

# Renovate

## INITIATIVE

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### *Renovate Best Regulatory Practices “Toolkit” Series: Performance-Based Regulation—Part 1*

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Prepared by:



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## About SEPA

The Smart Electric Power Alliance (SEPA) is dedicated to helping electric power stakeholders address the most pressing issues they encounter as they pursue the transition to a clean and modern electric future and a carbon-free energy system by 2050. We are a trusted partner providing education, research, standards, and collaboration to help utilities, electric customers, and other industry players across four pathways: Regulatory Innovation, Utility Business Models, Grid Integration and Transportation Electrification. Through educational activities, working groups, peer-to-peer engagements and custom projects, SEPA convenes interested parties to facilitate information exchange and knowledge transfer to offer the highest value for our members and partner organizations. For more information, visit [www.sepapower.org](http://www.sepapower.org).

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## Introduction

The Smart Electric Power Alliance (SEPA) is publishing this *Best Regulatory Practices “Toolkit” Series* as part of the Renovate Initiative. Beginning February 2019, SEPA launched the Renovate Initiative by convening a task force of regulatory commissioners, utilities, technology solution providers, legislators and consumer advocates, along with partner organizations representing a broad spectrum of stakeholders in the electricity industry. The Renovate Initiative’s mission is to spur the evolution of state regulatory processes and practices to enable innovation, with a focus on scalable deployment of new technologies and operating models, to meet customer needs and increasing expectations while continuing to provide all with clean, affordable, safe, and reliable electric service.

As an initial step, the Renovate Initiative task force and partners identified four problem statements regarding the obstacles to innovation and widespread adoption of new technologies and operating practices. They are:

1. **People & Knowledge:** The steep learning curve for policy makers, commissioners, commission staff, industry, and other stakeholders in acquiring knowledge and understanding of new technologies, and the benefits and costs for customers can complicate and lengthen the decision-making process.
2. **Managing Risk & Uncertainty:** Current regulations and structures favor tried and true technologies, operations and approaches, in the name of prudence, strictly applying the “used and useful” principle. For new technologies and operating practices, there is uncertainty about the processes to identify and quantify benefits and costs, outline the full range of investment and operating options, and communicate and align incentives with agreed goals for the benefit of all customers.
3. **Managing Increased Rate of Change:** Regulatory proceedings on grid investments and customer programs often take so long that relevant technology providing customer benefit has advanced before a commission assessment can be completed or decision can be reached.
4. **Complexity of Objectives / Cross-Coordination:** Commissions have a mandate to serve the public interest, but increasingly, numerous priorities must be considered and balanced under an expanding definition of “public interest,” including: reasonable rates, customer choice, customer protection, environmental protection, current system structure, evolving system structure, with both short-term and long-term perspectives.

SEPA is publishing several case studies highlighting promising practices for addressing these Problem Statements. This paper is the first of a three-part *Best Regulatory Practices “Toolkit” Series on Performance-Based Regulation (PBR)*. It is designed to equip regulators with an understanding of an approach to PBR and how they might use PBR and its elements to address the challenges of increasingly rapid changes in technologies, policies and customer expectations affecting the electricity industry. While all of the problem statements—and solutions to them—are interrelated, this paper primarily responds to the need to manage risk and uncertainty (Problem Statement #2) and to manage the increased rate of change (Problem Statement #3).

- **Part 1** of the series lays the foundation for a discussion of Performance-Based Ratemaking (PBR), reviewing recent developments and drawing conclusions about the evolving PBR landscape through the experience of Minnesota—a state leading through a comprehensive approach to PBR.
- **Part 2** continues to use Minnesota as an example, examining its use of Multi-year Rate Plans (MRP) and other Alternative Regulation elements as a stepping stone to regulatory reform and PBR.
- **Part 3** builds on Part 2, addressing Performance Incentive Mechanisms (PIMs) as a key component of PBR, a regulatory framework that compensates utilities for achieving outcomes that deliver service that meets customer expectations and policy objectives.

## Executive Summary

As the electricity system faces advancing technology, changing customer demands and expectations for products and services, and increasing societal goals to reduce carbon emissions, regulators are challenged to update traditional regulatory practices and processes to align utility, customer and public policy objectives. **Part 1** of this *Best Regulatory Practices “Toolkit” Series* reviews recent developments and draws conclusions about the evolving PBR landscape through the experience of Minnesota—a state leading through a comprehensive approach to PBR. It

- Describes the context in which many states are currently considering PBR,
- Distinguishes and begins to define PBR and its elements, which can be considered individually as well as in combination,
- Discusses the drivers and applications (the why, where and when) for regulatory reform, including PBR,
- Offers Minnesota’s approach and experience as a useful guide for other states.

In Minnesota, the PBR discussion over the last decade highlights the potential for PBR to evolve the utility regulatory framework to provide incentives for efficiency across all utility operations; encourage and measure performance beyond traditional indicators, such as safety and reliability; promote a culture of innovation, competition and healthy risk-taking; and realize new public policy goals like carbon reduction that were not an intended outcome under traditional cost-of-service regulation (COSR).

