Meeting Date: March 11, 2026

TOWN OF MORAGA **STAFF REPORT**

To: **Honorable Mayor and Councilmembers**

From: **Nate Levine, Interim Public Works Director/Town Engineer**

Subject: **Town Facilities Energy Generation – Project Update**

RECOMMENDATION

1. Receive the project update and select Option 3 (Generators and Solar) as the preferred choice for the Town Facilities Energy Reliability Project.

2. Direct staff to notice a future public hearing before the Town Council to determine the anticipated cost of this energy project is less than projected energy utility bills consumed by the Town and prepare a proposed agreement under California Government Code Section 4217 for consideration of contract award.

BACKGROUND

The Town has been evaluating energy reliability improvements to its facilities for several years in response to repeated PG&E Public Safety Power Shutoff (PSPS) events and other outages affecting Town facilities, some of which lasted multiple days. The Town's existing backup generators were generally smaller, older units that served only limited circuits, reducing the Town's ability to maintain continuity of operations during extended outages. Town Hall had only limited backup capability through an older generator serving primarily the Police Department portion of the building; the Corporation Yard / Emergency Operations Center had only minimal backup power, and the Library had no complete backup system. Please see Attachment A for site locations map.

In response to these issues, the Town authorized the Town Facility Energy Generation Study in 2021 to identify appropriate redundant power needs and sources for Town facilities, evaluate alternative power options such as solar and battery backup, and develop preliminary costs and recommendations to support future design and funding decisions.

On January 12, 2022, the Town Council awarded a professional services agreement to the energy consultant firm Clean Coalition to complete the study. The study evaluated opportunities to improve resilience and reduce long-term energy costs at key Town facilities,

including Town Hall / Police, the Corporation Yard, and the Library. It considered multiple project configurations combining solar generation, battery storage, and backup generators, and evaluated resilience, site constraints, and long-term economics. This work also supported the Town's 2021 Council goal of continuing to evaluate viable Climate Action Plan strategies by using the Town's emergency power needs as an opportunity to review more sustainable energy options.

On June 14, 2023, staff and Clean Coalition presented the updated Town Facilities Energy Generation Study to the Town Council, including updated economics using PG&E's NEM 3 rate structure and a project concept based on a Power Purchase Agreement (PPA) approach. The Town Council received the presentation and provided direction to continue advancing the PPA approach into the next phase of evaluation.

On August 28, 2024, the Town Council approved Amendment No. 1 to the Clean Coalition agreement to support the next phase of work, including continued consultant assistance and preparation of a solicitation process to obtain real-world pricing and implementation options for solar microgrid improvements.

On March 26, 2025, staff and Clean Coalition returned to the Town Council with a project status update in preparation for issuing a Request for Proposals (RFP) to obtain real-world costs and project delivery options. The RFP was issued on October 2, 2025.

In late 2025, proposals were received and reviewed. Through that process, staff compared the earlier study assumptions against actual market responses to better understand the project's cost, financing implications, site impacts, and operational tradeoffs associated with the broader microgrid concepts. While the broader microgrid concepts remained technically feasible, the proposal review showed that several of the configurations involved greater long-term cost, complexity, and site-related impacts than the Town was prepared to pursue under current conditions.

Based on that review, staff refined the project alternatives to focus more directly on the Town's core operational need: reliable backup power and continuity of operations at key facilities, while reducing concerns related to long-term cost, financing structure, future facility flexibility, and site-specific issues such as fire access and aesthetics.

DISCUSSION

The Town's core need remains reliable backup power for continuity of operations at key facilities. The original study and subsequent solicitation evaluated broader microgrid concepts that combined backup generators, solar generation, and battery storage. That work was useful in moving the project from conceptual planning to real-world pricing and implementation review. It also confirmed that the PPA-based approach and the larger project configurations evaluated through the solicitation did not provide the Town with a practical or financially attractive path forward under current conditions (including NEM 3.0).

Based on the proposal review, staff refined the project alternatives to focus more directly on the Town's primary operational need while reducing concerns related to long-term cost, financing structure, future facility flexibility, and site-specific issues such as fire access and aesthetics.

For all options that include backup diesel generators, staff are also working to secure the ability to purchase renewable diesel for generator use, which would help reduce carbon emissions associated with backup power operations.

The four options currently before the Town Council are summarized below.

Option 1 – No Change
Under this option, the Town would not move forward with energy generation or reliability improvements at this time. Existing conditions would remain in place, and the Town would continue to rely on its current electrical arrangements and limited backup capability. However, the Town Hall parking lot replacement would still be completed as a separate project.

This option avoids new energy project expenditures in the near term, but it does not address the Town's broader backup power deficiencies and leaves key facilities vulnerable to future PG&E outages and service disruptions.

Option 2 – Generators Only
Under this option, the Town would install new backup diesel generators with sufficient fuel supplies at Town Hall, the Corporation Yard, and the Library. This option most directly addresses the Town's core resiliency need.

This option requires the highest direct upfront capital commitment of the non-financed options and would create an ongoing annual maintenance obligation without any offsetting utility savings. The Town Hall parking lot replacement would also still need to be completed as a separate but related project.

