BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

Dockets UE-190529 & UG-190530
Puget Sound Energy
2019 General Rate Case

THE ENERGY PROJECT DATA REQUEST NO: 030:

Re: PSE Response to TEP Data Request No. 14.

Please confirm that all cost savings projected to result from discontinuance of premise visits to disconnect electric service are shown on page 7 of Attachment A (Corporate Spending Authorization) under Cash Benefits by Department on the line described as "Labor cost reduction MNS-Disconnects," totaling $4.6 million over the period from 2019 through 2024 inclusive.

Response:

Puget Sound Energy ("PSE") confirms that the cost savings specifically related to reduction in premise visits to disconnect electric service for non-payment are reflected in the PSE's Response to The Energy Project Data Request No. 014, Attachment A (Corporate Spending Authorization), Cash Benefits by Department, "Labor cost reduction MNS-Disconnects," as of May 2019. The total documented savings is $4.88 million over the period from 2019 – 2024 inclusive.

Since the data request submission, the benefit projections have been updated, which is part of normal business for PSE as projects mature through phases. The updated Corporate Spending Authorization and benefit projects are attached as Attachment A to PSE's Response to The Energy Project Data Request No. 030.

ATTACHMENT A to PSE's Response to The Energy Project Data Request No. 030

GtZ – BPCC- Meter Upgrade Enhancements
Corporate Spending Authorization (CSA)
Application Request

Date Submitted:	10/10/2019
Officer Sponsor:	Carol Wallace
Completed By:	Theresa Burch
Phase Gate:	**Design to Execution**

I. Project Overview	
Problem Statement:	Consumer's behaviors are driving change. With the rapid evolution of digital customer engagement, customers are demanding information on their energy usage, payment history and service options; and they want the ability to interact with their utility 24/7, on their own terms, and via the communication channel(s) they prefer. Those channels can include online, mobile, interactive voice response systems, or simply a telephone call to an agent at the call center. Regardless of the channel, PSE customers expect to have the same (consistent) information available to easily transact business with us. There is also a strong emphasis on automation to drive improvements in the customer-touching areas of data analytics, work planning, scheduling and dispatch. To support the changing customer landscape, PSE has recently launched an initiative to install "smart meters" for electric and gas customers to build an Advanced Metering Infrastructure (AMI). These new meters are "smart" in that they are connected devices, through an upgraded meter network, rather than a passive device waiting for an energy usage read. As a result, new AMI meters can: • receive and respond to commands, including the ability for remote connect and disconnect (RCD) of electric service to the customer • provide customers information during the month to help them manage their bills and budget The ability to send data/commands bi-directionality supports services and functionality that our customers are coming to expect. As the implementation of the new AMI meters achieves broad coverage, PSE must make changes to its systems and processes to extend these new capabilities to meet our customers' demands. **Challenges with PSE's current Disconnect/Reconnect capabilities:** Today the field work for disconnecting and reconnecting customers for any reason is a manual process. There are multiple reasons that PSE might disconnect a customer including: • Customer requested disconnect • Customer request for construction work • Credit & Collections (Dunning) • Unauthorized Energy Use • Dangerous event/safety issue

