Utility name:	City of Richland
Report date:	8/31/2021
Contact name/Dept:	Sandi Edgemon/Energy Services
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Web address of published CEIP:	www.ci.richland.wa.us/EnergyServices
Small utility:	No

A small utility is a utility that is not required by RCW 19.280.030(1) to prepare an integrated resource plan.

Clean Energy Transformation Act, **Clean Energy Implementation Plan**
Publish: August 12, 2021

Deadline: January 1, 2022
Submission: Email this workbook and all supporting documentation to **CETA@commerce.wa.gov**
Questions: Glenn Blackmon, Sarah Vorpahl, Austin Scharff, State Energy Office, **CETA@commerce.wa.gov**

Enter information in green fields.
Do not modify blue-shaded fields.

RCW 19.405.060
Clean energy implementation plan—Compliance criteria—Incremental cost of compliance.

(2)(a) By January 1, 2022, and every four years thereafter, each consumer-owned utility must develop and submit to the department a four-year clean energy implementation plan for the standards established under RCW 19.405.040(1) and 19.405.050(1) that: (i) Proposes interim targets for meeting the standard under RCW 19.405.040(1) during the years prior to 2030 and between 2030 and 2045, as well as specific targets for energy efficiency, demand response, and renewable energy; (ii) Is informed by the consumer-owned utility's clean energy action plan developed under RCW 19.280.030(1) or other ten-year plan developed under RCW 19.280.030(5); (iii) Is consistent with subsection (4) of this section; and (iv) Identifies specific actions to be taken by the consumer-owned utility over the next four years, consistent with the utility's long-range resource plan and resource adequacy requirements, that demonstrate progress towards meeting the standards under RCW 19.405.040(1) and 19.405.050(1) and the interim targets proposed under (a)(i) of this subsection. The specific actions identified must be informed by the consumer-owned utility's historic performance under median water conditions and resource capability and by the consumer-owned utility's participation in centralized markets. In identifying specific actions in its clean energy implementation plan, the consumer-owned utility may also take into consideration any significant and unplanned loss or addition of load it experiences.

(b) The governing body of the consumer-owned utility must, after a public meeting, adopt the consumer-owned utility's clean energy implementation plan. The clean energy implementation plan must be submitted to the department and made available to the public. The governing body may adopt more stringent targets than those proposed by the consumer-owned utility and periodically adjust or expedite timelines if it can be demonstrated that such targets or timelines can be achieved in a manner consistent with the following: (i) Maintaining and protecting the safety, reliable operation, and balancing of the electric system; (ii) Planning to meet the standards at the lowest reasonable cost, considering risk; (iii) Ensuring that all customers are benefiting from the transition to clean energy: Through the equitable distribution of energy and nonenergy benefits and reduction of burdens to vulnerable populations and highly impacted communities; long-term and short-term public health and environmental benefits and reduction of costs and risks; and energy security and resiliency; and (iv) Ensuring that no customer or class of customers is unreasonably harmed by any resulting increases in the cost of utility-supplied electricity as may be necessary to comply with the standards.

(3)(a) An investor-owned utility must be considered to be in compliance with the standards under RCW 19.405.040(1) and 19.405.050(1) if, over the four-year compliance period, the average annual incremental cost of meeting the standards or the interim targets established under subsection (1) of this section equals a two percent increase of the investor-owned utility's weather-adjusted sales revenue to customers for electric operations above the previous year, as reported by the investor-owned utility in its most recent commission basis report. All costs included in the determination of cost impact must be directly attributable to actions necessary to comply with the requirements of RCW 19.405.040 and 19.405.050.

(b) If an investor-owned utility relies on (a) of this subsection as a basis for compliance with the standard under RCW 19.405.040(1), then it must demonstrate that it has maximized investments in renewable resources and nonemitting electric generation prior to using alternative compliance options allowed under RCW 19.405.040(1)(b).

(4)(a) A consumer-owned utility must be considered to be in compliance with the standards under RCW 19.405.040(1) and 19.405.050(1) if, over the four-year compliance period, the average annual incremental cost of meeting the standards or the interim targets established under subsection (2) of this section meets or exceeds a two percent increase of the consumer-owned utility's retail revenue requirement above the previous year. All costs included in the determination of cost impact must be directly attributable to actions necessary to comply with the requirements of RCW 19.405.040 and 19.405.050.

