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 "Pedo" 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.	11/1/22	Committee on Economic Development, Agriculture, Power and Energy Utilities, and the Arts	11/18/22 9:00 a.m.	12/6/22 3:51 p.m. As amended by the Committee on Economic Development, Agriculture, Power and Energy Utilities, and the Arts	Request: 11/3/22 11/9/22	

SESSION DATE	TITLE	DATE PASSED	TRANSMITTED	DUE DATE	PUBLIC LAW NO.	LAPSED	NOTES
12/2/22	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.	12/16/22	12/16/22	12/28/22	36-137	12/28/22	Received: 12/29/22 Mess and Comm. Doc. No. 36GL-22-2940

LOURDES A. LEON GUERRERO
GOVERNOR

JOSHUA F. TENORIO
LT. GOVERNOR

UFISINAN I MAGA'HÅGAN GUÅHAN
OFFICE OF THE GOVERNOR OF GUAM

Transmitted via email to: speaker@guamlegislature.org

December 28, 2022

Doc Type: 36GL-22-2940
OFFICE OF THE SPEAKER
THERESE M. TERLAJE
-12- 28 2022
Time: 6:04pm
Received:

HONORABLE THERESE M. TERLAJE
Speaker
I Mina'trentai Sais Na Liheslaturan Guåhan
36th Guam Legislature
Guam Congress Building
163 Chalan Santo Papa
Hagåtña, Guam 96910

Re: BILL NO. 351-36 (COR) - 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

Hafa Adai Madame Speaker,

Guam residential electricity costs are twice the U.S. average, and our energy grid still heavily relies on imported fossil fuels to generate electricity. In an effort to reduce carbon emissions and costs from traditional resources, many jurisdictions have developed and implemented Virtual Power Plants ("VPP"). VPPs are a network of distributed resources, such as solar panels and battery storage systems, that are installed on the roof of an eligible "Solar Host" to electricity generation and storage. Bill No. 351-36 seeks to establish a Virtual Power Plant Program ("VPPP" or "Program") for Guam.

VPP business models vary, ranging from complete utility ownership to utility models allowing much more third-party innovation and development. Bill No. 351-36 contemplates a model that involves three entities: a public utility (GPA), a private business (Developer), and a qualified customer (Solar Host). GPA would enter a contract with a Developer to install and operate necessary equipment on the Solar Host's rooftop. The Developer would, at a minimum, install electricity-generating and energy-storage equipment. The Developer would own and operate the equipment, but lease the Solar Host's rooftop space to use the equipment, and generate and store energy. The Solar Host would receive credit or compensation for leasing their rooftop space to generate energy. However, only the Developer would be authorized to sell the energy to GPA, which in turn would sell the electricity back to the community.

In signing Bill No. 351-36 into law as ***Public Law No. 36-137***, I note that, while this concept holds promise to support Guam's clean energy transition, there may be opportunities to make the Program more open and inclusive. For instance, the Program may be expanded to allow individuals

or non-Developers who install solar panels and batteries onto their roof to participate and sell energy directly to GPA. Currently, Bill No. 351-36 limits participation as an installer and seller to a "Developer," a term that is defined as "a licensed solar development business that is owned and operated by a legal resident of Guam." Bill No. 351-36 contemplates an "expanded VPPP" later, and until then, I encourage the Guam Legislature and our agencies to explore VPPP models that enhance opportunity and inclusivity.

Senseremente,

LOURDES A. LEON GUERRERO
Maga'hågan Guåhan
Governor of Guam

Enclosure: Bill No. 351-36 (COR) nka *P.L. No. 36-137*

cc via email: *Honorable* Joshua F. Tenorio, *Sigundo Maga'låhen Guåhan*, Lt. Governor of Guam
Compiler of Laws

RECEIVED
DEC 29 2022
2:53 P.M.
COMMITTEE ON RULES

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

CERTIFICATION OF PASSAGE OF AN ACT TO *I MAGA'HÅGAN GUÅHAN*

This is to certify that **Bill No. 351-36 (COR), "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,"** was on the 16th day of December 2022, duly and regularly passed.

Therese M. Terlaje

Therese M. Terlaje
Speaker

Attested:

Amanda L. Shelton

Amanda L. Shelton
Legislative Secretary

This Act was received by *I Maga'hågan Guåhan* this 16TH day of Dec, 2022, at 10:06 o'clock P .M.