	Challenges with the customer's experience using the current processes: 1. Customers requesting a disconnect (for construction or because they are moving) have to wait for the work to be scheduled, which can be a poor customer experience and potentially not align with their needs. 2. For credit disconnects, PSE staff cannot get all of the active disconnects completed in the ten days that we are allotted to do so. In 2017 PSE experienced 138,000 expired orders, along with 165,000 expired orders in 2018. In those cases the order expires and the process starts over, which increases the customers balance upon disconnect and overall is not a good experience (i.e. we don't necessarily disconnect them when we told them they would be disconnected). This significantly increases the bad debt (APUA) for the year. In recent history bad debt (APUA) has hovered around $20+ million dollars annually or roughly $350 per disconnected account. 3. When customers are disconnected due to dunning they receive a 24 hour reconnection guarantee. PSE strives to get reconnects done as quickly as possible, however depending upon when the customer is able to pay and get the reconnect ordered, they can sometimes be without power overnight. 4. PSE currently does not disconnect power when a customer moves out, which can result in a UEU (unauthorized energy use) if a new customer moves in and does not contact PSE. This can result in lost revenue, and require PSE to dispatch a service truck once it is identified. 5. Requests to disconnect for emergency or safety reasons are sometimes affected by the time it takes to assign the disconnection and dispatch a truck to perform the work. **Usage Alerts:** Today the only type of usage alert we send to PSE customers is an Unusual Usage Alert (UUA). It is based on a customer's historical usage and will tell them if their prior month's usage was much larger that their usage in that same period in the prior year. Without data about usage in the current cycle, the customer can't adjust their consumption to minimize their bill. Alerts based on prior month's consumption creates confusion for the customer rather than enabling them to control their costs.
Future Vision	PSE is embarking on a project to enhance our customer's experience by adding functionality that will leverage capabilities provided by the new AMI meters. **Enhanced remote connect/disconnect capabilities:** • Automatically respond to requests to discontinue service. • Support quicker turn around on customer construction requests. • Enhance credit/collections capabilities. • Prevent unauthorized energy usage through timely disconnects.

- Quickly respond to dangerous events or safety issues.

Examples of how new remote reconnect/disconnect functionality will improve the customer's experience:

1. Automated response to customers requesting a disconnect will reduce the wait for the work to be scheduled, improving their experience and better aligning with their needs.
2. Remote disconnects for credit reasons will more easily be completed within the required ten days, preventing the order from expiring and the process being restarted. This will avoid unnecessary increases in the customers balance and provide a more consistent and reliable experience.
3. For customers who are disconnected due to dunning, remote reconnect will better facilitate and quickly preform the reconnection without dispatching a truck to perform the work.
4. The ability to perform remote disconnects will avoid Unauthorized Energy usage, avoiding lost revenue, and reduce the number of times PSE will have to dispatch a truck to the customer's location.
5. In some cases, disconnections for emergency or safety reasons can be completed more expeditiously.

New Usage Alert capabilities:

Leveraging the two-way communications capabilities will expand the customer's access to their current energy usage data and enhance their ability to manage their bills and budget through more efficient energy usage.

Utilizing the new capabilities, PSE will introduce the ability to sign up for usage alerts that will:

- Enable customers to make adjustments to their energy consumption in the current billing cycle, by setting a usage alert that is triggered when usage reaches pre-set budget threshold.
- Receive alerts that indicate existing account status and usage trends.
- Offer customer options to take actions to reduce consumption.
- Allow customers to enroll/un-enroll in customer programs.

Proposed Solution:

Project description:

Meter Upgrade Enhancements project will implement the development and deployment of remote connect/disconnect (RCD) capabilities, and usage alerts for customers with AMI meters.

1) Evaluate, Design, Develop and Deploy comprehensive process and technology to support remote disconnect/reconnect.
   - Integrate Landis+Gyr (L+G) headend, Meter Data Management System (MDMS) and SAP AMI backend.

Remote Connect/Disconnect

- Remote Connect
- Remote Disconnect
- Unauthorized Energy Usage
- Storm/Dangerous Event
- Consumption Dunning
- Consumption Reconnect

2) Develop usage alerts and usage data to PSE customers to better understand current consumption, status, trends and recommendations for reducing consumption.