(b) If a consumer-owned utility relies on (a) of this subsection as a basis for compliance with the standard under RCW 19.405.040(1), and it has not met eighty percent of its annual retail electric load using electricity from renewable resources and nonemitting electric generation, then it must demonstrate that it has maximized investments in renewable resources and nonemitting electric generation prior to using alternative compliance options allowed under RCW 19.405.040(1)(b).

(5) The commission, for investor-owned utilities, and the department, for consumer-owned utilities, must adopt rules establishing the methodology for calculating the incremental cost of compliance under this section, as compared to the cost of an alternative lowest reasonable cost portfolio of investments that are reasonably available.

WAC 194-40-200
Clean energy implementation plan.

(1) **Specific actions.** Each utility must identify in each CEIP the specific actions the utility will take during the next interim performance period or GHG neutral compliance period to demonstrate progress toward meeting the standards under RCW 19.405.040(1) and 19.405.050(1) and the interim targets under subsection (2) of this section and the specific tar gets under subsection (3) of this section. Specific actions must be consistent with the requirements of RCW 19.405.060 (2)(a)(iv).

(2) **Interim target.** The CEIP must establish an interim target for the percentage of retail load to be served using renewable and nonemitting resources during the period covered by the CEIP. The interim target must demonstrate progress toward meeting the standards under RCW 19.405.040(1) and 19.405.050(1), if the utility is not already meeting the relevant standard.

(3) **Specific targets.** The CEIP must establish specific targets, for the interim performance period or GHG neutral compliance period covered by the CEIP, for each of the following categories of resources:

(a) **Energy efficiency.** (i) The CEIP must establish a target for the amount, expressed in megawatt-hours of first-year savings, of energy efficiency resources expected to be acquired during the period. The energy efficiency target must comply with WAC 194-40-330(1). (ii) A utility may update its CEIP to incorporate a revised energy efficiency target to match a biennial conservation target established by the utility under RCW 19.285.040 (1)(b) and WAC 194-37-070.

(b) **Demand response resources.** The CEIP must specify a target for the amount, expressed in megawatts, of demand response resources to be acquired during the period. The demand response target must comply with WAC 194-40-330(2).

(c) **Renewable energy.** The utility's target for renewable energy must identify the quantity in megawatt-hours of renewable electricity to be used in the period.

(4) **Specific actions to ensure equitable transition.** To meet the requirements of RCW 19.405.040(8), the CEIP must, at a minimum:

(a) Identify each highly impacted community, as defined in RCW 19.405.020(23), and its designation as either: (i) A community designated by the department of health based on cumulative impact analyses; or (ii) A community located in census tracts that are at least partially on Indian country.

(b) Identify vulnerable populations based on the adverse socioeconomic factors and sensitivity factors developed through a public process established by the utility and describe and explain any changes from the utility's previous CEIP, if any;

(c) Report the forecasted distribution of energy and nonenergy costs and benefits for the utility's portfolio of specific actions, including impacts resulting from achievement of the specific targets established under subsection (3) of this section. The report must: (i) Include one or more indicators applicable to the utility's service area and associated with energy benefits, nonenergy benefits, reduction of burdens, public health, environment, reduction in cost, energy security, or resiliency developed through a public process as part of the utility's long-term planning, for the provisions in RCW 19.405.040(8); (ii) Identify the expected effect of specific actions on highly impacted communities and vulnerable populations and the general location, if applicable, timing, and estimated cost of each specific action. If applicable, identify whether any resource will be located in highly impacted communities or will be governed by, serve, or otherwise benefit highly impacted communities or vulnerable populations in part or in whole; and (iii) Describe how the specific actions in the CEIP are consistent with, and informed by, the utility's longer-term strategies based on the analysis in RCW 19.280.030 (1)(k) and clean energy action plan in RCW 19.280.030(1)(l) from its most recent integrated resource plan, if applicable.

(d) Describe how the utility intends to reduce risks to highly impacted communities and vulnerable populations associated with the transition to clean energy.

(5) **Use of alternative compliance options.** The CEIP must identify any planned use during the period of alternative compliance options, as provided for in RCW 19.405.040 (1)(b).

