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LEAPFROG POWER, INC. COMMENTS ON THE DEMAND RESPONSE QUALIFYING CAPACITY COUNTING PROPOSALS

Leapfrog Power, Inc. (“Leap”) appreciates the opportunity to submit its comments on the written proposals presented in the California Energy Commission’s Supply Side Demand Response (“SSDR”) working group for long term Demand Response (“DR”) Qualifying Capacity (“QC”) counting methods under a Slice of Day Resource Adequacy framework. Leap appreciates the hard work and dedication of all of the members of the SSDR Working Group over the past six months to develop the proposals. The comments submitted here are Leap’s comments on the individual proposals and their elements. For the discussion on how each proposal addresses the Principles, as well as how DR Adders should be applied, Leap supports the comments submitted by the California Efficiency and Demand Management Council (“Council”).

OHMCONNECT’S STREAMLINED LIP PROPOSAL IS SUPERIOR TO THE STATUS QUO

OhmConnect, Inc.’s (“OhmConnect’s”) Streamlined Load Impact Protocol (“LIP”) proposal attempts to simplify the existing DR QC methodology, especially as it relates to 3rd party DR providers (“DRPs”). Leap has completed a Load Impact analysis for program years 2019 through 2021 and has been awarded net qualifying capacity (“NQC”) for the 2021 through 2023 Delivery Years. The process takes about a year, starting in December and receiving final NQC awards ten months later at the end of September. To complete the analysis requires retaining a specialized consultant with a total cost of \$100,000 to \$150,000, not including the substantial internal resources required to complete the analysis.

Leap agrees with the changes to Protocols 1, 3, and 26 that simplifies the evaluation plan. For the 2021 evaluation, Leap submitted an evaluation plan that was nearly identical to the

evaluation plan submitted for the 2020 evaluation and received zero comments asking for changes or clarifications. While we appreciate the desire for transparency and the opportunity for the evaluation community to comment on the validity of proposed analyses, for instances where the evaluation is not new and is identical to what has previously been done, this requirement is a waste of resources.

Leap agrees that Protocols 5 and 19 should be removed for the purposes of 3rd party DRP QC determination. OhmConnect correctly identified that the annual average change in energy is not representative of a highly seasonal DR resource and is not currently used in the determination of DR QC. Similarly, Protocol 22 requires the analysis be conducted for both California Independent System Operator (“CAISO”) and investor-owned utility (“IOU”) 1-in-2 and 1-in-10 conditions and should be amended. This is a frustrating requirement considering that the RA program uses IOU 1-in-2 planning conditions. There is simply no need or use for the ex ante analysis to be completed for other weather conditions that are not used in the DR QC process - it is a waste of resources. In addition, the requirement that three year forward projections be completed is unnecessary. Leap has completed a separate and distinct evaluation for every year that it has sold RA and has only been awarded QC on a one year ahead basis. The value of providing forecasts for years two and three is questionable, and unnecessarily increases the cost of the analysis.

Leap agrees that the determination of a DRP’s final QC needs to be transparent. The current process is a ‘black box’ where a DRP must complete a resource intensive evaluation to project the next year’s QC, with an unclear path to the NQC ultimately awarded by the Energy Division. In practice, it can be drastically different than what was requested. Though the Energy Division has provided some color on how a given year’s value was arrived at, it is not enough

detail for a DRP to take clear and actionable steps to increase their QC for the next year.

Additionally the schedule needs to be adjusted to shorten the timeline from when DRPs start the LIP evaluation to when they receive their final QC award. Under the current structure, DRPs are not notified of their final QC allotment until the end of September, only a month ahead of when year ahead RA filings are due. This puts both load-serving entities (“LSEs”) and DRPs at substantial financial risk where they may be forced to procure expensive last minute Replacement resource adequacy (“RA”) should the QC awarded be lower than anticipated. This has stifled the growth of third party DRPs.

The Streamlined LIP proposal takes the existing process and attempts to make it more workable for third party DRPs by reducing the overall cost and time of the analysis. It does not solve the fundamental problem of DR QC being based on performance data from two years prior. However, it does improve a process that DRPs are now familiar and comfortable with. This has the benefit of providing consistency that businesses can plan around and would likely reduce the cost and effort of any evaluation taken for the 2025 Delivery Year relative to an entirely new counting proposal with many unknowns for actual implementation. The LIPs for all their faults, are known and familiar.

