

Synapse
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A BRIEF SURVEY OF STATE INTEGRATED RESOURCE PLANNING RULES AND REQUIREMENTS

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As energy demand both increases and declines over time in the United States, and the generation fleet ages, utilities must plan to add and retire resources in the most cost-effective manner while still maintaining applicable reliability standards. Integrated resource planning has been an accepted way in which utilities can create long-term resource plans since the late 1980s. State requirements for resource plans vary in terms of planning horizon, the frequency with which plans must be updated, and the resources required to be considered, among other things. As the electric industry began to restructure in the mid 1990s, however, integrated resource planning rules were often repealed or ignored. Procurement planning requirements have replaced integrated resource planning in some restructured states, and have much in common with the old rules. This report provides an overview of state integrated resource planning rules, and identifies for each state the different elements mentioned above. The report also briefly examines the requirements for generating unit retirements and associated decommissioning costs to the extent that they are included in the planning rules. Procurement planning requirements are also discussed generally.

1. Introduction

Integrated resource planning (IRP¹) began in the late 1980s as states began to respond to the oil embargos of the 1970s and nuclear cost overruns that occurred during the same time period and into the 1980s. The combination of higher oil prices and skyrocketing nuclear construction costs were felt most strongly in New England, and led to the bankruptcy of several utilities – Public Service of New Hampshire, Eastern Utilities, New Hampshire Electric Coop, Eastern Maine Electric Coop, and Vermont Electric Utility Coop. These crises of the 1970s and 1980s caused both utility planners and consumers to examine energy demand and

¹ “IRP” can mean “integrated resource planning” or an “integrated resource plan.”

use, resource selection, and risk. Many states opted to implement energy efficiency policies and integrated resource planning rules as a result.²

By 1991, survey results showed that fourteen states had achieved “full-featured” IRP status, defined by four characteristics: 1) the state IRP process is established through statute, regulation, or case precedent; 2) the process is subject to public review; 3) regulators require integration of construction permit and utility ratemaking processes with the IRP process; and 4) the primary means of evaluating utility plans was through minimization of the present value of resource requirements.³ Eighteen states had IRP processes in place that were not considered “fully-featured,” nine states were at the beginning of the IRP process, and the remaining nine states had made little or no progress in implementing an IRP rule.⁴

One year later, the federal government defined IRP in the 1992 Energy Policy Act:

The term “integrated resource planning” means, in the case of an electric utility, a planning and selection process for new energy resources that evaluates the full range of alternatives, including new generating capacity, power purchases, energy conservation and efficiency, cogeneration and district heating and cooling applications, and renewable energy resources, in order to provide adequate and reliable service to its electric customers at the lowest system cost. The process shall take into account necessary features for system operation, such as diversity, reliability, dispatchability, and other factors of risk; shall take into account the ability to verify energy savings achieved through energy conservation and efficiency and the projected durability of such savings measured over time; and shall treat demand and supply resources on a consistent and integrated basis.⁵

² For more information on the development of integrated resource planning, see: 1) Hirst, Eric. *A Good Integrated Resource Plan: Guidelines for Electric Utilities and Regulators*. Oak Ridge National Laboratory. December 1992.; 2) Harrington, et al. *Integrated Resource Planning for State Utility Regulators*. The Regulatory Assistance Project. June 1994.; 3) Weston, Frederick. *The Regulatory Assistance Project. Integrated Resource Planning: History and Principles*. Presentation at the 27th National Regulatory Conference. May 20, 2009.

³ Mitchell, Cynthia. *Lagging in least-cost planning—Not as far along as we thought*. *The Electricity Journal*. Volume 2, Issue 10. December 1989, Pages 24-31.

⁴ *Id.*

⁵ Energy Policy Act of 1992. §111(d)(19) Text available at: <http://www.ferc.gov/legal/maj-ord-reg/epa.pdf>

Simply put, integrated resource planning means ensuring the long-term reliability of delivered energy at the lowest practical cost. The Energy Policy Act established a requirement that any municipal utility that purchased electricity from the Western Area Power Administration (WAPA) had to create an IRP, though the utility did not have to make it publicly available.

Steps taken in the creation of an IRP include: forecasting future loads, identifying potential resource options to meet those future loads and their associated costs, determining the optimal mix of resources, receiving and responding to public participation (where applicable), and creating and implementing a resource plan. Figure 1, below, shows these steps in a flow chart.

