

Program Evaluation

Least-Cost Integrated Resource and Electricity Supply Resource Planning

Montana Public Service Commission



ENERGY AND TELECOMMUNICATIONS INTERIM COMMITTEE

January 16, 2018

Authored by: Sonja Nowakowski

Introduction

The Energy and Telecommunications Interim Committee’s statutory duties allow for an in-depth overview of programs, including laws, rules, budget, and on-the-ground implementation of programs, administered by the Montana Public Service Commission (PSC). The committee may focus more specifically on a particular subject that the PSC administers, pursuant to 5-5-230, MCA. That law provides the ETIC with “administrative rule review, draft legislation review, program evaluation, and monitoring functions for the department of public service regulation and the public service commission.”

The ETIC allocated time to a programmatic review of Montana’s integrated resource planning and supply procurement processes. At the January 16 ETIC meeting, the committee will hear from the PSC concerning the agency’s role in planning and will learn more about utility perspectives.

Montana’s utility planning statutes raise multiple related utility policy issues, ranging from demand-side management requirements to preapproval processes and qualifying facility contracts. The information in this report focuses on the planning aspects outlined in law and rule. It only touches on other related issues, many of which are worthy of their own programmatic review. Montana’s integrated least-cost resource planning and procurement planning also require a look at Montana’s overall energy policies and how those policies have changed over the years. This report provides an overview of the planning processes in law. It does not capture the details of integrated resource or procurement plans themselves, which result in several volumes of reports and hundreds of pages of corresponding comments filed with the PSC every two years.

The Montana Integrated Least-Cost Resource Planning and Acquisition Act, codified in Title 69, chapter 3, was largely developed around providing public participation requirements and guidance to the Montana Power Company (MPC), but the act currently does not apply to NorthWestern Energy. Montana-Dakota Utilities (MDU) is the only utility in Montana that submits a plan under the statute. After Montana’s experiment with deregulation and before its return to regulation in 2007, the Montana Legislature developed an “electricity supply resource procurement plan” process. The process was originally intended for use by default suppliers operating in Montana’s deregulated market. When Montana reregulated utilities in 2007, NorthWestern, a default supplier, became a public utility regulated pursuant to Title 69, chapter 8. NorthWestern therefore does not submit an integrated least-cost resource plan but instead submits an electricity supply resource procurement plan. While the plan requirements are similar, the history and rules surrounding those plans are different. The review in this report examines similarities and differences. This also covers changes made by the 2017 Legislature that altered aspects of the electricity supply resource procurement plans, with the adoption of Senate Bill 168 (Chapter 422, Laws 2017).

While Montana has two distinct planning processes for two different utilities operating in the state, the processes are similar in more ways than they differ. Both planning processes emphasize long-term planning that results in the lowest-cost, most reliable, and most efficient mix of generation resources. Both planning processes focus on:

- the fundamental relationship between resource planning and procurement and ratemaking;
- the role of environmental and societal externalities in resource portfolios;
- the use of competitive resource solicitations;
- an evaluation of market uncertainty and risk;
- an assessment of the optimal mix of supply and demand; and
- public involvement and stakeholder input.

Integrated Resource Planning

History

The backbone of Montana’s integrated resource planning and procurement process is the result of an October 1988 agreement between Montana Power Company, District XI Human Resource Council, and the Natural Resources Defense Council. The road to agreement is worthy of an in-depth look. The agreement grew out of controversy that surrounded MPC’s decision, and the legal wrangling that followed, to build and utilize power from Colstrip Unit 3 and, more specifically, Unit 4. Entities were concerned about the disposition of MPC’s share of Colstrip Unit 4 power and about MPC’s commitment to developing conservation resources. MPC agreed to budget \$2.4 million for its conservation programs and agreed to the creation of a Conservation and Least Cost Planning Advisory Committee to review and advise MPC concerning its conservation acquisition plans.¹ The committee was tasked with:

- defining least-cost resource planning as it related to MPC;
- establishing criteria for determining least-cost resources;
- determining the appropriate role of demand-side resources in planning; and
- establishing the appropriate role of competitive bidding in planning.

The agreement established the members of the committee to include MPC, the Human Resource Council, Montana environmental interests, Montana consumer interests, the Montana business community, Northwest Regional Power Planning Council, and the Montana Department of Natural Resources and Conservation.

In exchange, the Human Resource Council and the Natural Resources Defense Council agreed to make no legal challenge to a number of MPC issues pertaining to the use of power generated at Colstrip Unit 4, particularly a series of dockets that were before the Montana Public Service Commission.

The agreement surrounding Colstrip Unit 4 and the subsequent birth of integrated resource planning in Montana did not occur in a vacuum. In 1973, MPC and several other utilities filed an application with the Department of Natural Resources and Conservation for a certificate of environmental compatibility and public need under the Major Facility Siting Act for Colstrip Units 3 and 4. To acquire the certificate, the utilities had to demonstrate that there was a need for the energy produced; that the facilities would serve the public interest, convenience, and necessity; and that the loads and resources forecast by the utilities demonstrated an energy deficit in the future. In addition, MPC had to demonstrate that the additional units were the lowest-cost alternative for consumers and the best choice available for future power needs. The state concluded that energy produced by Colstrip Units 3 and 4 was needed and in 1976 granted the certificate. The decision was appealed to the Montana Supreme Court on two occasions.²

Those court cases, however, did not address an issue before the Montana PSC — changes in the rates paid by Montana consumers resulting from the construction of Units 3 and 4. After completion of Colstrip 3 in 1983, MPC filed an application with the PSC to increase electric service rates to reflect the inclusion of Colstrip 3 and associated facilities in its rate base. The request was for \$96.4 million to increase revenues by about 55 percent. It was the largest rate increase request ever filed in Montana. The PSC ultimately determined Colstrip 3 was not “used and useful” and could not be included in MPC’s rate base.³ While some interim rate increases were granted, MPC

¹ Montana Power Company, District XI Human Resource Council, and Natural Resources Defense Council, agreement, signed and dated October 20, 1988.

