



GUAM POWER AUTHORITY

ATURIDÁT ILEKTRESEDÁT GUÅHAN
P.O. BOX 2977 • HAGÁTÑA, GUAM U.S.A. 96932-2977

January 2, 2020

Mr. Tyrone J. Taitano
Director
Bureau of Statistics and Plans (BSP)
P.O. Box 2950
Hagåtña, Guam 96932

Subject: Federal Consistency Determination Review for LED Lighting Retrofits under
DOI's Energizing Insular Communities 2019 Funding Opportunity

Mr. Taitano,

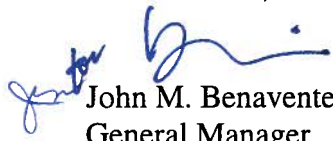
Hafa Adai! In collaboration with the Guam Department of Education (GDOE) and funding assistance from the Department of Interior (DOI), GPA will be embarking on LED lighting retrofits at Agueda Johnston Middle School and Maria Ulloa Elementary School as one of the Facility Improvement Measures that fall under our Bringing Energy Solutions To (BEST) Schools Program.

The proposed projects include administrative work, information research such as profiling energy loads and performing energy audits, procurement and mobilization of lighting equipment and installation materials, labor related to installation of LED lighting, and proper disposal of replaced lighting equipment through an EPA-certified lighting vendor with the proper licensing and certifications for disposal of lighting equipment.

Attached is a brief summary of scope of work approved by the Department of Interior as well as details of our project sites. The Authority humbly requests for BSP's assistance for reviewing the tasks under the project scope and providing comments regarding compliance to development and resource policies of the Guam Coastal Management Program (GCMP).

We have planned for construction of these projects to commence this summer to avoid any disruption of the GDOE school year. We greatly appreciate your support by providing a prompt response so we can assist GDOE in their energy conservation.

Sinceremente,


John M. Benavente, P.E.
General Manager

RECEIVED

JAN 08 2020
BUREAU OF
STATISTICS AND PLANS
48-95 ar

LED Lighting Retrofit for Agueda Johnston Middle School and Maria Ulloa Elementary School

The Bringing Energy Solutions To (BEST) Schools is a program of Guam Power Authority (GPA) created to provide Guam Department of Education (GDOE) with technical support energy solutions such as energy efficiency, renewable energy, and water conservation projects to aid in reduction of utility costs in public schools. Under this program, GPA and GDOE collaborated on a grant opportunity for energy efficiency projects under the Department of Interior's (DOI) Energizing Insular Communities grant program. GPA was awarded grant funding for lighting retrofit for Agueda Johnston Middle School and Maria Ulloa Middle School.



Figure 1 – Agueda Johnston Middle School



Figure 2 – Maria Ulloa Elementary School

Brief Project Description for LED Lighting Retrofit:

Agueda Johnston Middle School and Maria Ulloa Elementary School campuses currently have mostly T-12 lighting with several T-8 fixtures in their classrooms, offices, and library. Significantly more efficient lighting products have become readily available over the past few years. Newer technology has developed Light-emitting diode (LED) replacements for linear fluorescent lamps that are significantly more efficient than conventional fluorescent systems. Unlike linear fluorescent lamps, which emit light in an omnidirectional pattern, LED replacements are intended to emit light more directly out of the fixture (e.g., downward in the case of a troffer). A retrofit of older fluorescent lamps will also maintain or improve current lighting levels while saving substantial energy. LEDs emit less heat, reducing the load on HVAC systems and are also controllable, and more compact, offering more design flexibility.

Description of Scope of Work:

The following is the scope of work under these projects:

- Existing 4 ft. surface mounted fluorescent fixtures, 2x4 recessed troffers, pendant mounted fixtures will be replaced with LED Type B Tube(s) with non-shunted lamp holder
- Existing CFLs will be replaced with LED Pin Base Type B.
- Existing Incandescent fixtures will be replaced with LED A-lines.
- Existing Metal Halides fixtures will be replaced with new LED fixtures.
- Existing exterior cans will be retrofitted with LED can retrofit kits.
- Existing High Pressure Sodium exterior fixtures will be replaced with new LED fixtures.
- Photo sensors will be installed on all exterior fixtures
- Arrangements will be made for proper disposal of replaced lighting equipment
- Final Energy Audit and Loading Analysis will be performed to calculate and verify energy savings.

Brief Description of Project Sites

The first project location is within the vicinity of Agueda Johnston Middle School (AJMS) campus. It is located in the village of Chalan Pago-Ordot and is a facility owned by the Guam Department of Education. More specifically, it is within L3396, as documented in the Guam Department of Land Management database. The property is addressed at 192 Dero Rd, Chalan Pago Ordot, 96910, Guam. Several buildings within the campus have been erected since the middle school was first established and opened in 1966, and are therefore older than 50 years

old; however, it is currently not listed in the National Register of Historic Places. Upon research, the Guam Power Authority has determined that the project activities at the AJMS project site will not affect historic properties.

