NARUC
National Association of Regulatory Utility Commissioners

The Role of State Utility Regulators in a Just and Reasonable Energy Transition

Examining Regulatory Approaches to the Economic Impacts of Coal Retirements

Kiera Zitelman and Jasmine McAdams
kzitelman@naruc.org; jmcadams@naruc.org

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Disclaimer

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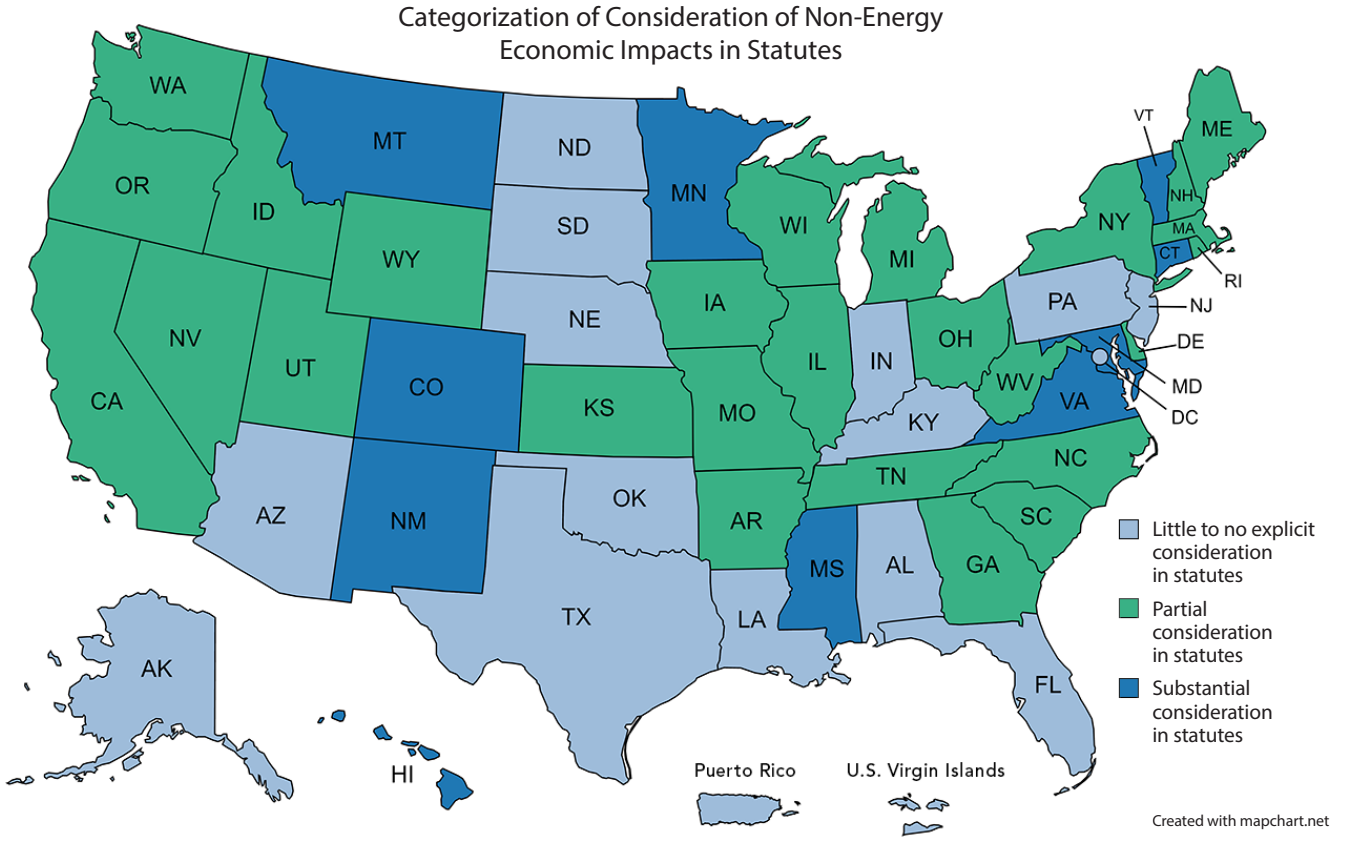
Executive Summary

Among public utility commissions (PUCs) in the United States, territories, and the District of Columbia, there are many approaches to incorporating non-energy economic impacts[1] into public utility regulation. While some level of deference is afforded to the commissioners themselves, regulators' authority is primarily defined by statute and court decisions.

This paper examines limits on PUC authority across the states, highlighting the ability (or lack thereof) of PUCs to consider non-energy economic impacts related to the retirement of coal plants in regulatory decisions. Based on information shared by NARUC members and a review of PUC mission statements and enabling statutes, this paper classifies 53 NARUC member PUCs into broad categories according to the extent to which they can incorporate non-energy economic impacts in proceedings. We find that 14 states, the District of Columbia, Puerto Rico, and Virgin Islands have no explicit consideration of non-energy economic impacts in statutory language. Twenty-six states have some partial level of statutory authority to consider non-energy economic impacts, but consideration is often limited to particular regulatory actions such as renewable generation purchases. And ten states have granted PUCs substantial flexibility to consider economic development, job creation, and other non-energy economic impacts in decision-making more explicitly and broadly.



A set of three case studies of PUC actions during coal plant retirements in Colorado, California, and Minnesota demonstrates how commissioners have interpreted their authority in practice.

- In Colorado, detailed workforce transition planning required under state law, engagement between the host county government in the regulatory process, replacement of retiring coal with renewable and gas generation, and securitization helped build broad support for early retirement.

1 Broader economic impacts refers to the effects of PUC decisions on local, state, and regional economies. Beyond direct impacts on electric rates and bills, PUC decisions relating to energy infrastructure and regulation may affect tax revenue, employment, and other economic indicators.

- In California, interstate and tribal interests led the Public Utilities Commission to authorize the delivery of revenues from sulfur dioxide allowances to tribes impacted by retirement.
- In Minnesota, a host community study with workforce planning and proposed replacement solar and gas generation and industrial activity near the plant site attracted hesitant support from local stakeholders, although ongoing uncertainty about the location of replacement generation could lead to more severe economic impacts to the host community.

Recognizing the defined and limited role of PUCs and the potential of utilities, economic development agencies, the federal government, and other entities to act, the paper summarizes approaches that PUCs, utilities, and other stakeholders have used to mitigate the economic fallout of coal retirements. While a "just transition," defined as the continued ability to fund local services, infrastructure, and institutions with stable and diverse sources, may be a desirable public policy goal across states, the role of state utility regulators is far from uniform and continues to evolve.

The objective of this paper is to summarize current practices and promote the exchange of strategies across states, not to argue for or against the retirement of coal plants or the adoption of a particular approach. While states have diverse energy policy goals, the desire to support communities impacted by the energy transition is broadly shared among political and regulatory decision-makers across state lines. The paper concludes with challenges and areas for further research.

I. Introduction

Public utility commissions (PUCs) are charged with the regulation of utilities providing customers with services such as electricity, natural gas, water, and telecommunications. As quasi-judicial bodies, PUCs exercise legislative powers as they promulgate rules and regulations affecting regulated utilities and judicial powers through conducting hearings and issuing findings and orders based on evidence (Armiger, 2011). Many statutes granting PUCs authority or outlining core PUC missions require the PUC to set rates in a "just and reasonable" manner. The definition of just and reasonable is open to interpretation and has taken shape over decades of public utility regulation. Because PUCs rely on evidence from stakeholders as they exercise quasi-judicial powers, the just and reasonable standard is informed by testimony submitted by regulated utilities, commission staff, consumer advocates, non-governmental organizations, coalitions of (or individual) residential, commercial, and industrial utility customers, and other intervenors.

In recent years, the era of coal retirements has brought conflicts between ratepayers and residents of power plant "host communities" into sharp focus for many PUCs. The siting, operation, and eventual retirement of large generation assets, while affecting large swaths of utility customers in terms of rates, have additional acute impacts on the economic health of the communities directly hosting these facilities. Noting the role of PUCs and prospects for local communities to secure more favorable outcomes through utility regulation, local governments have often tried to participate in proceedings to communicate impacts of retirements, requesting that the PUC exercise its authority to either delay retirement or consider mitigation strategies as a condition of retirement.[2] If public utility commissioners act as a hybrid of experts, trustees, and judges (Beecher, 2008)[3], how have PUCs managed decision-making around coal retirements within the scope of their statutory authority to regulate in the public interest?

Much as various stakeholders may challenge PUCs to incorporate environmental harms, climate change, justice considerations, host community fairness, and other concerns in utility regulation, PUCs are bound by statute and judicial precedent. Without explicit instruction from statute, PUCs are hesitant to wade into murky regulatory waters, both to avoid the potential for litigation to overturn PUC decisions (Filipink, 2009) and to avoid being perceived as overstepping their authority.[4] The majority of PUC statutes instruct the PUC to act as an economic regulator and uphold the public interest.[5] Beyond that common foundation, there is substantial diversity in the authority granted to each PUC by statute, and in how the PUC interprets its authority to act in the public interest.

Broadly, PUCs have authority to set retail electricity rates and approve expenditures that are in the public interest. This duty is commonly found in PUC mission statements and in statutes establishing the role of the commission. Non-energy economic impacts – the effects of PUC decisions on local, state, and regional economic health – are only considered to the extent they cause direct and measurable financial impacts on ratepayers. Unless statute or judicial decisions specifically require or uphold the decision of a PUC to consider other factors, the commission tends to limit its focus on rate impacts to current customers. This principle has been tested, upheld, and specified in numerous state and federal court decisions, summarized by Eric Filipink for the National Regulatory Research Institute (Filipink, 2009) with key decisions listed in the following text boxes. It is important to note that state court decisions generally only provide judicial precedent for that particular state and are not universally applicable to commissions in other states.

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2 Local communities have also argued for the increased retirement of fossil fuel assets as a climate change mitigation strategy. This paper focuses on power plant host communities, not state-level action on climate change more broadly.

3 Beecher cites three roles regulators balance. Experts: technical competency in commission staff to speak the language of the utility. Trustees: representative democracy calls for public officials to apply principled judgment in policymaking. Judges: judicial standards ensure fair proceedings and guard system against partisanship and criticism.

4 Public utility commissioners serve finite terms that last between 3 to 7 years and are accountable either to the governor (in the ~37 states in which commissioners are appointed) or the voters (in the ~11 states in which commissioners are elected).

5 In some states, state constitutions created and granted powers to the PUC, but legislation provides the primary source of PUC authority. Judicial precedent further clarifies the scope of PUC authority.

Court Cases Expanding Commission Authority

In National Association for the Advancement of Colored People v. Federal Power Commission, 425 U.S. 662 (1976), the U.S. Supreme Court held that regulators may promote more expansive policy goals outside of the traditional regulatory sphere, if they do so "within the bounds of established regulatory roles." The particular issue in this case was a petition from the NAACP and other organizations requesting that the FPC (the precursor to the Federal Energy Regulatory Commission) issue a rule requiring equal employment opportunity and non-discriminatory employment practices among FPC-regulated entities. The court held:

> "The FPC is authorized to consider the consequences of discriminatory employment practices on the part of its regulatees only insofar as such consequences are directly related to the FPC's establishment of just and reasonable rates in the public interest… The FPC's asserted duty to advance the public interest, however, does not afford any basis for its prohibiting regulatees from engaging in discriminatory employment practices, as references to the 'public interest' in the Federal Power Act and Natural Gas Act require the FPC to promote the orderly production of plentiful supplies of electric energy and natural gas at just and reasonable rates, and do not constitute a directive to the FPC to seek to eradicate discrimination" (U.S. Supreme Court, 1976, emphasis added).

A similar state-level case can be found in Affiliated Construction Trades Foundation v. West Virginia Public Service Commission, 565 S.E.2d 778 (2002). West Virginia code charges the PSC with "appraising and balancing the interests of current and future utility service customers, the general interests of the state's economy and the interests of the utilities subject to its jurisdiction in its deliberations and decisions" (West Virginia Legislature, n.d., emphasis added). The construction union sued the PSC to force investigation of a power company's approach to financing and building a power plant, arguing that the PSC should have ordered the power company to utilize a funding mechanism beneficial to the state economy and procure a local workforce (Filipink, 2009). The PSC ended its oversight of the plant once it determined that ratepayer funds would not be financing its construction. The court agreed with the union's more expansive view of the commission's authority, finding that the PSC's obligations under statute required additional investigation into the plant's financing and construction practices, if not corrective regulatory actions to align the company's decisions with the general interests of the state's economy (Supreme Court of Appeals of West Virginia, 2002).

In New York, the state Supreme Court heard arguments for and against the PSC's ability to require long-term utility planning, eventually deferring to the PSC's broadened authority to order utilities to file such plans (Filipink, 2009). According to N.Y. Pub. Serv. Law § 5(2), "The commission shall encourage all persons and corporations subject to its jurisdiction to formulate and carry out long-range programs, individually or cooperatively, for the performance of their public service responsibilities with economy, efficiency, and care for the public safety, the preservation of environmental values and the conservation of natural resources" (New York Consolidated Laws, 2021). In Energy Association of New York v. Public Service Commission of New York, 169 Misc.2d 924, the court heard arguments from a coalition of electric utilities that the PSC had no jurisdiction to require utilities to file long-term plans. The court ruled in favor of the PSC, finding that the 1970 statute "was a revolutionary enhancement of the functions of the PSC… transforming the traditional role of the Commission from that of an instrument for a simple case-by-case consideration of rates requested by utilities to one charged with the duty of long-range planning for the public benefit" (New York Supreme Court, 1996).

Court Cases Limiting Commission Authority

State court decisions have also found that PUCs overstepped their authority by approving special rates or charges. In Commonwealth of Kentucky v. Public Service Commission of Kentucky (Court of Appeals of Kentucky, 2008), the Attorney General of Kentucky sued to vacate a PSC order approving special economic development or urban redevelopment discounted rates proposed by the Union Light, Heat, and Power Company. The PSC based its approval on its interpretation of Ky. Rev. Stat. (KRS) § 278.030, a statute allowing utilities to collect fair, just, and reasonable rates for services rendered; establish reasonable rules governing the conduct of its business; and employ suitable and reasonable classifications of its service, patrons, and rates. The Kentucky Court of Appeals reversed a lower court decision in favor of the PSC, holding that the PSC's approval of the special rates was unlawful and based on an erroneous interpretation of KRS 278.030. The Court pointed out that the Kentucky General Assembly did not explicitly include economic development as a permissible consideration for free or reduced rate services; therefore, the PSC's decision exceeded its authority.

In Process Gas Consumers Group v. Pennsylvania Public Utility Commission, 511 A.2d 1315 (1986), Pennsylvania statute authorized the PUC to research future energy needs and establish an energy conservation program. The PUC's interpretation of the statute led it to approve a surcharge on industrial natural gas customers. Revenue raised under the surcharge established three long-term conservation programs. The court found that the PUC had acted beyond its authority in exercising powers afforded to the legislature (i.e., taxation and appropriation), and that the PUC could only encourage conservation through the regulatory process and not through the establishment of new funds or programs (Filipink, 2009).

These and other court decisions have sharpened the scope of authority of state and federal energy regulators and underscored the importance of establishing a link between a policy goal and the commission's authority to promote just and reasonable rates in the public interest. In summarizing the net effect of litigation, Filipink observes:

> "[Courts have] suggested that regulators can promote expansive goals (e.g., anti-discrimination), so long as they do it within the bounds of established regulatory roles… risk of litigation increases when regulators maximize their delegated powers to pursue a delegated expansive goal… through a non-delegated expansive role… Litigation by interest groups may result when a commission adopts a narrow view of its traditional role and leaves some of its regulatory authority unused in relation to an expansive goal (economic development)… The risk of litigation therefore remains when regulators pursue an expansive goal unless they use a traditional role based on traditional criteria… Utilities and consumer groups are watchful of how the commissions carry out these new roles because of the direct and indirect financial burden. The risk of litigation increases when these roles do not align with the legislatively delegated goals."

As states have implemented renewable energy generation goals, legislatures in some states have granted PUCs clearer statutory authority to consider non-energy economic impacts in traditional rate-setting practices and in a range of venues including integrated resource plans, renewable generation procurement, energy infrastructure siting, and energy efficiency programs.

The scope of a PUC's authority and its interpretation of the public interest is particularly impactful on communities that host energy generation facilities. Energy infrastructure can offer both beneficial and detrimental impacts to host communities.

- Benefits include direct and indirect economy activity during construction, local employment for operating and maintaining the plant, and a long-term source of local tax revenue (e.g., supporting public services).
- Drawbacks include the proliferation of pollutants (e.g., sulfur dioxide, nitrogen oxides, particulate matter) impacting the local environment and human health (National Institutes of Health, 2020), creation of a mono-

industrial economy or "monotown," (Raimi, Look, Robertson, and Higdon, 2020) and other inconveniences associated with living next to a power plant, such as negative visual impacts and increased traffic (Public Service Commission of Wisconsin, n.d.).