² Northern Plains Resource Council v. Board of Natural Resources and Conservation, 181 Mont. 500, 594 P.2d 297 (1979); and Northern Plains Resource Council v. Board of Natural Resources and Conservation, 183 Mont. 540, 601 P.2d 27 (1979).

³ Docket No. 83.9.67, Order No. 5051c, Montana Public Service Commission.

responded by announcing they would reduce the budget for construction and work at Unit 4. Three of the five utility partners in Colstrip requested a delay until financial issues were sorted out. The delay was expected to result in 300 workers being furloughed.⁴ In the meantime, the PSC decision on Unit 3 went to the Montana Supreme Court, and the Court ruled that MPC's acquisition of a certificate and a finding of usefulness and need under the Major Facility Siting Act did not limit the PSC's statutory ratemaking authority.⁵

But the rate case was not over. In 1984, MPC also filed a petition for judicial review of the PSC order under certain provisions of the Montana Administrative Procedure Act. In June 1985, a District Court ruled in favor of MPC, finding that the PSC had unlawfully denied MPC the \$96.4 million rate increase in 1984. The ruling sent the request back to the PSC for reconsideration, opening up debate about the statutory timelines during which the PSC was to make a decision. In August 1985, the PSC reversed course after its 1984 decision and voted to increase MPC's electric rates by about \$80.3 million, phased in over an eight-year period. A final appeal before the Montana Supreme Court was dismissed in November 1985.⁶ MPC decided to sell its 210 megawatts at Colstrip 4, largely because of the financial difficulties the utility encountered after the PSC's original finding that Colstrip 3 was not needed and should not be in the rate base. MPC also reached an agreement concerning future integrated resource planning.

Concerns about utility planning and procurement were not unique to Montana or to decisions about Colstrip. In the late 1960s, energy planners in the Northwest determined that increased demand would outstrip the capacity of existing hydroelectric resources. This was expected to affect Washington, Oregon, Idaho, and Montana. Regional planners were encouraged to start planning and building large thermal plants. MPC and a consortium of Washington utilities pursued the Colstrip facilities. The Washington Public Power Supply System, authorized by the state of Washington, began planning to construct five nuclear plants. Several factors combined to delay construction schedules and to drive costs to inflate for the nuclear facilities. In 1983, the Washington Public Power Supply System defaulted on \$2.24 billion in municipal bonds. It was the largest bond default in the United States. Four of the plants were never completed.⁷

Adding to the misery, electricity demand across the Northwest in the late 1980s and early 1990s fell far short of earlier projections, in part because of increasing consumer rates to finance new generation and in part because of economic recession. The Northwest ended up with an energy surplus. In energy circles, this was deemed a colossal planning failure. In response, utility planners started scrutinizing energy demand and consumption, resource selection, and associated risks. Integrated resource planning and state requirements for planning resulted.

Montana's Conservation and Least Cost Planning Advisory Committee in October 1990 issued its report and recommendations concerning integrated least-cost resource planning and acquisition in Montana. It was "the culmination of an historic, sixteen month collaborative effort by representatives of groups which actively participate in energy policy and regulatory processes in Montana including: Montana Power Company, District XI Human Resource Council, Montana Power Company Large Users Group, Montana Environmental Information Center,

⁴ Glenn Pacini, "Colstrip 3," the University of Montana, Theses, Dissertations, Professional Papers (1986), paper 8670.

⁵ *Montana Power Company v. Public Service Commission*, 692 P.2d 432 (1984).

⁶ *Montana Power Company v. Public Service Commission*, No. 85-445 (1985).

⁷ "Seduced and Abandoned? Utilities and WPPSS Nuclear Plants," *Columbia Magazine* (Fall 1991), Vol. 5, No. 3., Washington State Historical Society.

Northern Plains Resource Council, Montana Department of Natural Resources and Conservation, and Northwest Power Planning Council,” wrote Gerald Mueller, coordinator of the committee.⁸

Planning Takes Its First Steps

The committee provided recommendations to the PSC and to MPC to implement integrated resource planning. MPC was advised to petition the PSC to institute guidelines for least-cost planning and competitive acquisition processes and to approve methods for acquiring qualifying facility (QF) resources that would be compatible with integrated least-cost planning and competitive resource acquisition. The committee’s October 1990 report stated: “The decades of the 1970s and 1980s have demonstrated conclusively the enormous cost implications of utility resource decisions to the economies of our region and state as well as individual industries, businesses, local governments, farms and ranches, and households. Ratepayers who need and consume electricity must support and insist that both MPC and its regulators have available and apply the information, expertise, and tools — and hence the budget and personnel — to develop, implement, and oversee integrated least-cost resource planning and acquisition.”⁹

Based on the committee report and recent events, the PSC also became increasingly interested in integrated least-cost planning and competitive resource acquisition. The commission established a proceeding to examine the issues and in October 1990 issued a Notice of Investigation, inviting interested parties to comment on the appropriate procedure. After collecting public comment, the PSC determined that some form of least-cost planning needed to be developed in Montana. The “second stage” of integrated resource planning began in late 1991 with the PSC developing administrative rules articulating guidelines for the development of utility least-cost plans. The third stage was to be the actual implementation of utility least-cost planning.

The rulemaking at the PSC moved forward. Stakeholders had much to say about the rules. “One principal theme is the minimization of resource planning controversy. To their credit, these proposed rules stress clear, concise utility resource plans so that a utility ensures that it communicates effectively. The rules also provide the opportunity for meaningful feedback to the utility from interested parties, the public, and the Commission. This feedback is essential, and we hope the Commission takes advantage of it,” wrote MPC commenting on the proposed rules.¹⁰

Montana-Dakota Utilities raised a multitude of concerns with the proposed rules. MDU is a multijurisdictional utility, and the utility raised concerns about Montana resource planning creating problems with North Dakota and South Dakota regulatory commissions. Both MDU and MPC also raised a fundamental concern that the Montana PSC was not authorized by the Montana Legislature to “mandate its vision of integrated resource planning.” The Montana Legislature in 1981 and 1985 had rejected planning proposals.¹¹ MPC in 1992 told the PSC that a legislative sanction for the guidelines “would be beneficial to all parties.”

