PROCESS FOR PURPOSE

Reimagining Regulatory Approaches for Power Sector Transformation

BY DAN CROSS-CALL, CARA GOLDENBERG, AND CLAIRE WANG

AUTHORS & ACKNOWLEDGMENTS

AUTHORS

Dan Cross-Call, Cara Goldenberg, and Claire Wang

** Authors listed alphabetically. All authors from Rocky Mountain Institute unless otherwise noted.*

ADDITIONAL CONTRIBUTORS

Leia Guccione, Rocky Mountain Institute

CONTACTS

Dan Cross-Call, dcrosscall@rmi.org
Cara Goldenberg, cgoldenberg@rmi.org

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Jessica Shipley, *Regulatory Assistance Project*
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ABOUT ROCKY MOUNTAIN INSTITUTE

Rocky Mountain Institute (RMI)—an independent nonprofit founded in 1982—transforms global energy use to create a clean, prosperous, and secure low-carbon future. It engages businesses, communities, institutions, and entrepreneurs to accelerate the adoption of market-based solutions that cost-effectively shift from fossil fuels to efficiency and renewables. RMI has offices in Basalt and Boulder, Colorado; New York City; Washington, D.C.; and Beijing.

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EXECUTIVE SUMMARY

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EXECUTIVE SUMMARY

CONTEXT

- The restrictive and often contentious nature of conventional regulatory processes make them inadequate to manage the scale, speed, and complexity of the historic transformation taking place in the electricity system. In response, regulators, utilities, and related stakeholders are increasingly employing broader, more participatory processes to consider investment decisions and rule changes that go to the core of the utility business.

- Good process design is a key determinant of the success of utility regulatory reform, yet process approach and design decisions frequently receive less attention than the technical and economic details of the regulatory reforms themselves. As a result, those technical and economic decisions tend to get mired in adversarial debates and often produce inadequate, narrow outcomes.

- This paper reviews regulatory reform efforts undertaken by 10 states, describes the processes by which reform can proceed, and identifies the most significant factors that impact reform efforts' effectiveness.

KEY TAKEAWAYS

- Successful reform processes typically consist of four stages: initiating the reform process, communicating the vision for reform, conducting the reform process, and delivering reform outcomes.

- While commissions, state policymakers, utilities, and other stakeholders can all initiate reform processes, utility regulators have particular importance as, in most cases, regulators are ultimately responsible for carrying reform efforts toward policy outcomes.

- Regulatory processes can be either investigatory or decisional in intent. Investigatory processes engage stakeholders to explore grid needs or potential reform options, whereas decisional processes set out to adopt new rules or programs. States should explore using either or both types of processes depending on their underlying objectives.

- Regulators interested in fully exploring transformational opportunities for the electric system should set the vision for reform from the outset and provide guidance throughout the process to ensure policy design, implementation, and scaling are consistent.

EXHIBIT 1

Reform Processes Typically Consist of Four Stages

1 INTRODUCTION

INTRODUCTION

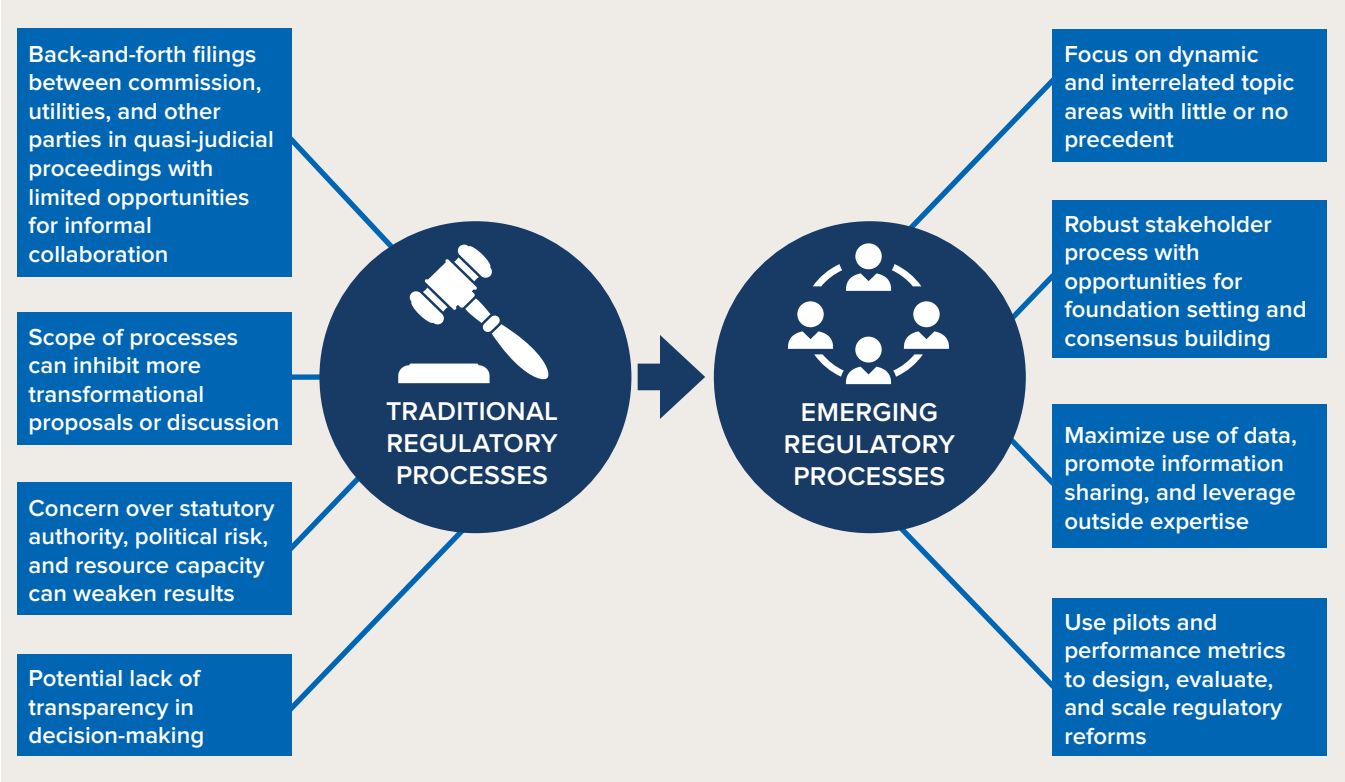
Significant changes in grid technology, customer demands, and public policy priorities have spurred efforts across the country to update utility regulatory frameworks to achieve a clean, reliable, and affordable electricity system. The regulatory processes used to evaluate, design, and implement these reforms are a critical, often overlooked, determinant of the outcomes and relative success of utility reform efforts. Well-designed processes can enable collaboration and coalescence toward a coherent reform, while poorly designed processes have the potential to stagnate or lose focus on objectives.

Traditional approaches used in regulatory processes—mostly quasi-judicial hearings and contested decision-making consisting of back-and-forth filings between utility commissions, utilities, and stakeholders—are not up to the challenge of guiding participants through new, dynamic, and interrelated topic areas. As illustrated in Exhibit 2, the industry needs updated tools and methods to confront a growing and diversifying portfolio of proceedings while still ensuring diligent analysis and ratepayer protections.

This paper reviews efforts undertaken by 10 states currently addressing utility regulatory reform, identifies processes by which reform efforts can proceed, and describes the most significant factors that impact reform efforts' effectiveness. Input was gathered from interviews with over 20 stakeholders directly involved in reform processes. This research is further analyzed through the lens of Rocky Mountain Institute's own experience

EXHIBIT 2

Evolution of Regulatory Process Design



participating in and facilitating regulatory processes in many states.[i] The paper seeks to promote more intentional consideration of the key components and design options for regulatory processes, and thus help regulators and stakeholders design more successful processes from the outset.

Most of those state efforts examined focus primarily on utility business model issues; however, the lessons from these processes are applicable to other aspects of regulatory reforms as well (e.g., grid modernization and distribution planning). This paper uses the term "reform" to refer to efforts that aim to update regulatory structures to better equip utilities to respond to and support power sector transformation. New opportunities include different rate design options, more-sophisticated system planning, and alternative procurement mechanisms to more cost-effectively meet grid needs. While the processes reviewed all try to achieve different scopes of regulatory change, lessons can be gleaned from each. *Overview of Regulatory Processes in Surveyed States* outlines the state efforts researched for this paper.

OVERVIEW OF REGULATORY PROCESSES IN SURVEYED STATES

Arkansas: In 2017, Arkansas's public service commission (PSC) broadened a preexisting docket on renewable distributed generation to explore distributed energy resources (DERs) and data access issues (**Docket 16-028-U**).[1] The PSC also approved an application by Entergy to expand advanced metering infrastructure.[2]

California: In 2014, California's public utilities commission (PUC) opened its **Integrated Distributed Energy Resources (IDER) Rulemaking, Docket 14-10-003** to create a regulatory framework for DERs. After convening a working group on competitive solicitation of DERs, the PUC approved an incentive pilot for utility DER procurement in December 2016.[3]

Hawaii: In April 2018, the Hawaii PUC opened **Docket 2018-0088** to investigate performance-based regulation (PBR).[4] In the same month, the Hawaii legislature also passed **SB 2939**, ordering the PUC to establish performance incentives for utilities by 2020.[5] Hawaii has a long history of PBR reform efforts, including the approval of decoupling in 2010 and a set of performance incentives in 2013. Hawaii's PBR efforts sit among several other initiatives in the state focused on modernizing the electricity system and related regulations.