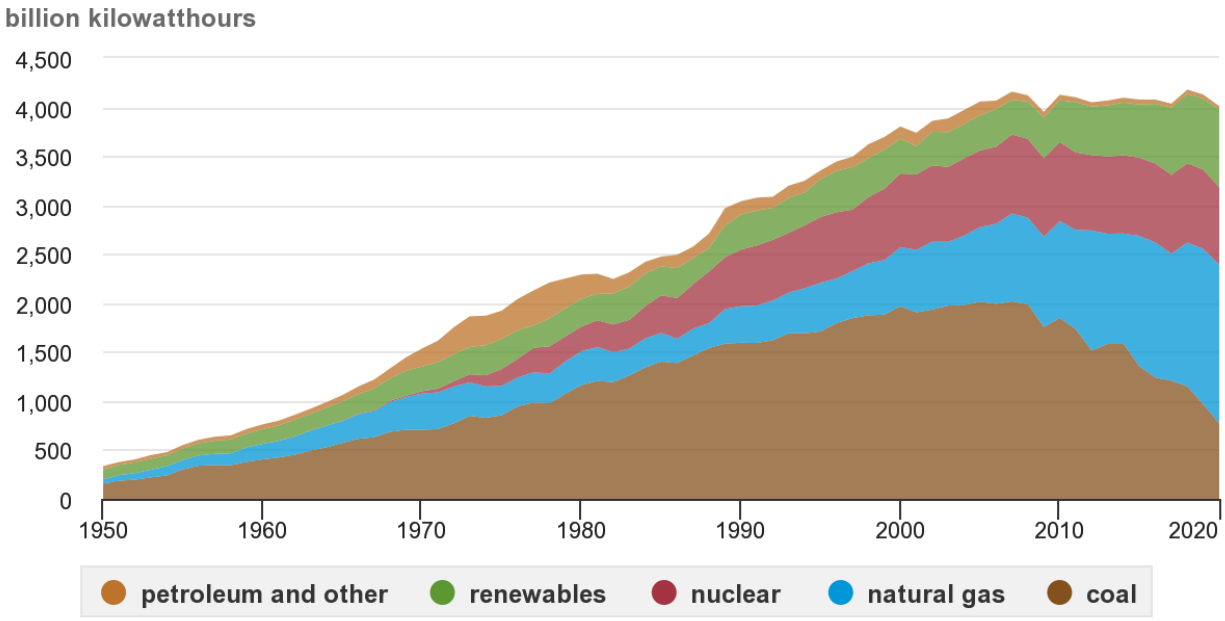
Coal plants exhibit many of these characteristics. Further, the interdependence of coal mining and coal-fired power generation[6] means that plant retirements often result in the loss of large customers for coal mines. This cycle, in turn, drives decreases in production or, if transportation infrastructure exists, increased exports to coal consumers outside of the United States (Argus Media, 2018).

6 According to 2017 EIA data, 154 coal mines sold coal to just one U.S. utility-scale buyer, and another 44 sold to just two. These "mine-mouth" mines are highly dependent on the continued operation of the power plant and lack the transportation infrastructure to respond to a plant retirement.

II. History and Background

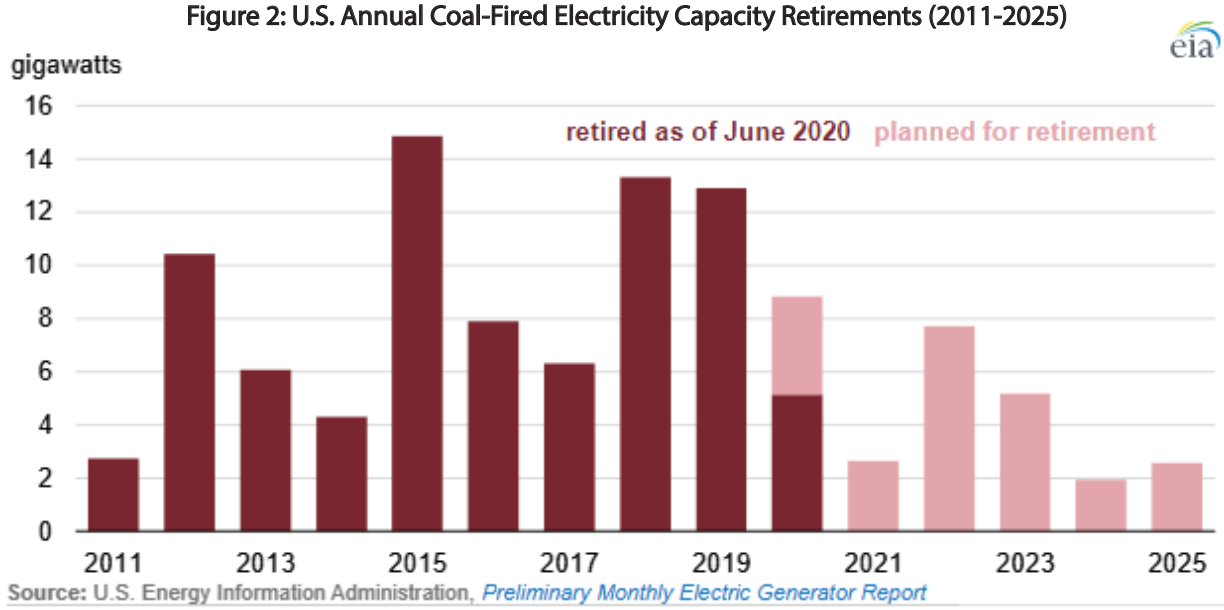
The U.S. is a decade into an era of coal plant retirements, with the trend expected to grow as more states set clean energy targets and the economics of renewable and natural gas power generation sources, as well as energy storage technologies, continue to improve. Coal generation peaked in 2007 at 2,016 billion kWh, when it supplied approximately 50 percent of total electricity generation (**Figure 1**). In 2020, coal fell behind natural gas and nuclear to generate 774 billion kWh, or 19 percent, of electricity (EIA, 2021a). In the 2010s, 546 coal-fired power units totaling 102 gigawatts of capacity retired, shown in **Figure 2** (EIA, 2019), representing nearly one-third of coal's peak capacity at 314 GW in 2011 (EIA, 2020).

Figure 1: U.S. Electricity Generation by Major Energy Source, 1950-2020



Note: Electricity generation from utility-scale facilities.
Source: U.S. Energy Information Administration, *Monthly Energy Review*, Table 7.2a, January 2021 and *Electric Power Monthly*, February 2021, preliminary data for 2020

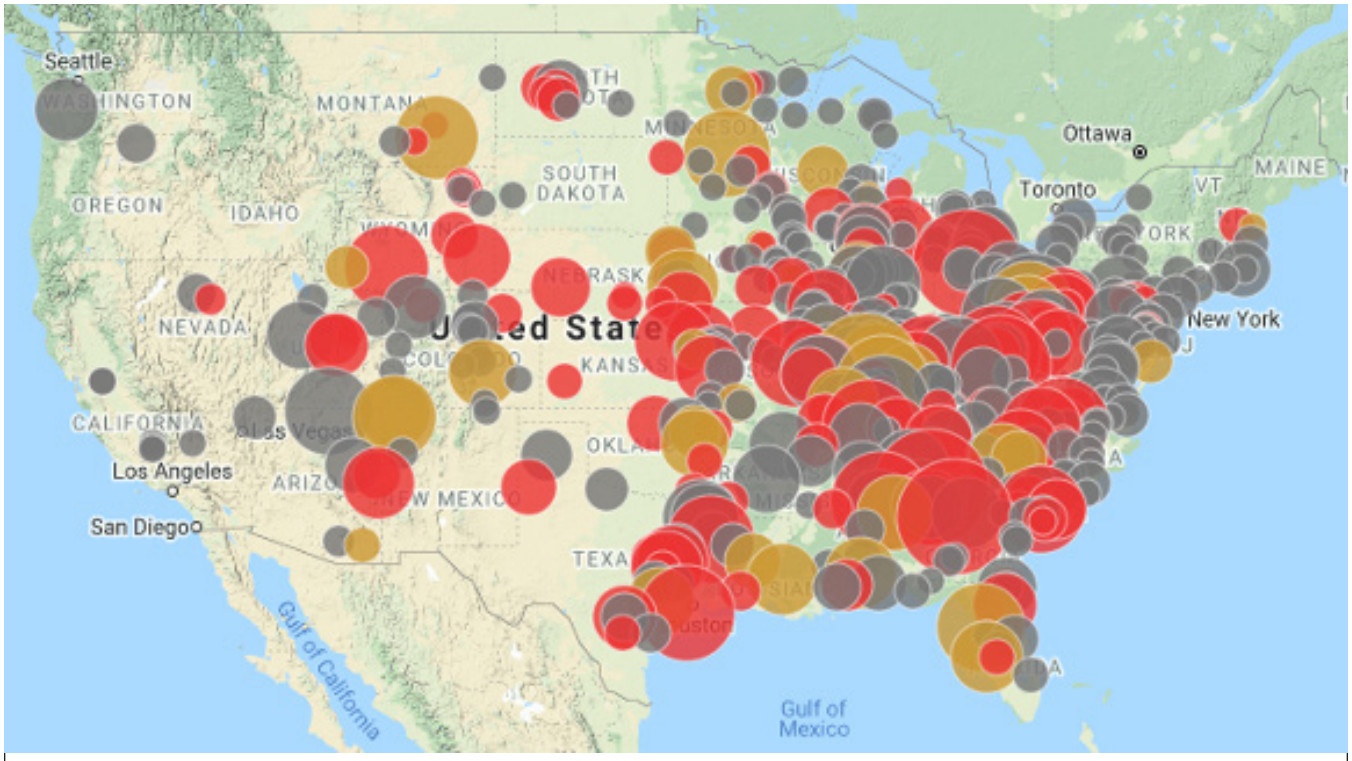
Figure 2: U.S. Annual Coal-Fired Electricity Capacity Retirements (2011-2025)



Coal retirements have occurred throughout the United States, with most retirements happening in the Mid-Atlantic, Midwest, and Southeast regions (**Figure 3**). These retirements have had widespread socioeconomic impacts on host communities. Direct employees of the plant (and in some cases, the neighboring coal mine) were laid off. Employment in adjacent sectors such as transportation, hospitality, and supply contractors often declined as a result of plant closures. The communities were unable to rely on property, sales, and other tax revenues from the plants' owners, not to mention foregone tax revenue from the laid-off workforce.

As Montana State University and Headwaters Economics researchers have observed, particularly in the West, the smaller size and geographic isolation of host communities means that the closure of primary industries such as coal plants leads to "significant consequences…that would be less noticeable in a metropolitan area" with a more diversified economy (Haggerty et al., 2018). A case study of the rural town of Colstrip, Montana, host to the coal-fired Colstrip Steam Electric Station, illustrates the near-complete reliance of a county and school system on property tax payments from a plant, thrown into uncertainty by the 2020 retirement of two of the plant's four units and potential early closure of the remaining two units (Roemer, Raimi, and Glaser, 2021). Furthermore, the impacts of coal plant retirements can exacerbate a community's existing vulnerabilities, leading to a decline in community resilience (Roemer and Hagggerty, 2021).

Figure 3: Coal Plant Status (Sierra Club, n.d.)



Full Plant Status (Size of circle based on capacity in megawatts [MW], which is the measurement of the amount of power a plant puts out)

- Grey Circles: Fully Proposed - all units at this plant have announced intent to retire by 2030
- Grey Circles: Fully Retired - all units at this plant have retired
- Grey Circles: In Progress - all units at this plant are a combination of either proposed with intent to retire by 2030, or retired
- Yellow Circles: Partially Proposed/Retired - plant still has remaining units that have not announced intent to retire by 2030
- Red Circles: Remaining Plant - plant with no units retired nor announced to retire

Drivers of Coal Retirements

Retirements have been driven by economic factors and environmental regulation, with considerable debate over exactly how much credit each factor deserves. Although plants are built to last 60 years or more from a technical standpoint (Mills, Wiser, and Seel, 2017), the average age of a retiring coal plant is 51 years (EIA, 2021b). Retirement decisions are driven by the plant owner's ability to recover the fixed costs of building the plant and the variable costs of fuel and other operational costs. As natural gas prices dropped following the shale revolution of the early 2000s and the Environmental Protection Agency issued a number of major regulations affecting the power generation sector (Shapiro, 2011), coal plants in some regions became uncompetitive with natural gas and renewable generation, and owners decided to either run the plants less frequently, shift from coal to another fuel source (most frequently, natural gas), or retire altogether (POWER Magazine, 2012). Lawrence Berkeley National Laboratory found that retiring plants of all generation sources between 2010 and 2016 were more likely to be smaller, older, less efficient, and more polluting than plants that did not retire (Mills, Wiser, and Seel, 2017).

These outsized impacts on host communities highlight the PUC's consequential authority to regulate and determine what is in the public interest. PUCs may have the authority to regulate coal retirements in a number of ways, taking into account reliability and rate impacts. In vertically integrated states in which regulated utilities own generation, transmission, and distribution assets and the PUC regulates all aspects, PUCs will generally review the proposed retirement and hear testimony on impacts to retail electricity rates and whether retirement is in the public interest. In restructured states in which regulated utilities own distribution infrastructure only, PUCs have more limited authority, but may still hear evidence on the impacts of coal closures. The PUC's ability to assess particular types of retirement impacts depends on its statutory authority.

Examples of coal retirements in Colorado and Wyoming offer a useful example of differing state approaches to managing economic impacts. Xcel Energy's[7] coal-fired 750-MW Comanche 3 Power Plant, operating since 2010, has encountered technical issues requiring the utility to request Colorado Public Utilities Commission (PUC) approval of cost recovery from ratepayers (Feaster, 2021). Xcel's 2021 Clean Energy Plan called for the closure of the plant by 2040 (three decades prior to the plant's technical end of life in 2070) to save customers money[8] by procuring generation from renewable resources, also complying with Colorado's 100 percent renewable energy goal by 2040 (Xcel Energy, 2021). The host community of Pueblo, Colorado, estimated that the plant's closure could result in the loss of up to $15 million in tax revenue to the county, as well as more than 100 direct jobs (Harmon, 2021). As of spring 2021, according to Xcel's Clean Energy Plan, the utility continues to seek retirement of Comanche 3 by 2040, although Xcel has proposed the creation of a "workforce and community transition plan, building upon the utility's experience leading clean energy transitions across its service area" (Xcel Energy, 2021) in compliance with Colorado SB19-236.[9] As of June 2021, the Colorado PUC was still considering the 2021 Energy Resource Plan under Docket No. 21A-0141E.

Two hundred miles north in Wyoming, HB0200 gave the Public Service Commission (PSC) authority to establish low-carbon electricity generation standards for utilities, including the ability to require the consideration of carbon capture equipment on coal plants and the option for utilities to pass capital costs of carbon capture installation to ratepayers. The bill's sponsor, Representative Dan Zwonitzer (R-Cheyenne), recognized how the proposal would expand the PSC's mission beyond economic regulation: "It is true that we are elevating the Public Service Commission to a level that we historically have not elevated the PSC to. We're tasking them with

7 Xcel Energy, a utility holding company, is the parent company of Public Service Company of Colorado, a regulated utility which owns the entirety of Comanche Units 1 and 2 and the majority of Comanche Unit 3.

8 Closing a power plant before the end of its useful life still involves compensation from ratepayers to the plant owner(s) for certain costs. In this case, energy procurement from renewable generation sources was shown to be cheaper for ratepayers than continuing to purchase energy output from Comanche 3.

9 SB19-236 requires Colorado utilities to achieve 80 percent carbon reduction by 2030 and 100% by 2050. The statute also requires utilities to submit workforce transition plans when proposing the retirement of a generation facility and enables securitization to finance fossil fueled power plant retirements. See https://leg.colorado.gov/bills/sb19-236.

more," he commented as the bill was being debated in the Wyoming House (Erickson and Reynolds, 2020). Wyoming has recently passed a number of statutes related to increased funding and considerations to slow, and potentially halt, the closure of in-state coal plants, with new and expansive responsibilities for the PSC:

- SF0136, passed in 2021, enables the PSC to "consider reliability and cost externalities incurred by the state of Wyoming, including but not limited to economic and employment impacts" of applications to retire generation facilities;
- HB0166, passed in 2021, creates a presumption against closure that the PSC must hear evidence to rebut;
- HB0207, passed in 2021, appropriated $1.2 million to support litigation against other states "that enact and enforce laws, regulations or other actions that impermissibly impede Wyoming's ability to export coal or that cause the early retirement of coal-fired generation facilities located in Wyoming";
- SF0159, passed in 2019, requires utilities to seek a buyer before closing a coal unit.

In November 2019, the PSC opened an investigation into PacifiCorp subsidiary Rocky Mountain Power's 20-year integrated resource plan (Morehouse, 2020), which included proposals to retire four coal units at the Jim Bridger and Naughton power plants (Erickson, 2021). In the order initiating investigation, the PSC said: "Any decision to retire coal-fired generation units prior to the end of their established depreciable lives may adversely impact the cost and reliability of service provided to RMP's Wyoming customers while producing significant negative economic impacts. These impacts, individually and collectively, must be thoroughly evaluated to ensure implementation of the Preferred Portfolio is consistent with the public interest" (Public Service Commission of Wyoming, 2019). The PSC later concluded that socioeconomic impacts of resource planning fall outside of the scope of the IRP process, rejecting the IRP for failing to consider detrimental impacts of renewable energy and the feasibility of carbon capture equipment for coal plants (Penrod, 2020).

Wyoming's legislature and governor have taken a more activist stance toward using economic regulation to maintain the economic viability of the state's domestic coal resources to a greater extent than those in Colorado, and Wyoming statute has directed the PSC to act in new ways with this expanded public interest in mind. These differing approaches illustrate the range of diversity in relationships between PUCs and economic development objectives. The next section offers a more comprehensive review of PUC mission statements and relevant statutory language across states.