Nevertheless, in December 1992 the PSC adopted rules requiring both MPC and MDU to submit integrated least-cost resource plans, beginning with MPC in March 1993. The rules remain in place today.¹²

⁸ “Integrated Least Cost Planning Report and Recommendations to Montana Power Company and Montana Public Service Commission” (October 1990), p. i.

⁹ *Ibid.*, p. 28.

¹⁰ Docket No. 90.8.49, In the Matter of Proposed Adoption of Rules on Integrated Least Cost Planning and Electric Utilities, Comments of the Montana Power Company, p.2.

¹¹ House Bill 780, 1981 Montana Legislature, and House Bill 868, 1985 Montana Legislature.

¹² 38.5.2001 through 38.5.2012, Administrative Rules of Montana.

Policymakers Provide Direction

In part because of planning failures in the Northwest, federal policymakers also had become increasingly interested in planning requirements. In 1980, Congress passed the Pacific Northwest Electric Power Planning and Conservation Act. It authorized the states of Montana, Idaho, Oregon, and Washington to create a council that would develop a 20-year power plan. The plan was aimed at ensuring the region had adequate, efficient, economic, and reliable power.¹³ These planning efforts have continued since, with updates every five years. The 1992 Energy Policy Act also required that state regulatory commissions consider adoption of an integrated resource process, requiring utilities to develop an analytical framework to compare “equitably and systematically supply and demand-side resources.” Utilities also were required to provide opportunities for public participation and comment during the planning process.¹⁴

In 1993, Representative Joe Quilici (D-Butte) introduced House Bill 390 establishing the Montana Integrated Least-Cost Resource Planning and Acquisition Act. Quilici testified before the House Business and Economic Development Committee that the bill had three purposes:

- clarify the PSC authority to require electric and natural gas utilities to file a report with the PSC;
- clarify that utilities could recover costs if they invested in energy efficiency or other investments consistent with the plans that went before the PSC; and
- eliminate duplication between planning requirements before the PSC and those required under the Major Facility Siting Act.

There were no opponents to the legislation in the House or Senate committees. The Montana PSC testified on its rulemaking and stated that it firmly believed the commission had sufficient legal authority to require integrated resource planning. However, the PSC noted that disagreement existed on that front — disagreement that could be settled by the courts or the Legislature. Then-PSC Chairman Bob Anderson urged the Legislature to take action. “We respect the process that produced this bill. It represents a way of settling differences in a constructive way instead of the polarized, contentious way of the past. This bill represents one of the positive legacies of the Colstrip era,” Anderson testified on February 10, 1993, before the House committee.

The legislation passed 99-0 in the House and 48-0 in the Senate and took effect March 24, 1993. It included \$50,000 per biennium for PSC staff to process future plans.

Montana Integrated Least-Cost Resource Planning and Acquisition Act

The Montana Integrated Least-Cost Resource Planning and Acquisition Act is in Title 69, chapter 3, part 12, of the Montana Code Annotated. The statute reads in part: “It is the policy of the state of Montana to supervise, regulate, and control public utilities. To the extent that it is consistent with the policy and in order to benefit society, the state encourages efficient utility operations, efficient use of utility services, and efficient rates. It is further the policy of the state to encourage utilities to acquire resources in a manner that will help ensure a clean, healthful, safe, and economically productive environment.”¹⁵ The statute goes on to direct the PSC to adopt rules requiring a public utility to prepare and file a plan.

The plan requirements are left largely up to commission rule but must include an evaluation of a full range of cost-effective means for the utility to meet service requirements for Montana customers, including conservation and

¹³ Northwest Power and Conservation Council, “About,” <https://www.nwcouncil.org/about>.

¹⁴ Section 114, Energy Policy Act of 1992, Public Law 102-486.

¹⁵ 69-3-1202(1), MCA.

improvements in efficiency. The law also requires the PSC to conduct a public meeting to receive public comment on a plan. The commission also may comment on a plan, but the comments are not considered a preapproval of a project. The Montana Department of Environmental Quality (DEQ) is statutorily given a role to review a plan and comment. A plan can be used by the DEQ in the event that it dovetails with a Major Facility Siting Act application. The Consumer Counsel also is instructed to review a plan and invited to provide comments.

MPC was instructed to file its first plan on March 15, 1993, and on March 15 of each odd year thereafter. MDU was to file its first plan on September 15, 1993, and on September 15 of each odd year thereafter. Pacific Power and Light Company was to file its first plan on May 15, 1994, and on May 15 of each even year thereafter. All other electric utilities were to file plans by March 15, 1994.

The rules, again adopted in 1992 prior to the legislation authorizing planning, include goals as well. However, throughout the rules, the goals are referenced as “guidelines.” Under policy, “it is the goal of these integrated least-cost resource planning guidelines to encourage electric utilities to meet their customers’ needs for adequate, reliable and efficient energy services at the lowest total cost while remaining financially sound. To achieve this goal, utilities should plan to meet future loads through timely acquisition of an integrated set of demand- and supply-side resources. Importantly, this includes actively pursuing and acquiring all cost-effective energy conservation. The cost effectiveness of all resources should be determined with respect to long-term societal costs.”¹⁶ Along with the least-cost plan, each utility also submits an action plan illustrating how the plan will be implemented over the near term under various load and resource scenarios.

The rules, unlike the statute, define integrated least-cost resource planning as “an ongoing, dynamic and flexible process which:

- explicitly manages the consequences of uncertainty and risk associated with a utility’s market characteristics and supply alternatives,
- integrates the demand-and supply-side resources that represent the least cost to society over the long-term,
- explicitly weighs a broad range of resource attributes (e.g., environmental externalities) in the evaluation of alternative resources,
- is reasonably understandable to interested persons (including members of the general public) and the commission,
- involves stakeholders and nonutility expertise in utility resource planning,
- results from a planning process within the utility which facilitates communication and coordination among the entities dealing with utility finances, demand forecasts, demand- and supply-side resource evaluations, as well as other relevant entities, and
- continually monitors and develops data on the cost effectiveness and actual productivity of conservation programs.”

