STATE OF CALIFORNIA
GAVIN NEWSOM, *Governor*

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

FILED
12/27/22
10:06 AM
R1005004

December 27, 2022

Agenda ID #21255
Quasi-Legislative

TO PARTIES OF RECORD IN RULEMAKING 10-05-004:

This is the proposed decision of Commissioner Clifford Rechtschaffen. Until and unless the Commission hears the item and votes to approve it, the proposed decision has no legal effect. This item may be heard, at the earliest, at the Commission's February 2, 2023 Business Meeting. To confirm when the item will be heard, please see the Business Meeting agenda, which is posted on the Commission's website 10 days before each Business Meeting.

Parties to the proceeding may file comments on the proposed decision as provided in Rule 14.3 of the Commission's Rules of Practice and Procedure.

/s/ ZITA KLINE for
Michelle Cooke
Acting Chief Administrative Law Judge

MLC:nd3
Attachment

Decision **PROPOSED DECISION OF COMMISSIONER RECHTSCHAFFEN**
(Mailed 12/27/2022)

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Regarding Policies, Procedures and Rules for the California Solar Initiative, the Self-Generation Incentive Program and Other Distributed Generation Issues.	Rulemaking 10-05-004

DECISION GRANTING MAINSPRING ENERGY, INC.'S PETITION TO MODIFY DECISION 11-09-015 AS MODIFIED

Summary

The California Public Utilities Commission grants the petition of Mainspring Energy, Inc. to modify Decision (D.) 11-09-015, *Decision Modifying the Self-Generation Incentive Program and Implementing Senate Bill 412*, as modified. Accordingly, the performance-based incentive (PBI) calculation methodology specified in D.11-09-015 is modified to reduce the assumed annual capacity factor to 15 percent for eligible dispatchable renewable fuel projects that do not operate as baseload resources and to limit annual PBI payments to no more than 25 percent above what the assumed capacity factor would yield for all eligible Self-Generation Incentive Program resources.

This proceeding remains open only for the purpose of addressing a pending petition for modification.

1. Procedural History

On August 19, 2022, Mainspring Energy, Inc. (Mainspring) filed a petition to modify Decision (D.) 11-09-015 (petition). The Self-Generation Incentive Program (SGIP) Administrators (Southern California Gas Company, Center for Sustainable Energy, Southern California Edison Company, and Pacific Gas & Electric Company (PG&E); collectively, PAs) filed a joint response on September 16, 2022. California Clean Distributed Generation Coalition (CCDC), Microgrid Resources Coalition, and Bioenergy Association of California filed responses on September 19, 2022. The parties who filed responses support Mainspring's petition.

2. Background

The California Public Utilities Commission (Commission) opened Rulemaking (R.) 10-05-004, *Order Instituting Rulemaking Regarding Policies, Procedures and Rules for the California Solar Initiative, the Self-Generation Incentive Program and Other Distributed Generation Issues* on May 6, 2010. D.11-09-015 issued in R.10-05-004 modified the Commission's SGIP to conform the program to Senate Bill 412 (Stats. 2009, ch. 182). The Commission also modified several aspects of the SGIP to improve program outcomes and facilitate program implementation, including the incentive amounts and payment structures for eligible technologies. Specifically, D.11-09-015 established a performance-based incentive (PBI) payment structure whereby 50 percent of a customer's incentive is provided upon project completion, and the remainder of the incentive is provided in five annual payments based on system performance.[1] That decision also established PBI payments based on program-assigned capacity factors based

[1] D.11-09-015 at 29-33.

on practical standards suited to location and performance characteristics of SGIP-funded projects.[2] D.11-09-015 found that a 25 percent capacity factor was reasonable for wind technologies, 10 percent capacity factor for Advanced Energy Storage (AES) technologies, and 80 percent capacity factor for all other Distributed Energy Resources.[3]

More recently, on January 25, 2022, Mainspring submitted a Program Modification Request to the SGIP PAs requesting the inclusion of Mainspring's linear generator as an SGIP-eligible renewable generation technology. On February 22, 2022, the SGIP PAs jointly filed a Tier 1 Advice Letter[4] requesting approval of updates to the SGIP Handbook, in which linear generators were included as eligible for renewable generation incentives when running on renewable fuels such as biogas and directed biogas. The advice letter was approved by the Commission on March 22, 2022.

