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Regulated Utility Negotiated Agreements: A Utah Case Study

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Abstract: Previous scholars have noted the increase in negotiated agreements as a means of resolving utility regulatory disputes in the United States. These agreements allow policy actors to make their own decisions instead of receiving orders from a regulatory agency. Through a natural gas utility case study in the state of Utah, this paper examines the Advocacy Coalition Framework's (ACF) novel explanation of the conditions contributing to a negotiated agreement with the emergence of new energy efficiency programs. Using the ACF, coalition groupings are divided out as either those in favor of energy efficiency programs or those against that change. A content analysis explores the presence of the conditions leading to a negotiated agreement. This article finds that the ACF model provides a theoretical lens to understand negotiated agreements in utility regulation. While utility agreements resolving regulatory proceedings seem to only grow, more research opportunities exist for further study on the ACF and these outcomes in utility regulation.

Keywords: utility regulation; negotiated agreements; energy efficiency; advocacy coalition framework; demand-side management programs; energy policy

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1. Introduction

Increasingly, public officials, and the public at large, demand that investor-owned utilities take an expanded role in issues surrounding the public interest [1]. No longer does it suffice for an electric or natural gas utility to solely provide safe and reliable service at affordable rates. Society now demands that utilities take an active role in combating climate change and environmental degradation, with energy efficiency and conservation programs acting as practical solutions.

Historically, public utility regulation in the United States included a formal process of litigation involving the public utility and interested parties, conducted by a state administrative agency (public service commission) acting as a judge and arbitrator. In a regulatory proceeding, parties may conduct settlement conferences or discussions with some or all of the parties with the goal to find common ground on reaching a settlement of some or all of the disputed issues. In these discussions, settlements (agreements) may be reached by some or all of the parties in a rate proceeding and presented to the commission in the form of a signed stipulation for approval [2].

Subsequently, this agreement is considered and typically approved by a public service commission. These 'negotiated settlements' are widespread and have been discussed by legal scholars and regulatory practitioners [3]. Still, for whatever reason, these efforts have been largely omitted from the public policy literature and largely missing theoretical explanations. Doucet and Littlechild ([3], p. 266) note that there has been "little or no indication of how often and under what conditions litigation and settlements are used in practice, whether either method is becoming more or less prevalent, for what kinds of cases each method tends to be used, and how if at all the outcomes differ from one method to another".

Logistically, Doucet and Littlechild [3] note the perception that negotiated settlements have been seen primarily as a quicker, less expensive or a more convenient way of dealing with a regulatory load, and as achieving essentially a similar outcome as compared to the conventional litigation process. Still, research indicates that negotiated settlements can evolve into outcomes significantly different from litigation. Doucet and Littlechild ([3], p. 267) state that "in some respects, these outcomes are beyond the competence of utility regulatory commissions to achieve". Negotiations that affect public policy merit academic research [4]. Arguably, negotiated settlements have changed the nature of utility regulation in many important respects. They represent an ongoing reality for utility regulation today and into the future. Today, negotiated agreements increasingly stand as a likely outcome in a United States utility regulatory proceeding.

1.1. Investor-Owned Utilities: A Regulatory Contract

An investor-owned utility is a unique business model with extensive public and government interaction. This industry varies significantly compared to other modern private and public relationships. Investor-owned utilities hold an enormous sway on the public in providing energy economically as well as U.S. national energy policy. Still, the policies largely take place outside of the public eye, even though they are formally designed to be accessible to all and readily available. Ultimately, investor-owned utilities carry out the wishes of local, state, and national public policy interests.

The connection between society and utilities has been described as a regulatory contract [5]. Within this contract, utilities create and implement public energy policy. This regulatory contract stipulates the mutual rights, obligations, and benefits that exist between both parties. Moreover, within this framework a balance must exist between the needs of society versus the needs of the utility. Regulation creates a special bond between the owners of private property (the utility) and the agent of the state (the regulator). This contract strives to protect both the utility and the consumer. Utilities accept the obligation to serve, and charge regulated, cost-based rates; correspondingly, customers agree to limited choices with protection from monopoly pricing [5]. Compton [6] (p. 4) comments that "regulation is most successful when both sides keep their part of the regulatory compact—when regulatory incentives do not encourage the utility to over-estimate its costs or compromise its service quality". Bonbright [7] notes that this duty must be provided to customers without undue discrimination.

With this regulatory contract in place, the historical practice of providing reliable service to customers at affordable costs no longer seems to be the only requirement for utilities. Now, utilities take an expanded role in issues involving the public interest [1]. Two such areas include energy efficiency and conservation, with more state jurisdictions requiring utilities to make those program offerings. Here, we consider energy efficiency as the improvement in energy usage of equipment (e.g., high-efficiency furnaces) or buildings (e.g., weatherization of windows, attics, walls, or floors); in turn, conservation is defined as energy-saving behaviors (e.g., taking shorter showers or turning down the thermostat during the winter). Pressure for action on energy efficiency has come from multiple sources. Environmentalists may decry the impact of carbon emissions on global climate, or naturalists may worry about new pipelines intruding on wildlife. An electric utility may be concerned about costs and rate recovery for constructing a new power plant, while a natural gas utility may be concerned about building a massive and costly storage facility. In contrast, state and local economic development agencies may prioritize consistent, reliable, and affordable energy. Nonetheless, utility regulation must balance those interests in creating energy efficiency-related policy.

