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Pathways to Changing the PUC Mandate:

A Regulatory Review

Prepared by E9 Insight on behalf of
Institute for Market Transformation

LIST OF ATTACHMENTS

- Memo of Research Results
    - *Review of research methods, trends, etc.*
- Appendix A: Example Avenues to Change the PUC Mandate
    - *Review of pathways available with example activities*
- Appendix B: Comparative State Analysis.
    - *50-state chart reviewing level of activity, agency alignment, and anticipated impact of decarbonization and equity values at the PUC.*
- Appendix C: Activity Report.
    - *A review of 147 activities related to decarbonization and equity at or influencing the PUC.*

GLOSSARY

Commission – Shorthand for Public Utility Commission
DSM – Demand Side Management, often referred as energy efficiency
EO – Executive Order, issued by a state Governor
GHG – Greenhouse gas
IRP – Integrated Resource Plan, used by utilities to forecast energy needs
PUC – Public Utility Commission, regulators of electric and natural gas utilities
RPS – Renewable Portfolio Standard, a statewide plan for renewable energy procurement
Weatherization – Energy efficiency upgrades to mitigate energy loss in extreme weather

Introduction

Each state in the United States approaches utility regulation with a unique political, statutory, and cultural context. The traditional role of the state Public Utility Commission (PUC, or commission) was to serve as a legal and economic entity which evaluates investor-owned utility plans against metrics of affordability, reliability, and safety. This narrow scope has evolved over the last century as legislation, executive orders, and the PUCs themselves have taken action to modify PUC responsibilities.

Changes to the PUC mandate are influential because PUCs rely on statute and codified rules to make decision, and those decisions are subject to lawsuits. Participants in PUC dockets also rely on the PUC's directives to argue for new directives and precedence to drive change. In some cases, the voices of stakeholders in a docket contribute to the significant sway in PUC decisions. In other cases, the PUC will reference stakeholder opinion but ultimately revert back to its narrow, statutory responsibilities. Often, this supports traditional utility investments which do not support broader societal goals.

Precedent exists to expand the PUC's mandate to reflect carbon reduction goals and equity issues. Examination of the pathways to changing these mandate reveals a variety of programmatic impacts and growing influence.

Project Purpose

This report reviews a variety of "pathways" to changing PUC mandates to reflect decarbonization and equity values. "Pathways" are defined as the intersection of both the authority which can create the change (Legislation, Executive, or Commission) and the specific mechanisms targeted (i.e. electric vehicles, clean energy development). A broad review of PUC orders, proposed utility programs, legislation, and executive orders demonstrates trends and leading examples. This report also describes some of the legal and regulatory factors present in each state in order to provide background for potential action.

By design, this project is not comprehensive. Its primary purpose is to illustrate the "pathways" of historical changes and the impacts caused. Additional programs, legislation, stakeholder comments, and initiatives exist and may warrant further examination.

A note on scope and low-income issues

As discussed further in the methodology section, this project does not review traditional "low income" or "moderate income" programs and carve-outs. This design was chosen because the sheer volume of low-income carve-outs in energy assistance, weatherization, bill discount, community energy, distributed energy, and other utility programs would overshadow the more innovative "equity" programs reviewed in this study. Furthermore, the historical design of low-income carve-outs may not reflect the evolving definition of equitable programming, which looks beyond income to examine other dimensions including location to fossil fuel plants, race, unemployment rates, educational attainment, linguistic isolation, percent of income spent on housing, and other factors. While poverty rates and ability to pay electric bills must be considered in a conversation about equity, this report goes beyond this definition to explore other "vanguard" programs. A separate study which integrates or cross-examines low-income issues may be warranted to reflect the history of low-income issues and newer, broader approaches.

