

**BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

In the Matter of

PUGET SOUND ENERGY

2020-2029 Ten-Year Achievable Electric
Conservation Potential and 2020-2021
Biennial Conservation Target Under
RCW 19.285.040 and WAC 480-109-010

Docket UE-190905

Petition To Modify the Biennial
Conservation Target, Penalty Threshold,
Decoupling Commitment and Ten-Year
Potential

I. INTRODUCTION

1. Puget Sound Energy (“PSE” or the “Company”) respectfully requests that the Commission issue an Order authorizing modifications to PSE’s electric Biennial Conservation Target, penalty threshold, decoupling commitment and Ten-Year Conservation Potential (“Targets and Thresholds”), as noted in Table 1 below, along with their corresponding expenditure budgets that PSE filed in its 2020-2021 Biennial Conservation Plan (“the Plan” or “BCP”) on November 1, 2019, in Docket UE-190905. PSE requests an effective date of May 22, 2020 for the revised Targets and Thresholds. PSE is filing this petition in compliance with Order 01 in this docket, in which the Commission ordered PSE to file a petition to modify Targets and Thresholds by April 15, 2020.
2. It is critical to note that PSE developed the proposed revisions that are discussed within the petition prior to the nationwide declaration of the Covid-19 pandemic. The analyses, plans, and estimates were not adjusted due to the emergency or its effects. PSE

made no adjustments to accommodate any unforeseen economic or societal impacts of the Covid-19 pandemic.

Table 1: Comparison of November 2019 Conservation Savings to April 2020 Revisions

Electric Category	Savings (MWh) November, 2019	Revised Savings (MWh) April, 2020	Percent increase/ (decrease)
10-Year Conservation Potential	1,799,149	Range of from 1,900,920 to 3,258,720	6% - 81%
CPA Pro-Rata Share/EIA Target	359,861	434,197	21%
EIA/Penalty Threshold	336,297	410,633	22%
Decoupling Threshold	17,993	21,710	21%
Total Utility Conservation Goal	476,468	526,044	10%
Total Portfolio Budgets	\$176,471,707	193,876,789	10%

3. PSE submits this petition to revise those Targets and Thresholds, as noted as “Revised Savings (MWh) April, 2020” in Table 1, consistent with Order 01 in Dockets UE-180607 and UG-180608, and requirements enumerated in Attachment A of Order 01 in Docket UE-190905 (“Conditions”), which states:

(1)(b)By April 15, 2020, Puget Sound Energy must file a petition to modify or retain the biennial EIA target, penalty threshold, decoupling commitment, and ten-year potential incorporating the effects of the Clean Energy Transformation Act to the degree possible. The petition must detail how the social cost of greenhouse gas emissions has been included in evaluating conservation targets and why the methodology used is appropriate.

4. PSE based the above-proposed targets on the application of the calculated avoided costs resulting from preliminary analyses performed as part of the draft 2019 Integrated Resource Plan (“IRP”). The draft 2019 IRP portfolio analyses included the Washington Clean Energy Transformation Act (“CETA”) provisions of the social cost of greenhouse gas

emissions (also referred to as “social cost of carbon” or “SCC”) and an estimate of potential costs associated with achieving an 80 percent non-emitting portfolio by 2030.

5. PSE’s proposed electric savings revisions were based on the draft 2019 IRP portfolio analyses results, which were incomplete, not vetted, nor filed with the Commission, as is normally the case in an Integrated Resource Plan (“IRP”) filing.¹ However, the draft results were presented at the Conservation Resource Advisory Group’s (“CRAG”) January 27, 2020 meeting to qualitatively inform the 2020-21 target updating process. The January 27 presentation included several elements relative to the uncertainty and imprecision of the data analyzed. PSE provides more details of the draft 2019 IRP analysis in section IV of this petition.

The major sections of the petition are as follows:

- a. A brief review of the background pertaining to this filing.
- b. A discussion of the steps that PSE took to develop its revised Targets and Thresholds, PSE’s incorporation of CETA requirements, to the degree possible, into applicable programs, potential adaptive management steps that PSE will examine as the biennium progresses, and the resulting revised 2020-2021 conservation Targets and Thresholds.
- c. A discussion of how PSE analyzed the impacts of CETA in its draft 2019 IRP, and how the methodology used is appropriate.
- d. A concluding request to revise PSE’s 2020-2021 savings Targets and Thresholds accordingly.

¹ In Docket UE-180607 and UG-180608, the Commission granted a delay in the filing of PSE’s 2019 IRP (Order 01), and in Order 02, the Commission indicated that PSE’s IRP Progress Report was to be filed in November 2019, in lieu of the IRP itself.

6. PSE is engaged in the business of providing electric and natural gas service within the State of Washington as a public service company and is subject to the regulatory authority of the Commission as to its retail rates, service, facilities and practices. Its full name and mailing address are:

Puget Sound Energy
Attn: Jon Piliaris
Director of Regulatory Affairs
P.O. Box 97034
Bellevue, WA 98009-9734
Phone: 425-456-2142
Jon.Piliaris@pse.com

PSE's representatives for purposes of this proceeding are:

Sheree Strom Carson
David S. Steele
Perkins Coie LLP
10885 N.E. Fourth Street, Suite 700
Bellevue, WA 98004-5579
Phone: 425-635-1400
scarson@perkinscoie.com
dsteele@perkinscoie.com

7. The following rules or statutes may be brought into issue by this petition:

RCW 80.01.040, RCW 19.405, RCW 19.285.040, RCW 19.285.060, WAC 480-109-100,
and WAC 480-07-370.

II. BACKGROUND

A. PSE Filed its 2020-2021 Conservation Commitments, in its Biennial Conservation Plan on November 1, 2019

8. PSE based the Savings Targets and Thresholds that it filed in its 2020-2021 Biennial Conservation Plan (“BCP”) on the 2020-2021 pro-rata shares of the 2017 IRP 10-year conservation potential. This was consistent with the Commission’s Order 01 in Docket UE-180607 and UG-180608, which indicated that, since a Conservation Potential Assessment (“CPA”) that includes the applicable provisions of CETA could not be adequately developed in time to file PSE’s 2020-2021 BCP, PSE should file its electric and natural gas Targets and Thresholds based on the 2017 CPA-based 2020-2021 pro-rata shares (“2017 CPA Pro-Rata Shares”). Those savings figures are indicated in Table 1. PSE provides a detailed explanation of the derivation of each savings figure in Chapter 4 of its filed 2020-2021 BCP Overview.

