

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking Regarding  
Microgrids Pursuant to Senate Bill 1339 and  
Resiliency Strategies.

Rulemaking 19-09-009

**CLEAN COALITION REPLY COMMENTS IN RESPONSE TO TRACK 2  
MICROGRID AND RESILIENCY STRATEGIES STAFF PROPOSAL, FACILITATING  
THE COMMERCIALIZATION OF MICRGRIDS PURSUANT TO SENATE BILL 1339**

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**I. INTRODUCTION**

Pursuant to Rule 6.1 of the Rules of Practice and Procedure of the California Public Utilities Commission (“Commission”) the Clean Coalition submits these reply comments in response to the ALJ ruling requesting comment on the Track 2 Microgrid and Resiliency Strategies Staff Proposal, Facilitating the Commercialization of Microgrids Pursuant to Senate Bill 1339 issued in the above captioned proceeding on July 23, 2020. The consensus among parties was that the Staff Proposal was very well thought out and demonstrated hard work on the part of energy staff, especially related to the facilitation of critical community facility microgrids. Yet, when it comes to achieving the broader goals of SB 1339 and the commercialization of microgrids, the Staff Proposal falls short, in part because of its lack of consistency of definitions.

First, as the Joint Parties comment, “If the Track 2 proceeding were a house under construction, the ALJ ruling is directing parties to comment on the hanging of windows and doors and the color of the roof tiles without questioning the structural foundation and placement of walls of the house.”<sup>1</sup> Chief among foundational gaps these is the use of the phrase “Community Microgrid” with no uniform definition that specifies what a Community Microgrid actually refers to. In opening comments in response to the R. 19-09-009 scoping memo, the Clean Coalition provided a definition<sup>2</sup> that is in alignment with the definition proposed by the Joint Parties that, “A community microgrid, also known as a “multi-user microgrid,” is a microgrid that consists of multiple end-use customers and energy resources at multiple points of interconnection to the utility distribution system, such that the microgrid uses utility distribution

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<sup>1</sup> The Joint Parties Track 2 Opening Comments on the Staff Proposal and Concept Paper, at 2

<sup>2</sup> “Unlike a traditional microgrid, which serves a facility behind a single point of interconnection, Community Microgrids can serve as the primary electrical load (and backup) for multiple facilities on the same distribution system. A Community Microgrid — powered with a high penetration of DER — is comprised of an entire distribution grid area that is served by a transmission-to-distribution substation....” Clean Coalition opening comments in response to OIR Scoping Memo, at 3.

system assets when operating in island mode.”<sup>3</sup> Under this definition, any front of the meter (FOM) microgrid serving more than one customer is categorized as a Community Microgrid. Agreeing on the foundational definitions help clarify the criteria in the Proposal 4 microgrid pilot program as well as what achieving the goals in SB 1339 will look like; the true commercialization of microgrids means enabling and facilitating the deployment of Community Microgrids.

Second, party comments make it clear that the extended lack of a standard definition of the value of resilience in a proceeding entirely focused — up to this point at least — on microgrids for resilience purposes is stifling the potential of microgrids, serving as a barrier rather than removing present inhibitions. Parties beyond the Clean Coalition including the Joint Parties<sup>4</sup>, GPI<sup>5</sup>, MRC and Tesla<sup>6</sup> to name a few, include comments about the need to compensate microgrids that provide resilience or other public benefits (e.g. determining a value of resilience). The consequences of a lack of specificity for the value of resilience is evident in SDG&E comments when they states, “The value of resiliency as a service has not been quantified and therefore microgrids should not be exempt from any cost-responsibility surcharges.”<sup>7</sup> SDG&E’s comments on Proposal 3 do not suggest that a microgrid should not be exempt from responsibility surcharges, only that given the present information in the proceeding, the utility does not feel it is appropriate to consider said exemptions without a value of the services being provided to other customers or the greater grid. PG&E concurs, arguing that it is not reasonable to provide exemptions from NBCs for resilience services, “due to the fact that NBCs recover cost for much more than resiliency related infrastructure and work...”<sup>8</sup> Without a precise value of resilience (VOR), this is a guess and not a statement of fact. How could it possibly be anything else? On what basis is PG&E making this claim? Certainly not any standard the Commission has created in this proceeding or anything specific to microgrids. The closest the proceeding has come to a discussion of a VOR definition is in the Concept Paper, the comments on which will not be considered as part of the formal Track 2 proceeding. Cal Advocates references the Clean Coalition’s VOR123 methodology by arguing that the Clean Coalition, “did not provide