Illinois: In 2017, the Illinois Commerce Commission (ICC) convened the **NextGrid** process to analyze grid modernization and reform using stakeholder working groups.[6] This effort was influenced by the 2016 **Future Energy Jobs Act**, which included utility incentives for DERs and energy efficiency.[7]

Michigan: In 2016, Michigan's **PA 341** ordered the PSC to study PBR.[8] The PSC's report was issued in April 2018 and declared the PSC's intent to implement reform pilots.[9] Michigan utilities have since proposed performance mechanisms in ongoing dockets.

Minnesota: In 2014, the **e21 stakeholder** group began convening and has since published several

[i] RMI has served as a strategic advisor, process designer, and workshop facilitator in Hawaii's performance-based regulation (PBR) docket, New York's Reforming the Energy Vision (REV) proceeding, and Oregon's SB 978 process, among others.

white papers with recommendations for reform.[10] In 2015, the Minnesota PUC opened **Docket 15-556** on grid modernization.[11] In 2017, the PUC opened **Docket 17-401** to develop performance metrics and possible performance incentives for Xcel Energy.[12] In November 2018, the Commission adopted goals and outcomes for the proceeding.

New York: In 2014, New York's governor announced the launch of **Reforming the Energy Vision (REV)** to modernize grid operations and regulations. To carry out REV, the New York PSC opened **Docket 14-M-0101**,[13] which has evolved into numerous dockets for implementation issues. Utilities have since proposed different strategies to update New York utilities' role in managing the distribution system and mechanisms to tie utility revenue to new services and performance.

Ohio: In 2017, the PUC of Ohio launched **PowerForward** to investigate grid modernization in three phases of multiday panels covering a broad range of topics.[14] The PUC issued a report outlining its conclusions and included recommendations for next steps in August 2018. The PUC then issued an order to establish the PowerForward Collaborative and two working groups (the Distribution System Planning Working Group [PWG] and the Data and Modern Grid Workgroup [DWG]), to focus on a subset of implementation issues.

Oregon: In 2017, the Oregon legislature passed **SB 978**, which ordered the PUC to explore changes to the existing regulatory system and incentives.[15] The Oregon PUC conducted a series of stakeholder meetings on these questions and submitted a summary report on the process and findings to the legislature in September 2018.[16]

Rhode Island: In 2017, Rhode Island's governor directed the PUC to develop a new regulatory framework for utilities, which was carried out in the **Power Sector Transformation (PST)** process.[17] The approval of National Grid's rate case settlement, which was settled in 2018, enacted many of the recommendations that originated in the PST effort.[18]

Image © RMI

Four key components emerge as important for conducting successful reform efforts, as illustrated in Exhibit 3. The remainder of this paper follows this four-part structure, beginning with why and how processes were *initiated*, then discussing the importance of providing a *vision* for reform. The paper then describes the structure by which processes are *conducted* and concludes with a discussion of how *outcomes* of these processes can be used to achieve full-scale reform.

Exhibit 4 shows the current stage of the state processes reviewed. The chart is organized by proceedings that are either more investigatory or more decisional in nature. Investigatory processes engage stakeholders to explore system needs or potential reform options without immediately aiming to create new rules or programs. The investigatory stage usually consists of technical conferences and collaborative stakeholder discussions to arrive at common understanding of emergent needs and, in best cases, concrete recommendations for reform and next steps. Transitioning from investigation to decision-making can either take place within the same process, such as in Minnesota's performance-based regulation proceeding, or commissions can open new dockets to design rules or programs based on findings from the investigatory process, as in Ohio's PowerForward process. Implementation of full-scale reform is reached when utilities are actively operating under these new structures as standard practice. As shown in Exhibit 4, several states are nearing the transition from investigation to potential decision-making, while no state has yet implemented full-scale reform.

EXHIBIT 3

General Structure and Key Components of Reform Efforts

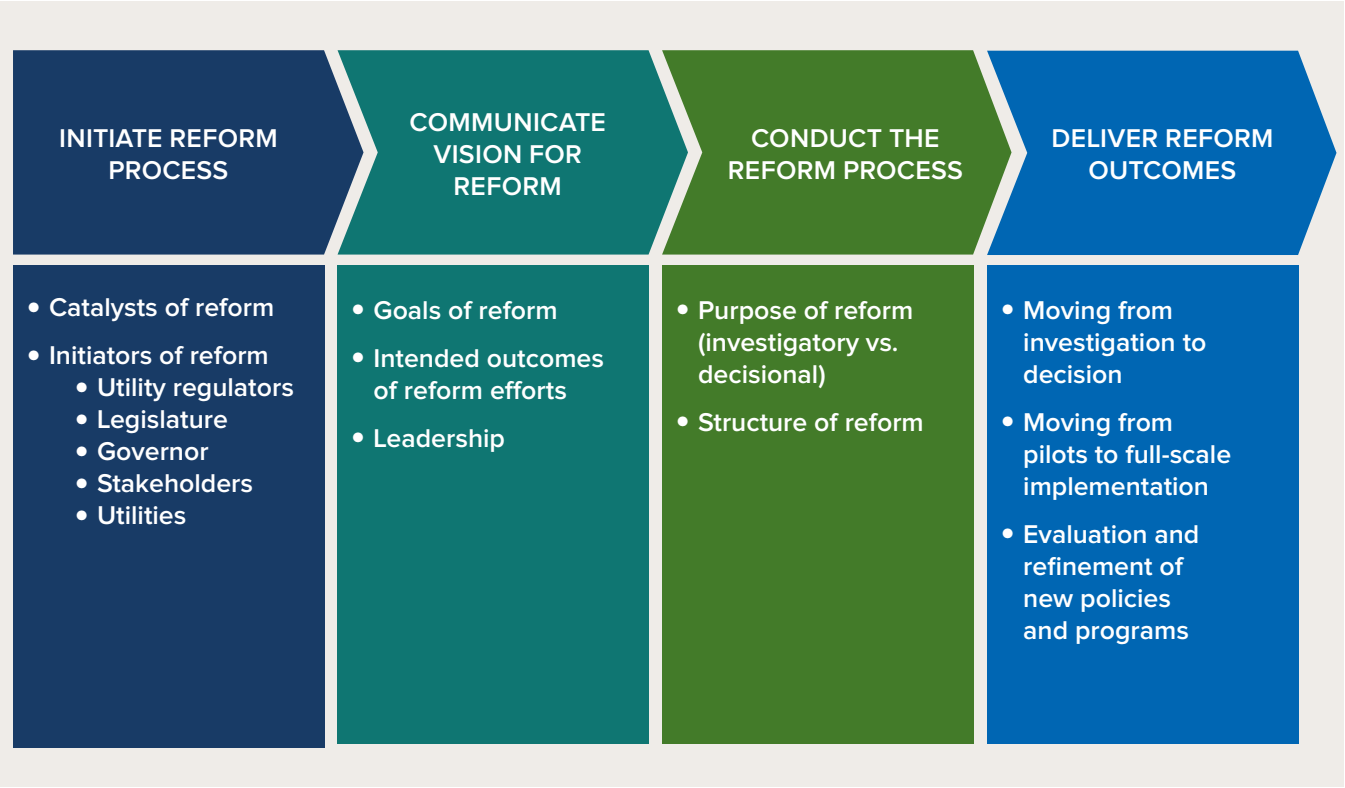
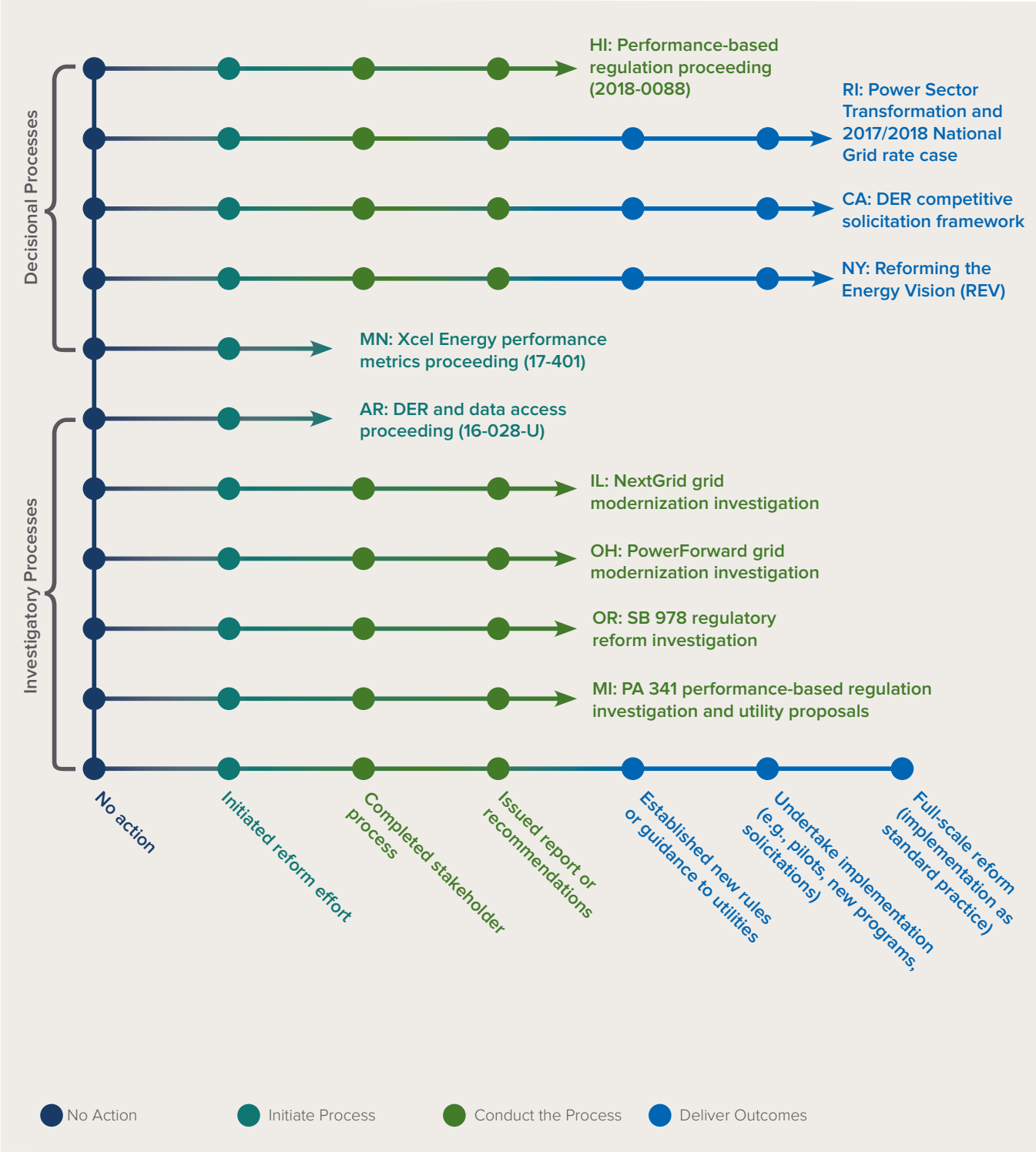