B. Anticipating 2020-2021 Electric Savings Revisions

9. When PSE filed its 2020-2021 BCP on November 1, 2019, it was with the understanding that the 2017 CPA Pro-Rata Share values did not fully reflect the incorporation of elements of 2019-enacted energy-related legislation that would impact energy efficiency implementation. The Commission afforded PSE an opportunity to set placeholder values to meet the statutory filing requirements while PSE worked to incorporate updated data in its target and threshold calculations.

PSE, anticipating the potential for increased savings Targets resulting from the impact of the 2019 legislative requirements, included in PSE’s November BCP filing an “Additional Portfolio Build-out” of 74,336 megawatt-hours (MWh), or 8.5 aMW, and 986,000 therms in its electric and natural gas Total Utility Conservation Goals, respectively.² This is approximately 20 percent, and 16 percent respectively, above the 2017 CPA Pro-Rata Shares.

10. Table 2 is an extract from Exhibit 1: *Savings and Budgets*, and provides a summary of the original calculations that built up to the electric Total Utility Conservation Goal.

Table 2: Original 2020-2021 BCP: Building the Targets

Puget Sound Energy 2020-2021 Electric Portfolio Savings					
Index	Description	MWh	aMW	Comment	Calculation
	Colored cells correspond to indicated lines in Exhibit 1: <i>Savings and Budgets, 2-Year Portfolio View</i> .				
	Calculate the EIA Target			These are specific elements that comprise the Portfolio View of Exhibit 1.	
a	CPA Pro-Rata Share <i>IRP & CPA Guidance</i>	359,861	41.1	Represents all available conservation that is cost-effective, reliable, and feasible, as a 20% pro-rata share of PSE's 10-year conservation potential, per RCW 19.285.040(1).	Figure 3, Exhibit i
b	EIA Target	359,861	41.1	Meets RCW 18.285.040(1)(a) and (b) requirements	line bg of Exhibit 1 Portfolio View
	Calculate the Penalty Thresholds				
c	Subtract NEEA Savings	-23,564	-2.69	(*Option A* in savings calculation table from NEEA forecast-current method)	line ac of Exhibit 1 Portfolio View
d	EIA Penalty Threshold	336,297	38.4	\$61 - 64/MWh shortfall penalty, based on 2020 inflation, per RCW 19.285.060.	= b - c
e	Decoupling Threshold	17,993	2.1	5 percent of EIA Target	= b * .05
	Complete the Portfolio				
f	Add Firm Savings Excluded from CPA	9,198	1.0	Use CPA Pro-Rata Share as foundation.	line u of Exhibit 1
g	Add Pilots with Uncertain Savings	15,080	1.7	2020/2021: 449s, special contracts Commercial Pay For Performance pilot, Retail Choice, SMB Enhanced Engagement	line aa of Exhibit 1 Portfolio View
h	Additional Portfolio Build-out	74,336	8.5	Represents incremental effort to anticipate 2019 IRP updates.	various programs
i	Total 2020-2021 Utility Conservation Goal	476,468	54.4	This is the total Portfolio to which Energy Efficiency is managing.	= b + e + (f + g + h): lines bb & be of Exhibit 1 Portfolio View

² It is important to note that these figures represent only the “Additional Portfolio Buildout” in Table 2. The figures exclude the remaining elements that comprise the Total Utility Conservation Goal.

11. In Order 01 in Docket UE-190905, the Commission accepted PSE's Targets and Thresholds subject to Conditions set forth in Attachment A to the order. The Conditions include a requirement that PSE file a petition to revise its 2020-2021 Targets and Thresholds by April 15, 2020.³

12. The petition must indicate how the social cost of greenhouse gas emissions has been included in developing the revised Targets and Thresholds, and why the methodology used is appropriate.

III. STEPS TAKEN TO DEVELOP PSE'S REVISED SAVINGS TARGETS AND HOW THE SOCIAL COST OF GREENHOUSE GAS EMISSIONS HAS BEEN INCLUDED IN THE APPLICABLE PROGRAMS TO THE DEGREE POSSIBLE

A. Introduction

13. PSE began the development of target revisions subsequent to the November 1, 2019 BCP filing. PSE collaborated with Commission Staff, participated in a joint UTC-Commerce workshop to review updated 2019 IRP analyses and greenhouse gas emissions accounting (referring to the monetary value applied to a reduction in greenhouse gases) methodology, and collaborated with PSE Resource Planning staff, who conducted qualitative draft IRP analyses that presented a wide range of non-vetted and incomplete savings potentials.

14. PSE also engaged its CRAG early in the process, and Energy Efficiency program

³ The petition must also indicate if PSE intends on retaining the Targets and Thresholds noted in its original 2020-2021 Biennial Conservation Plan filing, which was filed on November 1, 2019.

staff began revisiting program plans to incorporate necessary revisions made possible through updated cost-effectiveness guidelines. These guidelines are based on revised avoided cost calculations, which incorporate the social cost of carbon, and the costs associated with meeting the CETA renewable and non-emitting resources requirement.

15. Program staff conducted a thorough review and update of Energy Efficiency programs, incorporating the updated avoided costs to evaluate a wide variety of variables. These included, but were not limited to: the potential for inclusion of measures that did not meet prior cost effectiveness requirements, the ability to increase program penetration through additional outreach and marketing strategies, the impact on incentive rates, including bonus or limited-time incentives, etc. PSE provides additional program details in the attached Exhibit 1, Supplement 5: *2020-2021 Savings Revision Program Summaries*.