Key takeaways from the Minnesota experience that can be applied in other jurisdictions include:

- The importance of developing a shared understanding of the variety of objectives that can be achieved with PBR,
- The value of anticipating the “inexorable” industry change that is underway and taking a proactive approach to evolving regulation to take advantage of and keep pace with it,

- The recognition that updating the regulatory framework does not require restructuring the industry (i.e., divesting generation),
- The usefulness of taking a deliberate, staged approach to change, building on precedent, and
- The benefits of taking a comprehensive perspective.

## A New Industry Landscape

As the electricity system faces new advances in technology, coupled with society's increasing commitment to developing clean energy resources to reduce carbon emissions and customer demands for new products and services, traditional regulatory practices and processes are evolving. Developments include: the proliferation of distributed energy resources (DERs), "carbon-free" state and local government targets and requirements, increased energy efficiency, the electrification of the transportation sector and buildings, and the need for resilience in the face of natural disasters and human-made threats. These developments are posing new challenges to the existing regulatory framework. Regulators, policymakers, utilities, technology providers and other stakeholders are grappling with how to adapt or modernize current regulatory practices to address them.

The recent attention to PBR<sup>1</sup> reflects a growing debate about whether traditional COSR<sup>2</sup>—the longstanding and widespread regulatory model that has been in practice for decades— is sufficient to ensure that the regulatory framework continues to drive utility actions that are aligned with the public interest. From Hawaii to Rhode Island, traditional COSR structures are being revised or reformed to better achieve this objective, by adopting forms of Alternative (or Incentive) Regulation, including PBR. While "all regulation is incentive regulation,"<sup>3</sup> PBR makes some of the incentives more explicit.

The *Best Regulatory Practices "Toolkit" Series* reviews recent developments and draws conclusions about the evolving PBR landscape through the experience of Minnesota—a state leading through a comprehensive approach to PBR. The Minnesota example offers regulators and electricity industry stakeholders insights on PBR that they can apply and adapt in their own states to achieve policy goals, foster regulatory innovation and facilitate the scalable deployment of new technologies to meet customer needs. This series also highlights challenges, lessons learned, and recommended best practices for public utility commissions and other stakeholders to consider when evaluating the adoption of PBR and

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<sup>1</sup> Also referred to as Performance-Based Ratemaking.

<sup>2</sup> Also referred to as Rate of Return (ROR) regulation.

<sup>3</sup> As economist and former chair of the New York Public Service Commission, Alfred E. Kahn noted decades ago: see, for example, *Electricity Regulation In the US: A Guide*, Second Edition, June 2016, The Regulatory Assistance Project, at 7.

its elements. This paper, the first in the series, describes PBR, identifies the variety of objectives it can help regulators to achieve, and offers Minnesota’s approach as a roadmap for other states.<sup>4</sup>

## What is Performance-Based Regulation?

PBR is a regulatory framework that links utility revenues or cost recovery to specific performance metrics or outcomes that are important to customers rather than to the costs a utility incurs to serve them (i.e., the utility’s inputs). There is no “one-size-fits-all” approach to PBR. States are developing and adopting new regulatory practices that best fit their own unique needs, challenges, and opportunities. PBR is not inconsistent with, nor a replacement for, COSR, and many of the regulatory reforms and mechanisms associated with PBR, such as Multi-Year Rate Plans (MRP), can be incorporated into or viewed as adjustments to the existing COSR framework that has evolved over the past decades. In fact, the term “PBR” covers a wide range of regulatory mechanisms, policies, models, and frameworks.

The U.S. regulatory approach has historically been predicated on COSR, defined by the National Association of Regulatory Utility Commissioners (NARUC) as the model in which “the regulator determines the Revenue Requirement—i.e., the ‘cost of service’—that reflects the total amount that must be collected in rates for the utility to recover its costs and earn a reasonable return.”<sup>5</sup> However, today, there remain few, if any, “pure” or “original” COSR regulatory regimes.

COSR has evolved in response to changes in the industry. Examples of adaptations include the introduction of incentives for energy efficiency beginning in the 1980s; the use of future test years;<sup>6</sup> an application of cost trackers beyond fuel adjustment charges, which began in the 1970s to address rapidly changing costs between rate cases; and the adoption of decoupling mechanisms, all of which continue today.<sup>7</sup> The evolution of COSR is evident in that it is now broadly understood to allow for the use of a variety of special mechanisms related to cost recovery between rate cases and incentives (or removing

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<sup>4</sup> PBR has been implemented and structured differently in different states to achieve a variety of regulatory outcomes. The objective here is not to prescribe the definitive implementation approach for—or path to—PBR adoption, or to assert that it is the destination of the regulatory evolution for all utilities, across all jurisdictions, but rather to offer useful guidance for states considering moving in this direction.

<sup>5</sup> Tietjen, Darryl. Tariff Development I: The Basic Ratemaking Process. Briefing for the NARUC/INE Partnership. <https://pubs.naruc.org/pub.cfm?id=538E730E-2354-D714-51A6-5B621A9534CB>. For additional background, see Bonbright, James C., Danielson, Albert L. and Kamerschen, David R. Principles of Public Utility Rates. 1988, Chapter 5 “Cost of Service as a Basic Standard of Reasonableness.”

