Exh. MAB-3
Dockets UE-220066, UG-220067, UG-210918
Witness: Molly A. Brewer

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY,** **Respondent.**	**DOCKETS UE-220066, UG-220067, UG-210918 (consolidated)**
In the Matter of the Petition of **PUGET SOUND ENERGY** **For an Order Authorizing Deferred Accounting Treatment for Puget Sound Energy's Share of Costs Associated with the Tacoma LNG Facility**	

EXHIBIT TO TESTIMONY OF

MOLLY A. BREWER

STAFF OF WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

PSE Response to UTC Staff Data Request No. 74

July 28, 2022

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

Dockets UE-220066 & UG-220067
Puget Sound Energy
2022 General Rate Case

WUTC STAFF DATA REQUEST NO. 074:
REQUESTED BY: Molly Brewer

Re: Capital Planning

Referencing the "changing planning paradigm" on line 12 of page 13 of Catherine Koch's testimony, (Exh. CAK-1T at 13:10-12), provide relevant documents that describe how PSE's capital planning process has changed or expanded in the test year period. Provide documents that show the future plans for changes to the capital planning process during the multi-year rate plan period. Include any changes related to topics including but not limited to non-traditional alternatives, internal engagement, equitable outcomes, public participation, and named communities. Provide in original format, preferably in Word or a text-searchable PDF. If PSE doesn't have these, please provide a detailed narrative description as to why not.

Response:

Puget Sound Energy ("PSE") provides Attachments A through E in Response to WUTC Staff Data Request No. 074 that describe how PSE's delivery system planning process has changed during the test year period. PSE began redesigning the delivery system planning process in 2018.

Attached as Attachment A to PSE's Response to WUTC Staff Data Request No. 074, please find a summary of the initial business architecture and process changes for planning the delivery system that were made with consideration for what may be required of the grid in the future. This redesign broadened internal engagement across PSE to hone 15 capabilities that integrated more than 20 departments to deliver system needs and solutions.

Attached as Attachment B to PSE's Response to WUTC Staff Data Request No. 074 is the near-term road map that moves the re-architected process to a defined maturity level.

Attached as Attachment C to PSE's Response to WUTC Staff Data Request No. 074 is the first published screening process for how PSE considers when non-traditional alternatives should be evaluated.

Attached as Attachment D to PSE's Response to WUTC Staff Data Request No. 074 is the System Planning Technology and Non-Wires Alternatives ("NWA") Recipe Book developed in 2021. This is a tool that helps educate planners on the non-wire alternatives possibilities, which is updated as technology and the planning landscape changes.

Finally, PSE has documented the delivery system planning process in its Integrated Resource Plans ("IRPs") for years. Specifically, in the 2019 process, PSE presented the drivers for changing the planning process at the January 9, 2019 IRP stakeholder meeting. PSE later integrated greater discussion in the 2021 IRP, specifically at the meetings on August 11, 2020, November 16, 2020, and February 10, 2021.

Attached as Attachment E to PSE's Response to WUTC Staff Data Request No. 074 is a presentation made to the WUTC in 2019 to discuss expanding stakeholder and public participation relative to delivery system planning. This work was paused as PSE began development of the Clean Energy Implementation Plan ("CEIP") public participation processes, such as the formation of the Equity Advisory Group.

Attachments F through I to PSE's Response to WUTC Staff Data Request No. 074 provide documentation of future plans for changes to the capital planning process during the multi-year rate plan period.

Attached as Attachment F to PSE's Response to WUTC Staff Data Request No. 074 is a roadmap that matures the planning process, with greater integration of electric and pipeline energy planning.

Attached as Attachment G to PSE's Response to WUTC Staff Data Request No. 074 is the Corporate Spending Authorization for the replacement of the software used for investment decision optimization. Replacement will allow PSE to add more relevant benefits and adapt to a changing capital planning process. See PSE's Response to WUTC Staff Data Request No. 080 for additional information.

Attached as Attachment H to PSE's Response to WUTC Staff Data Request No. 074 is the distribution system planning model used for the development of a needs and solutions matrix for planning the natural gas system.

Attached as Attachment I to PSE's Response to WUTC Staff Data Request No. 074 is the draft Non-Pipes Alternative Screening criteria relative to the natural gas system.

Finally, please see the Fourth Exhibit to the Prefiled Direct Testimony of Catherine A. Koch, Exh CAK-5, that describes tools that will be developed to support the CEIP and modern grid.

ATTACHMENT A to PSE's Response to WUTC Staff Data Request No. 074

ATTACHMENT B to PSE's Response to WUTC Staff Data Request No. 074

ATTACHMENT C to PSE's Response to WUTC Staff Data Request No. 074

ATTACHMENT D to PSE's Response to WUTC Staff Data Request No. 074

ATTACHMENT E to PSE's Response to WUTC Staff Data Request No. 074

ATTACHMENT F to PSE's Response to WUTC Staff Data Request No. 074

ATTACHMENT G to PSE's Response to WUTC Staff Data Request No. 074

ATTACHMENT H to PSE's Response to WUTC Staff Data Request No. 074

ATTACHMENT I to PSE's Response to WUTC Staff Data Request No. 074

PSE Delivery System Enhancement Project

Business Architect Deliverable

PUGET SOUND ENERGY

Prepared by:
MODERN GRID SOLUTIONS®

Modern Grid Solutions
Making Smart Grids Business As Usual

Acknowledgments

The following people were a part of the project team and contributed significantly to the development of this document

SPONSORS:

- Booga Gilbertson
- Cathy Koch
- Jens Nedrud

PROJECT SUPPORT:

- Danyelle Johnson

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The following people were interviewed during various tasks of this project.