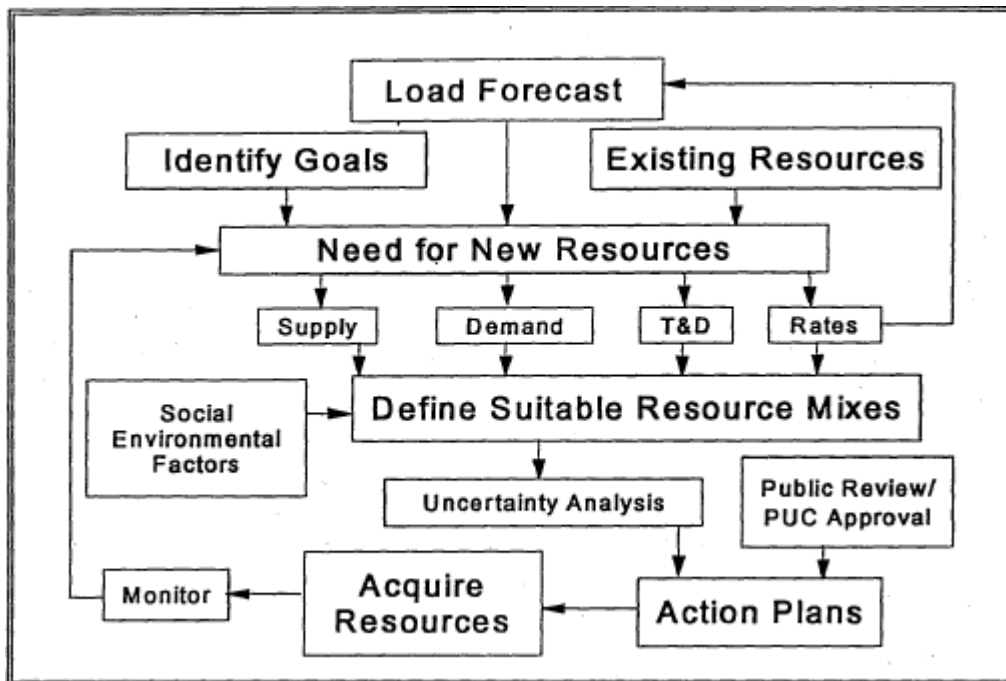


Figure 1. Flow Chart for Integrated Resource Planning.⁶

Common risks that are addressed by scenario or sensitivity analysis in IRPs include: fuel prices (coal, oil, and natural gas), load growth, electricity spot prices, variability of hydro resources, market structure, environmental

⁶ Hirst, Eric. *A Good Integrated Resource Plan: Guidelines for Electric Utilities and Regulators*. Oak Ridge National Laboratory. December 1992. page 5. As it appears in Harrington, et al. *Integrated Resource Planning for State Utility Regulators*. The Regulatory Assistance Project. June 1994.

regulations, and carbon dioxide and other emission regulations.⁷ When plans are filed, the Public Utilities Commission reviews the plan, and may acknowledge (or not) that the IRP has been filed and that basic requirements have been met. The Commission can also accept or reject all, or portions of, the plan, and can also comment on or identify concerns about the plan. Possible Commission actions are specified in state IRP rules. The Commission does not actively monitor utility actions that are taken based on the IRP, but rather waits until the results of those actions come up for review in rate cases, prudence reviews, fuel cost adjustments, certificates of public convenience and necessity, review of utility power purchases, and resource acquisition cases. IRP findings may be used as supporting evidence in these various proceedings.⁸

Various state IRP rules and their individual requirements are discussed in the sections below.

2. Specifics of State IRP Rules

While some state IRP rules have remained unchanged since they were first implemented, other states have amended, repealed, and in some cases reinstated their IRP rules. Figure 2, below, shows those states that currently have IRP rules, states that are developing or revising IRP rules, and states that do not have an IRP rule.

⁷ Hopper, Charles and Nicole Goldman. Lawrence Berkeley National Laboratory. *Review of Utility Resource Plans in the West*. Presentation at the New Mexico PRC IRP Workshop, Santa Fe, New Mexico. June 8, 2006. Slide 17

⁸ Sedano, Richard. The Regulatory Assistance Project. *Integrated Resource Planning: Process and Rules in the West*. Presentation to the New Mexico Public Regulation Commission. June 8, 2006. Slide 44.