3. Petition to Modify D.11-09-015

Rule 16.4(b) of the Commission's Rules of Practice and Procedure (Rules) requires that a petition for modification (PFM) concisely state the justification for the requested relief and propose specific wording to carry out all requested modifications to the decision. In its petition to modify D.11-09-015, Mainspring requests that the Commission reduce the assumed capacity factor for eligible dispatchable renewable fuel generation projects that do not operate as baseload resources in SGIP PBI calculations. Mainspring requests that the Commission allow the full potential SGIP incentive value for renewable linear generator projects that meet either of the following conditions: (1) projects that are only

[2] D.11-09-015 at 43.

[3] D.11-09-015 at Attachment A at 3.

[4] PG&E Advice Letter 4576-G/6511-E, *et al.*

intended to operate during peak and/or part-peak hours as defined by the electric utility; or (2) projects that are co-located with behind-the-meter solar and not intended or contracted to export power.[5] Mainspring asserts that the requested modification will help promote the deployment of renewable-fuel generation technologies that provide valuable emission reductions, grid reliability, and resilience benefits, but that do not operate as baseload resources.[6]

The PBI calculation methodology specified in D.11-09-015 assumes that all renewable fueled generation resources operate all hours of the year at an 80 percent capacity factor. Mainspring argues that this assumption substantially reduces the value of incentives for projects that provide flexible load during peak times and projects paired with solar that run less than all hours of the day, all days of the year.

According to the petition, Mainspring's linear generators are dispatchable with fast start/stop functions and provide full load tracking. They are often deployed at customer sites for dispatchable applications such as solar firming or peak hour shaving. However, dispatchable generation projects that only operate during peak hours or that are paired with co-located onsite solar will not meet either the assumed 8,760 "hours per year" or the required 80 percent annual assumed capacity factor. For that reason, Mainspring recommends the Commission reduce the assumed capacity factor for eligible dispatchable projects. Mainspring requests that the assumed capacity factor be agreed upon on a project-specific basis with the PAs, but not to be below 10 percent.[7] In support of this, Mainspring asserts that this is in line with the treatment of

[5] Mainspring Petition at 9.

[6] Mainspring Petition at 2.

[7] Mainspring Petition at 9.

energy storage in D.11-09-015 where operational requirements for energy storage are based on peak demand hours and have an assumed capacity factor of 10 percent. Even though the assumed capacity factor for energy storage has since been replaced with a minimum discharge requirement of 104 discharges per year, Mainspring argues that a capacity factor floor of 10 percent is appropriate since dispatchable generation resources provide many, if not more, of the same benefits of energy storage, including peak load reduction.[8]

Finally, Mainspring proposes that limits could be placed on exceedance of the agreed upon capacity factor to avoid gaming of the PBI formula that result in the front loading of PBI payments.[9] Mainspring recommends that no project receive PBI payments greater than 20 percent above the agreed upon capacity factor, which Mainspring asserts, is consistent with the amount allowable under the existing baseload operational requirement of an 80 percent capacity factor.[10]

No party opposes the petition. The SGIP PAs support Mainspring's PFM as it aligns with the intent of SGIP. The SGIP PAs also support broadly applying the modification for other similarly dispatchable (non-baseload) generation technology that is or may become eligible for SGIP. SGIP PAs also add that Verdant Associates, LLC (the SGIP Measurement and Evaluation Vendor) and Alternative Energy Systems Consulting, Inc. (the SGIP Technical Consultant) considered the potential impacts of the petition and concluded that "renewable generators capable of being dispatched to provide peak demand reductions,

[8] Mainspring Petition at 9-10.

[9] Mainspring Petition at 10.

