



Commonwealth Utilities Corporation



REQUEST FOR PROPOSALS

CUC-RFP-25-021

Independent Power Producer-Solar Photovoltaic with Battery Energy Storage System (BESS) for all Islands, CNMI

QUESTION (RFI/C) No. 003: Martech Services, Inc.

Date: September 9, 2025

CUC provides the following responses to the Request for Information/Clarification (RFI/C):

1. Unable to determine where Naftan, Kalabera are in appendix D, Need boundary survey information and coordinate for each potential site.

CUC RESPONSE: Refer to the CUC RFI/C No. 002 item no. 3 response for the Kalabera, Saipan map. All land inquiries should be directed at the Department of Public Lands Secretary, Mr. Sixto Igisomar.

2. In Table 1.2, regarding the 60MW PV capacity for Saipan Solar, is it mandatory to divide the capacity between the Naftan area and the Kalabera area, or can the bidder propose installation in only one of the two areas? Additionally, if the capacity is divided, can the bidder propose different capacities for each area at their own discretion?

CUC RESPONSE: It is not mandatory to divide the capacity between the Naftan area and the Kalabera area. The proponent can propose installation in a location that is not the provided public land area provided they meet the minimum requirements of the RFP for solar PV with BESS.

3. CUC does not provide separate values for input parameters related to irradiation and albedo. Can the bidder apply assumed values at their own discretion?

CUC RESPONSE: Refer to Attachment: CNMI Strategic Energy Plan: [cnmi-strategic-energy-plan-book-2023-2028.pdf](#) pages 24-25, Section 6.4.1 Analysis, Table 9: Solar Contribution of Solar Thermal Water Heating and Global Horizontal Irradiance (GHI).

4. As stated in Section 7.9, the interconnection point will be determined through system integration studies after contract execution, making it practically impossible to identify the



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interconnection point or accurately estimate related costs at the bidding stage. However, Section 7.13 specifies that the bidder is responsible for and must include the costs required for system integration. Should "system integration" be interpreted as including not only electrical interconnection facilities but also communication lines and devices for system communication, or should it be limited only to communication lines and devices of system communication?

CUC RESPONSE: The system integration should include the electrical interconnection facilities, communication lines and devices for system communication.

- 5. Please double-check that the numbers in the table are correct.

Frequency range (Hz)	Operating mode	Minimum time (s)
$f > 65$	No ride-through requirements apply to this range	
$63.0 < f \leq 65.0$	Mandatory operation	299
$57.0 \leq f \leq 63.0$	Continuous operation	Infinite
$50.0 \leq f < 57.0$	Mandatory operation	299
$f < 50.0$	No ride-through requirements apply to this range	

In Korea, according to the grid code, when the system frequency deviates from the allowable range, the inverter is required to trip within 0.16 to 1 second.

If the inverter waits longer than this, it may cause problems in the transmission system. Therefore, inverters used in Korea are all designed to meet this requirement, and there are no products that can wait longer than one second. How should we interpret this difference between the Korean grid code and the ride-through requirements specified in the RFP?

CUC RESPONSE: CUC will require that all inverters have the capability as stated in the Table on page 24, Section 7.10 of the RFP. These requirements are designed for the stability of island power systems, for which frequency varies over a wider range than on large power systems such as Korea's.

- 6. Need to examine whether all existing Diesel generators can accommodate a grid controller and for this we need information from the generators. Who will install the existing (including IPP) diesel generators for Grid controller system?

CUC RESPONSE: The bidder shall be responsible for connecting existing generation to the grid controller system. Please submit a request for the existing diesel generator information and specify which islands (Saipan, Tinian and/or Rota).



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7. Based on KEPCO's project experience, implementation of plant-level control for PV+BESS may require adjustment of control parameters (e.g., AVR, AGC) of CUC's diesel generators. Please advise whether authorization for such control adjustments can be granted, and if so, the applicable scope and procedures.

CUC RESPONSE: Adjustment of control parameters will be permitted in coordination with CUC based on demonstrated need. The procedures for parameter adjustment are specific to each generator and can be shared upon big selection. The scope of parameter adjustment shall be as needed to integrate the grid controller with the generation resources.

8. Please confirm whether private diesel generation facilities are included within the scope of Grid Control integration. If so, will CUC secure the necessary control rights (via contract/agreement) for such facilities and subsequently delegate them to the successful bidder?

CUC RESPONSE: The private diesel generation facilities are included within the scope of Grid Control integration (i.e. Aggreko). However, the successful bidder will have no control rights for such facilities.

9. Please double-check that the unit in the table is correct.


7.15 Resiliency Requirements

The CNMI has experienced typhoon forced winds within the past decade. As an added measure of resiliency, proponent(s) must include in their technical proposal a resiliency clause to design the Solar PV with BESS system infrastructure to withstand 210-250 mph winds.

CUC RESPONSE: Miles per Hour (mph) is the correct unit.

10. The RFP includes Feeder Locations – can CUC provide 24 hours profile of each feeder and amp capacity for each feeder?

CUC RESPONSE: Refer to RFI No. 1 response to item no. 1 and 2.


KEVIN O. WATSON, MPA
Executive Director

*** END OF RESPONSE TO RFI/C No. 3***



Attachment for RFI No. 004 Item No. 3

CNMI Strategic Energy Plan: [cnmi-strategic-energy-plan-book-2023-2028.pdf](#) pages 24-25, Section 6.4.1 Analysis, Table 9: Solar Contribution of Solar Thermal Water Heating and Global Horizontal Irradiance (GHI).

6.4.1 Analysis

A preliminary assessment of the existing solar thermal market in Australia shows that solar thermal water heating technology can be effectively utilized provided appropriate levels of solar irradiance is present. The solar contribution to water heating is assessed against global horizontal irradiance for key locations around Australia in Table 9. The table also shows predicted contributions at residential locations in CNMI.

Table 9. Solar Contribution of Solar Thermal Water Heating and GHI

Location	GHI	Solar Contribution (%)
Perth, WA	1957	77.50
Darwin, NT	2096	92.50
Cairns, QLD	1951	82.50

²⁷ Based on local vendor quotation, price inclusive of ITC credit

²⁸ U.S. Department of Energy, Energy Transitions Initiative, Commonwealth of the Northern Mariana Islands Energy Snapshot (June 2020), p. 1

²⁹ News, U., 2022. Refrigerators, electric devices top energy use in Hawai'i households | University of Hawai'i System News. [online] University of Hawai'i System News. Available at: <https://www.hawaii.edu/news/2021/10/01/energy-use-in-hawaii-households/>

³⁰ LFP Housing Characteristics 2017 By Hot and Cold Water in Unit and Hot Water Energy Type - Department of Commerce – Commonwealth of the Northern Mariana Islands (CNMI) (cnmicommerce.com)

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Location	GHI	Solar Contribution (%)
Brisbane, QLD	1787	77.50
Sydney, NSW	1620	67.50
Canberra, ACT	1749	62.50
Melbourne, VIC	1507	60.00
Hobart, TAS	1356	52.50
Adelaide, SA	1760	67.50
Saipan	2090	87.93
Tinian	2111	88.97
Rota	2045	85.68

The average GHI (Global Horizontal Irradiance) for the CNMI is on the higher end compared to ideal locations in Australia for potential solar contribution to solar thermal heating.

Figure 11 shows that the annual radiation and clearness index for Saipan is consistent year-round. Clearness index is measure of clearness of the atmosphere. It is the fraction of the solar radiation that is transmitted through the atmosphere to strike the surface of the Earth and is on a scale between 0 and 1. The clearness index remains stable year-round in the CNMI.