Name	Title	Interviewed	Art of the Possible
Operations			
Booga Gilbertson	SVP Operations	X	
Mike Richardson	Director Project Delivery	X	
Roque Bamba	Manager Project Management	X	
David Landers	Director Engineering	X	X
Jennifer Boyer	Manager Engineering	X	
Jennifer Tada	Director Customer and System Projects	X	X
Dan Koch	Director Electric Operations	X	X
Duane Henderson	Mgr. Gas Systems under Cathy	X	
Ryan Murphy	Manager System Operations	X	
Randy Walls	Mgr., Elec ops substations	X	
Elaine Markham	Mgr. Smart Grid Planning	X	X
Kelly Kozdras	DER Engineer Strategic Planning	X	
Policy and Energy Supply			
Jon Piliaris	Director, State and Fed Regulatory Affairs	X	X
Shauna Tran	Director Load Serving Operations	X	X
Will Einstein	Director Product Development and Growth	X	X
Heather Mulligan	Manager, Customer Energy Renewables Pgrm	X	
Lori Roth	Manager, Product Marketing	X	
Roger Garrett	Dir. Strategic Initiatives	X	
Nina Odell	Dir. Government relations	X	X
Irena Netik	Director, Energy Supply Planning & Analytics	X	X
Robert Stolarski	Director Customer Energy Management	X	X
Dan Anderson	Budget and Admin	X	
Loren Molander	Load Forecasting	X	
Susan Free	Rates		X
Phillip Popoff	Resource Planning and Analysis	X	
Customers			
Christine Donegan		X	X
Greg Zeller			X
Gretchen Aliabadi		X	
Admin (IT, HR, etc.)			
Troy Hutson	Performance improvement		X
Josh Kensok	Finance		X
Suzanne Tamayo	IT		X

The following people were members of the capability teams and contributed to the development of the capability designs directly, or with their expertise.

	Capability	Team Members
1	Evaluate and prioritize system planning needs	Chris Yoon, Charles Shue, Jeff Kensok, Sue Cagampang, TBD - Product Development Team Member
2	Assess wired/NWA solutions for inclusion into planned work	Bill Foster, Carol Jaeger, Chad Larson, Rachit Arora, Colin O'Brien, Karen Pavletich, Kit Maret, John Dooley, Kincheiu Wei, Mark Lenssen, Jeff Tripp
3	Assess Wired/NWA solutions for partnering with customer planned work	John Phillips, Bill Foster, Chad Larson, Colin O'Brien, Kelly Kozdras, Kit Maret, Heather Mulligan, Kincheiu Wei, Dave Montgomery
4	Optimize investment decisions & select projects	Josh Pelman, Don Hunt, Rachit Arora, Charles Shue, Rick Buell, Will Chin
5	Support IRP Development	Phillip Popoff, Elaine Markham, Kelly Kozdras, Reid Shibata, Stephanie Imamovic
6	Handoff to execution team for implementation	Stephen Hartnett, John Lertkantitham,Dale Robinson, Ryan Fish, Carl Buher, Matt Wiegand, Mark Lenssen
7	Align solution with operations	Mark Wesolowski, Ryan Murphy, Carina Pham, Jeff Kensok, Kevin Gowan, Sam Di Re, Molly Reed, Sunitha Kothapalli, Strategic Planning TBD
8	Post-installation management and support	Winter Sanders, Judy Cocchiarella, Rosey Rohaley, Jeff Kensok, Kit Maret, Krista Malmgren, Rick Buell, Pete Wagner
9	Evaluate and incorporate alternative technologies	Chad Larson, Jeff Kensok, Kelly Kozdras, Ray Hisayasu, Reid Shibata, Therese Miranda-Blackney, Nhung Tran, Roxana Nilchian, Kevin Murray, Toni Imad
10	Feeder/zip code level load and DER forecast	Chad Larson, Allison Jacobs, Stephanie Price, Michael Noreika, Dale Robinson, David Meyer, Karen Pavletich
11	Manage data and data models	Matt Torgenrud, Will Spencer, Erik Guerra, Chris Yoon, David Meyer, Nina Tian
12	Gather and analyze customer installation information	John Phillips, Leslie Moynihan, Dan Murphy, John Lertkantitham, Kevin Sandifer, Sam Di Re
13	Develop inputs to customer strategy	Sean Abadilla, Karen Pavletich, Ray Hisayasu, Reid Shibata, Stephanie Imamovic, Veronica Martin, Nate Hill, Nhung Tran, Will Chin, Christina Donegan
14	Monitor, evaluate and incorporate regulatory and policy developments	Charles Shue, Elaine Markham, Karen Pavletich, Ray Hisayasu, Reid Shibata, Stephanie Imamovic, Nate Hill
15	Manage stakeholder engagement	Diann Strom, Kate Hartgering, Carol Jaeger, Jens Nedrud, Ray Hisayasu, Reid Shibata, Stephanie Imamovic

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1. Executive Summary

Wikipedia defines business architecture[1] as a discipline that represents a holistic, multidimensional business views of capabilities, end - to - end value delivery, information, and organizational impacts. It also defines the relationships among these business views and strategies, products, policies, initiatives, and stakeholders. When applying this discipline in reality, it provides a bridge between the business model and strategy on one side, and the business functionality on the other side.