Integrated Resource Planning Guidelines

The rules or guidelines provide utilities policy and planning guidance and are not a mandate in terms of investment decisions. Although the rules repeatedly use the term “guideline,” they remain rules. Once adopted, administrative rules are published in the Administrative Rules of Montana (ARM) and have the force of law. The rules also contain a number of requirements.

¹⁶ 38.5.2001, Administrative Rules of Montana.

The rules discuss competitive resource solicitations. All-source solicitations should include “the broadest practical group of potential demand- and supply-side resource providers,” including QFs, nonutility independent power producers, publicly owned and investor-owned utilities, power marketing agencies, demand-side resources, and efficiency improvements.

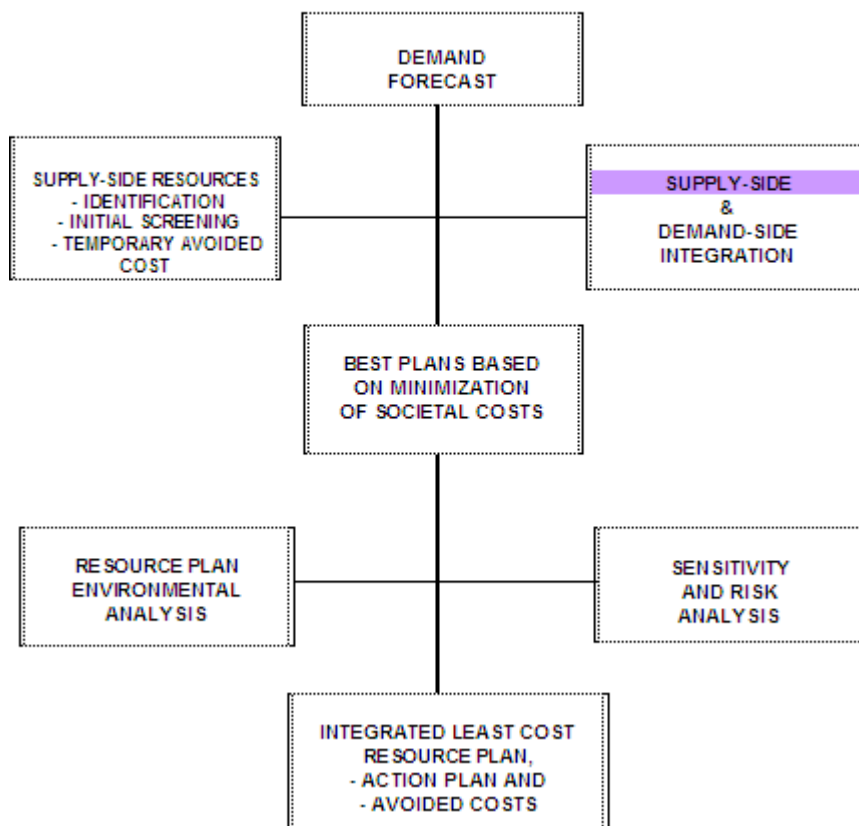
As in statute, the rules outline a process for public participation. Utilities are instructed to make plans available for public inspection at utility offices designated as follows: MPC — Butte, Missoula, Helena, Bozeman, Great Falls, Billings, Havre, Glasgow, Lewistown, and Hamilton; Pacific Power and Light Company — Kalispell and Libby; and MDU — Glendive, Miles City, and Billings. Utilities are also to make their plans available for public inspection at each county library and each university, college, and junior college library in their Montana service territories.¹⁷

The rules require that utility investment in conservation measures installed on the customer’s side of the meter be considered cost-effective up to 115 percent of the utility’s long-term avoided cost, for example. A range of environmental impact mitigation and control costs are required to be quantified, estimated, or evaluated, or all three. Utilities are to weigh, rank, evaluate, and select

individual energy resources. The rules also require the application of process planning cycles and provide an example (Figure 1). A long-term resource planning process also should recognize and utilize rate design to yield demand-side resources and to ensure that, to the extent possible, the goals and objectives of all rate design efforts are consistent with the goal and definition of integrated least-cost planning. Least-cost resource plans are intended to provide the best balance of objectives to:

- minimize the societal cost of producing energy services;
- minimize the costs of risk not incorporated into the formal cost analysis;
- minimize the environmental and other external costs not incorporated into the formal cost analysis;
- maintain economical levels of service reliability that incorporate consideration of customers’ value of service reliability; and

**FIGURE 1
LEAST COST PLANNING OPTIMIZATION PROCESS EXAMPLE**



¹⁷ 38.5.2012, Administrative Rules of Montana.

- distribute costs and benefits equitably.

No later than 60 days following the close of a written comment period, the PSC holds a hearing on the plan. Finally, based on its review of the plan and consideration of the comments of others, the PSC may issue a general statement indicating whether “the plan conforms to the guidelines.” A plan, however, does not bind the PSC in its review of utility resource plans in conjunction with a rate case or for the purposes of setting rates.

Deregulation Derails Planning

MPC filed its final, complete integrated least-cost resource plan on June 28, 1995. The commission received comments from interested parties in writing and orally at public hearings. The commission also employed a consultant to review MPC’s plan and to report to the commission whether the plan was consistent. The two most commonly recurring comments were that MPC did not model demand-side resources on an equivalent and comparative basis with competing supply-side resources, and that MPC’s significant reduction in planned demand-side resource expenditures and acquisition was unjustified from social, utility, and competitive perspectives. The PSC determined the plan to be adequate but noted a number of deficiencies. One finding read: “To the extent MPC determines that the benefits of further integration of transmission and distribution are not cost justified, MPC should document this determination in its 1997 plan.”¹⁸ The company also discussed an alternative planning process for 1997 that would allow MPC to implement its 1995 plan amid the restructuring that was occurring in the national electric industry.

On February 4, 1996, MPC filed a motion with the PSC to waive the requirement for filing an integrated least-cost resource plan. In its motion, MPC stated that in lieu of a comprehensive resource plan it would file a status report by March 15, 1997. It did so, and in April 1997, the commission issued a notice of filing and opportunity to comment on the status report. No comments were received.

