

WAC 480-100-620 Content of an integrated resource plan. (1)

Purpose. Consistent with chapters 80.28, 19.280, and 19.405 RCW, each electric utility has the responsibility to identify and meet its resource needs with the lowest reasonable cost mix of conservation and efficiency, generation, distributed energy resources, and delivery system investments to ensure the utility provides energy to its customers that is clean, affordable, reliable, and equitably distributed. At a minimum, integrated resource plans must include the components listed in this rule. Unless otherwise stated, the assessments, evaluations, and forecasts should be over an appropriate planning horizon.

(2) **Load forecast.** The IRP must include a range of forecasts of projected customer demand that reflect the effect of economic forces on the consumption of electricity and address changes in the number, type, and efficiency of end uses of electricity.

(3) **Distributed energy resources.**

(a) The IRP must include assessments of a variety of distributed energy resources. These assessments must incorporate nonenergy costs and benefits not fully valued elsewhere within any integrated resource plan model. Utilities must assess the effect of distributed energy resources on the utility's load and operations under RCW 19.280.030 (1)(h). The commission strongly encourages utilities to engage in a distributed energy resource planning process as described in RCW 19.280.100. If the utility elects to use a distributed energy resource planning process, the IRP should include a summary of the results.

(b) The required distributed energy resource assessments must include the following:

(i) Energy efficiency and conservation potential assessment - The IRP must assess currently employed and potential policies and programs needed to obtain all cost-effective conservation, efficiency, and load management improvements, including the ten-year conservation potential used in calculating a biennial conservation target under chapter 480-109 WAC;

(ii) Demand response potential assessment - The IRP must assess currently employed and new policies and programs needed to obtain all cost-effective demand response;

(iii) Energy assistance potential assessment - The IRP must include distributed energy programs and mechanisms identified pursuant to RCW 19.405.120, which pertains to energy assistance and progress toward meeting energy assistance need; and

(iv) Other distributed energy resource potential assessments - The IRP must assess other distributed energy resources that may be installed by the utility or the utility's customers including, but not limited to, energy storage, electric vehicles, and photovoltaics. Any such assessment must include the effect of distributed energy resources on the utility's load and operations.

(4) **Supply-side resources.** The IRP must include an assessment of a wide range of commercially available generating and nonconventional resources, including ancillary service technologies.

(5) **Renewable resource integration.** An assessment of methods, commercially available technologies, or facilities for integrating renewable resources including, but not limited to, battery storage and pumped storage, and addressing overgeneration events, if applicable to the utility's resource portfolio. The assessment may address ancillary services.

(6) **Regional generation and transmission.** The IRP must include an assessment of the availability of regional generation and transmission

capacity on which the utility may rely to provide and deliver electricity to its customers.

(a) The assessment must include the utility's existing transmission capabilities, and future resource needs during the planning horizon, including identification of facilities necessary to meet future transmission needs.

(b) The assessment must also identify the general location and extent of transfer capability limitations on its transmission network that may affect the future siting of resources.

(7) **Resource evaluation.** The IRP must include a comparative evaluation of all identified resources and potential changes to existing resources for achieving the clean energy transformation standards in WAC 480-100-610 at the lowest reasonable cost.

(8) **Resource adequacy.** The IRP must include an assessment and determination of resource adequacy metrics. It must also identify an appropriate resource adequacy requirement and measurement metrics consistent with RCW 19.405.030 through 19.405.050.

(9) **Economic, health, and environmental burdens and benefits.** The IRP must include an assessment of energy and nonenergy benefits and reductions of burdens to vulnerable populations and highly impacted communities; long-term and short-term public health and environmental benefits, costs, and risks; and energy security risk. The assessment should be informed by the cumulative impact analysis conducted by the department of health.

(10) **Scenarios and sensitivities.** The IRP must include a range of possible future scenarios and input sensitivities for the purpose of testing the robustness of the utility's resource portfolio under various parameters. The IRP must also provide a narrative description of scenarios and sensitivities the utility used, including those informed by the advisory group process.

(a) At least one scenario must describe the alternative lowest reasonable cost and reasonably available portfolio that the utility would have implemented if not for the requirement to comply with RCW 19.405.040 and 19.405.050, as described in WAC 480-100-660(1). This scenario's conditions and inputs should be the same as the preferred portfolio except for those conditions and inputs that must change to account for the impact of RCW 19.405.040 and 19.405.050.

(b) At least one scenario must be a future climate change scenario. This scenario should incorporate the best science available to analyze impacts including, but not limited to, changes in snowpack, streamflow, rainfall, heating and cooling degree days, and load changes resulting from climate change.

(c) At least one sensitivity must be a maximum customer benefit scenario. This sensitivity should model the maximum amount of customer benefits described in RCW 19.405.040(8) prior to balancing against other goals.