EXHIBIT 4

Progress of State Processes (as of January 2019)



2 INITIATING REFORM PROCESSES

INITIATING REFORM PROCESSES

Reform efforts can result from public utilities commission orders, legislative requirements, directions from the governor, stakeholders' efforts, or from utility initiatives. Who launches the process can shape utilities' and other stakeholders' initial acceptance of reform efforts and can impact the extent of regulatory overhaul achieved in the state. Exhibit 5 illustrates the dynamic of power and interactions between these relevant political bodies and stakeholders.

A range of reasons explain why reform efforts emerge when and where they do. Catalysts for reform not only impact the scope and focus of processes, but also have influence over how processes are conducted and who is involved. Examples include:

- **Grid modernization or system planning**. Utilities' grid modernization proposals shaped Ohio's PowerForward effort; California's incentive pilot targeted DER procurement to avoid investment in distribution upgrades.

- **Public policy**. Clean energy commitments, greenhouse gas emission targets, and performance incentives in the 2016 Future Energy Jobs Act shaped Illinois's NextGrid process.

- **Cost concerns**. High fuel costs in Hawaii have been a major motivator for reform efforts over the years.

- **Catastrophic events**. New York policymakers and regulators convened New York's Reforming the Energy Vision in the aftermath of Hurricane Sandy.

Different actors in each state can respond to these catalysts by initiating reform processes. However, when these efforts evolve into actual changes in policy or regulations, public utilities commissions are usually the venue where details are ultimately deliberated and the scope for new or updated regulations is established.

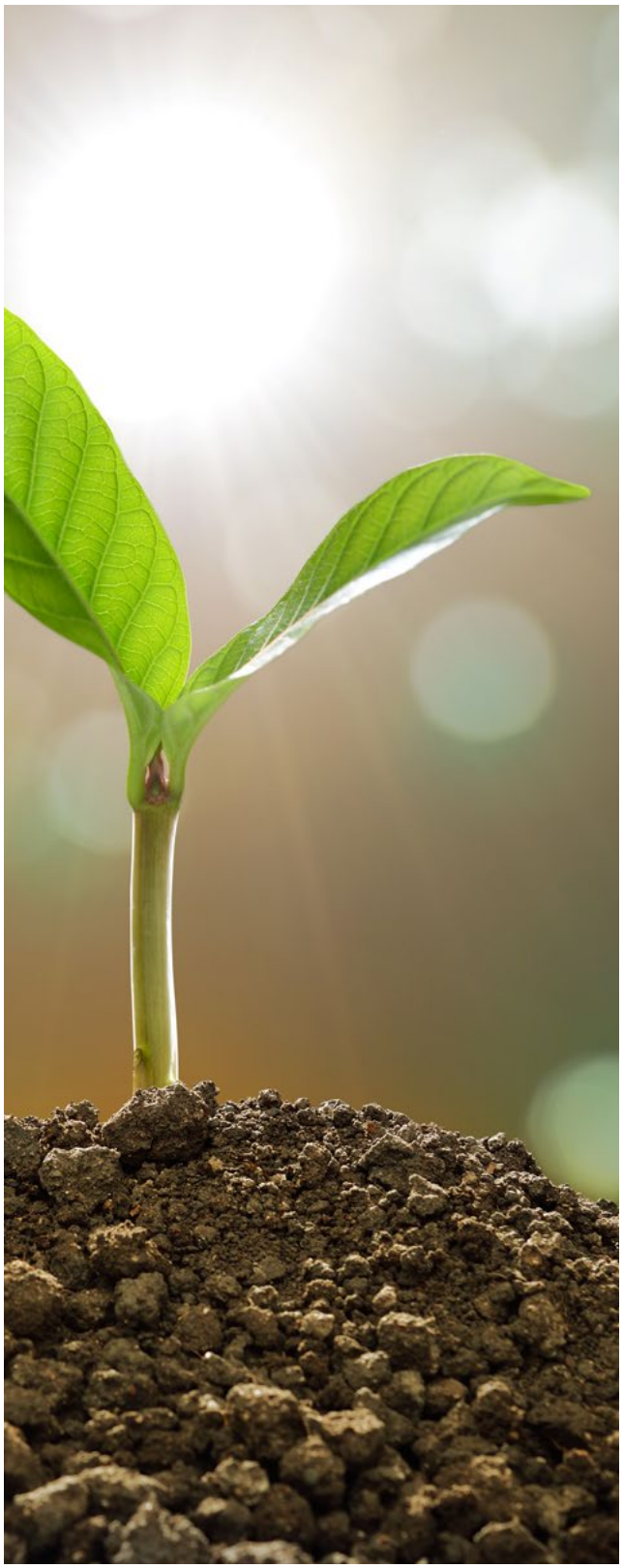
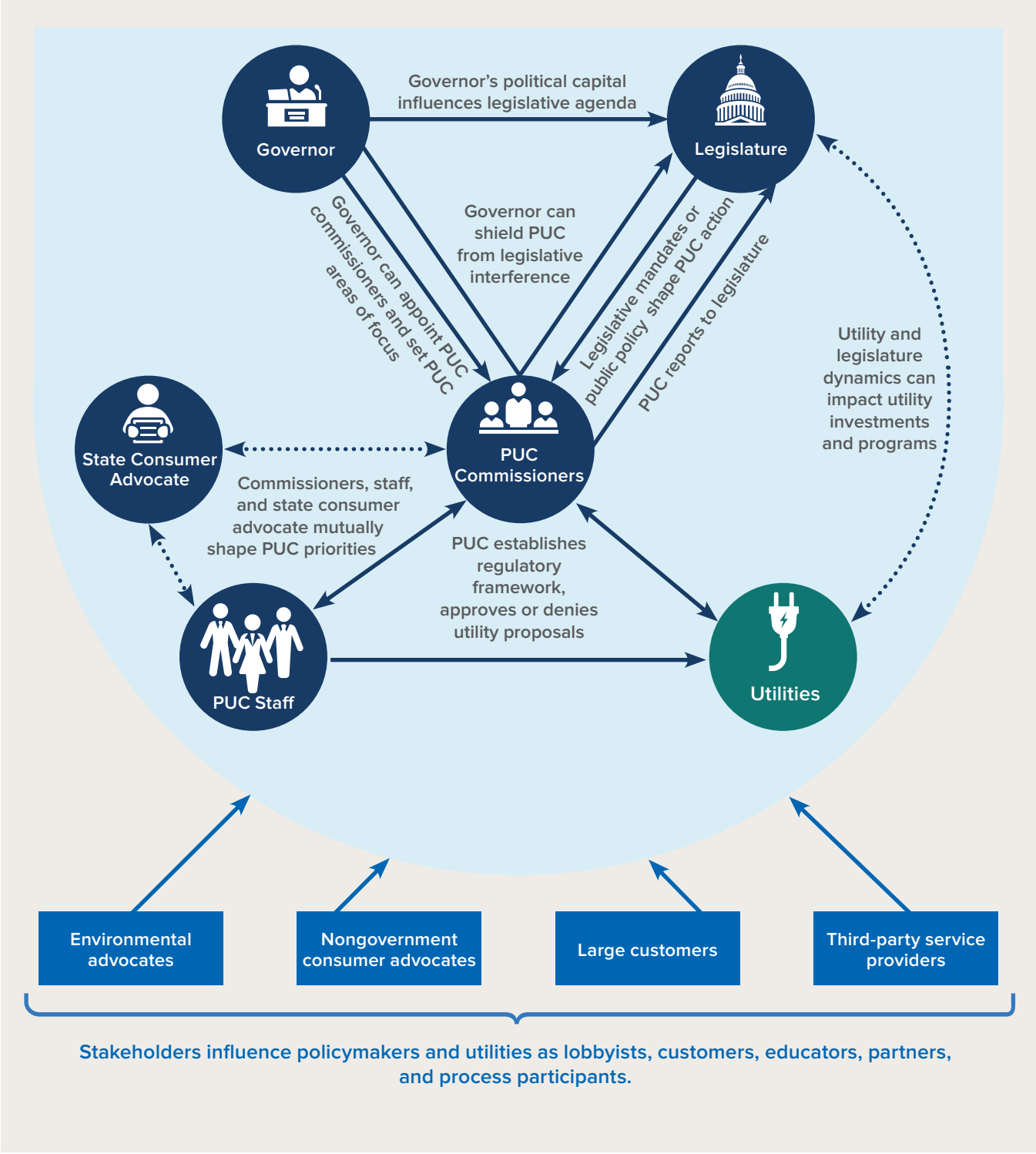