B. Target Revision Development Considerations

16. One of the key factors impacting the development of any savings target revision is that of achievability due to uncertainty. In a typical planning year, Energy Efficiency staff are presented with IRP guidance early enough in the planning process to provide staff sufficient time to review the findings. Furthermore, Energy Efficiency staff base their program development on an IRP that is well-vetted, thoroughly analyzed, and filed with the Commission. That guidance is routinely referred to as the “top-down” figure, or the savings target that Energy Efficiency staff must plan to achieve.
17. As has been noted in this petition, the 2019 draft IRP analyses provided a range of potential targets. The analyses were not vetted nor tested to the degree of a standard IRP

filing, and excluded several important considerations, which were discussed during the January 27 CRAG meeting. Among them are the uncertain application of achievability factors and market acceptance, the unknown costs of developing new renewable resources, unknown RTF savings revisions, the lack of a completed Commercial Building Stock Assessment (“CBSA”), incomplete incorporation of various pieces of legislation passed in 2019 (specifically, House Bill 1444 and House Bill 1257), and the complete list of CETA related implementation impacts.

18. In a standard planning year, in order to develop a well-planned, thorough savings Portfolio, staff are provided their top-down target guidance, as derived from a well-vetted and analyzed IRP. They then, as required,⁴ build their programs from the bottom up. In the case of this revision effort, Energy Efficiency staff have undertaken to expend this same effort to develop updated savings goals in a timeline that is over 80 percent shorter.
19. A key challenge is that of biennial program timing. As PSE presented to the CRAG on January 27, the prospect of developing a revised Portfolio after the biennium has started is a substantial task for program staff and program implementation contractors.
20. In order to build a revised plan, staff must factor implementation delays, additional costs, and a timeframe that is now nearly 25 percent shorter for achieving the updated

⁴ Section H.21 of Exhibit F, Settlement Terms for Conservation, Dockets UE-011570 (vacated by UE-100177) and UG-011571, indicating that program budgets must be designed from the bottom-up, through the development of a mix of programs that deliver cost-effective savings. Also, Section F.11, Agreed Conditions for Approval of [PSE’s] Electric Conservation Targets Under RCW 19.285, Docket UE-100177 (still in force).

savings goal. At the same time, staff are implementing 2020-2021 program plans that already include increased incentives, new avoided costs, and increased outreach/marketing that are being assessed to ascertain their impact. With only a limited span into the biennium, those assessments will be complicated by additional initiatives.

21. And, as of the drafting of this document, the current nationwide concern over the spread of the Covid-19 coronavirus, in addition to other, unforeseen instances of force majeure, may have a severe and lasting impact on consumers' decisions regarding energy-efficiency upgrades.
22. As indicated elsewhere in this document, all of the program revision planning occurred prior to the Covid-19 pandemic. Program staff did not make any adjustments to account for the economic or societal impact.
23. During the January 27 CRAG meeting, PSE enumerated several of these considerations, and committed to review its entire portfolio using the new avoided costs resulting from the incorporation of the social cost of carbon and increase in non-emitting resources. PSE committed to develop an updated electric savings target that complies with the requirement to incorporate the effects of CETA to the degree possible, while lacking a completed, reliable, and filed IRP upon which to conclusively base any updates.
24. In the January 27 CRAG meeting, PSE and the CRAG did not settle on a specific revised target from the range of those presented. There was general agreement that it was appropriate for PSE to propose a revised target that meets the intent of the condition, while providing the CRAG with transparency into PSE's rationale and revision evaluation

protocols.

1. Draft IRP Limitations

25. Energy Efficiency staff were provided with the results of analyses performed, as discussed in Section IV, in January 2020. The draft IRP analysis results did not provide sufficient information so as to represent conclusive “top-down” target guidance, as is the case in formally-approved and vetted IRPs.
26. Issues that contributed to incomplete and imprecise data, resulting in an uncertain IRP with a lack of effective guidance include but are not limited to:
- a.* Achievability factors and market acceptance. Although the draft 2019 IRP analyses indicated the potential of a range of overall savings, there are often several hurdles to overcome insofar as gaining market acceptance. Heat pump water heaters, which have been identified as having a substantial potential, continue to experience significant application barriers and low contractor engagement, are a key example. During the development of the CPA, Energy Efficiency staff did not provide feedback on key factors associated with those cost bundles that have historically been well out of range of consideration. Therefore, staff are not comfortable with the market readiness and achievability of the measures in these higher cost bundles that form a large part of the draft IRP range of potential targets.
 - b.* Unknown costs associated with developing new renewable resources. In order to meet the CETA requirements, PSE must significantly expand its fleet of renewable generation. Over the long term, the costs associated with such an endeavor are uncertain. The costs associated with developing new renewable resources, which accounts for a large part in the increase in avoided costs, have not yet been fully vetted, leaving a large amount of uncertainty around the provided numbers. Particularly noteworthy, these costs do not factor in the 2 percent incremental cost of compliance mechanism (sometimes referred to as the “2 percent cost cap”), which may slow the transition to renewable resources, thereby potentially changing the future avoided costs significantly.
 - c.* The IRP analysis could not consider then-pending 2019 RTF savings revisions.
 - d.* The Commercial Building Stock Assessment “CBSA” had not yet been completed in

time for the analyses.

- e. The impact of recently-passed legislation could not be fully analyzed and accounted for. All of the clean energy requirements enumerated in 2019 legislation, including Senate Bill 5116, House Bill 1257, and House Bill 1444,⁵ could not be fully evaluated in the draft 2019 IRP analyses.

2. Program Staff Built Revised Targets using a Bottom-Up Approach

- 27. In a typical planning year, Energy Efficiency program staff are provided with the vetted, well-developed IRP guidance, which is considered the “top-down.” Staff then review the potential of cost-effective savings produced by existing programs and consider the potential of any new or pilot programs. They examine changes in RTF UES values, perform engineering analyses on measure savings values, and scour the conservation landscape for innovative measures.

- 28. Consistent with its standard and well-vetted practice, Energy Efficiency program staff examined market potential, engaged its trade ally channel partners, reviewed third party contracts for expansion potential, queried customers, and reviewed industry trends.