Today, utility energy efficiency programs provide education, rebates, and other types of incentives for the adoption of more efficient equipment and energy conservation. While historically utilities and environmentalists may not have seen eye to eye on energy development, conservation, and the energy supply mix, these programs created a pathway for these groups to align interests, while not adversely affecting the utility. Nationally, state

approval for these programs rose dramatically between 2007 and 2010, including this case study in Utah [8].

1.2. Research Question

This paper examines the facet of a negotiated agreement juxtaposed against public policy's Advocacy Coalition Framework (ACF) through a single case study examining the emergence of a natural gas utility energy efficiency program in Utah. Using this framework as a means for explaining negotiated agreements, this paper explores the following research question: *What leads to the formation of natural gas utility energy efficiency programs in Utah?* To aid in the response and investigation of this research question, four separate, specific hypotheses will be explored, all within the construct of the ACF.

Hypothesis 1 (H1): *During this period, advocacy coalitions existed in the Utah regulatory utility policy subsystem.*

Hypothesis 2 (H2): *A coalition of actors argued on behalf of creating utility energy efficiency programs in this period.*

Hypothesis 3 (H3): *A coalition of actors argued against creating utility energy efficiency programs in this period.*

Hypothesis 4 (H4): *A negotiated settlement aided in the policy change.*

2. Case Study Background

In 2007, the Utah Public Service Commission approved a new rate design and energy efficiency programs for its natural gas investor-owned utility. This approval marked a significant change and a new emphasis on efficiency and conservation for both the utility and its customers. With this change, no longer would the utility emphasize increased energy consumption to earn more profit. In short, this change marked the culmination of efforts across many years by environmentalists, the utility, state agencies, and interested constituents in emphasizing a decrease in energy use. Together they united in identifying negotiated agreements for the Commission to approve.

Nestled in the heart of the American Rocky Mountains, Utah's expansion for energy efficiency programs serves as a bellwether for additional national growth of these energy efficiency programs. Historically, the most aggressive stances on energy efficiency programs and clean energy come from politically progressive, geographically coastal areas of the U.S.; i.e., in the Northeast and the West Coast. By contrast, Utah is geographically landlocked and politically more conservative with Republican party supermajorities long controlling the state's legislative and executive branch; by one measure, Utah stands as the ninth most conservative state [9]. This approval suggests that if energy efficiency programs can succeed in a state like Utah, ample opportunities exist for this type of program to emerge, excel, and expand throughout the U.S.

In this case study, a natural gas utility joins forces with unlikely allies, such as environmental groups, to propose energy efficiency programs. Officially, a joint 2005 regulatory proposal by the utility, a state agency, the Utah Division of Public Utilities, and a non-profit environmental group, Utah Clean Energy, requested approval to the regulating body, the Utah Public Service Commission. Following expert witness testimony and regulatory proceedings, the Utah Public Service Commission approved a negotiated settlement for the energy efficiency programs to begin in January 2007. These energy efficiency programs provide energy consumption education and pay rebate incentives to residential and small commercial customers, often helping consumers achieve financial and environmental goals.

Still, the path of program acceptance started long before the official docket request in 2005 and subsequent program approval in 2007. In 2000, as part of a regulatory proceeding, the Utah Public Service Commission ordered the natural gas utility to provide USD 250,000

in funding for a low-income weatherization program administered by the state, leading to the first type of energy efficiency utility program [10]. Later, in 2002, a regulatory proceeding determined the allowed rate of return for the utility; therein, the Utah Energy Office intervened in the docket and advocated for creating energy efficiency programs for the natural gas utility. In this proposal, the Utah Energy Office, part of the state's Department of Natural Resources, argued that "public policies will support sustained investments in cost effective DSM and increased use of energy efficient technologies and services in Utah's economy" ([11], p. 2–3). Notably, during the early 2000s, similar efforts were also taking place with Utah's electric investor-owned utility in new legislation, leading to its energy efficiency program offerings [12].

In a 2002 regulatory proceeding, the utility and its representatives pushed back against the need for such programs, considering the ongoing trend of declining use per customer, and argued that such programs were unnecessary for a natural gas utility. The utility conceded that while these programs "may be effective for the electric industry, it has little or no current application to a gas company that is experiencing a steep decline in usage per customer. Governmental programs, such as mandatory appliance efficiencies, are playing a prominent role in this trend. Volatile natural gas commodity costs have also contributed to customer conservation" ([13], p. 21).

