

BEFORE THE GUAM PUBLIC UTILITIES COMMISSION



IN THE MATTER OF:) GPA Docket 26-06
)
Demand Side Management Initiatives.)
) **ALJ REPORT**
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INTRODUCTION

This matter comes before the Guam Public Utilities Commission ["PUC"] for approval of funding for the expanded list of Demand Side Management ("DSM") initiatives through the DSM funds held in the Energy Sense Account.¹

BACKGROUND

The DSM program was created in 2014 through the cooperative efforts of the PUC and GPA. On July 31, 2014, the PUC ordered the ALJ to conduct proceedings and work collaboratively with GPA to develop a DSM Program.² On February 26, 2015, the PUC approved GPA's plan to implement four DSM programs, including Central AC, Ductless AC, Washer, and Dryer.³ On May 25, 2017, the PUC approved 10 additional DSM program initiatives which included Energy Audits, certain Commercial A/C initiatives, Commercial lighting, Water Heating and others.⁴

¹ GPA Petition to Approve the Funding of Expanded Demand Side Initiatives Through Energy Sense Account, GPA Docket 26-06, filed February 6, 2026.
² PUC Order, GPA Docket 13-14, dated July 31, 2014.
³ PUC Order, GPA Docket 13-14 dated February 26, 2015.
⁴ PUC Order, GPA Docket 13-14, dated May 25 2017.

In the early years of the program, PUC and GPA reviewed various funding sources for the DSM Program, including bond funding and the Working Capital Account. In GPA Docket 20-05, the PUC approved the use of LEAC funding to pay for DSM programming through the Energy Sense Account. The PUC found that the DSM program was beneficial to the ratepayers of Guam in that it reduced energy consumption sourced from high-cost fuel or diesel oil.⁵

After further consideration, the Commission determined that the DSM program should be funded by the ratepayers. The most appropriate funding mechanism available to the PUC for the DSM was LEAC.⁶ Funding through LEAC was established in the amount of \$1.5M for each 6-month LEAC period, with a per kilowatt charge of \$0.003 on all meters read on or after July 1, 2020.⁷ True-Ups of the LEAC funding were to be conducted by GPA. Requests for LEAC funding would be subject to approval by the PUC in each LEAC proceeding. GPA was required to place all funds obtained for DSM from LEAC in the Energy Sense account.⁸

In GPA Resolution No. FY2026-10, the Consolidated Commission on Utilities requested that the PUC approve authorization for GPA to use DSM funds for eleven additional Energy Sense programs and supporting infrastructure.⁹

ANALYSIS

A. PUC Approval

⁵ PUC Order, GPA Docket 20-05, dated May 28, 2020, at p. 2.

⁶ Id. at pgs. 3-4.

⁷ Id. at pgs. 6-7.

⁸ Id. at p. 9.

⁹ CCU GPA Resolution No. FY2026-10, Relative to the Authorization of Demand Side Management (DSM) Funds for Approved Energy Sense Programs and Supporting Infrastructure, adopted and approved on January 27, 2026 and attached to the GPA Petition.

The PUC's prior orders "require GPA to obtain prior approval to use DSM funds in the LEAC-Funded Energy Sense account to pay for new DSM program initiatives."¹⁰

B. GPA's Proposal for DSM Initiatives

GPA is proposing 11 additional DSM initiatives for adoption and implementation. These include EV Managed Charging Services Pilot, Hot Water Controller 100 Unit Pilot, Home Area Network Services, New Online Home Energy Assessment, Commercial LED Expansion, Electrical Transient Analyzer Program, PV Design and Calculation Annual Software, Membership Subscription for Commercial Lighting, Generation Expansion Planning software (Hitachi), Home Energy Audit Tools, and LEAC DSM Savings report (UFS).¹¹

Attachment A, which is Exhibit "1" to this Report, indicates each project initiative, the proposed costs for CY2026 and CY2027, and the justification for each project. The total combined costs for these projects for CY2026 and CY2027 are One Million Two Hundred and Ninety-Three Thousand Dollars (\$1,293,000.00).

C. Funding for the Proposed DSM Initiatives

1. The Current Status of the DSM Energy Sense Account

On February 4, 2024, Utility Financial Solutions LLC submitted its report to GPA titled "Demand Side Management Review."¹² As that time, there was a balance of \$5.3 million in the Energy Sense account.¹³ Between June 1, 2020 and July 31, 2023, there was an over-collection of DSM funds from LEAC in the amount of

¹⁰ GPA Petition at p. 2.