The team from Modern Grid Solutions (MGS) took the long view toward developing PSE's DSP business architecture by starting with the "Art of the Possible" which looks at the interplay between (1) industry factors and customer needs, (2) PSE requirements and desired objectives, and (3) places where PSE should focus its investments over a multi-year timeframe covering immediate (2019), foundational (one to five years). and evolutionary/revolutionary (beyond five years). This kind of timeframe is necessary because utility investments are inherently long-term undertakings within an increasingly complex and uncertain environment.

> ***It is important to note that when this task started, SB 5116 was not yet the law of the land. However, upon its passing, the "Art of the Possible" was updated to ensure that the end-state as defined in the bill was also included.***

This document provides the following takeaways for the reader:

1. While the document is designed as a deliverable from MGS to PSE – the content is intended to be dynamic requiring ongoing (maybe yearly) updates. The Business Architect is the overall owner of this document and its contents along with the Process Owners who own the specific capabilities.

2. Developing the "Art of the Possible" was a long process, and most of the directors at PSE participated in the deliberations. While the exact steps to be taken by PSE during each time frame can be debated and changed as each phase of change gets better defined, the guiding principles were developed, worded and agreed on by the groups of directors. It is expected that these guiding principles will define what to expect but also define how PSE will make its decisions as it moves forward over time.

3. One must make a distinction between delivery system planning as a PSE department and the same as a PSE company-wide function. This document focuses on the later. As a result, the full extent of Responsibility, Accountability, Consultative, and Informed (RACI) spans multiple

[1] https://en.wikipedia.org/wiki/Business_architecture

organizations within PSE with specific focus on (1) delivery system planning, (2) IRP, (3) customer insights, and (4) load forecasting.

4. This document presents an Operating Model which defines how the various capabilities interact with each other and with entities both internal to PSE (other departments) and external to PSE such as customers, regulators, local/state/federal governments, and others. Over time, this Operating Model is expected to change as the regulatory environment and customer preferences change.

Key to the Operating Model is the focus on change impacts. Change impacts are an assessment of who else within the PSE organization is impacted by the changes that are being implemented on the delivery system planning function. The impacts need to be analyzed carefully to ensure the extent of involvement from other groups to support this new Operating Model and what, if any, training (or awareness) needs to be performed so the overall process works smoothly.

While the work was coordinated by the leads from Modern Grid Solutions, it was designed by PSE, documented by PSE and indicates PSE's aspirations as it chooses to face its future.

2. Introduction

This document is one of the key deliverables from Modern Grid Solutions (MGS) and is focused on the transformation of Puget Sound Energy's (PSE) Delivery System Planning[2] (DSP) capabilities. While PSE had already embarked along the path to merging T&D planning activities into one group focused on delivering power to its customers, this initiative was kicked off in response to the proposed rulemaking from Washington State's regulatory (WUTC – Washington Utilities and Transportation Commission) staff requiring the inclusion of Non-Wires Alternative (NWA) solutions into the planning process.

In parallel – two key laws signed during this project created further impetus toward creating a greater level of urgency.

- **HB 1126**: The WUTC Order in Dockets UE151069 and U161024 stated that utilities should "*analyze a range of storage options. Given the disparate characteristics and resource lives of different storage technologies, analyzing one or two types of storage is not sufficiently representative of the diverse range of capabilities.*" Also, the WUTC further ordered that "*any analysis of a distribution system upgrade should include analyses of storage options that capture*

[2] Delivery System Planning is a new term being delivered to the marketplace and includes the combination of both Transmission and Distribution (T&D) planning initiatives within an electric utility.

all of the locational benefits associated with the site in question." Much of the WUTC Order in Dockets UE151069 and U161024 was codified into law in HB 1126 enabling electric utilities to prepare for the distributed energy future.

- **SB 5116**: This bill directs the policy of the state to eliminate coal-fired electricity, transition the state's electricity supply to 100 percent carbon-neutral by 2030, and 100 percent carbon-free by 2045. In addition, it also mandates a coal phaseout by 2025 and requires that utilities ratchet up their clean-energy commitments over time. Coal accounted for 13 percent of the state's mix in 2017. While electricity sales must be carbon-neutral by 2030, utilities can meet 20 percent of that requirement with renewable energy credits, through an "alternative compliance payment" or by investing in "energy transformation projects" that reduce the generation of electricity like energy efficiency or transportation electrification.

In addition to new legislation, PSE's core mission of meeting its customers' expectations requires they maintain a grid that is:

- **Safe** for the public and for those who work around it. Above all, safety continues to be the top priority.
- **Reliable,** with fewer and shorter power outages. When there is an outage, restoration and communications go hand-in-hand until the power is back.
- **Resilient** so that our region recovers quickly from weather extremes and other emergencies.
- **Smart,** utilizing automation and technology to save energy and improve customer satisfaction.
- **Flexible,** allowing our customers to control their energy based on cost, carbon, or other preferences.