Methodology

- *Definitions*

  To identify consistent, relevant activities related to decarbonization and equity, E9 Insight reviewed its internal docket database (>6,100 PUC dockets), legislation, executive orders, and other major utility proceedings across the United States for the following keywords:

  Equity: Equitable, environmental justice, disadvantaged communities, energy burden.
  Decarbonization: Clean energy, decarbonization, net zero, emissions reductions.

  Activities within the last five years were prioritized, and defunct laws (i.e. RPS that was later replaced) were excluded. Activities were assigned a variety of values to reveal the "pathway" to changing a PUC mandate. As noted in earlier sections, a "pathway" was defined by two primary dimensions:

- *Authority: What political power instituted the change?*

  Executive: Formal orders from state governors
  Legislation: Bills passed by state legislators
  Commission: Orders or rules from PUCs

- *Mechanism: What programs, topics, or influence did the change impact?*

  The following categories were found in both equity *and* decarbonization pathways:

  Broad: Broad goals for emissions reductions, equity considerations, investment
  Clean Energy: Utility-scale renewable energy procurement design
  Community Energy: Community solar or other community programs
  DERs: Distributed energy resource programs
  Distribution: Distribution grid design or grid-related programs
  DSM: Demand-side management (energy efficiency)
  EVs: Electric vehicle programs and transportation electrification portfolios
  GHG Costs: Consideration of social cost of greenhouse gas or other carbon pricing
  IRP: Changes to integrated resource planning procedures or portfolio analyses
  Rates: Rate design which considers or offers rewards, discounts for decarbonization/equity
  RPS: Changes to renewable portfolio standards and statewide renewable targets

  This report also identified several mechanisms which only reflected decarbonization goals:

  Fuel Switching: Natural gas to electric conversions or retirements

  Other mechanisms were exclusive to equity goals:

  Energy assistance: Bill assistance or other programs that go beyond low-income definitions
  Engagement: Increasing accessibility and public participation in proceedings
  PUC Internal: PUC commitments or administrative initiatives to examine equity
  Workforce: Special programs or carve-outs for workers or hiring practices to target disadvantaged communities

  In addition to these dimensions, ***Stakeholder engagement*** can shape the outcome of a pathway to change, and was reflected in the activity scan. While stakeholder engagement can be present in any of processes (i.e. lobbying), stakeholder engagement is often publicly documented at the PUCs.

- *Activity Type*

  This report primarily seeks to identify the pathways to changing the PUC mandate, but other influential activities emerged in the research. The following categories were applied[1]:

  Pathway: An activity which changed the PUC's mandate or influenced statewide program design which the PUC regulates (i.e. conclusion of a rulemaking, statewide GHG targets, etc.)
  PUC Initiative: Orders, investigations, and other activities which influence commission precedent but do not change formal requirements. PUC initiatives may lead to "pathways" if rules or program designs are formally changed.
  Related Directive: A directive to the PUC or a related agency which did not change the PUC mandate (i.e. investigation without studies, reports, etc.)
  Utility Impact: Utility programs or state-run utility programs filed or approved

- *Statewide Comparative Analysis*

  In order to contextualize state activities against one another, the following analysis was applied:

Metric	Description	Low	Medium	High
Level of activity	How many mechanisms (IRP, rate case, etc.) are decarb/equity applied to?	0	1-4	5+
Other agency alignment	Are other state agencies responsible for decarb/equity goals?	No agencies identified	One other agency given authority	Multiple agencies
Anticipated Impact	From a qualitative perspective, how impactful are the requirements?	Little or no impact	Targeted impacts (i.e. community energy)	Broad impact

This analysis also included a review of the decarbonization and equity requirements and the "Status" of those goals: Codified (in statute, required by law), Consideration (recommendation or directive without penalty), Pending (under development), or None (no authority to reflect said goal). The results of this analysis are included in a full, 50-state review in Appendix B, Comparative State Analysis, and state-specific review is included alongside the full list of activities in Appendix C, Activity Report.