¹¹ Attachment A-DSM Additional Budget, GPA Petition at GPA Resolution No. FY2026-10.

¹² Utility Financial Solutions LLC, Guam Power Authority Demand Side Management Review, dated February 4, 2024.

¹³ Id. at p. 6.

\$2,421,399.¹⁴ Based upon the UFS Report, GPA petitioned the PUC in GPA Docket 24-08 to reduce the DSM component of the LEAC to \$0.00 per kWh.¹⁵ Since February 1, 2024, a period of over two years, the ratepayers have not been charged any additional amounts for the DSM program through LEAC.

The current balance for DSM funds in the Energy Sense account is \$1.8 million. These funds can be used in part to fund the initiatives proposed by GPA. At the present time, GPA does not propose any increase in the LEAC rate for DSM initiatives. The prior charge to ratepayers was \$0.003 per kWh, which generated over \$3 million annually. Approximately \$1.9 million was generated per 6-month LEAC period, which was more than the approved \$1.5 million per 6-month LEAC period.¹⁶

2. No Increase in DSM Budget for Additional Initiatives

GPA indicates that the amounts identified for the proposed eleven DSM initiatives for CY2026 and CY2027 will not require funds to be spent which are in addition to the \$3 million annual DSM budget previously authorized through LEAC.¹⁷

If GPA proposes to reactivate the LEAC DSM charge, the DSM factor (\$/kWh, which is presently \$0.003), may be adjusted, as necessary and subject to Commission approval to maintain approximately \$3 million in annual DSM funding.¹⁸ For FY2026, GPA's DSM rebate expenditures are projected at approximately \$80k per month. To sustain the DSM program operations beyond

¹⁴ Id. at p. 4.

¹⁵ GPA Responses to PUC Request for Information at par. 4.

¹⁶ Id. at par. 4.

¹⁷ DSM Initiatives-GPA Responses to PUC Request for Information, GPA Docket 26-06, dated February 20, 2026, at p. 1.

¹⁸ GPA Responses to PUC Request for Information at par. 5.

the current balance, collections through LEAC will need to resume. Any such resumption will be subject to full review and approval by the PUC.

D. GPA's justifications for the proposed DSM Initiatives

1. The Additional Initiatives are a continuation and modernization of the existing DSM Program

In addition to the justifications provided in Attachment A for the 11 proposed initiatives, GPA has submitted a substantial number of materials justifying the new initiatives. GPA "wishes to expand the DSM offerings to include load shifting, controllable demand, improved forecasting of renewable generation, managed electrical vehicle charging, and analytical tools that shape and control energy consumption."¹⁹ GPA's goal with these proposed initiatives is "establishing grid stability, resilience and affordability."²⁰

The initiatives are not "new" initiatives, but a continuation and modernization of that established DSM portfolio."²¹ Attached hereto as Exhibit "2" are GPA's explanations as to why each of the proposed 11 DSM Initiatives are a continuation of the established DSM portfolio and fit into the established objectives and goals of the DSM program.²² These initiatives are all part of a program for "demand response."

Demand response refers to a range of programs intended to reduce energy consumption during specific times of the day, specific day types, and/or during system peak days. Demand response is achieved through "either incentivized behavioral changes or direct control of end uses and is typically enabled by real-time

¹⁹ GPA Petition at p. 2.

²⁰ Id.

²¹ GPA Responses to PUC Request for Information at par. 12.

²² Id.

meter data and two-way, detailed data communications between the customer site and the utility. Common measures include direct load control, dynamic pricing, demand bidding/buyback programs, and dispatchable load shifting.”²³

2. Specific Program Initiatives

EV Managed Charging Services Pilot Program

In the EV Managed Charging Services Pilot program, GPA seeks, through managed charging, to use load control strategies and time-of-use price signals to shift EV charging away from system peak period, including charging during daytime solar hours. GPA has FlowEV to implement a pilot study to evaluate load management strategies, customer participation, and grid impacts.²⁴

Water Heater Controller 100 Unit Pilot (Aquanata)

This pilot program will allow GPA to treat each water heater “as a form of thermal energy storage, enabling the shifting of heating load to off-peak periods and times of higher renewable generation.” GPA has already issued a solicitation for this initiative (GPA-RFP-24-003) and has identified a sole-source vendor, pending funding approval by the PUC.²⁵

Home Area Network Devices (HAN)

These devices “interface with GPA’s advanced metering infrastructure and allow customers to access near real-time energy usage data.” This infrastructure enables load visibility, customer alerts, peak-time notifications and potential integration with controllable and used technologies. This initiative will allow demand response deployment.²⁶

New Online Home Energy Assessment Tool (NEX)

²³ Leidos, Inc., Final DSM and EE Implementation Plan, dated December 19, 2014, at pgs. 2-12.