III. Relationships between PUCs and Economic Development

This paper examines state PUCs' authority to consider economic development in their decisions as it relates to the retirement of coal plants in their respective jurisdictions. Agency mission statements and state statutes were surveyed to examine the availability of various mechanisms, and are summarized and discussed in this section.

Mission Statements

A commission's mission statement, while not legally binding, offers a high-level glance at the commission's perception of its regulation of public utilities and provides insight into the primary considerations driving commission decision-making. A majority of state commissions outline their duty to ensure just and reasonable rates in their mission statements in addition to ensuring adequate, affordable, reliable, and/or safe utility service. The check marks in **Table 1** summarize the incorporation of these non-rate considerations across various mission statements. Blank cells indicate the lack of explicit consideration in the PUC mission statements. A complete list of PUC mission statements is available in Appendix A.

Table 1: Summary of Non-Rate Considerations in Commission Mission Statements

State	Economic Development / Impacts	Environment / Climate Goals	Equity	Public Health	Energy Conservation / Efficiency
Alabama	✔		✔		
Alaska					
Arizona	✔				
Arkansas					
California					
Colorado	✔	✔	✔		
Connecticut					
Delaware					
District of Columbia		✔			
Florida					
Georgia					
Hawaii		✔			
Idaho				✔	
Illinois					
Indiana		✔			
Iowa		✔			
Kansas					
Kentucky					
Louisiana			✔		
Maine					

continued

State	Economic Development / Impacts	Environment / Climate Goals	Equity	Public Health	Energy Conservation / Efficiency
Maryland	✔	✔			
Massachusetts					
Michigan			✔		
Minnesota					
Mississippi					
Missouri	✔				
Montana					
Nebraska					
Nevada					
New Hampshire					
New Jersey		✔			
New Mexico					
New York		✔			
North Carolina		✔			✔
North Dakota					
Ohio					
Oklahoma		✔	✔		
Oregon					
Pennsylvania	✔	✔			
Puerto Rico					
Rhode Island	✔				
South Carolina					
South Dakota					
Tennessee					
Texas					
Utah					
Vermont					
Virgin Islands					
Virginia					
Washington					
West Virginia	✔				
Wisconsin		✔			
Wyoming					

Statutory Language

Beyond mission statements, this study examines individual state laws to assess where the bounds of established regulatory roles may confer authority to commissions to consider the non-energy impacts of coal plant retirements[10] in their decisions. The assessment focuses on laws that may enable the commission to approve economic impact mitigation mechanisms through means such as approval of special rates, workforce development, job creation, tax revenue, and planning. The analysis finds that commission considerations of economic impacts are broad, ranging from no consideration to complete consideration in state law. The sections below organize states based on their incorporation of economic impacts in relevant statutes, and provide samples of the legislation as they apply to the mitigation of transition impacts. **Table 2** illustrates how economic impacts are referenced in statutory language regarding:

- **Broad authority:** The authority that enables PUCs to consider the state's economy in its decisions. In addition to economic considerations, some state commissions are also explicitly able to consider factors such as affordability, natural resources, and environmental quality.
- **The liberal interpretation of statutes:** A liberal interpretation often refers to the construction of the state statute "which produces broader coverage or more inclusive application of statutory concepts."[11] Further, "a statute is liberally construed when its letter is extended to include matters within the spirit or purpose of the statute."[12]
- **Emissions management:** The economic development considerations required in approving a decision related to the management of emissions from generation facilities (i.e., the approval of a plan and budget for managing regulated emissions).
- **The transfer/encumbrance/retirement or expansion/addition of facilities:** The economic development considerations required for the commission to approve the transfer/encumbrance/retirement or expansion/addition of regulated utility facilities.
- **Ratemaking:** A commission may have the authority approve rates such as utility or uniform statewide facility rates, special contract rates, economic development tariffs, and other mechanisms given that they consider economic development and economic impacts.
- **Investment, procurement and/or siting of zero or low carbon resources:** The considerations PUCs may make in evaluating zero- or low-carbon electric resource acquisitions. Factors can include economic benefits to the state and ratepayers and job creation.
- **Securitization financing:** Securitization legislation enables utilities to accelerate plant retirements by refinancing their high-cost investment through low-rate capital options. See Section V for a more detailed discussion of securitization.
- **Planning:** Commissions may consider economic development, among other factors (e.g., public health and cultural and social costs) in their resource, transmission, and distribution planning processes.

10 While this analysis focuses on coal-fired electric generation resources, its application is relevant to other types of resource decisions that impact individual communities (e.g., nuclear/gas plants, community solar).

11 re K.M., 274 Ill. App. 3d 189 (Ill. App. Ct. 1995).

12 In re Petition of K.M, 274 Ill. App. 3d 189, 195 (Ill. App. Ct. 1995).

Table 2: Considerations of Economic Development in Public Utility Statutes

State	Broad Consideration	Liberal Interpretation of Statute	Emissions Management	Transfer / Encumbrance / Retirement or Expansion / Addition of Facilities	Ratemaking	Investment, Procurement and / or Siting of Zero or Low Carbon Resources	Securitization Financing	Planning	Other
Alabama			✔						
Alaska									
Arizona									
Arkansas	✔				✔		✔		
California		✔		✔			✔		
Colorado	✔		✔	✔		✔	✔		
Connecticut				✔	✔				
Delaware		✔							
District of Columbia									✔
Florida		✔					✔		
Georgia								✔	
Hawaii						✔			✔
Idaho							✔		
Illinois				✔					
Indiana				✔					
Iowa			✔		✔		✔		
Kansas		✔			✔		✔		
Kentucky									
Louisiana							✔		
Maine		✔				✔			
Maryland	✔					✔			✔
Massachusetts									
Michigan							✔		
Minnesota				✔	✔	✔		✔	
Mississippi	✔								
Missouri					✔		✔		
Montana					✔	✔	✔	✔	
Nebraska						✔			
Nevada						✔		✔	
New Hampshire								✔	✔
New Jersey							✔		
New Mexico		✔		✔	✔		✔		

continued

State	Broad Consideration	Liberal Interpretation of Statute	Emissions Management	Transfer / Encumbrance / Retirement or Expansion / Addition of Facilities	Ratemaking	Investment, Procurement and / or Siting of Zero or Low Carbon Resources	Securitization Financing	Planning	Other
New York									✔
North Carolina				✔			✔		
North Dakota									
Ohio									✔
Oklahoma						✔	✔		
Oregon		✔							✔
Pennsylvania									
Puerto Rico									✔
Rhode Island		✔				✔		✔	
South Carolina									
South Dakota						✔		✔	
Tennessee					✔				
Texas							✔		
Utah	✔				✔			✔	✔
Vermont	✔				✔				
Virgin Islands		✔							
Virginia				✔		✔		✔	
Washington	✔		✔	✔		✔		✔	
West Virginia						✔			
Wisconsin				✔		✔			✔
Wyoming				✔					

States are organized by the extent to which their statutes enable the commissions to consider economic development. Each state is assigned a category of statutory consideration:

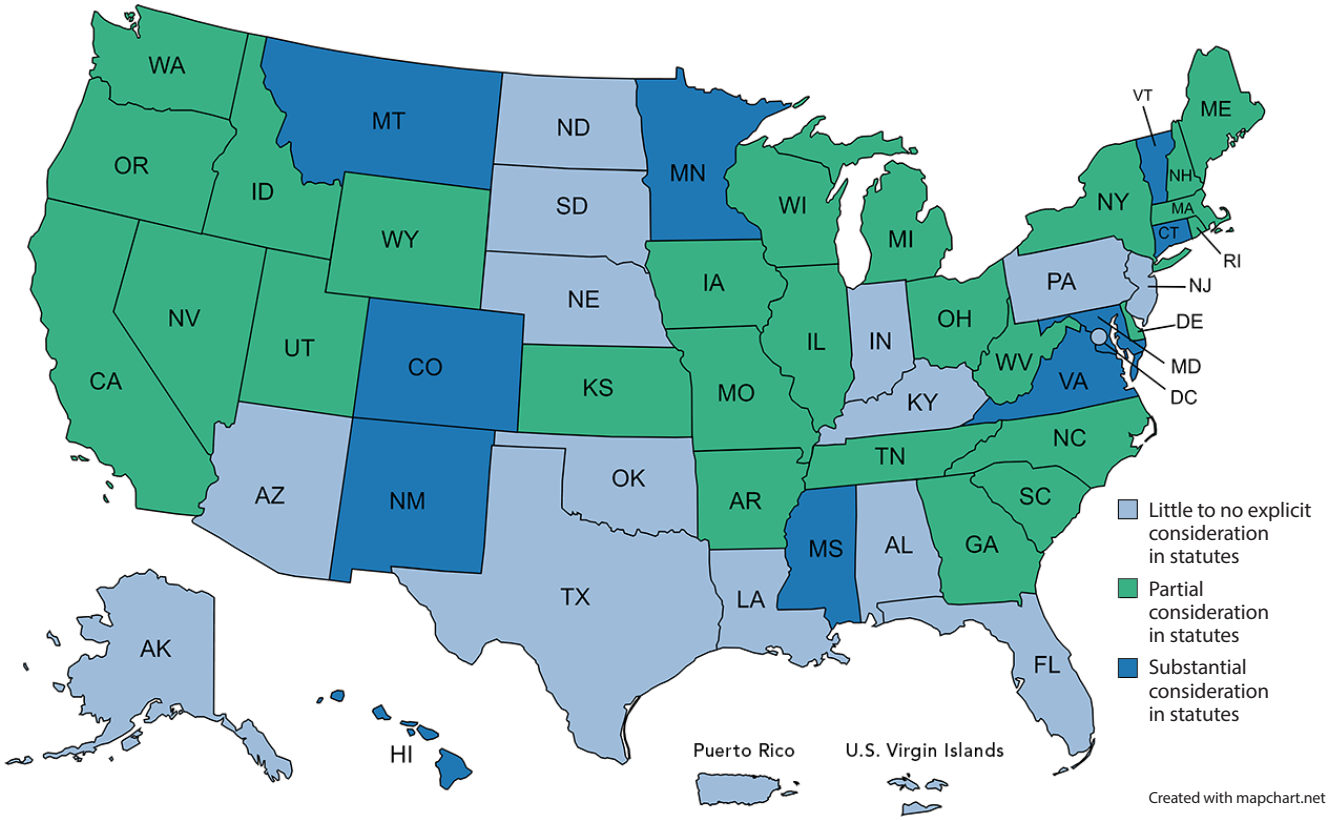
- Substantial consideration
- Partial consideration
- No explicit consideration

These categorizations are reflected in the map in **Figure 4.** There are 10 states represented in dark blue, which indicates where PUCs are allowed substantial consideration of economic development through the state statute. The 26 green states indicate partial consideration, and the 14 light blue states and 3 territories indicate little to no explicit consideration in state statute.

This analysis also recognizes that the scope of regulation regarding generation is not consistent across states. For example, some states lack coal-generating resources. Commissions typically do not regulate municipal or cooperative utilities or independent power producers that may own, or share ownership of, coal-generating resources with regulated utilities. Additionally, not all commissions regulate generation resources, such as in

deregulated electricity markets. Another factor leading to changes in (perceived) scope over time is the high rate of turnover among state commissioners,[13] who may have varying interpretations of the PUC's ability to consider non-energy economic impacts in retirement proceedings.

Figure 4. Extent of Economic Development Considerations in State Public Utility Law



Substantial Consideration of Economic Development in State Law

In 10 states, legislation authorizes substantial consideration of economic development by the PUC. The relevant legislation confers this authority through statute in several ways, including:

- Broad application of state energy policy
- Transfer/encumbrance/retirement or expansion/addition of facilities
- Investment, procurement and/or siting of zero- or low-carbon resources
- Planning
- Securitization financing

Samples of relevant legislation are organized by state and type of economic development consideration follow.

Colorado

Investment, procurement and/or siting of zero or low carbon resources

Enacted through the Keep Jobs in Colorado Act (2013), when evaluating electric resource acquisitions and proposals for new or expanded generation, utilities must provide employment metrics to the PUC regarding use of Colorado labor and positive impacts on the long-term economic viability of Colorado communities. Further, the commission is required to obtain relevant "best value" employment metrics, which must be incorporated into the resource acquisition decision:

13 Median tenure of state commissioners as of February 2020 was 3.5 years, https://ipu.msu.edu/wp-content/uploads/2020/02/IPU-MSU-Annual-Commissioner-Demographics-Feb.-2020-1.pdf.

To this end, the commission shall require utilities to obtain and provide to the commission the following information regarding "best value" employment metrics: The availability of training programs, including training through apprenticeship programs registered with the U.S. Department of Labor's Office of Apprenticeship or by state apprenticeship councils recognized by that office; employment of Colorado labor as compared to importation of out-of-state workers; long-term career opportunities; and industry-standard wages, health care, and pension benefits. When a utility proposes to construct new facilities of its own, the utility shall supply similar information to the commission (Colo. Rev. Stat. § 40-2-129(1)(a)).

Securitization financing

Enacted in 2019, the Colorado Energy Impact Bond Act (Colo. Rev. Stat. §§ 4-1-101 – 40-41-116) addresses the closure of electric generating facilities and provides a mechanism to mitigate the economic impacts of closures on Colorado communities. In addition to standard bond security provisions, the Act includes a number of energy policy, consumer protection, and public interest securitization provisions such as:

- Authorizing early generation plant retirement as a purpose for issuing bonds, with assistance for affected workers and communities included in bond financing;
- Providing community assistance in amounts equal to costs of voter-approved projects expected to be paid from revenue sources impacted by retirements; and
- Granting the commission authority to attach conditions to a financing order to maximize benefits and minimize risks of the transition to consumers, impacted workers and communities, and utilities (Lehr and O'Boyle, 2020).

Related Legislation Outside of PUC Authority

Colorado HB19-1314
Just Tranistion From Coal-based Electrical Energy Economy

In 2019, the Colorado legislature passed HB 19-1314, "A Bill for An Act Concerning a Just Transition From Coal-based Electrical Energy Economy," to support communities and workers affected by transition away from coal-fired electric generation. Through this legislation, the state created a Just Transition Office in the Division of Employment and Training in the Department of Labor and Employment, and a Just Transition Advisory Committee to develop a Just Transition Plan. In addition, the legislation mandates that utilities submit a workforce transition plan to the host community and the Just Transition Office at least 6 months before the retirement of a coal-fired generating facility. (H.B. 19-1314, 2019)

Colorado's Renewable Energy Standard Adjustment to Finance Coal Plant Closures

The Renewable Energy Standard Adjustment (RESA), which supports Colorado's Renewable Energy Standard, is a forward-looking cost recovery mechanism which provides funding for qualified retail utilities to provide to implement the state's renewable energy standard (4 Colo. Code Regs. § 723-3-3652). The revenue utilities received through the RESA can be used to fund the incremental costs of renewable energy over traditional energy resources (Surana et al., 2020), such as to recover the costs of retiring coal plants. As discussed in more detail in Section IV, Xcel Energy proposed to redirect half of the RESA to recover closure costs of Units 1 and 2 of the retiring Comanche Generating Station.

Connecticut

The transfer/encumbrance/retirement or expansion/addition of facilities

The Public Utilities Regulatory Authority is to examine and regulate:

> the transfer of existing assets and franchises, the expansion of the plant and equipment of existing public service companies, the operations and internal workings of public service companies and the establishment of the level and structure of rates in accordance with the following principles:
>
> …(3) that the authority and all public service companies shall perform all of their respective public responsibilities with economy, efficiency and care for public safety and energy security, and so as to promote economic development within the state with consideration for energy and water

conservation, energy efficiency and the development and utilization of renewable sources of energy and for the prudent management of the natural environment (Conn. Gen. Stat. § 16-19e).

Hawaii

Investment, procurement and/or siting of zero or low carbon resources

The evaluation of and reporting on the effectiveness and achievability of the current renewable portfolio standard is submitted pursuant to Hawaii Revised Statute Section 269-95 (Hawaii Public Utilities Commission, 2018). The report is part of a continuing body of study directly and indirectly related to the impacts of RPS on the state and shall assess:

(A) The capability of Hawaii's electric utility companies to achieve renewable portfolio standards in a cost-effective manner and shall assess factors such as:

- (i) The impact on consumer rates;
- (ii) Utility system reliability and stability;
- (iii) Costs and availability of appropriate renewable energy resources and technologies, including the impact of renewable portfolio standards, if any, on the energy prices offered by renewable energy developers;
- (iv) Permitting approvals;
- (v) Effects on the economy;
- (vi) Balance of trade, culture, community, environment, land, and water;
- (vii) Climate change policies;
- (viii) Demographics;
- (ix) Cost of fossil fuel volatility; and
- (x) Other factors deemed appropriate by the commission (Haw. Rev. Stat. § 269-95).

Planning

As detailed in Section 226-18 of the Hawaii Revised Statute, the policy directive of the state is to balance technical, economic, environmental, public health, and cultural consideration in planning for the state's facility systems (Haw. Rev. Stat. § 226-18). Section 196-1 further adds that there is a need for strategic planning of Hawaii's energy resources:

Both short-range and long-range planning will permit the articulation of:

(A) Broad policies, goals, and objectives;

(B) Criteria for measuring and evaluating accomplishments of objectives;

(C) Identification and implementation of programs that will carry out such objectives; and

(D) A determination of requirements necessary for the optimum development of Hawaii's energy resources. (Haw. Rev. Stat. § 196-1 (2)).

Section 196-1(3) further stipulates that:

> The State requires an in-depth understanding of the causes and effects of any transitional issues and trends related to changes in the State's energy resources, systems, and markets (Haw. Rev. Stat. § 196-1 (3)).