Usage Alerts

- Trigger Usage Alert
- Usage Alert Enrollment
- Usage Alert Unenrollment
- Change Usage Alerts
- Send Usage Alert Notifications
- Usage Status – Digital Channels

Residential Only

Functionality	Electric Customers	Gas customers
1) Remote meter connect and disconnect (RCD)	YES	NO
2) Usage Alerts	YES	YES

The proposed solution consists of the following identified change elements:

	PSE Asset	Description of Changes
1	Changes to meters	• None required for AMI meters
2	Changes to meter network	• None required for AMI meters

	3	Changes to MDMS/adaptor	• As required to facilitate RCD commands
	4	Addition of web services	• To facilitate Command Center/SAP/MDMS interface
	5	Changes to L+G Command Center	• None
	6	Changes to SAP	• Major functionality added to customer billing/BPCC • Update the SAP capability group for AMI meters already installed and adjust the setting for all future installs
	7	Changes to PSE web	• Preference center will be updated to accommodate new usage alerts
	8	Internal Processes	• Customer Service (including dunning) • Electric Operations • Gas Operations

Alternatives Evaluated:	The primary alternatives for providing these new customer functions are: A – Base case/current state -- PSE considered undertaking efforts to optimize the current practices; however, retaining manual processes will not achieve the same measure of quality and speed and does not address our changing customer preferences. Making changes to the existing alert system doesn't address the customer's desire for access to the current period's consumption. B – Leverage newly installed smart meter technology to improve customer experience	
Primary ISP Alignment:	**Customer**	
Type of Project:	**Cost Benefit**	
OCM Considerations:	Impacted Users (Internal): ☐< 100 ☒< 500 ☐> 500 Impacted Customers (External): ☐None ☐< 100K Electric or < 1K Gas ☒> 100K Electric or >1K Gas Internal Organizational Impact: ☐1 Dept or less ☒2-5 Dept ☐> 5 Dept / Business Platform / Enterprise	
Project Complexity & Duration:	☐Straightforward, well understood ☒Complex and well understood ☐Complex and not well articulated	☐ < 6 months ☒< 12 months ☐> 12 months

II. Phase Gate Change Summary

October, 2019

Scope:

Throughout 2019 PSE, along with other Washington State utilities and stakeholders, has participated in the WUTC's AMI Rulemaking forum to share feedback with the WUTC regarding guidelines that will govern the operation of remote connect/disconnect leveraging AMI. In parallel with the WUTC open process and in anticipation of final WAC rules by the Commission, which are not expected until after remote connect/disconnect is deployed, the Meter Upgrade and Enhancements project (MUE) was planned and designed within known parameters. As a result of this process and the current timeline, the MUE project was split into multiple releases to avoid significantly increased costs and substantial delays in utilizing the remote connect/disconnect capabilities. The initial release will implement customer requested remote connect/disconnect functionality and billing alerts, the second release will implement remote connect/disconnect for dunning purposes and the third release will implement prioritized requirements necessary to support the anticipated WAC rules or to enhance PSE's ability to flex remote connect/disconnect by region. Release 1 for the customer requested remote connect/disconnect capability will go-live according to the original plan, release 2 for the dunning remote connect/disconnect will go-live in Q1 of 2020 and the enhancement features will go live in Q2 of 2020.

Over the course of the year, while the first release was in work, PSE and WUTC exchanged drafts of the rules likely to be incorporated into the final ruling. The preliminary WUTC proposals indicate that in addition to the dunning related features, scope to incorporate "remote reconnect fees" will be necessary to support the anticipated ruling. Therefore the project will undertake the following additional scope:

- Ability to support those accounts in the dunning process
- Updated reconnect fees (prior obligation / move in)

Additionally after the remote connect/disconnect and billing alert capabilities come online with the initial launch in October, the following features will be developed to ensure PSE's ability to efficiently and effectively operate the new system:

- Enhanced storm mode capabilities
- Billing alert auto un-enrollment

"Enhanced storm mode" functionality is primarily to provide operational capabilities that PSE utilizes today with existing manual systems, in order to support remote connect/disconnect during inclement weather, and the billing alert auto un-enrollment is necessary to avoid conflicts in logic controlling the billing alerts.

Budget:

The budget was established in the initiate/planning/design phase as $8,857,671 and only reflected customer requested related remote connect/disconnect, and billing alerts functionality. After multiple exchanges on the likely WUTC ruling, the project team created a plan and budget to complete the additional work. The plan/budget resulted in an additional $1,228,377 in funding to implement the described scope. This additional funding brings the total cost for the overall project to $10,086,048.