The second project location is within the vicinity of Maria Ulloa Elementary School campus. It is located in the village of Dededo and is a facility owned by the Guam Department of Education. The Guam Department of Land Management data documents the project site as LT 10114-New-4. Its property address is 110 Catalina Lane, Dededo, GU 96929. Built in 1965, the erected buildings on school grounds are over 50 years of age. It is not currently listed in the National Register of Historic Places. Upon research, the Guam Power Authority has determined that activities at the project site will not affect historic properties.

According to the USEPA's Northern Guam Sole Source Aquifer Map, land occupied by Agueda Johnston Middle School and Maria Ulloa Elementary School are within Guam's groundwater Recharge Area.

There are no watersheds, no known wellheads, streams, lakes, ponds, marine waters, reef flats, pristine forest, and wetlands within the project sites. Both campuses do not fall in a critical habitat area recognized by the U.S. Fish and Wildlife.

Alterations to Buildings and Structures

Alterations to the buildings and structures within the project sites include removal of existing lighting equipment which will be replaced with LED lighting equipment. As needed, alterations to wiring of electrical connections may be performed. Furthermore, there will be no ground disturbance necessary for the completion of the subject projects. These alterations will not impact the building's architectural features or any features that make them architecturally and historically significant.

Enrollment Data

Recent enrollment data for 2011 through 2019

School	SY 11-12	SY 12-13	SY 13-14	SY 14-15	SY 15-16	SY 17-18	SY 18-19
AJMS	923	913	854	792	810	768	760
M.A.Ulloa	643	656	672	776	749	719	719

Sources:

<https://pacificnewscenter.com/guam-doe-official-enrollment-for-2013-14-school-year-31593/>
<https://sites.google.com/a/gdoe.net/rpe/home/official-student-enrollment>

Brief History

Established in 1966, George Washington Junior High School located in Chalan Pago-Ordot, was renamed to Agueda Iglesias Johnston Junior High School by Public Law 12-76, enacted on January 15, 1974. In 1982, when the Guam Department of Education established the middle school concept within the Department of Education school system, the school's name changed to Agueda Iglesias Johnston Middle School, as it is known today.

Established in 1965, Dededo Elementary School was renamed by law as Maria Arceo Ulloa Elementary School in 1968. The renaming was to honor Ulloa who served as an educator for more than half a century in Guam's northern schools.

Special Provisions

Fluorescent and HID lamps to be replaced may contain small amounts of mercury, which is classified as hazardous waste under the Resource Conservation and Recovery Act. Though it is unlikely, should the event occur that ballasts manufactured before 1979 are encountered for replacement, handling of PCB waste will be arranged accordingly. For all other lighting equipment, the proper disposal of bulbs and other lighting equipment will be arranged with an EPA-certified recycler or disposal party.

Flood Management

Agueda Johnston Middle School



Image 1 (above) is FEMA Flood Risk Map, Agueda Johnston Middle School perimeter in red

Maria Ulloa Elementary School Map



Image 2 (above) FEMA Flood Risk Map, Maria Ulloa Elementary School perimeter in red

Both project locations are within Zone X of the Floodplain Map. Areas within Zone X are determined by FEMA to be outside the 0.2% Annual Chance Floodplain. Maps clearly show there is no overlap in Zone A regions, which are special flood hazard areas subject to inundation by the 1% Annual Chance Floodplain.

Points of Contact

For any questions or concerns regarding these grant projects, please contact the following

Jennifer Sablan, P.E.

Strategic Planning & Operations Research Manager
(671)-483-3103

Jessica T. Lazatin

Strategic Planning & Operations Research
Engineer I
(671)-300-8334 | (671)-787-0600

GUAM ENVIRONMENTAL PROTECTION AGENCY (GEPA)
ENVIRONMENTAL IMPACT ASSESSMENT (SHORT FORM)
October 1999

GEPA has developed this EIA form for use by developers proposing projects or land use activities which may pose only insignificant environmental impacts. This form is provided as an alternative to the EIA standard format provided to satisfy the requirements of Executive Order 96-26. If potential environmental impacts and issues are assessed or determined to be significant either by the applicant or GEPA, a more detailed EIA may be required including a thorough presentation and discussion of alternatives as required by the *Guidelines for the Preparation of Environmental Impact Assessments and Statements* (GEPA October 1999).

This EIA format constitutes the minimum necessary assessment and disclosure of potential impacts for a project. This form may also be used as a preliminary scoping guide or checklist in consultation with the Agency.