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<sup>3</sup> The Joint Parties Track 2 Opening Comments on the Staff Proposal and Concept Paper, at 5

<sup>4</sup> Ibid, at 12

<sup>5</sup> GPI Track 2 Opening Comments on the Staff Proposal and Concept Paper, at 5-6

<sup>6</sup> Tesla Track 2 Opening Comments on the Staff Proposal and Concept Paper, at 10

<sup>7</sup> SDG&E Track 2 Opening Comments on the Staff Proposal and Concept Paper, at 18

<sup>8</sup> SDG&E Track 2 Opening Comments on the Staff Proposal and Concept Paper, at 16

California specific, quantitative estimates of that value.”<sup>9</sup> In response, the Clean Coalition references a diagram included in opening comments that was also included in Track 1 comments.

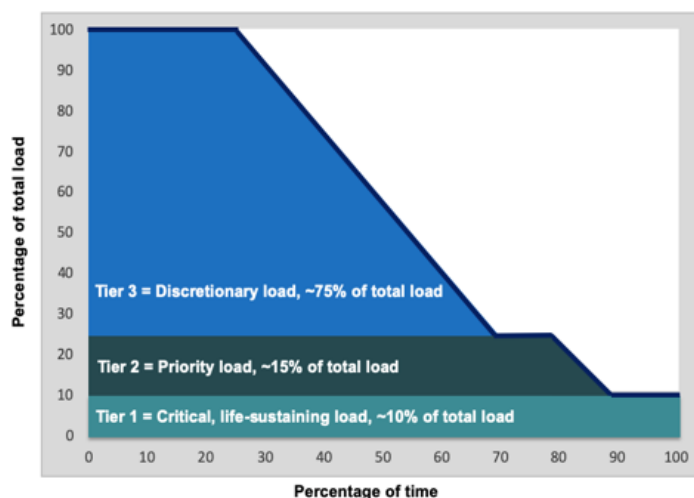
## Load tiering and valuing resilience (“VOR123” methodology)



With respect to valuing resilience, there are different VOR levels for each of the three load tiers. The following valuation ranges are typical for most sites:

- **Tier 1:** 100% resilience is worth approximately 3 to 5 times the normal price paid for electricity. In other words, indefinite energy resilience for critical loads is worth 3 to 4 times the normal price paid for electricity. Given that the typical facility has a Tier 1 load that is about 10% of the total load, applying the low side of the Tier 1 VOR multiplier typically yields a 20% adder to the pre-resilience electricity rate.
- **Tier 2:** 80% resilience is worth approximately 1.5 to 3 times the normal price paid for electricity. In other words, energy resilience that is provisioned at least 80% of the time for priority loads is worth 1.5 to 2.5 times the total, so applying the low side of the Tier 2 VOR multiplier yields a 7.5% adder on top of the pre-resilience electricity rate.
- **Tier 3:** Although a standard-size solar microgrid can provide backup power to Tier 3 loads a substantial percentage of the time, Tier 3 loads are by definition discretionary, and therefore, a Tier 3 VOR multiplier is negligible and assumed to be zero.

Taken together, the Tier 1 and Tier 2 premiums for a standard load tiering allocation yields an effective VOR of between 25% and 30%. Hence, **the Clean Coalition uses 25% as the typical premium that a site should be willing to pay for indefinite renewables-driven backup power to critical loads** — along with renewables-driven backup for the rest of the loads for significant percentages of time.



Average anticipated resilience, in terms of percentage of time online:

- Tier 1: 100%
- Tier 2: 80% (at least)
- Tier 3: 25% (at least)

The Clean Coalition is deploying solar+storage microgrids on six sites in the Santa Barbara Unified School District, demonstrating the quantitative value of the VOR123 methodology for California critical facilities. As mentioned in opening comments, “in the Clean Coalition’s experience, the total premium a facility is willing to pay for renewables-driven backup power to critical loads 100% of the time (and backup for other loads a significant percentage of the time) is 25% on top of the normal rate of energy.”<sup>10</sup> The Clean Coalition appreciates the use of the methodology in the Concept Paper and hopes that it can be a starting point for a discussion on compensation for the VOR. Such a discussion is imperative to achieve the goals listed in SB 1339. Continuing the proceeding without a clear definition perpetuates ambiguity that detracts from the actual policy suggestions Energy Staff has worked so tirelessly to develop.