<sup>6</sup> “Test year” refers to the period of time used to determine the “costs of service” to be included in rates. Use of an “historical” test year bases rates on costs incurred during a past year, sometimes adjusted for “known and measurable” changes. Use of a “future” test year bases rates on costs expected or forecasted to be incurred in a future year. Future test years are often used when costs are growing faster than revenues. See Lowry, Mark Newton, Forward Test Years for US Energy Utilities. Presentation for Society of Utility and Regulatory Financial Analysts. April 28-29, 2016, at 3-4,7.

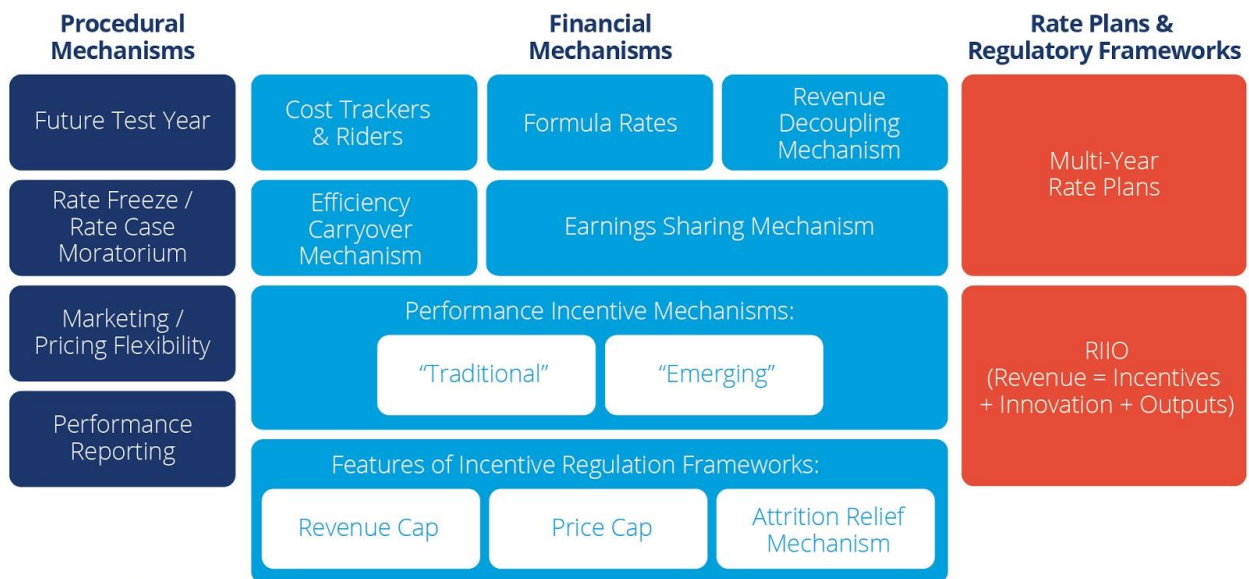
<sup>7</sup> McDermott, Karl. Cost of Service Regulation in the Investor-Owned Electric Utility Industry: A History of Adaptation. Edison Electric Institute (EEI). 2012, at 23-24.



disincentives) for desired utility actions. These mechanisms may be used to recover costs of “business as usual,” “grid modernization,” and new types of investments previously recovered from revenues due to increasing sales between cases. COSR typically did not previously include post-test year ratemaking adjustments or mechanisms.

Many of the regulatory mechanisms and innovations adapted into the general COSR framework constitute forms of *Alternative Regulation*, the broad collection of regulatory practices that reflect a departure from historical COSR practices.<sup>8</sup> A list of the most common Alternative Regulatory mechanisms—including those typically associated with contemporary PBR—is shown below in Figure 1.

Figure 1: Alternative Regulatory Mechanisms Commonly Associated with PBR



Source: Smart Electric Power Alliance, 2020.

## The Evolution of PBR in Minnesota

The aim of this paper is to help regulators understand the variety of objectives that can be achieved with PBR. As previously mentioned, no “one-size-fits-all” approach exists. PBR definitions and regulatory objectives have varied considerably across different states. For the purposes of this series, we define PBR as the application of one or more forms of Alternative Regulation designed to incentivize utilities to achieve certain performance objectives (“outcomes”). These objectives may fall within the scope of

<sup>8</sup> Ibid.

traditional COSR (such as cost control) or fall outside of COSR, such as meeting expanded public policy goals.

PBR is distinguished by two primary characteristics: its framework for integration within a broader regulatory regime (e.g., COSR); and the level of emphasis on financial returns for utilities from meeting targeted outcomes versus returns determined by the level of utility capital investment (“inputs”) under traditional COSR regulation.<sup>9</sup> The financial impact of PBR can vary from a limited dollar amount tied to a particular objective to the majority of utility earnings.

Our review of PBR examines the Minnesota experience, a ten-year conversation on PBR and related regulatory reforms. Minnesota was chosen because its stakeholder-driven, proactive, and measured approach provides valuable insights and lessons learned for implementation and offers other regulators and stakeholders a potential roadmap for PBR in their own states.<sup>10</sup>

The Minnesota example also demonstrates that COSR and PBR are not incompatible, nor substitutes for one another. In fact, many PBR solutions can be adopted within a COSR framework. The Minnesota case—a jurisdiction characterized by a traditional vertically-integrated industry structure and COSR—illustrates that a conversation about PBR does not require regulators and stakeholders to abandon existing ratemaking practice. PBR can take a variety of shapes and forms under different regulatory frameworks.