Case No: _____

Project Title: Agueda Johnston Middle School LED Lighting Retrofit

1. Name, address and business telephone of applicant: Guam Power Authority
PO Box 2977, Hagatna, GU 96932; Phone (671) 648-3000

2. Name, title and telephone number of representative: John J. Cruz, Assistant General
Manager, Engineering and Technical Services, (671) 648-3000

3. Name, title and telephone number of EIA document preparer _____
Jessica T. Lazatin, Engineer I, (671) 300-8334

4. Location of the proposed project: (include tract, block, lot, municipality and a location map) Lot 3396 Chalan Pago-Ordot

5. Describe the general nature or type of proposed project: The project will include
on-site energy audits and mobilization of lighting equipment. The installation of LED or high
efficiency lighting will replace older lighting equipment. All equipment to be replaced will
be properly disposed.

6. Are the following critical environmental factors affected by the proposed project? If yes, describe the impact and state why it would not be significant. If not affected, provide reasons why. If more space is required refer to and attach additional sheets.

a. Groundwater recharge area: USEPA Map Northern Guam Sole Source Aquifer Map highlight land occupied by Agueda Johnston Middle School as being within Guam's Groundwater Recharge Area; However, since scope of project activities are solely for lighting retrofit & equipment disposal, no critical impacts to environment will be posed.

b. Watersheds: None

c. Wellhead protection zone: There are no known wellheads within the project site

d. Streams, lakes or ponds: None

e. Marine waters: There are no marine waters within the project area.

f. Reef flats: There are no reef flats within the project area

g. Pristine forest: There are no known protected forest areas within the project site.

h. Critical habitat area: There are no known listed critical habitats within the project area.

i. Wetlands: None

j. Flood hazard area: There are no known flood areas within the project site.

k. Archaeological feature(s) or historical sites: Nothing noted at this time.

7. Will the project result in any of the following environmental or infrastructure impacts?

a. Production of toxic or hazardous waste: Fluorescent and HID lamps to be replaced may contain trace amounts of mercury, which is classified as hazardous waste under the Resource Conservation and Recovery Act. Ballasts older than 1979 may contain PCB's. The proper disposal of bulbs will be included in project activities.

b. Dislocation of existing businesses, residents or public areas: The site is a middle school campus, but the activities of the project will not dislocate students and staff. It is the intention of GPA to perform lighting replacements during summer or after-school hours when classes are not in session.

c. Production of air contaminants (temporary or permanent): No air contaminants will be produced by the lighting retrofit project.

8. Will the project require an increase in the requirements for any of the following public services (provide estimated quantities or volumes)? If answering yes to any of these items you must describe how the impact affects current infrastructure capacity. In addition, if the applicant/developer proposes contributions or mitigation to offset impacts, describe the contribution or mitigation.

a. Drinking water: No

Short Form, page 4.

b. Sewage disposal (public system) :No

c. Vehicle traffic:No

9. Will clearing and/or grading be required (include the number of acres and a general description of site soil and slope conditions):

No

10. Will the project utilize an individual waste water disposal system such as septic tank/leaching field system, secondary package treatment system..etc.?) None

11. Will the project include the use of above or below ground storage tanks for fuel or water? No

12. Does the project require permitting, land resources, financial aid or other assistance from the federal government (please provide type of permit, issuing agency, application dates, and contact person) ?

The project is funded through Federal Department of Interior Grant under its Energizing Insular Communities Program. There are no expected permitting requirements for the lighting retrofit activities under this project.

Short Form, page 5.

13. Does the project include any special or unique features that are not covered above? None

If preliminary construction drawing, site plans, or related documents are available please provide such as attachments. For more information and assistance you may call GEPA Environmental Planning & Review Division at 475-1662/3

DECLARATION BY APPLICANT

Based on this assessment, it is reasonable to expect that this project will not result in significant adverse environmental impacts. I/we hereby declare a "finding of no significant impact".



for Applicant (signature)

1-3-2020
Date

Providing false or misleading information in this assessment may constitute grounds for permit and EIA suspension or disapproval until such time as the applicant or document preparer makes all appropriate amendments or corrections as required by Guam EPA. Statements made in this form are binding for the purpose of environmental protection and the preparer and/or applicant is responsible for the timely implementation of protection and mitigation measures identified. Failure to fulfill stated avoidance, minimization or mitigation measures may also constitute grounds for Agency enforcement actions to the full extent of all applicable environmental regulations and statutes.

**GUAM ENVIRONMENTAL PROTECTION AGENCY (GEPA)
ENVIRONMENTAL IMPACT ASSESSMENT (SHORT FORM)**

October 1999

GEPA has developed this EIA form for use by developers proposing projects or land use activities which may pose only insignificant environmental impacts. This form is provided as an alternative to the EIA standard format provided to satisfy the requirements of Executive Order 96-26. If potential environmental impacts and issues are assessed or determined to be significant either by the applicant or GEPA, a more detailed EIA may be required including a thorough presentation and discussion of alternatives as required by the *Guidelines for the Preparation of Environmental Impact Assessments and Statements* (GEPA October 1999).