CLECA PROVIDES A METHOD FOR HOW THE LIPS WILL FIT UNDER A SLICE OF DAY FRAMEWORK, AND SHOULD ONLY BE APPROVED IN TANDEM WITH OHMCONNECT’S STREAMLINED LIP PROPOSAL

California Large Energy Consumers Association (“CLECA’s”) proposal offers an example of how the existing QC methodology could be applied to the 24-hour Slice of Day RA framework. Leap strongly opposes the LIPs being retained in their current form indefinitely. As mentioned above, the LIPs as they currently exist are very resource intensive for third party DRPs to complete and would become even more onerous under the 24-hour Slice of Day RA

framework. However, CLECA's and OhmConnect's proposals are natural complements to each other, presenting a future methodology that both simplifies the existing LIPs to reduce cost, time, and complexity and makes them workable under the new RA framework.

Applying the LIPs to the Slice of Day framework comes with challenges, particularly for a heterogeneous portfolio such as Leap's. Our portfolio consists of a wide array of technologies and customer types, from smart controllable thermostats with curtailable load less than one kilowatt, all the way up to large commercial batteries with curtailable load over one megawatt. For this reason, in the last three LIP evaluations, Leap and its consultant have broken the portfolio out by load type and completed an ex ante projection on each. This has the side effect of reducing the total number of events analyzed for each load type. Breaking this down into monthly estimates further reduces the number of events that conclusions are being drawn from. For example, if there were 1000 total unique events across the year, but only 50 of those events were for the Pumping load category, of which in the month of January there were only 2 events, the ex ante projection for January would be based on little actual event data. This problem becomes more significant when we slice the event data again to project performance in every hour as CLECA's proposal suggests and would be required for an LIP evaluation under Slice of Day. There are evaluation methods that can be used to alleviate this statistical uncertainty, but Leap would caution stakeholders from attempting to get so precise in the evaluation method that the results become less precise.

DSA'S PROPOSAL ADDS ADDITIONAL COMPLEXITY TO THE LIP EVALUATION AND LACKS CLARITY ON HOW IT WILL BE UTILIZED

Demand Side Analytics' ("DSA") proposal is effectively a LIP analysis with additional onerous requirements that are unlikely to improve the outcome. The added analyses attempt to answer the question of reliability and availability through the Performance Adjustment Factor

and the Bid Adjustment Factor but lack clarity on how the additional data will be used in final QC determination. This is problematic because the LIP analysis is already costly and time consuming, and DSA's proposal would increase the complexity and cost of the analysis without speaking to the implementation of the new information. DSA does correctly note that there should be an adjustment period for parties to acclimate to the new info and adjust their programs accordingly.

The 24-slice of day table matrix is a novel idea and works well under the Slice of Day construct to clearly show the hourly QC of a DR resource for that month. However, similar to CLECA's proposal, for a highly heterogeneous portfolio with limited event data, it runs the risk of reducing the sample size that conclusions are being drawn on.

Leap appreciates and agrees with DSA that flexibility should be granted to DRPs to target hours "that maximize value and coincide with need." DR and load flexibility is a unique and highly variable resource in terms of what it can offer. Certain technologies are better suited for curtailment during the day, such as large commercial and industrial loads, while others are better suited for the evening ramp, such as smart controllable thermostats. There should be an avenue under the new DR QC method that incentivizes and allows loads that are not traditionally able to participate in the 4-9pm window to participate as RA. It is highly likely that these resources will not be worth as much, as the time of greatest system need is during the evening peak, but to exclude their participation entirely would be a loss of potential resources desperately needed for the California grid.

THE COUNCIL'S INCENTIVE BASED METHOD REDUCES BARRIERS TO ENTRY AND SHORTENS THE QC PROCESS

The Incentive Based Method put forth by the Council would simplify the QC process substantially from the LIPs and would instead put the rigor into the back end through

performance penalties as opposed to the front end through extensive analysis and forecasting. In general, Leap agrees with this approach and believes that it would be superior to the status quo. As proposed it would shorten the timeline from when DRPs submit estimates of Year Ahead QC to the time that it is actually awarded from September to June. This would allow DRPs to confidently, and accurately, contract with LSEs throughout the summer months when most bilateral contracts are signed. In addition, as DRPs would be allowed to calculate their own QC estimates through whichever means they can, it would remove the bottleneck that currently exists where only a handful of evaluators are able to complete the work. Given that this could create a scenario with each DRP using unique models with varying levels of sophistication to estimate QC, Leap understands the concern this may cause the Energy Division. If this is indeed a concern, it is suggested the Energy Division or California Energy Commission (“CEC”) propose standard guidelines or principles for how the QC estimate should be calculated. The CEC’s proposal attempts to strike that path and will be discussed in detail below.

