

**Agenda and Discussion Points
R-20-002 Technical Conference
October 21-22, 2020**

Introduction

The Regulatory Commission of Alaska (Commission) convened this technical conference to support the development of regulatory language for Docket R-20-002 Integrated Resource Plan (IRP) and Large Project Preapproval. In compliance with Senate Bill 123 (SB123), regulatory language must be adopted by July 1, 2021. Below are topics and options developed by Staff based on comments received in response to Order No. R-20-002(2) for discussion at the technical conference. Please note, as these proposals are developed based on received comments, Staff does not necessarily endorse all presented options. Options are sometimes but not always mutually exclusive.

Integrated Resource Planning

Minimum Elements in an IRP Filing

1) What criteria should be required in the IRP when filed with the Commission?

- Option 1. Regulations state a comprehensive list of criteria an IRP must contain at time of filing.
 - 1) Executive summary
 - a. Goals and objectives of the IRP
 - b. Summary of the IRP process and approach
 - c. Summary of the preferred portfolio
 - d. Summary load and resource balance
 - e. Proposed Action Plan to implement the IRP
 - 2) Introduction
 - a. Description of the interconnected system
 - b. Description of the IRP planning process
 - c. Summary of public involvement process
 - d. Summary of the needs and current deficiencies in the system
 - e. Summary of the resources identified and considered
 - 3) Description of the Planning Environment
 - a. Energy market fundamentals
 - b. Applicable state and federal mandates and energy policies
 - c. Transportation electrification
 - d. Recent additions and changes to the resource portfolio
 - e. List of planning assumptions
 - f. List of Data Sources
 - 4) Transmission system description
 - a. Layout of the system
 - b. Known and potential deficiencies and constraints

- c. Effect of deficiencies and constraints on cost of power
 - d. Effect of deficiencies and constraints on reliability
 - e. Planning assumptions to be incorporated in resource analysis
- 5) Load and resource balance
- a. Actual and forecasted energy use
 - b. Actual and forecasted peak power (capacity) needs
 - c. Tabulation and forecast of existing resources available to serve load
 - i. Capacity as well as energy
 - ii. Include sensitivity analysis re: future scenarios
 - d. Identification and timing of resource deficiencies
 - e. Evaluation of loads that can also act as resources
- 6) Identification of resource options
- a. Supply side resources (including retirements)
 - b. Demand side (including without limitation; conservation, efficiency and customer voluntary interruptible) resources
 - c. Transmission resources
 - i. To increase reliability
 - ii. To “unlock” existing capacity for delivery to load
 - d. Energy storage resources
 - e. Market purchases (if any) available
 - f. Other resource options as deemed appropriate by the ERO
 - g. Detailed consideration of load forecasts; reserves and reliability; demand-side management; supply and energy storage options; short and long term fuel forecasts; environmental costs and constraints including the possibility of higher future costs associated with greenhouse gases; evaluation of existing resources; integrated analysis of all service areas and uncertainty analysis
- 7) Modeling and portfolio evaluation of resource options
- a. Description of models used
 - b. Summary of input assumptions
 - c. Summary of portfolios studied
 - i. Comparison of various portfolio model outcomes
 - ii. Summary of costs and risks inherent to each portfolio
 - iii. Scenario modeling of different possible future resource mixes, including sensitivity analyses
- 8) Identification of Preferred Resource Portfolio (PRP)
- a. Highlight changes required from status quo
 - b. Highlight economic and reliability effect (dollar amount, cost and timing) for future resource additions or retirements
 - c. Criteria for determining cost-effectiveness and greatest value
 - d. Summary of minority recommendations
- 9) Action Plan to implement the IRP