[10] Mainspring Petition at 10.

rather than solely operating as a baseload technology, will further the SGIP's goals."[11]

CCDC supports modifying the SGIP PBI to provide that dispatchable renewable generation projects be eligible for the full potential SGIP incentive value.[12] Similarly, supporting the PFM, Microgrid Resources Coalition states that the current methodology fails to provide an equivalent incentive for the dispatchable renewable generation that is far more valuable to the customer and to the grid.[13] The Bioenergy Association of California also supports the Commission granting the petition and adopting incentives that focus on attributes and performance standard and are technology neutral.[14]

4. Discussion

4.1. Timeliness of the Petition

Rule 16.4(d) requires petitions for modification to be filed and served within one year of the effective date of the decision proposed to be modified. If more than one year has elapsed, the petition must explain why the petition could not have been presented within one year of the date of the decision. Since the petition was filed more than a year after the effective date of D.11-09-015, it must explain why it could not have been presented within the one-year timeframe.

In its petition, Mainspring stated that Mainspring linear generators were first installed at commercial facilities in 2020, publicly announced in 2021, and became eligible for SGIP in February 2022. Therefore, Mainspring could not have filed the petition within a year of the effective date of D.11-09-015. The

[11] PAs Response at 4.

[12] CCDC Response at 2.

[13] Microgrid Resources Coalition Response at 2.

[14] Bioenergy Association of California Response at 5.

Commission finds that Mainspring provides sufficient justification for filing its petition more than one year after the issuance of D.11-09-015.

4.2. Relief Requested by Mainspring

Upon review of the petition and party responses, the Commission finds Mainspring's petition to modify D.11-09-015 reasonable and grants the relief requested by Mainspring with modifications.

Mainspring's requested modification aligns with the intent of the SGIP and statutory obligations of the program. Public Utilities (Pub. Util.) Code Section 379.6(a)(1) provides that SGIP should increase the deployment of distributed generation and energy storage systems to facilitate the integration of those resources into the electrical grid, improve efficiency and reliability of the distribution and transmission system, reduce emissions of greenhouse gases, peak demand, and ratepayer costs; and provide an equitable distribution of the costs and benefits of the program.

Renewable-fuel generation technologies that operate as dispatchable resources have not been able to access SGIP incentives. The SGIP renewable generation budget has a large balance of unused incentive funds. As of December 14, 2022, approximately $98,727,691 remains in the Generation Budget, which makes up 72 percent of the authorized collections in this budget category.

Mainspring's linear generation technology, which became SGIP-eligible in March 2022, can provide renewable firming and peak reduction which are valuable grid services that align with the intent of the program. However, the operational characteristics of the technology do not align with the 80 percent capacity factor assigned to technologies serving baseload needs. The Commission agrees with the petitioner and respondents that the current incentive calculation methodology can make it uneconomic for a non-baseload

resource to provide firming intermittent resources and peak load reduction. Just as the energy and technology landscape has evolved, the PBI calculation methodology should also evolve with changing and expanding use cases and technologies. The modified PBI methodology will help facilitate deployment of dispatchable generation resources providing peak shaving and solar firming services.

In the interest of maintaining program efficiency and minimizing administrative and transactional costs, instead of allowing the assumed capacity factor to be agreed upon on a project-specific basis, the Commission finds an assumed annual capacity factor of 15 percent for the dispatchable generation resources that firm onsite intermittent renewables, and/or provide peak load shaving to be appropriate. Current utility peak rates typically cover the hours from 4:00 p.m. to 9:00 p.m. If a generator operated 5 hours a day, 7 days a week all year long, it would achieve a capacity factor of approximately 21 percent (1,820 hours) based on 8,760 hours per year. To account for the times when a dispatchable generation resource is not needed or able to operate during peak times such as on weekends or when offline for various reasons, a 15 percent capacity factor would encourage system operations that benefit the grid while leaving room for operating slightly below maximum peak output. Effectively, a 15 percent annual capacity factor means a dispatchable renewable fuel generator will have to run 5 hours a day, 5 days a week to receive the maximum PBIs. In comparison, a 10 percent annual capacity factor proposed by the petitioner means a generator would only need to operate slightly less than 3.5 hours a day, 5 days a week throughout the year to receive the maximum PBI payment based on 8,760 hours.