²⁴ See Exhibit 2 attached hereto (GPA Responses to PUC Request for Information at par. 12, 1.1)

²⁵ Id. at par. 12, 1.2.

²⁶ Id. at par. 12, 1.3.

GPA plans to procure a new online energy audit platform to ensure continuity of digital audit services and uninterrupted access for customers seeking to evaluate energy efficiency improvements and participate in rebate programs. The online home energy assessment tool supports customer engagement, energy awareness, and participation in DSM programs.²⁷

Commercial LED Expansion & Automation of Rebate Applications

The commercial LED rebate program has been an approved initiative under GPA Docket 13-14. Enhancing the online rebate platform and automating the verification processes improves administrative efficiency, reduces processing time, and lowers program overhead.²⁸

Electrical Transient Analyzer Program (ETAP)

ETAP provides analytical capabilities to model grid impacts, assesses load-shifting strategies, and evaluates the system-level effects of DSM measures. The primary end user for ETAP will be the GPA Engineering department.²⁹

PVsys

This software supports system evaluation, performance validation, and production forecasting for distributed solar installations. PV modeling informs DSM planning and grid alignment. The software can also analyze customer-owned battery energy storage system incentives, enabling evaluation of solar-plus-storage configurations and their operational impact on the system. DSM funds will be used for future subscription renewals.³⁰

DesignLights Consortium (DLC) Subscription

The DesignLights Consortium Qualified Products Lists provide an industry-recognized technical standard for high-efficiency commercial lighting products.

²⁷ Id. at par. 12, 2.1.

²⁸ Id. at par. 12, 2.2.

²⁹ Id. at par. 12, 2.3.

³⁰ Id. at par. 12, 2.4.

Utility membership provides GPA with access to verify product listings, technical specifications, performance criteria updates, and program support resources. The subscription enables faster rebate processing through integration from the DLC product listing into GPA's DSM online portal. DSM funds will be used to cover future membership fees.³¹

Generation Expansion Planning Software (Hitachi)

This software enables comparative analysis of demand-side measures verses generation additions, quantifies avoided capacity impacts, and supports optimization of DSM within GPA's overall resource portfolio. GPA maintains a contract for this software and seeks authorization to fund future contract extensions through DSM funds.³²

Home Energy Audit Tools

GPA already has a program of home energy audits. Calibrated diagnostic instruments and field measurement equipment are needed to evaluate building envelope performance, equipment operation, load profiles, and the development of accurate energy savings reports. GPA will procure necessary audit tools to support accurate field measurements and defensible savings calculations.³³

LEAC DSM Savings Report

The LEAC DSM Savings Report ensures that measured savings, fuel reductions, and program results are transparently documented and defensibly incorporated into regulatory filings. This Report will be conducted by GPA Consultant UFS.³⁴

³¹ Id. at par. 12, 2.5.

³² Id. at par. 12, 2.6.

³³ Id. at par. 12, 3.1.

³⁴ Id. at par. 12, 4.1.

For each of the proposed initiatives, GPA has undertaken a considerable amount of work on documenting the validity and usefulness of such initiatives. GPA has submitted Exhibits F and Exhibit G concerning these proposed initiatives, which reflect detailed written analysis and recommendations.

E. Evaluation of the proposed initiatives

The ALJ believes that GPA has met its burden of justifying the adoption of the proposed initiatives. As an important consideration, the cost of the initiatives will not increase the overall DSM Budget. The total cost for the projects for CY2026 and CY2027 is \$1,293,000.

GPA has established that payment for these initiatives can be covered within the existing LEAC budget of \$3M per year for DSM. Collection of the yearly amount of \$3M may have to be continued to fund the DSM program. However, the expense for the LEAC Budget has already been well established in PUC regulatory practice and will not be increased because of these initiatives. When GPA seeks to recommence the collection of funds from LEAC for DSM, any such request will be subject to the full review and approval of the PUC.