Maryland

Broad authority

Under § 2-113 of the Public Utilities Article of the Maryland Code, in supervising and regulating public service companies:

> the Commission shall consider the public safety, the economy of the State, the conservation of natural resources, and the preservation of environmental quality (Md. Code, Pub. Util. § 2-113).

Minnesota

Planning

The Minnesota Statutes requires that the commission consider environmental, economic, and social costs when evaluating renewable energy resource plans, and state transmission and distribution plans:

> § 216B.2422 Resource Planning; Renewable Energy
> Subdivision 3. Environmental costs.
> (a) The commission shall, to the extent practicable, quantify and establish a range of environmental costs associated with each method of electricity generation. A utility shall use the values establish by the commission in conjunction with other external factors, including socioeconomic costs, when evaluating and selecting resource options in all proceedings before the commission, including resource plan and certificate of need proceedings (Minn. Stat. § 216B-2422).

> § 216B. 2425 State Transmission and Distribution Plan
> Subdivision 3. Commission approval.
> The commission may only certify a project that is a high-voltage transmission line as defined in section 216B.2421, subdivision 2, that the commission finds is:
>
> (1) Necessary to maintain or enhance the reliability of electric service to Minnesota consumers;
>
> (2) Needed, applying the criteria in section 216B.243, subdivision 3; and
>
> (3) In the public interest, taking into account electric energy system needs and economic, environmental, and social interests affected by the project (Minn. Stat. § 216B-2425).

Mississippi

Broad authority

The Mississippi Public Service Commission, under § 77-3-2 of the Mississippi Code, is authorized to regulate public utilities in accordance with state policy:

> With respect to rate-regulated public utilities, to foster, encourage, enable and facilitate economic development in the State of Mississippi, and to support and augment economic development activities, and to authorize and empower the Public Service Commission, in carrying out its statutory responsibilities, to take every opportunity to advance the economic development of the state (Miss. Code Ann. § 77-3-2).

Montana

Securitization financing

The Montana Energy Impact Assistance Act (Mont. Code Ann. § 69-3-1601), passed in 2019, authorizes the Public Service Commission to approve financing orders for the use of securitized ratepayer-backed bonds. The legislation includes standard bond security provisions in addition to provisions regarding the public interest and energy policy goals.

New Mexico

Securitization financing

Among other policies, New Mexico's Energy Transition Act, passed in 2019, authorizes the New Mexico Public Regulatory Commission to approve financing orders for securitized ratepayer-backed bonds (N.M. Stat. §§ 62-18-1/23).

Vermont

Broad authority

The state energy policy specifies broadly that energy service needs encourage the state's economic vitality:

> To ensure to the greatest extent practicable that Vermont can meet its energy service needs in a manner that is adequate, reliable, secure, and sustainable; that ensures affordability and encourages the State's economic vitality, the efficient use of energy resources, and cost-effective demand-side management; and that is environmentally sound (Vt. Stat. Ann. tit. 30 § 218c).

Virginia

Broad authority

In all relevant proceedings, pursuant to the Virginia Electric Utility Regulation Act, the commission must consider the goal of economic development in the Commonwealth (Va. Code Ann. § 56-599).

Planning

Effective until July 1, 2021, each electric utility is required to file an updated integrated resource plan triennially, pursuant to Section 56-599 of Chapter 24 of the Code of Virginia. Each integrated resource plan shall:

> Consider options for maintaining and enhancing rate stability, energy independence, economic development including retention and expansion of energy-intensive industries, and service reliability. (Va. Code Ann. § 56-599)

Partial Consideration of Economic Development in State Law

In 25 states, the commission can consider some economic development impacts in decision-making. States with partial considerations of economic impacts were determined based on whether enabling legislation exists that grants the commission authority to consider economic development impacts for a limited set of commission actions, generally falling across five categories. Analysis of state codes revealed that commissions are able to consider economic development impacts as they relate to topics and mechanisms such as:

- Transfer, encumbrance, retirement expansion, or addition of facilities (Illinois, Wyoming)
- Emissions management (Iowa)
- Investment, procurement, and/or siting of zero- or low-carbon resources (Maine, Nevada, Rhode Island)
- Planning (Georgia, Nevada)
- Ratemaking (Iowa, Kansas, Missouri, Tennessee)

These roles are further defined and elaborated on in the sections that follow.

Transfer/Encumbrance/Retirement or Expansion/Addition of Facilities

Illinois – §5/8-508 requires that for a utility to abandon or discontinue service, the commission must consider the impact on employment related to the procurement of coal.

> No public utility shall abandon or discontinue any service or, in the case of an electric utility, make any modification as herein defined, without first having secured the approval of the Commission…
>
> "Modification" as used in this Section means any change of fuel type which would result in an annual net systemwide decreased use of 10% or more of coal mined in Illinois. The Commission shall conduct public hearings on any request by a public utility to make such modification and shall accept testimony from interested parties qualified to provide evidence regarding the cost or cost savings of the proposed modification as compared with the cost or cost savings of alternative actions by the utility and shall consider the impact on employment related to the production of coal in Illinois (220 Ill. Comp. Stat. §5/8-508).

Wyoming - Passed in April 2021, SF0136 authorized the Wyoming Public Service Commission to consider reliability and cost externalities, including economic and employment impacts, in matters relating to the construction and retirement of major facilities.

> The commission may, in all matters relating to plans, proposals or applications for authority to construct or retire major facilities having any immediate or potential effect on rates charged to customers or to recover through rates any cost thereof, consider reliability and cost externalities incurred by the state of Wyoming, including but not limited to economic and employment impacts (Wyo. Stat. §37-2-122).

SF0159, passed in March 2019, prohibits the recovery of costs associated with new electric generation facilities built to replace retired coal-fired generation facilities without the commission's determination that the utility made a good faith effort to sell the facility prior to retirement.

> (i) Any electric public utility seeking to retire a coal fired electric generation facility shall first make a good faith effort to sell the facility for continued use as a coal fired electric generation facility;
>
> (ii) The rates charged by an electric public utility, other than a cooperative electric utility, shall not include any recovery of or earnings on the capital costs associated with new electric generation facilities built, in whole or in part, to replace the electricity generated from one (1) or more coal fired electric generating facilities located in Wyoming and retired on or after January 1, 2022, unless the commission has determined that the public utility that owned the retired coal fired electric generation facility made a good faith effort to sell the facility to another person prior to its retirement and that the public utility did not refuse a reasonable offer to purchase the facility or the commission determines that, if a reasonable offer was received, the sale was not completed for a reason beyond the reasonable control of the public utility (Wyo. Stat. §37-3-117).

Related Legislation Outside of PUC Authority

Wyoming HB0207

Coal-fired generation facility closures – litigation funding

In April 2021, the Wyoming legislature passed HB0207, appropriating funds for the purpose of pursuing litigation against other states that enact and enforce laws that impede the state's ability to export coal or that cause the early retirement of coal-fired electric generation facilities. The act additionally notes the importance and economic impact of coal in Wyoming and the need to consider litigation to protect the state's economic interests (HB0207, 2021).

Emissions Management

Iowa – As discussed in Section 476.6 (19)(c) of the Iowa Code, regulated utilities owning at least one coal-powered generation facility must develop a multiyear plan and budget for managing regulated emissions from its facilities in a cost-effective manner. In its review of the plan, the Iowa Utilities Board is to consider environmental requirements and economic development potential, among others factors:

> The board shall review the plan or update and the associated budget, and shall approve the plan or update and the associated budget if the plan or update and the associated budget are reasonably expected to achieve cost-effective compliance with applicable state environmental requirements and federal ambient air quality standards. In reaching its decision, the board shall consider whether the plan or update and the associated budget reasonably balance costs, environmental requirements, economic development potential, and the reliability of the electric generation and transmission system (Iowa Code § 476.6 (19)(c)).

Investment, Procurement, and/or Siting of Zero- or Low-Carbon Resources

Maine – For renewable portfolio standard procurement, Maine Statutes Title 35-A, Section 3210-G directs investor-owned transmission and distribution utilities to enter into one or more contracts for energy or renewable energy credits from Class IA resources.[14] The commission must conduct a competitive procurement process, and in doing so weigh the benefits to ratepayers and the state's economy:

> C. In conducting a solicitation and selecting Class IA resources for contracts under this section, the commission shall weigh the benefits to ratepayers and the benefits to the State's economy as follows:
>
> (1) A weight of 70% must be given to the benefits to ratepayers; and
>
> (2) A weight of 30% must be given to benefits to the economy, which may include, but are not limited to:
>
> (a) Capital investments by the Class IA resource to improve long-term viability of an existing facility;
>
> (b) Payments by the Class IA resource for the harvest of wood fuel;
>
> (c) Employment resulting from the Class IA resource;
>
> (d) Payments by the Class IA resource to a host community, whether or not required by law or rule;
>
> (e) Excise, income, property and sales taxes paid by the Class IA resource;
>
> (f) Purchases of goods and services by the Class IA resource; and
>
> (g) Avoided emissions resulting from the operation of the Class IA resource. (Me. Stat. tit. 35-A, § 3210-G).

Nevada – Electric utilities in Nevada are required to file a comprehensive emissions reduction and capacity replacement plan, which includes identification of the economic development benefits from renewable energy facilities:

> (b) Except as otherwise provided in subparagraphs (3) and (7), for the construction or acquisition of, or contracting for, 350 megawatts of electric generating capacity from renewable energy facilities. The electric utility shall:
>
> … (4) Review each proposal received pursuant to subparagraphs (1), (2) and (3) and identify those renewable energy facilities that will provide:
>
> (I) The greatest economic benefit to this State;
>
> (II) The greatest opportunity for the creation of new jobs in this State; and
>
> (III) The best value to customers of the electric utility (Nev. Rev. Stat. § 701.7316).

Rhode Island – The 2014 Affordable Clean Energy Security Act establishes a framework for the Public Utilities Commission, Division of Public Utilities and Carriers, and the Office of Energy Resources to work with utilities and other New England states to make strategic investments in upgrades for large-scale hydropower, regional renewable energy resources, natural gas, and infrastructure (State of Rhode Island Office of Energy Resources). Chapter 39-31 of the Rhode Island General Laws, regional energy planning and regional energy procurement must both align with the economic interests of the state and its ratepayers (6 R.I. Gen. Laws § 39-31).

14 Maine's renewable portfolio standard defines a Class IA resource as a new renewable capacity resource "that for at least 2 years was not operated or was not recognized by the New England independent system operator as a capacity resource and, after September 1, 2005, resumed operation or was recognized by the New England independent system operator as a capacity resource" (see Maine P.L. 2019, Chapter 477 and Maine Public Utility Commission Rules, Chapter 311).

Planning

Georgia – Section 46-3A-2 of Title 46 of the Georgia Code enables the commission to determine whether an integrated resource plan demonstrates:

> …the economic, environmental, and other benefits to the state and customers of the utility, associated with the following measures and sources of supply:
>
> (A) Improvements in energy efficiency;
>
> (B) Pooling of power;
>
> (C) Purchases of power from neighboring states;
>
> (D) Facilities which operate on alternative sources of energy;
>
> (E) Facilities that operate on the principle of cogeneration of hydrogeneration; and
>
> (F) Other generation facilities and demand-side options. (GA Code § 46-3A-2)

Nevada – After a utility files a plan to increase supply or decrease demand, the Commission is required to convene a public hearing on the adequacy of the plan. The commission is authorized to determine whether, among other requirements:

> (c) The plan adequately demonstrates the economic, environmental and other benefits to this State and to the customers of the utility or utilities associated with the following possible measures and sources of supply:
>
> (1) Improvements in energy efficiency;
>
> (2) Pooling of power;
>
> (3) Purchases of power from neighboring states or countries;
>
> (4) Facilities that operate on solar or geothermal energy or wind;
>
> (5) Facilities that operate on the principle of cogeneration or hydrogenation;
>
> (6) Other generation facilities; and
>
> (7) Other transmission facilities. (Nev. Rev. Stat. § 701.741)

Similar statutes in New Hampshire (N.H. Rev. Stat. Ann. § 378:39), South Carolina (S.C. Code Ann. § 58-73-10), and Utah (Utah Code § 54-17-10) additionally enable commissions to consider economic development impacts through the integrated resource planning process.

Ratemaking

Iowa – Section 476.43 (3) enables the board to adopt individual utility or uniform statewide facility rates for electricity produced at alternative energy production and small hydro facilities in Iowa. In determining the rates, the board shall consider external factors, including environmental and economic considerations.

> The board may adopt individual utility or uniform statewide facility rates. The board shall consider the following factors in setting individual or uniform rates:
>
> …e. External factors, including but not limited to, environmental and economic factors (Iowa Code § 476.43).

Kansas – Passed in 2020, Section 66-101i of the Kansas State Statute grants the commission the authority to approve a contract rate outside of a general rate proceeding, based on factors outside of cost-of-service, if the commission determines the rate is in the state's interest based on multiple factors, including:

> the interests of the citizens of the state generally in promoting economic development, retaining the tax base, keeping employment opportunities in the state and promoting such other benefits to the state as the commission may determine are created by approval of the contract rate (Kansas Stat. Ann. § 66-101i).

Similarly, Section 66-101j enables the commission to authorize below-retail economic development rates for industrial and commercial customers that meet eligibility criteria. The statute requires the commission to report to the legislature and include:

> estimated economic development impact of entities with discounted rates that occurred as a result of such discounts through an evaluation of the annual: (A) Total employment for such entities; (B) change in employment for such entities; and (C) tax revenue generated by such entities (Kansas Stat. Ann. § 66-101j).

Missouri – Section 393.355 of the Missouri Revised Statutes grants the commission authority to approve a special rate that is not based on the electrical corporation's cost of service for a facility if, among other requirements, the special rate is in the interest of the citizens of the state by promoting economic development, improving the tax base, and providing employment opportunities.

2. Notwithstanding section 393.130 or any other provision of law to the contrary, the public service commission shall have the authority to approve a special rate, outside a general rate proceeding, that is not based on the electrical corporation's cost of service for a facility if:

    (1) The commission determines, but for the authorization of the special rate the facility would not commence operations, the special rate is in the interest of the state of Missouri when considering the interests of the customers of the electrical corporation serving the facility, considering the incremental cost of serving the facility to receive the special rate, and the interests of the citizens of the state generally in promoting economic development, improving the tax base, providing employment opportunities in the state, and promoting such other benefits to the state as the commission may determine are created by approval of the special rate (Mo. Rev. Stat. § 393.130).

Tennessee – Section 65-5-103 of the Tennessee Code (d)(3), the commission is given authority to:

1) Approve a mechanism to recover the operational expenses, capital costs or both related to the expansion of infrastructure for the purpose of economic development; and

2) Grant recovery and authorize a separate recovery mechanism or adjust rates to recover operational expenses, capital costs or both associated with the investment in such economic development facilities (Tenn. Code Ann. § 65-5-103 (d)(3)).

The commission also has the ability to "authorize a mechanism to recover expenses associated with efforts to promote economic development in its service territory, if such expenses are found by the commission to be in the public interest" (Tenn. Code Ann. § 65-5-103 (d)(4)).

Little to No Explicit Consideration of Economic Development in State Law

In 13 states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands, NARUC found that the statutes do not contain explicit mandates for the commissions to consider economic impacts in their decisions.

Despite the lack of economic development explicitly in the statutes, statutory language authorizing a "liberal interpretation" of the public interest may enable the incorporation of broader goals such as economic development into utility regulation. Section 366.01 of Title 27 of the Florida Statutes, for example, states:

> The regulation of public utilities as defined herein is declared to be in the public interest and this chapter shall be deemed to be an exercise of the police power of the state for the protection of the public welfare and all the provisions hereof shall be liberally construed for the accomplishment of that purpose (Fla. Stat. § 366.01).

Furthermore, even where the state statute does not explicitly mandate attention to economic impacts, commissions may also consider these impacts under a larger consideration of the public interest. Based on informal state commissioner and commission staff feedback, this approach can include considerations of:

- Direct, indirect, or induced job creation;
- Sales and/or property tax revenue for local and/or state government; and
- Attracting investment activity in a certain area.

IV. Economic Impacts in Practice: Coal Retirements in Colorado, California, and Minnesota

To further explore how PUCs have interpreted their authority (or lack of authority) to consider the non-energy economic impacts of retiring coal assets, NARUC examined three examples: in Colorado, California, and Minnesota. While the characteristics of each retirement differ across the states, all underscore the need for engagement among the utility, PUC, and host communities and the benefits of aligning stakeholder support behind a long-term plan well in advance of anticipated retirements. The resulting case studies' details follow.

Comanche Generating Station, Colorado

Comanche Generating Station consists of three coal-fired units located in Pueblo County, two of which came online in the mid-1970s, totaling 660 MW of capacity, and one which came online in 2010 at 750 MW capacity. Xcel, Intermountain Rural Electric Association, and Holy Cross Energy invested in the plant, with Xcel owning the majority share. Leading up to the submission of its 2017 Electric Resource Plan (ERP), Xcel's Colorado utility, Public Service Company of Colorado, developed a plan to seek approval from the Colorado PUC to retire the two older units in 2025 and procure new wind, solar, and natural gas generation to make up for the retiring capacity. Environmental and consumer advocates, labor unions, and renewable energy developers expressed support for the plan. Xcel cited rapidly falling renewable energy costs and the expected expiration of federal tax credits for wind and solar projects, as well as the broad stakeholder support, in voluntarily approaching the PUC to seek early retirement of Units 1 and 2.