These shifts resulted in the decision by PSE leadership to define a formal set of capabilities[3] covering all aspects of T&D planning that would better enable PSE's grid modernization mission / vision and the intent of the rulemaking.

The intended outcomes of this effort included the following:

- A formal and structured set of materials which could be used and maintained consistently by PSE workgroups, creating a "common language" across PSE and a mechanism for PSE to

[3] An organization's capabilities can be defined as the sum of its business processes, the technology that enables these processes and the culture and organization that conducts the business. Each distinct capability addresses a specific need the organization has to operate

better enable defense of its outcomes at various public forums across all PSE discretionary work – PSE-driven and customer-driven.

- Documentation to enable transparency for stakeholders, including customers and regulators. The intent is that a version of this document will be available for viewing by the public.
- Improvements to PSE's planning approach and methodology to include the consideration of NWA solutions for all planning initiatives.
- Recommendations for transitioning to and sustaining the "ways of working" outlined in the documentation for existing workgroups as well as new team members who join over time
- Mechanisms to continuously improve and incorporate:
    - Learnings from PSE workgroups
    - New and shifting technologies
    - The changing T&D delivery environment as a result of legal or regulatory mandates
    - The growing and changing needs of PSE's customers, both large and small.

Over 90 PSE team members from inside and outside Planning were engaged in the development of these materials and approaches. A Business Architect (role defined later in this document) will own this document and is responsible for maintaining the contents and updating it regularly.

To summarize, the work done under the planning capabilities will be cross-functional, cross-departmental, and cross-skillset – resulting in a completely new way of performing planning within PSE.

2.1. *Purpose of Document*

This document is being packaged as a deliverable by Modern Grid Solutions. It is intended to be used to provide a "one-stop shop" set of materials with background for Planners or other PSE groups on the work performed and recommendations resulting from that work. It is anticipated that core Planning team members and personnel involved in Planning will use the actual capability documentation stored in PSE's SharePoint system to support their day-to-day work. Links to the SharePoint files will be provided in conjunction with the capability documentation in the appendices.

2.2. *Expected Use of this Document*

The capabilities and their descriptions are being developed for the following uses by the following groups of people:

- PSE Planning team members and other PSE individuals involved in planning
    - In their day-to-day work and how they interact with each other

- WUTC Regulatory staff
    - To understand how PSE's plans work and the associated drivers behind investment decisions – as they approve the results
- Customers
    - To understand what drives PSE's planning processes and investment decisions – as they interact with PSE either as a customer or as a collaborator
- Other Stakeholders
    - To understand PSE's processes in performing planning – as they interact with PSE either as an external or internal stakeholder

It is expected that content from this document will be used as a base to prepare tailored briefing materials specific to the needs of each stakeholder – extracted from the same core set of files but at different levels of extraction – as part of the broader DSP Stakeholder Engagement Framework.

2.3. *Update Cycles*

PSE should plan to update this document under the following circumstances:

- As the business environment changes – each capability would need to evaluate ongoing changes and their impacts on the capability itself.
- As the regulatory environment changes – each capability would need to evaluate ongoing changes and their impacts on the capability itself.
- A formal release, once per year, which includes learnings and improvements gathered during execution.

3. Art of the Possible

3.1. *Overview*

From October 2018 to July 2019, approximately 30 PSE Directors and key Managers across departments were engaged to develop a position on how external trends and PSE requirements evolve and thus drive PSE's future state grid investments. These discussions were held individually, in sub-groups and full group working sessions. The framework for discussions considered multiple dimensions over three horizons:

- Immediate (2019): considered an "introductory" horizon
- One to five years (2020 – 2024): considered a "foundational" horizon
- Five plus years (2025 and beyond): considered "evolutionary and revolutionary."

13.4. *Key Requirements*

13.4.1. People

- **Capacity**: 13 will have to be resourced with management commitment at a scale to support the increase of request for NWA analysis.
- **Relationships**: DSP should continue to develop the relationships among internal organizations EES, NPD, CI evolving from collaboration on individual projects to regular interaction with their capabilities to select, evaluate, and engage customer solutions.
    - People having better knowledge of
        - contacts/relationships
        - existing products and services
        - developing a customer perspective of the solution customer centric
- **Host Mentality**: As the transmission and distribution system evolves to integrate 2-way flows, PSE must develop a host mentality as its grid becomes a featured asset and platform for exchange. Moving from the language of accommodating NWAs/customer assets to seeding opportunities to invite or incent NWAs/customer assets for a mutually beneficial exchange would be a marker in language of how the belief system has shifted. In order to make that shift, PSE has to evaluate the requirements to be a good host in terms of its technology organization and preparation to effectively host or integrate customer solutions as a preferred provider. We're here to serve you as opposed to you depend on us. Restaurant host analogy.
- **Learn from GTZ**: PSE should monitor and evaluate the technology implementation lessons learned from GTZ projects, specifically the outage map and billing and payment optimization. These early efforts to achieve industry standards will have to be built on and the capabilities developed an order of magnitude or more in intensity to integrate issues such as grid safety, open access to the grid, and the implications for maintaining the operation of the grid within standards with multiple inputs to manage. (All 3 people: learnings, process: handoffs expectations, assumptions, tech: assumed websites/platforms systems to leverage)

13.4.2. Process

- **Relationships**: DSP should continue to develop the relationships among internal organizations EES, NPD, CI evolving from collaboration on individual projects to regular interaction with their capabilities to select, evaluate, and engage customer solutions.
    - Process: handoff understanding
        - where in the process they occur
        - who to handoff to

        - Articulating the ask/explaining/defining the problem/need likely start from the system need and engage how we solve this with alternative technologies/approaches involving customers.