The proposed DSM initiatives are fully supported by GPA consultant analysis and prior directed Commission planning documents, such as the Final DSM and EE Implementation Plan and the Energy Sense Program plan. Several of the initiatives such as HAN devices, online assessment tools, and rebate portal automation are operational implementations of the program categories previously identified in the DSM program. These are not new programs, but are based on program categories previously identified in the Plans. These are modernization, technology upgrades, or pilot-scaled deployment of program types that were previously evaluated and

contemplated within the DSM portfolio framework. From a due diligence standpoint, GPA has performed internal technical and operational evaluation of the proposed initiatives. These initiatives will greatly improve the existing DSM program and are reasonable, prudent, and necessary.

RECOMMENDATION

Based upon the GPA petition and the extensive documentation provided by GPA in response to PUC Requests for Information, the ALJ recommends that the PUC approve the 11 proposed initiatives for the DSM program. Should GPA choose to reactivate the \$1.5M DSM funding from LEAC, GPA must obtain the prior approval of the PUC. The DSM factor of \$0.003 per kWh DSM component will have to be evaluated by the PUC and a determination made as to whether that factor should be changed and possibly reduced. GPA admits that such factor has resulted in withdrawals from LEAC for DSM of more than \$1.5M per 6-month LEAC period. The PUC may determine to readjust the DSM LEAC factor.

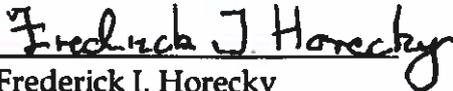
The PUC should remind GPA to comply with the Reporting Requirements of its order in GPA Docket 20-05: GPA should file a true-up report with each LEAC filing hereafter. The following requirements of provision 4 of the Ordering Provisions in the Order in GPA Docket 20-05 should be met:

GPA's "true-up" report will indicate the total amount of funds collected in the prior LEAC period for DSM, and the extent to which such amount was an over or under recovery of the \$1.5M. Each GPA report for each LEAC period will include a complete accounting of all amounts expended by GPA during the prior LEAC period for DSM, including rebates, program costs, and every expenditure of every nature. The report will include estimated fuel savings during the prior LEAC period resulting from the program. The Report will also state the projected price per kWh to arrive at the funding amount of \$1.5M for the LEAC period.

ALJ Report
DSM Initiatives
GPA Docket 26-06
March 16, 2026

A Proposed Order approving such recommendations is submitted herewith for the consideration of the Commissioners.

Respectfully submitted this 16th day of March, 2026.