- a. Summary of drivers for changes in resource portfolio
 - b. Identify rate impacts of portfolio changes
 - c. Summary of portfolio changes in the Preferred Resource Portfolio
 - d. Description of public and regulatory involvement in approval and implementation of the IRP
 - e. Description of planned updates and stakeholder involvement activities to maintain the IRP
 - f. Procedures and timing for implementing resource changes including resource RFP's
- Option 2. Regulations state the minimum of elements required in an IRP to be considered a complete application at time of filing.
 - The goal or desired end state at the end of the planned time horizon. Example: The objective of the IRP is to maintain an Interconnected Bulk Electric System that conforms to the Alaska reliability standards in a cost-effective manner.
 - Narrative of IRP development process. Example: The supporting information must include descriptions of the overall process and of the analytical techniques used by the utility to create its proposed resource plan from the available options.¹
 - Forecast of the demand requirements. Example: A range of forecasts, for at least the next 15 years or longer, of projected customer demand which takes into account econometric data and customer usage.²
 - Analysis of deficiencies compared to the desired goal or end state. Example: A determination of resource adequacy metrics for the resource plan consistent with the forecasts.³
 - All resource options considered. Example: A comprehensive analysis of all existing and new resource options (supply- and demand-side), including costs, benefits, risks, uncertainties, reliability, and customer acceptance where appropriate, considered and chosen for satisfaction of load requirements and other system obligations necessary to provide reliable electric utility service, at the lowest reasonable cost, over the planning period.⁴
 - Selected best option(s) and justification of selection. Example: The IRP shall include the justification based on the analysis of forecasted demand and objectives for the recommended resource plan selection.
 - Outline of plan execution (including criteria and metrics to measure success). Example: The supporting information must include an action plan, a description of the activities the utility intends to undertake to develop or obtain noncurrent resources identified in its proposed plan. The action plan must cover a five (5) year period beginning with the

¹ See Minnesota Rule 7843.0400 (Contents of a Resource Plan). January 20, 2005. <https://www.revisor.mn.gov/rules/7843.0400/>.

² See Washington RCW 19.280.030 Development of a resource plan—Requirements of a resource plan. 2019. <https://app.leg.wa.gov/rcw/default.aspx?cite=19.280.030>.

³ See Washington RCW 19.280.030 Development of a resource plan—Requirements of a resource plan. 2019. <https://app.leg.wa.gov/rcw/default.aspx?cite=19.280.030>.

⁴ See Virginia Guide Attachment B. Accessed September 30, 2020. <https://scc.virginia.gov/getattachment/2cd5741c-51d9-4003-b43f-85a6680a3608/irp.pdf>.

filing date. The action plan must include a schedule of key activities, including construction and regulatory filings.⁵

IRP Development Criteria

- 2) Should regulations require non-supply side measures, such as demand side management measures and distributed energy resources, be evaluated in addition to traditional supply side measures for meeting load?**
 - Option 1. Regulations do not incorporate specific demand side management measures.
 - Option 2. Regulations state that non-traditional supply side measures, such as demand side management or distributed energy resources, must be considered.
 - Option 3. Regulations specify what demand side management measure must be included for consideration, such as distributed energy resources, energy efficiency programs, load-shifting programs, etc.

- 3) Should regulations ensure technology neutrality and network adequacy with regards to IRP development?**
 - Option 1. Regulations remain silent on technology neutrality and network adequacy.
 - Option 2. Regulations specify what technologies or types of resources (to include software and hardware technologies to improve the distribution network) must be considered.
 - Option 3. Regulations specify that technologies or types of resources (to include software and hardware technologies to improve the distribution network) that are consistent with State Energy Policy, as promulgated in AS 44.99.115, must be considered.

- 4) Should regulations incorporate existing State Energy Policy into the ERO IRP development and Large Project Preapproval process?**
 - Option 1. Regulations will not require the ERO to consider State Energy Policy.
 - Option 2. Regulations will require the ERO to consider State Energy Policy as promulgated in AS 44.99.115.

Forecast Methodology

- 5) Should regulations require that the methods for estimating future demand be uniform across all load serving entities in an interconnected electrical network? If not, then why not? If so, then what methodology is recommended?**
 - Option 1. Regulations do not address any uniformity requirements for estimating future demand.
 - Option 2. Regulations requires the ERO to submit a methodology for estimating future demand that will be used uniformly across the ERO.

⁵See Minnesota Rule 7843.0400 (Contents of a Resource Plan). January 20, 2005. <https://www.revisor.mn.gov/rules/7843.0400/>.

- 6) **Considering shifting market demand curves, beneficial electrification, and demand-side resources, how should the IRP process determine or discover what energy services customers want and need and what they are willing to pay for them?**
- Option 1. Regulations do not address demand discovery.
 - Option 2. Regulations require the ERO to address how potential consumer responses to price signals, new government policies, or penetration of new technologies that affect demand will be discovered and measured during the forecast period so that subsequent forecasts can be improved.