Schedule: With better understanding of the WUTC's anticipated expectations for remote connect/disconnect, the project can begin work on the additional releases to implement dunning remote connect/disconnects and the extended functionality. The initial customer requested remote connect/disconnect related capabilities are set for deployment on 10/14/19, with dunning related accounts and the remaining functionality targeted for 2/1/2020, and 5/30/2020, respectively.

Risk Profile: The risk profile for the overall project has reduced significantly with the completion of the planning, requirements, design, and some of the execution activities for the initial deployment. Further, exchanges with the WUTC on the functionality and operational plans for this new capability have allowed us to gain a better understanding of what guidelines to expect in the final ruling. These changes have enabled the team to incorporate the anticipated rules into the system design reducing the risk of rework as we deploy each release.

III. Key Schedule and Financial Information

Proposed Budget Year(s): 2019

Expected In-Service Date: 10/31/2019

Initial Estimate (from 3/2019): Capital: $8,857,671

Cost Estimate Maturity Score:

Score: **Class 3 - Baseline Budget Ready**

Cost Estimation Classification Document: Link

Current Estimate for Total Project Cost (Updated 10/2019):

Phase Name:	Execution	Contingency:		
	Capital	OMRC	Opex	Total
Cost (without contingency)	$ 10,086,048			$ 10,086,048
Contingency *	$ 0			$ 0
Total	$ 10,086,048			$ 10,086,048
TOTAL ANNUAL CASH BENEFITS**	**$ 8,820,176**			
PAYBACK IN YEARS	**1.14 years**			

* Contingency was consumed to reduce the capital requirements of the delayed scope

** When all AMI meters are installed and Benefits reach their full potential

Estimated Six Year Allocation:

Category:	Year 1 2019	Year 2 2020	Year 3 2021	Year 4 2022	Year 5 2023	Year 6 2024	6 YEAR TOTAL
Capital (incl. contingency)	$8,886,048	$ 1,200,000	$ -	$ -	$ -	$ -	$10,086,048
OMRC	$ -	$ -	$ -	$ -	$ -	$ -	$0
Ongoing O&M	$ 64,668	$ 388,006	$ 397,706	$ 407,649	$ 417,840	$ 428,286	$2,104,156
Cash O&M Benefits	$ -	$(1,766,944)	$(4,994,254)	$(6,454,247)	$(7,920,655)	$(8,680,205)	$(29,816,306)
Net of Cash O&M Benefits & Ongoing O&M	$ 64,668	$(1,378,938)	$(4,596,548)	$(6,046,598)	$(7,502,815)	$(8,251,919)	$(27,712,149)

Cash Benefits by Department:

Department Name	2019	2020	2021	2022	2023	2024	2025	7 YEAR TOTAL
		6	12	12	12	12	12	
Labor cost reduction in Bothell Call Center	$ -	$ (3,110)	$ 11,080	$ 28,576	$ 52,486	$ 68,932	$ 76,591	$ 234,554
Postage & delivery cost (electronic billing)	$ -	$ 4,116	$ 5,866	$ 7,563	$ 9,261	$ 10,136	$ 10,136	$ 47,079
Labor cost reduction for MNS - Reconnects*	$ -	$ 532,431	$ 758,715	$ 978,343	$ 1,197,970	$ 1,311,112	$ 1,311,112	$ 6,089,683
Labor cost reduction for MNS - Disconnects	$ -	$ 328,319	$ 1,122,850	$ 1,447,886	$ 1,772,921	$ 1,940,364	$ 1,940,364	$ 8,552,703
Bad Debt Reduction - GTZ	$ -	$ 905,188	$ 3,095,743	$ 3,991,880	$ 4,888,016	$ 5,349,662	$ 5,349,662	$ 23,580,151
	$ -	$ 1,766,944	$ 4,994,254	$ 6,454,247	$ 7,920,655	$ 8,680,205	$ 8,687,865	$ 38,504,170