<sup>9</sup> Cal Advocates Track 2 Opening Comments on the Staff Proposal and Concept Paper, at 12-13

<sup>10</sup> Clean Coalition Track 2 Opening Comments on the Staff Proposal and Concept Paper, at 15

Third, the lack of any type of roadmap for track 2 and further goals for microgrids leaves parties grasping at straws in attempts to provide constructive comments and reply comments about the limited scope of the current proposals listed in the Staff Proposal. In response to Proposal 2, for example, Wild Tree<sup>11</sup>, Concentric<sup>12</sup>, Enchanted Rock<sup>13</sup>, Tesla<sup>14</sup>, Sierra Club<sup>15</sup>, CESA<sup>16</sup>, the Joint CCAs<sup>17</sup>, Port of Long Beach<sup>18</sup> and CSE<sup>19</sup> (to name a few) all agree that the proposal should either be expanded to all critical facilities or to all customers. In opening comments, Clean Coalition referenced that Proposal 2 is a good start and is clearly intended to be a conservative step that judges the success of a Rule 18/19 exemption, but there is no clarity as to whether the proposed exemption is a starting point or the end all be all solution. The latter is most definitely not sufficient to reduce the barriers inhibiting the deployment of microgrids. Thus, Clean Coalition strongly agrees with the CESA proposal, “that the Commission should strive to develop a microgrid policy roadmap and a set of policy principles (e.g., how California’s microgrid strategy must not only address resiliency needs but also align with the state’s decarbonization goals) to assess resiliency needs within the state,”<sup>20</sup> but also explains how the Commission intends to extend certain limited proposals to all microgrids or the lack thereof. As the Clean Coalition has repeated in opening comments and previous comments, the overall goal should be the enablement of properly DER-populated Community Microgrids.

## **II. DESCRIPTION OF PARTY**

The Clean Coalition is a nonprofit organization whose mission is to accelerate the transition to renewable energy and a modern grid through technical, policy, and project development expertise. The Clean Coalition drives policy innovation to remove barriers to procurement and interconnection of distributed energy resources (“DER”) — such as local renewables, demand response, and energy storage — and we establish market mechanisms that realize the full potential of integrating these solutions for optimized economic, environmental, and resilience

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<sup>11</sup> Wild Tree Track 2 Opening Comments on the Staff Proposal and Concept Paper, at 4

<sup>12</sup> Concentric Track 2 Opening Comments on the Staff Proposal and Concept Paper, at 6

<sup>13</sup> Enchanted Rock Track 2 Opening Comments on the Staff Proposal and Concept Paper, at 2

<sup>14</sup> Tesla Track 2 Opening Comments on the Staff Proposal and Concept Paper, at 4

<sup>15</sup> Sierra Club Track 2 Opening Comments on the Staff Proposal and Concept Paper, at 4

<sup>16</sup> CESA Track 2 Opening Comments on the Staff Proposal and Concept Paper, at 8

<sup>17</sup> Joint CCAs Track 2 Opening Comments on the Staff Proposal and Concept Paper, at 7

<sup>18</sup> Port of Long Beach Track 2 Opening Comments on the Staff Proposal and Concept Paper, at 7

<sup>19</sup> CSE Track 2 Opening Comments on the Staff Proposal and Concept Paper, at 5

<sup>20</sup> CESA Track 2 Opening Comments on the Staff Proposal and Concept Paper, at 2

benefits. The Clean Coalition also collaborates with utilities, municipalities, property owners, and other stakeholders to create near-term deployment opportunities that prove the technical and financial viability of local renewables and other DER.