Furthermore, a utility representative described a lack of optimism at the "prospect of finding successful energy efficiency measures is bright enough" ([13], p. 21–22). Another utility representative noted that demand reduction is "already occurring naturally in the marketplace as high-efficiency appliances and set-back thermostats are offered to customers". These appliances had already resulted in a steady drop in utility usage per customer. Thus, to pursue the proposed program "is not in the public interest when properly viewed in this context" ([14], p. 2).

Still, the resulting proceedings in 2002 contained a negotiated agreement leading to the formation of a task force to investigate the matter further, with the formation of a "collaborative group to examine gas DSM issues" ([15], p. 53). This advisory group included state agencies, environmental advocates, and the utility. The Utah Public Service Commission charged the advisory group with investigating how to realize the potential of energy efficiency programs. The advisory group met 12 times from December 2002 to December 2004 and studied a range of topics, from utility incentives to promotional marketing and cost-effectiveness tests to establish a metric to determine the criteria for program inclusion. In its February 2005 report to the Commission, the advisory group recommended to "examine the use of pilot or demonstration programs to gain experience with program design costs and implementation issues" ([16], p. 6).

Subsequently, in 2005, the gas utility, in partnership with an environmental advocate and a state agency, officially filed for a request to launch a utility energy efficiency program in the state of Utah. Through discussions with utility constituents, governmental advocates, and interest groups, a new type of program would emerge. This program would offer small business and residential customers rebate incentives for housing/construction measures (e.g., attic insulation or new windows) and natural gas appliances (e.g., high-efficiency furnaces or high-efficiency water heaters) that could improve efficiency, reduce usage, and cut their carbon footprint. This program change marked a landmark adjustment in how the utility would collect revenues and, in turn, shift its focus to encouraging customers to prudently reduce their natural gas consumption.

In an agreement set forth by intervenors and approved by the Utah Public Service Commission, the utility agreed to "aggressively promote energy efficiency" while simultaneously adjusting its rate design to include decoupling ([17], p. 5). Historically, utilities would collect more revenue based on more energy consumed. A decoupling modification in revenue collection could alleviate the utility's financial concerns about losing revenue when customers consume less energy. In 2007, these natural gas energy efficiency programs officially began. Similar to other states, Utah's interest in energy efficiency or environmental

issues presents both opportunities and challenges. The Salt Lake City metro area is among the seven worst large metro areas in terms of air quality in the United States [18].

3. Materials and Methods

3.1. Theoretical Research Framework

Policy theoretical models seek to explain the policy making process to "deal either explicitly or implicitly with how policy changes emerge" [19]. One such model to ground an understanding of negotiated agreements includes the Advocacy Coalition Framework (ACF). Scholars Paul Sabatier and Hank Jenkins-Smith initially developed the ACF to study environmental and energy policy-related questions in the United States.

Today the ACF presents a research program for scholars to explain policy change. Broadly, actors turn to politics to translate their beliefs into policy. As policy actors they form advocacy coalitions and compete with other coalitions. These policy changes occur in subsystems. Four pathways, internal or external shocks, policy learning, or negotiated agreements, explain policy change. Sabatier and Weible ([20], p. 208) note that the Advocacy Coalition Framework has undergone a revision approximately every six years (1993, 1999, 2006), reflecting a growth in scholarship to new policy areas, political systems, and methods.

Contemporary ACF studies in the environmental and energy policy-related sector include forest governance in Papua New Guinea [21], offshore oil and gas policy in the United States [22], conservation policy in South Korea [23], climate change [24], automotive pollution control subsystem [25], or marine protected area policy in California [26]. Nonetheless, the ACF has never been applied to the formal nature of utility regulation. The ACF has become one of the most utilized frameworks for describing the policy process. ACF's most common applications are in environmental policy, finance and economic policy, social policy, and education policy ([27], p. 188).

Jenkins-Smith et al. ([28], p. 138) note that "the purpose of a framework (like the ACF) is to provide a shared research platform that enables analysts to work together in describing, explaining, and sometimes, predicting phenomena within and across different contexts". Still a misperception among some researchers may exist that utilizing the ACF requires a comprehensive test or an empirical assessment of all the associated components and corresponding relationships among them. Scholars who have developed and refined the ACF suggest that theories within the framework can (and should) be subject to experimentation, adjustment, and modifications over time. The study in this paper highlights this sentiment by exploring specific aspects of the ACF.

A major focus for the ACF entails understanding policy change. The ACF describes four pathways to policy change (external events, internal events, policy learning, and negotiated learning.) While each pathway may contribute to this policy change, this paper will focus on the negotiated agreement pathway. With a negotiated agreement previously warring coalitions come to a resolution that may change governmental programs. Negotiated agreements may occur in a variety of ways but are enabled by collaborative institutions conducive to negotiation. Negotiated agreements tend to occur when there is a "hurting stalemate", which happens when opponents do not have other venues for influencing government and perceive the status quo to be unacceptable.

