

I Mina'trentai Sais Na Liheslaturan Guåhan
BILL STATUS

BILL NO.	SPONSOR	TITLE	DATE INTRODUCED	DATE REFERRED	CMTE REFERRED	PUBLIC HEARING DATE	DATE COMMITTEE REPORT FILED	FISCAL NOTES	NOTES
351-36 (COR)	Clynton E. Ridgell Joe S. San Agustin Tina Rose Muña Barnes Jose "Pedro" Terlaje Amanda L. Shelton Sabina Flores Perez	AN ACT TO ADD A NEW ARTICLE 6 TO CHAPTER 8 OF TITLE 12, GUAM CODE ANNOTATED, RELATIVE TO CREATING A VIRTUAL POWER PLANT PROGRAM.	11/1/22 11:17 a.m.						

I MINA'TRENTAI SAIS NA LIHESLATURAN GUÅHAN
2022 (SECOND) Regular Session

Bill No. 351-36 (COR)

Introduced by:

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**AN ACT TO ADD A NEW ARTICLE 6 TO CHAPTER 8 OF
TITLE 12, GUAM CODE ANNOTATED, RELATIVE TO
CREATING A VIRTUAL POWER PLANT PROGRAM.**

BE IT ENACTED BY THE PEOPLE OF GUAM:

Section 1. A new Article 6 is hereby *added* to Chapter 8 of Title 12, Guam Code Annotated, to read as follows:

"Article 6

VIRTUAL POWER PLANT PROGRAM

"§ 8601. Legislative Findings and Intent. *I Liheslaturan Guåhan* recognizes that Guam's reliance on imported fossil fuels causes the island to be vulnerable to volatile oil prices. On average, nearly seventy percent of a ratepayer's power bill is attributed to the cost of fuel that is driven by the global oil market.

I Liheslatura further finds that over the past decade, the prevalence of renewable energy opportunities (e.g., solar photovoltaic systems) has been helpful with lowering the cost of utility bills to residents and businesses who could afford such investment. The Guam Power Authority (GPA) has added over 125 megawatts (MW) of utility-scale renewable energy and energy storage from solar farms in *Inalåhan* and *Mangilao*, and strategically placed battery energy storage systems. GPA's 2022 *Integrated Resource Plan* anticipates over 180+ MW in additional renewable energy projects.

I Liheslatura further finds that both the National Renewable Energy Laboratory and the GPA have asserted that solar energy is currently the most viable form of renewable energy for Guam. Renewable energy is currently cheaper than power produced by fossil fuels and its cost is far less volatile than the fossil fuel industry, despite intermittency concerns. The use of renewable energy reduces the fuel costs for power production which should in turn reduce the cost of power bills. The

1 island's need for an efficient, affordable and independent fuel supply for power production can be met
2 with renewable energy.

3 *I Liheslatura* finds that utilizing qualified rooftops on Guam presents solutions to Guam's
4 limited land inventory. Rooftop solar systems reduce the need for land while utilizing spaces that are
5 currently not being utilized.

6 *I Liheslatura* finds that rooftop solar systems provide an opportunity to develop distributed
7 generation or decentralized power, whereby the power generated for the energy grid comes from
8 numerous sources distributed across the grid rather than from centralized power plants or solar farms.
9 Distributed generation may reduce the costs of transmission and line loss while improving both the
10 efficiency and resiliency of the energy grid as a whole.

11 *I Liheslatura* finds that the only rooftop solar program currently available through GPA is the
12 Net Energy Metering (NEM) program. However, GPA and the Consolidated Commission on Utilities
13 (CCU) have asserted that the NEM program is cost prohibitive for the utility. The NEM program
14 allows homeowners and businesses to produce energy via rooftop solar systems. Excess energy
15 produced by NEM customers is fed back into the energy grid. The NEM customer is then credited on
16 a one-to-one ratio based on the net energy they produce. GPA and the CCU have asserted that this
17 amounts to the power authority purchasing solar power from homeowners at the same rate at which
18 they sell power to other customers, while the cost of energy acquired through current utility-scale solar
19 contracts are significantly less expensive.

20 *I Liheslatura* finds that a Virtual Power Plant Program provides an alternative rooftop solar
21 program that addresses the challenges of the NEM program while promoting more accessible,
22 affordable, clean renewable energy. In this way GPA is able to structure the Virtual Power Plant
23 rooftop solar program in a manner that generates cheaper and cleaner power for the grid, maintains
24 the stream of revenues necessary for the operations of the overall energy grid, broadens the access of
25 renewable energy to ratepayers, lessens its reliance on imported fossil fuels, lessens the need for land,
26 lowers utility bills, and works toward Guam's overall renewable energy goal. This program adds
27 renewable energy to the grid through a distributed generation model with no cost to homeowners and
28 zero upfront cost to the utility while decreasing the overall cost of fuel thus decreasing rates for all
29 customers. A Virtual Power Plant Program enables GPA to manage the energy produced through a
30 network of Solar Hosts with rooftop solar photovoltaic systems and battery energy storage systems as
31 if the network was itself a power plant.