Table 3: Comanche Generating Station Summary

Plant facts	• Comanche Generating Station Units 1, 2, and 3 • Location: Pueblo, Colorado • Coal sourced from Wyoming • Units 1 and 2: Capacity 660 megawatts (MW), online 1970s • Unit 3: Capacity 750 MW, online 2010 • 137 workers • Owned by Xcel, Intermountain, Holy Cross Energy
Scope of PUC oversight	• Early retirements proposed in Xcel Energy 2018 (Units 1+2) and 2021 (Unit 3) • Electric Resource Plans
Non-energy economic impacts considered	• Direct plant employment (quantitatively) • Local economic impacts, more broadly (qualitatively)
Strategies to mitigate economic impacts of closure	• Workforce transition plan from Xcel • Replacement with local renewable and gas generation • Stakeholder engagement pre-filing • Securitization for Unit 3, and Renewable Energy Standard Adjustment for Units 1 and 2
PUC decision	• Accepted company proposal for Units 1 and 2 in 2018 • Considering proposal for Unit 3 in 2021

In its 2017 ERP submission, Xcel sought to accelerate the depreciation of the two units to align with the retirement dates and use competitive bidding to replace generation. Xcel also proposed to own 50 percent of new renewable generation and 75 percent of new natural gas generation, with independent power producers owning the remainder, and proposed to procure 525 MW of solar and 225 MW of storage at or near the Comanche site to replace the retiring generation. Finally, Xcel proposed to redirect half of the Renewable Energy Standard Adjustment (RESA), a 2 percent rider levied on Xcel ratepayers to fund incremental costs of meeting Colorado's renewable portfolio standard, to recover closure costs of Units 1 and 2. Xcel estimated the total costs of closure, including accelerated depreciation and decommissioning costs, to be $200 million. In an alternative portfolio submitted to the PUC, Xcel deferred the Unit 2 resource acquisition opportunities to the next ERP cycle, which would lead to lower procurements of solar and storage and replacement generation being located outside of Pueblo County (Public Service Company of Colorado, 2018).

In comments submitted to the PUC, Pueblo County supported the preferred portfolio, claiming that it would produce beneficial public health impacts for disadvantaged communities and positive economic effects to the Pueblo County area: "While Pueblo County is concerned about job losses at the Comanche station, it appreciates Public Service's work to transition work into other jobs and is encouraged by the potential economic development opportunities of the CEP Portfolio as well as its associated environmental improvements and 'identity transition' for the community. According to Pueblo County, the CEP Portfolio as set forth in Portfolio 6 will benefit Pueblo County more than the alternative form discussed in the 120-Day Report because it offers more certainty regarding the location of replacement generation for the Comanche unit 2." The PUC did not consider impacts on out-of-state non-ratepayers, including the communities in Wyoming that produced coal for Comanche.

The PUC approved Xcel's preferred portfolio in August 2018, citing the local economic benefits of Xcel's proposed solar and storage capacity in Pueblo County. The PUC referenced Rule 4 CCR 723-3-3613(h) in its approval, under which the PUC considers public interest benefits of various portfolios offered in ERPs including energy security, economic prosperity, and environmental protection (Colorado Statutes, 4 Colo. Code Regs. § 723-3-3613):

> "We therefore conclude that the acquisition of the CEP Portfolio can be achieved at a reasonable cost and rate impact in consideration of its associated benefits…The particular bids selected for the CEP Portfolio present certain opportunities for new jobs in Pueblo as well as other areas in Colorado. While there is no guarantee that job losses caused by the retirement of the Comanche units will be remedied with new jobs associated with the selected resources proposed to be built in the Pueblo area, the $670 million of investment associated with 525 MW of new PV solar and 225 MW of storage is considerable" (Public Utility Commission of Colorado, 2018).

In March 2021, Xcel submitted an ERP to the PUC under docket 21A-0141E proposing to accelerate the retirement of Unit 3 from 2070 to 2040 and to operate Unit 3 at up to a 33 percent capacity factor in the 2030s. The plan also proposed the closure of two other coal-fired units by 2028 and the conversion of Pawnee Generating Station from coal to gas by 2028. Pursuant to SB 19-236, a state law requiring that any ERP proposing the accelerated retirement of an electric generating facility also include a workforce transition plan, Xcel included impacts and mitigation strategies for 137 workers currently employed at Comanche and other coal-fired units slated for accelerated retirement (Public Service Company of Colorado, 2021). Due to a combination of job opportunities at new generating facilities, options for bringing contracted work in-house, and other job openings at Xcel, the company anticipated zero layoffs as a result of its proposed retirements.

Also pursuant to SB 19-236, Xcel sought approval to securitize the undepreciated balance of Unit 3 in 2040, noting that it was providing a two-decade runway for Pueblo County to plan for Unit 3's closure and that replacement solar generation located in Pueblo County would restore some of the loss to the tax base. Under the statute, Colorado regulated utilities can use securitization when and if a generation asset is no longer economical or is at the end of its useful life, with 15 percent of savings from securitization going to assist workers and communities affected by closure (Quinn, 2020).

In a report reflecting on the 2017 ERP process, the Rocky Mountain Institute called Xcel's approach "something for everyone" (Benn, Bodnar, and Mitchell, 2018). By seeking support from stakeholders in its proposal to accelerate the retirement of Units 1 and 2, Xcel made the case to the PUC that its preferred portfolio had broad public support and benefits, even from the host community itself. The March 2021 ERP submission was still under review by the PUC as of June 2021.

Mohave Generating Station, California/Arizona/Nevada

Mohave Generating Station (MGS) began operations in 1971 with two coal-fired units totaling 1580 MW of capacity. Located in Laughlin, Nevada, just across the state line, the plant was majority owned by Southern California Edison (SCE), a California Public Utilities Commission (CPUC)-regulated investor-owned utility, and supplied power to southern California customers (Ramo and Behles, 2014). The plant sourced coal from the Black Mesa Coal Mine, located on land owned by the Navajo and Hopi tribes. Peabody Energy operated the coal mine. A unique 275-mile slurry line – essentially a pipeline mixing pulverized coal with water – connected the mine with MGS. Altogether, the mine, slurry line, and MGS supported approximately 600 jobs (Kraker, n.d.).

In 1998, Sierra Club and the Grand Canyon Trust filed a lawsuit against MGS owners, alleging violations of the Clean Air Act and major contributions of MGS to the worsening haze limiting visibility over the Grand Canyon, located 75 miles from the plant. The organizations requested that environmental regulators force the installation of scrubbers and baghouses to severely decrease air pollution from MGS operations. The Environmental Protection Agency agreed, finding that MGS was the single largest point source affecting Grand Canyon visibility, and considered a formal rulemaking under the Clean Air Act's visibility requirements to require the installation of the requested pollution controls. In October 1999: the MGS owners signed a consent decree agreeing to install scrubbers and baghouses, but only if the facility continued to operate past 2005, citing the imminent expiration of the coal lease agreement with the Navajo and Hopi tribes, uncertainty over future water rights for the mine, and the implementation of electricity deregulation in California.

Table 4: Mohave Generating Station Summary

Plant facts	• Mohave Generating Station Units 1 and 2 • Location: Laughlin, Nevada • Coal sourced from Peabody Energy Black Mesa Mine, Kayenta, Arizona • 2 units, capacity 1,580 MW, online 1971 • 600 workers employed at plant, mine, and pipeline • Owned by Southern California Edison (SCE)
Scope of PUC oversight	• Approval of pollution control retrofit costs associated with 1999 consent decree
Non-energy economic impacts considered	• Economic well-being of Hopi and Navajo tribes
Strategies to mitigate economic impacts of closure	• Delay decision until major water and coal uncertainties were resolved
PUC decision	• Plant retired in 2006 • CPUC allowed SCE to spend money on studies to resolve uncertainties, authorized worker protection cost recovery, proposed alternative generation options to Mohave that provide economic stability to Hopi and Navajo • CPUC approved revenues from SO_2 allowances to support Hopi and Navajo

In 2002, the CPUC opened a proceeding on the potential for MGS's possible closure in 2005, considering the impacts on the Navajo and Hopi tribes. In December 2004, the CPUC authorized SCE to make (and recover from its California ratepayers) investments to continue operating through 2005 while also requiring a study of the economic impacts of MGS's closure on the tribes should the plant no longer operate as a coal-fired generator. The CPUC established an Employee-Related Memorandum Account to track worker protection benefit expenses associated with the expected 2005 temporary shutdown, should negotiations on coal and water leases continue past the consent decree deadline for scrubber and baghouse installation (California Public Utilities Commission, 2004a). In its order from the 2002 proceeding, the CPUC recognized the uncertainty of MGS's long-term future given the difficulty of finding an environmentally appropriate water source close to the mine and of successfully renegotiating the coal leases, given the tribes' opinion that the previous lease had severely underpaid the tribes for their land and resources. CPUC wanted to make a final determination, factoring in any new state environmental regulations, on approving the pollution control retrofit costs pursuant to the 1999 consent decree after the critical coal and water questions were resolved (California Public Utilities Commission, 2004b).

SCE and the other MGS owners hired Sargent & Lundy and Synapse Energy Economics to complete the study requested by the CPUC. The authors modeled a set of alternatives to the continued operation of MGS, examining economic impacts including direct, indirect, and induced jobs and royalties and taxes paid to the tribes (Cohn et al., 2006). As the study was completed and released in early 2006, with ongoing questions over coal and water rights, SCE announced the closure and decommissioning of MGS (POWER magazine, 2006).

In May 2006, SCE filed a general rate case with the CPUC. The rate case included refunds to California ratepayers resulting from SCE's ability to sell acid rain precursor sulfur dioxide allowances that no longer needed to be held by SCE after the closure of MGS. A group of environmental and tribal organizations formed the Just Transition Coalition to demand that the CPUC allocate the funds from acid rain allowances to support the Navajo and Hopi tribes in transitioning to cleaner energy sources rather than passing the returns back to California ratepayers. The CPUC required SCE to place acid rain allowance revenues in a separate account, to be resolved in a future proceeding. The Just Transition Coalition argued that the CPUC had authority to act by tying the proposal to SCE's requirements under California's renewable portfolio standard, even though the benefits would flow to out-of-state non-ratepayers on tribal lands in Arizona and Nevada.

In December 2006, the CPUC agreed with the Just Transition Coalition and affirmed its authority to disburse revenues to help affected Hopi and Navajo communities. The CPUC cited the California Public Utilities Code stating that improving economically disadvantaged conditions for minorities by increasing procurement of renewable energy was within the state's interest, and that preference should be given to "renewable energy projects that provide environmental and economic benefits to communities afflicted with poverty or high unemployment, or that suffer from high emission levels of toxic air contaminants, criteria air pollutants, and greenhouse gases" (California Code, n.d.).

Reflecting on the MGS closure, Golden Gate University School of Law professors Ramo and Behles observe that the CPUC's decision to consider the economic well-being of out-of-state non-ratepayers as within California's public interest, in combination with other factors including compliance with California's RPS, is a replicable approach for other states. However, the characteristics of MGS – no other operating coal plant sources coal from a slurry line – were unique. Although the CPUC was able to allocate acid rain allowances to support renewable energy transition in affected communities across state lines, commissions employing this approach are likely to face resistance from ratepayer advocates. As Ramo and Behles argue, "It may in fact be easier to justify the expenditure of even greater ratepayer funds for transition if the impacted communities are within the state and are themselves ratepayers" (Ramo and Behles, 2014).

Sherburne County Generating Station, Minnesota

Sherburne County Generating Station (Sherco) includes three coal-fired units employing 300 workers in Becker, Minnesota. Units 1 and 2 came online in the 1970s, with Unit 3 added in 1987 to raise the plant's total generating capacity to 2,500 MW (Partridge and Steigauf, 2020).

In its 2015 Integrated Resource Plan (IRP) filing, Xcel proposed to retire Units 1 and 2 in 2023 and 2026, respectively, and build new natural gas generation on or adjacent to the plant site. The Minnesota Public Utilities Commission (PUC) approved. A subsequent state law signed by the governor in February 2017 gave Xcel authority to build a new natural gas plant in Becker to replace the capacity lost by the closure of Units 1 and 2. Xcel estimated that the new natural gas plant would replace 150 jobs, mitigate impacts to the city and county, and create temporary construction jobs. Further, a new natural gas plant would enable a neighboring Liberty Paper plant to continue purchasing low-cost steam rather than consider relocating (with the potential to affect 165 workers), as well as attract new businesses to the area (Dunbar, 2017).

Table 5: Sherburne County Generating Station Summary

Plant facts	• Sherburne County Generating Station Units 1, 2, and 3 • Location: Becker, Minnesota • Capacity 2,500 MW total • 300 employees • Units 1 and 2 online in 1970s, unit 3 in 1987
Scope of PUC oversight	• Agreement with environmental and labor groups in May 2019 • Xcel 2019 integrated resource plan (IRP) proposal (and 2020/2021 supplements) to build 768 MW gas by 2027, 460 MW solar by 2024
Non-energy economic impacts considered	• Host community study on jobs and tax impacts • Temporary and permanent employment associated with replacement solar and gas generation
Strategies to mitigate economic impacts of closure	• Replacement of retiring coal with on-site gas and solar generation. • New industrial activity adjacent to site.
PUC decision	• MN PUC approved Units 1 and 2 retirement in 2015 IRP; approved seasonal Unit 2 operation in July 2020 • Company proposed Unit 3 retirement by 2030; extended consideration of 2019 IRP to allow greater consideration of host impacts and alternatives

Leading up to the filing of its 2019 IRP, Xcel reached an agreement (Clark et al., 2019) with environmental and labor groups requiring the closure of Sherco Unit 3 and other coal units in exchange for cost recovery mechanisms, replacement renewable generation, acquisition of a natural gas plant in Mankato, and a greater reliance on energy efficiency and demand response in future IRPs. Xcel committed to selecting sites for replacement solar generation that would provide the greatest impact in construction jobs and apprentice opportunities, "consistent with the public interest" (Jossi, 2019). Xcel's IRP filing in July 2019 proposed retiring Unit 3 by 2030, building a new 786-MW gas plant on the Sherco site to come online by 2027, and developing a workforce training program for displaced workers (Northern States Power Company, 2019 and Marohn, 2020). Xcel mentioned ongoing work with host communities and its participation in a community impact study authored by the Minnesota Center for Energy and Environment. In November 2019, the PUC issued an order suspending the procedural schedule and requiring additional filings to provide more information as it considered the July 2019 IRP. The community impact study was released in February 2020 (Partridge and Steigauf, 2020).

In June 2020, Xcel filed a supplement to the July 2019 IRP, consistent with its filing in a separate docket initiated by the PUC to identify utility investments that would support COVID-19 relief and recovery, further expanding the PUC's ability to act with the economic well-being of Minnesotans in mind (Minnesota Public Utilities Commission, n.d.). The supplement upheld Xcel's previous request to build, own, and operate the 786-MW gas plant at the Sherco site:

> "Our baseload generation plants are prominent places of employment and contributors to the property tax base in the host communities, which is why we focus our economic development efforts in locations where our current units will eventually be phased out. For example, since our last Resource Plan, in which we proposed to retire the Sherco 1 and 2 coal units in Becker, we have worked extensively with the local government, community stakeholders, and the state to draw new development to support the local economy. This includes a planned combined cycle generating unit at the Sherco site, the Northern Metal Recycling facility, and, prospectively a new Google data center with energy matched by new renewable development on our system. In addition, we have proposed to add up to 460 MW of solar at the Sherco site. This proposed investment will provide significant economic stimulus and jobs for the local economy and the state of Minnesota."

Sherburne County and Becker expressed support for Xcel's proposed replacement solar and gas generation and cited ongoing work to build infrastructure to attract new businesses that would contribute to the city and county tax base. Becker, through the Coalition of Utility Cities and independently, had participated in several previous PUC dockets dealing with the plant. In July 2020, the PUC approved Xcel's request to operate Sherco Unit 2 seasonally to save ratepayers money, but deferred decision on the remaining issues (Larson, 2020). In April 2021, Xcel filed a proposal with the PUC seeking approval to spend $575 million to build 460 MW of solar at the Sherco site along with the previously proposed gas generation, citing the economic advantages of legacy transmission and beneficial economic impacts for the local community. Xcel positioned the request as complying with the PUC's request to accelerate utility investments for COVID-19 recovery (Hughlett, 2021a). In June 2021, Xcel amended its planned gas plant from one 786-MW plant in Sherburne County to two smaller gas peaker plants in North Dakota and Lyon County, Minnesota, as well as the addition of in-state energy storage. The amended proposal was praised by clean energy and environmental groups but received negative feedback from Sherburne County due to the loss of expected tax revenue from the previously proposed larger gas plant (Hughlett, 2021b).

V. Mitigation Approaches for Just & Reasonable Energy Transitions

While there is substantial variation in PUCs' authority to consider non-energy economic impacts in their role as economic regulators, there are multiple strategies that PUCs, utilities, state governments, and other stakeholders have employed to mitigate the economic impacts of generation closures. This paper summarizes mitigation strategies but notes that the PUC may not be the primary actor or decision-maker in all of these pathways, and underscores the importance of interagency collaboration to arrive at results beneficial to ratepayers and residents alike. Strategies include:

- Requesting expanded authority from the legislature;
- Approving new generation on retiring plant sites;
- Securitization to manage costs to customers in the wake of a retirement;
- Participating in local economic development initiatives; and
- Improving the quality of information available to the PUC.