## PBR in Action: Drivers & Applications

PBR mechanisms are rarely implemented in isolation. Most instances of PBR reflect unique state- or utility-specific combinations of mechanisms to address multiple regulatory, business, and policy objectives. No universal set of standards, guidelines, or frameworks exists for PBR implementation. Its applications range from narrow targeted purposes, such as performance incentives to reward utilities for meeting energy efficiency savings targets by returning a set percentage of the program costs to them to more holistic integrated approaches, such as the RIIO (“Revenue = Incentives + Innovation + Outputs”) model in use for utilities in the United Kingdom.<sup>11</sup>

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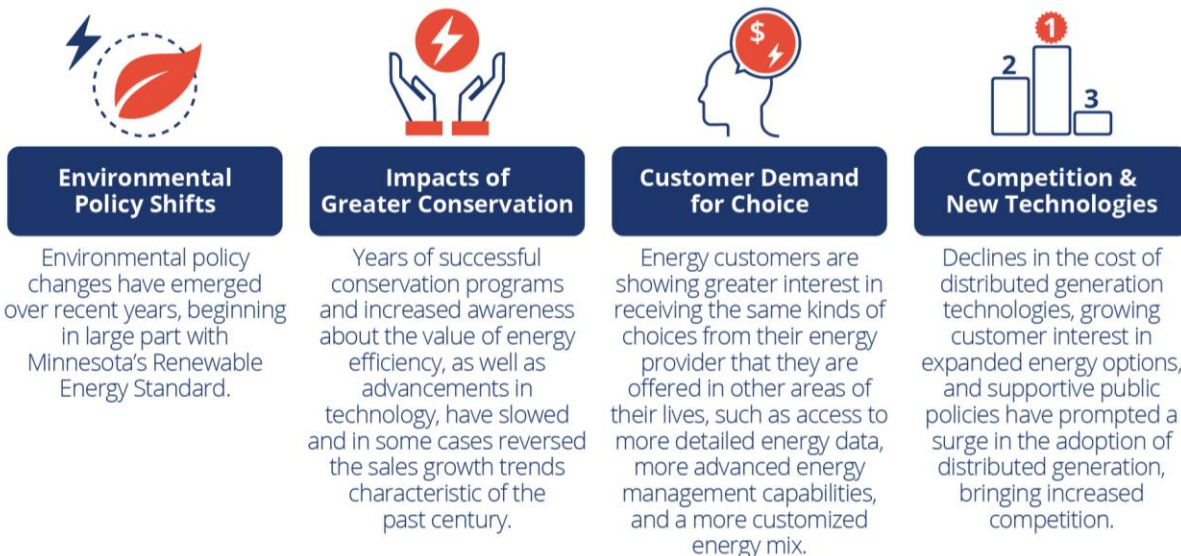
<sup>9</sup> These two characteristics are discussed in further detail in Part 3 of this series.

<sup>10</sup> The myriad of ways PBR has been implemented and structured across different states and jurisdictions to achieve a variety of regulatory outcomes creates difficulties when trying to define and compare the different potential use cases for PBR. An attempt to survey and classify all of the different types of applied PBR currently in practice is beyond the scope of this series.

<sup>11</sup> The RIIO model is considered one of the most comprehensive and integrated PBR regulatory models implemented in the industry to date. It combines a number of regulatory principles and mechanisms under one structure to address many of the objectives typically associated with PBR, such as: aligning utility incentives with new policy goals; shifting the emphasis in regulation from returns on investment to rewards for performance; adapting revenue regulation structure with the evolving utility business model; encouraging efficiency; fostering innovation, reducing regulatory lag and ensuring utility financial stability.

The diversity of scope, objectives, and structure of PBR reflect many of the transformative industry changes and trends over the past ten-plus years. Examples include: the emergence of distributed energy resources (DER), transportation electrification, and a societal shift to prioritize carbon reduction. In 2014, Xcel Energy, the largest investor-owned electric utility in Minnesota, sent a letter (2014 Xcel Letter) to the Minnesota Public Utilities Commission recommending a roadmap for the adoption of the recommendations of the e21 Initiative, a stakeholder collaborative formed to develop a 21st century energy system.<sup>12</sup> It listed four key macro-level trends as major factors driving the need for regulatory reform, including PBR.<sup>13</sup> They included: environmental policy shifts, impacts of greater conservation, customer demand for choice, and the impacts of new technologies and competition. These trends are described further in Figure 2.

Figure 2: Four Industry Trends Identified by e21 Stakeholders as Driving the Need for Reform.



Source: Adapted from Xcel Energy's "Request for Planning Meeting and Dialogue Roadmap for Supporting the e21 Initiative" filed with the Minnesota Public Utilities Commission, with edits by the Smart Electric Power Alliance, 2020.