(6) The CEIP must be consistent with the most recent integrated resource plan or resource plan, as applicable, prepared by the utility under RCW 19.280.030.

(7) The CEIP must be consistent with the utility's clean energy action plan developed under RCW 19.280.030(1) or other ten-year plan developed under RCW 19.280.030(5).

(8) The CEIP must identify the resource adequacy standard and measurement metrics adopted by the utility under WAC 194-40-210 and used in establishing the targets in its CEIP. (9) If the utility intends to comply using the two percent incremental cost approach specified in WAC 194-40-230, the CEIP must include the information required in WAC 194-40-230(3) and, if applicable, the demonstration required in WAC 194-40-350(2).

(10) Any utility that is not subject to RCW 19.280.030(1) may meet the requirements of this section through a simplified reporting form provided by commerce.

City of Richland

Interim target: Percentage of retail load to be served using renewable and nonemitting resources (WAC 194-40-200(2))

Resource	2022	2023	2024	2025	4-year Period
Renewable	80%	79%	79%	79%	79%
Nonemitting	10%	10%	10%	10%	10%
Total	90%	89%	89%	89%	89%

[Small utilities may enter a single value in cell G6 and leave the remaining cells blank.]

Describe how the target demonstrates progress toward meeting the 2030 and 2045 CETA standards (WAC 194-40-200(2)). ***This section is not required if the value in cell G6 is 80% or greater*** **:**

(Not applicable)

Specific targets (WAC 194-40-200(3)):

Resource	Amount	
Energy Efficiency	21,412	MWh to be acquired over the interim performance period (measured in first-year savings)
Renewable energy	3,030,454	MWh to be used during the interim performance period
Demand response	-	MW to be acquired over the interim performance period

Identify and describe the specific actions the utility will take over the next interim performance period to demonstrate progress toward meeting the utility's interim targets and the 2030 GHG neutral and 2045 clean electricity standard (WAC 194-40-200(1)):	
Specific action proposed	**Description of how the action demonstrates progress toward meeting interim targets and the standards**
Implement EE programs to meet identified target.	Richland Energy Services (RES) will continue to implement EE programs, considering new measures where appropriate, to meet the energy efficiency target identified for this CEIP. Pursuing energy efficiency will help minimize load growth and reduce the need for new energy resources to comply with CETA's future clean energy standards.
Investigate smart thermostat DR program	Further investigating whether smart thermostat programs can be a cost-effective resource will help RES reduce peak demands which may reduce the need for new resources.

City of Richland

Highly impacted communities (WAC 194-40-200(4))

Report each Highly Impacted Community in the table below.

Highly Impacted Community is defined in RCW 19.405.020(23) as:
(23) "Highly impacted community" means a community designated by the department of health based on cumulative impact analyses in RCW 19.405.140 or a community located in census tracts that are fully or partially on "Indian country" as defined in 18 U.S.C. Sec. 1151.

Department of Health has designated Highly Impacted Communities as those ranking 9 or 10 on the Environmental Health Disparities map. Visit the Department of Health website for instructions on how to identify Highly Impacted Communities:
https://www.doh.wa.gov/DataandStatisticalReports/WashingtonTrackingNetworkWTN/ClimateProjections/CleanEnergyTransformationAct/CETAUtilityInstructions

Census Tract (enter 11 digit FIPS code)	County Name	Tribal Lands (Yes/No)	Environmental Health Disparities Topic Rank
53005010600	Benton	No	9

City of Richland

Vulnerable populations (WAC 194-40-200(4))

Please list all indicators developed through a public process and used to identify Vulnerable Populations based on the definition in RCW 19.405.020(40):

(40) "Vulnerable populations" means communities that experience a disproportionate cumulative risk from environmental burdens due to:
(a) Adverse socioeconomic factors, including unemployment, high housing and transportation costs relative to income, access to food and health care, and linguistic isolation; and
(b) Sensitivity factors, such as low birth weight and higher rates of hospitalization

