

*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.	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.	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](mailto:speaker@guamlegislature.org)**

December 28, 2022

Doc Type: 36GL-22-2940  
OFFICE OF THE SPEAKER  
THERESE M. TERLAJE

**HONORABLE THERESE M. TERLAJE**

*Speaker*

*I Mina'trentai Sais Na Liheslaturan Guåhan*

36<sup>th</sup> Guam Legislature

Guam Congress Building

163 Chalan Santo Papa

Hagåtña, Guam 96910

-12- 28 2022

Time: 6:04pm  
Received: [Signature]

**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

To: Speaker Terlaje  
Fr: Governor of Guam  
Date: December 28, 2022  
Re: Bill No. 351-36 (COR)

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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,*

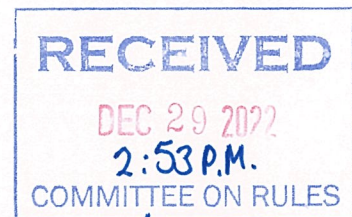
**LOURDES A. LEON GUERRERO**

*Maga'hågan Guåhan*

Governor of Guam

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

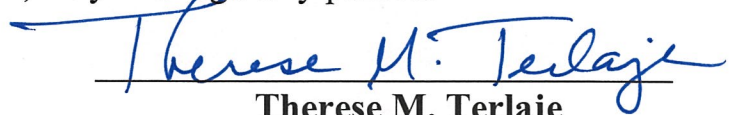
cc via email: *Honorable Joshua F. Tenorio, Sigundo Maga'låhen Guåhan*, Lt. Governor of Guam  
Compiler of Laws



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

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

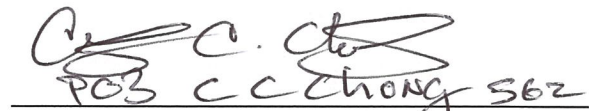
This is to certify that **Bill No. 351-36 (COR)**, “AN ACT TO *ADD A NEW ARTICLE 6 TO CHAPTER 8 OF TITLE 12, GUAM CODE ANNOTATED, RELATIVE TO CREATING A VIRTUAL POWER PLANT PROGRAM,*” was on the 16<sup>th</sup> day of December 2022, duly and regularly passed.

  
Therese M. Terlaje  
Speaker


Attested:

  
Amanda L. Shelton  
Legislative Secretary

-----  
This Act was received by *I Maga'hågan Guåhan* this 16<sup>th</sup> day of Dec,  
2022, at 10:06 o'clock P.M.

  
C. C. Chong  
Assistant Staff Officer  
*Maga'håga's Office*

APPROVED:

  
Lourdes A. Leon Guerrero  
*I Maga'hågan Guåhan*

Date: 12/28/2022

Public Law No. 36-137



1            *I Liheslaturan Guåhan* recognizes that Guam’s reliance on imported fossil  
2 fuels causes the island to be vulnerable to volatile oil prices. On average, nearly  
3 seventy percent (70%) of a ratepayer’s power bill is attributed to the cost of fuel that  
4 is driven by the global oil market.

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

13            *I Liheslatura* further finds that both the National Renewable Energy  
14 Laboratory and the GPA have asserted that solar energy is currently the most viable  
15 form of renewable energy for Guam. Renewable energy is currently cheaper than  
16 power produced by fossil fuels and its cost is far less volatile than the fossil fuel  
17 industry, despite intermittency concerns. The use of renewable energy reduces the  
18 fuel costs for power production which should in turn reduce the cost of power bills;  
19 and the island’s need for an efficient, affordable and independent fuel supply for  
20 power production can be met with renewable energy.

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

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

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

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

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

1 It is, therefore, the intent of *I Liheslatura* to mandate that the GPA establish a  
2 Virtual Power Plant Program for the purpose of providing clean renewable  
3 distributed generation of energy to 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,  
7 government agencies and non-profit organizations who wish to participate as  
8 Solar Hosts of rooftop solar photovoltaic systems;

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

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

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

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

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

17 **§ 8602. Definitions.**

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

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

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

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

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

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

14 **§ 8603. Virtual Power Plant Program.**

15 The Guam Power Authority (GPA) shall establish a Virtual Power Plant  
16 Program (VPPP) within nine (9) months of enactment of this Article and approval  
17 by the Guam Public Utilities Commission (PUC), or ninety (90) days after approval  
18 by the Guam Public Utilities Commission (PUC) whichever is earlier, pursuant to §  
19 8311 of Article 3 of this Title, whereby qualified businesses, homeowners,  
20 government of Guam agencies, and non-profit organizations are able to host a solar  
21 photovoltaic system on their rooftop and battery energy storage systems; and  
22 government of Guam-owned buildings shall be the first preference to be Solar Hosts.  
23 Developers must provide battery energy storage system capacity necessary to  
24 address intermittency and power quality issues. The VPPP shall initially be capped  
25 at twenty megawatts (20 MW) of participation, at which time GPA shall assess the  
26 impact on the island-wide power system, ratepayers, reliability, and feasibility for  
27 an expanded VPPP. Additional VPPP phases and the terms of such, including

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

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

10 **§ 8604. Eligibility.**

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

14 **§ 8605. Solar Host Credit Rate.**

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

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

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