The presence of a negotiated agreement may show a change in the policy core beliefs [27]. Jenkins-Smith et al. ([27], p. 204) advise that the primary focus should establish best practices for "documenting and explaining policy change while accounting for context". The framework does not specify the causal mechanism associated with negotiated agreements but identifies factors that that foster negotiation but not how negotiation leads to policy change.

3.2. Methodological Approach

To study the events in this case, the approach is twofold: first, a background analysis situates the utility regulatory process in the grander perspective. Second, a content analysis examines the hypotheses using data collected from three publicly available data sources,

including periodical research and data generated from two rate case proceedings. First, periodical research, spanning from 1990 to 2007, from the database Newspaper Source Plus were examined using relevant search terms. Thirteen newspaper articles matched coming from local Utah newspapers. Second, the 2002 General Rate Case documents were searched for testimony, orders, and hearings referring to energy efficiency. In that docket, 21 documents matched. Third, the 2005 regulatory proposal docket, including all proceedings referring to energy efficiency up until program approval January 2007 (Timeframe: 2005–2007). This included 111 documents. For the two regulatory dockets, all the selected documents must be available for public usage on the Utah Public Service Commission web site. Table 1 shows a list of the data analysis sources for the content analysis.

Table 1. List of data analysis sources for the content analysis.

Source	Count	Description
Newspaper Source Plus	13	An online Newspaper database. Articles came from Utah local newspapers.
Docket 02-057-02	21	Regulatory docket considered as a Utah natural gas general rate case preceding the utility energy efficiency proposal. Includes testimony, commission orders, and hearings relating to an energy efficiency utility program proposal.
Docket 05-057-05	111	Regulatory docket entailing the proposal for the start of the energy efficiency programs. Includes testimony, commission orders, and hearings.

Based on the data gathered, I identified 10 primary organizational players in the case. These included 26 primary individual actors and six secondary actors. Table 2 shows a list of the predominant players in the case study. I identified coalitions, breaking them out as either in favor of the regulatory proposal or against the proposal based on position statements made by participating organizations and individuals.

Table 2. Players in the utility docket.

	Organizational Player	Type	Description
1.	Utility	For-profit	Natural gas investor-owned utility serving customers in Utah, Idaho, and Wyoming
2.	Division of Public Utilities	State	A state designed to promote public interest in utility regulation with the goal to assure that all utility customers have access to safe, reliable service at reasonable price
3.	Utah Clean Energy	Non-profit	Private non-profit dedicated to advancing clean and renewable energy in the state of Utah
4.	Southwest Energy Efficiency Program (SWEEP)	Non-profit	Public interest organization dedicated to advancing energy efficiency as a means of promoting both economic prosperity and environmental protection in the six states of Arizona, Colorado, New Mexico, Nevada, Utah, and Wyoming
5.	Committee of Consumer Services	State	State agency standing as a utility consumer advocate, representing residential, small commercial, and agricultural consumers of natural gas, electric and telephone service before the Utah Public Service Commission
6.	Roger Ball	Individual	An individual customer, former director of the Committee of Consumer Services, who uses natural gas for space and water heating in his home
7.	Utah Ratepayer's Alliance	Non-profit	A private non-profit community-based organization that addresses the needs of low-income people through service delivery and advocacy n the Salt Lake Metropolitan Area
8.	U.S. Magnesium	For-Profit	A large industrial customer in Utah.
9.	Industrial Gas Users	Non-profit	Group representing large industrial users
10.	Utah Association of Energy Users	Non-profit	Non-profit organization consisting primarily of large energy consumers in the State of Utah
11.	Natural Resources Defense Council	Non-profit	Non-profit organization dedicated to environmental protection.

I loaded the data of the sample included in the study into Atlas.ti 8 software to assist with data management. A content analysis of the selected data identified the occurrence of coded content representing the themes, meanings, emphasis, and messages in the examination. To operationalize the content analysis for the utility of the energy efficiency program case study, the following steps were taken. First, documents and files were identified for inclusion as highlighted in Table 1. Second, players in the docket were enumerated as noted in Table 2. Third, I coded the data based on five categories (entity, negotiated agreement, proposal stance, individual, and other topics). A list of codebook categories and corresponding descriptions and frequencies are shown in Table 3.

Table 3. A list of the codebook categories.

Grouping	Number of Groups	Description
1. Entity	18	Collective groups who are speaking in the data could be Commission, organization, state agency, Advisory Group, utility, or special interest group
2. Individuals	21	Individuals in the data representing themselves and various organizations
3. Negotiated settlement	9	Identifying in the text Sabatier and Weible ([20], pp. 206–207) nine prescriptions of a negotiated agreement.
4. Other Topics	9	Related topics in the case documents. Topics may include background, rate design issues, material self-interest, market pressures.
5. Stance	6	Statement position on the energy efficiency programs. Could be against, for, neutral, settlement, stipulation, or the approval

My coding emphasized an examination of the policy change. Where identifiable, as shown in Table 3, each item I coded included (a) the entity and/or individual; (b) negotiated agreement prescription (if applicable); (c) any other relevant topic; (d) stance; and (e) time stamp. As part of the coding process, periodicals, statements, and testimonies within the hearings were systematically reviewed and coded. A university colleague reviewed and corroborated my coding groupings but did not subsequently attempt to establish an inter-rating reliability score. Finally, I sorted the coded data to reveal the findings. Table 4 provides an example of one coded statement.