Frederick J. Horecky
Chief Administrative Law Judge

Attachment A - DSM Additional Budget

		CY 2026	CY 2027	Justification
1 Pilot Programs				
1.1	EV Managed Charging Services Pilot	\$ 255,000	\$ 1,500	<p>The Electric Vehicle Managed Charging Services (EVMCS) pilot directly supports GPA's objectives to reduce peak demand, shift customer load to periods of higher renewable generation, and improve overall system reliability. EV charging represents one of the fastest-growing new loads on the grid, and unmanaged charging typically occurs during evening peak hours when system demand is highest. The EVMCS pilot introduces a DSM framework for direct load control, allowing GPA to modulate EV charging demand in real time and prevent sudden load spikes that would otherwise strain generation resources or accelerate the need for capacity additions.</p> <p>Guided by Pacific Northwest National Laboratory, this pilot enables GPA to test time-of-use pricing strategies that incentivize customers to shift EV charging to solar hours when renewable generation is abundant and marginal fuel costs are lowest. This directly aligns with the 2022 Integrated Resource Plan, which identifies managed electrification and flexible demand as essential tools for integrating inverter-based renewable resources. By shaping EV charging behavior, the program reduces evening peak load, improved system load factor, and enhances the utilization of daytime solar generation.</p> <p>These capabilities are consistent with the DSM requirements referenced in PUC Dockets 13-14, 20-05, and 22-08, which emphasize reducing fuel use, avoiding new capacity, and implementing best practices such as managed EV charging.</p>
1.2	Hot Water Heater Controller 100 unit Pilot (Aquaera)	\$ 28,000	\$ 5,000	Water heater controllers reduce peak demand by shifting electric water heating to off-peak hours. The pilot supports DSM by validating the effectiveness of demand response technologies that can be scaled to residential and commercial customers. (Reference: GPA Docket 13-14, 9 H.)
1.3	Home Area Network Devices (HAN)	\$ 195,000	\$ 83,500	HAN devices provide real-time energy data to customers and support DSM behavioral programs by enabling load visibility, customer alerts, peak-time notifications, and integration with future demand response initiatives.
2 Software & Subscriptions				
2.1	New Online Home Energy Assessment Tool (MEX)		\$ 195,000	The MEX platform is being procured as a new service to continue providing the same online home energy assessment capabilities previously offered by GPA, ensuring uninterrupted delivery of DSM's digital audit services and continued support for customers participating in GPA's efficiency and rebate programs. (Reference: GPA Docket 13-14, 9 A.)
2.2	Commercial LED Expansion & Automation of Rebate Applications	\$ 60,000		This supports DSM's commercial lighting rebate program by improving online application processing, enabling automated verification, and reducing administrative delays. Faster processing increases customer adoption of LED retrofits, lowering island-wide lighting loads and reducing peak demand. Digitizing all rebate application processes, including updates to the online rebate portal to allow access for all GPA rate schedules, including residential, commercial, government, and pre-paid customers.
2.3	Electrical Transient Analyzer Program License Renewal (ETAP)	\$ 50,000	\$ 50,000	ETAP serves as a critical analytical platform supporting GPA's Demand Side Management (DSM) and grid modernization initiatives. The software enables GPA to simulate the impacts of various DSM measures on the grid, including managed electric vehicle (EV) charging, distributed customer battery energy storage, thermal energy storage, and load-shifting strategies. In addition, ETAP provides valuable engineering insights that directly support Time-of-Use (TOU) analysis and rate design.
2.4	PV Design and Calculation Annual Software (Pvsyst)	\$ 1,000	\$ 1,000	Pvsyst is required for DSM to evaluate existing and future Renewable Energy Purchase Agreement (PV system) performance, validate solar production estimates and ensure accurate forecasting. This directly informs DSM planning, grid alignment, and benefit-cost analysis. Pvsyst modeling will also support future DSM applications such as Time-of-Use tariff development and evaluating energy-arbitrage opportunities.
2.5	Membership Subscription for Commercial Lighting QPL (DLC)	\$ 500	\$ 500	The Design-Lights Consortium database is essential for DSM's commercial lighting program to ensure all incentivized products meet high efficiency and quality standards. The Qualified Products List is also critical for developing and validating the online rebate application portal. (Reference: GPA Docket 13-14, 9 G.)
2.6	Generation expansion planning software (Hitachi) to evaluate current and proposed DSM programs	\$ 162,000	\$ 135,000	The software is required to evaluate current and proposed DSM programs as part of the capacity expansion planning analyses integral to GPA's Integrated Resource Plan. Allows optimization of DSM versus supply-side resources. Enables GPA to model existing and future Energy Sense Rebate Programs in the software.
3 Equipment				
3.1	Home Energy Audit Tools	\$ 15,000	\$ 15,000	GPA is expanding its roster of Qualified Energy Auditors to include Certified Energy Auditors and Certified Energy Managers capable of performing ASHRAE-level audits, and the purchase of professional audit tools ensures these auditors are fully equipped to conduct residential and commercial assessments, quantify savings, and verify DSM measures. Having the tools in place allows GPA to deliver these audit services immediately to our customer base and maintain strong M&V and program credibility. (Reference: GPA Docket 13-14, 9 A.)
4 Reporting & Analysis				
4.1	LEAC DSM Savings report (UFS)	\$ 20,000	\$ 20,000	This report provides third-party, impartial verification of DSM savings for inclusion in the LEAC calculation, ensuring that DSM program impacts are accurately and objectively reflected in GPA's regulatory filings.
Total		\$ 786,500	\$ 506,500	

GPA Response:

The proposed initiatives build upon the Commission-directed development of GPA's Energy Sense Demand Side Management Program. The foundational framework for the program was established through the *DSM and EE Implementation Plan – Final Report (Exhibit B)*, prepared by Leidos in December 2014, and further refined in the *Energy Sense Program Plan – Final Report (Exhibit C)*, issued in June 2016.

The 2016 Program Plan was developed in response to a Guam Public Utilities Commission Order dated July 31, 2014, which directed GPA, the Administrative Law Judge, and Lummus Consultants to collaboratively develop a comprehensive DSM and Energy Efficiency program. The initiatives proposed below are a continuation and modernization of that established DSM portfolio.

1.1 EV Managed Charging Services Pilot

Section 2.12 of the *Final DSM & EE Implementation Plan* defines demand response as programs that reduce consumption during peak periods through behavioral incentives or direct control of end uses, enabled by real-time meter data and two-way communications. The EV Managed Charging Services Pilot is a direct application of a demand response program. Through managed charging, GPA can use load control strategies and time-of-use price signals to shift EV charging away from system peak periods, including encouraging charging during daytime solar hours.