Option 3 – Generators + Solar
Under this option, the Town would install new backup diesel generators at Town Hall, the Corporation Yard, and the Library, along with solar improvements at Town Hall and the Library. The Town Hall solar installation would be limited to the roof area, and the Library solar installation would be ground-mounted behind the building. This approach avoids the more significant appearance, fire access, and site layout concerns associated with parking lot-mounted arrays and more intrusive solar placements. See Attachment B for the proposed site layout exhibits.

This option maintains the Town's core resiliency objective while adding a more limited and better-suited solar component intended to offset utility costs. Based on the current financial modeling, this option is assumed to maintain positive cumulative cash flow when the Federal Direct Pay is included and retained for project use, and to provide net savings over time. As with Option 2, the Town Hall parking lot replacement remains a separate project need and is included in the overall cost comparison because it must still be addressed regardless of the preferred project option.

Option 4 – Generators + Solar + Batteries
Under this option, the Town would install new backup generators at Town Hall, the Corporation Yard, and the Library, along with solar improvements at Town Hall and the Library, plus battery storage.

This option provides the most comprehensive project scope, but it also introduces the greatest cost and complexity. Based on the current financial modeling, it does not provide the same

cash flow profile as Option 3 and is more sensitive to long-term cost and replacement assumptions. While it may produce long-term savings, those savings are more delayed and less financially attractive under current assumptions.

***Staff Recommends*: Option 3 – Generators + Solar**

Option 3 best balances the Town's operational, financial, and site planning objectives. It improves backup power reliability at key facilities, addresses the Town's most immediate continuity of operations needs, and includes a limited solar component intended to reduce long-term costs without introducing the added complexity, cost, and site impacts associated with the broader microgrid concepts previously evaluated.

FISCAL IMPACT

Estimated costs for each project component are as follows:

Option	Included Project Components	Total Project Cost	Available Project Funding	Total Financing Needs	Annual Town Budget Impacts	Cumulative Savings
1	Town Hall Parking Lost Replacement (Parking Lot)	$375,000	$375,000	$0	No new energy related costs	-
2	Generators at Town Hall, Council Chambers, and Library (Generators), Parking Lot	$900,000	$900,000	$0	Ongoing annual operating and maintenance cost for generators.	-
3	Solar Panels at Town Hall & Library (Solar Panels), Generators, Parking Lot	$1,380,000	$900,000	$480,000	Loan repayments, annual operating and maintenance costs for generators & solar panels.	$265,000 over 20 years
4	Solar Panels and Batteries, Generators, Parking Lot	$1,723,000	$900,000	$823,000	Loan Repayments, annual operating and maintenance costs for generators & solar panels.	$129,000 over 20 years

Funding

Staff assumed financing the identified funding gap through a 20-year loan at a 5.65% annual percentage rate. Estimated payments would range from $42,290 to $72,180 per year,

depending on the financed amount. Estimated loan repayments have been incorporated into the cumulative project savings, and staff anticipates utility savings would offset the financing costs.

If the Town Council concurs with Option 3, staff would return with recommended financing options which include: a traditional loan, internal Town loan with lower interest rate, or other options.

The Town currently has approximately $900,000 budgeted for this overall effort. Based on the current financial analysis, Option 3 – Generators + Solar provides the best balance between improving resiliency and maintaining a financially sustainable project structure. Option 3 also provides a reoccurring annual savings over the life of the project.

Detailed financial information is provided in Attachment C. Proforma Cash Flow Analysis for Options 3 and 4 can be found in Attachment D and E. A summary of project options and related costs is provided below.

CEQA COMPLIANCE

The recommended action is limited to receiving an informational update and providing direction to staff regarding a preferred project option and authorization to proceed with preparation of a proposed agreement. These activities are not subject to review under the California Environmental Quality Act (CEQA).

Any future action to approve a specific project design and/or proceed to construction would be subject to separate CEQA review as appropriate.

ALTERNATIVES

1. Select a different option.

2. Direct staff to return with revised project options or additional analysis.

3. Make revisions to the recommended project and provide direction to staff.

NEXT STEPS

If the Town Council selects a preferred project, option 3, staff will proceed with refining the scope consistent with Town Council direction. Because this project would be an “energy service contract” pursuant to Government Code section 4217.11, the Town would not be required to go through the formal bidding process. However, the Town would be required to hold a public hearing at a regular Town Council meeting with a public notice posting at least two weeks in advance, to make the appropriate determinations under California Government Code 4217.12.

Estimated dates of actual project construction are unknown and will be determined as part of the negotiated contract. A project schedule will be provided when this item is returned to the Town Council.

ATTACHMENTS

Attachment A - Energy Generation Site Locations.pdf
Attachment B - Proposed Site Concepts.pdf
Attachment C - Project Financial Comparison Detail.pdf
Attachment D - Option 3 Solar Only - Financial Proforma Cash Flow Analysis.pdf
Atachment E - Option 4 Solar and Battery - Financial Proforma Cash Flow Analysis.pdf