Leap agrees with the Council, though counterintuitive, assessing penalties based on best hour performance would incentivize more frequent participation in the market when compared to assessing performance based on the average. If average performance is used as the benchmark, it provides a disincentive to DRPs to participate their resources more frequently. It is in the DRP’s best interest to selectively choose the best day to dispatch in the month and maximize performance and sit on the sidelines for the remainder of the month for the fear of an additional test bringing down their average performance. If a penalty approach is taken in the new QC framework, Leap would strongly advise the use of best hour as opposed to average performance. Leap is broadly in support of the Council’s position but recommends a modification to penalties for below-50% performance. Instead of automatically dropping to a full penalty for performance

below 50%, the penalty should continue to scale linearly. While performance of 49% and 9% are both poor, a penalty structure should be more severe for worse performance. Additionally, resources should be aggregated together before determining performance and penalties, versus calculating on an individual resource level as the CEC noted in their proposal and we discuss further below.

In the Council's proposal, the restriction of customer movement between resources as instituted in the DRAM, is retained. In Leap's experience, this is a very difficult restriction to meet. As Leap is a DRP that has partnered with over fifty IoT and DER providers, our partners have very different desires and experiences. Some partners want frequent daily dispatches to maximize revenue through the energy market, while others prefer to be an emergency resource and only be dispatched when absolutely necessary. Sometimes, partners' preferences change in the middle of the year. Restrictions on customer movement are extremely limiting in that scenario as we may have a resource aggregating several partners' meters based on their dispatch preferences matching. Our hands are tied if one of our partners no longer wants to dispatch with the same frequency as we are not able to map them to a new resource to better accommodate their preferences. The restriction on customer movement was first implemented with the 2020 DR Auction Mechanism ("DRAM") and is one of the onerous restrictions that has caused DRAM participation to decrease in recent years.

THE CEC'S PROPOSAL IS VERY SIMILAR TO THE COUNCIL'S AND PROVIDES CLARITY ON HOW DRPS SHOULD ESTIMATE THEIR QC

The CEC's proposal on DR counting is very similar to the Council's in that it relies on a somewhat less rigorous ex ante estimation of a DRP's QC and applies a strong penalty on the back end to maintain reliability. Leap appreciates that the CEC has laid out guidelines for how a DRP may estimate their QC for the next year. Though the proposed analysis is substantially

simpler and more flexible than the LIPs, it is unclear at this time if it is something that Leap can do internally, or if an external consultant will still need to be retained. The proposal does standardize the process which is superior to the status quo.

Leap agrees with the idea for an expedited review process with the CPUC so long as the DRP has met certain conditions. Even if the CEC proposal does not move forward and one of the other LIP based proposals does, Leap would advocate that this ‘fast track’ approach be applied to any new proposal. If a DRP has demonstrated performance in line with their QC, and is not projecting substantial growth in the portfolio, there should be no need to go through the lengthy and potentially costly process.

As previously mentioned, when discussing DSA’s and CLECA’s proposal, Leap has concerns over data availability for the ex post analysis as the ex ante projections get more precise. In the CEC’s proposal Leap would have forecasts broken out by load type, by hour and potentially by temperature. The CEC notes this issue and recommends that the option to aggregate ex post performance by season, and not just by month, be used as well as stating that this would be an incentive for a DRP to dispatch more frequently. While we agree that aggregating by season is a good work around, and we would recommend this approach be included under any proposal that requires fine toothed ex ante projections, we point out that there may be competing incentives for frequent dispatch depending on how Demonstrated Capacity is determined. If the Demonstrated Capacity used when calculating the Capacity Shortfall Penalty (“CSP”) is based on a DRP’s average performance across all dispatches in a month, it would be a disincentive to frequent dispatch as previously explained. Ideally, as mentioned above, Demonstrated Capacity would be based on the best hour in the month. One alternative that would

achieve a similar result could be to look at the best average performance across a single dispatch, or even looking at the top two or three hours in a month as opposed to just the top hour.

Leap agrees with the CEC proposal that the CAISO should investigate the removal of the Resource Adequacy Availability Incentive Mechanism (“RAAIM”) penalties and the Must Offer Obligation (“MOO”) and allow DRPs to bid their actual availability. The CSP as proposed, or the Council’s proposed penalty, would act as a sufficient deterrent to poor performance. In addition, Leap agrees with the CEC that underperformance risk can be mitigated through aggregating delivered DR capacity across the portfolio as opposed to assessing it on an individual resource basis. If a performance penalty structure is ultimately implemented, whether the CEC’s, the Council’s, or some other, performance should be assessed against the DRP’s aggregated resources.

CONCLUSION

Leap appreciates the hard work from all of the stakeholders participating in the SSDR working group and particularly the organizations that have put forth DR counting proposals that could work under the Slice of Day RA framework. Leap has provided comments on the specific elements of the five proposals presented and is in support of the comments filed by the Council where the Principles and DR Adders are addressed. Should the CEC determine that none of the proposals in their current form meet their goals for a new DR QC counting methodology, Leap would encourage the CEC to develop a hybrid approach that takes the best elements of each proposal.