O&M Costs by Department:

Category	2019	2020	2021	2022	2023	2024	6 Year Total
MDMS - 1 FTE - CC1231 (assumes 2.5% increase starting in year 3)	$ 19,959	$ 119,755	$ 122,749	$ 125,818	$ 128,963	$ 132,187	$ 649,431
CIS - 1 FTE - CC1271 (assumes 2.5% increase starting in year 3)	$ 19,959	$ 119,755	$ 122,749	$ 125,818	$ 128,963	$ 132,187	$ 649,431
FTE Overhead calculated at 62%	$ 24,749	$ 148,496	$ 152,209	$ 156,014	$ 159,914	$ 163,912	$ 805,294
Total O&M Labor - Internal Services	$ 64,668	$ 388,006	$ 397,706	$ 407,649	$ 417,840	$ 428,286	$ 2,104,156

Assumptions / Dependencies

This is a summary of the assumptions made about the estimates above.

#	Description
1	**Benefits Realization Summary:** Assumes 100% AMI deployment at a full year's realization.
2	**Scope limited to Electric Residential only:** Assumes only Electric Residential customers (SCH-7) ONLY are in scope.
3	**AMI Roll-out Schedule:** Realization of the above dependent on the Enterprise AMI Meter Upgrade delivering to its 5-year plan.
4	**AMI Opt-Out Rate:** Realization of the above dependent on AMI Opt-Out Rate. Current assumption is 1.5% of customers.
5	**AMI Meter Failure Rate:** Realization of the above dependent on AMI Meter Failure Rate. Current assumption is .10% of meters.
6	**Remote Command Failure Rate:** Realization of the above dependent on Remote Command Failure Rate. Current assumption is 5% failure rate.

UTC Decisions

This is a summary of our pending UTC rulings that are critical factors in our estimates. Should these assumptions/rulings changes, estimates will need to be re-factored.

#	Description
1	**Disconnects:** Max daily # of remote disconnect commands allowed. Current assumption is 1,000 a day.
2	**Disconnects:** Assumes Medical customer will be exempt from remote disconnection. Current assumption is 2.8%.
3	**Disconnects:** When our remote capabilities can be used on dunning customers. February 1, 2020 is the earliest we can begin.

Ongoing Annual O&M by Department:

Non-Cash Benefits / Future Cost Avoidance: The indirect soft benefits from this project are outlined below:

Value	Benefit from Project
Financial	Reducing expired disconnects in the dunning process will help reduce "prior obligation" balances. Reduced backlogs and efficient processes will reduce work backlogs and reduce pressure on overtime and backfill following attrition.
Customer	Improved customer experience during meter connect and disconnect – (faster service, more consistent and reliable) Enables the customer to monitor and proactively adjust their energy usage.
Internal Processes	Leverages installed smart meter capabilities will streamline and reduce rework on several internal processes – reducing steps to accomplish tasks, greater efficiency and reliability.
People/PSE Employees	Reduces mundane routine work by adding technology elements - reducing backlogs and stress, improving job satisfaction. Reducing unpleasant calls to the call center by unhappy customers improves job satisfaction. Improves employee safety.

Cash on Cash Single Payback: **87%**

IV. Project Description and Objectives

Project Description: Meter Upgrade Enhancements: Develop and deploy remote reconnect/disconnect (RCD) functionality, and usage alerts for customers with AMI meters.

Objectives include:

- Faster reconnection process and improved customer experience for reconnections.
- More timely disconnection processes.
- Proactive communication, through usage alerts, regarding over threshold usage.