Processes

- 7) **How frequently should IRPs be filed, and what minimum Forecast Period should an IRP cover?**
- Date of Initial Filing
 - Option 1. Regulations do not address a specific deadline for initial filing. The Commission sets the date through an Order.
 - Option 2. Regulations set the date for filing the initial IRP within two (2) years after the ERO is certificated.
 - Option 3. Regulations set the date for filing the initial IRP within three (3) years after the ERO is certificated.
 - Frequency of Filing
 - Option 1. Regulations require that after initially filing its IRP, an ERO shall submit an updated plan biennially covering the Forecast Period.
 - Option 2. Regulations require that every three (3) years after initially filing its IRP, an ERO shall submit an updated plan covering the Forecast Period.
 - Option 3. Regulations require that every five (5) years after initially filing its IRP, an ERO shall submit an updated plan covering the Forecast Period.
 - Forecast Period
 - Option 1. Regulations state that Forecast Period means the first ten (10) calendar years following the year the proposed resource plan is filed.
 - Option 2. Regulations state that Forecast Period means the first fifteen (15) calendar years following the year the proposed resource plan is filed.
 - Option 3. Regulations state that Forecast Period means the first twenty-five (25) calendar years following the year the proposed resource plan is filed.
 - Option 4. Regulations provide for multiple Forecast Periods, one short term (e.g., five (5) years) and one long term.
- 8) **In order to develop an IRP, data-sharing will be crucial. Should regulations require or encourage a shared and transparent database as an integral part of the IRP process? If so, how would this be accomplished?**
- Option 1. Regulations do not address a common database for shared information.
 - Option 2. Regulations require the ERO to manage a common database for shared information.

9) Public notice and process requirements at both the ERO and agency level.

- Option 1. Regulations will mirror the language approved in Statute, providing that:
 - Within 45 days after receipt, the commission shall approve the petition or suspend to an investigation docket.
 - If a petition is not suspended within 45 days, the petition is considered approved.
 - If, after public notice and hearing, the commission concludes that the plan requires modification, the commission shall return the plan to the ERO for timely modification and refiling, consistent with the commission's order.
 - The commission may modify a refiled integrated resource plan if the commission determines that the plan is inconsistent with the commission's order for the public interest.
- Option 2. Regulations state that:
 - Within 45 days after receipt, the commission shall approve the petition or suspend to an investigation docket.
 - If a petition is not suspended within 45 days, the petition is considered approved.
 - If, after public notice and hearing, the commission concludes that the plan requires modification, the commission shall return the plan to the ERO for timely modification and refiling, consistent with the commission's order.
 - The commission may modify a refiled integrated resource plan if the commission determines that the plan is inconsistent with the commission's order or the public interest.

10) What criteria for Commission review of the process used to develop the IRP at the ERO level?

- Option 1. Regulations are silent on the standard of review, and considerations for approval, that the Commission may or shall apply.
- Option 2. Regulations state that Commission will review the IRP process to ensure consistency with industry practices, the provision of SB123, and Commission regulations.
- Option 3. Regulations state that the Commission will review the assumptions in the analysis to ensure they are reasonable, appropriate, fair and consistent with actual future conditions expected.
- Option 4. Regulations state that the Commission will review the IRP to ensure it will not result in energy costs to consumers that are unreasonable or unfair do not provide the greatest value to consumers.
- Option 5. Regulation state that the IRP will have a provision that any minority view on the IRP be included in the IRP submitted to the Commission.
- Option 6. Regulations state there will be a process to ensure the IRP process will be vetted by a robust stakeholder process.

11) Should regulations clarify the boundaries, if any, for appropriate cost recovery of the approved IRP?

- Option 1 (costs of IRP development). Regulations state the allocation of costs to utilities based on weighting of the relative size of customer load served by each load serving entity.
- Option 2. Regulations state that the costs of resources acquired match the resources approved of in the IRP.

- Option 3. (statutory clarification) Regulations define what expenditures would qualify as an improvement to the efficiency of a utility’s provision of service and define more precisely what “portfolio development costs” are.
- Option 4 (allocating benefits and costs of contemplated project). Regulation state that any additional costs for an IRP approved project in excess of what is required to serve the members to the benefits of others will be handled through the tariff associated with a recovery of system costs.

12) Should cost recovery achieved through ERO surcharge mechanisms be in addition to separate individual utility tariffs?

- Option 1. Regulations provide for a unified tariff-based cost allocation model, providing tariffed rates at the ERO-level, rather than the use of individual LSE tariffs.
- Option 2. Regulations provide that any additional costs to a utility in constructing an IRP-identified capital project that is in excess of what is required to serve the utility’s members and benefit other utilities or the larger system will be handled through the tariff associated with a recovery of system costs.
- Option 3. Regulations should address how an IRP assesses and reports which LSEs will acquire the supply and demand side resources that the IRP contemplates, and should address division of cost responsibility for those resources.

13) How should the IRP process incorporate prices, incentives, and market mechanisms?

- Option 1. Regulations do not address prices, incentives, and market mechanisms in the development and evaluation of IRPs.
- Option 2. Regulations provide that market opportunities, financial incentives, and prices should be considered in the development and evaluation of IRPs.