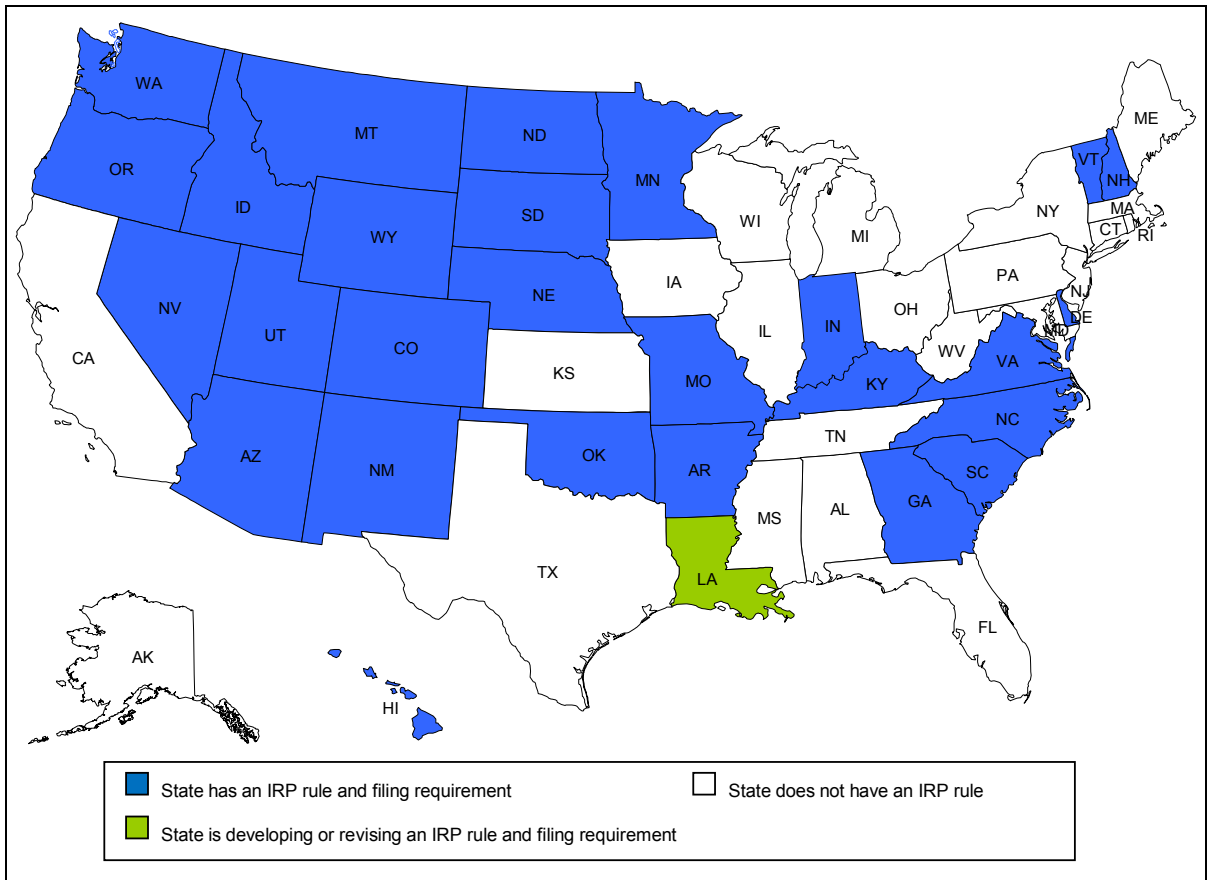


Figure 2. Presence or Absence of State Integrated Resource Planning Rules.

IRP rules governing utilities have been created in a number of ways. Bills mandating integrated resource planning have been passed into law by state legislatures. Rules have been codified under state administrative code. And finally, state utility commissions have adopted integrated resource planning regulations as part of their administrative rules, or have ordered it to be done as a result of docketed proceedings.⁹

There is currently an open proceeding before the Louisiana Public Service Commission – Docket R-30021: Development and Implementation of Rules for Integrated Resource Planning for Electric Utilities – that may result in the implementation of state IRP rules. This proceeding was opened on March 9, 2007. Draft rules were submitted and interveners had the opportunity to provide

⁹ For a complete list of the rules and regulations associated with integrated resource planning in the states, see Appendix 1.

their comments to the Louisiana Commission. A revised set of rules is expected in April 2011.

The Missouri Public Service Commission was very recently involved in a rulemaking case related to integrated resource planning rules. Missouri's IRP rules went into effect in 1993. All utilities filed their first IRPs, but subsequently requested a suspension of the IRP rules with the thought that electric restructuring would spread to all 50 states. The Commission agreed to suspend the rules, and instead of an IRP process, the utilities met with the Commission twice per year to present their resource plans. The emphasis of these plans was on the immediate need for capacity rather than long-term resource planning. The Commission began to conduct workshops in May 2009 to discuss changes to the IRP rules that would ease the compliance burden for the utilities. A formal case was opened in March 2010 and the IRP rules were streamlined and sections were eliminated. The Commission issued its Final Order of Rulemaking on March 3, 2011 and closed the case.

Arizona and Colorado are both states that have also recently amended their IRP rules. Integrated resource planning is designed to assess changing conditions related to the provision of electricity, and the rules governing the plans also can change periodically. Details on the current rules in place in various states are found in the following sections of this report.

A. IRP Planning Horizons

Integrated resource plans are long-term in nature, but these planning periods vary according to state regulations. Table 1 lists the length of planning horizons typically found in IRP rules, as well as the states that have implemented these various planning horizons as a part of their rules.

Table 1. Planning Horizons Found in IRP Rules.

Planning Horizon	States with Specified Planning Horizon
10 years	Arkansas, Delaware, Oklahoma, South Dakota, Wyoming
15 years	Arizona, Kentucky, Minnesota, North Carolina, South Carolina, Virginia
20 years	Georgia, Hawaii, Idaho, Indiana, Missouri, Nebraska, Nevada, New Mexico, North Dakota, Oregon, Utah, Vermont, Washington
Multiple periods	Montana
Utility determined	Colorado
Not specified	New Hampshire

The most common planning horizon spans a 20 year period, with half of the IRP states mandating this planning period. While the state of Washington requires a 20 year planning period, utilities must expand the planning horizon if it is appropriate to the life of the resources being considered.¹⁰ Six states utilize a planning horizon of ten years; for Arkansas and Wyoming, this is the minimum time period for which utilities must plan. An additional six utilities utilize a 15 year planning horizon. Montana is unique in that it has separate rules for vertically-integrated utilities and restructured utilities. For vertically-integrated utilities, the focus is on “long-term” planning, which some consider to mean 20-25 years.¹¹ For restructured utilities, the planning horizon is “the longer of: 1) the longest remaining contract term in a utility’s supply resource portfolio; 2) the period of the longest lived electricity supply resource being considered for acquisition; or 3) ten years.”¹² Colorado’s IRP rules, recently updated in November 2010, allow the utility to specify the planning and resource acquisition periods, but must include a detailed explanation as to why a planning horizon was chosen. Planning periods are expected to be between 20 and 40 years.¹³

¹⁰ Washington Administrative Code 480-100-238. Integrated Resource Planning. Available at: <http://apps.leg.wa.gov/wac/default.aspx?cite=480-100-238>

¹¹ *Regulatory Assistance Project Electric Resource Long-range Planning Survey*. State of Montana. September 29, 2005. Available at: http://www.raonline.org/docs/RAP_MTElectricResourceLongRangePlanningSurvey_2005_09_29.pdf

¹² Administrative Rules of Montana. Rule: 38.5.8202. Available at: <http://www.mtrules.org/gateway/RuleNo.asp?RN=38.5.8202>

¹³ Colorado Department of Regulatory Agencies. Public Utilities Commission. 4 Code of Colorado Regulations (CCR) 723-3, Part 3: Rules Regulating Electric Utilities. Decision No. C10-1111. Docket No. 10R-214E. Filed November 22, 2010. Available at: https://www.dora.state.co.us/pls/efi/EFI.Show_Docket?p_session_id=&p_docket_id=10R-214E

B. Frequency of Updates

Utility integrated resource plans must be updated periodically to reflect changing conditions with respect to load forecasts, fuel prices, capital costs, conditions in the electricity markets, environmental regulations, and other factors. IRP updates are typically required every two to three years, as shown in Table 2, below.