<sup>12</sup> The e21 Initiative is a collaborative of over 30 stakeholders formed to "develop a more customer-centric and sustainable framework for utility regulation in Minnesota that better aligns how utilities earn revenue with public policy goals, new customer expectations, and the changing technology landscape." We discuss the e21 Initiative in detail throughout this three-part series. For more information, see <https://e21initiative.org/>.

<sup>13</sup> Request for Planning Meeting and Dialogue Roadmap for Supporting the e21 Initiative, filed by Xcel Energy with the Minnesota Public Utilities Commission. December 22, 2014, at 3-4.

The impacts of these factors are not limited to Minnesota. Many other states are recognizing the importance and potential consequences of these changes, prompting a number of exploratory initiatives on PBR across the country.<sup>14</sup>

State-level dynamics, such as market structures, policies, politics, statutes and regulations, are also critical in shaping the influence of these industry-wide trends on a particular jurisdiction, as well as serving as drivers for PBR reforms. For example, New York's Reforming the Energy Vision (REV) process is taking place in a restructured electricity market in the context of transitioning the six investor-owned electric distribution utilities away from the existing distribution service provider model to a new "Distribution System Platform Provider" role.<sup>15</sup> There, the PBR conversation has been part of a broader regulatory reform discussion that is predicated on a significant shift away from traditional COSR to a new utility business model and regulatory paradigm. In contrast, the general approach taken by stakeholders in Minnesota, which has a traditional vertically integrated energy market, has been characterized by exploring PBR and other regulatory reforms within its existing regulatory and market structure. The different contexts in these two states are shaping their discourse on PBR in terms of the desired objectives for PBR, its relationship to the existing regulatory paradigm, and the degree of reform being considered.

Specific regulatory challenges under traditional COSR have driven the exploration of alternative regulatory approaches, including PBR. Electricity costs and the need to manage costs to customers in the face of a changing energy portfolio, as well as more advanced and diversified technology solutions, are a primary focus for regulators and stakeholders<sup>16</sup> and pressing drivers for the consideration of regulatory reform generally. Figure 3 summarizes many of the various objectives historically associated with PBR in response to the challenges traditional COSR faces in addressing the emerging trends highlighted above.

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<sup>14</sup> For example, see Docket No. FC1156, Public Service Commission of the District of Columbia and Docket No. 2018-0088 of the Hawaii Public Utilities Commission.

<sup>15</sup> "The reformed electric system will be driven by consumers and non-utility providers, and it will be enabled by utilities acting as Distributed System Platform (DSP) providers." See Order Adopting Regulatory Policy Framework and Implementation Plan, February 26, 2015, New York Public Service Commission, Case 14-M-0101, at 12.

<sup>16</sup> Phase II Report: On implementing a framework for a 21st century electric system in Minnesota. e21 Initiative. 2016, at 6.



Figure 3: Regulatory Objectives Commonly Associated with PBR

Objectives Associated with PBR	
<ul style="list-style-type: none"> <li>■ Revenue regulation—eliminating utility “throughput incentive”</li> <li>■ Incentivizing economic efficiency</li> <li>■ Targeted outcomes / performance</li> <li>■ Cost control</li> <li>■ Service quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>■ Risk reduction / investment</li> <li>■ Reduce administrative burden of COSR</li> <li>■ Align utility incentives with policy goals</li> <li>■ Balance risk and profit-sharing between utility and customers</li> </ul>

Source: Smart Electric Power Alliance, 2020.

One of the primary shortcomings of COSR and another commonly cited driver for PBR is the inherent bias of utilities for capital expenditures under the traditional COSR framework. The strong financial incentives for utilities under COSR to earn greater returns through the timely recovery and growth of their rate base can hinder efforts to address new policy and technology trends.<sup>17</sup> The proliferation of customer-owned DERs, for example, illustrates how misaligned utility incentives can prevent their use to achieve grid benefits, efficiencies, and environmental targets and policies.<sup>18</sup>

Concern that the existing regulatory regime was becoming increasingly incompatible with recent state policy goals and emerging industry trends was one of the starting points of agreement for the participants in the e21 Initiative.<sup>19</sup> In the 2014 Xcel Letter, the company noted that the ratemaking process lacked efficiencies and predictability; utility incentives were not aligned with emerging policies and outcomes sought by stakeholders; and existing cost recovery measures were not addressing the lag between utility investments and the recovery of costs in rates.<sup>20</sup> The need for reform identified by stakeholders, however, went beyond realigning utility incentives. Developing new approaches for dealing with an increased administrative burden on the commission, staff and stakeholders, as well as concerns about the potential for rising electricity prices in the face of the identified emerging industry trends also drove the conversation.

<sup>17</sup> Lowry, Mark Newton, and Tim Woolf. Performance-Based Regulation in a High Distributed Energy Resources Future. Ed. Schwartz, Lisa C. Vol. FEUR Report No. 3. 2016. LBNL-1004130, at 6, 13-14. [https://emp.lbl.gov/sites/all/files/lbnl-1004130\\_0.pdf](https://emp.lbl.gov/sites/all/files/lbnl-1004130_0.pdf)

<sup>18</sup> Ibid.