In January 1997, MPC and a number of Montana’s large customers brought forward a legislative proposal to deregulate retail electricity supply in Montana. By May 1997, the Montana Legislature passed and approved Senate Bill 390. In passing Senate Bill 390 (Chapter 505, Laws of 1997), the 1997 Legislature noted that competitive markets exist, that Montana customers should have the freedom to choose their electricity supplier, that Montana consumers should be protected, and that the financial integrity of Montana utilities should be maintained.¹⁹

Integrated resource planning in Montana took a backseat to the larger policy issue of deregulation. In September 1997, MDU filed its plan with the PSC. “In these times of rapidly changing conditions in the economy and the electric utility industry, especially with the deregulation and restructuring of the industry, it is imperative that Montana-Dakota have flexibility and risk minimization as an integral part of resource planning.”²⁰

In 2001, the California energy crisis began to unfold, with wholesale energy prices in California increasing by 270 percent from the previous year.²¹ Suspicion that Enron and other power marketers and suppliers were gaming the California system to maintain high electricity prices also began to surface. The power crisis spilled over into other

¹⁸ Docket No. 95.6.30, Order No. 5884, Montana Public Service Commission, December 26, 1995.

¹⁹ For text of testimony in support and in opposition, see the committee minutes of Senate Bill 390 during the 1997 legislative session.

²⁰ Montana-Dakota Utilities Co., 1997 Integrated Resource Plan, Submitted to the Montana Public Service Commission, September 15, 1997, p. 1-2.

²¹ Congress of the United States, Congressional Budget Office, “Causes and Lessons of the California Electricity Crisis” (Washington, DC, September 2001), p. viii.

states as California scrambled to secure out-of-state power. Wholesale energy prices in the Pacific Northwest, including in Montana, rose to unprecedented levels.²²

The 2003 Legislature continued to address the evolution of deregulation in Montana. It passed House Bill 509 addressing default supply planning, establishing an Energy and Telecommunications Interim Committee, and requiring a cost recovery mechanism. In addition, it passed Senate Bill 247 allowing for preapproval of default supply resources. The Legislature also further extended the date for full customer choice until July 1, 2027.

Electricity Supply Resource Procurement Plans

History

The Montana PSC in July 2002 initiated a roundtable process with a multitude of stakeholders to develop guidelines for default supply resource planning and procurement in Montana. A goal, among several others, was to establish an integrated resource planning process for default suppliers. NorthWestern, the default supplier, and other stakeholders participated. NorthWestern advocated for clear procurement process rules that would decrease the uncertainty that default suppliers were facing. On the subject of Montana's integrated resource planning, NorthWestern Energy wrote: "The original (integrated resource plan) had several objectives. One was to encourage utilities to use competitive solicitation in the acquisition of new resources (both supply-and-demand-side resources), rather than continuing their reliance on company owned generation resources; a second was to require explicit consideration of external effects in resource acquisitions; a third was to give the public a larger voice in resource acquisition efforts, and a fourth was to develop long-term plans for resource acquisitions that could be understood by the Commission and public at large. The movement to choice has decreased both the scope of and need for [integrated resource planning]. The need for these guidelines in the utility resource planning process has decreased greatly due to the passage of SB 390 and the subsequent movement to customer choice."²³

The PSC and stakeholders developed a proposal that was later introduced in the 2003 Montana Legislature as House Bill 509. The legislation, among many things, allowed the PSC to adopt rules governing resource planning and procurement. It did not, however, allow for preapproval of supply contracts.

In 2003, Senator John Cobb (R-Augusta) introduced Senate Bill 247 directing the PSC to preapprove procurement of electricity by a default supplier that first developed a plan. The bill was similar to a California statutory model for preapproval of electricity supply contracts. The bill required the default supplier to submit a procurement plan in compliance with objectives set by the PSC. If the objectives were met, and barring some exceptions, the PSC would then grant preapproval for the electricity supply contracts.

As outlined in the bill, by December 31, 2003, the PSC would adopt rules to guide default supply resource acquisition. House Bill 509 established a "default supplier" to be a distribution services provider of a utility that had restructured in accordance with Title 69, chapter 8.

NorthWestern Energy testified before the Senate Energy and Telecommunications Committee on January 30, 2003, that preapproval was essential to ensuring the financial integrity of the company acting as the default supplier and was important to customers because it allowed for securing long-term contracts at lower prices. The concept of a

²² Jeff Martin and Todd Everts, "The Electrical Utility Industry Restructuring Transition Advisory Committee," report to the Governor and 58th Legislature (December 2002).

²³ D2002.7.93, NorthWestern Energy's comments to PSC regarding default electric supply service.

planning process in SB 247 became less important than debate about preapproval. Originally, preapproval allowed a default supplier to apply to the commission for advance approval of a power supply purchase agreement. The PSC was also prohibited from subsequently disallowing the recovery of costs incurred under an approved preapproval agreement based on contrary findings.

Bob Rowe, chairman of the PSC at the time, was a leading opponent to the proposal. Rowe supported the intent of the legislation to give the default supplier authority, direction, and the appropriate regulatory environment to enter into long-term contracts. He advocated for the existing authority of the PSC to evaluate purchase agreements and the processes outlined in HB 509. The Consumer Counsel also opposed preapproval, raising concerns that it shifted the risk to small consumers, removed incentives for cost control, removed flexibility, changed the PSC's role from regulator to manager, and was unnecessary and duplicative of HB 509. Questions were raised in 2003, and continue to be raised today, about whether NorthWestern would truly have an incentive to complete a comprehensive planning process with preapproval and its impact on company risk.

Senate Bill No. 247 was approved by the House 84-16 and by the Senate 44-5. The legislation outlined both an electricity supply resource procurement planning process and preapproval.

