



Avista's Equity Progress

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2021 Vulnerable Population Analysis

- Identification of Vulnerable Populations (V.P.)
 - Uses Washington State Department of Health Disparities map.
 - Avista focuses on areas with either **sensitive populations** or **socioeconomic factors** areas with scores of 8 or higher plus tribal lands.
 - WA State's Highly Impacted Community analysis was not completed in time for IRP.
 - The final methodology is similar to Avista's.
 - Adds **environmental exposures** & **environmental effects** scoring.
 - Uses total score of 9 or higher.
 - Adds areas outside of reservation lands with tribal connections.
 - Avista plans to discuss Vulnerable Population methodology with Equity Group to decide on final communities to include as Vulnerable.
- **Energy Use/Cost Analysis (5 year study)**
 - Compare energy & annual bill use of V.P. areas vs non V.P. areas.
 - Conclusion- V.P. areas have slightly less energy use & annual costs, but energy burden is higher.
 - Identify specific communities with high energy burdens on average to target potential programs.
 - **Reliability/Resiliency Analysis (5 year study)**
 - Compare customer outage quantity and duration for both VP and non-VP areas.
 - Conclusion- V.P. Areas experience slightly more outages, but durations are shorter. V.P. are typically in suburban/urban areas with quicker response times.
 - Rural areas show more outages and longer durations.
 - **Power Plant Locational Analysis**
 - Identify resources within V.P. areas.
 - Conclusion: Eleven facilities where Avista owns or buys power are within V.P. Areas including hydro, natural gas, wind, and solar.
 - Facilities likely impact communities both positively and negatively.
 - Requires additional analysis on non-energy impacts.

Preliminary Customer Benefit Indicators

Table 12.28: Customer Benefits

Assumption	Energy/ Non-Energy Impacts	Public Health/ Environmental Health/ Cost and Risks	Reliability/ Resilience
Increased energy efficiency by 57 aMW through 2045 ⁴ .	<ul style="list-style-type: none"> • Comfort & Productivity • Increase local employment • Customer engagement • Acts as hedge against price volatility 	<ul style="list-style-type: none"> • Customer health • Reduction in employee sick days. • Reduction of power plant emissions. • Decreased water use 	<ul style="list-style-type: none"> • Heat & cooling retention in outages. • System and local peak reductions to lower new resource requirements.
Increase demand response by 124 MW ⁵ .	<ul style="list-style-type: none"> • Customer engagement and loyalty • Increase local employment • Bill savings for participation 	<ul style="list-style-type: none"> • Unknown changes in regional power plant emissions. 	<ul style="list-style-type: none"> • System and local peak reductions to lower new resource requirements. • Aid in managing frequency and regulation
400 MW of 8-hour duration distribution level storage by 2045.	<ul style="list-style-type: none"> • Potential for deferred distribution investments • Increase local employment • Increase local tax base 	<ul style="list-style-type: none"> • Potential for reduced wildfire risk by temporarily shutting down Transmission lines. 	<ul style="list-style-type: none"> • Potential for decreased power outage length in microgrid or behind meter installation.
400 MW (AC) of utility distributed small scale solar.	<ul style="list-style-type: none"> • Increase local employment • Increase local tax base 	<ul style="list-style-type: none"> • Potential for regional power plant emission reductions. 	<ul style="list-style-type: none"> • Benefits are yet to be determined.
620 MW (AC) of roof-top solar ⁶ .	<ul style="list-style-type: none"> • Increase local employment • Increase local tax base 	<ul style="list-style-type: none"> • Potential for regional power plant emission reductions. 	<ul style="list-style-type: none"> • Potential for customer reliability benefits if coupled with customer storage.
No new natural gas facilities ⁷ .	<ul style="list-style-type: none"> • Increase capital investment in other resources. 	<ul style="list-style-type: none"> • Reduction of power plant emissions 	<ul style="list-style-type: none"> • Less reliance on single natural gas supply line.
No hydro renewable energy credit transfers from Idaho customers.	<ul style="list-style-type: none"> • Increase local employment • Increase local tax base 	<ul style="list-style-type: none"> • Potential for regional power plant emission reductions. 	<ul style="list-style-type: none"> • Benefits are yet to be determined.
No out of state renewables including solar, wind, or geothermal.	<ul style="list-style-type: none"> • Local job creation • Increase tax base 	<ul style="list-style-type: none"> • Benefits are yet to be determined. 	<ul style="list-style-type: none"> • Benefits are yet to be determined.
No new nuclear resources.	<ul style="list-style-type: none"> • Elimination of nuclear waste storage 	<ul style="list-style-type: none"> • Elimination of catastrophic failure risk 	<ul style="list-style-type: none"> • Benefits are yet to be determined.

• 2021 IRP: Maximum Customer Benefit Portfolio Scenario

- Resource selection ignores cost, but determines where the customer may show benefit from non-energy impacts, public health, environment, or reliability.

• Future Analysis: Non-Energy Impact Quantification

- Quantify health, economic, environmental, reliability/resiliency costs and benefits.
- Analysis underway for energy efficiency.
- Future analysis for supply-side resources.
- Portfolio optimization models may include these values for resource selection.

2021 Equity Group Formation