Table 2. Frequency of IRP Updates, as Determined by State Rules.

Updates Required	States with Specified Update Requirement
Every two years	Arizona, Delaware, Idaho, Indiana, Minnesota, Montana, New Hampshire, North Carolina, North Dakota, Oregon, South Dakota, Utah, Virginia, Washington
Every three years	Arkansas, Georgia, Hawaii, Kentucky, Montana, Missouri, Nevada, New Mexico, Oklahoma, South Carolina, Vermont
Every four years	Colorado
Every five years	Nebraska
Not specified	Wyoming

Montana appears twice in Table 2, as traditional utilities are required to file IRPs every two years, while restructured utilities are required to file updates every three years. There are some exceptions to the typical update requirements of two to three years, however. Colorado requires electric utilities to file updates every four years. A utility may file an interim plan prior to the end of the four year period, but must explain in its filing why it has chosen to do so. Nebraska, which has a five year requirement for updates, is the only state to be made up entirely of public power utilities, many of which are customers of WAPA. Pursuant to the Energy Policy Act of 1992, municipally-owned utilities are required to prepare resource plans every five years, but do not have to make those plans publicly available. Most Nebraska utilities must comply with both WAPA IRP requirements as well as state IRP requirements.

Wyoming does not specify how often utilities must submit updated plans. The state requirement – Wyoming Public Service Commission Rule 253 and the associated Guidelines for Staff review – mandates that any utility that serves any part of Wyoming and is required to file an IRP in any jurisdiction must also file that IRP with the Wyoming Public Service Commission. Additionally, the

Commission can require that any utility serving in Wyoming must prepare and file an IRP if it determines that it is in the public interest. Because Wyoming's IRP requirement is dependent on the requirements of other jurisdictions, the long-term planning horizon can range from ten to 20 years. The Wyoming requirement says only that resources considered should be least-cost and least-risk. Utilities should discuss the types of resources considered, resource selection criteria, and DSM and conservation options. A discussion of the resource resources evaluated in other IRP regulations is found in the next section.

C. Resources Evaluated in Integrated Resource Planning

Generally, state rules mandate that utilities consider all feasible supply-side, demand-side, and transmission resources that are expected to be available within the specified planning period. Many state IRP requirements make no specifications for resources that must be evaluated beyond this. Other states have gone into further detail about the resources that should be investigated, including:

- Arizona – utilities should consider a wide range of resources to promote fuel and technology diversity, and diversify energy portfolios by meeting established standards for renewable energy resources, distributed generation energy resources, and demand-side resources.¹⁴
- Delaware – utilities shall identify and evaluate all resource options, including: generation and transmission service; supply contracts; short and long-term procurement from DSM, DR and customer sited generation; resources that utilize new or innovative baseload technologies; resources that provide short or long-term environmental benefits; facilities that have existing fuel and transmission infrastructure; facilities that utilize existing brownfield or industrial sites; resources that

¹⁴ Arizona Corporation Commission Decision No. 71722, in Docket No. RE-00000A-09-0249. June 3, 2010. Amends Arizona Administrative Code Title 14, Chapter 2, Article 7, "Resource Planning." Available at: <http://images.edocket.azcc.gov/docketpdf/0000112475.pdf>

promote fuel diversity; resources or facilities that support or improve reliability; and resources that encourage price stability.¹⁵

- Kentucky – utilities shall evaluate improvements in operating efficiency of existing facilities, demand-side programs, nonutility sources of generation, new power plants, transmission improvements, bulk power purchases and sales, and interconnections with other utilities.¹⁶

There are state IRP rules that specify not only the resources that must be evaluated, but also the amount of weight given to a particular resource by either the utilities or the Public Service/Utilities Commissions. The rules in Colorado, for example, state that “it is a policy of the state of Colorado that the Commission gives the fullest possible consideration to the cost-effective implementation of new clean energy and energy-efficient technologies.”¹⁷ In order to affirm this statement, the Public Utilities Commission requires that Colorado utilities provide at least three alternate plans in IRPs, one of which represents a baseline case and describes the costs and benefits of any new utility resources, minimizes the net present value of revenue requirements, and complies with renewable energy and demand-side management requirements. The alternate plans shall provide alternative combinations of resources that meet energy demand, but consist of proportionately more renewable resources, demand-side management resources, or “Section 123” resources. These “Section 123” resources are new energy technology or demonstration projects, including new clean energy or energy-efficient technologies.¹⁸ Utilities must then propose a range of future scenarios and sensitivities to test the plans they have developed.

¹⁵ HB 6, the Delaware Electric Utility Retail Customer Supply Act of 2006. Text is available at: [http://legis.delaware.gov/LIS/lis143.nsf/vwLegislation/HB+6/\\$file/legis.html?open](http://legis.delaware.gov/LIS/lis143.nsf/vwLegislation/HB+6/$file/legis.html?open)

¹⁶ Kentucky Administrative Regulation 807 KAR 5:058: Integrated resource planning by electric utilities. Available at: <http://www.lrc.ky.gov/kar/807/005/058.htm>

¹⁷ Colorado Department of Regulatory Agencies. Public Utilities Commission. 4 Code of Colorado Regulations (CCR) 723-3, Part 3: Rules Regulating Electric Utilities. Decision No. C10-1111. Docket No. 10R-214E. Filed November 22, 2010. Page 6. Available at: https://www.dora.state.co.us/pls/efi/EFI.Show_Docket?p_session_id=&p_docket_id=10R-214E

¹⁸ *Id.* Page 7.