Table 4. Illustration of the coded statement.

Quotation	Actor	Coalition Stance	Negotiated Prescription?	Other Topics?	Time Stamp?
"With natural gas use expected to increase significantly over the next 15 years, it is important to have utilities on board and doing what they can to encourage conservation" [29].	Howard Geller/Utah Clean Energy/SWEEP	FOR	N/A	N/A	7 July 2006

The expression in Table 4 was coded as "for" the proposal of energy efficiency programs. The code also was coded with the corresponding group. I also noted the time frame in which this coded statement was made (7 July 2006). I coded this statement because it reflected a position statement for the approval of the energy efficiency programs by a key organizational player.

Throughout the coding process, I carefully read each of the selected data multiple times and amended the coding or re-coded the statements, as necessary. Jenkins-Smith and Sabatier ([22], p. 242) have said that "coding frames typically go through several iterations as their preliminary applications to the material under investigation repeatedly uncover new items or positions that merit inclusion or refinement". Overall, in coding the data, most

of the text was left uncoded, because I focused on the variables of a narrow scope associated with expressions in conjunction with negotiated settlements. The coding identifies, in each quotation selected, any topic of interest that may be tied to the quotation, such as any of the elements of Sabatier and Weible's [20], which are nine prescription negotiated settlements that may be tied to the study.

4. Results

The results are organized into three sections: (1) Coalition Existence; (2) Negotiated Settlement Prescriptions; and (3) Negotiated Agreement Observations.

4.1. Coalition Existence

As emphasized with the ACF, for this case study, coalitions existed in the Utah regulatory utility policy subsystem. Coalitions are formed by positions and statements made (beliefs) by the respective policy actors. Not surprising, in utility regulation, coalitions stand at the heart of every decision. Coalitions form to argue for or against utility policies through regulatory proceedings in front of a public service commission, which acts as an arbitrator and judge. These public service commissioners are accountable to the public either through the political appointment process (Utah) or through direct election (Texas) [30].

Two advocacy coalitions within the Utah natural gas utility regulatory policy subsystem were identified based on agency and individual positions taken as either those in favor of the proposal of energy efficiency programs and rate structure adjustment or conversely those against the proposal. In the regulatory docket, three policy organizations (utility, environmental organization, and state agency) from the case favored the proposal while three opposed the proposal (consumer advocate, industrial user group, and low-income non-profit). The policy core beliefs positioned those organizations and their respective actors into coalitions relative to the proposal. Rationales for the respective positions varied greatly.

Those in favor of the group seemed strange bedfellows given the varying interests of the three groups. However, the basis of their support stemmed from three distinctive interests. The environmental group gravitated towards support for the programs based on climate change concerns and the desire for the state to offer utility rebate programs. The state agency (Division of Public Utilities) gravitated to the proposal based on practical concerns. The proposal included a USD 10.2 million rate reduction adjustment as part of the overall proposal. The Division expressed some concern that in a fully litigated rate proceeding the result may be better for ratepayers. In other words, "a bird in the hand is worth two in the bush", along with confidence in part of the proposal that an advisory group formed will help ensure that the utility will aggressively promote cost-effective programs [31].

Finally, support for the utility seemed to be based on material self-interest. The utility sought to have the opportunity to earn its allowed rate of return. The proposal would change its rate structure and remove economic disincentives from offering such programs. The material self-interest observation mirrored previous ACF research by Jenkins-Smith and St. Clair [22] on offshore petroleum leasing, where self-interest is more important for material groups (organizations motivated for economic self-interest) than purposive groups (organizations motivated by an ideological position).

Those against the proposal expressed a myriad of reasons stemming from each organization's point of view. The industrial user group argued initially based on empirical evidence questioning why a utility encourage energy efficiency if the company is already seeing declining usage per customer (176 dekatherms to 113 dekatherms) from 1980 to 2005. An individual in the case contended that the utility's true intent has nothing to do with encouraging energy conservation and everything to do with shifting risk from its stockholders to its customers. To that end, this actor states, "nothing that I have seen or heard has persuaded me otherwise" [32]. Similarly, low-income advocate comments that the energy efficiency programs should first be approved rather than a joint adjustment

with the rate structure, expressing concern that the rate structure may disproportionately disadvantage low-income customers or those that this agency represents. In this vein, the proposed setup by the utility and joint filers missed the point by putting the "cart before the horse", whereby energy efficiency programs should be before implementing a rate design structure change [33].