### III. COMMENTS

#### Proposal 2

##### **A. The Clean Coalition agrees that Proposal 2 should be expanded at least to all critical facilities.**

For a Community Microgrid to succeed, it needs to be able to share power across multiple parcels with transfer switches interspersed throughout the grid area it serves. The current proposal is extremely limiting with the requirement that the microgrid only apply to a critical facility owned by a municipal corporation. Moreover, the IOU opening comments demonstrate an attempt to limit an already limited proposal. In their comments, SCE suggests that both the microgrid and the adjacent property should be owned by the same municipal corporation to qualify for the exemption.<sup>21</sup> Clean Coalition argues that this logic appears to be no different from the current allowances under Rule 18/19 and thus would not constitute a substantial change for the sake of providing resilience or commercializing microgrids. SDG&E limits the Proposal 2 reasoning even further, suggesting that, “SDG&E will work with any critical customer owned by a municipal corporation having loads on adjacent properties.”<sup>22</sup> While SCE suggests limiting the proposal to two critical facilities owned by the same municipal corporation, SDG&E is attempting to completely restrict the exemption to only those critical facilities that happen to span two parcels — not even sharing to two different critical facilities. With these limitations there is virtually no exemption at all, and the Commission should not consider either comments as legitimate options. Instead, Track 2 should consider expanding the exemption to all critical facilities and eventually all microgrid facilities. In combination with the addition of a review period, this could be achieved through two phases by the start of the 2021 fire season.

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<sup>21</sup> SCE Track 2 Opening Comments on the Staff Proposal and Concept Paper, at 7

<sup>22</sup> SDG&E Track 2 Opening Comments on the Staff Proposal and Concept Paper, at 7

**B. The Clean Coalition is in favor of a review period after a certain amount of time has passed, so long as the review process does not halt the Rule 18/19 exemptions from being granted to new projects.**

There is no reason to create an arbitrary cap on the number of exemption projects granted in the state for the expressed reason that unintended consequences might occur, when there is no reasonable explanation of what those consequences might be. PG&E argues that they prefer, “Option 2 to Option 1 because Option 2 offers an opportunity to review the exemption and ensure that no unintended consequences have resulted,” without offering an explanation for what these consequences might be or why they believe they might occur.<sup>23</sup> If any modification is needed, it is more reasonable to adopt Option 1 and include an annual review to determine the success of the Rule 18/19 exemption programs. Including a review process would also stifle the concerns that Cal Advocates has, while allowing the exemption project to be used as widely as possible, meeting the goals of SB 1339.

SDG&E suggests that given the size of their service territory, a limit of two Rule 18/19 exemption projects is reasonable before the Commission completes further study, leaving four projects for the SCE service territory and PG&E service territory, respectively. All three IOUs support Option 2, despite the complete lack of proportionality to the number of critical facilities. While the Clean Coalition does not agree with Bloom Energy’s conclusion on the adoption of Option 2 for Proposal 2, we are in alignment that, “It is unclear why the Commission is considering such caps on several of the proposals.”<sup>24</sup> Adopting Proposal 2 for the review period and the subscription limit does not create an exemption, it creates a loophole that only a select few critical facilities will be able to take advantage of. It certainly does not benefit disadvantaged or low-income communities. As the BAC states, “that seems absurd in a state the size of California and it also does not seem consistent with the direction of SB 1339 to commercialize microgrids. It is hard to imagine a more important purpose for microgrids than to serve critical facilities during macro grid disruptions. BAC does not see a valid reason to limit this proposal to such a small number of facilities.”<sup>25</sup> Wild Tree calls the subscription, “a ridiculously small number,” and argues, “such limitation is not justified.” The Clean Coalition wholeheartedly