On January 29, 2004, NorthWestern Energy filed its first default electricity supply resource procurement plan. The PSC invited public comment on the proposal and hosted workshops. Multiple entities commented, ranging from Rocky Mountain Power to the Montana Environmental Information Center. The PSC raised concerns about the plan's failure to reflect a long-term resource planning analysis and failure to optimize specific types and quantities of resources within the portfolio or timing of resource procurements before July 2007.²⁴

In 2007, when the Montana Legislature passed and approved House Bill 25, Montana's experiment with deregulation ended. With changes made by the 2007 Legislature, NorthWestern Energy began pursuing its own generation assets, using the guidelines put into place in HB 25 and directing the PSC on the steps to be followed in reviewing and potentially approving NorthWestern Energy's electricity supply resources. To ease concerns about financing new power plants, NorthWestern began to utilize preapproval for certain, significant generating projects it hoped to build or acquire. Preapproval was to provide some level of cost recovery assurance prior to constructing or acquiring generation assets.

Montana Planning and Procurement Guidelines

Montana's electricity supply resource planning and procurement requirements are outlined in 69-8-419 and 69-8-420, MCA. As a public utility regulated under chapter 8, NorthWestern Energy is required to plan for future electricity supply resource needs and to procure new resources when needed. Objectives include to:

- provide adequate and reliable electricity supply service at the lowest long-term total cost;
- conduct an efficient electricity supply resource planning and procurement process that evaluates the full range of cost-effective electricity supply and demand-side management options;
- identify and cost-effectively manage and mitigate risks related to its obligation to provide electricity supply service;
- use open, fair, and competitive procurement processes whenever possible; and
- provide electricity supply service and related services at just and reasonable rates.

²⁴ Docket No. N2004-1.15, NorthWestern Energy's Default Electricity Supply Resource Procurement Plan, August 17, 2004.

Similar to integrated resource planning law, the electricity supply resource planning law grants the PSC broad rulemaking authority to guide the planning process. The PSC is required to review the plan, provide the public with an opportunity to comment, and issue written comments on the plan within nine months of receiving it. Changes by the 2017 Legislature now also require the commission to host two public meetings to allow for comment on the plan.

Much like in the statute, planning guidelines are intermingled with procurement guidelines throughout the rules. The rules outline how a utility conducts long-term electricity supply resource planning and procurement. “Long-term” is defined as “a time period at least as long as a utility’s electricity supply resource planning horizon,” and “planning horizon” is defined as “the longer of: the longest remaining contract term in a utility’s electricity supply resource portfolio; the period of the longest lived electricity supply resource being considered for acquisition, or 10 years.”²⁵ Planning begins with an evaluation of existing resources and an assessment of a utility’s resource needs, based on the planning horizon and the goals and objectives established in rule. In addition, the goals and objectives should guide the utility’s cost allocation and rate design practices as well as overall risk mitigation.

The rules, adopted in 2004 and updated following reregulation in 2008, provide “guidance” on long-term electricity supply resource planning and procurement. They do not impose specific resource procurement processes or mandate particular resource acquisition. They are considered a framework. The guidelines also supersede the least-cost planning rules. Goals are also established in rule and are similar to those for integrated resource planning. However, the goals of the two planning processes do slightly differ, as outlined in **Table 1**. The goals of the statute are stated above. The rules also state objectives, listed in order of importance, which include to:

- provide customers adequate and reliable electricity supply services, stably and reasonably priced, at the lowest long-term total cost;
- design rates that are equitable and promote rational, economically efficient consumption decisions;
- assemble and maintain a balanced, environmentally responsible portfolio of electricity supply resources coordinated with economically efficient cost allocation and rate design that most efficiently provides electricity supply services to customers over the planning horizon;
- maintain an optimal mix of electricity supply resources with respect to underlying fuels, technologies, and associated environmental impacts, and a diverse mix of long, medium, and short duration power supply contracts with staggered start and expiration dates; and
- maximize the dissemination of information to customers regarding the mix of resources and the corresponding level of emissions and other environmental impacts associated with electricity supply service through itemized labeling and reporting of the portfolio’s energy products.

In the integrated planning rules, utilities are to weigh and rank existing and potential resources on the basis of their environmental impacts. Utilities are also encouraged to recognize the external benefits associated with resources that “correct or reduce existing environmental damage.” In electricity supply resource planning and procurement, the utility is to plan in an environmentally responsible manner by “recognizing and incorporating into electricity supply resource portfolio planning, management, and procurement processes and decision-making ... to encourage utilities to acquire resources in a manner that will help ensure a clean, healthful, safe, and economically productive environment.”

²⁵ 38.5.8202, Administrative Rules of Montana.

A utility is encouraged to use competitive solicitations with short-list negotiations as a preferred procurement method. A utility is also encouraged to design requests for proposals based on its resource needs assessment. Competitive solicitations should treat bidders fairly, promote transparent portfolio planning and electricity supply resource procurement processes, and contribute to achieving the goals and objectives of the guidelines.²⁶ The utility is also encouraged to employ an independent third party to develop competitive solicitations, if affiliate interests are not involved.

TABLE 1

Plan	Required	Goal	Authority	Timeline for PSC Review	Public Participation
Montana Integrated Least-Cost Resource Planning and Acquisition Act	Sept. 15 of odd-numbered years	“It is the goal of these integrated least cost resource planning guidelines is to encourage electric utilities to meet their customers’ needs for adequate, reliable and efficient energy services at the lowest total cost while remaining financially sound. To achieve this goal, utilities should plan to meet future loads through timely acquisition of an integrated set of demand- and supply-side resources. Importantly, this includes actively pursuing and acquiring all cost effective energy conservation. The cost effectiveness of all resources should be determined with respect to long-term societal costs.”	69-3-1201 through 69-3-1205, MCA 38.5.2001 through 38.5.2012, ARM	No timeline	Presubmission: Utility should involve the public in resource planning. Process should be thoroughly documented and reasonably understandable. Postsubmission: Written comments within 30 days after plan submitted and public hearing 60 days after written comment period closes.
Electricity Supply Resource Procurement Plans	Dec. 15 of odd-numbered years	“The goals of these electricity supply resource planning and procurement guidelines are: (a) to facilitate a utility’s provision of adequate and reliable electricity supply services, stably and reasonably priced, at the lowest long-term total cost; (b) to promote economic efficiency and environmental responsibility; (c) to facilitate a utility’s financial health; (d) to facilitate a process through which a utility identifies and cost-effectively manages and mitigates risks related to its obligation to provide electricity supply service; and (e) to build on the fundamental rate making relationship between the commission and the utility to advance these goals.”	69-8-419 through 69-8-420, MCA 38.5.8201 through 38.5.8229, ARM	Written comments within 9 months	Presubmission: Utility should maintain a broad-based advisory committee to review, evaluate, and make recommendations on technical, economic, and policy issues related to electricity supply resource portfolio planning, management, and procurement. Postsubmission: 2 public hearings in area of the state encompassed by the plan.