3. A Compressed Implementation Timeline Lessens the Certainty of the Savings Potential Analyses

- 29. As a standard course of business, PSE routinely commences the biennial planning

⁵ One exception was that the CPA made a backstop assumption with regards to residential lighting in the same manner that it was included in HB 1444 and as required by the Energy Independence Security Act (“EISA”), in the 2018-2019 BCP. Unlike the CPA, which was completed in 2018 and only captured residential lighting, Energy Efficiency program staff were able to account for the reduced savings values for applicable appliances in PSE’s 2020-2021 BCP filed on November 1, 2019.

process an entire year in advance. This allows for adequate market analyses, channel engagement, RTF review, and vetted measure reviews. The severely compressed timeline of this 2020-2021 savings revision adds a degree of risk and uncertainty.

4. A Compressed Implementation Timeline Impacts Channel Partners

30. By the beginning of a new biennium, program staff have negotiated and implemented contractual agreements, reporting systems have been built and loaded, and staff have begun marketing and implementation development. PSE’s channel partners and third-party implementers have already designed their services to meet a specified, contractual obligation. Any revisions to these normally requires re-negotiation and agreement between the parties. Undertaking these revisions—which can take months to conclude at this stage of the implementation process has the potential to lead to additional acquisition delays by diverting program staff’s efforts to contract negotiation, rather than acquiring cost-effective savings.

5. A Compressed Implementation Timeline Impacts Program Implementation Effectiveness

31. With nearly a quarter of the biennium completed,⁶ substantial shifts in approach, implementation strategy, scope alteration, outreach, and communications are difficult to implement. The time required to ramp up these changes also impacts the achievable savings.

⁶ Based on an assumption that the Commission will issue an Order for the revised savings target in late May, 2020.

C. PSE's Savings Target Revision Evaluation Methodology

32. As noted in the Section III introduction, PSE did not base its approach to determining a revised target on a thoroughly-established or vetted energy savings potential value. Rather, program staff were faced with a range of draft IRP analyses that were limited by achievability factor, application methodology, potential updates to RTF savings calculations, and an incomplete understanding of potential CETA rules and impacts, among other considerations.

33. Therefore, program staff undertook an examination of its entire portfolio from the originally-filed 2020-2021 BCP in order to build a program portfolio that resulted in a proposed revised savings target. Starting with PSE's November 1, 2019 BCP filing, which reflects PSE's programs designed to meet the Total Utility Conservation Savings Goal (including a recognition that targets were likely to increase), Energy Efficiency program staff took a bottom-up view of all conservation programs.

34. PSE's goal, as generally agreed to with the CRAG, was to grow savings from the original values from the bottom-up, and incorporate the impacts of the new, draft avoided costs, rather than to achieve a specified draft savings potential figure. PSE provides complete discussions of the drivers of savings and budget revisions to affected programs in the attached Exhibit 1, Supplement 5: *2020-2021 Savings Revision Program Summaries*.

35. Within the constraints outlined above, program staff undertook a detailed examination of overall program structure including marketing tactics, delivery channels, targeted participants, and program administration to identify revisions that could be

supported given the new avoided costs and would achieve greater program penetration and savings. Program staff also analyzed individual measures associated with each program to identify those that would be newly cost effective and elucidate the impact of changes to incentive amounts on existing measures. These investigations involved discussions with contracted vendors to better understand the magnitude of potential program changes, the resources needed (including PSE Information Technology [“IT”] resources), the cost, and the ramp-up time.

D. PSE’s Modification To Its 2020-2021 Suite of Electric Programs

36. In its original 2020-2021 BCP, PSE added 20 percent (8.5 aMW, or 74,366 MWh) “Additional Portfolio Buildout” to its [CPA Pro-Rata Share + Pilots with Uncertain Savings + Firm Savings Excluded from CPA] total, for a Total Utility Conservation Goal of 476,468 MWh. Program staff incorporated the Additional Portfolio Buildout in anticipation of higher avoided costs that might result from the implementation of CETA.

1. Treatment of Additional Portfolio Buildout

37. The originally-filed⁷ Additional Portfolio Buildout (“APB”), consistent with the entire Energy Efficiency Portfolio, consisted of savings that were thoroughly-planned, analyzed, and vetted with channel partners, contractors, and market experts. Program staff developed these savings from the bottom-up, with care and deliberation, while also considering and evaluating RFPs for expansion of existing programs (for instance, Home

⁷ As filed with the UTC on November 1, 2019, in Docket UE-191905.

Energy Reports, and Commercial Midstream), and Requests For Proposals (“RFPs”) for new and innovative offerings, such as Industrial Energy Management (“IEM”), a Moderate Income pilot, a retail choice engine pilot, and AMI (Advanced Metering Infrastructure) Pilots.

38. PSE has a high degree of confidence in the analyses and conclusions of program staff, relative to the 8.5 aMW included in the originally-filed BCP’s APB. As its specific development purpose was to account for the potential of an increased EIA Target, it is appropriate that the originally-filed APB be moved into the revised EIA Target.

39. However, the 5.7 aMW that comprises the Buildout in the revised BPC is built on an inexact and incomplete IRP analysis that was not vetted nor filed, a significantly compressed planning timeframe, and unknown impacts on PSE’s channel partners, insofar as their ability to execute the program revisions. As has been noted elsewhere in this petition, PSE program staff developed the additional 5.7 aMW of savings prior to the outbreak of the national Covid-19 pandemic. Their efforts were not adjusted or curtailed in consideration of the emergency.

40. Therefore, PSE proposes that it add the originally-filed Additional Portfolio Buildout amount of 74,336 MWh, or 8.5 aMW to the 2017 CPA Pro-Rata Share of 359,861 MWh, or 41.1 aMW. This will result in a revised EIA Target of 434,197, or 49.6 aMW, moving PSE’s two-year CPA Pro-Rata Share into the indicated range of draft figures, noted in tables 4 (located on page 27) and 5 (page 30).

41. With this adjustment, 49.6 aMW becomes the updated baseline, to which PSE will

add the remainder of the Portfolio programs, including NEEA, Pilots with Uncertain Savings, and programs omitted from the CPA. The revised EIA Target also becomes the baseline for a 5 percent decoupling adder. With consideration given to the circumstances noted in paragraph 39, it is appropriate that the additional 5.7 aMW be excluded from any penalty targets and should remain as the revised Additional Portfolio Buildout.