4.2. Negotiated Agreement Prescriptions

The findings revealed the presence of each of the ACF's nine prescriptions of a negotiated agreement (Table 5). The hurting stalemate centering around the whole case for the utility embodied the material concern about its ability to earn its allowed rate of return, given that usage per customer stood on the decline, while environmental and other advocates view the hurting stalemate as the potential damage to the environment absent in natural gas utility energy efficiency programs. The proposal looked for a win–win by implementing customer energy efficiency programs and averting negative influences for doing so on behalf of the utility, by altering the rate design and removing the disincentive to do so.

Table 5. Advocacy coalition framework: the nine prescriptions of a negotiated agreement.

#	Prescription	Presence in Case?
1	Hurting stalemate	In the request, the utility and its co-filers describe the situation as undesirable along with the need to make the change to promote energy efficiency/few argue against the merits of programs but about the costs and how they are allocated.
2	Broad representation	Fairly defined in utility regulation—actors must intervene in a regulatory docket for consideration which makes them part of the mix. Task force aimed for maximum participation.
3	Leadership by neutral mediators	Three Commissioners appointed by governor must come from both political parties. Act as arbitrator and judge. Leadership in task force assumed by utility and state.
4	Consensus decision rules	The task force from the 2002 rate case aimed to include all "interested parties"
5	Funding for negotiations from diverse actors	In this formalized case study, the funding is already built-in to the case construct; it is omnipresent whereby state taxpayers fund state agencies; private funding takes care of utility, and separate non-profit funding.
6	Commitment by actors	Task force meeting leading up to the proposed filing encompassed three years
7	Empirical issues	Situation really drawn to empirical issues; collection problem for utility with usage per customer going down and utility losing out on revenue, so there is no incentive to push for energy efficiency programs
8	Trust	These constituents in utility regulation are consistent from rate case to rate case so imperative to maintain trust, otherwise settlements not possible.
9	Lack of alternative venues	In utility regulation, these regulatory proceedings act as the primary method of grievance for constituents, parties, and the like such that the venue is more conducive to settlement.

The rate proceeding involved a task force formed three years prior which included broad representation involving interested parties from every group available (state agencies, non-profit groups, environmental advocates, and the utility). The leadership of the task force included a representative from the Utah Energy Office (state agency) and the utility. Moreover, leadership over the approval of any utility agreement includes three public service commissioners making up both major political parties. This panel can reject or approve any regulatory request.

Moreover, consensus decision rules were in place in terms of efforts to get every party on board with the proposal. In the end, of those against the proposal (anti-coalition), only two groups (an individual, and the industrial user group) did not sign the proposal. They also indicated that while they would not sign, they would not actively fight against the proceedings. Unique to this utility regulation includes built-in funding for negotiations from diverse actors, which includes both private sector funds (i.e., utility, industrial user groups), taxpayer-funded state agencies (i.e., low-income groups, Public Service Com-

mission, Division, and Committee of Consumer Services), and non-profit groups, which frequently derive their funding from the public sector.

The built-in funding for negotiations creates a positive environment for potential ongoing negotiations. Similarly, given the statutory requirements of some agencies to be actively involved in utility rate-making proceedings, the commitment by actors consisted of significant time, energy, and efforts to participate in a task force and advocate for respective positions on the utility's filing. Notably, this case also embodies the importance of empirical issues rather than a focus on more esoteric realms. Utility rate-making concerns are of a legal and empirical basis, while any philosophical, social, or moral concerns must be drawn from an empirical basis.

Furthermore, given that this industry has a built-in, relatively stable set of players who will engage with one another over a long period of time, trust is imperative. For instance, the approved of energy efficiency programs would yield ample opportunities for parties that feel that they may have been cheated to voice their concerns in upcoming regulatory dockets that may not just pertain to this topic. Finally, this industry contains a built-in venue to discuss grievances and concerns such that there really is a lack of alternative venues. It should be noted that in this regard, the individual actors played a role in the success of the outcome; however, their efforts seemed to be dictated to the role that each of those actor's effectuated as representatives of their corresponding organization. Together these nine identified prescriptions paved the way for a negotiated agreement in a regulatory setting. Table 5 details the presence of these prescriptions.

4.3. Negotiated Agreement Observations

This case study's regulatory process found the following seven observations, which may merit additional study and connection with other regulatory dockets for negotiated agreements.

1. Timing

Notwithstanding the efforts of the actors in this policy change, timing played a key role, albeit perhaps a silent one with this case. The 2005 Energy Policy Act advocated for utility commissioners to consider energy efficiency programs across the country. In the filing, statement and support by a contingency of government officials and influential organizations certainly contained weight in the overall public service commissioner decision, with a previously proposed settlement stipulation creating an easy avenue for acceptance. A goal set forth by Utah Governor Jon Huntsman to reduce energy consumption by 15% by 2015 undoubtedly influenced the outcome. Local and national environmental groups pledged support for the program. The players representing the utility, perhaps the entity with possibly the most to lose, quickly changed the course of the rate mechanism to permit energy efficiency, which allowed for a shift in cost recovery in a market that had already experienced a longtime downward trend in usage per customer (36% decrease from 1980 to 2005).