POS C C Chong 562

Assistant Staff Officer
Maga'håga's Office

APPROVED:

Lou Leon Guerrero

Lourdes A. Leon Guerrero
I Maga'hågan Guåhan

Date: 12/28/2022

Public Law No. 36-137

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

Bill No. 351-36 (COR)
As amended by the Committee on Economic Development, Agriculture, Power and Energy Utilities, and the Arts; and further amended on the Floor.

Introduced by: Clynton E. Ridgell
Joe. S. San Agustin
Tina Rose Muña Barnes
Jose "Pedo" Terlaje
Amanda L. Shelton
Sabina Flores Perez
V. Anthony Ada
Frank Blas Jr.
Joanne Brown
Christopher M. Dueñas
James C. Moylan
Telena Cruz Nelson
Telo T. Taitague
Therese M. Terlaje
Mary Camacho Torres

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 (70%) 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 one hundred twenty-five megawatts (125 MW) of utility-scale renewable energy and energy storage from solar farms in *Inalåhan* and *Mangilao*, and strategically placed battery energy storage systems; and GPA's *2022 Integrated Resource Plan* anticipates over one hundred eighty megawatts (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; and the island's need for an efficient, affordable and independent fuel supply for power production can be met with renewable energy.

I Liheslatura finds that utilizing qualified rooftops on Guam presents solutions to Guam's limited land inventory; and rooftop solar systems reduce the need for land while utilizing spaces that are currently not being utilized.

I Liheslatura finds that rooftop solar systems provide an opportunity to develop distributed generation or decentralized power, whereby the power generated for the energy grid comes from numerous sources distributed across the grid rather than from centralized power plants or solar farms. Distributed generation may reduce

the costs of transmission and line loss while improving both the efficiency and resiliency of the energy grid as a whole.

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

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

It is, therefore, the intent of *I Liheslatura* to mandate that the GPA establish a Virtual Power Plant Program for the purpose of providing clean renewable distributed generation of energy to advance the renewable portfolio standard.

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

(a) to create a Virtual Power Plant Program;

(b) to provide access to qualified homeowners, businesses, government agencies and non-profit organizations who wish to participate as Solar Hosts of rooftop solar photovoltaic systems;

(c) for GPA to achieve its renewable portfolio standards goals pursuant to § 8311 of Article 3 of this Title;

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

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

(f) to reduce fuel costs thus creating greater savings to all utility customers; and

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

§ 8602. Definitions.

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

(b) *Solar Host* means a qualified homeowner, business owner, government of Guam agency or non-profit organization whose house, commercial building, or

government-owned building at which the electricity-generating and energy storage equipment is installed, owned, operated, and maintained by the Developer and who is not a current customer-generator under the Net Metering System. The Solar Host is then compensated for leasing their rooftop space through credits that are awarded to offset or reduce their power bill or direct lease payments from the Developer. The energy generated by the Developer will be sold to the utility at a negotiated rate between the utility and the Developer.

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

(d) *Developer* means a licensed solar development business that is owned and operated by a legal resident of Guam.

(e) *Utility* means the Guam Power Authority.

§ 8603. Virtual Power Plant Program.

The Guam Power Authority (GPA) shall establish a Virtual Power Plant Program (VPPP) within nine (9) months of enactment of this Article and approval by the Guam Public Utilities Commission (PUC), or ninety (90) days after approval by the Guam Public Utilities Commission (PUC) whichever is earlier, pursuant to § 8311 of Article 3 of this Title, whereby qualified businesses, homeowners, government of Guam agencies, and non-profit organizations are able to host a solar photovoltaic system on their rooftop and battery energy storage systems; and government of Guam-owned buildings shall be the first preference to be Solar Hosts. Developers must provide battery energy storage system capacity necessary to address intermittency and power quality issues. The VPPP shall initially be capped at twenty megawatts (20 MW) of participation, at which time GPA shall assess the impact on the island-wide power system, ratepayers, reliability, and feasibility for an expanded VPPP. Additional VPPP phases and the terms of such, including

contract agreement and program capacity ceilings, must be approved by the PUC. The VPPP shall also include the software and computers necessary to manage the production, storage, and output of electricity generated by the network of Solar Hosts in the Virtual Power Plant Program.

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

§ 8604. Eligibility.

The utility and Developers must establish eligibility criteria for Solar Hosts to include, but not be limited to, assessments on roof types, solar quality, and other elements required for full implementation of the VPPP for participating Solar Hosts.

§ 8605. Solar Host Credit Rate.

Solar Hosts shall receive a credit on their electricity bill or otherwise compensated by GPA or the Developer for the use of their rooftops. The exact amount or rate of this Solar Host credit is to be determined by GPA with approval by the PUC."

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

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