²⁶ 38.5.8212, Administrative Rules of Montana.

Unlike the integrated resource planning rules, the electricity supply planning process does not establish a threshold for cost-effective conservation. However, a utility should design programs and associated marketing and verification measures, as necessary, to ensure that its procurement of demand-side resources is optimized in the context of the goals and objectives of the planning guidelines. A utility should also evaluate the cost-effectiveness of demand-side resources and programs based on its long-term avoidable costs. Cost-effectiveness evaluations of demand-side resources are to encompass avoidable electricity supply, transmission, and distribution costs.

Stakeholder Input

Stakeholder input both during development of a plan by a utility and during PSC review of a plan is encouraged in both sets of rules. Transparency and stakeholder input in utility planning, however, continue to be an issue that is raised by both environmental and customer advocates.

The electricity supply resource planning rules encourage NorthWestern to establish an independent advisory committee of “respected technical and public policy experts” to assist the utility in developing its biennial plans. Throughout the rules, utilities are encouraged to utilize the independent advisory committee to assist the utility with items ranging from demand-side management to risk mitigation. Stakeholder input is further solidified in 38.5.8225, ARM, with the suggestion that “an independent advisory committee of respected technical and public policy experts may provide an excellent source of upfront, substantive input to mitigate risk and optimize resource procurement outcomes consistent with these guidelines.”

Shortly after adoption of the PSC rules establishing stakeholder input in 2004, NorthWestern Energy established a formal Electric Technical Advisory Committee (ETAC) to advise the utility in its preparation of the biennial resource procurement plan. ETAC membership has typically included representatives of various stakeholder entities that are interested, active participants in regulated electric services matters in Montana. Gerald Mueller was the first committee facilitator. Members have historically included Montana Public Service Commission staff, Montana Consumer Counsel, Northwest Power Planning Council, Montana Department of Environmental Quality, Renewable Northwest Project, Montana Environmental Information Center, District XI Human Resource Council, and Natural Resources Defense Council. According to the 2004 plan: “Up to this point, for practical purposes, NWE has limited its communications with stakeholders in developing the default supply plan primarily to the Technical Advisory Committee. However, NorthWestern Energy is well aware of the importance of communicating the default supply plan to the broader public and providing reasonable opportunities for review and input from all interested stakeholders.”²⁷ NorthWestern also announced it would implement a communications plan to facilitate stakeholder input. The plan would include advertising, public meetings, an online forum for comments on the company’s default supply plan, and placement of the default supply plan in town offices, libraries, and city halls.

Despite the development of a communications plan and the use of the ETAC, NorthWestern has been criticized for its planning process and the use of its ETAC in planning for the future. In preparing the 2015 procurement plan, NorthWestern held only five ETAC meetings during the process. Some stakeholders commented that NorthWestern’s process and use of the ETAC during the 2015 planning cycle was improper. “The current structure of the planning process is such that advisory committee meetings are closed-door and invite-only with participation limited to utility-approved stakeholders. The utility has denied at least one interested stakeholder the ability to attend

²⁷ NorthWestern Energy 2004 Electric Default Supply Resource Planning and Procurement Plan, January 2004, vol. 1, p. 39.

meetings and has consistently expressed resistance against making the process more open,” according to testimony filed in September 2017 by the Montana Environmental Information Center.

In its review of NorthWestern’s 2015 procurement plan, the PSC provided comment and instruction. The PSC wrote: “Rather than proceeding immediately to acquire new resources, NorthWestern should pursue a rigorous stakeholder process to validate the conclusions in the 2015 Plan. To enable NorthWestern to undertake such a process, the Commission will extend the deadline for NorthWestern to file its next plan to December 15, 2018. Active engagement with its technical advisory committee for a two-year period and a commitment to devote sufficient resources to the planning process may lead to a better planning process, higher-quality modeling and analysis, and greater confidence in planning results. NorthWestern should provide the Commission with written status reports every six months, and the Commission will hold this docket open to receive them”²⁸

NorthWestern has responded by providing the requested status reports and pledging to increase ETAC participation. A roster of participants from a summer 2017 meeting is included in **Table 2**.

TABLE 2

Participant	Organization
Beki Brandborg	Facilitator
Chuck Magraw	Natural Resources Defense Council
Brian Fadie	Montana Environmental Information Center
Frank Bennett, John Bushnell, Luke Hansen, Joe Simatz, Mike Babineaux, Jonathan Pytka, Jim Williams, Ella Caillouette, June Pusich-Lester, Carrie Harris, Deb Mullowney, Bleau LaFave, John Hines	NorthWestern Energy
Diego Rivas	NW Energy Coalition
Mike Dalton, Will Rosquist	Montana Public Service Commission
Jamie Stamatson	Montana Consumer Counsel
Tom Power	District XI Human Resource Council
Patrick Barkey	UM-Bureau of Business and Economic Research
Brien Dekiep	Northwest Power and Conservation Council
Chris Pope	Consumer
Jeff Blend	Montana Department of Environmental Quality

²⁸ Docket No. N2015.11.91, Montana Public Service Commission comments in response to NorthWestern Energy’s 2015 Electricity Supply Procurement Plan.

MDU's integrated resource plans, which historically have not been as heavily scrutinized by the public as NorthWestern's proposals, also utilize a public advisory group (PAG). The PAG has been used by MDU since 1994 to provide input on MDU's biennial plan from a non-utility perspective. This advisory group reviews, evaluates, and recommends modifications to MDU's planning process, resource plans, resource acquisition processes, and efficiency programs from the perspective of customers, government agencies, and public interest organizations.