In almost all cases, state integrated resource planning rules have specific requirements for the planning horizons that should be covered, the frequency with which utility plans must be updated, and the generating resources that should be considered. Some states require nothing more, while others might also require, for example: 1) a certain number or a certain type of scenario analysis; 2) that certain types of resource cost tests be used to evaluate demand-side management policies; or 3) externalities be considered by utilities when creating resource plans. Requirements for generating unit retirements and associated decommissioning costs are another example of something that some states might include in integrated resource planning rules, while others might not. The next section describes the discussion of this type of requirement in state IRP regulations.

D. Retirements and Decommissioning

Integrated resource planning is generally understood to be primarily concerned with the *addition* of resources in order to meet growing demand for electricity, and very few IRP rules mandate that utilities address end-of-life issues for generating units in their resource plans. In a summary document on integrated resource planning, the Regulatory Assistance Project states that “as utilities compare the cost of each supply- and demand-side option, they need to capture the entire life-cycle cost. This life-cycle cost means the fixed and variable costs incurred over the life of the investments: construction, operation, maintenance, and fuel costs.”¹⁹ This description does not represent the full life of the investment, however, as it does not specifically include the costs associated with the retirement and decommissioning of a resource.

State IRP rules and utility filings reflect this incomplete assessment of life-cycle costs. Twenty-seven states have IRP rules and 20 of them are silent with respect to unit retirements. Utah and Colorado require that utility filings include information about the life expectancies of the generating units in the resource

¹⁹ Harrington, et al. *Integrated Resource Planning for State Utility Regulators*. The Regulatory Assistance Project. June 1994. page 14.

plans. Three states – New Mexico, North Carolina, and South Dakota – are slightly more specific, and mandate that utilities provide expected retirement dates for generating facilities. Specifically, the utilities in each of the states are required to do the following:

- Utah – include the life expectancy of generating resources
- Colorado – provide the estimated remaining useful lives of existing generation facilities without significant new investment or maintenance expense
- New Mexico – give the expected retirement dates for existing generating units
- North Carolina – provide a list of units to be retired from service (applies to both existing and planned generating facilities), with the location, capacity and expected date of retirement
- South Dakota – include those facilities to be removed from service during the planning period, along with the projected date of removal from service and the reason for removal

There are only two state rules that make any mention of decommissioning costs:

- Arizona rules state that if the discontinuation, decommissioning, or mothballing of any power source or the permanent derating of any generating facility is expected, the utility must provide: “i.) Identification of each power source or generating unit involved, ii.) The costs and spending schedule for each discontinuation, decommissioning, mothballing, or derating, and iii) The reasons for each discontinuation, decommissioning, mothballing, or derating.”²⁰
- Georgia laws and rules state that “Total cost estimates for proposed projects must include construction and non-construction related costs

²⁰ Arizona Corporation Commission Decision No. 71722, in Docket No. RE-00000A-09-0249. June 3, 2010. Page 13. Amends Arizona Administrative Code Title 14, Chapter 2, Article 7, "Resource Planning." Available at: <http://images.edocket.azcc.gov/docketpdf/0000112475.pdf>

incurred through commercial operation, including decommissioning/dismantlement costs.”²¹

Rather than being addressed in utility integrated resource plans, generating unit retirements and associated decommissioning costs are largely left to be dealt with in other cases and proceedings that are brought before Public Utilities/Service Commissions.

E. Long-term Procurement Planning Requirements

As the electric industry began to restructure in the mid-1990s, many states that had integrated resource planning requirements either repealed them with restructuring laws, or simply began to ignore them. Some states eventually replaced integrated resource planning laws with rules for resource procurement plans. A document designed to inform California’s 2010 Long-Term Procurement Plan (LTPP) requirement surveys the ways in which utilities in other states create their resource plans. The document states that “While California utilities have not undertaken a full integrated resource planning effort in many years, the 2010 LTPP proceeding is considering the appropriate role of utility resource planning in procuring the resources needed to meet state policy goals.”²²

Figure 3 updates the map shown previously in Figure 2 of this report to include those states that have a requirement for resource procurement planning.

²¹ Integrated Resource Planning Act of 1991 (O.C.G.A. § 46-3A-1), Amended. See also: Georgia Public Service Commission, General Rules, Integrated Resource Planning 515-3-4. Available at: http://rules.sos.state.ga.us/cgi-bin/page.cgi?g=GEORGIA_PUBLIC_SERVICE_COMMISSION%2FGENERAL_RULES%2FINTEGRATED_RESOURCE_PLANNING%2Findex.html&d=1

²² Aspen Environmental Group and Energy and Environmental Economics, Inc. *Survey of Utility Resource Planning and Procurement Practices for Application to Long-Term Procurement Planning in California - DRAFT*. Prepared for the California Public Utilities Commission. September 2008. Page 1.