Requesting Expanded Authority from the Legislature

PUCs may pursue a variety of strategies to clarify or, if desired, expand their economic development roles. Most simply, the PUC may ask the state legislature for expanded and/or clarified statutory authority.

Washington's Utilities and Transportation Commission (UTC) proposed language in Washington Senate Bill 5816-2019 explicitly enabling the UTC to set rates with a forward-looking perspective. Representative Joe Fitzgibbon (Washington District 34) noted "a Court of Appeals decision that the UTC and the utilities felt constrained their ratemaking discretion in a way that was unhelpful." The UTC's suggestions, which lawmakers deemed a "technical fix" rather than a major policy shift, were ultimately adopted in SB 5116-2019. In the words of Chairman David Danner, "We got authorities that we were not sure we had, and now we're sure we have them." The Vermont Public Utility Commission took similar actions around minor technical adjustments to commission statutes (Sass Byrnett and Shea, 2019).

In Conn. Gen. Stat. § 16-19e(a)(3), the Connecticut Department of Public Utility Control (DPUC)[15] was authorized to "promote economic development within the state." The DPUC felt that high electricity rates were putting Connecticut at an economic disadvantage and considered reducing rates for commercial electricity customers in response. However, the DPUC believed that Conn. Gen. Stat. § 16-19e(a)(3) did not grant the DPUC the power to approve load retention tariffs or special contracts. Instead of acting in an area of regulatory uncertainty and inviting litigation, the DPUC recommended legislative changes that would enable these types of rate relief (Filipink, 2009).

The National Council on Electricity Policy noted the benefits of this approach in a 2019 "Mini Guide" on engagement between PUCs and state legislatures, noting that "Commissions are tasked with working out the details of the policies legislators create, meaning they are often well positioned to identify potential weak points and suggest ways to help policies arrive at their intended outcomes" (Sass Byrnett and Shea, 2019). State legislatures in Maryland, Nevada, Washington, and Pennsylvania often ask for PUC input on policy goals and approaches. The Oregon Public Utility Commission is required under statute to advise and inform the legislature on policy questions.

Even in states lacking a more formal or regular avenue for engagement between PUCs and legislatures, PUCs may highlight existing statutory language that hinders their ability to take a particular action and request corrective action by the legislature in order to reduce the risk of litigation.

15 Precursor to the Public Utilities Regulatory Agency.

Approving New Generation on Retiring Plant Sites

PUCs may also, depending on existing statutes, mitigate the non-energy economic impacts of plant closures by considering the approval of power production or new industrial activity on the site of a retired plant. Proximity to transmission lines, roads and other public infrastructure, and existing environmental permits can make decommissioned coal sites attractive for reuse. Ohio and Wyoming have seen successful initial approaches using this strategy, although facility construction and site selection is not yet complete in either state. Also known as "reinvestment," construction of new facilities can create temporary and permanent jobs for power plant workers left unemployed after a retirement, replace a portion of the tax base lost with a plant retirement, and contribute to economic diversification (for industrial facilities) and/or cleaner sources of power generation (assuming new generation emits less pollution than the retiring generator) (Cates et al., 2020).

In Ohio, the 2011 retirement of the 568 MW R.E. Burger Station on the Ohio River led PTT Global Chemical America to purchase the land that previously housed the plant, with the potential to build a $6 billion ethane cracker plant (Funk, 2019). A 2020 Department of Energy report noted the vast potential of the Appalachian region to achieve economic progress and diversification through expanded petrochemical production, leveraging regional energy resources, legacy workforce capabilities, and existing infrastructure (U.S. Department of Energy, 2020). Federal workforce development funds can be used to produce economic potential studies and recommendations on the best uses for retiring power plant sites.

In 2020, Wyoming's passage of HB0074 incentivized the installation of small modular nuclear reactors on retiring coal generation sites. The statute, as well as abundant transmission resources and a pre-existing skilled power plant workforce in need of new employment opportunities as coal resources continue to retire, contributed to TerraPower's announcement in June 2021 to locate a Natrium reactor on a retired coal site in partnership with PacifiCorp. The reactor could potentially create thousands of construction jobs and hundreds of permanent jobs in plant operations (U.S. Department of Energy, 2021).

Statute may require a PUC to determine if additional generating capacity is needed to replace retiring generation, as in Massachusetts' 2012 Act Relative to Competitively Priced Electricity in the Commonwealth. The law required the Department of Public Utilities (DPU) to assess the need for additional generation in the Northeastern Massachusetts / Boston load zone, where a large coal plant in Salem Harbor was slated to retire in 2014, and requested that the DPU determine whether long-term power contracts were an appropriate method of securing additional generation. DPU review of contracts for additional generation capacity was expanded to include, "where feasible, [the creation of] additional employment and economic development in the Commonwealth" (Massachusetts Legislature, 2012). The DPU determined that additional generation was needed but that long-term power contracts were not in the public interest, paving the way for Footprint Power to purchase the Salem Harbor site and construct a 674-MW natural gas plant.

Securitization to Manage Costs to Customers in the Wake of a Retirement

Securitization legislation enables utilities to refinance their high-cost investment through low-cost capital options. As opposed to customers paying the utility revenues to raise capital from its investors, as in a traditional utility finance mechanism, customers raise the funds directly by issuing a bond to debt investors, as represented in **Figure 5** (Varadarajan, Posner, and Fisher, 2018).

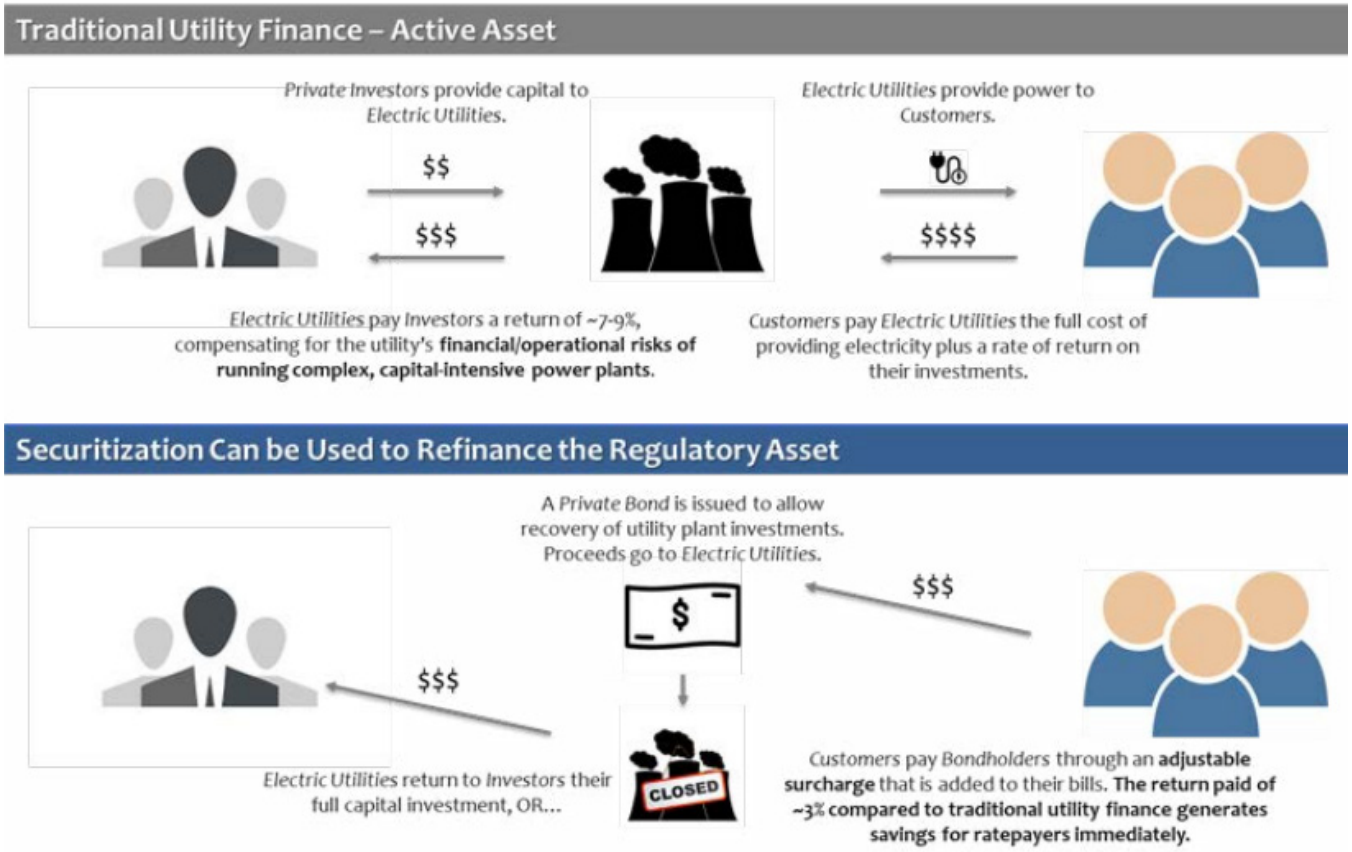
Originally used to refinance uneconomic, non-performing and stranded generation assets in the transition from regulated to deregulated markets (Lehr and O'Boyle, 2020), securitization has evolved to also enable recovery for:

- Buydown of above market power purchase agreements;
- Deferred balances and regulatory assets;
- Costs of new pollution control equipment;
- Storm recovery costs;
- New renewable distributed generation costs;
- Remaining costs of early retired nuclear plants;

- Wildfire costs;
- Grid expansion costs;
- Coal ash remediation;
- Climate change initiatives;
- Undergrounding distribution systems; and
- Accelerating retirement of coal plants (Fichera, 2019a).

Securitization can benefit utilities and current ratepayers. First, the utility benefits as it receives an immediate source of cash that can allow for access to lower borrowing costs, provides greater balance sheet flexibility, and grants certainty for funding infrastructure goals (Moody's Investors Service, 2018). Customers benefit through lower rates and eliminated responsibilities for covering utility debt costs, income taxes, and return on equity (Fichera, 2019b).

Figure 5: Comparison of Traditional Utility Finance vs Securitization Mechanism (Varadarajan, Posner, and Fisher, 2018)



While securitization can actualize substantial benefits, substantial securitization debt poses noteworthy risks to ratepayers. Utilities that use securitization to recover stranded costs abandon their ability to rate base or earn a return on the asset, placing the burden of debt on the utility customer. A significant securitization debt could therefore raise utility rates for existing ratepayers and potentially discourage new customers from moving into the service territory, as they will be paying for costs related to historical occurrences (Moody's Investors Service, 2018). Securitization may not be feasible in all jurisdictions, as it has mainly been applied in restructured regulatory environments in which previously vertically integrated utilities were required by legislation to sell generation assets. The applicability of securitization, and to what extent it may benefit ratepayers, in vertically integrated states is an unanswered question. Securitization for generation assets owned by multiple entities is also a complex topic given different regulatory environments across state lines (Varadarajan, Posner, and Fisher,

2018). Cates et al. (2020) and Roemer et al. (2021) discuss how diverse ownership of the Colstrip Generating Station in Montana presents challenges for retirement planning more broadly, with one owner legally obligated to cease purchasing power from the plant by 2035, another expressing intent to operate the plant until 2042, and two others pushing to close the plant by 2027. Owners operating in different state regulatory, economic, and political environments face different incentives in continuing to purchase electricity from coal-fired plants.

The three major components of utility cost recovery charge securitization are: state legislation,[16] a financing order, and a true-up mechanism (Moody's Investors Service, 2018).

- **State legislation** typically: 1) authorizes the utility to finance the recovery of certain costs through securitization bonds; 2) authorizes the creation of property rights for the issuer to impose, adjust, bill, and collect a dedicated rate component; 3) mandates an irrevocable financing order issued by the PUC; and 4) provides bondholder protection through a non-impairment pledge, under which the state pledges it will not take any actions that alter or change the law until the bonds have been repaid (Fichera, 2019b).
- The public utility commission issues the **financing order**, which authorizes the utility to charge and collect special charges from the utility's ratepayer base (Moody's Investors Service, 2018).
- The **true-up** or **adjustment mechanism**, which is approved by the PUC, permits and requires the adjustment of the monthly charge to customers over time to make sure that the payments fulfill the obligations of the bonds (Fichera, 2019b).

This combination of mechanisms allows for securitization bonds that have the highest possible credit ratings, and enables the lowest cost financing with active oversight of the commission. A 2019 NRRI Insights paper on securitization outlines the commission's critical role in achieving successful securitization in:

1) Issuing an irrevocable financing order laying out the parameters of the bond offering and the standard of "lowest cost" to customers;
2) Establishing the regulatory adjustment mechanism;
3) Actively engaging and negotiating with investors and Wall Street to ensure the bonds are considered of the highest credit quality with the greatest competition among investors for the bonds (Fichera, 2019b).

As of April 2021, three states have enacted securitization policies to specifically ease the transition from coal on ratepayers and local communities: Colorado, New Mexico, and Montana. Legislation varies with regard to commission duties and authority, utility bond financing application and reporting requirements, and required commission findings. Securitization legislation was also recently passed in Indiana (Indiana General Assembly, 2021) and Kansas (Kansas Legislature, 2021) and has been introduced in Missouri (Missouri Senate, 2021) and Minnesota (Minnesota Legislature, 2019). Lehr and O'Boyle (2020) find that key elements of securitization laws include "sufficiently defining security; devoting attention to public interest outcomes; ensuring consumers are benefited through lower costs; addressing replacement resources; and providing financing to mitigate community and worker impacts."

Beyond legislation, utilities in Michigan and Wisconsin have agreed through settlement to securitize the costs of coal plant retirements. In 2020, Wisconsin utility We Energies agreed to a settlement to securitize $100 million of unrecovered costs associated with the retirement of its Pleasant Prairie coal plant. This represented about $40 million in customer savings over the next 15 years, but was limited by Wisconsin's law which only allows securitization for pollution-control investments. Also in 2020, the Michigan Public Service Commission approved Consumers Energy's use of a $688 million securitized bond for the retirement of the D.E. Karn coal plant. The use of securitized bonds resulted from a stakeholder process in which environmental and consumer groups reached a settlement with the utility to securitize the costs (Lehr and O'Boyle, 2020).

16 In some jurisdictions, the use of securitization may require approval from voters by referendum or via an amendment to the state constitution.

Participating in Local Economic Development Initiatives

Raimi et al. (2020) identifies three main mechanisms through which support is delivered to enable economic development for workers and communities in transition. These mechanisms are:

- **Capacity building** includes technical assistance, planning or research to support local economic development efforts.
- **Financial support to public and community organizations** enables public or quasi-public organizations to deliver local economic development programming through direct (e.g., grants or loans) or indirect (e.g., loan guarantees) mechanisms.
- **Financial support to private, for-profit firms** also enables direct or indirect support to small business. Tax credits may also be available to support businesses (Raimi et al., 2020).

Regardless of the mechanisms employed to mitigate the economic impacts of generation retirements, stakeholder engagement is a useful tool to develop an understanding of impacts and management strategies. Further, community stakeholders are key actors as they provide the local context necessary to properly characterize a community's economic environment and for developing economic, fiscal, and workforce strategies that have potential for success (Haggerty et al., 2018).

Workforce redevelopment and host community resources are often driven by state and federal development commissions, with limited roles for state public utility commissions. Utility commissions may consider participating in federal, state or local initiatives but are generally not the initiators or decision-makers. Commissions may, however, suggest that stakeholders approach other planning entities to provide input in local, state or federal economic development initiatives or engage in economic development planning as authorized through legislation. Stakeholders may engage through traditional regulatory proceedings, by providing comment or intervention.

The opportunity to evaluate and plan for long-term socioeconomic impacts is not a required feature of retirement and decommissioning processes. To receive federal funding for economic development, federal law requires applicants (e.g., local governments) to file and update a Comprehensive Economic Development Strategy (CEDS) on a five-year basis (Haggerty et al., 2018). The CEDS is required to be developed through broad based community participation, and "provides a vehicle for individuals, organization, local governments, institutes of learning, and private industry to engage in meaningful conversation and debate about what capacity building efforts would best service economic development in the region" (U.S. Economic Development Administration, n.d.). The challenge faced by many localities in completing the CEDS process, however, is that the Economic Development Administration-recommended process of substantive community engagement is often difficult due to limited capacity of local governments (Haggerty et al., 2018).

If local governments are unable to support community engagement in developing a CEDS for federal economic development funding, PUCs may have the opportunity to otherwise engage communities in robust stakeholder engagement surrounding community transition in investigatory dockets, integrated resource plans, or dockets regarding the retirement of a specific plant. NARUC's Public Utility Commission Stakeholder Engagement:

Featured Resource

NARUC Stakeholder Engagement Decision-Making Framework (2021)

The whitepaper summarizes emerging stakeholder engagement strategies used by public utility commissions, as traditional utility and regulatory practices change with evolving customer needs, new technologies, and shifting policy goals.

One such avenue for soliciting stakeholder engagement is through utility workforce transition planning, as mandated in Section 40-2-133 of the Colorado Revised Statutes (Colorado Statutes, n.d.). Enabled via Senate Bill 19-2019, Section 40-2-133 requires that a utility proposing to accelerate the retirement of an electric generating facility also include a workforce transition plan as part of its filing. See Colorado Just Transition Action Plan, 2020 and HB19-1314.

A Decision-Making Framework (McAdams, 2021) (see featured resource) summarizes emerging stakeholder engagement strategies used by commissions and provides a roadmap for evaluating the key questions, emerging best practices, and related resources for commissions undertaking stakeholder engagement. The strategies outlined in the report offer opportunities for commissions to engage in utility-, commission- or third party-led stakeholder engagement opportunities, many of which can be applied to transition planning.