Participants in the PAG are non-utility personnel from the states served by MDU: Montana, North Dakota, and South Dakota. The advisory group reflects the proportions of MDU's load: Montana, 30 percent; North Dakota, 60 percent; and South Dakota, 10 percent. The PAG members include representatives from consumer advocacy groups, government agencies (including regulatory bodies), business concerns, and academia. There are two members from Montana: Barbara Roberts, Action for Eastern Montana, and Garrett Martin, Montana DEQ.

Fiscal Overview

Integrated resource planning and electricity supply procurement planning are not only labor intensive for utilities but also take PSC staff time. However, compared to other PSC duties, resource planning consumes less PSC time than many other activities. The PSC estimates that in 2016 about 7 percent of its rate analysts' time was spent on resource planning requirements and review. Because the plans are filed biennially, staff time is approximated. In 2016, PSC's rate analysts spent about 14 percent of their time on qualifying facility dockets and issues, 10 percent on cost tracker dockets, 18 percent on general rate case proceedings, and 6 percent on telecommunications regulation.

The PSC is funded primarily by a fee that is levied on regulated companies based on funding appropriated by the Legislature for a specific fiscal year. Fees are deposited directly into a state special revenue account and are based on a percentage of the gross operating revenue from all activities regulated by the commission for the calendar quarter of operation. The agency's total annual budget is about \$4.4 million and includes about 35 FTE.

In 1993, a fiscal note for House Bill 390 included \$50,000 per biennium for PSC staff to process integrated resource plans. In conjunction with Senate Bill 247, the 2003 Legislature made a \$500,000 one-time biennial appropriation restricted to costs for consultants to assist the commission in processing preapproval applications within the 180-day statutory timeframe and evaluating utility resource procurement plans. The bill also allows the PSC to charge the utility a fee commensurate with the costs of the consultant or advisory services in procurement and planning. The utility, at the commission's direction, deposits the fee into the commission's account in the special revenue fund pursuant to 69-8-421, MCA. The initial fee charged to the utility is based on the commission's estimate of costs for the consultant or advisory services. The commission then has the ability to revise the fee amount as the actual costs become known.

PSC records show that in 2004 the PSC made a payment to Quantec, an energy services consultant, for \$16,715 out of the \$500,000 biennial appropriation for review of the electric supply plan. NorthWestern then reimbursed the PSC for the Quantec payment. In the 2004-2005 biennium, the PSC processed two preapproval applications, for power purchase agreements between NorthWestern and Basin Creek Equity Partners and Judith Gap, respectively, without drawing on the appropriation. In relation to NorthWestern's request to preapprove the Dave Gates Generating Station in 2008, the PSC charged a fee of \$65,600 for consulting services.

In future planning cycles, the commission did not engage independent consultants or advisory services to evaluate a utility's resource procurement plans. However, in 2013, the PSC did charge NorthWestern in the context of the proposed hydroelectric acquisition for resource procurement planning purposes. The PSC hired a consultant to

evaluate the “PowerSimm model” and an engineer to evaluate NorthWestern’s due diligence on the condition of the dams. The consultant costs were about \$110,000.

Outlook

Long-term utility planning as required in Montana’s integrated resource and procurement planning statutes and rules is a time-intensive process and produces large amounts of useful information, but determining the success of planning is rather subjective. As one best-practices report noted: “For an IRP process to be deemed successful, it should include both a meaningful stakeholder process and oversight from an engaged public utilities commission. A successful utility’s resource plan should include consideration in detail of the following elements: a load forecast, reserves and reliability, demand-side management, supply options, fuel prices, environmental costs and constraints, evaluation of existing resources, integrated analysis, time frame, uncertainty, valuing and selecting plans, action plan, and documentation.”²⁹ Montana’s statutes require these elements. However, there is debate about how well utilities execute the requirements every two years.

A June 2017 report from the Lawrence Berkeley National Laboratory reiterated the importance of integrated resource planning. However, the report found there is little empirical data assessing the effectiveness of planning processes and implementation. The research showed that only a limited amount of information developed during a planning process is actually put to use when making procurement decisions, as utilities and regulators rely more heavily on more up-to-date information. According to the report: “It is generally recognized that integrated resource planning is a stakeholder-driven process that provides guidance for future procurement decisions that, in principle, assure that future resources are least cost and risk. It follows that achieving these objectives requires the planning process to produce and transfer information that is useful for the procurement process. However, to the best of our knowledge, there has been little or no research conducted that assesses the effectiveness (or usefulness) of resource plans by tracing their relationship to procurement decisions made after the plan was originally filed.”³⁰

On September 15, 2017, MDU submitted its 2017 integrated resource plan to the PSC. The public was invited to comment on the four-volume report through January 15, 2018. The plan encompasses load forecasting, demand-side analysis, supply-side analysis, and integration and risk analysis. The PSC is in the early stages of its review and analysis. NorthWestern Energy is expected to file its procurement plan by December 15, 2018. NorthWestern also has indicated that it plans to submit a rate case in 2018. The PSC will process both dockets. It is also possible that the 2018 plan may have relevance to the 2018 rate case. If the 2018 procurement plan contains information applicable to NorthWestern’s marginal costs, which will be a factor in the net metering benefit-cost study and could also be a factor in the cost of service and rate design portion of the case, that information will be important to the rate case.

Montana policymakers, regulators, utilities, and a variety of stakeholders provide oversight to the planning process in Montana. Those groups are also key to determining how and whether planning processes and the plans that are generated as a result of those processes are improved in the future.

²⁹ Rachel Wilson and Bruce Biewald, “Best Practices in Electric Utility Integrated Resource Planning: Examples of State Regulations and Recent Utility Plans,” Synapse Energy Economics Inc. for the Regulatory Assistance Project with funding provided by the Southern Alliance for Clean Energy (June 2013).

³⁰ Juan Pablo Carvallo, Alan H. Sanstad, and Peter H. Larsen, Ernest Orlando Lawrence Berkeley National Laboratory, “Exploring the Relationship Between Planning and Procurement in Western U.S. Electric Utilities,” report prepared for the U.S. Dept. of Energy Transmission Permitting and Technical Assistance Office of Electricity Deliver and Energy Reliability (June 2017).