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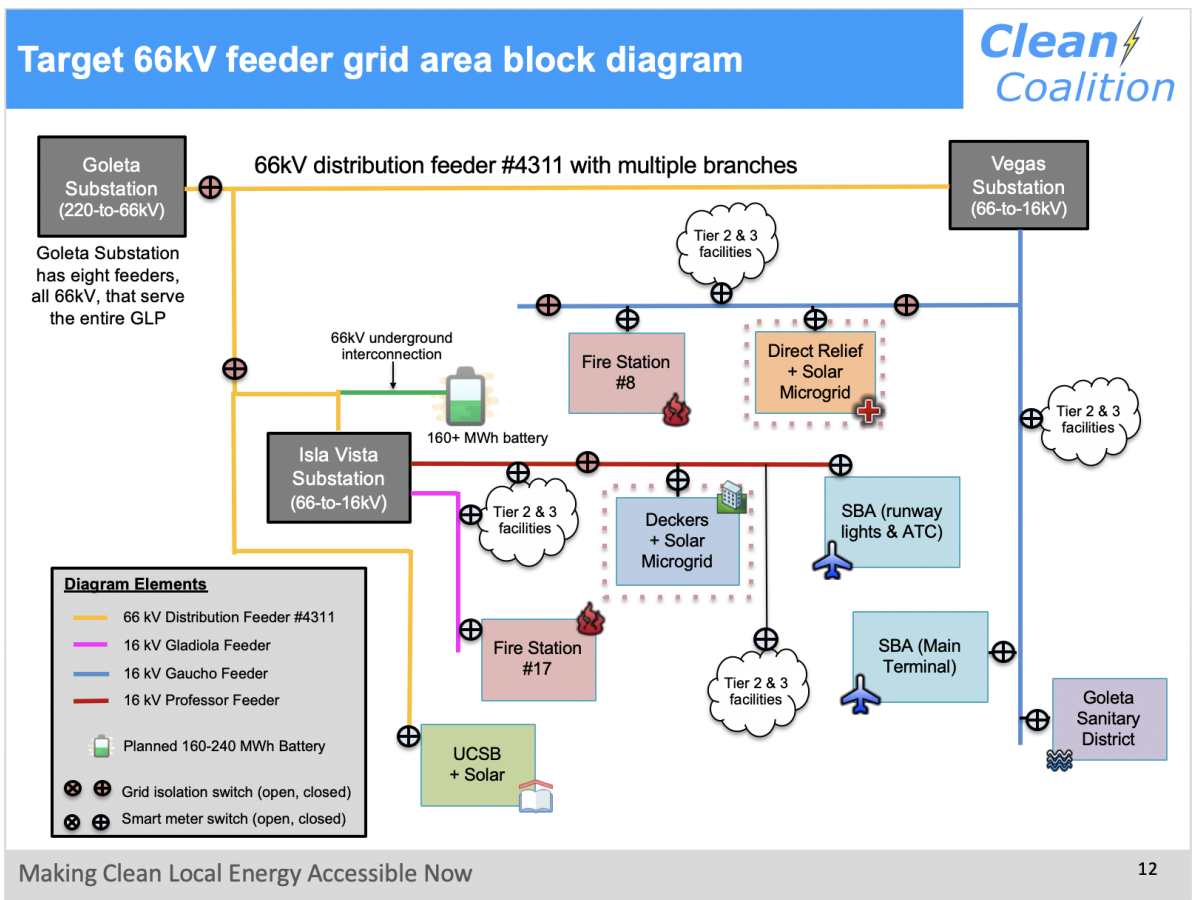
<sup>23</sup> PG&E Track 2 Opening Comments on the Staff Proposal and Concept Paper, at 9

<sup>24</sup> Bloom Energy Track 2 Opening Comments on the Staff Proposal and Concept Paper, at 7-8

<sup>25</sup> BAC Track 2 Opening Comments on the Staff Proposal and Concept Paper, at 10

**c. The Commission should recommend that the legislature revisit the subject of PUC § 218.**

The Clean Coalition agrees that PUC § 218 is one of the major barriers inhibiting the widespread deployment of microgrids, especially Community Microgrids. Thus, parties including Sunrun<sup>26</sup>, CSE<sup>27</sup>, Tesla (calls it an impediments) and others. Much of the current proceeding attempts to get around the limitations of the over-the-fence rule because it is one of the central inhibitions of microgrids. Achieving a Community Microgrid in a section of the distribution grid that is transmission vulnerable area and in a high fire threat area, such as the block diagram below requires an ironclad partnership with the relevant IOU for the microgrid control and infrastructure, in addition to populating the region suitably with DER. If, as the Joint Parties argue,



<sup>26</sup> Sunrun Track 2 Opening Comments on the Staff Proposal and Concept Paper, at 4