Improving the Quality of Information Available to the PUC

Enhancing the information available to the commission about the impacts of resource retirements is another mechanism, in addition to stakeholder engagement, that can be used to identify and implement locally relevant mitigation strategies. Studies on the impacts of resource retirements can be directed through the legislature, as was done in Indiana through 2019 House Enrolled Act 1278. The Act directed the Indiana Utility Regulatory Commission to conduct a comprehensive study of the short- and long-term statewide impacts of transitions in the fuel sources and other resources used to generate electricity; and the impacts of emerging technologies for the generation of electricity (Indiana General Assembly, 2019). The report, released in August 2020, identifies the specific impacts to employment, tax revenue, and social makeup of affected communities in Indiana as a result of the anticipated closure or partial closure of three coal-fired generating plants in the state (Guevara et al., 2020).

As discussed in the review of state statues, several states such as Georgia, Nevada, and Virginia, authorize the commission to consider economic impacts in their review of utility IRPs, particularly if regulated utilities opt not to complete a socioeconomic analysis on a facility-specific basis. Where the IRP rules do not explicitly require consideration of economic impacts, the commission may consider an investigation adjusting the requirements to include such factors. The Wyoming Public Service Commission recently employed this approach with Pacificorp's 2019 IRP filing (PacifiCorp, 2019). The preferred resource portfolio of the filing included the retirement of 16 coal units by 2030 and 20 units by the end of 2038, with the conversion of one unit to natural gas. As authorized by Wyoming Statute § 37-2-117 (Wyoming Statutes, 2019), the commission initiated an investigation into Pacificorp's coal studies, observing that the 2019 IRP does not incorporate the economic, emissions and siting cost impacts. They noted that while these considerations are outside of the scope of an IRP, they are important to consider prior to resource development or retirement investments (Nord, 2020). The commission is currently exploring the possibility of implementing new requirements for the IRP process, and hosted a technical conference on January 27, 2021, to discuss whether the commission should propose rules to address:

(1) Negative externalities of cumulative view shed impact, wildlife impacts, socioeconomic impacts and life cycle emissions;

(2) Positive externalities, such as health and well-being;

(3) The potential benefits of a revised resource acquisition and Request for Proposal process;

(4) Additional best practices; and

(5) Whether the Commission should modify its traditional standard of "acceptance for filing" of an IRP to one of "acknowledgment" or "approval" and any other issue(s) raised by interested Stakeholders (Public Service Commission of Wyoming, n.d.).

VI. Challenges and Further Research

PUCs face challenges in assessing and considering the non-energy economic impacts of regulatory actions. First, the PUC must decide if it has the authority to take an action based partially or entirely on its assessment of non-energy economic impacts. If so, the PUC may take appropriate action, but may find itself subject to litigation if stakeholders disagree with the PUC's interpretation of statute. If not, the PUC might consider taking one or more of the approaches outlined above, recognizing that other federal, state, or local governmental agencies may be better positioned to respond to these impacts than the PUC itself. Further, how PUCs deal with economic development today may suggest strategies for the incorporation of environmental justice and equity considerations in the future, a policy area in which a small but growing number of PUCs are being pushed to consider (Huether, 2021).

PUCs may benefit from future research analyzing the impacts of retirements on host communities and ratepayers more broadly, as well as peer exchange among states and federal partners, such as the Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization (National Energy Technology Laboratory, 2021), on strategies to mitigate the detrimental economic impacts of plant closures. Broadened awareness and improved coordination among federal, state, and local organizations with resources available for workforce development and economic revitalization and diversification may benefit host communities in particular.

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Appendix A:
Index of PUC Websites, Mission Statements, Authorizing Statutes, and Administrative Codes

State	Mission Statement	Website	Statutes	Administrative Rules
Alabama	To ensure a regulatory balance between regulated companies and consumers in order to provide consumers with safe, adequate and reliable services at rates that are equitable and economical.	http://psc.alabama.gov/	https://law.justia.com/codes/alabama/2019/title-37/	http://psc.alabama.gov/Administrative/administrative_division.htm
Alaska	The Regulatory Commission of Alaska assures viable utility and pipeline service is provided at just and reasonable rates to consumers in Alaska.	http://rca.alaska.gov/RCAWeb/home.aspx	http://www.legis.state.ak.us/basis/folio.asp	http://rca.alaska.gov/RCAWeb/Documents/StatutesRegs/AAC%20MAIN%20PAMPHLET%20REG%20233%20APRIL%202020.pdf
Arizona	The Arizona Corporation Commission's mission is to ensure safe, reliable, and affordable utility services; have railroad and pipeline systems that are operated and maintained in a safe manner; grow Arizona's economy as we help local entrepreneurs achieve their dream of starting a business; modernize an efficient, effective, and responsive government agency; and protect Arizona citizens by enforcing an ethical securities marketplace.	https://www.azcc.gov/	https://www.azleg.gov/arsDetail/?title=40	https://apps.azsos.gov/public_services/CodeTOC.htm#ID14
Arkansas	The Arkansas Public Service Commission is charged with the duty of ensuring that public utilities provide safe, adequate and reliable utility service at just and reasonable rates. By law such rates must allow public utilities the opportunity to recover the prudently incurred cost of providing such service and a fair rate of return on capital invested by the utilities for the purpose of providing such service. The Commission is also charged with the duty of ensuring that customers are not charged excessive rates for such service.	http://www.arkansas.gov/psc/	https://codes.findlaw.com/ar/title-23-public-utilities-and-regulated-industries/	http://www.apscservices.info/rules.asp
California	We empower California through access to safe, clean, and affordable utility services and infrastructure.	https://www.cpuc.ca.gov/	https://leginfo.legislature.ca.gov/faces/codesTOCSelected.xhtml?tocCode=PUC&tocTitle=+Public+Utilities+Code+-+PUC	https://docs.cpuc.ca.gov/SearchRes.aspx?docformat=-ALL&DocID=209618807
Colorado	The CPUC serves the public interest by effectively regulating utilities and facilities so that the people of Colorado receive safe, reliable, and reasonably-priced services consistent with the economic, environmental and social values of our state.	https://puc.colorado.gov/	https://puc.colorado.gov/pucstatutoryauthority	https://puc.colorado.gov/pucrules
Connecticut	The Public Utilities Regulatory Authority is statutorily charges with regulating rates and services of Connecticut's investor owned electricity, natural gas, water and telecommunication companies and is the franchising authority for the state's cable television companies. In the industries that are wholly regulated, PURPA balanced the public's right to safe, adequate and reliable utility service at reasonable rates with the provider's right to a reasonable return on its investment. PURA also keeps watch over competitive utility services to promote equity among the competitors while customers reap the price and quality benefits of competition and are protected from unfair business practices.	https://portal.ct.gov/pura	https://www.cga.ct.gov/current/pub/title_16.htm	https://eregulations.ct.gov/eRegsPortal/Browse/RCSA/Title_16/

State	Mission Statement	Website	Statutes	Administrative Rules
Delaware	About the PSC: The Delaware Public Service Commission works to ensure safe, reliable and reasonably priced cable, electric and natural gas, wastewater, water and telecommunications services for Delaware consumers.	https://depsc.delaware.gov/	http://delcode.delaware.gov/title26/index.html	https://regulations.delaware.gov/AdminCode/title26/index.shtml#TopOfPage
District of Columbia	The mission of the Public Service Commission of the District of Columbia is to serve the public interest by ensuring that financially healthy utility companies provide safe, reliable and quality utility services at reasonable rates for District of Columbia customers, while fostering grid modernization, conservation of natural resources, preservation of environmental quality, and advancement of the District's climate policy commitments.	https://dcpsc.org/	https://www.dcregs.dc.gov/Common/DCMR/AgencyChapterList.aspx?AgencyID=99	https://dcpsc.org/Orders-and-Regulations/Orders-Rules-and-Regulations/District-of-Columbia-Municipal-Regulations-Title-1.aspx
Florida	Mission: To facilitate the efficient provision of safe and reliability utility services at fair prices. Commission goals: • Goals for Economic Regulation: To the extent possible, streamline regulatory requirements to provide and open, accessible and efficient regulatory process that is fair and unbiased. Provide a regulatory process that results in fair and reasonable rates while offering rate base regulated utilities an opportunity to earn a fair return on their investments. Encourage efficiency and innovation among regulated utilities. Encourage and facilitate responsible uses of resources and technology in the provision and consumption of utility services. • Goals for Regulatory Oversight: Identify and address regulatory barriers that impede the development of competitive telecommunications markets, as directed by law. Provide appropriate regulatory oversight to protect consumers. Ensure that all entities providing utility services to consumers comply with all appropriate requirements subject to the Commission's jurisdiction. • Goals for Service Regulation and Consumer Assistance: Facilitate the provision of safe utility services at levels of quality and reliability that comply with established industry standards and practices. Inform utility consumers regarding utility matters. Expedite resolution of disputes between consumers and utilities.	http://www.psc.state.fl.us/	http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Index&Title_Request=XXVII#TitleXXVII	https://www.flrules.org/gateway/Division.asp?DivID=396
Georgia	The mission of the Georgia Public Service Commission is to exercise its authority to ensure that consumers receive safe, reliable and reasonably priced telecommunications, electric and natural gas services from financially viable and technically competent companies.	https://psc.ga.gov/	https://law.justia.com/codes/georgia/2019/title-46/	http://rules.sos.state.ga.us/gac/515
Hawaii	To serve the public, by ensuring essential utility services are delivered to consumers in a safe, reliable, economical, and environmentally sound manner.	https://puc.hawaii.gov/	https://www.capitol.hawaii.gov/hrscurrent/Vol05_Ch0261-0319/HRS0269/	https://puc.hawaii.gov/about/statutes-rules-orders/

State	Mission Statement	Website	Statutes	Administrative Rules
Idaho	Our mission: • Determine fair, just, reasonable and nondiscriminatory rates and utility practices for electric, gas, telephone and water consumers. • Ensure the delivery of safe, reliable and efficient utility services. • Regulate the public utilities to secure and promote the general safety, health and public welfare. • Ensure safe operation of intrastate pipelines. • Ensure the safe transportation of hazardous materials by railroads. • Ensure the public safety at railroad grade crossings and public streets, roads or highways. • Implement and maintain a secure cyber network for the staff and public.	https://dfm.idaho.gov/publications/bb/strategicplans/fy2020/economic-development/public-utilities-commission.pdf	https://puc.idaho.gov/	https://legislature.idaho.gov/statutesrules/idstat/Title61/
Illinois	The ICC's mission is to balance the interests of consumers and utilities to ensure adequate, efficient, reliable, safe and least-cost public utility services, while promoting the development of an effectively competitive energy supplier market.	https://www.icc.illinois.gov/	https://www.icc.illinois.gov/icc-authority	https://www.ilga.gov/commission/jcar/admincode/083/083parts.html
Indiana	The Indiana Utility Regulatory Commission (Commission) is an administrative agency that hears evidence in cases filed before it and makes decisions based on the evidence presented in those cases. An advocate of neither the public nor the utilities, the Commission is required by state statute to make decisions in the public interest to ensure the utilities provide safe and reliable service at just and reasonable rates.	https://www.in.gov/iurc/	http://iga.in.gov/legislative/laws/2020/ic/titles/001	http://iac.iga.in.gov/iac/iac_title?iact=170&iaca=&-submit=+Go
Iowa	The Iowa Utilities Board regulates utilities to ensure that reasonably priced, reliable, environmentally responsible, and safe utility services are available to all Iowans.	https://iub.iowa.gov/	https://www.legis.iowa.gov/docs/code/476.pdf	https://www.legis.iowa.gov/law/administrativeRules/chapters?agency=199
Kansas	The mission of the Kansas Corporation Commission is to serve the people of Kansas by regulating the State's energy infrastructure, oil and gas production, and commercial trucking to ensure public safety.	https://kcc.ks.gov/	http://www.kslegislature.org/li/b2021_22/statute/066_000_0000_chapter/	https://kcc.ks.gov/images/PDFs/statutes-regulations/4_082_82-Corporation_Commission_2009_KAR_Vol_4.pdf
Kentucky	The mission of the Kentucky Public Service Commission is to foster the provision of safe and reliable service at a reasonable price to the customers of jurisdictional utilities while providing for the financial stability of those utilities by setting fair and just rates, and supporting their operational competence by overseeing regulated activities.	https://psc.ky.gov/	https://apps.legislature.ky.gov/law/statutes/chapter.aspx?id=38583	https://apps.legislature.ky.gov/law/kar/TITLE807.HTM

State	Mission Statement	Website	Statutes	Administrative Rules
Louisiana	The Louisiana Public Service Commission's mission is to impartially, equitably, and efficiently regulates the rates and service of public utilities and common carriers operating in the State so as to ensure safe, reliable, reasonably priced services for consumers and a fair rate of return for the regulated utilities and common carriers and to carry out legislative mandates, such as "Do Not Call" regulation.	http://www.lpsc.louisiana.gov/	http://www.lpsc.louisiana.gov/regs1_general.aspx	http://www.lpsc.louisiana.gov/rules.aspx
Maine	The Maine Public Utilities Commission regulates electric, gas, telephone and water utilities to ensure that Maine citizens have access to safe and reliable utility services at rates that are just and reasonable for all ratepayers.	https://www.maine.gov/mpuc/	http://legislature.maine.gov/statutes/35-A/title35-Ach0sec0.html	https://www.maine.gov/mpuc/legislative/rules/index.shtml
Maryland	The mission of the Maryland Public Service Commission is to ensure safe, reliable, and economic public utility and transportation service to the citizens of Maryland. To achieve this, we will: • Ensure that rates, terms, and conditions established for public service companies are just, reasonable, and transparent. • Adopt and enforce regulations that are in the public interest and ensure that public service companies comply with established regulations. • Create standards and policies that protect the safety of the public. • Explore innovation that will encourage the efficient delivery of public utility services. • Consider the economic and environmental impacts of all matters before the Commission. • Encourage the conservation of natural resources and environmental preservation. • Ensure effective methods of communicating the Commission's areas of regulation and jurisdiction, decisions, and their impact on the public. • Develop and promote activities that encourage public trust and confidence. • Serve the public interest through a commitment to professionalism, diversity, mutual respect, and ethical conduct.	https://www.psc.state.md.us/	https://mgaleg.maryland.gov/2021RS/Statute_Web/gpu/gpu.pdf	http://www.dsd.state.md.us/comar/subtitle_chapters/20_Chapters.aspx
Massachusetts	The Department is responsible for the oversight of investor-owned electric power, natural gas, and water utilities in the Commonwealth; developing alternatives to traditional regulation; monitoring service quality; regulating safety in the transportation and gas pipeline areas; and for the siting of energy facilities. The mission for the Department is to ensure that utility consumers are provided with the most reliable service at the lowest possible cost, to protect the public safely from transportation and gas pipeline related accidents; to oversee the energy facilities siting process, and to ensure that residential ratepayers' rights are protected.	https://www.mass.gov/orgs/department-of-public-utilities	https://www.mass.gov/lists/massachusetts-general-laws-and-session-laws-applicable-to-dpu	https://www.mass.gov/info-details/220-cmr-department-of-public-utilities
Michigan	The mission of the Michigan Public Service Commission is to serve the public by ensuring safe, reliable, and accessible energy and telecommunications services at reasonable rates.	https://www.michigan.gov/mpsc/	http://www.legislature.mi.gov/(S(jseqxovenqaivq3qlco0zvyy))/mileg.aspx?page=GetObject&objectname=mcl-chap460	https://www.michigan.gov/mpsc/0,9535,7-395-93309_93437_93467---,00.html

State	Mission Statement	Website	Statutes	Administrative Rules
Minnesota	The Commission's mission is to create and maintain a regulatory environment that ensures safe, adequate and efficient utility services at fair, reasonable rates consistent with State telecommunications and energy policies. It does so by providing independent, consistent, professional and comprehensive oversight and regulation of utility service providers. One of the key functions of the commission in performing this mission is to balance the private and public interests affected in each docket, and to make decisions that appropriately balance these interests in a manner that is "consistent with the public interest."	https://mn.gov/puc/	https://mn.gov/puc/consumers/regulators/rules/	https://www.revisor.mn.gov/rules/agency/138
Mississippi	The Public Service Commission regulates telecommunications, electric, gas, water and sewer utilities. The agency is charged with assuring that rates and charges for services are just and reasonable, that the service rendered is reasonably adequate, and that any facilities constructed or acquired are required for the convenience and necessity of the public. Additionally, the agency exercises safety jurisdiction over gas pipelines and has area jurisdiction over all public utilities. In carrying out its responsibilities, the commission answers complaints, makes investigation and conducts both formal and informal hearings.	https://www.psc.ms.gov/	https://law.justia.com/codes/mississippi/2019/title-77/	https://www.psc.ms.gov/sites/default/files/Procedural%20Rules%20Updated%2001-31-2021%20replacing%20Rule%204%20and%2021.pdf
Missouri	We will: • ensure that Missourians receive safe and reliable utility services at just reasonable and affordable rates; • support economic development through either traditional rate of return regulation or competition, as required by law; • establish standards so that competition will maintain or improve the quality of services provided to Missourians; • provide the public the information they need to make educated utility choices • provide an efficient regulatory process that is responsive to all parties, and perform our duties ethically and professionally.	https://psc.mo.gov/	https://revisor.mo.gov/main/OneChapter.aspx?chapter=386	https://www.sos.mo.gov/adrules/csr/current/20-csr/20csr#20-4240
Montana	(Not explicitly the mission statement) The Montana Public Service Commission (PSC) strives to ensure that ratepayers have continued access to utility services that are affordable, reliable, and sustainable for the long-term. In pursuit of this goal, the PSC regulates the rates and service quality for investor owned electric, natural gas, water, waste-water, and legacy telecommunication companies. Though they differ in form and function, companies in these industries all have one thing in common, they are monopolies with a captive set of customers. It's the PSC's job to balance the interests of ratepayers who are concerned about utility rate increases, with the need to maintain a financially sound utility that is capable of providing reliable service	http://psc.mt.gov/	https://leg.mt.gov/bills/mca/title_0690/chapters_index.html	http://www.mtrules.org/gateway/Department.asp?DeptNo=38
Nebraska	No investor-owned electric utilities in Nebraska	https://psc.nebraska.gov/	https://www.nebraskalegislature.gov/laws/browse-chapters.php?chapter=75	https://psc.nebraska.gov/administration/rules-regulations