EXHIBIT 5

Influence and Interaction Across Stakeholders and Political Bodies



COMMISSION-INITIATED APPROACHES

Our research shows that regulators' decision to initiate a reform process depends on three key factors: (1) the commission's interest in regulatory reform, (2) statutory authority, and (3) perceived political feasibility for action. Attention to one or more of these factors is often needed to enable regulators to proactively initiate reform.

For regulators to want to undertake a reform process, they must be convinced that there is need for reform, there are benefits to creating a proceeding around it, they have the resources to carry out the proceeding, and they are able to appropriately regulate or steward outcomes of the proceeding. Regulator engagement is essential in any reform process. Even when ordered by the legislature or governor, if utility regulators do not have the motivation to investigate or enact reform, they may carry out mandates in a limited manner without unleashing the full potential of reform activities.

Important influences and considerations for regulators' inclination to initiate reform processes include:

- **Grid needs and market forces**, whether immediate or anticipated. Aging grid infrastructure, increased DER penetration, and fluctuations in electricity prices could all provide an impetus for reform.[19] States with lower electricity costs or lower penetration of variable renewable generation may feel less pressure to pursue reform.

- **Utility motivation**. New business opportunities, coupled with the risks and challenges of evolving and eroding market share, can cause utilities to advocate for, or at least not resist, reform. Illinois' ComEd and Rhode Island's National Grid have been supportive of reform due to strong internal leadership and ongoing stakeholder engagement.

- **Stakeholder support**. Coalitions among stakeholders can amplify the voice of reform advocates. Consumer advocates can be especially important stakeholders, whose support often depends on the anticipated rate impacts of reform.

- **Commission resources and capacity**. Limited resources and capacity can derail reform efforts even when a commission is generally supportive. For example, business model reform was set aside in Hawaii while commission staff was heavily focused on a proposed Hawaiian Electric-NextEra merger. Commissions with fewer staff can be less inclined or able to conduct major processes. As the breadth of reform issues grows, commission resources will likely need to be reallocated from traditional functions, creating potential prioritization issues.

- **Commission staff engagement**. In states where commission staff, rather than commissioners, traditionally take the lead on conducting proceedings,

A NOTE ABOUT CONSUMER ADVOCATES

Many attributes of existing regulatory processes are designed to protect consumers and ensure the process is fair and, to the greatest extent possible, equitable. Any new process must strive to ensure a similar if not greater level of customer protection.

There are two types of consumer advocates that participate in proceedings. The first is a state's consumer advocate, which is a government entity that has the responsibility of intervening in certain commission proceedings to address issues of consumer protection, fair rules for competition, service quality, and rate levels. Other independent, nongovernment consumer advocates often have similar goals, but may participate in other policy forums as well. These organizations usually also provide direct services to the public, such as helping customers understand their bills or sign up for utility programs.

staff willingness to tackle reform issues can make or break a reform effort. Engagement efforts tailored to build familiarity with and expertise on reform opportunities can help motivate staff to act. External support from experts also can boost regulatory staff's capacity to effectively guide these efforts.

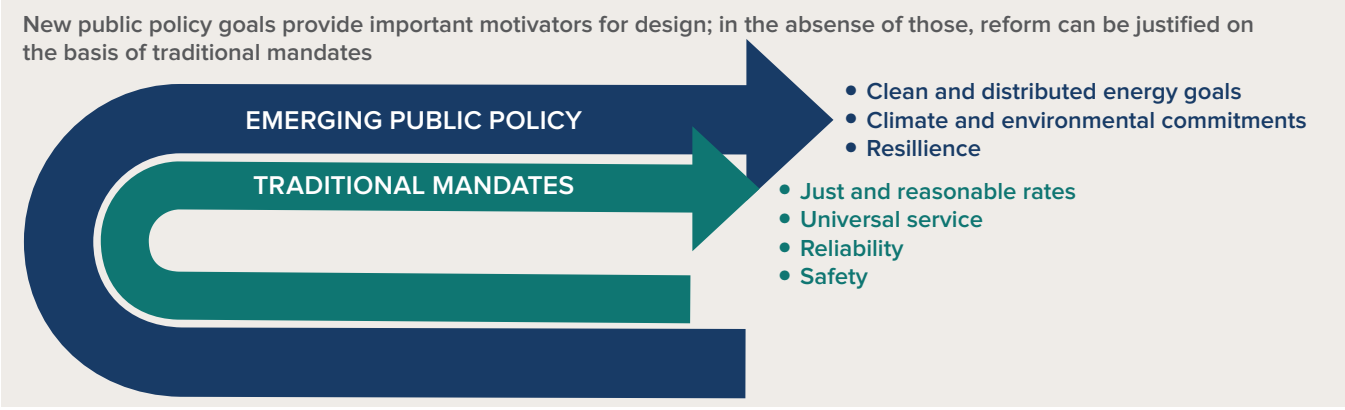
The relationship between regulators and other branches of government has a significant impact on the success of reform efforts. Intrastate political dynamics can either pressure regulators to act or prevent them from initiating proceedings that explore new scopes or roles for the utility, such as ownership of electric vehicle infrastructure.

Concern over statutory authority can be a barrier to regulators initiating reform efforts. In many states, enabling legislation for utility commissions focuses primarily on principles of just and reasonable rates, universal service, safety, and reliability. It may not include authority on climate change, clean energy, or other emerging issues that often motivate interest in reforms. However, legislation on clean energy or greenhouse gas emissions can expand the boundaries of what is interpreted to be in utility commission jurisdiction. For example, Hawaii's 100% renewable portfolio standard and Rhode Island's 80% emissions reduction target are major influencers of regulatory developments in their respective states. Absent such policy directions, stakeholders and regulators should couch their goals within traditional mandates as shown in Exhibit 6; for example, reform can be justified to achieve just and reasonable rates in the long term by reducing system costs through promoting lower-cost resource portfolios, or to improve safety and reliability by tying utilities' earnings to their performance on these targeted outcomes.