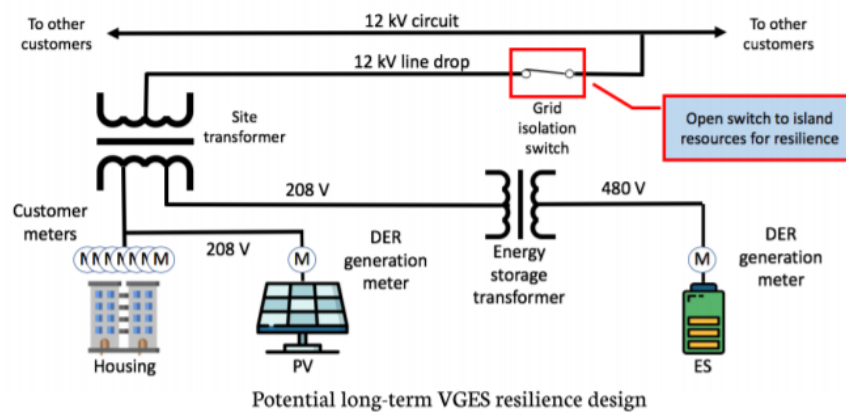
<sup>27</sup> CSE Track 2 Opening Comments on the Staff Proposal and Concept Paper, at 2



### Proposal 3

#### A. The Staff Proposal is the exact reason a standard compensation tariff is needed.

The Proposal 3 rate schedule is intended for microgrids that are used for emergency backup power and can island in the event of the grid, which does not include sufficient options for microgrids that have dual purposes. As Bloom Energy points out, “there should be a solution to the issues presented here that could apply during normal operations, as customers are not investing in microgrids as a back-up only solution. Microgrids provide greater functionality than back-up generation alone and therein lie their value proposition.”<sup>28</sup> Such value propositions are the primary way in which the commercialization of microgrids are possible. In the Clean Coalition’s Valencia Gardens Energy Storage project, a partnership with PG&E and the CEC, the Clean Coalition is installing a FOM energy storage system, as indicated in the diagram below.



Since there is FOM PV presently sited as well as BTM solar sited on the Valencia Gardens Apartment, if the recloser outlined in the red box is installed, it will create a Community Microgrid, providing the entire feeder with a layer of resilience. However, the main value proposition of the system is not resilience, but the ability to participate in wholesale energy markets and provide ancillary services. The VGES project is just one example of the need for a resource agnostic tariff that compensates resilience but does not force the primary function of the microgrid to be resilience. TURN explains this idea very effectively in comments, suggesting, “the Commission should assume that any standardized tariff would apply to microgrids operating under both normal conditions and during broader grid outages. It would be a mistake to design a tariff based on the assumption that a microgrid would only operate during intentional or disaster-

<sup>28</sup> Bloom Energy Track 2 Opening Comments on the Staff Proposal and Concept Paper, at 9

related outages.”<sup>29</sup> Relying on one rate schedule is attempting to square the circle that is a microgrid. There should be a series of workshops to include Community Microgrid tariffs, such as the one that GPI has suggested, the MMAT. The Clean Coalition believes that aspects of MMAT, including the idea of a resilience adder for compensation could be quite beneficial. The Clean Coalition continues to put forth the Feed-In Tariff it designed for the City of San Diego as the optional tariff to deploy Community Microgrids.

#### **Proposal 4**

##### **A. Proposal 4 should be considered a program, not a pilot program**

The Clean Coalition acknowledges comments that other parties have made and agree that Proposal 4 is about facilitating microgrids, not studying an untested potential technology. The CEC and third-party vendors have already done exactly that. Calling Proposal 4 a pilot is part of the reason that SDG&E is asking for an exemption because their service territory already has microgrids and has had them for years. However, spending money through a program, especially to develop Community Microgrids in conjunction with the IOUs is different and will help facilitate the commercialization of microgrids across the state. Moreover, if the program is truly related to the development of Community Microgrids, a project cap of \$15 million is reasonable, rather than 100 projects capped at \$1-3 million as the Joint Parties suggests in comments.<sup>30</sup> Projects with that small of a cap would not be able to be deployed with a size much greater than 1 MW, which is severely limiting.

#### **IV. CONCLUSION**

The Clean Coalition appreciates the opportunity to submit these comments in reply comment in response to the Staff Proposal and Concept Paper.

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<sup>29</sup> TURN Track 2 Opening Comments on the Staff Proposal and Concept Paper, at 3

<sup>30</sup> The Joint Parties Track 2 Opening Comments on the Staff Proposal and Concept Paper, at 13

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