Indicator	Details	Source	Date Last Updated	Approximate number of households in service territory (if applicable)
Single family homeowners who have received a disconnect notice	Single-family homeowners experiencing generational poverty	RES Customer Information System	2021	893
Account type in RES customer information system Multi-family buildings already qualified as low-income properties as noted by community partners	Renters of single-family and multifamily buildings	RES Customer Information System + multifamily buildings already qualified as low-income properties by community partners	2021	9,000
Mobile/manufactured home residents	Mobile/manufactured home residents	RES data, county data, Google and other online records, community partners *Note: mobile/manufactured homes cannot be identified in the RES customer information system	2021	700
Customers with a history of late payments, arrearages, or receiving shut-off notices	Customers with a history of late payments, arrearages, or receiving shut-off notices	RES customer information system	2021	1,650

Describe and explain any changes to the indicator from the utility's previous CEIP, if any:

(No changes)

City of Richland

Distribution of energy and non-energy costs and benefits (WAC 194-40-200(4))

Please report one or more indicators, developed through a public process, and used to identify the forecasted distribution of energy and non-energy costs and benefits for the utility's portfolio of specific actions, including impacts resulting from achievement of the specific targets established under WAC 194-40-200(3).

Indicators must be associated with one of the following categories: energy benefits, non-energy benefits, reduction of burdens, public health, environment, reduction in cost, energy security, or resiliency.

Category	Indicator	Details	Source	Date Last Updated
Energy and non-energy benefits	Distribution of program participation and incentive dollars	Track the distribution of program participation across customer types	Utility program data	2021

Please report the forecasted distribution of energy and non-energy costs and benefits on identified highly impacted communities and vulnerable populations for the utility's portfolio of specific actions, including impacts resulting from achievement of the specific targets established under WAC 194-40-200(3). You must do a separate row for each action and for each population affected.

Identify the expected effect of specific actions on highly impacted communities and vulnerable populations and the general location, if applicable, timing, and estimated cost of each specific action. If applicable, identify whether any resource will be located in highly impacted communities or will be governed by, serve, or otherwise benefit highly impacted communities or vulnerable populations in part or in whole.

Utility Specific Action (e.g. name of resource)	Population affected? (select one per row)	Indicator	Detail (describe distribution of energy and non-energy benefits on named population)	Location of Resource (if applicable)
Implement EE programs to meet identified target.	All identified vulnerable populations and highly impacted communities	Distribution of program participation and incentive dollars	While all RES customers benefit from the acquisition of energy efficiency as a low-cost resource, benefits such as bill savings, incentives, and home improvements often go only to those who can afford the cost of purchasing energy efficient equipment. RES's planned actions to reduce risks to these populations will help the highly impacted community members and vulnerable populations receive more of these benefits.	n/a
Investigate smart thermostat DR program	All identified vulnerable populations and highly impacted communities	Distribution of program participation and incentive dollars	If a smart thermostat program is found to be cost effective, it could enable broader participation in RES programs, including the highly impacted communities and vulnerable populations, as smart thermostats require a lower level of investment than other programs and could be offered to participants at little to no cost when the combined benefits of EE and DR are considered.	n/a

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Integrated resource plan compliance (WAC 194-40-200(6))

This CEIP is consistent with the most recent integrated resource plan or resource plan, as applicable, prepared by the utility under RCW 19.280.030. **Select yes or no.**
Yes

Clean energy action plan compliance (WAC 194-40-200(7))

The CEIP is consistent with the utility's clean energy action plan developed under RCW 19.280.030(1) or other ten-year plan developed under RCW 19.280.030(5). **Select yes or no.**
No

Long-term plans (WAC 194-40-200(4)(c)(iii))