This EIA format constitutes the minimum necessary assessment and disclosure of potential impacts for a project. This form may also be used as a preliminary scoping guide or checklist in consultation with the Agency.

Case No: _____

Project Title: Maria Ulloa Elementary School LED Lighting Retrofit

1. Name, address and business telephone of applicant: Guam Power Authority
PO Box 2977, Hagatna, GU 96932; Phone (671) 648-3000

2. Name, title and telephone number of representative: John J. Cruz, Assistant General
Manager, Engineering and Technical Services, (671) 648-3000

3. Name, title and telephone number of EIA document preparer _____
Jessica T. Lazatin, Engineer I, (671) 300-8334

4. Location of the proposed project: (include tract, block, lot, municipality and a location map) Lot 10114-New-4 Dededo

5. Describe the general nature or type of proposed project: The project will include
on-site energy audits and mobilization of lighting equipment. The installation of LED or high
efficiency lighting will replace older lighting equipment. All equipment to be replaced will
be properly disposed.

6. Are the following critical environmental factors affected by the proposed project? If yes, describe the impact and state why it would not be significant. If not affected, provide reasons why. If more space is required refer to and attach additional sheets.

a. Groundwater recharge area: USEPA Map Northern Guam Sole Source Aquifer Map highlight land occupied by Maria Ulloa Elementary School as being within Guam's Groundwater Recharge Area; However, since scope of project activities are solely for lighting retrofit & equipment disposal, no critical impacts to environment will be posed.

b. Watersheds: None

c. Wellhead protection zone: There are no known wellheads within the project site

d. Streams, lakes or ponds: None

e. Marine waters: There are no marine waters within the project area.

f. Reef flats: There are no reef flats within the project area

g. Pristine forest: There are no known protected forest areas within the project site.

h. Critical habitat area: There are no known listed critical habitats within the project area.

i. Wetlands: None

j. Flood hazard area: There are no known flood areas within the project site.

k. Archaeological feature(s) or historical sites: Nothing noted at this time.

7. Will the project result in any of the following environmental or infrastructure impacts?

a. Production of toxic or hazardous waste: Fluorescent and HID lamps to be replaced may contain trace amounts of mercury, which is classified as hazardous waste under the Resource Conservation and Recovery Act. Ballasts older than 1979 may contain PCB's. The proper disposal of bulbs will be included in project activities.

b. Dislocation of existing businesses, residents or public areas: The site is an elementary school campus, but the activities of the project will not dislocate students and staff. It is the intention of GPA to perform lighting replacements during summer or after-school hours when classes are not in session.

c. Production of air contaminants (temporary or permanent): No air contaminants will be produced by the lighting retrofit project.

8. Will the project require an increase in the requirements for any of the following public services (provide estimated quantities or volumes)? If answering yes to any of these items you must describe how the impact affects current infrastructure capacity. In addition, if the applicant/developer proposes contributions or mitigation to offset impacts, describe the contribution or mitigation.

a. Drinking water: No

b. Sewage disposal (public system) : No

c. Vehicle traffic: No

9. Will clearing and/or grading be required (include the number of acres and a general description of site soil and slope conditions):

No

10. Will the project utilize an individual waste water disposal system such as septic tank/leaching field system, secondary package treatment system..etc.?) None

11. Will the project include the use of above or below ground storage tanks for fuel or water? No

12. Does the project require permitting, land resources, financial aid or other assistance from the federal government (please provide type of permit, issuing agency, application dates, and contact person) ?

The project is funded through Federal Department of Interior Grant under its Energizing Insular Communities Program. There are no expected permitting requirements for the lighting retrofit activities under this project.

Short Form, page 5.

13. Does the project include any special or unique features that are not covered above? None

If preliminary construction drawing, site plans, or related documents are available please provide such as attachments. For more information and assistance you may call GEPA Environmental Planning & Review Division at 475-1662/3

DECLARATION BY APPLICANT

Based on this assessment, it is reasonable to expect that this project will not result in significant adverse environmental impacts. I/we hereby declare a "finding of no significant impact".


Applicant (signature)

1-3-2020
Date

Providing false or misleading information in this assessment may constitute grounds for permit and EIA suspension or disapproval until such time as the applicant or document preparer makes all appropriate amendments or corrections as required by Guam EPA. Statements made in this form are binding for the purpose of environmental protection and the preparer and/or applicant is responsible for the timely implementation of protection and mitigation measures identified. Failure to fulfill stated avoidance, minimization or mitigation measures may also constitute grounds for Agency enforcement actions to the full extent of all applicable environmental regulations and statutes.