Commission Criteria in the Evaluation of an IRP

14) Should regulations specify the phrase “greatest value, consistent with the load serving entities’ obligations”? If not, then why not? If so, then what aspects of “value” should regulations specifically accommodate? Should regulations delineate a load-serving entity’s obligations?

- Option 1. Regulation do not define the phrase “greatest value, consistent with the load serving entities’ obligations”. Regulations require the ERO to provide justification for how the ERO will produce “greatest value, consistent with the load serving entities’ obligations”.
- Option 2. Regulation do not define the phrase “greatest value, consistent with the load serving entities’ obligations”. Regulations require the ERO to provide justification for how the ERO will produce “greatest value, consistent with the load serving entities’ obligations”, and addressing various aspects of value such as expected bill impacts, consumer risks, and environmental externalities.
- Option 3. Regulations state the definition be “a minimization of cost (i.e. net present value of revenue requirements) to meet the requirements of utility customers (i.e. energy and demand plus reserve requirements) with consideration of diversity value (to be quantified with sensitivity analysis).”

15) Should regulations specify the content or process by which the phrase “full range of cost-effective means” is defined? If not, then why not? If so, then how so?

- Option 1. Regulations provide that, with its IRP filing, an ERO must justify how the IRP utilizes the full range of cost-effective means.
- Option 2. Regulations provide that, with its IRP filing, an ERO must justify how the IRP utilizes the full range of cost-effective means. The full range of cost-effective means will include traditional and non-traditional generation sources, renewable resources, and all other means contemplated by the organization. Additionally, an ERO must demonstrate how its IRP is effective or productive in relation to its cost.

16) What should the criteria for determining whether an IRP should be approved or returned for modification be?

- Option 1. Regulations state IRP approval be contingent upon a reasonable public and stakeholder comment process, consistency of the IRP with the criteria set for Commission review, and inclusion of an action plan with “resource acquisitions or retirements that are: 1) necessary to the interconnected electric energy transmission network with which a resource would be interconnected; 2) complies with reliability standards; and 3) would, in a cost-effective manner, meet the needs of one or more load-serving entities that is substantially served by the facility.
- Option 2. Regulations state the IRP will 1) include robust public participation founded on timely and transparent public communication, (2) provide the greatest value, consistent with the load-serving entities' obligations, (3) contain an evaluation of the full range of cost-effective means for load-serving entities to meet the service requirements of all customers, and (4) include all options to meet customers' collective needs in a manner that provides the greatest value, consistent with the public interest.
- Option 3. Regulations state that the Commission will determine if the IRP achieved the “greatest value” and will review both the primary recommendations of the IRP and any dissenting views.
- Option 4. Regulations will provide that, in issuing its findings of fact and conclusions, the commission shall consider the characteristics of the available resource options and of the proposed plan as a whole. Resource options and resource plans must be evaluated on their ability to:
 - Maintain or improve the adequacy and reliability of utility service;
 - Keep the customers' bills and the utility's rates as low as practicable, given regulatory and other constraints;
 - Minimize adverse socioeconomic effects and adverse effects upon the environment;
 - Enhance the utility's ability to respond to changes in the financial, social, and technological factors affecting its operations; and
 - Limit the risk of adverse effects on the utility and its customers from financial, social, and technological factors that the utility cannot control; and⁶

⁶ See Minnesota 7843.0500. January 20, 2020. <https://www.revisor.mn.gov/rules/7843.0500/>.

- A review of the IRP to ensure it will not result in energy costs to consumers that are unreasonable or unfair.

17) How should existing network limitations be incorporated into the relative obligations imposed on these utilities by the formation of a limited ERO?

- Option 1. Regulations require that an ERO consider any network limitations in the development of the IRP and provide a discussion of such limitations in its IRP filing.
- Option 2. Regulations will require that an ERO demonstrate in its IRP filing how proposals balance the needs of its various LSEs to ensure that no one LSE bears a significantly unequal burden.

Large Project Preapproval

1) If a project is submitted for pre-approval outside of the IRP process, what criteria should be used to determine that the facility is necessary to the interconnected electric energy transmission network with which it would be interconnected?