Additionally, since many efforts target foundational aspects of the utility business model, they can be controversial and carry political risk. Some commissions worry that decisions on these matters could represent policy-making efforts that encroach on the territory of the legislature. Regulators' assessment of political risk is state-specific and is shaped in large part by historical norms of regulator-legislature relations. For example, the New York PSC is generally considered to have broad authority, even for increasing the state's clean energy target without legislative action;[ii] meanwhile, Illinois has

EXHIBIT 6

Public Policy and Traditional Mandates Can Justify Reform

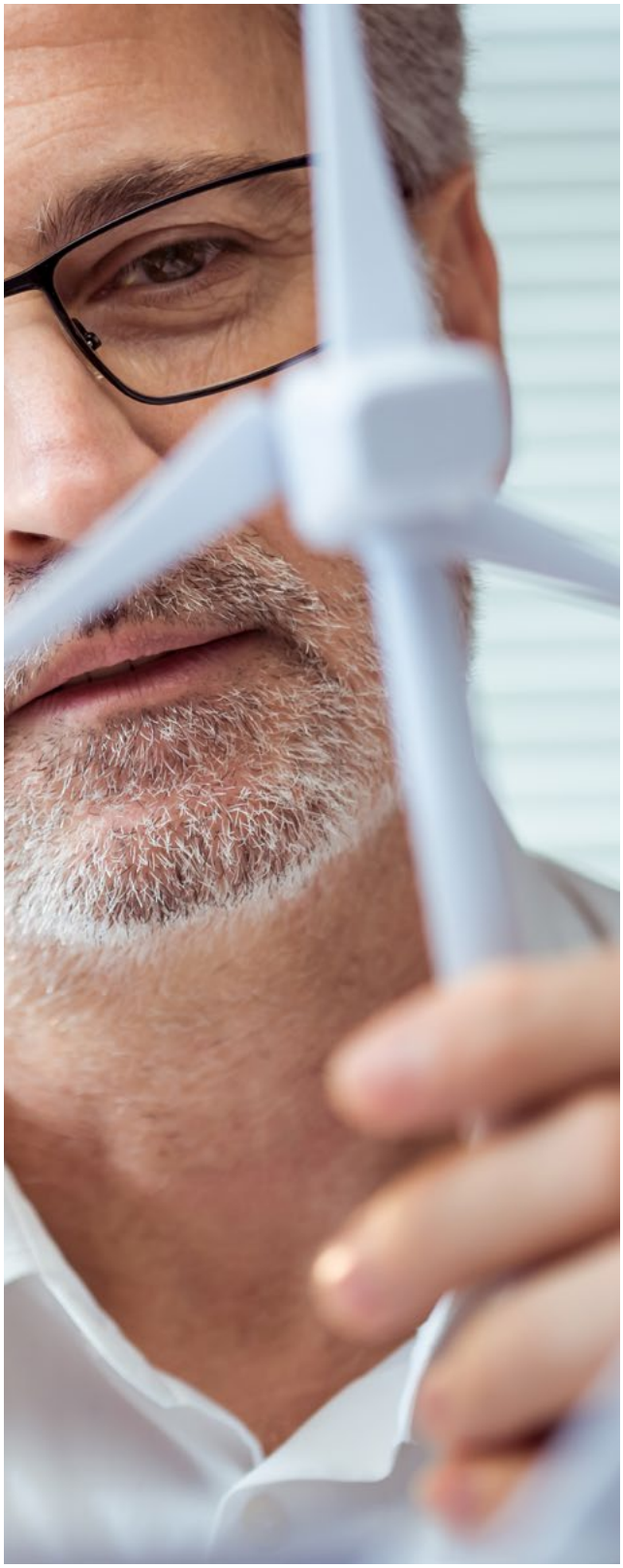


[ii] New York also has a statute under the state's energy law that requires agencies to act in a manner "reasonably consistent" with the State Energy Planning process, which gives authority to the PSC for environmental actions.

a long history of detailed energy-related legislation with less proactive action by the Illinois Commerce Commission. Minnesota's legislature has gone so far as to introduce bills limiting the PUC's regulatory authority, including a recent push to change the commission's ability to oversee and review new natural gas and pipeline projects.[20]

Concern over potentially adverse reactions from legislators to regulatory reforms may prevent commissions from acting with the scale or ambition they might otherwise contemplate. This concern is greatest in states where utilities tend to have a high degree of influence in the legislature that can result in legislation overriding commission-led reform efforts or utilities circumventing regulators by going directly to lawmakers for more favorable results. This evasion occurred, for example, in Minnesota, where Xcel Energy pursued legislative approval for new gas power plants outside the standard PUC-managed integrated resource plan process.[21] Lack of legislative support can also occur where legislators do not endorse climate or clean energy objectives. In those cases, commissions can frame reform efforts as promoting cost-effective, market-based, or customer-centric solutions to make initiatives more politically palatable. Arkansas provides a notable example of this approach in its ongoing DER investigation.

Greater political alignment among the utility commission, legislature, and governor enables more effective commission leadership on reform; however, perfect alignment need not exist for reform efforts to be effective. Particularly in states where commissioners are appointed by the governor, strong support from the governor's office can embolden utility commissions by establishing policy priorities and shielding commissions from potentially hostile legislation. Interviewees cited Minnesota and Ohio as examples where the governor mediated potential resistance from the legislature.



LEGISLATIVE- OR EXECUTIVE-INITIATED APPROACHES

Reform efforts stemming from legislative or executive action can provide legal justification or momentum for commissions to initiate reform proceedings, thus mitigating statutory and political concerns. Even where a commission already feels legally and politically able to proactively launch reform efforts, policy directives can jump-start action, ensure efforts take place on a reasonable timeline, galvanize wider support for reform objectives, and provide momentum for efforts to produce results. In interviews, several stakeholders in states with legislative- or executive-initiated efforts indicated that the added layer of political support enabled regulators to take on more ambitious reform, where they might otherwise have taken a piecemeal or limited approach.

In general, the details of policy mandates and their implementation should be handled in a way that defers to the expertise of commissions on regulatory issues and should not be overly prescriptive on the specific reform solutions they seek or prohibit. However, the level of direction needed from policymakers likely varies by jurisdiction. Policymakers should engage and coordinate with commissions when developing these directives to ensure that mandates provide sufficient flexibility for the commission to consider and enact reforms, while also providing the direction needed to move efforts forward. Directives should also allocate sufficient time to consider all relevant issues and reach deliberative outcomes. In many states, legislation has directed utility regulators to undergo a public process to explore regulatory reform issues, issue a report, and assess next steps. Interviewed stakeholders generally view this structure as effective. *Sample Legislative Language – Oregon* provides an example of legislation used in Oregon that was well suited to the investigatory nature of the process.

SAMPLE LEGISLATIVE LANGUAGE – OREGON

Oregon's SB 978 ordered the Oregon PUC to investigate the possibility of regulatory reform and describe the findings in a report to the legislature. SB 978 also included the option for the PUC to implement reforms based on the investigation's outcomes:

> *The commission shall explore changes to the existing regulatory system and incentives that could accommodate developing industry trends and support new policy objectives without compromising affordable rates, safety, and reliable service. If the commission determines that changes to the existing regulatory system and incentives would be in the interest of customers of electric companies and the public generally, the commission shall develop plans to administratively implement changes to the regulatory system and incentives or shall make recommendations to the Legislative Assembly for the purpose of system and incentives.*

STAKEHOLDER-INITIATED APPROACHES

Stakeholder initiatives not led by a government or a utility can also be a driving force for reform. Minnesota's e21 Initiative is the preeminent example of stakeholder-driven reform, in which environmental advocates, utilities, and other stakeholders have collaborated to investigate issues and develop recommendations to modernize the grid and utilities' business model. Hawaii's Pathways to an Open Grid (POG) process, which is analyzing grid issues on Oahu impacting renewable energy implementation, is another example of an independent, collaborative stakeholder process.

Stakeholder initiatives can be helpful to conduct initial analysis of system and regulatory needs and to educate

stakeholders, improve collaboration, and demonstrate support for reform. These external efforts can also build an informal record of evidence to demonstrate the need for reform, revealing priorities and underlying motives for reform, which can later be incorporated into formal reform proceedings. These opportunities for outside research and analysis are especially useful in states where commissions have limited resources or motivation to undertake reform.

Stakeholder processes not led by a government or a utility can help elevate reform issues, but may have a limited ability to directly shape decision-making. For example, after e21 began convening, Minnesota's PUC became increasingly active on grid and utility business model reform questions—it previously did not wade into policymaking dockets on these issues. However, it may be important that these discussions eventually reside in a regulatory agency or other authorized agency to make actual policy changes and to ensure that both stakeholders and policymakers benefit from a shared understanding of grid needs and potential reforms.

Stakeholder approaches to reform also risk being viewed as skewed toward specific interest groups. For example, while utility participation in e21 has been lauded as a sign of productive dialogue, utilities' role as funders of the process has raised concerns about transparency and balance of perspectives in e21's recommendations.

In general, nongovernment stakeholder approaches can be valuable to enable or supplement regulatory reform processes but should not be expected to substitute for them.

UTILITY-INITIATED APPROACHES

Utilities can also initiate reform processes. Commissions routinely decide on proposals put forward in applications by utilities. It can be easier for a commission to investigate an issue, and then approve or deny reform, if it comes in a formal utility application. Settlements between utilities and parties that are ultimately approved by the commission also provide a means for utilities to come forth with their own proposals. However, since settlement negotiations occur in private, they usually lack the same level of transparency as other processes. Additionally, utility-initiated approaches may seed suspicion among participants that a utility's own biases and influence will tilt a result toward its interests without sufficient consideration of broader public interest.

Frequently, utility-initiated efforts are responses to pressures from regulators or other policymakers. For example, the Hawaiian Electric Companies (HECO), the major investor-owned utility in Hawaii, recently filed an ambitious integrated grid planning (IGP) strategy that includes a phased process, robust stakeholder engagement, and extensive use of third-party technical expertise. The IGP proposal stemmed from years of back-and-forth between the utility and the regulator on HECO's approaches to system planning and grid modernization. Similarly, New York's ConEd was the first utility in the state to propose an alternative procurement strategy to address capacity constraints through its Brooklyn-Queens Demand Management (BQDM) project. While this proposal preceded New York's broader REV efforts, it emerged from ongoing deliberations between ConEd, NY PSC, and other parties to the proceeding.