2. Applying the Financial Impacts of CETA to Avoided Costs

42. Energy Efficiency program staff applied the newly-calculated avoided costs that resulted from the inclusion of the social cost of greenhouse gas emissions and 80 percent non-emitting and renewable resources by 2030 to their suite of measures to evaluate the savings and budget impacts. After PSE's Resource Planning staff provided the updated avoided costs,⁸ PSE's Data and Systems Services staff loaded the updated avoided cost reference tables⁹ for use in the Rebates Program Planner model.¹⁰ For each suite of related measures, the new avoided costs resulted in a new cost effectiveness per measure in the analysis spreadsheet. These updated measure cost effectiveness values were used in the program planner to identify the impact on the cost effectiveness of the programs which generally include more than one measure. Staff were then able to fully investigate the program cost effectiveness impacts of increased incentives, marketing and outreach,

⁸ As discussed in the following Section IV of the petition.

⁹ The avoided cost tables for electric and natural gas are included as separate worksheets in PSE's revised *Exhibit 2: Cost-Effectiveness Calculations*.

¹⁰ Extracts of these models are included as program detail pages in Exhibit 1: *Savings and Budgets*.

inclusion of additional measures, etc. For Commercial/Industrial programs, which use only a limited number of prescriptive measures, program staff loaded the updated avoided cost tables into the various Business Energy Management project evaluation tools, which Energy Management Engineers (“EMEs”) use to evaluate cost effectiveness for custom measures including custom retrofits, business lighting projects, industrial measures, and new construction projects. Program staff also evaluated the impact to marketing, outreach, third party contracts, incentive levels, and potential bonus incentive changes to programs with the updated avoided costs.

3. Revised Program Design

43. In order to meet its updated Targets and Thresholds enumerated in Table 3 (located on page 24), PSE will expand the scope of selected currently-planned programs with additional emphasis placed on adding measures that were formerly cost-ineffective, adding more direct and targeted marketing and outreach, and expanding incentive delivery channels. Given the compressed planning and implementation timeframe, entirely new programs would not achieve the savings needed to be cost-effective in the current biennium.

44. Below are key driver summaries of applicable program revisions. PSE provides additional details of these initiatives in Exhibit 1, Supplement 5: *2020-2021 Savings Revision Program Summaries*, which is attached to this petition.

- a. ***Single Family Space Heat:*** Updated avoided costs increased the cost-effectiveness of the program, which allowed PSE to add the measures in this program as part of its Moderate Income initiative.
- b. ***Single Family Water Heat:*** The increase in avoided costs allows PSE to provide an

instant rebate on efficient water heaters through retailers.

- c. **Home Appliances:** PSE will dedicate additional marketing efforts to its Appliance Decommissioning program and will continue the program into 2021, rather than retiring it in 2020. The program will also re-introduce CEE Tier 1 top-loading clothes washers.
- d. **Commercial/Industrial Retrofit, Industrial Energy Management:** New avoided cost values have been incorporated into the custom project evaluation tool, Autofund,”¹¹ and are expected to allow incentivizing an increased quantity of projects.
- e. **Custom Lighting Grants:** The program is planning to incorporate the updated avoided costs into the Lighting Workbook, which will result in more potential cost-effective projects and savings. The program will leverage contractors, service providers and CSEM customers to implement individual lamp/fixture upgrades during routine fixture maintenance activities. The program will also work with the Targeted DSM initiative.
- f. **Commercial Strategic Energy Management:** The program will leverage marketing and outreach teams to recruit new customers. It will also leverage in-house Energy Management Engineers and engineering service providers to provide enhanced technical assistance to customers.
- g. **Lighting To Go:** The program will develop expanded marketing tactics that will focus on encouraging customers to purchase high-savings and high-quality products.
- h. **Commercial Kitchen & Laundry:** The program is examining the potential to bring on an RFP-approved third-party implementer and expanding its midstream offerings.
- i. **Commercial HVAC:** Additional cost-effectiveness of smart thermostats will allow PSE to increase the program offerings to a broader base of customers. The increase in avoided costs also allows PSE to change its incentive for Advanced Rooftop Controllers (ACR) from a per-ton incentive to a per-unit incentive.
- j. **Small Business Direct Install:** The change in the avoided costs for the program provide additional opportunity to deploy a variety of marketing tactics to increase

¹¹ Autofund is a proprietary Microsoft® Excel™ workbook that is updated every year. It uses EME-input elements such as payback period, avoided cost, measure cost, incentive amount, etc., to determine the cost-effectiveness of custom projects.

participation. This updated plan also increases the participation of trade allies to complete projects, expands the focus on multicultural outreach, and adds measures such as smart thermostats and advanced rooftop controls.

45. PSE includes an updated Exhibit 1: *Savings and Budgets*, which reflects the updated savings calculations, with this petition. PSE included a new table in the Exhibit 1 workbook, (“Compr 20-21 BCP to Apr20 Petitr”) comparing the originally-filed (November 1, 2019) program savings and budgets to the updated information for straightforward reference.

4. Programs That Were Not Updated as a Part of the Revision

46. As a result of program staff examination, savings adjustments for several Energy Efficiency programs were not viable for savings revision at this time. Although some programs were not revised as a part of the 2020-2021 savings update, program staff will continue to adaptively manage and evaluate future savings opportunities.

- a. ***Residential Energy Management:*** The build-out of the original 2020-2021 BCP maximized both the available measures and channels for many of the residential programs. An increase in avoided costs did not have an impact on these programs. These programs include:

- Residential Lighting
- Smart Thermostats
- Showerheads
- Single Family and Multifamily New Construction
- Home Energy Reports

Additionally, a limited number of available new measures resulted in no revisions to the Home Energy Assessment and Multifamily Retrofit programs. In the Weatherization program, new avoided costs did not result in additional measures becoming cost effective.