State	Mission Statement	Website	Statutes	Administrative Rules
Nevada	The Public Utilities Commission of Nevada (PUCN) is a regulatory agency that ensures investor-owned utilities comply with laws enacted by the Nevada Legislature. The PUCN's basic regulatory duties, as defined by the Legislature (NRS 704.001), include: • To provide for fair and impartial regulation of public utilities. • To provide for the safe, economic, efficient, prudent and reliable operation and service of public utilities. • To balance the interests of customers and shareholders of public utilities by providing public utilities with the opportunity to earn a fair return on their investments while providing customers with just and reasonable rates.	https://puc.nv.gov/	https://puc.nv.gov/About/Docs/Statutes_Regulations/	https://puc.nv.gov/About/Docs/Statutes_Regulations/
New Hampshire	• To ensure that customers of regulated utilities receive safe, adequate and reliable service at just and reasonable rates. • To foster competition where appropriate. • To provide necessary customer protection. • To provide a thorough but efficient regulatory process that is fair, open and innovative. • To perform our responsibilities ethically and professionally in a challenging and supportive work environment.	https://www.puc.nh.gov/	https://www.puc.nh.gov/Regulatory/statutes.htm	https://www.puc.nh.gov/Regulatory/rules.htm
New Jersey	• To ensure that safe, adequate, and proper utility services are provided at reasonable, non-discriminatory rates to all members of the public who desire such services. • To develop and regulate a competitive, economically cost effective energy policy that promotes responsible growth and clean renewable energy sources while maintaining a high quality of life in New Jersey.	https://www.bpu.state.nj.us/	https://advance.lexis.com/container/?pdmfid=1000516&crid=23e7a50a-2e7f-4843-b0d0-e58a9c4a4850&func=LN.Advance.ContentView.	https://advance.lexis.com/container/?pdmfid=1000516&crid=d8500ab3-6bc9-4994-980d-36581197893a&func=LN.Advance.ContentView.getFullToc&nodeid=AAU&typeofentry=Breadcrumb&config=00JAA5OTY5MTd-jZi1IMzYxLTQxNTEtOWFkNi0x-MmU5ZTViODQ2M2MKAF-BvZENhdGFsb2coFSYEAf-v22IKqMT9DlHrf&action=publictoc&pddocfullpath=%2f-shared%2fdocument%2fadministrative-codes%2furn%3acontentItem%3a60G3-NGR1-JJSF-23JR-00008-00&pdtocfullpath=%2fshared%2ftableof-contents%2furn%3acontentItem%3a7XT6-6F60-Y903-S559-00008-00&ecomp=qssdkkk&prid=86784fb7-8ca0-45c6-8ef9-7c0b11e0c3c9
New Mexico	The New Mexico Public Regulation Commission (NMPRC) regulates the utilities, telecommunications, and motor carrier industries to ensure fair and reasonable rates, and to assure reasonable and adequate services to the public as provided by law.	http://www.nmprc.state.nm.us/	https://codes.findlaw.com/nm/chapter-62-electric-gas-and-water-utilities/	http://164.64.110.134/nmac/title17

State	Mission Statement	Website	Statutes	Administrative Rules
New York	The primary mission of the New York State Department of Public Service is to ensure affordable, safe, secure, and reliable access to electric, gas, steam, telecommunications, and water services for New York State's residential and business consumers, while protecting the natural environment. The Department also seeks to stimulate effective competitive markets for clean, renewable, and distributed energy resources that benefit New York consumers, as well as product and service innovations.	https://www.dps.ny.gov/	https://www3.dps.ny.gov/W/PSCWeb.nsf/All/49775FD17CDEE7F285257C910059DEED?OpenDocument	https://govt.westlaw.com/nycrr/Browse/Home/NewYork/NewYorkCodesRulesandRegulations?guid=I51de0430ac3d11dd9f72c1eb90efe723&originationContext=documenttoc&transitionType=Default&contextData=(sc.Default)&bhcp=1
North Carolina	The Commission is responsible to both the public and utilities and, by law (G. S. 62-2), must: • Provide fair regulation of public utilities in the interest of the public. • Promote the inherent advantage of regulated public utilities. • Promote adequate, reliable, and economical utility service. • Promote least cost energy planning. • Provide just and reasonable rates and charges for public utility services and promote conservation of energy. • Assure that facilities necessary to meet future growth can be financed on reasonable and fair terms. • Encourage and promote harmony between public utilities, their users and the environment. • Foster planned growth of public utility services. • Coordinate energy supply facilities with the State's development. • Cooperate with other states and the federal government in providing interstate and intrastate public utility service and reliability of energy supply. • Facilitate the construction of facilities in and the extension of natural gas service to unserved areas. • Promote the development of renewable energy and energy efficiency through the implementation of a Renewable Energy and Energy Efficiency Portfolio Standard.	https://www.ncuc.net/	https://www.ncleg.net/enactedlegislation/statutes/html/bychapter/chapter_62.html	https://www.ncuc.net/ncrules/ncucrules.pdf
North Dakota	The mission statement of the Public Service Commission is to fulfill its statutory mandates by protecting the public interest and regulating utilities, mining companies, weights and measures devices, railroad safety and licensees in a fair, efficient, responsive, and cooperative manner. Regulatory initiatives assure that: • Utility customers receive reliable and safe service at reasonable and just rates. • Mined coal lands are reclaimed to provide a safe and productive environment now and in the future. • License and permit holders and operators of commercial weighing and measuring devices operate in a safe and fair manner. • Railroad safety is enhanced and maintained through inspection and compliance programs	https://www.psc.nd.gov/	https://www.psc.nd.gov/public/laws/lawselectricgas.php	https://www.psc.nd.gov/public/laws/ruleselectricgas.php

State	Mission Statement	Website	Statutes	Administrative Rules
Ohio	Our mission is to assure all residential and business consumers access to adequate, safe and reliable utility services at fair prices, while facilitating an environment that provides competitive choices. The mission is accomplished by • Mandating the availability of adequate, safe and reliable utility service to all business, industrial and residential consumers. • Ensuring financial integrity and service reliability in the Ohio utility industry. • Promoting utility infrastructure investment through appropriate regulatory policies and structure. • Regulating utilities' rates and terms of service for monopoly and non-competitive services. • Monitoring and enforcing compliance with rules and statutory protections against deceptive, unfair, unsafe, and anti-competitive utility practices. • Safeguarding the security of Ohio's regulated motor carrier and rail operations, through aggressive inspection, training, monitoring and education programs. • Enhancing safety at all public highway-railroad grade crossings in Ohio through education and the installation of lights and gates and other safety devices. • Resolving through mediation, arbitration, and adjudication disputes between utilities and residential, commercial and industrial customers, as well as between competing utilities. • Fostering competition by establishing and enforcing a fair competitive framework for all utilities. • Utilizing advanced technology for monitoring and enforcing utility compliance, facilitating the provision of information to stakeholders, and sharing information between state and federal agencies.	https://puco.ohio.gov/	https://codes.ohio.gov/ohio-revised-code/title-49	https://puco.ohio.gov/wps/portal/gov/puco/documents-and-rules/resources/rules
Oklahoma	Empowering Oklahoma by: Ensuring responsible development of oil and gas resources: reliable utility service at fair rates: safe and legal operation of motor carriers, pipelines, rail crossings, and fueling stations: and prevention and remediation of energy related pollution of the environment: while Balancing the rights and needs of the people with those of regulated entities through development and enforcement of regulations in an open, transparent, ethical, and just manner.	https://oklahoma.gov/occ.html	https://oklahoma.gov/occ/dockets/statutes.html	https://oklahoma.gov/occ/dockets/rules/current-rules.html
Oregon	To ensure Oregon utility customers have access to safe, reliable, and high quality utility services at just and reasonable rates. This is done through robust analysis and independent decision-making conducted in an open and fair process. The PUC is funded by assessment of the regulated public utilities.	https://www.oregon.gov/puc/Pages/default.aspx	https://www.oregon.gov/puc/about-us/Documents/LawBook.pdf	https://secure.sos.state.or.us/oard/displayChapterRules.action?selectedChapter=172

State	Mission Statement	Website	Statutes	Administrative Rules
Pennsylvania	The mission of the Pennsylvania Public Utility Commission is to balance the needs of consumers and utilities; ensure safe and reliable utility service at reasonable rates; protect the public interest; educate consumers to make independent and informed utility choices; further economic development; and foster new technologies and competitive markets in an environmentally sound manner.	https://www.puc.pa.gov/	https://codes.findlaw.com/pa/title-66-pacsa-public-utilities/	https://www.pacodeandbulletin.gov/Display/pacode?titleNumber=052&file=/secure/pacode/data/052/052toc.html&searchunitkeywords=&operator=OR&title=null
Puerto Rico	To achieve a reliable, efficient and transparent electric system, which provides power services at reasonable prices.	https://energia.pr.gov/en/	https://energia.pr.gov/en/laws/	https://energia.pr.gov/en/regulations/
Rhode Island	To provide fair regulation of public utilities, CATV, common carriers, and major energy facilities; ensure just and reasonable rates; ensure sufficient utility infrastructure to promote economic development; and coordinate with other states and federal government agencies.	http://www.ripuc.ri.gov/	http://webserver.rilin.state.ri.us/Statutes/TITLE39/INDEX.HTM	http://www.ripuc.ri.gov/rulesregs/commrules.html
South Carolina	To serve the public of South Carolina by providing open and effective regulation and adjudication of the state's public utilities, through consistent administration of the law and regulatory process. Goals: • Seek to ensure that the citizens of the State receive appropriate levels of customer satisfaction and quality of service for those services provided through the entities regulated by this Commission. • Seek to ensure that within a more competitive utility environment that core or captive customers with little market power are not unduly burdened with the costs of competition and are provided appropriate service and service options. • Seek to encourage innovation through the enhancement of Commission processes and the attainment of self-actualization by Commission employees through empowering these employees to carry out their responsibilities and rewarding them for their contribution to the attainment of Commission goals. • Seek to modify the organizational process of the Commission in such a manner as to provide for the incorporation of project teams to address specific complex short-term issues that arise as a result of the dynamic nature of the utility industry regulated by this Commission. • Provide an open, accessible and efficient regulatory process which is fair, cost effective and unbiased, while also exploring alternative methods of regulating the entities subject to the Commission's jurisdiction. • Seek to ensure that the regulatory process results in fair and reasonable outcomes. • Encourage efficiency, innovation, and technological growth among regulated entities. • For the regulated entities, facilitate the provision of safe services at levels of quality and reliability which satisfy customer needs. • Seek to ensure that all regulated entities' services to consumers comply with all legal requirements subject to the Commission's jurisdiction.	https://psc.sc.gov/	https://www.scstatehouse.gov/code/title58.php	https://www.scstatehouse.gov/coderegs/statmast.php

State	Mission Statement	Website	Statutes	Administrative Rules
South Dakota	The commission regulates investor-owned electric, natural gas and telephone utilities. The PUC ensures utility companies in South Dakota provide safe and reliable service and that investor-owned companies do so with just and reasonable rates.	https://puc.sd.gov/	https://sdlegislature.gov/Statutes/Codified_Laws/2069881	https://sdlegislature.gov/Rules/Administrative/8438
Tennessee	The Commission's mission is to ensure the safe and reliable provision of public utility services to the citizens of Tennessee.	https://www.tn.gov/tpuc.html	https://advance.lexis.com/container/?pdmfid=1000516&crid=6e3f82f0-0f29-440a-a3b3-2ba9cedf6a42&func=LN.Advance.ContentView.getFullToc&nodeid=ACM&typeofentry=Breadcrumb&config=014CJAA5ZGVhZjA3NS02MmMzLTRlZWQtOGJjNC00YzQ1MmZlNzc2YWYKAFBvZENhdGFsb2e9zYpNUjTRaIWVfyrur9ud&action=publictoc&pddocfullpath=%2Fshared%2Fdocument%2Fstatutes-legislation%2Furn%3AcontentItem%3A4X26-BMH0-R03M-60J8-00008-00&pdtocfullpath=%2Fshared%2Ftableofcontents%2Furn%3AcontentItem%3A8001-XKW0-Y907-33PJ-00008-00&ecomp=qssdkkk&prid=4da0ef78-b151-4c0b-aa567de730a8b269	https://publications.tnsosfiles.com/rules/1220/1220.htm
Texas	The mission of the commission is to assure the availability of safe, reliable, high quality services that meet the needs of all Texans at just and reasonable rates. To accomplish this mission, the commission shall regulate electric and telecommunications utilities as required while facilitating competition, operation of the free market, and customer choice.	https://www.puc.texas.gov/	https://www.puc.texas.gov/agency/rulesnlaws/statutes/statutes.aspx	https://www.puc.texas.gov/agency/rulesnlaws/Default.aspx
Utah	Because there is no competition, federal and state law obligates the PSC to promote and protect the public interest by ensuring that public utility service is adequate in quality and reliability, and is available to everyone at just and reasonable prices. The prices, terms, and conditions of utility service affect the quality of the state's infrastructure.	https://psc.utah.gov/	https://le.utah.gov/xcode/Title54/54.html?v=	https://adminrules.utah.gov/public/search/R746/Current%20Rules
Vermont	The Commission's mission is to ensure the provision of high-quality public utility services in Vermont at minimum reasonable costs, consistent with the long-term public good of the state. The Commission strives to achieve its mission by providing independent, fair, and efficient means of resolving public utility disputes, and by guiding the development of state utility policies and rules for public services to best serve the long-term interests of Vermont and its residents, all as defined in Title 30 V.S.A.	https://puc.vermont.gov/	https://legislature.vermont.gov/statutes/title/30	https://puc.vermont.gov/about-us/statutes-and-rules/current-rules-and-general-orders

State	Mission Statement	Website	Statutes	Administrative Rules
Virginia	The Division of Public Utility Regulation (PUR) provides support to the Commission in its regulation of Virginia's investor-owned electric, natural gas, water and sewer utilities, member-owned electric cooperatives, and the telecommunications industry. Its chief function is supporting the Commission in its goal to ensure Virginia consumers receive adequate utility services at just and reasonable rates.	https://scc.virginia.gov/	https://scc.virginia.gov/pages/Commission-Authority	https://scc.virginia.gov/pages/Rules
Virgin Islands	The mission of the Public Services Commission is to regulate all public utilities operating in the territory to ensure a fair and reasonable rate of return while providing the ratepayers with the highest quality service in a safe, consistent and efficient manner.	https://psc.vi.gov/	https://advance.lexis.com/container?config=024453JABiMWFjOTk0OS1hNTVlLTQ1MDctYmZkOS1mNGRkY2I0ZTg2YzQKAFBvZENhdGFsb2fNaUTUAugmXPqNctTcuqLy&crid=a16cd6d6-82ec-4a2f-8476-cfc3-6a09003f&prid=effff76e-2754-4b27-8234-a03f9264387d	https://psc.vi.gov/?page_id=15
Washington	Our Mission is to protect the people of Washington by ensuring that investor-owned utility and transportation services are safe, available, reliable and fairly priced.	https://www.utc.wa.gov/	https://apps.leg.wa.gov/rcw/default.aspx?Cite=80	https://apps.leg.wa.gov/wac/default.aspx?Cite=480
West Virginia	The purpose of the Public Service Commission is to ensure fair and prompt regulation of public utilities; to provide for adequate, economical and reliable utility services throughout the state; and to appraise and balance the interests of current and future utility service customers with the general interest of the state's economy and the interests of the utilities.	http://www.psc.state.wv.us/	https://code.wvlegislature.gov/24/	https://apps.sos.wv.gov/adlaw/csr/rule.aspx?agency=Public%20Service%20Commission
Wisconsin	The PSC of Wisconsin ensures safe, reliable, affordable, and environmentally responsible utility services and equitable access to telecommunications and broadband services.	https://psc.wi.gov/	https://docs.legis.wisconsin.gov/statutes/statutes/196	https://docs.legis.wisconsin.gov/code/admin_code/psc
Wyoming	To ensure that public utilities provide Wyoming Customers safe adequate and reliable service at just and reasonable rate. It implements public policy as reflected in statute, primarily the applicable provisions of Title 37.	https://psc.wyo.gov/	https://wyoleg.gov/statutes/compress/title37.pdf	https://rules.wyo.gov/Search.aspx

NARUC
National Association of Regulatory Utility Commissioners

1101 Vermont Ave, NW • Suite 200 • Washington, DC 20005
www.naruc.org • (202) 898-2200