- **Data organization**: PSE should prioritize aligning its customer and infrastructure data within its own unique spatial bounds, meters, transformers, circuits, and substation have their own unique geographies independent of zip codes, census tracts, voting districts and other common units of aggregating human data. Developing and refining customer variables pinned to infrastructure units are prerequisites to integrating customer variables into the next generation iDot prioritization tool.
    - PSE needs to have certainty in the integrity of its data. Specifically circuit identification and other more granular units of infrastructure accuracy are necessary in order to bring the customer and system data together for analysis and evaluation. This type of integrity is necessary to enable the ability to complete circuit level forecasts and apply customer variables such as propensity to adopt PV or EV.
    - Data needs to be transparent, accessible, and intelligible so end-users can easily work with its formats, make use of it for new application, analysis synthesis, and evaluation.
    - Data needs to be dynamic in that customer solutions may not be tied to a fixed location (EVs/Powerwalls?/panels?/backup generation)
- **Segment the grid**: PSE needs to segment the complete extent of its T&D system into strategic units for NWA/Smart grid deployments. Considering 3 layers of organization, the grid has:
    - a technology layer including (SCADA, DMS, AMI, etc)
    - a human layer (customer characteristics, housing stock, customer behavior, demographics)
    - a geographic layer (river valleys, tree cover, mts).
    - Capability 13 will bring the context for the human layer: How do we partner with them?

This will help align places where PSE's investment in technology aligns with customer variables that favor engagement for NWA and be useful for more systematic analysis by DSP to consider the viability of NWA solutions for a given constraint, identify prime areas for pilot/demonstration projects, and possibly flag areas for energy transformation projects to comply with the energy transformation act.

Possible grid segmentation examples might be:

- **Underground/Treeless**: Housing developments that may support DERs/premium reliability services through storms.

- **Vertical Urban**: Commercial Residential districts with MF housing that may support DERs/premium reliability services through storms.
- **Tree Wire**: Wooded housing tracts/rural river valley feeders that may preclude digital solutions due to physical/environmental characteristics.
- **Commercial Refuge**: Business districts adjacent to Tree Wire areas that may support system upgrades in resilience to remain energized during storms.
- **Pilot Enabled**: System areas with DMS/AMI visibility enabled for piloting early adopter customers to test alternative solutions.
- **EV Employers**: Commercial districts with high densities of EV commuting employees.
- **Traditional Service**: Areas of the grid that may not support automation enhancements for reasons other than tree cover

DSP should consider that "smart grid" capabilities may not be deployable system wide resulting in tiered levels of capability available to customers as a function of location on the grid. Different service levels might inform the development of:

- Different rate schedules based on system performance
- Possible equity questions… for example the impact to lower income customer populations as they may or may not be located in higher system capability areas.

DSP might consider the piloting and deployment of CVR and AMI across its system as a model for the extent and limits of future technology deployments.

13.4.3. Technology

- **Learn from GTZ**: PSE should monitor and evaluate the technology implementation lessons learned from GTZ projects, specifically the outage map and billing and payment optimization. These early efforts to achieve industry standards will have to be built on and the capabilities developed an order of magnitude or more in intensity to integrate issues such as grid safety, open access to the grid, and the implications for maintaining the operation of the grid within standards with multiple inputs to manage. (All 3 people: learnings, process: handoffs expectations, assumptions, tech: assumed websites/platforms systems to leverage)