- b. ***Business Energy Management:*** In the Commercial/Industrial New Construction program, long lead times of new construction projects made any revisions impracticable in the current biennium. Staff are expecting impact in the 2022-23

biennium, however, due to marketing, outreach, and sponsorship efforts. In the Large Power User/Self-Directed program, new avoided costs do not impact program savings projections, due to four-year program cycle. The Commercial Midstream program was already significantly expanded during 2020-2021 biennium, and revised avoided costs did not impact the Conservation Voltage Regulation (“CVR”) implementation plan that depends on rollout of the AMI and ADMS (Advanced Distribution Management System) projects. Lastly, in the Pay for Performance pilot, staff are working to scale up this program in the face of uncertainty with customer uptake.

5. Completing the Total Utility Conservation Goal Value

47. PSE completed its electric portfolio by re-calculating the EIA Penalty Threshold, which subtracts NEEA savings of 23,564 MWh from the updated EIA Target of 434,197 MWh. PSE then updated the Decoupling Threshold, which, as a result of the updated EIA Target, adds 3,717 MWh to the original Threshold. Next, PSE added [Firm Savings Excluded from CPA + Pilots with Uncertain Savings + (revised) Additional Portfolio Buildout = 64,278 MWh], for an updated Total Utility Conservation Goal of 526,044 MWh (60.1 aMW). PSE provides a summary of its calculation steps in Table 3.

48. As a result of revisions to electric conservation programs that also provide incentives for natural gas, PSE anticipates a small increase in natural gas therm savings will also be realized. This secondary effect resulted in a potential natural gas increase of approximately 229,000 therms.

E. Continuous Improvement Through the Application of Adaptive Management

49. As Energy Efficiency program staff implement current and updated program plans, they will, as a standard practice, continuously measure the impacts of their initiatives, and

adapt the execution of the program according to market conditions, customer response, and the evolving circumstances caused by the Covid-19 outbreak.

1. Evaluating the Effects of Potentially Adjusting Incentive Levels

50. In the Business sector, the incentive dollar amount is a key component of the cost-effectiveness analysis tool. Thus, incentive dollars are directly linked and proportional to every project. Business Energy Management staff will also consider innovative limited-time offers, including but not limited to “bonus” incentives, paid to customers for projects completed by a certain deadline.

51. In the Residential sector, program staff determine incentive levels based on market information from internal and external subject matter experts. Where increased incentives are seen as a method to increase participation, such as in the Moderate Income pilot, PSE has done so. Additionally, many of the retail-based programs (Home Appliances, Showerheads, Lighting, etc.) routinely conduct limited-time offers and territory-wide promotions and events. PSE has balanced increased incentives with increases in marketing, outreach, and other program variables to maximize the cost effectiveness of its programs.

52. As the biennium progresses, Residential program staff will continuously monitor the effectiveness of these communications and adjust incentive levels as appropriate.

2. Adapting for the Impacts of Covid-19

53. Both the Business and Residential program staff have, as of the publication of this petition, been significantly impacted by the Covid-19 outbreak. All in-person consultations, evaluations, direct installations, verifications, and other interpersonal exchanges have been

indefinitely suspended. All PSE vendors and contractors have been similarly instructed to suspend personal on-site visits. Therefore, in the interim, program staff are working with vendors, trade allies, and customers to conduct program tasks remotely, maximize savings from programs with no customer site visits, and streamline content and processes with a focus on being able to sustain momentum and resume program initiatives seamlessly.

54. Once the emergency has been declared over and PSE can resume its energy efficiency operations, program staff will ensure a smooth transition to normalcy.

F. Cost-Effectiveness Estimates

55. PSE conducted a revised estimate of program-by-program cost-effectiveness, based on the incorporation of updated avoided costs, as determined by the inclusion of the social cost of carbon. The updated Utility Cost and Total Resource Cost Benefit/Cost Ratios are indicative of the uncertain and imprecise nature of the savings development, and the lack of a vetted and approved IRP with corresponding guidance. These indicated avoided costs are themselves “working” calculations that may change as PSE continues to refine its Clean Energy Implementation Plan, and will not be vetted until the final 2020-2021 Biennial Report.

G. Summary of Proposed Electric Savings Revision

56. Program staff incorporated the avoided costs that include the impacts of CETA into PSE’s program designs throughout January and February 2020. Their analyses yielded an increase in electric savings of 49,575 MWh (5.7 aMW) to Energy Efficiency’s overall Total Utility Conservation Goals.

57. PSE presents the revised Targets and Thresholds, with comparisons to the originally-filed Targets and Thresholds, in Table 3.

Table 3: REVISED 2020-2021 Electric Savings Targets and Thresholds

Puget Sound Energy 2020-2021 Electric Portfolio Savings							
Index	Description	November 1, 2019 Filing		April 2020 Revision		Comment	Calculation
		MWh	aMW	MWh	aMW		
	Colored cells correspond to indicated lines in Exhibit 1: <i>Savings and Budgets, 2-Year Portfolio View</i> .						
	Calculate the EIA Target					These are specific elements that comprise the Portfolio View of Exhibit 1.	
a	CPA Pro-Rata Share <i>IRP & CPA Guidance</i>	359,861	41.1	434,197	49.6	for April 2020 revision, PSE moved total of "Additional Portfolio Build-out" in November, 2019 filing to CPA Pro-Rata Share value.	Figure 3, Exhibit i
b	EIA Target	359,861	41.1	434,197	49.6	Updated EIA Target is in range of potential savings values that incorporate social cost of carbon.	line bg of Exhibit 1 Portfolio View
	Calculate the Penalty Thresholds						
c	Subtract NEEA Savings	-23,564	-2.69	-23,564	-2.69	("Option A" in savings calculation table from NEEA forecast--current method)	line ac of Exhibit 1 Portfolio View
d	EIA Penalty Threshold	336,297	38.4	410,633	46.9	Updated Thresholds, calculated on revised EIA Target. \$61 - 64/MWh shortfall penalty, based on 2020 inflation, per RCW 19.285.060.	= b - c
e	Decoupling Threshold	17,993	2.1	21,710	2.5	5 percent of EIA Target	= b * .05
	Complete the Portfolio				No Changes for April 2020		
f	Add Firm Savings Excluded from CPA	9,198	1.0	9,198	1.0	2020/2021: 449s, special contracts	line u of Exhibit 1
g	Add Pilots with Uncertain Savings	15,080	1.7	15,080	1.7	Commercial Pay For Performance pilot, Retail Choice, SMB Enhanced Engagement	line aa of Exhibit 1 Portfolio View
h	Original Additional Portfolio Build-out	74,336	8.5				
i	Revised Portfolio Buildout, April 2020			49,576	5.7	Added to EIA Target, due to well-vetted and developed programs Excluded from EIA Target, due to uncertainty	
j	Total 2020-2021 Utility Conservation Goal	476,468	54.4	526,044	60.1	This is the total Portfolio to which Energy Efficiency is managing.	= b + e + (f + g + h) ; lines bb & be of Exhibit 1 Portfolio View

58. In order to implement the revised Targets and Thresholds, the corresponding electric Conservation Rider budget increased from \$178.6 million to \$193.9 million.