<sup>19</sup> Similar to the driver for Oregon’s legislatively mandated stakeholder process (See, [SEPA. Benefits of a Comprehensive Public Stakeholder Process: the Oregon Senate Bill 978 Experience. 2019](#)).

<sup>20</sup> Request for Planning Meeting and Dialogue Roadmap for Supporting the E21 Initiative, filed by Xcel Energy with the Minnesota Public Utilities Commission. December 22, 2014, at 9-11.

In Minnesota, this led to stakeholder and regulatory discussions on the merits of expanding the traditional COSR model to incorporate new PBR mechanisms—the first of which would be an MRP.

### ***Renovate Insights: When is the Right Time to Evaluate Regulatory Reform Options?***

A standout feature of the PBR journey in Minnesota was the recognition by stakeholders of the importance of taking a proactive approach to the reform conversation. States such as Hawaii and California are pursuing regulatory reform options such as PBR due to an urgent need to find solutions for the challenges of high retail prices, integration of increasing amounts of variable renewable generation, and high penetration of DERs. In other cases, the shortcomings of utility performance within the traditional ratemaking framework may serve as a driver for regulatory reform.

However, neither of these situations drove the PBR discussion in Minnesota. The view of some stakeholders was that adding PBR to the regulatory framework could improve already good utility performance. Former Xcel Energy executive Mike Bull, now the Policy Director for the Center for Energy and the Environment (CEE) and a co-founder of e21, recognized Xcel's performance in the face of emerging industry challenges: "Xcel is keeping rates down and working toward 85% emissions-free generation by 2030, so what problem does performance-based regulation solve for? The answer may not be a new business model but enhancements to the existing one."<sup>21</sup> This sentiment was shared by Rolf Nordstrom, CEO of the nonprofit Great Plains Institute and a co-director of e21, who remarked that Xcel is "working hard to stay a step ahead" on public policy objectives.

Nordstrom added that reforming the existing regulatory model is not to be taken lightly, given the wide-reaching and significant ramifications of changing the model fundamentals, stating that in Minnesota "nobody wants to change the system just to change it...We want to be discerning and surgical about using PBR because we would rather do it well than fast."<sup>22</sup> But he had earlier emphasized that Minnesota should not wait: "The forces that are at work—changes in technology, changes in consumer expectations, changes in policy, new regulations. It feels to us that those forces are inexorable, and the tectonic plates in the energy space are shifting permanently. Whether they know it or not, it feels to us like every state in the union and every utility is going to need to grapple with these same forces at one time or another. We've just drawn the conclusion that it's better to do it now than when there's not a real urgency to it."<sup>23</sup>

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<sup>21</sup> Trabish, Herman K. Performance-based regulation: How Minnesota is inching toward a new oversight model. Utility Dive. April 24, 2018. <https://www.utilitydive.com/news/is-the-perverse-incentive-beyond-the-reach-of-performance-based-regulation/521891/>

<sup>22</sup> Ibid.

<sup>23</sup> Tomich, Jeffrey. Initiative aims to reinvent utility industry the Minnesota way. E&E News. November 25, 2015. <https://www.eenews.net/stories/1060028560>

## Minnesota: A Proactive and Deliberate Approach

Minnesota's experience with PBR is both insightful and relatable to many other states for a few important reasons. In contrast to other leading states such as New York, California, and Hawaii, the conversation was not primarily driven by currently high retail prices or high penetration of renewables and DER, but rather by anticipating the need for change before it became urgent. Minnesota's deliberate, conservative, and stakeholder-driven approach demonstrates the value of anticipating change and building on the existing industry structure and regulatory regime.

Also, unlike other leading states considering PBR, investor-owned utilities in Minnesota operate under a traditional vertically integrated, fully regulated model. Rolf Nordstrom, CEO of the nonprofit Great Plains Institute and a co-director of e21, emphasized the priority of attempting to reform and work within the existing regulatory and industry structure to the extent possible: "We felt the answer was not deregulation, but rather to approximate some of the nimbleness and entrepreneur spirit deregulation seems like it would deliver, but do it within a vertically integrated, fully regulated system."<sup>24</sup>

Many of Minnesota's energy stakeholders shared the view that they should be deliberate in their approach to reform by moving forward carefully, supported by data and experimentation before full implementation. Rather than starting the conversation with the assumption that "a massive, one-time rewrite of utility law" would be needed, stakeholders instead recommended that Minnesota "implement changes gradually, realizing that technology, consumer expectations and energy policy will continue to evolve."<sup>25</sup>