Results

A total of 147 activities were identified in the research, and 79 were categorized as "pathways":

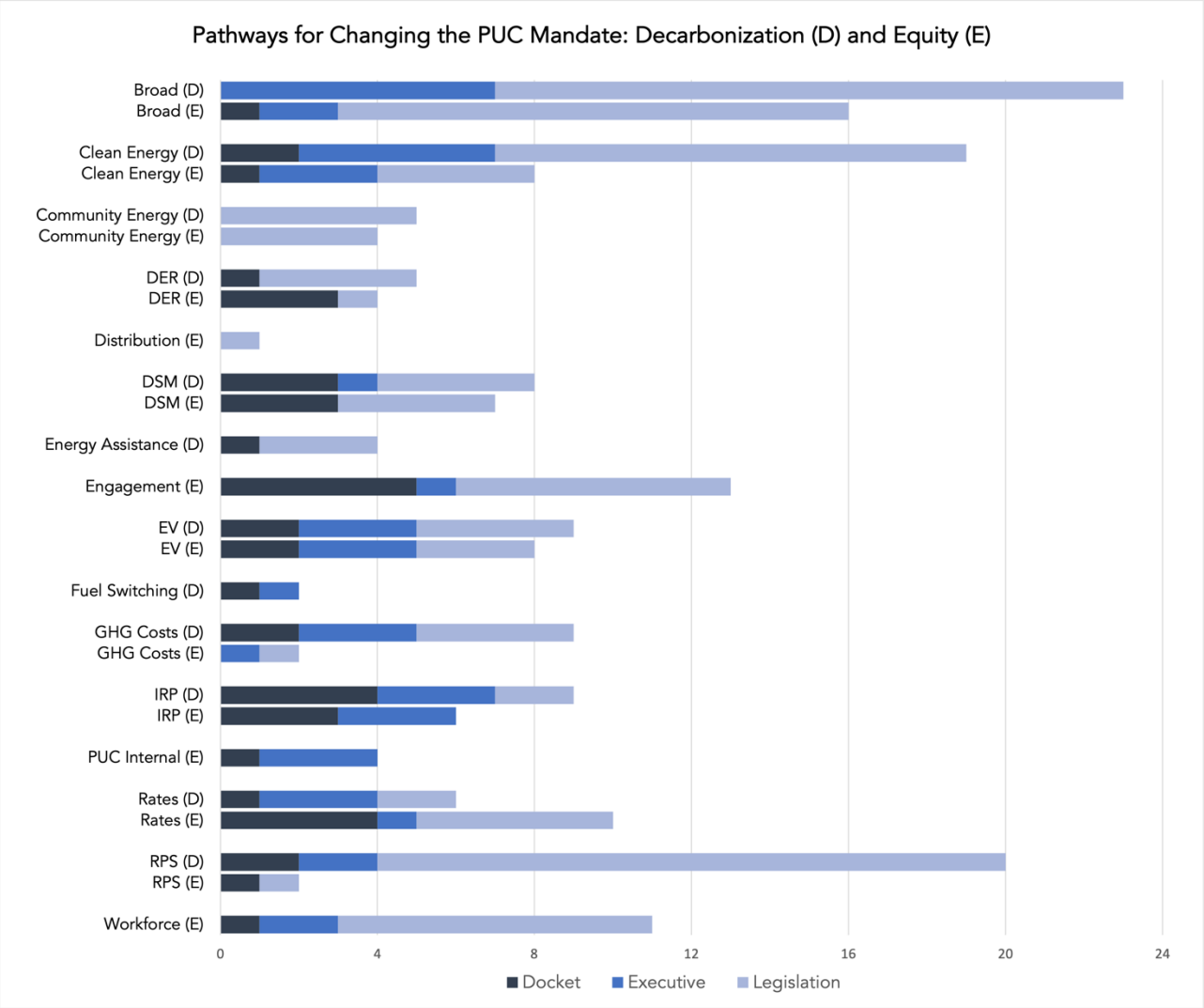
	Authority			
Activity Type	Docket	Executive	Legislation	Total
Pathway	24	16	39	79
PUC Initiative	23			23
Related Directive		3	6	9
Utility Impact	36			36
Total	**83**	**19**	**45**	**147**