59. Electric savings revisions had an incidental effect on potential natural gas savings as well, resulting in an anticipated increase of approximately 229,000 therms for the upcoming biennium.

60. It is important to note that the following savings values are excluded from the revised EIA Penalty Target, consistent with the Commission's standard practice. However, they are included in the Total Utility Conservation Goals:

- NEEA savings: 23,564 MWh
- Pilots with uncertain savings: 15,080 MWh
- Firm savings excluded from the CPA:¹² 9,189 MWh

IV. CETA IMPACT ANALYSES AND PSE’S 2019 DRAFT IRP RESULTS—AND HOW PSE’S METHODOLOGY IS APPROPRIATE

61. PSE did not complete its 2019 Integrated Resource Plan (“IRP”) and was asked instead by the Commission to file its next IRP in 2021. This timing would allow for the provisions in CETA to be determined through rulemakings conducted in 2020, and thus be better reflected in the 2021 IRP plan. In the meantime, during this transition period in which the 2019 IRP was not filed and 2021 IRP is still under process, conservation planning was instructed to review the draft results from the 2019 IRP work, and use that to help inform the target- and threshold-setting for 2020-21 per Condition (1)(b) in Attachment 1 of Order 01 in Docket UE-190905.

62. While the 2019 IRP work did consider some provisions of CETA, not all of those provisions were fully accounted for. Therefore, the results reflected in this petition should be treated as more qualitative in nature in informing the target-setting process. One such provision was the 2019 CPA. The CPA for the 2019 IRP was completed by December of 2018, before the CETA legislation was enacted. Aside from CETA, other bills that became

¹² For the current biennium, these are comprised of savings from Retail Wheeling customers (also referred to as “449 customers”) participating in PSE’s Large Power User/Self-Directed program.

law were not captured in the CPA: House Bills 1444¹³ and 1257. An update to the CPA will be completed for the 2021 IRP to capture the requirements of CETA and other 2019 enacted legislation more fully.

63. The draft 2019 IRP did yield some results from the portfolio analysis using the CPA that was developed at the end of 2018. There were three scenarios run in the portfolio model.

64. PSE shared the results from these three runs at the January 27, 2020 CRAG meeting:

- i. A Renewable Portfolio Standard (“RPS”, with reference to RCW 19.285) compliance scenario with no social cost of carbon. This was the baseline or No-CETA scenario.
- ii. A social cost of carbon scenario with just the social cost of greenhouse gas emissions added to the baseline RPS scenario. As a note of clarification, this is not a CETA scenario as the SCC and renewable requirements are part of the same legislation: both are required under CETA. This is the SCC-No CETA scenario.
- iii. A CETA scenario, which accounted for both the SCC and a portfolio that is 80 percent non-emitting and renewable by 2030. This is the CETA scenario.

65. The three draft 2019 IRP portfolios produced a range of potential savings target values that were shared at the meeting. The first scenario was similar to the assumption in the 2017 IRP and resulted in a cost-effective level of conservation that was on the low end of the range. The second and third scenarios produced higher cost-effective levels of

¹³ One exception was that the CPA made a backstop assumption with regards to residential lighting in the same manner that it was included in HB 1444 and as required by the Energy Independence Security Act (“EISA”), in the 2018-2019 BCP. Unlike the CPA, which was completed in 2018 and only captured residential lighting, Energy Efficiency program staff were able to account for the reduced savings values for applicable appliances in PSE’s 2020-2021 BCP filed on November 1, 2019.

conservation, with the CETA scenario being at the high end of the range.

66. In other words, the SCC and the non-emitting and renewable resource requirements in CETA had a significant impact in raising the amount of cost-effective conservation in the draft 2019 IRP.

67. Table 4 below shows a summary of the cost-effective conservation in the first two years for each of the scenarios and the 2017 IRP two-year view is also shown for comparison.

Table 4: 2019 IRP Portfolio Analysis Results: 2020-2021 Savings Targets and Thresholds, Two Year Views

DRAFT Electric Results	2017 IRP	No CETA	SCC - No CETA	CETA
	Average Energy (aMW)	Average Energy (aMW)	Average Energy (aMW)	Average Energy (aMW)
20-Year Potential	267	309 aMW	431 aMW	532 aMW
10-Year Potential	205	217 aMW	290 aMW	372 aMW
2-Year Potential	41	34 aMW	44 aMW	59 aMW

A. PSE’s Updated Electric Savings Targets Reflect the Incorporation of CETA Requirements To the Degree Possible

68. As noted in the above discussion, PSE’s Resource Planning organization examined applicable elements associated with the implementation of CETA to the degree possible, including incorporation of the social cost of carbon and the requirement of an 80 percent non-emitting portfolio for energy supply by 2030. The provisions related to energy efficiency in the CPA could not be included as the study was completed prior to the enactment of CETA in the spring of 2019.

B. PSE's Updated Electric Targets Incorporate the Social Cost of Greenhouse Gas Emissions Appropriately

69. The 2019 IRP electric analysis modeled the social cost of carbon as cited in CETA as a cost adder to thermal resources in Washington State. The social cost of carbon cited in CETA comes from the Interagency Working Group on Social Cost of Greenhouse Gases, Technical Support Document, August, 2016 update. It projects a 2.5 percent discount rate, starting with \$62 per metric ton (in 2007 dollars) in 2020. The document lists the CO₂ prices in real dollars and metric tons. PSE adjusted the prices for inflation (nominal dollars) and converted to U.S. tons (short tons). This cost ranges from: \$86 per ton in 2020 to \$184 per ton in 2039.

