a docket was formally opened in April 2024. The formal proceeding was relatively straightforward, and the proposal for pole removals was approved in September 2024, considered a faster timescale than possible without this agile approach.[81]

xxviii A double pole occurs when a utility installs a replacement utility pole without removing the existing pole.

xxix Hawaiian Electric, for example, cited challenges with the responsiveness of stakeholders when it sent out requests to move equipment from one pole to another (Hawaii Public Utilities Commission to Kevin M. Katsura, October 31, 2023, Double Pole Removal, Hawaii Electric Company, Inc. Hawai'i Electric Light Company, Inc., and Maui Electric Company, Limited ["Double Pole Removal Status"], **https://puc.hawaii.gov/wp-content/uploads/2023/11/Double-Pole-Commission-Qs-Notice-for-Status-Update-Meet-10.31.2023_Final.pdf**).

Conclusion

PUCs play a critical role in ensuring the health and economic vitality of families and businesses across the country. However, PUCs face increasingly complex mandates, continued rate increase requests, and a rapidly changing energy system.[82] PUCs must continue to modernize to keep pace with the need to transition to a decarbonized, equitable, and flexible energy system.

Although deeper shifts enabled by changes to legislation, funding, and PUC authority are essential, there are a variety of tools available to PUCs that can help make their decision-making processes faster, more flexible, and adaptable. Regulatory agility will better equip PUCs to act responsively and decisively to more proactively meet state mandates, support constrained staff, and meet the needs of stakeholders.

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RMI Innovation Center
22830 Two Rivers Road
Basalt, CO 81621

www.rmi.org