2. Multiple settlements (agreements), not just one

The negotiated settlement resulting in the formation of energy efficiency programs in the state of Utah resulted from not one but a series of negotiations, expanding years and not a one-time effort. The negotiated settlement for the energy efficiency program formation began in 2002, during the utility's general rate case, where the proposal of energy efficiency programs came from a state agency. The company initially pushed back on this proposal but agreed to the formation of a task force to discuss options relating to the creation of an energy efficiency program. This task force was chaired by both the state agency and the utility.

Most task force participants came to a consensus on the methodology for requesting program approval. At that time, the public utility along with the Division and an environmental group made a regulatory filing consisting of an application for the approval of the energy efficiency programs, a rate adjustment based on depreciation rates, and an

adjustment to the way in which the company collects rates. Still, even within this docket, agreements took shape, leading up to the approval of this program. For instance, the Company agreed to make the changes of the depreciation rates sooner rather than in conjunction with the commencement of energy efficiency programs. Opposition to the depreciation rates largely did not exist as it would lower the rates for customers. Later, the company then agreed to a settlement stipulation for this program. Ultimately, the Utah Public Service Commission approved the settlement on 16 January 2007.

3. Policy positions mirror the electric utility policy subsystem in the same territory

The initial positions taken by parties in the docket were not necessarily dissimilar to what took place in the electric utility policy subsystem in the state of Utah. As noted in the analysis and reported by The Salt Lake Tribune in the natural gas utility case, the Utah Committee of Consumer Services (Committee) voiced concerns over the rate structure adjustment as the funding mechanism for energy efficiency programs [29]. The Committee argues that the utility has an obligation to provide service at the lowest cost to its customers, and that includes offering programs that can help customers lower their bills [29]. Previously, in a case with the electrical counterpart in 2001, the Committee noted support for conservation but expressed concern over the proposed funding mechanism. The Committee Chairman stated, "we're troubled by the idea of giving the company money upfront" [34]. In both cases, initially, the Committee expressed support for the idea of conservation, but balked at the funding mechanism requested for such programs by the respective utilities to make those programs possible.

Similarly, the position for low-income advocates did not vary that much between the dockets for the electric power and the gas utility. For instance, in 2001, regarding the power company, low-income advocates encouraged the commissioners not to forget the poor in their deliberation [34]. In the 2005 case, a low-income advocate similarly notes that "we do not support the proposal before the Public Service Commission". In short, in the 2005 case, support is withheld for the program on the basis of a rate structure adjustment and not on the merits of a demand-side management program [33].

4. Some positions held constant throughout the deliberation

The positions taken by some parties at the beginning of the rate proposal mirrored positions at the end. As noted, not all parties or actors were ultimately convinced that the proposal was in the public interest or in the interest of their respective organization. Similar to the Committee, following the 2002 gas utility rate case, the industrial user group staked out a neutral position on the stipulation, leading up to the creation of the advisory group [35]. Still, this position did not necessarily warm the group to the programs. The group attorney noted "utilities always have an incentive between rate cases to save money and operate more efficiently ... once they (the utility) reach the point where they can no longer do that reasonably well, they can file another rate case" [29]. In this instance, the industrial user group did not attack the prospect of energy efficiency programs, even stating that "promoting energy conservation is a worthy objective, but it is not necessary to provide the utility with special incentives" [36], expressing doubt that the approach would help the utility operate in a "lean and mean" fashion [37]. During the rate proceeding, the industrial group argued that the rate design "being proposed in this proceeding should be rejected" [36]. Unlike the Committee which came around to participating in the negotiated agreement, the industrial group offered a position on the settlement, citing that it "has not changed its view ... and does not support the Stipulation. Nevertheless, (the group) has elected not to oppose the stipulation" [38].

5. General coalition driving policy change

In a negotiated settlement, positions may change between the respective parties, but there seems to be a general core coalition that is driving for policy change. In this case, the Utah Energy Office spearheaded this effort, starting in 2002, while, in 2005, the utility, an environmental group, and the Utah Division of Public Utilities joined this coalition. In this

regard, other groups and actors lined up against the pro-coalition, but never enjoyed a core organization as the driving coalition. To that end, the coalition against differed throughout the process, where some agencies ultimately shifted their positions as time elapsed.

6. One aspect of the proposal gathered more controversary than the other

The proposal's rate structure/design adjustment by the joint applicants played as much of an essential role in the regulatory proceeding as did the proposal for the energy efficiency programs. Moreover, significantly more contention in the rate proceeding centered around the rate design and not the energy efficiency programs. While, a utility's rate design and energy efficiency programs are two separate issues, the proposal marked these two issues as one issue. Environmental and conservation advocates for energy efficiency programs wisely framed this issue as one to neutralize the obvious opponent, the utility. The rate design adjustment protected the utility's material interests as part of the proposal. The rate design change allowed the utility to align its goals with that of outside environmental advocates.