Describe how the specific actions in the CEIP are consistent with, and informed by, the utility's longer-term strategies based on the analysis in RCW 19.280.030 (1)(k) and clean energy action plan in RCW 19.280.030 (1)(l) from its most recent integrated resource plan, if applicable:
RES recently became a qualifying utility and completed an integrated resource plan in 2020. The recommendations included in the IRP are summarized below, along with explanations of how this CEIP is consistent with those recommendations. BPA Tier 1 Power: The IRP recommended that RES not take any actions that would result in decreases to the Tier 1 allocation rights in its current and future BPA power contracts. This CEIP assumes that RES will continue to receive the same allocation Tier 1 power and only adds a factor that acknowledges that the output capability of the federal system declines slightly over time. Energy Efficiency: The IRP identified that the cost-effective energy efficiency measures identified in RES's 2019 CPA are the least expensive resources available to RES. The 2021 CPA conducted in parallel with CEIP updates the assessment of cost-effective energy efficiency measures that can be part of a least-cost portfolio for RES. Demand Response: The IRP recommended RES gage customer interest in demand response programs. This CEIP builds upon that recommendation by identifying RES's current DVR program as a cost-effective DR resource and residential smart thermostat DR programs as another potential cost-effective resource for RES to investigate further. Renewable Energy Purchase Requirements: The IRP identified the upcoming need to comply with the renewable energy requirements of the EIA Renewable Energy Requirements and CETA Compliance: The IRP recommends that RES investigate renewable resources (including local renewables and distributed solar) and offset some of the carbon in its portfolio with RECs. The analysis conducted as part of this CEIP identified that the RECs RES will purchase for EIA compliance will likely enable RES to comply with CETA clean energy requirements through 2044.

Risk (WAC 194-40-200(4)(d))

Describe how the utility intends to reduce risks to highly impacted communities and vulnerable populations associated with the transition to clean energy.

RES identified several potential risks to vulnerable populations during its engagement with community organizations. These included risks associated with the clean energy transition and those that are tangential to it:

- Unstable housing – This includes the risk of becoming homeless due to rising housing costs and tenuous employment/low wages and people living in "unofficial" housing including converted garages and RVs.
- Unhealthy rentals – This includes renters who are living in unsafe conditions but cannot move because of the high costs of moving and lack of other affordable options. It may also include landlords that cannot afford to or choose not to improve their properties.
- Unhealthy single-family homes – This includes homeowners whose generational poverty prevents them from maintaining their homes.
- High utility costs – This includes the challenges people in all types of housing encounter paying utility bills and the compounding debt associated with late/non-payment of utility bills.
- Unhealthy mobile/manufactured homes – This includes people living in homes they rent or own that are unhealthy, uncomfortable, and expensive to heat/cool. These homes are often unimproved because of the high cost of the retrofits compounded by the inability of owners to obtain financing and their low incomes.

Two strategies to address the identified risks are energy efficiency measures and bill payment options. Efficiency measures can improve a home's health and comfort while reducing utility costs. Bill payment options, including levelized monthly billing, autopay, and pre-payment may help households control utility costs by providing more information about energy use and cost, preventing unexpectedly large bills, and preventing customers from incurring fees associated with unpaid bills.

Bill payment options - RES already offers levelized billing and autopay and is in process of developing a pre-payment option. In order to expand participation in these billing options to populations who could benefit from them, RES will explore opportunities to:

- Conduct targeted outreach to vulnerable populations based on their bill payment history (i.e., customers with late payments) to offer alternative bill payment options.
- Default customers with late payments/in arrears/with disconnect notices to levelized billing.
- Offer incentives to customers to adopt alternative bill payment options.
- Partner with community organizations to offer financial and/or efficiency education.

Energy efficiency - RES has energy efficiency programs for single family and multi-family building owners. Community organizations raised important considerations regarding how to provide efficiency to vulnerable populations. RES intends to explore these cross-cutting strategies into its existing and future programs as they apply to many, if not most, vulnerable populations:

- Use a trusted source to bring information about efficiency opportunities: these include community organizations, schools, faith organizations, and individuals within the community.
- Seek out ways to qualify participants for income-limited offers without asking for income and address verification.
- Design offers such that the benefits to the participant outweigh the costs (both dollars and time) and perceived risks (for example: providing address or identification).
    - o Evaluate both the benefits and costs from the participants perspective.
    - o Simplify the demands of program participation, for example by reducing the complexity of applying, the time required, and by clearly and simply communicating what is being offered.
    - o Keep in mind that poverty creates a short-term mindset. Develop offers in which the benefits are felt immediately and any payback is as short as possible (ideally one year or less).
- Partner with community organizations in design and delivery of efficiency offers.
- Conduct outreach about offers through multiple channels, meeting potential participants where they are (for example, at the farmer's market WIC booth). Keep in mind that many populations have limited access to the internet.
- Communicate all offers in the language in which people are most comfortable.