The Commission adopts Mainspring's proposal to place limits on exceedance of the assumed capacity factor to avoid gaming of the PBI formula that result in the front loading of PBI payments and finds a limit of 25 percent rather than 20 percent to be more reasonable. PBI payments make up 50 percent of the total expected SGIP incentives and occur over a five-year performance period, when actual energy production (in kilowatt-hour) matches the assumed energy production based on the assumed capacity factor. Front loading occurs when the actual energy production exceeds the anticipated energy production and PBI payments are accelerated. Some amount of front loading of PBI payments inevitably occurs. However, the purpose of a PBI mechanism is to incent actual performance and avoid excessively front-loaded PBI payments. Towards that end, a cap on exceedance of PBI payments above what the assumed capacity factor would yield should be adopted to prevent excessively accelerated PBI payments. Therefore, no project should receive annual PBI payments greater than 25 percent above what the assumed capacity factor would yield. Such a cap retains the performance incentive without limiting the total amount of available PBI payments received and allows a project to receive full PBI payments in four years instead of five years. This limit to PBI payments shall apply to all SGIP eligible projects to maintain consistency in the program.

Accordingly, Attachment A of D.11-09-015 (Modifications to the Self-Generation Incentive Program) shall be revised to read as:

> Assumed Annual Capacity Factors: ~~10% for AES,~~ 25% for wind, 80% for baseload generation resources, 15% for dispatchable generation resources that firm onsite intermittent renewables, provide peak load shaving or support flexible load. ~~all other distributed energy resources (DER).~~
>
> - ~~DER which does not achieve this capacity factor over five years will not be paid full PBI~~ No project can receive

annual PBI payments greater than 25% above what the assumed capacity factor would yield.

5. Comments on Proposed Decision

The proposed decision of Commissioner Rechtschaffen in this matter was mailed to the parties in accordance with Pub. Util. Code Section 311 and comments were allowed under Rule 14.3. Comments were filed on _____, and reply comments were filed on _____ by _____.

6. Assignment of Proceeding

Clifford Rechtschaffen is the is the assigned Commissioner and Nilgun Atamturk is the assigned Administrative Law Judge in this proceeding.

Findings of Fact

1. Mainspring filed its petition more than a year after the effective date of D.11-09-015.
2. Mainspring linear generators became eligible for SGIP in March 2022.
3. The PBI calculation methodology specified in D.11-09-015 assumes that all renewable fueled generation resources operate all hours of the year at an 80 percent capacity factor.
4. The current incentive calculation methodology can make it uneconomic for a non-baseload resource to provide firming intermittent resources and peak load reduction.
5. A standard capacity factor as opposed to a capacity factor to be negotiated on a project-specific basis would be easier to administer.
6. A 15 percent annual capacity factor means a generator would have to run approximately 5 hours a day, 5 days a week to receive the maximum amount of PBIs.

7. PBIs make up 50 percent of the total expected SGIP incentives and occur over a five-year performance period.

8. When actual energy production exceeds the energy production calculated based on the assumed capacity factor, PBI payments are accelerated.

9. A cap on the exceedance of PBI payments above the amount that the assumed capacity factor would yield may prevent excess accelerated PBI payments and does not limit the amount of PBI payments received.

Conclusions of Law

1. Mainspring provides sufficient justification for filing this petition more than one year after the issuance of D.11-09-015.

2. The requested modification aligns with the intent of the SGIP and statutory obligations of the program.

3. An annual capacity factor of 15 percent for the dispatchable generation resources that firm onsite intermittent renewables and provide peak load shaving or support flexible load is reasonable.

4. Limiting annual PBI payments for all SGIP-eligible resources to no more than 25 percent above the amount that the assumed capacity factor would yield is reasonable.

5. Mainspring's petition to modify D.11-09-015 should be granted as modified.

O R D E R

IT IS ORDERED that:

1. The Petition for Modification of Decision 11-09-015 filed by Mainspring Energy, Inc. on August 19, 2022, is granted.

2. Attachment A of Decision 11-09-015 is modified to read as:

Assumed Annual Capacity Factors: 25% for wind, 80% for baseload generation resources, 15% for dispatchable generation resources that firm onsite intermittent renewables, provide peak load shaving, or support flexible load.

- No project can receive annual PBI payments greater than 25% above what the assumed capacity factor would yield.

3. Rulemaking 10-05-004 remains open for the purpose of addressing a pending petition for modification.

This order is effective today.

Dated _____, at San Francisco, California.