[1] Notably, PUC decisions may fall in any of these categories, depending on the final impact of the order. For example, a decision which impacts one utility DER program would be considered a "Utility Impact" while a general investigation into DER programming is a "PUC Initiative," and a decision at the end of an investigation that changes the rules for statewide DER programming is a "Pathway."

Activities were tagged by multiple "mechanisms" if more than one program or focus was referenced. This led to a higher number of "mechanisms" than activities because most activities addressed more than one topic. A total of 331 mechanisms were identified.

All Mechanisms	Authority			
	Docket	Executive	Legislation	Total
Decarbonization	**51**	**36**	**76**	**163**
Broad	1	8	18	27
Clean Energy	6	7	13	26
Community Energy	1		5	6
DER	2		4	6
Distribution	2		1	3
DSM	8	1	4	13
EV	9	3	4	16
Fuel Switching	3	1		4
GHG Costs	3	3	4	10
IRP	8	3	2	13
Rates	6	3	3	12
RPS	2	7	18	27
Equity	**88**	**21**	**59**	**168**
Broad	1	2	15	18
Clean Energy	4	4	4	12
Community Energy	3		3	6
DER	9		1	10
Distribution	1		1	2
DSM	9		4	13
Energy Assistance	3		3	6
Engagement	10	1	8	19
EV	15	3	3	21
GHG Costs		1	1	2
IRP	6	3		9
PUC Internal	3	3		6
Rates	12	2	5	19
RPS	1		2	3
Workforce	11	2	9	22
Total	**139**	**57**	**135**	**331**

After tagging activities, "pathways" were examined according to mechanism and authority.



	Authority			
Pathway Mechanism	Docket	Executive	Legislation	Total
Decarbonization	**18**	**30**	**68**	**116**
Broad		7	16	**23**
Clean Energy	2	5	12	**19**
Community Energy			4	**4**
DER	1		4	**5**
DSM	3	1	4	**8**
EV	2	3	4	**9**
Fuel Switching	1	1		**2**
GHG Costs	2	3	4	**9**
IRP	4	3	2	**9**
Rates	1	3	2	**6**
RPS	2	4	16	**22**

Equity	**26**	**19**	**54**	**99**
Broad	1	2	13	**16**
Clean Energy	1	3	4	**8**
Community Energy			3	**3**
DER	3		1	**4**
Distribution			1	**1**
DSM	3		4	**7**
Energy Assistance	1		3	**4**
Engagement	5	1	7	**13**
EV	2	3	3	**8**
GHG Costs		1	1	**2**
IRP	3	3		**6**
PUC Internal	1	3		**4**
Rates	4	1	5	**10**
RPS	1		1	**2**
Workforce	1	2	8	**11**
Total	**44**	**49**	**122**	**215**

Analysis and Recommendations

A review of decarbonization and equity activities revealed that while significant activity is occurring at the PUC (84 activities and many more beyond this survey), few actions at the PUC can be considered a pathway to changing PUC requirements. Of the 24 pathway activities at the PUC, 12 activities were at the California PUC, which holds greater autonomy than most PUCs. Many of the PUC pathway activities were initiated in response to legislation, as commissioners sought to draft new rules to reflect new statute. The Oregon PUC discussed its relationship to the legislature in a 2018 report, stating, "The PUC cannot require utilities to accomplish societal objectives that are outside the scope of utility regulation and that impose costs that the Legislature has not required... The PUC must implement these specific policies against the backdrop of its general legislative mandate, which does not expressly include reducing greenhouse gas emissions."[2] The identified inconsistency was later addressed by legislation which authorized the PUC to make decisions to reflect new GHG emissions reduction goals. This scenario illustrates the dependency of the PUC's actions on its legislative authority, which can only be changed through the legislative process.