Section 3.4 of the *Energy Sense Program Plan* explicitly discusses plug-in electric vehicles: "The potential benefits of PEVs for GPA and its stakeholders may include reducing consumption of fossil fuels on Guam and lowering total energy costs, reducing vehicular and power plant emissions, lowering fleet operating costs, and increasing sales for GPA in the face of declining demand due to high power prices and customers opting to use distributed generation." Section 3.20 of the *Energy Sense Program Plan* discusses Demand Response, time-of-use rates, peak pricing, and real-time pricing, which GPA intends to further evaluate and advance through this pilot program.

GPA selected this initiative as a priority in response to the increasing penetration of electric vehicles on Guam and the need to proactively manage this emerging load. Unmanaged EV charging presents a risk of concentrating new demand during evening peak periods, which would strain generation resources and reduce system efficiency.

GPA has entered into a contract for Electric Vehicle Managed Charging Services (GPA-RFP-24-007) with FlowEV by Triple J Technologies on February 14, 2025. The contract includes implementation of a pilot study to evaluate load management strategies, customer participation, and grid impacts, which will inform broader program design and operational controls for EV integration. In addition, the contract supports the installation of EV supply equipment at GovGuam facilities, funded through a U.S. Department of Energy grant administered by the Guam Energy Office as a pass-through award.

In addition, GPA was awarded participation in the U.S. Department of Energy's Grid Operator Technical Assistance Program (Key Assist), which provides utilities with up to \$1 million in comprehensive technical assistance, including access to facilities such as NREL's Advanced

Research on Integrated Energy Systems (ARIES), to address grid integration challenges. As noted by DOE, "Guam Power Authority (GPA) is a municipal utility seeking technical assistance to support the planning and deployment of vehicle-grid integration (VGI) technologies. GPA's goal through this technical assistance is to integrate electric vehicles (EVs) and deploy chargers while ensuring grid reliability, optimizing energy usage, and delivering sustainable, cost-effective solutions."

The EV Managed Charging Services Pilot is an implementation of the demand response category identified in the 2014 Implementation Plan and a necessary grid modernization measure to manage accelerating EV adoption.

<https://www.energy.gov/cmei/articles/doe-selects-utilities-groundbreaking-technical-assistance-program-advance-grid>

1.2 Water Heater Controller Pilot

The *Final DSM & EE Implementation Plan* identifies water heating as a targeted DSM category (Section 2.6) and further describes demand response programs (Section 2.12) as measures that reduce or shift load during peak periods through behavioral incentives or direct control of end uses.

Section 4 of the *Energy Sense Program Plan* discusses Demand Response programs to include "smart water heater controllers [which are] still in the process of being fully commercialized..." Since issuance of the Plan, these technologies have matured in the market, and GPA intends to further evaluate and advance their application through this pilot.

Electric water heating is a flexible and controllable residential load. The controller technology enables GPA to shift water heating operation to off-peak hours while maintaining customer comfort. By pre-heating tanks during lower-demand periods or during times of higher renewable generation, the program reduces contribution to evening system peak and improves overall load factor.

PUC Docket 13-14 approved a 100-customer ESS pilot program. This water heater controller pilot allows GPA to treat each water heater as a form of thermal energy storage, enabling the shifting of heating load to off-peak periods and times of higher renewable generation while maintaining customer comfort. Unlike battery energy storage systems (BESS), which store energy in electrochemical form and require significant capital investment, thermal storage leverages existing infrastructure to store energy as heat within the tank, providing a cost-effective and scalable approach to demand-side load shifting.

This pilot is designed to validate demand response functionality at the customer level using controllable end-use technology. Similar to air conditioning direct load control programs referenced in prior DSM discussions, the water heater controller provides GPA with a dispatchable demand-side resource that can be scaled over time if proven effective.

GPA selected this initiative to test the operational feasibility, customer acceptance, and peak reduction potential of controllable water heating in Guam's residential sector. The pilot-scale

deployment allows GPA to collect performance data, quantify peak demand impacts, and evaluate cost-effectiveness before considering broader implementation.

GPA issued a solicitation for this initiative (GPA-RFP-24-003) and has identified a sole-source vendor, pending funding approval.