7. Coalition against the policy proposal never attacked the concept of the proposal but the empirical evidence

The coalition against the emergence of the energy efficiency program never attacked the program based on its merits of promoting energy efficiency or offering incentives to customers but rather attacked the program based on the empirical evidence of the proposed structure. Given the general knowledge at the time and the national and state government official sentiment, a broad consensus seemed to agree to the notion of offering such programs whereby even opponents recognized the merits of energy efficiency programs; nonetheless, they attacked the program based off of a change in rate design for collecting the necessary revenue deemed for the utility to operate while removing the barrier for their existence. The discussion from intervenors never centered around the programs themselves as the point of contention, but rather the tariff adjustment that the utility and coalition partners rendered as necessary to make those programs possible for customers. The tariff adjustment separated the revenues that the utility collected from customers from the volumes consumed by customers. Low-income advocates expressed some concern that their constituents may be disadvantaged in participating in these programs but seemed to be somewhat assuaged once the utility agreed to provide funding for low-income weatherization support.

An analysis of the quotations from the regulatory proceedings allowed for a detailed description. For instance, while the Utah Public Service Commission set up a task force to explore options for the natural gas utility, testimony from the Division revealed the sentiment of the working group. One Division representative admitted to attending some of the earlier sessions, but as the sessions progressed admitted to losing "interest in continued participation". This individual expressed reasons for withdrawal from the working group as due to the lack of appealing options, the painfully slow group process, and the sentiment that he was not bringing anything to the table to resolve the matter [6]. These sentiments are not dissimilar to the ongoing process of public utility regulation.

5. Conclusions

This negotiated settlement changed the utility's viewpoint on energy efficiency programs. Today the utility can have its interests aligned with those advocating for greater energy efficiency and consumption. Since its inception, Utah's natural gas utility energy efficiency program's impact has significantly contributed to the economy and the environment. Program success has not gone unrecognized at the national level, achieving national accolades such as ENERGY STAR's Partner of the Year—Energy Efficiency Program Delivery in 2010 and 2011, as well as the Sustained Excellence recognition in 2012 [39].

Through 2020, Utah's energy efficiency programs have invested cumulatively USD 342 million, with around USD 271 million going to customers in the form of direct rebate incentives. In total, the energy efficiency programs have paid out over 1.1 million rebates

and saved over 9 million dekatherms of natural gas over the program's life (through 2019). The energy saved is equivalent to the annual consumption of 110,000 typical residential customers. Collectively, 45% of all residential customers have received at least one rebate incentive. Program costs in 2020 totaled approximately USD 17 annually for the typical residential customer.

Nationally, spending and growth have followed gas energy efficiency programs. In 2006, spending on American gas energy efficiency programs totaled USD 250 million [40]. In 2018, they exceeded USD 1.4 billion, with 125 programs in 42 states. [41]. Utilities recognize the benefits of energy efficiency programs for customers, including lower utility bills, increased system reliability, reduced greenhouse gas emissions, and increased customer satisfaction [42].

As discussed, negotiated settlements for energy efficiency programs in Utah have brought about significant positive change. Still, if these factors had not aligned in the form of a negotiated settlement, it is possible that the outcome would not have achieved its impact to date. Undoubtedly, the Utah Public Service Commission could have ordered alternative results than what was contained within the settlement. Moreover, it is even possible without a settlement that the utility commission may not have ordered any program at all. Conversely, a hesitant utility operating these programs likely would not enjoy the same impact than a utility embracing these programs. Even today (as of 2020), a few states with similar political ideologies to Utah, such as Kansas or West Virginia, do not offer such programs [41].

Ultimately, negotiated agreements have become a major part of modern utility regulation. Today regulatory participants opt for negotiated agreements compared to traditional regulation. The ACF provides a lens to better understand the dynamics of utility agreements. With the ACF, scholars and practitioners gain a strong theoretical base to evaluate the likelihood of a negotiated agreement. This case study revealed the presence of each of the nine prescriptions in producing a negotiated agreement. This case study contributes both to an understudied outcome of utility regulation of negotiated agreements and the ongoing study of the ACF.

With negotiated agreements on the rise in American utility proceedings, more research should be performed on accompanying this critical outcome for utility regulation. Future research presents the opportunity to explore what brings about each of the Advocacy Coalition Framework's nine prescriptions in the first place. Moreover, are each of those nine prescriptions necessary in the formation of a negotiated agreement? More research will be needed to answer those and other questions pertaining to the ongoing growth of regulated utility negotiated agreements. Quantitative analysis coupled with additional deep-dive case study qualitative analysis can better help scholars and practitioners understand the ongoing role of utility negotiated agreements.

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