ISP Alignment:

ISP Objectives, Mandatory and/or Corporate Risk	Strategy *Abbreviated ISP strategy descriptions*	Benefit Description *Benefit, measurement and/or scorecard affected*
Financial	☐ Five-Year Strategic Plan ☒ Maximize long-term value ☐ Grow core business ☐ Grow new business	Reduce costs for Meter Connect and Disconnect
Customer	☒ Execute the Customer Experience Intent Statement ☐ Recognition of PSE role in community ☐ Customer preparedness & safety ☐ Ideal customer behaviors ☐ Listen & dialogue with customers	Improve customer experience during meter connect and disconnect
Process and Tools	☐ Streamline processes to drive effectiveness and efficiency ☐ System reliability and integrity ☐ Safety and security of systems, information and assets ☒ Extract and leverage value from existing technology and assets ☐ Optimize product/service portfolio consistent with long-term strategy	Project leverages installed smart meter capabilities
People	☐ Develop/Retain best employees ☒ Ownership, innovation and continuous improvement	Reduces routine manual processes and adds new technology-centric functions
Safety	☐ Educate and train employees on effective safety and wellness strategies	

Project Objectives and Deliverables:

Objective	Outcomes / Deliverables	KPIs – Describe; Indicated Leading/Lagging	KPI Data Sources
Remote Reconnect	Faster reconnection process Improved Customer experience		
Remote Disconnect	Timely disconnection process	Reduction is bad debt, reduction in expiring disconnect orders	Vendor Collections
Usage Alerts	Proactive communication to identify when usage increases	Possible usage decrease	

Project Alternatives Assessment:

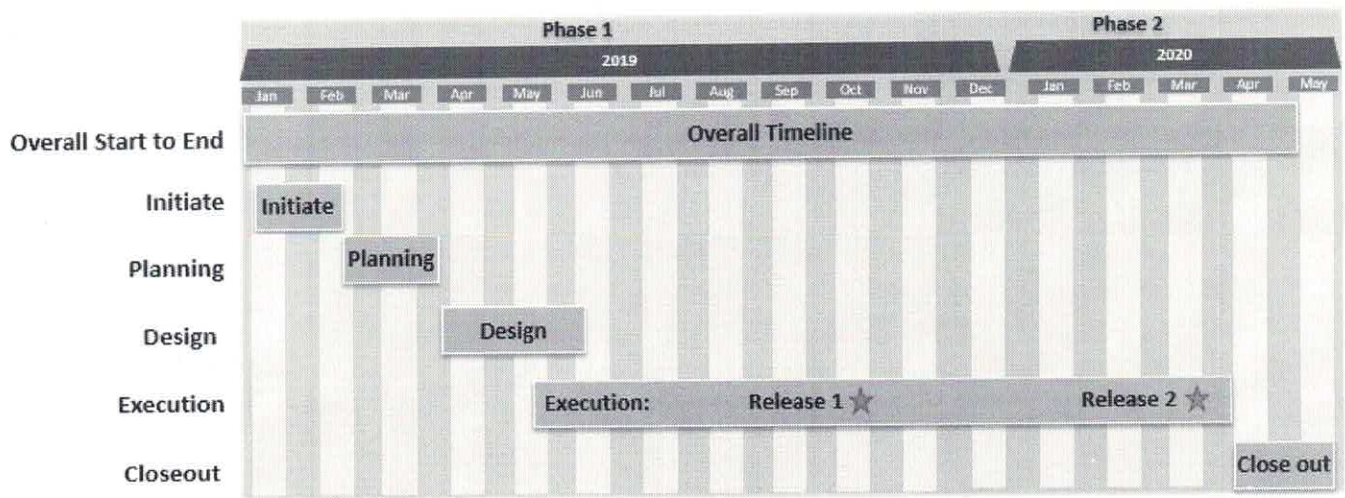
Alternative	Pros	Cons	Cost	Duration
Current State – not doing the project	No additional capital investment	1. New technology not used 2. No improvement in customer experience 3. No financial benefits	$0	N/A
Implementing Meter Enhancements	Leverages installed smart meter technology to add new enhancements to process efficiency, customer experience and long term financial success	Requires capital investment	$8.8m	Less than 1 year