While it can be helpful to have utilities convene working groups or technical advisory councils outside commission processes, utility-initiated efforts may ultimately need to be housed in public utility commission dockets, where clear and comprehensive records can be developed. In the HECO example, the utility requested that their new planning process take place outside a docketed process, but the Hawaii PUC decided that a docketed proceeding would ensure a more timely, transparent, and collaborative process. It would also give the commission an opportunity to provide guidance and directives where necessary and appropriate.[22]

3 THE VISION FOR REFORM

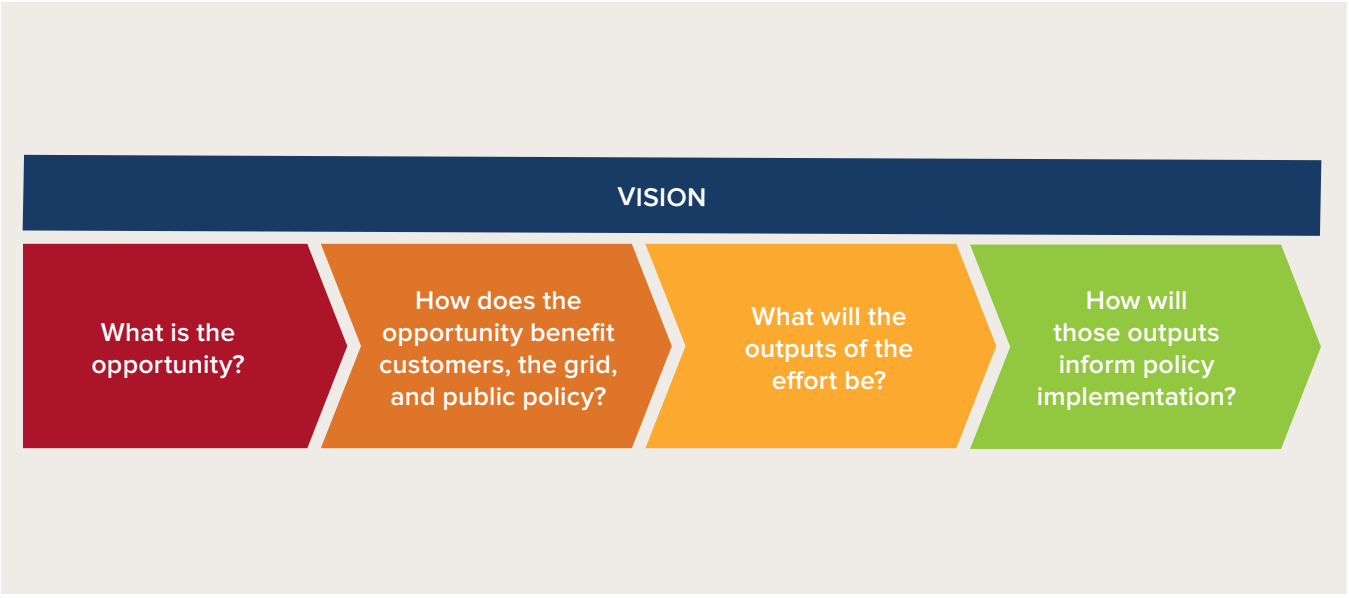
THE VISION FOR REFORM

Every regulatory undertaking should be anchored to a guiding vision for what the process seeks to achieve and what ultimate outcomes it is in service of. The guiding vision should articulate what opportunity the state or utility is facing; how the opportunity benefits customers, the grid, and public policy; what the outputs of the effort should be; and how outputs will be utilized by regulators going forward. Exhibit 7 outlines the key elements of an effective vision statement. The vision does not necessarily need to describe what specific reforms will be put in place, but should lay out the questions that need to be answered in order to determine which options will be pursued. Given that full-scale implementation of regulatory reforms may require multiple individual reform efforts, clearly expressing the intent behind individual processes, how individual processes complement each other, and how process outputs will inform future policy decisions strengthens stakeholder commitment to the process and generates more useful insights. Failure to consider these questions up-front risks producing vague, irrelevant, or potentially redundant results.

Most importantly, a vision for reform must include goals for what reform will accomplish. *Common Goals for Reform* describes common goals for reform across states. These goals include both modern or emerging goals, such as renewable integration, and also new approaches to achieving more traditional goals, such as rate reduction. Among the states surveyed, most included specific goals for their reform processes. For example, in the opening order of the Minnesota PUC's proceeding addressing performance metrics for Xcel, the state's largest investor-owned utility, the PUC stated that "key goals of utility regulation, traditional or performance-based, include reasonable, affordable rates, reliable service, customer service and satisfaction, and environmental performance," and invited comments from parties to identify additional goals.[23]

EXHIBIT 7

Components of the Reform Vision



EFFECTIVE COMMUNICATION AND LEADERSHIP DRIVE REFORM EFFORTS

The vision for reform should be communicated at the start of the process and reiterated throughout. Frequent articulation of the vision is needed to express new or different perspectives as issues evolve and to seek stakeholder input and suggested adjustments. A vision can be communicated through several channels, including interviews and informal communications, reports or white papers (such as with New York Department of Public Service's 2014 proposal that framed its REV process,[24] or the Hawaii PUC's 2014 white paper, *Commission's Inclinations on the Future of Hawaii's Electric Utilities*[25]), or directly in orders or legislation (such as Rhode Island's letter from the Governor directing state agencies and the PUC to investigate grid modernization, system planning, and corresponding business model questions,[26] or Hawaii's recent PBR legislation, SB 2939[27]).

Effective communication and implementation of the reform vision requires strong and committed leadership. Nearly all stakeholders interviewed emphasized the importance of leadership in creating and maintaining successful reform efforts. Elements of leadership include a strong stance on how regulatory changes can improve utility performance, a commitment to action, and willingness to push for change even when influential players resist it. Leadership does not necessarily have to originate from policymakers. For example, in Minnesota's PBR docket, the Office of the Attorney General submitted comments laying out a conceptual framework to approach performance-based regulation that was previously absent in the state. In Illinois, ComEd has been a leader of reform efforts, with its former CEO discussing "shifting [electric utilities] from a pipeline business architecture, which is a 20th-century architecture, to a platform business architecture which is 21st century."[28]

COMMON GOALS FOR REFORM

Across the states surveyed, the most common goals for reform were:

Enhancing Utility Operations

- Remedying incentives to overbuild capital under cost-of-service regulation
- Improving system efficiency and reducing system costs
- Improving grid reliability and resiliency

Improving Customer Experience

- Reducing rates and minimizing volatility
- Improving customer choice and control over energy consumption

Supporting Societal Objectives

- Improving information and data utilization and transparency
- Addressing risk allocation across utilities, shareholders, and customers
- Integrating renewables or reducing carbon emissions from electricity
- Preserving the long-term viability of utilities' business

Even where no clear leader for reform movements emerge, advocates have an opportunity to elevate regulatory reform conversations among policymakers, regulators, and stakeholders to empower leadership on the issues. Lack of leadership may not be a problem inherent in the individuals in power, but can instead be due to a lack of awareness, interest in, or focus on the need for reform.

4 CONDUCTING THE PROCESS

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CONDUCTING THE PROCESS

The structure of reform processes depends on the objectives and expectations established at their outsets. The intent of processes can range from pure investigation (as in Illinois), to investigation with the possibility of enacting reforms (Minnesota and Oregon), to explicit decisional intent (Hawaii and New York). The reasoning behind these design choices depend on:

- **Prior state action** – Depending on preceding efforts focused on grid modernization or other areas of reform, some states may be ready to initiate decisional proceedings, while others may require an initial investigatory phase. For example, while many stakeholders described Ohio's PowerForward process as necessary to start a dialogue between the PUC of Ohio and Ohio stakeholders on grid needs and opportunities, this type of broad educational process may not be needed in states that have previously examined grid transformation issues.

- **Political considerations** – Beginning with an investigatory stage is less politically risky than starting a rulemaking docket and can build a record for later regulatory decisions.

- **Regulatory timing** – Reform processes can be investigatory with the intent of being implemented in upcoming utility filings. For example, Rhode Island's Power Sector Transformation established general principles and recommendations for grid modernization and utility business model reform; specific efforts were then proposed as part of National Grid's 2017–2018 rate case.

INVESTIGATORY PROCESSES

Investigatory processes engage stakeholders to explore grid needs or potential reform options without immediately aiming to create new rules or programs. The exploratory stage should consist of a collaborative, flexible stakeholder discussion to arrive at a common understanding of grid needs and recommendations for solutions. *Structuring Stakeholder Processes* includes best practices for stakeholder engagement on reform issues in investigatory, but also decisional, processes.