13.5. *Assessment of Change Impacts*

Stakeholder Area	Stakeholder Group	Stakeholder SubGroup	Process Engagement	Nature of Impact: Cap 13 - Customer Strategy	Capacity	Reporting / Org Structure	Job / Roles	Skills / Knowledge	Context	Culture / Behavior, Beliefs, Values	Process	Metrics	Technology	Impact on Financial Benefits	Impact on Achieving Ambition
Operations	**Project Delivery**	Strategic Project Managers		L	-	-	L	M	M	L	L	L	M	M
		Infrastructure Projects Managers (Realiability Programs)		L	-	-	L	M	M	M	M	L?	M	M
		Other Project Delivery		L	-	-	L	M	M	-	-	-	L	L
	Engineering	Electric Design Engineers (System, Substn, Transmission, Protection, Metering & Controls)		-	-	-	-	-	-	-	-	-	M	H
		Gas Design Engineers (System, Transmission)		-	-	-	-	-	-	-	-	-	-	-
		Standards		L	-	-	-	M	M	L	L	L	M	H
		PTS - Plant Technical Services (e.g. battery and generation)		-	-	-	-	-	-	-	-	-	-	-
		Other Engineering		-	-	-	-	-	-	-	-	-	-	-
	Planning	Gas Planners - System		-	-	-	L	L	L	-	-	-	-	-
		Gas Planners - Maintenance		-	-	-	L	L	L	-	-	-	-	-
		Electric Planners - Reliability / System		H	L	H	H	H	H	H	H	H	H	H
		Electric Planners - Strategic / Capacity / DER		H	L	H	H	H	H	H	H	H	H	H
		Electric Asset Managers		L	-	-	L	M	M	L	L	L	L	L
		Smart Grid Planners		L	L	L	M	H	H	H	H	H	H	H
		Real Estate		-	-	-	-	-	-	-	-	-	-	-
		Municipal Relations		L	L	L	L	M	M	H	L	L	L	H
	Customer Projects	New Business / Customer Construction Services		H	H	H	H	H	H	H	H	H	H	H
		Designers / Engineers Gas		L	L	L	L	H	H	H	H	H	M	H
		Designers / Engineers Elect		L	L	L	L	H	H	H	H	H	M	H
		PI		-	-	-	-	-	-	-	-	-	-	-
		Regional Engineers (Customer Facing, Operational / System)		L	L	L	L	H	H	H	H	H	M	H
		Plat G/E		-	-	-	-	-	-	-	-	-	-	-
	Gas Operations			-	-	-	-	-	-	-	-	-	-	-
	Electric Operations	Distribution System Operators		-	-	-	-	-	-	-	-	-	-	-
		Substation Operations		-	-	-	-	-	-	-	-	-	-	-
		Troublemen		-	-	-	-	-	-	-	-	-	-	-
		Crews (Potelco) about 42 crews based on schedules????		-	-	-	-	-	-	-	-	-	-	-
		Field Technicians (e.g. Meter Relay Techs)		-	-	-	-	-	-	-	-	-	-	-
Policy and Energy Supply	**Strategic Initiatives**			-	-	-	-	-	-	-	-	-	-	-
	Regulatory / Gov Affairs	Gov Affairs - Federal		L	-	-	L	M	M	L	L	L	M	M
		Gov Affairs - State		L	-	-	L	M	H	H	H	H	H	H
		Gov Affairs - Local		L	-	-	L	M	H	H	H	H	H	H
		Other													
	Load Operations			-	-	-	-	-	-	-	-	-	-	-
	Product Development and Grow	Strategy		L	L	L	L	M	L	M	H	M	H	H
		Marketing		L	L	L	L	M	L	M	H	M	H	H
		Product Development		L	L	L	L	M	L	M	H	M	H	H
		Other													
	Energy Supply Planning & Analy	Resource Planners		-	-	-	-	-	-	-	-	-	-	-
		Load Forecasters		-	-	-	-	-	-	-	-	-	-	-
		Asset Management		-	-	-	-	-	-	-	-	-	-	-
		Other													
	Rates and Regulatory			L	L	L	L	M	M	M	M	M	H	H
	Customer Energy Management	EfficiencyProgram Managers		H	L	L	H	H	M	H	H	H	M	H
	-	Energy Management Engineers		M	L	L	M	H	M	M	M	M	M	H
		Other													
	Generation and Storage	w/o asset mgmt		-	-	-	-	-	-	-	-	-	-	-
Customer	**Communications**	Communications - Community / Project Outreach		L	L	L	M	H	L	L	M	M	H	H
		Communications - PSE-Wide Outreach		L	L	L	M	H	L	L	M	M	H	H
		Communications - Brand Management		L	L	L	M	H	L	L	M	M	H	H
		Communications - Customer Insight		L	L	M	M	H	M	H	H	H	H	H
		Communications - Other - energy eff outreach		L	L	L	M	H	L	L	M	M	H	H
	Customer Care	Customer Care - Call Center		L	L	L	M	H	M	M	M	M	M	M
		Customer Care - Other		L	L	L	M	H	M	M	M	M	M	M
	Performance	Enterprise Project & Peformance		-	-	-	-	-	-	-	-	-	-	-
Support Services	**IT**	IT Applications (specifically Ops and Data)		L	L	L	M	H	H	H	H	H	H	H
		IT Infrastructure (architecture and telco??)		L	L	L	M	H	H	H	H	H	H	H
		Other													
	Finance			-	-	-	-	-	-	-	-	-	-	-
	HR	Talent / Labor		-	-	-	L	M	M	-	L	-	M	M
		Other		-	-	-	-	-	-	-	-	-	-	-
	Enterprise Projects and Perform	Process Improvement, Change Mgmt		M	-	-	-	H	-	-	-	-	-	-
	Risk			L	-	-	L	M	M	L	L	-	H	H
	Environmental			-	-	-	-	-	-	-	-	-	-	-
	Legal			-	-	-	-	-	-	-	-	-	-	-
	Supply Chain / Procurement			-	-	-	-	-	-	-	-	-	-	-
	Fleet			-	-	-	-	-	-	-	-	-	-	-
	Business Continuity / Safety			-	-	-	-	-	-	-	-	-	-	-