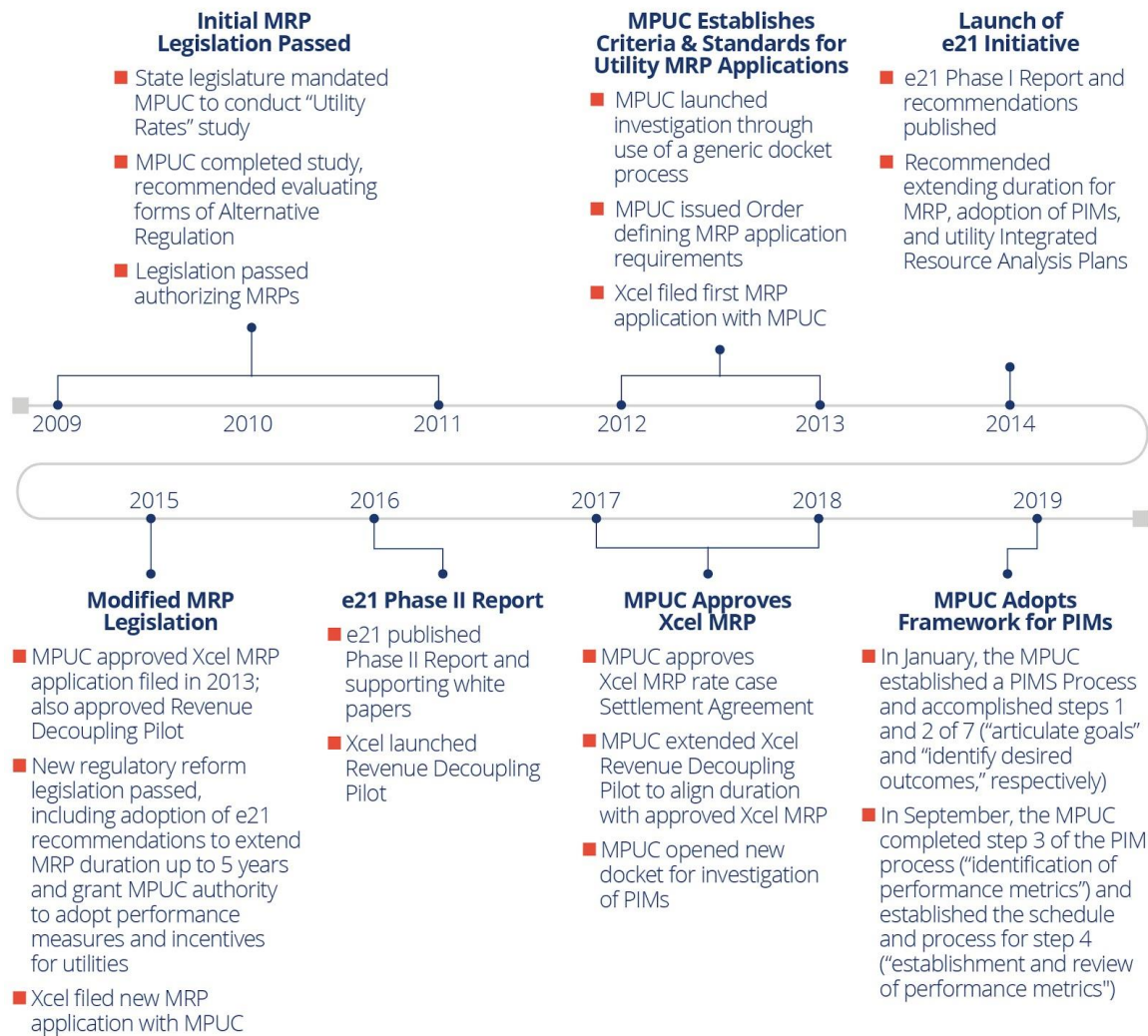
Finally, the Minnesota experience with PBR is also noteworthy because of its comprehensiveness. The timeline in Figure 5 illustrates the long-term perspective and broad span of the Minnesota process, ranging from an initial study of forms of Alternative Regulation to a regulatory investigation on PIMs and stakeholder discussions around what the transition to a new regulatory model featuring PBR should look like. Many of the regulatory mechanisms associated with contemporary PBR—such as MRPs and PIMs—have been central features of Minnesota's PBR journey.

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<sup>24</sup> Jossi, Frank. Clean energy groups leading on utility changes envisioned in Minnesota's e21 Initiative. Energy News Network. May 8, 2017. <https://energynews.us/2017/05/08/midwest/clean-energy-groups-leading-on-utility-changes-envisioned-in-minnesotas-e21-initiative/>

<sup>25</sup> Tomich, Jeffrey. Initiative aims to reinvent utility industry the Minnesota way. E&E News. November 25, 2015. <https://www.eenews.net/stories/1060028560>

Figure 5: Timeline of Alternative Regulation and PBR Developments in Minnesota: 2009-2019