(11) **Portfolio analysis and preferred portfolio.** The utility must integrate the demand forecasts and resource evaluations into a long-range integrated resource plan solution describing the mix of resources that meet current and projected resource needs. Each utility must provide a narrative explanation of the decisions it has made, including how the utility's long-range integrated resource plan expects to:

(a) Achieve the clean energy transformation standards in WAC 480-100-610 (1) through (3) at the lowest reasonable cost;

(b) Serve utility load, based on hourly data, with the output of the utility's owned resources, market purchases, and power purchase agreements, net of any off-system sales of such resource;

(c) Include all cost-effective, reliable, and feasible conservation and efficiency resources, using the methodology established in RCW 19.285.040, and demand response;

(d) Consider acquisition of existing renewable resources;

(e) In the acquisition of new resources constructed after May 7, 2019, rely on renewable resources and energy storage, insofar as doing so is at the lowest reasonable cost;

(f) Maintain and protect the safety, reliable operation, and balancing of the utility's electric system, including mitigating over-generation events and achieving the identified resource adequacy requirement;

(g) Achieve the requirements in WAC 480-100-610 (4)(c); the description should include, but is not limited to:

(i) The long-term strategy and interim steps the utility will take to equitably distribute benefits and reduce burdens for highly impacted communities and vulnerable populations; and

(ii) The estimated degree to which benefits will be equitably distributed and burdens reduced over the planning horizon.

(h) Assess the environmental health impacts to highly impacted communities;

(i) Analyze and consider combinations of distributed energy resource costs, benefits, and operational characteristics including ancillary services, to meet system needs; and

(j) Incorporate the social cost of greenhouse gas emissions as a cost adder as specified in RCW 19.280.030(3).

(12) **Clean energy action plan (CEAP)**. The utility must develop a ten-year clean energy action plan for implementing RCW 19.405.030 through 19.405.050. The CEAP must:

(a) Be at the lowest reasonable cost;

(b) Identify and be informed by the utility's ten-year cost-effective conservation potential assessment as determined under RCW 19.285.040;

(c) Identify how the utility will meet the requirements in WAC 480-100-610 (4)(c) including, but not limited to:

(i) Describing the specific actions the utility will take to equitably distribute benefits and reduce burdens for highly impacted communities and vulnerable populations;

(ii) Estimating the degree to which such benefits will be equitably distributed and burdens reduced over the CEAP's ten-year horizon; and

(iii) Describing how the specific actions are consistent with the long-term strategy described in WAC 480-100-620 (11)(g).

(d) Establish a resource adequacy requirement;

(e) Identify the potential cost-effective demand response and load management programs that may be acquired;

(f) Identify renewable resources, nonemitting electric generation, and distributed energy resources that may be acquired and evaluate how each identified resource may reasonably be expected to contribute to meeting the utility's resource adequacy requirement;

(g) Identify any need to develop new, or to expand or upgrade existing, bulk transmission and distribution facilities;

(h) Identify the nature and possible extent to which the utility may need to rely on an alternative compliance option identified under RCW 19.405.040 (1)(b), if appropriate; and

(i) Incorporate the social cost of greenhouse gas emissions as a cost adder as specified in RCW 19.280.030(3).

(13) **Avoided cost and nonenergy impacts.** The IRP must include an analysis and summary of the avoided cost estimate for energy, capacity, transmission, distribution, and greenhouse gas emissions costs. The utility must list nonenergy costs and benefits addressed in the IRP and should specify if they accrue to the utility, customers, participants, vulnerable populations, highly impacted communities, or the general public. The utility may provide this content as an appendix.

(14) **Data disclosure.** The utility must include the data input files made available to the commission in native format per RCW 19.280.030 (10)(a) and (b) and in an easily accessible format as an appendix to the IRP. For filing confidential information, the utility may designate information within the data input files as confidential, provided that the information and designation meet the requirements of WAC 480-07-160.

(15) **Information relating to purchases of electricity from qualifying facilities.** Each utility must provide information and analysis that it will use to inform its annual filings required under chapter 480-106 WAC. The detailed analysis must include, but is not limited to, the following components:

(a) A description of the methodology used to calculate estimates of the avoided cost of energy, capacity, transmission, distribution and emissions averaged across the utility; and

(b) Resource assumptions and market forecasts used in the utility's schedule of estimated avoided cost required in WAC 480-106-040 including, but not limited to, cost assumptions, production estimates, peak capacity contribution estimates and annual capacity factor estimates.

(16) **Report of substantive changes.** The IRP must include a summary of substantive changes to modeling methodologies or inputs that result in changes to the utility's resource need, as compared to the utility's previous IRP.

(17) **Summary of public comments.** The utility must provide a summary of public comments received during the development of its IRP and the utility's responses, including whether issues raised in the comments were addressed and incorporated into the final IRP as well as documentation of the reasons for rejecting any public input. The utility may include the summary as an appendix to the final IRP. Comments with similar content or input may be consolidated with a single utility response.

[Statutory Authority: RCW 80.01.040, 80.04.160, and chapters 80.28, 19.280, and 19.405 RCW. WSR 21-02-022 (Dockets UE-191023 and UE-190698, General Order 601), § 480-100-620, filed 12/28/20, effective 12/31/20.]