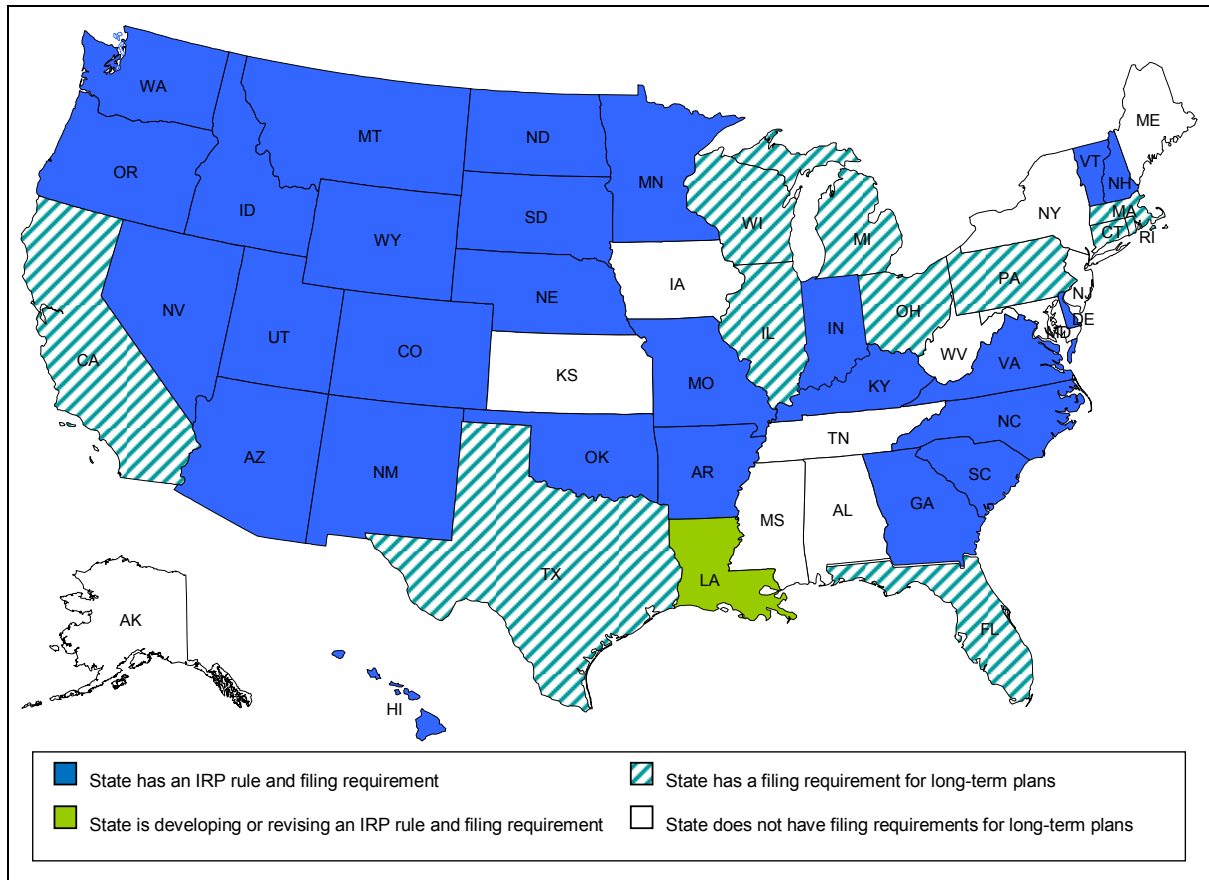


Figure 3. Presence or Absence of State Integrated Resource Planning Rules and Procurement Plan Filing Requirements.

Requirements for procurement plan filings differ from requirements for integrated resource plans. Planning periods are typically ten years, with some states requiring only a five year planning period. Procurement plans are usually required to be updated every year. Because utilities in these states operate in a deregulated market and do not own generation, procurement plans evaluate purchases for capacity and energy, as well as energy efficiency and other demand-side management programs.

Connecticut is one such state that used to have an integrated resource planning requirement, and now has a requirement for procurement plans. The state had IRP regulations in place by the late 1980s, but this requirement was repealed when the restructuring law (Public Act 98-28) was passed in 1998. A long-term procurement planning law then became effective in 2007 (Public Act 07-242).

Plans submitted to the Connecticut Energy Advisory Board in compliance with the 2007 law have much in common with utility IRPs and have even been called “Integrated Resource Plans,” though they are technically long-term procurement plans.

Utilities must file a procurement plan annually, and examine three, five, and ten year forecast periods. The law in Connecticut requires that energy efficiency be the first resource considered to meet electricity needs. The list of resources that should be considered for procurement to meet remaining electricity demand under the law includes, but is not limited to:

conventional and renewable generating facilities; energy efficiency, load management, demand response, CHP facilities; and distributed generation and other emerging energy technologies. Resource needs are to first be met through all available energy efficiency and demand reduction resources that are cost-effective, reliable, and feasible.²³

A separate section of Public Act 07-242 states that the Connecticut Department of Public Utilities

shall establish and each electric distribution company shall collect a system benefits charge (SBC) to be imposed against all end use customers beginning January 1, 2000. The SBC will be used, in part, to fund postretirement safe shutdown and site protection costs that are incurred in preparation for decommissioning, and decommissioning fund contributions.²⁴

In a restructured state, because utilities no longer own generating resources, they are responsible for the procurement of resources to meet customer demand, but the responsibility for decommissioning falls to other entities. In the case of Connecticut, the Department of Public Utilities must collect revenues used to cover decommissioning costs.

²³ Connecticut Public Act No. 07-242, Section 51: An Act Concerning Electricity and Energy Efficiency. Effective July 1, 2007. Available at: <http://www.cga.ct.gov/2007/act/pa/2007pa-00242-r00hb-07432-pa.htm>

²⁴ Connecticut Public Act No. 07-242, Section 13: An Act Concerning Electricity and Energy Efficiency. Effective July 1, 2007. Available at: <http://www.cga.ct.gov/2007/act/pa/2007pa-00242-r00hb-07432-pa.htm>

Of the twelve states with filing requirements for procurement plans, only one other state has a procurement planning regulation that mentions unit retirements and/or decommissioning costs. The regulation in Pennsylvania states that Annual Resource Planning Reports should include a description of planned generating capability removals.