V. Risk Management

Risk	Likelihood	Impact of Occurrence	How Monitored	Mitigation
Regulatory ruling	High	Medium	The WUTC has U-180525 open for ruling on remote connect/disconnect in Washington state.	Project is making variables configurable, such as time of day to execute and volume per day to execute, in the hopes to accommodate whatever the ruling states

Risk Register: Risk Log

VI. High Level Schedule



VII. Supporting Documentation

Cost Estimating and Budget:	2019 Meter Enhancement Estimation (Note: if you get access denied click okay and then cancel)
Business Needs and Alternatives:	See simple Alternatives listed in Section IV above
Benefits Realization Plan:	2019 Meter Enhancement Benefits
Project Audit Checklist:	IT Project Review MUE Design to Execute
OCM Sizing Worksheet:	2019 Meter Enhancements OCM

VIII. CSA Approvals:

Design to Execution:

Prepared By	Title	Role	Date	Signature
Theresa Burch	Mgr. Customer Solutions	Customer Solutions Product Owner	10/24/19	RE Approve the MUE CSA please.msg

Approved By	Title	Role	Date	Signature
Carol Wallace	Director of Customer Solutions	GTZ Sub-program Director Sponsor	10/17/19	Approve Meter Upgrade and Enhance
Josh Jacobs	Director Business Integration	GTZ Program Director Sponsor	10/17/19	Approve Meter Upgrade and Enhance
Andy Wappler	VP Customer Operations & Communications	GTZ Sub-program Executive Sponsor	10/24/19	RE Meter Upgrade and Enhancements CS
Margaret Hopkins	VP & Chief Information Officer	GTZ Program Executive Sponsor	11/5/19	RE Approve MUE CSA - Execution.msg
Brian Fellon	Dir IT Applications	GTZ Steering Committee	10/23/19	RE Meter Upgrade and Enhancements CS
Donegan, Christina	Dir Corp. Communications	GTZ Steering Committee	10/23/19	RE Meter Upgrade and Enhancements CS
Robert Stolarski	Dir Customer Energy Management	GTZ Steering Committee	10/17/19	Approve Meter Upgrade and Enhance
William Einstein	Dir Product Dev. & Growth	GTZ Steering Committee		
Greg Zeller	Direct Customer Care	Steering Committee & Benefit Owner*	10/14/19	Approve Meter Upgrade and Enhance

Initiation to Planning to Design Approvals:

Approved By	Title	Role	Date	Signature
Carol Wallace	Director of Customer Solutions	GTZ Sub-program Director Sponsor	5/22/19	Decision 165 - MUE Planning to Design SC CSA Approval
Josh Jacobs	Director Business Integration	GTZ Program Director Sponsor	5/22/19	Decision 165 - MUE Planning to Design SC CSA Approval
Andy Wappler	VP Customer Operations & Communications	GTZ Sub-program Executive Sponsor	5/17/19	 Fwd EA & MUE CSA's .msg
Margaret Hopkins	VP & Chief Information Officer	GTZ Program Executive Sponsor	6/3/19	 Fwd Meter Upgrade Enhancement Design
Brian Fellon	Dir IT Applications	GTZ Steering Committee		
Donegan, Christina	Dir Corp. Communications	GTZ Steering Committee		Decision 165 - MUE Planning to Design SC CSA Approval
Robert Stolarski	Dir Customer Energy Management	GTZ Steering Committee	5/21/19	Decision 165 - MUE Planning to Design SC CSA Approval
William Einstein	Dir Product Dev. & Growth	GTZ Steering Committee		
Greg Zeller	Direct Customer Care	Steering Committee & Benefit Owner*	5/20/19	Decision 165 - MUE Planning to Design SC CSA Approval

Acknowledgements	Title	Role	Date	Signature
Greg Zeller	Director Customer Care	Benefits Owner	7/16/19	Link to approval of benefits
Steve King	Director Controller & Principal Accounting Officer	Benefits Owner	7/20/19	Link to approval of benefits

*Benefit Owners must be added to the Approved By section during Execution Phase/Gate.