- Option 1. Regulations will require that, when a project is submitted outside the IRP planning process, the sponsor of the facility must demonstrate and confirm the need for the facility by providing:
 - Evidence that the failure to acquire the facility could result in material degradation to utility customer service or reliability requirements;
 - Evidence that the failure to acquire the facility would result in higher utility costs to customers over time compared to status quo;
 - Evidence that the provision of ancillary services add flexibility to the grid, increase the ability for the transmission network to meet established reliability standards, and increase grid security;
 - Evidence of the benefits of the facility, including its uses to protect or enhance environmental quality, and to increase reliability and diversity of energy supply; and
 - Evidence of regional economic impact that result in a positive net present value for the project.
- Option 2. Regulations will require support for the validity of the forecast or reliability requirement on which the necessity for the facility is based.
- Option 3. Regulations will require a demonstration of how the proposed facility meets regional energy needs in the ERO's service area.
- Option 4. Regulations will require a calculation of the proposed facility's capital and ongoing operation and maintenance costs as compared to possible alternatives for satisfying the identified need.

2) What criteria should be used to determine that a facility project meets the needs of a load-serving entity in a cost-effective manner?

- Option 1. Regulations will allow for the consideration of the impact of a future time frame when determining the cost-effectiveness and necessity of a project.
- Option 2. Regulations will provide that facility approval will be contingent upon vetting in an IRP process.

- Option 3. Regulations will allow for an evaluation based on showing of need, including the inclusion of the project in current capital improvement plans and the commitment of capital.

3) Should regulations address criteria for approval or disapproval when, outside of an IRP process, an LSE seeks project preapproval for a large energy facility that has material capacity or capabilities in excess of its own needs?

- Option 1. Regulations provide for policies that allow emergent reliability issues to be addressed whether or not the solutions were foreseen in an IRP. However, the requestor must explain why the request is being made outside the process or is superior to the solution proposed by the IRP.
- Option 2. Regulations rely on the following factors in evaluating large projects outside the IRP process (1) the validity of the forecast or reliability requirement on which the necessity for the facility is based; (2) how the proposed facility meets regional energy needs in the ERO's service area; (3) the benefits of the facility, including its uses to protect or enhance environmental quality, and to increase reliability and diversity of energy supply in the Rail belt; (4) the capital and ongoing operation and maintenance costs of the proposed facility as compared to possible alternatives that meet the same need.

4) How should the terms “refurbishment” or “capitalized maintenance” be defined?

- Option 1. Regulations define that “refurbishment or capitalized maintenance activity, that is not subject to RCA preapproval, should not result in an increase in generation nameplate capacity (of 15 MW or more for example) or would not include the addition of facilities that are defined to be Large Energy Facilities pursuant to AS 42.05.785(e).”
- Option 2. Regulations state facility is appropriate “as long as the capacity of the plant is not increased by more than twenty-five (25) percent or fifty (50) megawatts, whichever is greater.
- Option 3. Regulations state the refurbishment to a transmission line “could include upgrades to an existing transmission line that does not increase the voltage or effective length of the transmission line, exclusive of minor re-routing (or upgrades within an existing facility right-of-way).
- Option 4. Regulations define a certain dollar amount a project or percentage of plant in service amount that a project would exceed to mandate preapproval.
- Option 5. Regulations define capitalized maintenance or refurbishment as “any work done at a generation site which results in a material modification to either (i) increase net dependable capability (e.g., add a steam turbine to a combustion turbine), (ii) change the prime mover (e.g., gas to renewable conversion) or (iii) extend its life past total plant life as defined in an RCA approved depreciation study.

5) Should regulations seek to define or provide criteria for addressing when a facility “substantially serves the needs of a load serving entity”?

- Option 1. Regulations provide guidance to “differentiate the needs of the interconnected bulk power system and single load-serving entities”.

- Option 2. Regulations state that the ERO must define the criteria as part of the stakeholder process.

6) How should regulations address projects undertaken before integrated resource plan approval that do not require pre-approval?

- Option 1. Regulations state that any projects with an in-service date prior to one year beyond the completion and approval of the first IRP shall have to be approved by the Commission under the current Certificate of Public Convenience and Necessity ‘fit, willing and able’ criteria.
- Option 2. Regulations state pre-approval is not required for any large energy facility planned and under development before an ERO is certificated by the Commission.
- Option 3. Regulations state pre-approval is not required for any large energy facility prior to ERO certification and IRP completion.
- Option 4. Regulations provide that approval is not required if certain expenditure and project planning thresholds have been met (e.g. Front End Engineering and Design is complete) prior to SB123’s effective date.

7) How should regulations address municipal jurisdiction over local planning?

- Option 1. Regulations should clarify that the Commission will not address the particular geographical location of a generation or transmission facility.
- Option 2. Regulations should permit the Commission to address and approve or disapprove the geographical location of a generation or transmission facility if local planning decisions result in large and otherwise unnecessary increases in project costs.