3. Conclusion

Although 39 of 50 states have a rule or requirement for long-term resource planning or procurement, the variations between the state rules are substantial. In traditional IRP states, the general requirements are similar, but differences between scope, longevity, renewal, and other requirements are still significant. For states with only procurement rules, some of the benefits of an “integrated” planning process and document are lost. For this reason, there has been a call to return to integrated resource planning in some of the states that have restructured. In the 2008 *Maryland Strategic Electricity Plan*, for example, the Maryland Energy Administration states that “the PSC should be encouraged to resume Integrated Resource Planning to explore solutions for meeting electrical demand using a least cost and/or risk approach.”²⁵

While many integrated resource plans speak to things like scenario analysis, resource cost tests, and externalities as mandated by state laws and regulations, the majority of planning rules are silent on the significant issue of how retirements, mothballing, and decommissioning costs should be addressed in planning processes. Only two states require a specific identification of units and estimation of costs. Given the pending updates to EPA air and water regulations, aging coal, oil, and gas units are likely candidates for retirement over the next several years. Most states will need to give active consideration to this issue in the near term.

²⁵ Maryland Energy Administration. *Maryland Strategic Electricity Plan*. January 14, 2008. Available at: <http://energy.maryland.gov/documents/MEASTRATEGICELECTRICITYPLAN.pdf>

4. Appendix 1

State	IRP Statute or Rule
Arizona	Arizona Corporation Commission Decision No. 71722, in Docket No. RE-00000A-09-0249. June 3, 2010. ⁱ
Arkansas	Arkansas PSC. "Resource Planning Guidelines for Electric Utilities." Approved in Docket 06-028-R. January 4, 2007. ⁱⁱ
Colorado	Colorado PUC. 4 CCR 723-3, Part 3: Rules Regulating Electric Utilities. Decision No. C10-1111. Docket No. 10R-214E. November 22, 2010. ⁱⁱⁱ
Delaware	HB 6, the Delaware Electric Utility Retail Customer Supply Act of 2006. ^{iv}
Georgia	Integrated Resource Planning Act of 1991 (O.C.G.A. § 46-3A-1), Amended. ^v
	Georgia Public Service Commission. General Rules. Integrated Resource Planning 515-3-4. ^{vi}
Hawaii	Public Utilities Commission, State of Hawaii, A Framework for Integrated Resource Planning, March 9, 1992. ^{vii}
Idaho	Idaho Public Utilities Commission Order No. 22299, in Case No. U-1500-165. ^{viii}
Indiana	170 Indiana Administrative Code 4-7-1: Guidelines for Integrated Resource Planning by an Electric Utility. ^{ix}
Kentucky	KY Administrative Regulation 807 KAR 5:058. "Integrated resource planning by electric utilities." Relates to KRS Chapter 278. ^x
Minnesota	MN Statute §216B.2422. ^{xi}
	MN Rules Part 7843. ^{xii}
Missouri	Rules of Dept of Economic Development. Division 240 - PSC. Chapter 22 - Electric Utility Resource Planning (4 CSR 240.22). ^{xiii}
Montana	Montana's Integrated Least-Cost Resource Planning and Acquisition Act (§§ 69-3-1201-1206, Montana Code Annotated). ^{xiv}
	Administrative Rules of Montana 38.5.2001-2016, adopted by the Montana PSC, for traditional utilities. ^{xv}
	Administrative Rules of Montana 38.5.8201-8227, adopted by the Montana PSC, for restructured utilities. ^{xvi}
Nebraska	Nebraska Revised Statute 66-1060. ^{xvii}
Nevada	NRS 704.741. ^{xviii}
New Hampshire	Title XXXIV Public Utilities, Chapter 378: Rates and Charges, Section 38: Least Cost Energy Planning. ^{xix}
New Mexico	Integrated Resource Plans for Electric Utilities, Title 17, Chapter 7, Part 3. ^{xx}
North Carolina	North Carolina Utilities Commission Rule R8-60: Integrated Resource Planning and Filings. ^{xxi}
North Dakota	North Dakota PSC Order issued on January 27, 1987 in Case No. 10,799. Amended on March 11, 1992 in Case No. PU-399-91-689. ^{xxii}
Oklahoma	Title 165: Oklahoma Corporation Commission. Chapter 25: Electric Utility Rules, Subchapter 37: Integrated Resource Planning. ^{xxiii}
Oregon	Oregon PUC Order No. 07-002, Entered January 8, 2007. ^{xxiv}
South Carolina	Code of Laws of South Carolina, Chapter 37, Section 58 37 40. Integrated resource plans. ^{xxv}
	Public Service Commission of South Carolina Order No. 91-885 in Docket No. 87-223-E. October 21, 1991. ^{xxvi}
South Dakota	SL 1977, Ch 390, § 23. Chapter 49-41B-3. ^{xxvii}
	Administrative Rule Chapter 20:10:21, Energy Facility Plans. ^{xxviii}
Utah	Report and Order on Standards and Guidelines. Docket No. 90-2035-01. Issued June 18, 1992. ^{xxix}
Vermont	30VSA Sec 218c - Statute establishing least-cost integrated resource planning. ^{xxx}
	Public Service Board Order of 4/16/1990 initiating the IRP progress (Docket No. 5270). ^{xxxi}
	Public Service Board Order of 7/16/2002 (Docket No. 6290). ^{xxxii}
Virginia	Code of Virginia § 56-597 - § 56-599. ^{xxxiii}
Washington	Washington Administrative Code 480-100-238: Integrated resource planning. ^{xxxiv}
Wyoming	Wyoming Public Service Commission Rule 253 (submitted July 22, 2009), and associated Guidelines for Staff Review. ^{xxxv}

ⁱ This Decision amends Arizona Administrative Code, Title 14, Chapter 2, Article 7: Resource Planning. It is available at: <http://images.edocket.azcc.gov/docketpdf/0000112475.pdf>