1.3 Home Area Network Devices (HAN)

Section 2.12 of the *Final DSM & EE Implementation Plan* describes demand response as being enabled by real-time meter data and two-way communications between the utility and the customer site.

Section 4 of the *Energy Sense Program Plan* discusses Demand Response programs that include “residential electric loads, e.g. water heater, HVAC systems and pool pumps...” The Home Area Network (HAN) is capable of interfacing with such smart devices to enhance visibility and, ultimately, enable load control.

HAN devices interface with GPA’s advanced metering infrastructure and allow customers to access near real-time energy usage data. The embedded Zigbee communication capability can also interface with compatible smart devices, providing the foundation for future direct load control and automated demand response functionality. This infrastructure enables load visibility, customer alerts, peak-time notifications, and potential integration with controllable end-use technologies.

GPA selected this initiative to strengthen the communications backbone necessary for scalable demand response deployment. While behavioral programs can provide incremental savings, sustained peak reduction and flexible load management require reliable two-way communication between customer devices and the utility.

GPA will proceed with issuing a solicitation for this initiative contingent upon approval of an identified funding source.

2.1 New Online Home Energy Assessment Tool (MEX)

Section 2.11 of the *Final DSM & EE Implementation Plan* references internet-based tools that allow residential and commercial customers to evaluate their energy usage and identify potential savings opportunities. The proposed online tool directly implements this recommendation by providing an online home energy assessment tool that supports customer engagement, energy awareness, and participation in DSM programs.

Section 3.7 of the *Energy Sense Program Plan* specifically recommends energy audits. The proposed online tool enables customers to conduct a preliminary self-assessment before requesting an in-home audit. It also identifies low- and no-cost energy efficiency measures and directs customers to the Energy Sense Rebate Program where appropriate.

GPA’s current online energy audit program license is expiring on June 30, 2026. GPA plans to procure a new online energy audit platform to ensure continuity of digital audit services and uninterrupted access for customers seeking to evaluate energy efficiency improvements and participate in rebate programs.

2.2 Commercial LED Expansion & Automation of Rebate Applications

Sections 2.1 and 2.2 of the *Final DSM & EE Implementation Plan* identify internal and external lighting efficiency programs as foundational DSM measures. Lighting retrofits, including LED conversion, were recognized as cost-effective opportunities for reducing energy consumption and peak demand across residential, commercial, and government sectors.

The commercial LED rebate program an approved initiative under PUC Docket 13-14. The proposed Commercial LED Expansion and automation of rebate applications supports implementation of the lighting portfolio. Enhancing the online rebate platform and automating verification processes improves administrative efficiency, reduces processing time, and lowers program overhead. These improvements increase customer participation and accelerate adoption of high-efficiency lighting technologies.

2.3 Electrical Transient Analyzer Program (ETAP)

Section 6 of the *Final DSM & EE Implementation Plan* recommends that GPA conduct ongoing DSM screenings as part of the Integrated Resource Planning process to evaluate emerging technologies and identify new DSM opportunities. ETAP supports this requirement by providing analytical capabilities to model grid impacts, assess load-shifting strategies, and evaluate the system-level effects of DSM measures.

Electromagnetic Transient (EMT) modeling in ETAP can support DSM program development by capturing the fast, time-domain behavior of controllable loads and distributed energy resources under dynamic conditions. By simulating demand response actions, managed EV charging, and smart device controls at high temporal resolution, EMT analysis allows GPA to evaluate real-time load shifting impacts, control interactions, and potential system stability concerns, particularly in a grid with high renewable penetration. This provides a more accurate assessment of how DSM strategies perform under transient conditions and supports the design of reliable, grid-responsive programs.

The primary end user for ETAP will be GPA Engineering Department.

2.4 PVsyst

Section 2.4 of the *Final DSM & EE Implementation Plan* identifies rooftop solar photovoltaic programs as part of the DSM portfolio. PV modeling software such as PVsyst supports accurate system evaluation, performance validation, and production forecasting for distributed solar installations.

In addition to validating solar production estimates and supporting benefit-cost analysis, PV modeling informs DSM planning and grid alignment. The software will also support analysis associated with customer-owned battery energy storage system (BESS) incentives previously approved by the Commission, enabling evaluation of solar-plus-storage configurations and their operational impact on the system.

GPA currently maintains an active PVsyst subscription. This request seeks approval to use DSM funds for future subscription renewals.