70. PSE's approach applies the social cost of carbon to making resource decisions in a way that appropriately reflects the requirements of CETA. The social cost of carbon is not applied in economic dispatch decisions; rather, the SCC is calculated for possible fossil fuel plants after economic dispatch, then reflected as a cost when deciding whether to add the plant. This will help ensure that PSE's modeling does not underestimate the amount of greenhouse gas emitted with new or existing fossil fuel plants. If PSE were to include SCC in economic dispatch, it would not reflect actual operations and would understate the actual social cost that building a new fossil fuel plant may impose on the system.

1. Modeling SCC as a Cost Adder and SCC as a Tax Sensitivity

a. Modeling SCC as a Cost Adder

A. Thermal Plants

Step 1: Run dispatch of plant

Step 2: Calculate emission cost for each year:

$$\text{CO}_2 \text{ emissions (tons)} * \text{SCC (\$/ton)} = \text{emission cost (\$)}$$

Step 3: Add emission costs (\$) from step 2 to plant costs

Step 4: Run portfolio model for optimal portfolio results

B. Unspecified Market Purchases

$$\text{SCC (\$/ton)} * \text{emission rate (ton/MWh)} = \text{adder (\$/MWh)}$$

b. Modeling SCC as a Tax Sensitivity

71. SCC was modeled as a tax and applied as a traditional CO₂ price in both the Western Electric Coordinating Council (“WECC”)-wide model for power prices and in the portfolio model. The amount of cost-effective conservation selected in the portfolio was the same as when SCC was an adder: bundle 9.

72. The results of the SCC as an adder and the SCC sensitivity were presented to IRPAG stakeholders in a webinar on December 11, 2019. However, the method for including the SCC as either an adder or a tax in the IRP has not been settled yet and is a topic under consideration in the Commission’s open IRP rulemaking.

2. Avoided Cost with SCC

73. The draft 2019 IRP results were used to develop the avoided costs that incorporated

power prices, social cost of greenhouse gas emissions and net renewable energy costs.

74. These avoided costs were then incorporated in the cost-effectiveness calculator that was used by program planners to screen programs for the 2020-2021 Biennial Conservation Plan (“BCP”) update.

C. 2019 Draft IRP Guidance

75. PSE presented the results of the three scenarios in paragraph 64 above to the CRAG in a special January 27, 2020 meeting. PSE clarified that, as draft portfolio runs, the analyses performed were not intended to comprise a full, vetted CPA or IRP guidance. These results were not part of any IRP filing, but provide a qualitative guide for informing the 2020-21 BCP revisions.

Table 5: Comparing Two-Year Potential Targets to Pro-Rata Share

	2018/2019 From 17 IRP	2020/2021 From 17 IRP	Draft 2019 IRP w/ SCC	Draft 2019 IRP w/ CETA
Two Year, aMW	54	40.9	44	59
MWh (aMW*8,700)	473,040	358,284	385,440	516,840
Pro-Rata Share, aMW	41.1	41.1*	58	74.4
MWh	360,036	360,036	508,080	651,744

76. As Table 5 illustrates,¹⁴ there is a wide range of prospective scenarios and a high degree of uncertainty associated with the potential electric savings analyses. One of the key differences between the draft two-year versus pro-rata share range differences is in large part due to the significant costs associated with fulfilling the 80 percent non-emitting and

¹⁴ The original 2020-2021 Pro-Rata Share of 41.1 aMW was based upon the 2020-2021 portion of the 2017 IRP 10-Year Potential, consistent with Commission Order 01 in Docket UE-180607.

renewable resources by 2030 requirement in CETA.

V. REQUEST SUMMARY AND CONCLUSION

77. In summary, with this petition, PSE requests that the Commission modify the Targets and Thresholds approved in Order 01 of Docket UE-190905, and issue a new Order, reflecting the below updated savings figures at its May 21, 2020 open meeting. This would afford PSE the maximum timeframe needed to achieve these aggressive revisions, given a shortened execution period.

Classification	Electric (MWh)
10-year conservation potential:	Range of from 1,900,920 to 3,258,720
EIA Target:	434,197
EIA/Natural Gas Penalty Threshold:	410,633
Decoupling Threshold:	21,710
Total Utility Conservation Goal:	526,044
Total Budget	\$193,876,789

78. PSE’s revised Targets and Thresholds are based upon the factors set forth below:

- a. The incomplete and uncertain savings potential estimates generated by the 2019 IRP analysis, which provide an insufficient basis upon which to develop a revised Top-

Down Portfolio of savings with a high degree of confidence.

- b.* The significantly compressed planning timeline provided for the savings revision development, which impacted PSE's confidence in the new savings number and PSE's ability to develop new programs with significant ramp-up times.
- c.* Program staff developed plans to add 5.7 aMW to PSE's overall Electric Total Utility Conservation Goal prior to the outbreak of the Covid-19 pandemic. Plans were not adjusted to account for its effects.
- d.* The suitability of reclassifying the originally-filed Additional Portfolio Buildout of 8.5 aMW to the EIA Target, is appropriate, given PSE's achievability confidence. By establishing a new Additional Portfolio Buildout based on the inexact IRP and avoided cost calculations, it is appropriate that 5.7 aMW be excluded from penalty targets.
- e.* Cost-effectiveness estimates that are dependent on the aforementioned calculation variables.
- f.* PSE will continue to apply adaptive management principles to its business operations, including PSE's evolving response to the Covid-19 impacts.

79. PSE respectfully requests the Commission approve PSE's petition to modify its Targets and Thresholds as set forth herein, effective May 22, 2020.

DATED this 15th day of April, 2020.

PERKINS COIE LLP



Sheree Strom Carson, WSBA #25349
Attorneys for Puget Sound Energy

DECLARATION

I, Robert Stolarski, declare under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct.

Dated this 15 day of April 2020 at Kirkland, Washington.

A handwritten signature in dark ink, appearing to read "Robert Stolarski", is written over a horizontal line.

Robert Stolarski