In order to expand efficiency benefits to the three targeted populations noted above (single-family homeowners in generational poverty, renters, and residents of mobile/manufactured homes), RES recognizes that it needs to better understand the needs of these populations and the reasons they have not participated in existing efficiency programs. To that end, RES intends to:

- Conduct targeted outreach to raise awareness of current offers and learn what these populations would require in order to undertake efficiency improvements.
- Explore opportunities to adapt existing or develop new offers to better meet the needs of the targeted populations.

City of Richland

Public participation (WAC 194-40-200(4), -220(1))

Provide a summary of the public input process conducted in compliance with WAC 194-40-220. Describe how public comments were reflected in the specific actions under WAC 194-40-200(4), including the development of one or more indicators and other elements of the CEIP and the utility's supporting integrated resource plan or resource plans, as applicable.

In order to identify vulnerable populations, assess the risks to them during the clean energy transition, identify specific actions RES could take to address those risks, and develop indicators to measure the distribution of costs and benefits, RES chose to engage directly and deeply with community organizations serving vulnerable populations in the service territory.

RES chose this approach after considering other possible engagement strategies for three reasons. First, engaging with organizations rather than individual community members allowed for breadth (across different populations) and depth (detailed understanding of each population). There were several longstanding community organizations active in RES's service territory that were willing to participate in the engagement process on the short timeline and through virtual (rather than in-person) meetings. Finally, an emerging best practice for serving vulnerable populations involves working with trusted community partners. RES viewed this engagement as an important first step in expanding their relationships with community partners to better serve priority populations in the years ahead.

To identify participants for the engagement, RES created a spreadsheet that listed local community organizations serving populations commonly identified in the equity literature as "vulnerable"—these included households with low and moderate incomes, people of color, non-English speakers, renters, people with disabilities, and those living in multifamily or mobile/manufactured homes. RES then cross-referenced the populations served by the organizations on their list to ensure there were no gaps. In total, RES identified 14 organizations with potential to contribute to the engagement process and reached out to those organizations by phone and email to describe the process and invite them to participate.

RES chose to engage with community organizations through two virtual meetings lasting approximately one hour. The sessions were kept short in order to respect participants' time. The first meeting (7/27/21) was attended by seven individuals representing five organizations. The second meeting (8/17/21) was attended by six individuals from six organizations. Four individuals attended both meetings.

The community organizations that RES engaged with during its two input sessions were:
- Arc of Tri-Cities
- Benton & Franklin Community Action Connection
- City of Richland (CDBG/HOME Administration)
- Kennewick Housing Authority
- Senior Life Resources (Mid-Columbia Meals on Wheels)
- United Way
- Women of Wisdom.

Both meetings were structured to allow participants to share their expertise and knowledge on the topics specified in the CETA rulemaking. The first meeting focused on identifying vulnerable populations in RES territory and understanding their current priorities and challenges. Through a structured, facilitated discussion, RES learned that there are multiple intersections between the priorities of vulnerable populations, the potential benefits of a clean energy transition, and the areas in which RES can take action.

In the second meeting, RES built on the discussion and learnings from the first engagement to present a list of potential actions RES could take that could address the priorities and risks identified in the first meeting. Participants discussed what would be required to make those actions successful, provided their sense of how to prioritize possible actions, and also made suggestions about indicators RES could use to measure its progress toward an equitable clean energy transition.

After each meeting, RES provided participants the slides from the meeting and invited participants to follow up by email with any further ideas or questions.

RES also provide opportunities for public input at the City's July 13 and September 14, 2021, Utility Advisory Committee meetings; October 5, 2021, draft CEIP public hearing; and directly with staff. No public comments were received.

City of Richland

Use of alternative compliance options (WAC 194-40-200(5))

Identify any planned use during the period of alternative compliance options, as provided for in RCW 19.405.040(1)(b):

Alternative compliance payments:	-	Dollars
Unbundled renewable energy credits:	-	Credits
Credits from energy transformation projects:	-	MWh
Electricity from the Spokane municipal solid waste to energy facility:	-	MWh

City of Richland

Resource adequacy standard (WAC 194-40-200(8))

Identify the resource adequacy standard and measurement metrics adopted by the utility under WAC 194-40-210 and used in establishing the targets in the CEIP.