ⁱⁱ Arkansas guidelines available at: http://www.sosweb.state.ar.us/elections/elections_pdfs/register/june_07/126.03.07-003.pdf

ⁱⁱⁱ Colorado PUC Decision available at: https://www.dora.state.co.us/pls/efi/EFI.Show_Docket?p_session_id=&p_docket_id=10R-214E

^{iv} Delaware legislation available at: [http://legis.delaware.gov/LIS/lis143.nsf/vwLegislation/HB+6/\\$file/legis.html?open](http://legis.delaware.gov/LIS/lis143.nsf/vwLegislation/HB+6/$file/legis.html?open)

^v Georgia annotated code available at: <http://www.lexisnexis.com/hottopic/gacode/Default.asp>

^{vi} Georgia PSC rules available at: http://rules.sos.state.ga.us/cgi-bin/page.cgi?g=GEORGIA_PUBLIC_SERVICE_COMMISSION%2FGENERAL_RULES%2FINTEGRATED_RESOURCE_PLANNING%2Findex.html&d=1

^{vii} Hawaii PUC Rramework available at: http://www.heco.com/vcmcontent/Integrated%20Resource/IRP/PDF/IRP_Framework_052292.pdf

^{viii} Idaho PUC Order available at: <http://www.puc.state.id.us/search/orders/dtsearch.html>

^{ix} Indiana Administrative Code available at: <http://www.in.gov/legislative/iac/title170.html>

^x Kentucky Administrative Regulation available at: <http://www.lrc.ky.gov/kar/807/005/058.htm>

^{xi} Minnesota Statute available at: <https://www.revisor.mn.gov/statutes/?id=216B.2422>

^{xii} Minnesota rules available at: <https://www.revisor.mn.gov/rules/?id=7843>

^{xiii} Missouri rules available at: <http://www.sos.mo.gov/adrules/csr/current/4csr/4c240-22.pdf>, Final Order of Rulemaking was issued on March 3, 2011, as part of the Missouri Public Service Commission Rulemaking Case No. EX-2010-0254. That amendment is available at: https://www.efis.psc.mo.gov/mpsc/commoncomponents/view_itemno_details.asp?caseno=EX-2010-0254&attach_id=2011015905

^{xiv} Montana Annotated Code available at: http://data.opi.mt.gov/bills/mca_toc/69_3_12.htm

^{xv} Montana Administrative Rules available at: <http://www.mtrules.org/gateway/ChapterHome.asp?Chapter=38.5>

^{xvi} Montana Administrative Rules available at: <http://www.mtrules.org/gateway/ChapterHome.asp?Chapter=38.5>

^{xvii} Nebraska Statute available at: <http://nebraskalegislature.gov/laws/statutes.php?statute=66-1060>

^{xviii} Nevada Statute available at: <http://www.leg.state.nv.us/nrs/NRS-704.html#NRS704Sec741>

^{xxix} New Hampshire Statute available at: <http://www.gencourt.state.nh.us/rsa/html/NHTOC/NHTOC-XXXIV-378.htm>

^{xxx} New Mexico PRC Rule available at: http://www.pnm.com/regulatory/pdf_electricity/irp_electricity.pdf

^{xxxi} North Carolina PUC Rule available at: <http://ncrules.state.nc.us/ncac/title%2004%20-%20commerce/chapter%2011%20-%20utilities%20commission/04%20ncac%2011%20r08-60.pdf>

^{xxxii} North Dakota PSC Order available at: http://www.raponline.org/docs/RAP_NDElectricResourceLongRangePlanningSurvey_2005_09_17.pdf

^{xxxiii} Oklahoma Rule available at: <http://www.occeweb.com/rules/2010Ch35ElectricpermanentMasterRuleeff7-11-10searchable.pdf>

^{xxxiv} Oregon PUC Order available at: <http://apps.puc.state.or.us/orders/2007ords/07-002.pdf>

^{xxxv} South Carolina Code available at: www.scstatehouse.gov/code/t58c037.docx

^{xxxvi} South Carolina PSC Order available at: <http://dms.psc.sc.gov/pdf/orders/DF4FC4A9-EB41-2CB4-D44614AD02D02B8D.pdf>

^{xxxvii} South Dakota Statute available at: <http://legis.state.sd.us/statutes/DisplayStatute.aspx?Statute=49-41B-3&Type=Statute>

^{xxxviii} South Dakota Rule available at: <http://legis.state.sd.us/rules/DisplayRule.aspx?Rule=20:10:21>

^{xxxix} Utah Order available at: http://www.airquality.utah.gov/Public-Interest/Current-Issues/Regionalhazesip/RegionalHazeTSDdocs/Utah_PSC_Integrated_Planning_Rules.pdf

^{xxx} Vermont Statute available at: <http://www.leg.state.vt.us/statutes/fullsection.cfm?Title=30&Chapter=005&Section=00218c>

^{xxxii} Public Service Board Orders issued prior to 1996 are not available online.

^{xxxiii} Vermont PSB Order available at: <http://www.state.vt.us/psb/orders/2002/files/6290phaseIIextensionorder.pdf>

^{xxxiiii} Virginia Statute - content begins at: <http://leg1.state.va.us/cgi-bin/legp504.exe?000+cod+56-597>

^{xxxiv} Washington Administrative Code available at: <http://apps.leg.wa.gov/wac/default.aspx?cite=480-100-238>

^{xxxv} Wyoming PSC Rule available at: <http://legisweb.state.wy.us/ARULES/2009/AR09-043.htm>; Guidelines for Staff Review available at: <http://psc.state.wy.us/htdocs/electric/ElectricIRPGuidelines7-10.pdf>