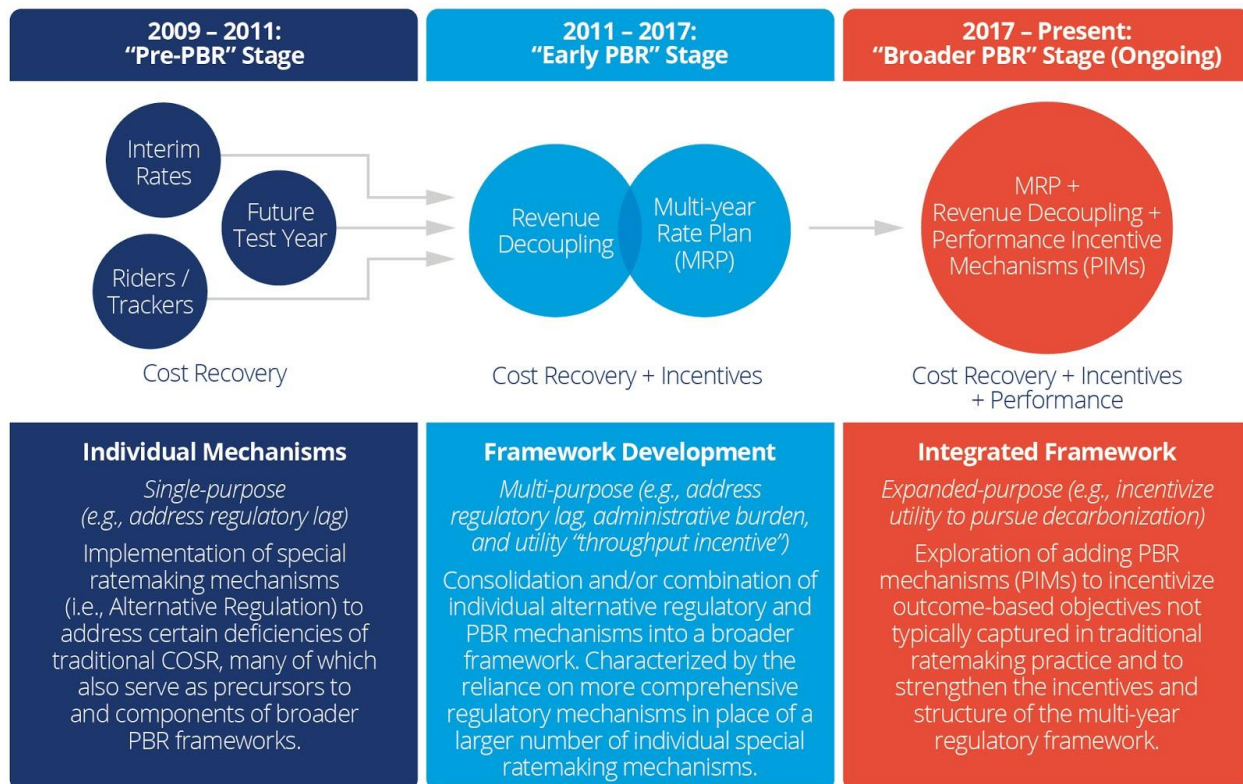
Source: Smart Electric Power Alliance, 2020.



## Minnesota: A “Three-Stage” Path to PBR

The evolution of PBR in Minnesota over the last decade can be categorized at a high-level as transitions between three different stages, as depicted in Figure 6.

Figure 6: Minnesota’s “Three-Stage” Path to PBR



Source: Smart Electric Power Alliance, 2020.

The starting point was the use of a wide array of single-purpose regulatory mechanisms to accomplish specific regulatory goals, primarily around issues of cost recovery (“Pre-PBR”). The first transition was a step towards a more comprehensive regulatory approach in the form of an MRP and revenue decoupling mechanism for addressing cost control, regulatory lag and administrative burdens, as well as an existing utility disincentive for energy efficiency and adoption of technologies reducing sales (“Early PBR”). The second transition—currently ongoing—is the movement towards a new and integrated framework for not only addressing the aforementioned challenges, but also expanding the ability of the existing regulatory approach and utility incentives to align with the evolving policy goals and trends emerging in the industry (“Broader PBR”).

This “Three-Stage” framing of the Minnesota experience is not intended to be descriptive of every jurisdiction’s engagement with PBR, nor to be prescriptive as to how PBR should be evaluated and

implemented. Rather, throughout this series, we use this framing because it may offer other regulators and stakeholders a potential roadmap—or at least valuable insights—for how to move forward with PBR in their states.

## Conclusion

Part 1 of this *Best Regulatory Practices “Toolkit” Series* describes the context in which many states are currently considering PBR—advancing technology, changing customer expectations and new public policy or societal goals. It distinguishes PBR and its elements, which can be considered individually as well as in combination, and how they can address the challenges posed by changes in the electricity industry.

In Minnesota, the PBR discussion over the last decade highlights the potential for PBR to evolve the utility regulatory framework to provide incentives for efficiency across all utility operations; encourage and measure performance beyond traditional indicators, such as safety and reliability; promote a culture of innovation, competition and healthy risk-taking; and realize new public policy goals like carbon reduction that were not intended outcomes under the COSR framework.

Key takeaways from the Minnesota experience that can be applied in other states include:

- The importance of developing a shared understanding of the objectives that can be achieved with PBR,
- The value of anticipating the “inexorable” industry change that is underway and proactively evolving regulation to take advantage of and keep pace with it,
- The recognition that updating the regulatory framework does not require restructuring the industry (i.e., divesting generation),
- The usefulness of a deliberate, staged approach to change, building on precedent, and
- The benefits of taking a comprehensive perspective.

Part 2 of this series describes the transition in Minnesota between the “Pre-PBR” and “Early PBR” stages, characterized by the consolidation of different regulatory mechanisms into a more cohesive framework to achieve multiple objectives: timely cost recovery, reduced regulatory lag, and incentives for performance. Each provides support for innovation, new technology investment and operating practices.

Part 3 of this series addresses Performance Incentive Mechanisms (PIMs) as a key component of PBR, a regulatory framework that compensates utilities for achieving outcomes that deliver service that meets customer expectations and policy objectives.

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