Investigatory processes typically result in the issuance of a summary report, which may include recommendations for policy development and for next steps by a commission. Investigatory processes can spark new decisional dockets to convert identified principles and recommendations for reform into actual regulations and programs. Alternatively, many decisional processes take a phased approach that begins with an investigatory stage. Exhibit 8 describes the general structure of investigatory processes.

EXHIBIT 8

Structure of Investigatory Processes

During the investigatory stage of the process, leaders of reform efforts should also leverage lessons on grid transformations and reform options from other states to expedite the process. For example, some reforms, such as decoupling or multiyear rate plans, have been in place for years in many states and may not require extensive investigation before moving into design details. Certain jurisdictions have also extensively studied the capabilities of and possible services from DERs such as demand response and energy storage. As such, every reform effort does not need to reinvent the wheel by duplicating research that has been done elsewhere.

STRUCTURING STAKEHOLDER PROCESSES

Stakeholder engagement is a necessary component of regulatory reform. It can take many forms, such as public comment periods, technical conferences, working groups, and workshops. In general, stakeholder processes should:

- **Utilize a multistage process**. Processes that allow for discussion and iteration provide significant value to regulators, utilities, and other participants navigating new and dynamic topic areas. Helpful components include deliberate sequencing of (1) framing comments issued by commission staff (or in some cases by the facilitator), (2) stakeholder workshops, and (3) formal party comments.

- **Include an independent facilitator**. The facilitator should have experience facilitating a diverse set of stakeholders and should be able to fairly conduct the process without undue bias. Facilitator knowledge in relevant topic areas is also important.

- **Ensure participants have a sufficient understanding of system issues.** Time should be allocated for educating stakeholders where needed to ensure a shared understanding among parties of issues and opportunities. Experts should be engaged during the process to contribute to this education.

- **Include data and information sharing from utilities**. Access to granular system data is necessary to identify and measure relevant grid trends and needs, as well as to reduce information asymmetry among stakeholders and utilities.

- **Reduce resource requirements to enable nonutility participation**. Meetings should not be too lengthy or frequent, and working group meetings should not be scheduled concurrently. To increase stakeholder access, states should consider ways of financing stakeholders who cannot afford to participate and/or hold town hall sessions to allow groups that are not formal parties to the proceeding to comment on issues. Processes also should include mechanisms for recording comments from parties, and potentially from the public.

- **Maximize trust among participants**. Utilities or other stakeholders may respond defensively to proposed reforms. Other stakeholders may worry about a disproportionate influence of utilities in process outcomes. As such, utilities may not be appropriate as sponsors or direct funders of stakeholder processes, and facilitators should maintain productive dialogue to work through tensions that arise. Facilitators should be up-front about their role in the process from the outset.

DOCKETED VS. NONDOCKETED INVESTIGATORY PROCESSES

Exploration of needed changes to regulations can be carried out in a nondocketed or a docketed process. Nondocketed processes are sometimes preferred since they have fewer procedural requirements and could be more accessible to stakeholders who are less familiar with utility commission dockets. Oregon's SB 978 process and Rhode Island's Power Sector Transformation are examples of how a more open, nondocketed process can enable greater stakeholder participation. Nondocketed processes also may allow for more open dialogue around transformational utility questions.

However, docketed proceedings offer their own advantages, such as transparency and direction. For example, stakeholders in Ohio's nondocketed PowerForward process expressed concern that interest groups were communicating with commissioners outside the process itself, which might have skewed their perspectives. Participants in Minnesota's e21 process were also worried about the potentially disproportionate influence of utilities in e21 recommendations. *Ex parte* rules and formal records of stakeholder communications in docketed proceedings can provide a guaranteed level of transparency that avoids this problem. Therefore, if states' docket procedures allow for a suitable level of open collaboration, a docketed approach may be preferable to a nondocketed process. That being said, states with strict *ex parte* rules that excessively limit communications among commissioners or between regulators and stakeholders can have a counterproductive consequence of inhibiting effective collaboration and progress. It could be beneficial to review and potentially update these rules prior to initiating reform efforts.

STAFF PARTICIPATION IN REFORM PROCESSES

How commission staff participate in reform processes is an important design decision. Commission staff can play a variety of roles in reform efforts in light of variations in staff functions and capacity across states. For example, in Hawaii's PBR proceeding, PUC staff are responsible for drafting reports and orders and hosting technical conferences, among other responsibilities. On the other hand, staff's role in the first year of Ohio's PowerForward was mainly to serve as organizers and set high-level discussion topics, while parties and outside experts were responsible for developing content. However, Ohio staff were instrumental in producing PowerForward's final summary report, and could take on an increased role in the next stages of the initiative.

DECISIONAL PROCESSES

Proceedings with a decisional intent need to take place within a docket for commissions to adopt new rules or approve new programs. These dockets can include rulemaking proceedings (such as California's IDER and New York's REV proceedings), rate cases (such as Rhode Island's National Grid rate case that was settled in 2018), or utility applications (such as Michigan's PBR proceedings). These options are outlined in Exhibit 9.

Among these options, the majority of interviewees indicated that opening rulemaking proceedings offers the greatest opportunity to consider reforms holistically. Since a rulemaking docket is usually dedicated to reform-related questions, it allows for sufficient time and scope to fully analyze the needs and potential options for reform. Rulemaking dockets can also better incorporate perspectives of all stakeholders in developing reform recommendations and provide a higher degree of transparency than other decisional proceedings.

EXHIBIT 9

Structure of Decisional Processes

In contrast, rate cases are frequently time-constrained and include other priorities that may compete with reform questions for attention. Additionally, utility proposals in rate cases or other dockets allow the utility to establish the initial terms of discussion, which can limit the scope and ambition of issues considered. Rate cases can also have significant information asymmetry since many filings are confidential or redacted, limiting nonutility stakeholder contributions and decision-making transparency.

Nonetheless, implementation and scaling of reforms often require that they be taken up in rate cases or utility proposals. Rate cases can provide an opportunity to adopt new regulatory mechanisms, such as performance incentives. They can also support regulatory reforms such as decoupling that may be understood so well as not to require a full exploratory investigation or separate proceeding. Additionally, the time-bound nature of rate cases can add urgency to implementing reforms and can signal commission commitment to addressing reform in the near term. Rate cases also may be an appropriate venue for advocates to start to raise utility business model questions that prompt regulators to take further action on these topics in the future. Since rate cases usually only involve one utility, regulators may also be prompted to open another proceeding to address reform issues for all of a state's utilities.

Utilities also can propose their own reforms to a commission in rate cases or related dockets. For example, after commission and stakeholder analysis of performance-based regulation in Michigan, utilities have submitted proposals in other dockets to implement some elements of PBR, such as incentives on capital and expenses for demand response. National Grid's rate case settlement in Rhode Island included business model-related issues that were raised in the Power Sector Transformation effort, including new performance metrics. While settlements like this can offer a collaborative opportunity to address questions of reform, they also take place outside of transparent processes and thus risk diluting the ambition of reform efforts or excluding some stakeholders who have less influence.

Even if reform frameworks are established in a rulemaking proceeding, rate cases and utility proposals will eventually be needed to implement and scale these reforms. To maximize the effectiveness of reforms, it is important for commissions to provide strong guidance and criteria for utility-proposed reforms and rate case settlements. In Michigan, for example, utilities primarily included positive-only performance incentives in their proposals, failing to suggest penalties for not achieving performance targets. In New York's REV proceeding, the commission ordered utilities to propose their own Earnings Adjustment Mechanisms (a form of performance