13.6. *Capability Evolution*

	Now	1-3 years	4-7 years	7+ years
Capability 13	• Reactive engagement prompted by customers/customer groups or traditional solutions • Unique research efforts, first time analyses, manual wrangling and formatting of data. • Work completed as special projects done from auxiliary of main organization function • Strategic development of future state of data quality and availability. • Learning from GTZ to begin to define additional self-serve requirements	• Development of data to standardize reporting and improve efficiency of NWA evaluation/deployment • Continue to develop self-serve requirements. • Establish foundation of segmented grid, known areas of opportunity for NWA deployments/demonstration projects/pilots, ability to flag low income, tribe, or other customer groups by grid location and varied scale of infrastructure organization (substation, circuit, transformer) Identify and remedy data integrity issues. • Preliminary runs on circuit level forecasts possibly piloting in AMI deployed section(s) of service area • Resource 13 to perform as a regular function for DSP • Possible development of performance-based	• Maturation of DSP NWA workflow with 13 • Self-Serve continued development. • New threshold of data integrity reached integrating system (ADMS and CIS data in spatial extent GIS) • Known variance between top down and bottom up analyses, value for and standard applications for each lens. • Expansion of circuit forecasts to full extent of service area. • Possible pilot/demonstration projects for PBR addressing proof of concept, equity, and other concerns. • Suite of products/services/programs offered to customers involving dynamic rates and characteristics of evolving grid.	• NWAs become part of standard system design • Capability for customers to fully self-serve standard NWAs • Autonomous product/service offers from customer and system modelling • Possible alternative business model influenced by PBR.

15.4. *Key Requirements*

15.4.1. People

- Management support to engage stakeholders as designed
- Capacity to address and administer stakeholder interactions in an on-going way
- Collaboration across PSE departments in this area viewed important
- Administrator / coordinator to own strategy for and coordination of new DSP Technical Panel and Stakeholder Council as well as tracking issues and actions resulting from interactions
- Stakeholder management "soft / social competencies".... Communication, Listening, Collaboration, Empathy, Relationship Management, Influence, Negotiation, etc. for broader team.
- Cultural belief / value that stakeholder engagement and internal/external collaboration is important (valued at all levels of the org) and will influence DSP decisions

15.4.2. Process

- Mechanisms to measure and sustain cadence of the DSP Operating Model ... need to keep it alive and meet commitments to stakeholders; Capability 15 is dependent upon all other capabilities executing as per plan
- PSE business cycle alignment: IRP, CRAG / EE, Forecasting, Corporate Communications, Grid Modernization, Regional Transmission (Attachment K), PURPA, PSE Business Planning, P&S Strategies, etc.
- Cross department collaboration
- Customer insight data –feedback collected through multiple/accessible channels all connected across PSE needs
- Alignment with broader PSE Stakeholder and Customer strategies
- Inform customers on PSE business processes/and gain feedback from them – collaboration/interaction
- Training across org on soft skills for engaging with customers
- "Affordability" definition continues to evolve from "lowest cost" to include some form of "equity" for non-wires solutions (expect this will be supported and sorted as well in alignment with Clean Energy Act requirements)

15.4.3. Technology

- Stakeholder collaboration tools (examples such as SLACK, Yammer, Google Docs, Asana, Basecamp) that enable secure internal / external collaboration
- Engagement / self-service portal designed to make document and decision transparency relatively easy and straightforward
- Customer insight / information and visibility

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iDOT Replacement

Initiation to Planning Gate

Corporate Spending Authorization (CSA)

Before starting: Contact the Capital Budget team (CSA-TeamMail@pse.com) for any clarification needed and review the CSA Standard when completing this template.

The sections provided expand / are not limited to one row. **Ensure you provide adequate information and back-up documentation to support your business case.** If a section or item is not applicable, enter N/A; if unknown, enter TBD. The gray fields are provided as prompts; do not leave these fields with instructions visible.

Date Submitted:	10/26/2021
Officer Sponsor:	Dan Koch
Project Director:	Cathy Koch
Responsible Cost Center:	4205

I. Project Overview

Update each section with high level information as applicable, noting any changes from the previous request/Gate.

Business Need:	PSE's operations capital planning departments have a robust process to evaluate investments and ensure they are providing the optimal portfolio to provide value to our customers. This process has been reviewed with and recognized by the Washington State Utilities Commission. PSE has the need to change the benefits to include Social Cost of Carbon, equity, and others as identified. In 2020, PSE was notified that the vendor which provides the tool that supports the process will not be able to support any enhancements going forward. The current tool no longer meet our needs. PSE's Multi-Year Rate Plan and CEIP investments rely on the benefit to cost B/C analysis that the iDOT tool provides to justify operations discretionary investments for specifics projects and programs. Without a usable tool, those justifications are put at risk.
Proposed Solution:	Recommend performing a like for like replacement with little integration. Several tools were identified and evaluated, and Power Plan met PSE's needs and was a tool that PSE already supports.
Project Outcome/Results:	PSE will be able to update benefits and justify an optimized portfolio that maximizes benefits to cost for all discretionary operations capital investments to meet both CEIP and MYRP targets while meeting compliance and safety requirements.
OCM, Process & Training Impact:	○ N/A ◉ Low Impact ○ Medium Impact ○ Significant Impact Low impact as this a like for like replacement. Other than learning new platform functionality, the underlying processes will not change for the Planning department. The 3 superusers who support the current tool will continue to support the new tool.
Primary ISP Alignment:	Processes & Operations — ISP strategy descriptions
Portfolio Description:	Discretionary over time — Capital Allocation Definitions
Project Complexity:	◉ Straightforward and well understood ○ Complex and well understood ○ Complex and not well articulated