2.5 DesignLights Consortium (DLC) Subscription

Sections 2.1 and 2.2 of the *Final DSM & EE Implementation Plan* identify internal and external lighting efficiency programs as core components of the DSM portfolio. Implementation of these programs requires clear technical standards to ensure that incentivized lighting products deliver verified energy savings and maintain performance quality. The commercial LED rebate program an approved initiative under PUC Docket 13-14.

The DesignLights Consortium (DLC) Qualified Products List provides an industry-recognized technical standard for high-efficiency commercial lighting products. Utility membership provides GPA with access to verified product listings, technical specifications, performance criteria updates, and program support resources. Ensuring rebate-eligible products meet established efficacy, quality, and reliability thresholds, and enables faster rebate processing through integration of the DLC product listing into GPA's DSM online portal.

Maintaining DLC membership supports program integrity, simplifies rebate qualification and verification processes, reduces risk of incentivizing non-compliant products, and strengthens verification of lighting savings.

GPA currently maintains an active DLC membership. This request seeks approval to continue using DSM funds to cover future membership fees, estimated at approximately \$500 per year.

2.6 Hitachi

Section 6 of the *Final DSM & EE Implementation Plan* calls for updated DSM screenings as part of the Integrated Resource Planning process and ongoing evaluation of new DSM opportunities. Generation expansion planning software supports this requirement by allowing GPA to model long-term capacity needs and evaluate the role of DSM relative to supply-side resources.

The software enables comparative analysis of demand-side measures versus generation additions, quantifies avoided capacity impacts, and supports optimization of DSM within GPA's overall resource portfolio.

GPA currently maintains a contract for Generation Expansion Planning Software and seeks authorization to fund future contract extensions through DSM funds.

3.1 Home Energy Audit Tools

Section 2.11 of the *Final DSM & EE Implementation Plan* explicitly includes free energy audits and professional audit services as DSM measures. Procurement of professional-grade audit tools directly implements this program element.

Section 3.7 of the *Energy Sense Program Plan* directly recommends energy audits, "Leidos recommends GPA establish a certain number of free home energy audits for its low-income customers each year, conducted by GPA's staff who are certified energy auditors."

GPA currently has nine (9) employees capable of performing residential and commercial energy audits, including personnel certified by the Association of Energy Engineers (AEE) as Certified Energy Auditors (CEA) and Certified Energy Managers (CEM). An additional nine employees have completed the required training coursework and are eligible to sit for the certification

examinations, which would bring GPA's total in-house audit-capable staff to eighteen (18) upon successful completion.

These professionals are qualified to conduct ASHRAE-level assessments, which require calibrated diagnostic instruments and field measurement equipment to evaluate building envelope performance, equipment operation, load profiles, and develop accurate energy savings reports.

GPA will procure the necessary audit tools to support accurate field measurements and defensible savings calculations. Without this instrumentation, GPA's ability to deliver technically sound audit services and maintain DSM program integrity would be constrained.

4.1 LEAC DSM Savings Report

The *Final DSM & EE Implementation Plan* calls for quantification of avoided costs, tracking of program participation, and evaluation of overall DSM performance. Independent savings verification supports this monitoring and reporting requirement by providing objective validation of program impacts. The LEAC DSM Savings Report ensures that measured savings, fuel reductions, and program results are transparently documented and defensibly incorporated into regulatory filings.

13. Provide any documents or work papers which GPA prepared concerning these new initiatives.

GPA Response: Attached hereto as Exhibit F are documentation prepared by GPA concerning these proposed initiatives.

14. Provide any written analysis or recommendations in GPA's possession concerning these initiatives.

GPA Response: Attached hereto as Exhibit G are documents in GPA's possession reflecting written analyses and recommendations concerning the proposed initiatives.

15. If not provided in documentation requested above, what is the justification for adoption and implementation of these initiatives?

GPA Response: The justification for adoption and implementation of these initiatives is addressed in GPA's responses to RFI Nos. 13 and 14 above.

16. Provide any consultant reports which analyze the new initiatives requested, or state reasons for adoption of these initiatives.

GPA Response: The proposed DSM initiatives are supported by consultant analyses and prior Commission-directed planning documents.

The foundational consultant document guiding GPA's DSM portfolio is the *Final DSM and EE Implementation Plan* prepared by Leidos Engineering, LLC in cooperation with Lummus Consultants International, dated December 2014 & the *Energy Sense Program Plan, 2016*. These report identified and screened multiple DSM categories, including lighting, water heating, energy audits, demand response, rooftop solar, and behavioral programs, which form the basis for many of the initiatives currently proposed.