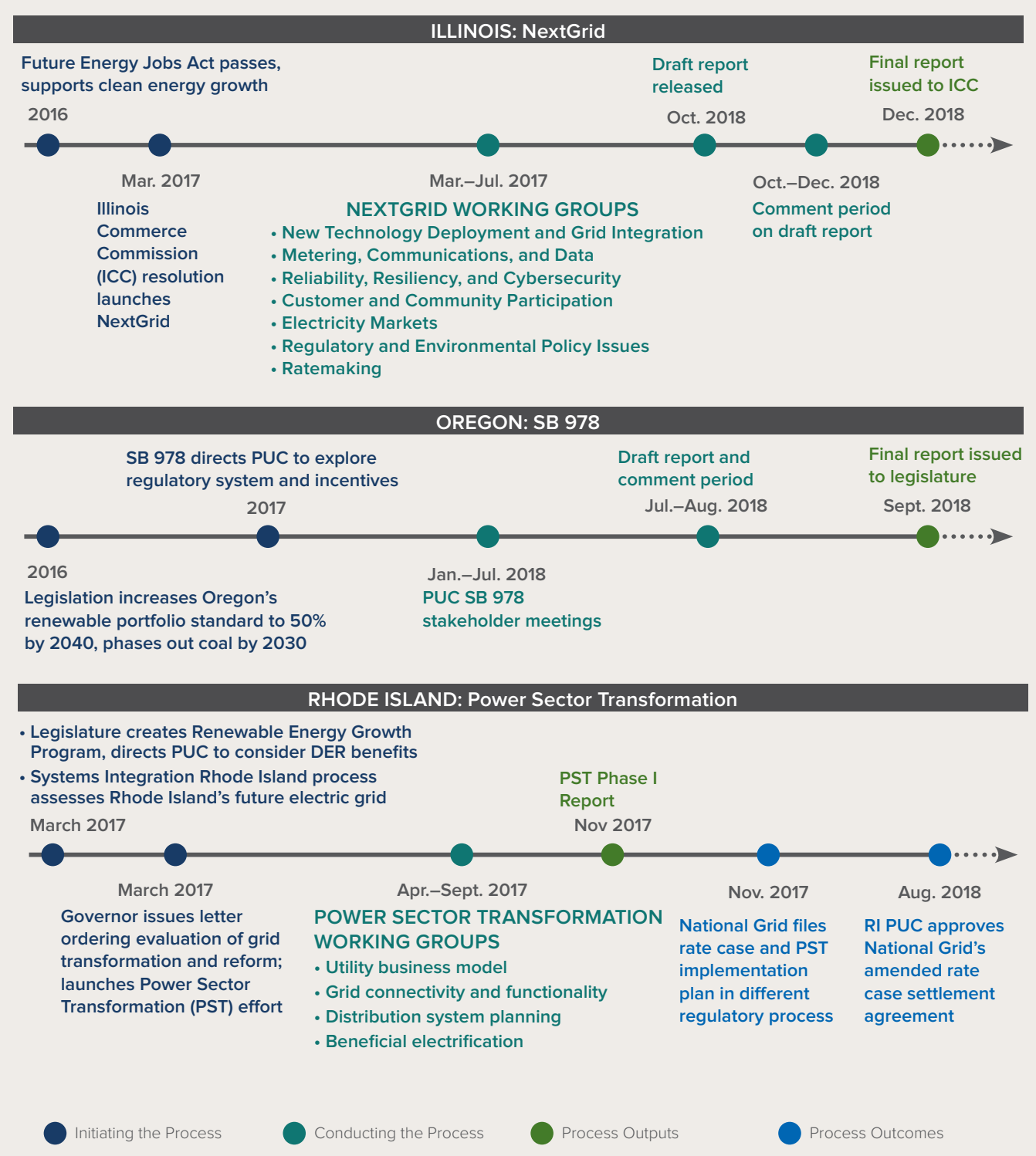
incentive mechanism) which resulted in utilities proposing less ambitious targets than many desired.

Just as for investigatory processes, stakeholder engagement is an important feature of decisional processes for ensuring that new rules or programs are not created in a black box. By creating technical councils, advisory committees, or working groups, regulators enable valuable third-party deliberation and examination. For example, California's IDER proceeding has utilized a number of working groups to update the commission's DER cost-effectiveness framework, develop a competitive solicitation framework, and review DER procurement. The proceeding is also using a Distribution Planning Advisory Group, supported by an independent engineer, to provide feedback on utility distribution deferral opportunities.

Exhibit 10 compares processes in Illinois, Oregon, and Rhode Island to illustrate some different approaches to undertaking reform. Reflecting those stages included in Exhibit 4, the three timelines show how processes were *initiated* and *conducted*. However, Rhode Island is the only state of the three that has reached the stage of delivering *outcomes*, with National Grid's rate case settlement enacting many of the recommendations that resulted from the state's Power Sector Transformation effort.

EXHIBIT 10

Cross-State Comparison of Reform Processes



5 PRODUCING REGULATORY OUTCOMES

PRODUCING REGULATORY OUTCOMES

The outcomes of regulatory processes will derive from the vision initially set out, the type of process undertaken, and the quality of the process applied along the way. In order to achieve meaningful results, investigatory processes must eventually advance to a decision-making stage, and decision-making processes must continue to adopt and refine specific reform proposals.

The transition from an investigatory process to a decision-making process could occur through commissions' creation of a new decisional proceeding, policymakers' creation of a mandate to implement reform, or utilities' proposals in rate cases or other dockets. Whether a commission launches a decisional proceeding depends on regulator inclination, statutory authority, and political feasibility. The latter two factors are likely to be more important when enacting more significant regulatory changes. As a result, policy mandates can be even more important for producing actual outcomes from reform efforts than for initiating them. Utilities' decision to propose new rules or programs will be influenced by policy requirements, such as a renewable portfolio standard, and perceived opportunities or threats to earnings.

Since many of these processes are still in motion without clear conclusions, many states are implementing pilots as a step toward more decisive and permanent regulatory reform. To familiarize participants in reform efforts with new ideas and approaches such as performance-based regulation or grid modernization, regulators, utilities, and stakeholders can codevelop pilots as regulatory test beds in which to experiment.[29] While reform options can be implemented in incremental pilots and programs, they must still build toward a coherent framework for reform. A pilot should be designed to test specific aspects of power sector transformation, should directly tie to a future decision that a commission seeks to make, and should fit into the broader vision of why transformation is needed to ensure utility buy-in and properly evaluate the pilot's effectiveness.

REFORM PROCESS OUTPUTS VS. OUTCOMES

It is helpful to distinguish between process outputs and reform outcomes. As used in this discussion, outcomes reflect the ultimate goals sought, whereas outputs are interim steps to achieving those. Outcomes can be changes to how utilities operate, what they invest in, or which services they provide to customers. Outcomes also can be broader impacts on society and the environment. Wherever possible, outcomes should be measurable and should relate directly to the underlying challenges or needs that are at the heart of the electricity system transformation (e.g., peak load reduction, greenhouse gas reduction, investment efficiency, etc.). On the other hand, outputs are work products, such as a report following a series of stakeholder workshops stating findings. While potentially helpful as interim steps, reports and similar outputs are insufficient results of regulatory efforts if there are not subsequent steps to convert outputs into outcomes.

In order to be adaptive, regulators and utilities also need to evaluate the success of the reforms with which they are experimenting. Performance metrics that measure and track utility data for certain outcomes are a key, no-regrets tool to ensure that utility performance is improving after implementing a given regulatory reform.[30]

As more states take on reform efforts, further testing and refinement of new regulations and utility activities will likely embolden previously cautious states to move forward. Continuous education and engagement with stakeholders, utilities, regulators, and other policymakers will encourage action to implement broader regulatory reform.

6 CONCLUDING LESSONS

CONCLUDING LESSONS

A well-designed process is a key determinant of the success of utility regulatory reform and deserves significant attention to ensure delivery of intended outcomes. This paper offers the following lessons that may be useful as states and utilities undertake their own power sector transformation initiatives.

INITIATING REFORM PROCESSES

- To pursue reform, regulators must feel confident that there is need for reform, there are benefits to creating a proceeding around it, they have the resources to carry out the proceeding, and they are able to appropriately regulate or steward outcomes.
- Policy directives from a legislature or governor can jump-start action, ensure that efforts take place on a reasonable timeline, galvanize wider support for reform objectives, and provide momentum for efforts to produce beneficial outcomes.
- In general, policy details should be handled in a way that defers to the expertise of commissions on regulatory issues and should not be overly prescriptive of the specific reform solutions they seek or prohibit.
- Stakeholder-initiated processes can conduct initial analysis of system and regulatory needs to educate participants, improve collaboration, and demonstrate broader support for reform.

THE VISION FOR REFORM

- Every regulatory undertaking should be anchored to a guiding vision.
- The vision should articulate what opportunity the state or utility is facing, how it benefits customers and the power sector, what the outputs of the effort should be, and how outputs will be utilized by regulators going forward.
- Leaders of reform efforts should effectively communicate the vision for reform at the start of the process and should reiterate it throughout.
- When no clear leaders for reform emerge, other stakeholders can elevate reform issues to help galvanize leadership.

CONDUCTING THE REFORM PROCESS

- Investigatory processes or exploratory stages of processes should consist of a collaborative, flexible stakeholder discussion to arrive at a common understanding on grid needs and recommendations for solutions.

- Exploration of needed changes to regulations can be carried out in a nondocketed or a docketed process. Nondocketed processes may have fewer procedural requirements and can be more accessible to stakeholders who are less familiar with utility commission dockets. However, docketed proceedings offer their own advantages, such as credibility and direction.

- Proceedings with a decisional intent need to take place within a docket for commissions to adopt new rules or approve new programs.

- Building a reliable record that includes stakeholder comments and outputs from participant discussions can provide greater transparency and accountability into regulatory decision-making.

- Leaders of reform efforts should leverage lessons from other states to expedite processes (e.g., states exploring more established options such as decoupling or multiyear rate plans).

- Stakeholder engagement is an important feature of both investigatory and decisional processes to ensure that commissions do not establish new rules or programs in a black box.

PRODUCING REGULATORY OUTCOMES

- The shift from investigation to policy implementation can occur through decisional proceedings, utility proposals, or legislative mandates.

- To familiarize participants in reform efforts with new ideas and approaches, regulators, utilities, and stakeholders can codevelop pilots as regulatory test beds to test specific aspects of regulatory reform that directly tie to a future decision that the commission seeks to make.

- Implementation of reforms should include performance tracking and mechanisms for review and adaptation, to ensure that outcomes remain aligned with ongoing visions for reform and lessons are captured.

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22830 Two Rivers Road
Basalt, CO, 81621 USA
www.rmi.org