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II. Key Schedule and Financial Information

Expected Start Date If Funded:	02/2022
Expected In-Service Date:	08/31/2022

High-Level Schedule *Enter Expected # of Years and Months*

Duration				
Planning	**Design**	**Execution**	**Total Project**	**Anticipated Closeout date**
2 month	**1 month**	**3 months**	**6 months**	09/2022

Initial Estimated Funding % by Phase as of 10/26/2021**:** *Enter values to include both O&M and Capital in the cells below for percentage of funding to be used in each phase of the project.*

Initiation	Planning	Design	Execution	Closeout
0%	25%	0%	70%	5%

Initial Grand Total Estimate (contingency included and in $000s): **Contingency Standard**	**Capital: $962,649**	**OMRC/Project O&M: $0** (Not including O&M Tail)

Estimated Five Year Allocation: *Enter values in the cells below for years anticipated, up to five years, plus any expected future years. Change "Year 1, Year 2, etc. to the relevant years for this project. Ongoing O&M begins after project close-out.*

Category:	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital (contingency included)	$962,649	$0	$0	$0	$0	$962,649
OMRC / Project O&M	$0	$0	$0	$0	$0	$0

III. Ongoing Benefits

Summary Benefits (see Benefits realization plan for details):	**Primary benefit is tied to PSE continuing to be able to justify CEIP and MYRP targets. The program and project level benefit to cost value B/C ratio is a critical measure to justify discretionary investments expenditures in operations. This has been consistently described and explained to UTC staff and is a cornerstone justification in the rate case.** **The existing iDOT tool is no longer supported which leaves us without a way to update financials and develop benefit to cost ratio for projects/programs.** **Overall soft benefit is higher probability or recovery with the MYRP future targets with the tools robust B/C ratio discretionary justification.**

Category:	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Ongoing O&M (to be funded by business) (NOTE – already exists) – Previsous tool O&M	$0	-$55,000	-$55,000	-$55,000	-$55,000	-$220,000

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Ongoing O&M (requesting $'s)	**$0**	**$122,434**	**$122,434**	**$122,434**	**$122,434**	**$489,736**
Benefits*	**$**	**$**	**$**	**$**	**$**	**$**
Net impact (= Benefits – O&M)	**$**	**$**	**$**	**$**	**$**	**$**
Payback in Years	Years = Total Costs / Annual Cash Benefits					

* Enter incremental benefits for each year, not cumulative benefits

IV. Risk Management Summary

Identify high level risk categories expected for the project. Consider Project Dependency, Project Timing and Resourcing, as well as Regulatory Risk.

Summary of high level risks sentence:	Project timing

V. Phase Gate Change Summary

*Use this section for changes from: **Planning to Design**, **Design to Execution** or **Execution to Closeout** phases. To have a history of the changes at each phase gate change, **copy/paste the table below above the previous table.***

Phase:	Initiation to Planning
Scope:	Describe the Scope changes since last submission/Phase Gate.
Budget:	Describe the Budget changes since last submission/Phase Gate.
Schedule:	Describe the Schedule changes since last submission/Phase Gate.
Benefits:	Describe the Benefits changes since last submission/Phase Gate.

Prepared by:	Niecie Weatherby, Jens Nedrud, Kevin Chen

VI. CSA Approvals

*Add/remove rows as needed in the table below. Email approval is acceptable. To maintain a history of the changes at each phase gate change, **copy/paste the table below above the previous table.** Send to the*

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Capital Budget team at CSA-TeamMail@pse.com. For a project in the Strategic Project Portfolio (SPP) review the Escalation Criteria for appropriate escalation and approvals.

For guidance on approval authority levels, follow CTM-07 Invoice Payment Approval Exhibit I Invoice/Payment Approval Chart

Project Phase	Initiation Funding			
Approved By	**Title**	**Role**	**Date**	**Signature**
Jens Nedrud	Manager, Electric System Planning	Key Benefit Owner	02/03/2022	Re iDOT_CSA docm.msg
Niecie Weatherby	Manager, Gas System Integrity	Key Benefit Owner	02/03/2022	RE iDOT_CSA docm.msg
Cathy Koch	Director, Planning	*Director Sponsor	02/02/2022	FW iDOT CSA & Estimate Check-In (F
Brian Fellon	Director, IT	Other Key Director	02/09/2022	RE Initiation to Planning iDOT_CSA
Dan Koch	VP Operations	Executive Sponsor	2/17/2022	FW iDOT_CSA docm.msg
Margaret Hopkins	Sr VP & CIO	Executive Sponsor	2/14/2022	FW CSAs and PCRs for week of 2 7 2022
		Choose an item		

*Director Sponsor attests that all considered documentation has been approved.

Please direct any questions to Capital Budget team at CSA-TeamMail@pse.com