Due to the limited authority of the PUC and Governor to change codified mandates and rules, legislation emerged in this analysis as the most effective avenue for PUC mandate changes, and the most common pathway (39 of 79 activities). While executive leadership can create broad directives, strategic plans, new offices, and budgets to implement a Governor's societal goals, in most states the Governor nor PUC can change the statutory requirements against which utility plans are evaluated. Executive Orders still influence the PUC's operations, but are not legally enforceable at the PUC without implementation at the legislature. Only a few state PUCs, i.e. in New York and California, possess special powers to design statewide programs and create their own strategic goals. The distinctions between authority directives and requirements can be reviewed in Appendix A, Avenues to Change the

[2] Oregon Public Utility Commission. SB 978: Actively Adapting to the Changing Electricity Sector." September 2018. https://e9radar.link/yj23

PUC Mandate, and the "status" of each state's directive (i.e. codified emissions reductions vs. consideration for equitable outcomes) can be reviewed in Appendix B, Comparative State Analysis.

Some PUCs have looked beyond statute to make revisions to other procedures and internal processes, including proceeding engagement and accessibility and staff diversity. These activities, marked "engagement" and "PUC internal" in the research, highlight an emerging trend to address equity issues at the PUC as an organization. Internal initiatives may be led by a "champion" staff member at the PUC, which in some cases is a paid and recruited position (i.e. Oregon's Diversity, Equity, and Inclusion Program Director). As PUCs integrate additional, diverse voices into both internal and procedural affairs, the potential for additional equitable outcomes becomes more likely.

Other emerging mechanisms were revealed in the research, including "workforce" transition and diverse vendor hiring practices. Some pathways advocated for "fuel switching" from natural gas to electric in order to support decarbonization goals. These mechanisms differ from more traditional mechanisms like community energy and DSM carve-outs, which have been used in utility programming for decades. "Broad" goals to reduce emissions and evaluate equitable impacts were the most common pathways combined, representing growing interest in systemic or sector-wide transformation. Broad directives are impactful because they may be reflected in a variety of programs, but the implementation of the directive depends on PUC leadership and culture. RPS targets to support decarbonization also emerged as a popular pathway, often as an alternative to or more specific method than "broad" emissions reductions targets. Legislation which blends broad directives with specific mechanisms, such as New York's Climate and Community Protection Act and Washington's Clean Energy Transition Act, may represent the most impactful pathway to change both the PUC's mandate and a variety of utility programs. Directives for clean energy development, broad emissions reductions, equitable workforce recruitment, new IRP procedures, and the integration of GHG costs were often proposed together, blending related topics and methods to achieve societal goals. Critics of comprehensive legislation often argue that specific deadlines and budget are necessary to achieve desired outcomes.

While this report highlights trends, example pathways and impacts, and a broad view of activities at the commission, it does not claim to reflect a holistic view of the regulatory, legal, or executive context of any state. Furthermore, state-level analyses do not reflect other metrics of equity and decarbonization in each state, such as energy burden, availability of low-income programs, bill discounts, state-run programs, air quality, location of generation facilities, and other factors. Additional research may apply the examples revealed in this report to specific states and issues.

Conclusion

Despite the narrow, historical approach to utility regulation still employed by many PUCs across the U.S., abundant examples of expanded mandates to reflect decarbonization and equity exist. The impact of these changes continues to drive billions of dollars in programming that reflects broader societal goals and values. The activities reviewed in this report demonstrate a broad variety of pathways to create change and contextualize existing initiatives at the PUCs, though as executive, legislative, and regulatory leadership shifts in each state, the influence of the PUC will also evolve. Emerging language and directives offer a foundation for leaders to use as the regulatory landscape continues to shift.