Resource adequacy standard	BPA assures its power supply is available to meet its firm power supply obligation on a long term planning, forecast, basis. As directed by the Pacific Northwest Electric Power Planning and Conservation Act, a fundamental statutory purpose for BPA is to assure it has an adequate supply of power, which BPA meets through its power planning function as guided by the Northwest Power and Conservation Council Power Plan. BPA's firm power supply obligation under the Northwest power Act means BPA supplies all the power a customer needs to serve its retail consumer demands on a continuous basis except for reasons of force majeure. This obligation takes into account and is adjusted by the amount of non-federal power/resources Richland Energy Services (RES) uses to serve its load and by the type of product RES selects to purchase from BPA. BPA's currently effective Regional Dialogue Load Following Contracts obligates BPA to supply all the electricity required to meet the second-to-second variation in RES load net of RES non-federal resources.
Methods of measurement	BPA uses its Resource Program, which includes a Needs Assessment that examines on a 10-year forecast basis the uncertainty in customer loads, expected water conditions affecting federal hydro production including Biological Opinion requirements, resource availability, natural gas prices, and electricity market prices to develop a least-cost portfolio of resources that meet BPA's obligations. The goal of the Needs Assessment, which is one of the early steps in the Resource Program, is to measure BPA's existing system, in relative isolation, against BPA's obligations to supply power to show whether any long-term energy and/or capacity shortfalls may occur over the 10-year study horizon. The Needs Assessment forecasts BPA's needs for long-term energy and capacity based on resource capabilities and projected obligations to serve power. The Needs Assessment informs later steps of the Resource Program, where resource optimization techniques are used to evaluate and select potential solutions for meeting BPA's long-term needs based on cost and risk. The Needs Assessment uses the following four metrics to assess BPA's long-term energy and capacity needs: • Annual Energy: Evaluates the annual energy surplus/deficit under 1937 critical water conditions, using forecasted load obligations and expected Columbia Generating Station output. • P10 Heavy Load Hour: Evaluates the 10th percentile (P10) surplus/deficit over heavy load hours by month given variability in hydropower generation, load obligations, and Columbia Generating Station output amounts. • P10 Superpeak: Evaluates the P10 surplus/deficit over the six peak load hours per weekday by month, given variability in hydropower generation, load obligations, and Columbia Generating Station output. • 18-Hour Capacity: Evaluates the surplus/deficit over the six peak load hours per day during three-day extreme weather events and assuming median water conditions. Winter and summer extreme weather events, such as cold snaps or heat waves, are analyzed, both of which assume maximum delivery of the Canadian Entitlement outside of the region, zero wind generation, and limited energy market purchases. Winter events assume reduced streamflows due to impacts from ice forming in reservoirs. Summer events assume reduced Columbia Generating Station output due to adverse weather conditions, as the plant must power down during high temperatures for safety reasons.

City of Richland

Annual cost threshold (WAC 194-40-200(9))

Enter information in the blue colored cells. The rest will auto-populate.

Do not complete this section unless the utility intends to comply using the 2% incremental cost approach specified in WAC 194-40-200.

Year	Retail revenue requirement	Annual amount from revenue increase equal to 2% of prior year revenue requirement	Number of years in effect	Threshold amount over four years	Sum of threshold amounts	Annual threshold amounts
2021						
2022		$	4	$.00		
2023		$	3	$.00		
2024		$	2	$.00	$.00	$.00
2025		$	1	$.00		
Annual threshold ammount as a percentage of average retail revenue requirement						#DIV/0!

RES does not intend to use the 2% incremental cost approach during this interim compliance period.

Incremental cost

Itemize all costs the utility intends to incur during this interim period in order to comply with the requirements of RCW 19.405.040 and 19.405.050.	Expected cost	Alternative lowest reasonable cost	The cost is incurred during this interim reporting period. Select yes or no.	The cost is part of the lowest reasonable cost and reasonably available portfolio of resources that results in	The cost is additional to the costs that would be incurred for the lowest reasonable cost and reasonably available	The cost is not required to meet any statutory, regulatory, or contractual requirement or any provision of CETA	Summarize and cite documentation of the expected cost of the utility's planned resource portfolio and the expected cost of the alternative lowest reasonable cost and reasonably available portfolio. Clearly label all documentation with the itemized name in the first column of this table. Attach documentation to the