1 It is, therefore, the intent of *I Liheslatura* to mandate that the GPA establish a Virtual Power
2 Plant Program for the purpose of providing clean renewable distributed generation of energy to
3 advance the Renewable Portfolio Standard.

4 Moreover, it is the intent of *I Liheslatura*:

5 (a) to create a Virtual Power Plant Program

6 (b) to provide access to qualified homeowners, businesses, government agencies and non-
7 profit organizations who wish to participate as *solar hosts* of rooftop solar photovoltaic systems;(c)
8 for GPA to achieve its renewable portfolio standards goals pursuant to § 8311 of this Title;

9 (d) to stimulate job growth and economic development in the local renewable energy
10 industry

11 (e) to reduce Guam's reliance on imported fuel

12 (f) to reduce fuel costs thus creating greater savings to all utility customers.

13 (g) to add energy security and resiliency to the Guam's power grid

14 **§ 8602. Definitions.**

15 (a) 'Virtual Power Plant Program (VPPP)' means a network of distributed energy resources
16 (DER), such as rooftop solar photovoltaic systems and battery energy storage systems that are hosted
17 on the rooftops of eligible homeowners, businesses, government agencies and non-profit
18 organizations, to generate and store electricity at a local level. This network of Solar Hosts is
19 contracted through a Developer and managed by GPA through aggregation software that can control
20 the production, storage, and output of energy from these systems as if this network of rooftop solar
21 systems and battery energy storage systems were a single power plant.

22 (b) 'Solar Host' means a qualified homeowner, business owner, government of Guam
23 agency or non-profit organization whose house, commercial building, or government-owned building
24 at which the electricity-generating and energy storage equipment is installed, owned, operated, and
25 maintained by the Developer and who is not a current customer-generator under the Net Metering
26 System. The Solar Host is then compensated for leasing their rooftop space through credits that are
27 awarded to offset or reduce their power bill or direct lease payments from Developer. The energy
28 generated by the developer will be sold to the utility at a negotiated rate between the utility and the
29 Developer.

1 (c) ‘Solar Photovoltaic System’ means technology and equipment that converts sunlight
2 into electricity to include but not limited to panels, inverters, mounting, and batteries and storage
3 systems.

4 (d) ‘Developer’ means a licensed solar development business that is owned and operated
5 by legal residents of Guam who have maintained continuous legal residential address or addresses on
6 Guam for a period of no fewer than five (5) years prior to application with the utility as the Developer.

7 (e) ‘Utility’ means the Guam Power Authority.

8 **§ 8603. Virtual Power Plant Program.** The Guam Power Authority (GPA), shall
9 establish a Virtual Power Plant Program (VPPP) within nine (9) months of enactment or 90 days after
10 approval by the Guam Public Utilities Commission (PUC), pursuant to § 8311 of this Title, whereby
11 qualified businesses, homeowners, government of Guam agencies, and non-profit organizations are
12 able to host a solar photovoltaic system on their rooftop and battery energy storage systems.
13 Government of Guam-owned buildings shall be the first preference to be Solar Hosts. Developers must
14 provide battery energy storage system capacity necessary to address intermittency and power quality
15 issues. The VPPP shall initially be capped at 20 MW of participation, at which time GPA shall assess
16 the impact on the island-wide power system, ratepayers, reliability, and feasibility for an expanded
17 VPPP. Additional VPPP phases and terms of such, including contract agreement and program capacity
18 ceilings, must be approved by the PUC. The VPPP shall also include the software and computers
19 necessary to manage the production, storage, and output of electricity generated by the network of
20 Solar Hosts in the Virtual Power Plant Program.

21 GPA, shall enter into agreement(s) with solar energy developers for the installation, ownership,
22 maintenance, and operation of equipment necessary to create a Virtual Power Plant Program as defined
23 in in § 8602(a) provided for use on qualified rooftops for electricity generated and sold to the utility
24 and to be used by the community.

25 **§ 8604. Eligibility.** The utility and Developers must establish eligibility criteria for
26 solar hosts to include, but not be limited to, assessments on roof types, solar quality, and other elements
27 required for full implementation of the VPPP for participating solar hosts.

28 **§ 8605. Solar Host Credit Rate.** Solar hosts shall receive a credit on their electricity
29 bill or otherwise compensated by GPA or Developer for the use of their rooftops. The exact amount
30 or rate of this solar host credit is to be determined by GPA with approval by the PUC.

31 **Section 2. Effective Date.** This Act shall be effective upon enactment.

1 **Section 3. Severability.** If a provision of this act or its application to any person or
2 circumstance is held invalid, the invalidity does not affect other provisions or applications of the act
3 that can be given effect without the invalid provision or application, and to this end the provisions of
4 this act are severable.