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2020 August 6, PM 4:52
IDAHO PUBLIC
UTILITIES COMMISSION

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BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF IDAHO POWER COMPANY'S PETITION TO ESTABLISH AVOIDED COST RATES APPLICABLE TO PURPA ENERGY STORAGE FACILITIES.	**CASE NO. IPC-E-20-02** **IDAHO CONSERVATION LEAGUE** **COMMENTS**

The Idaho Conservation League (ICL) submits the following public comments in response to the Staff Comments and Request for Public Input filed July 16, 2020 and Commission Order No. 34699. ICL discovered this request and Order on July 22 when we happened to open the case page on the PUC website out of curiosity. Since then, ICL worked to encourage the storage development community to provide input, since it appeared no other promotion or targeted outreach occurred to solicit input. Below, ICL provides some high level input in areas we have some knowledge of, but much of the requested information is specific to the storage developer community. ICL recommends the Commission issue a more formal and robust request for input from experts in this field before making any decision in this case.

General Comments

Battery storage technologies are a rapidly developing resource option that addresses customer's need for reliable, affordable, and clean energy services. As Idaho Power explains in the Company's 2019 Amended IRP: "As increasing amounts of intermittent renewable resources like wind and solar continue to be built within the region, the value of an energy storage project increases."[1] As Idaho Power explains in the Application in this docket: "The potential benefits and possible promise of economically viable, utility-scale energy storage facilities is in the unique operational characteristics to, for example: provide ancillary grid services such as reserve

[1] Idaho Power 2019 Amended IRP at 53.

capacity, surge capacity, load-balancing, or voltage support; firming of variable generation; or time-shifting generation to match load."[2] As Idaho Power continues to add variable resources, such as the Jackpot Solar project, customers stand to benefit from the suite of services storage can provide to the grid.

ICL recognizes that the specifics of any power purchase agreement influence whether customers realize the promise of economically viable, utility-scale energy storage facilities. Because storage technologies can provide firm, dispatchable energy and capacity, along with a suite of ancillary services, ICL encourages the Commission to think anew about how to craft an implementation of PURPA that does not hobble the development of independent storage providers in Idaho.

Enabling an independent storage development sector, distinct from utility ownership, benefits customers by providing resources at a lower cost that utilities can. Independent developers can monetize tax credits and accelerated depreciation that allow them to reduce upfront capital costs in ways utilities cannot due to the federal laws. Independent developers can also finance projects using higher debt to equity ratios that minimize financing costs while utility customers are exposed to the 50/50 debt to equity ratios built into utility rates.[3] Both of these financing tools allow independent developers to reduce the costs of projects, which can be passed onto customers through appropriate pricing and contract terms. The Commission should adopt avoided cost rates and contract terms that enable customers to realize the benefits of lower cost projects that utilities simply cannot provide due to federal laws and state regulatory decisions. Adopting methods that do not capture the full value of storage projects, and contract terms that discourage independent power, will result in higher costs to customers.

Idaho Power's IRP method for setting avoided costs is not currently capable of capturing the unique operation characteristics that Idaho Power describes, specifically ancillary services. ICL supports using avoided costs to establish PURPA contract rates. To appropriately do so for storage projects the IRP methodology must include intra-hour modeling, and a wider array of avoidable utility costs, to capture the ability for storage to provide the ancillary services the

2 Idaho Power Application at 9.

[3] See Avista Response to Staff IRP Audit Request 17 in AVU-E-19-01.

Company describes. ICL recommends the Commission direct Idaho Power to work with stakeholders to improve the IRP methodology to achieve this common goal.

Response to Staff's Specific Requests for Public Inputs

Below ICL address only the questions where we could find meaningful information in this short timeframe.

- *The all-in costs to develop and build a battery QF.*

The all-in costs depend upon the size of the project, the interconnection needs, the land costs and permit requirements. However, recent data shows that storage projects can deliver at prices well below fossil-fueled resources. According to a S& P Global Market Intelligence report on recent solar combined with storage agreements: "Levelized energy prices have dipped into the range of $30/MWh to $40/MWh, in nominal dollars, for many projects scheduled to come online in the next few years. Adjusted for inflation over the estimated 30-year lives of the projects, those contracts are in the $20/MWh to $30/MWh range, according to a recent report from Lawrence Berkeley National Laboratory, or LBNL."[4] ICL notes these prices are below the costs of fossil fueled resources shown in utility resource plans, so any decision that hobbles the development of independent storage development in Idaho is likely to subject Idahoans to higher cost resources.

- *The expected life of different battery technologies.*

The same S&P Global report documents that most Power Purchase Agreements currently being signed by utilities in the west extend for 20 years or more. Since the independent storage projects typically holds the performance risk and must secure insurance policies, it is safe to assume storage technologies have a long expected life. However, ICL understands through conversations with developers that the pace and frequency of the storage charge and discharge impacts battery life. So any pricing methodology and contract terms should be flexible enough to allow the utility and developer to find an optimal solution to address the specific attributes of the project and the utility's need for grid services.

[4] https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/falling-us-solar-plus-storage-prices-start-to-level-as-batteries-supersize-56971432

- *How ancillary services provided by battery QFs could be valued and what impact this would have on the payback period.*

The two graphics below represent the services storage can provide and the location on the grid these services are useful.[5] Because storage is uniquely suited to provide a broad array of services that impact customers costs, ICL recommends the Commission develop avoided cost methods and contract terms than enable a broad array of storage projects.

Figure 4: System services that electricity storage can provide at varying timescales

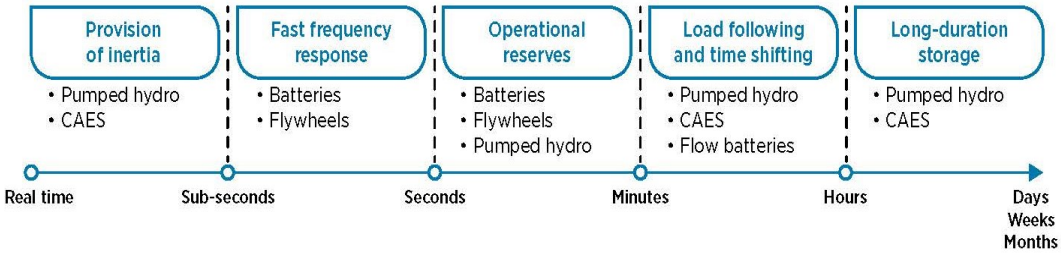
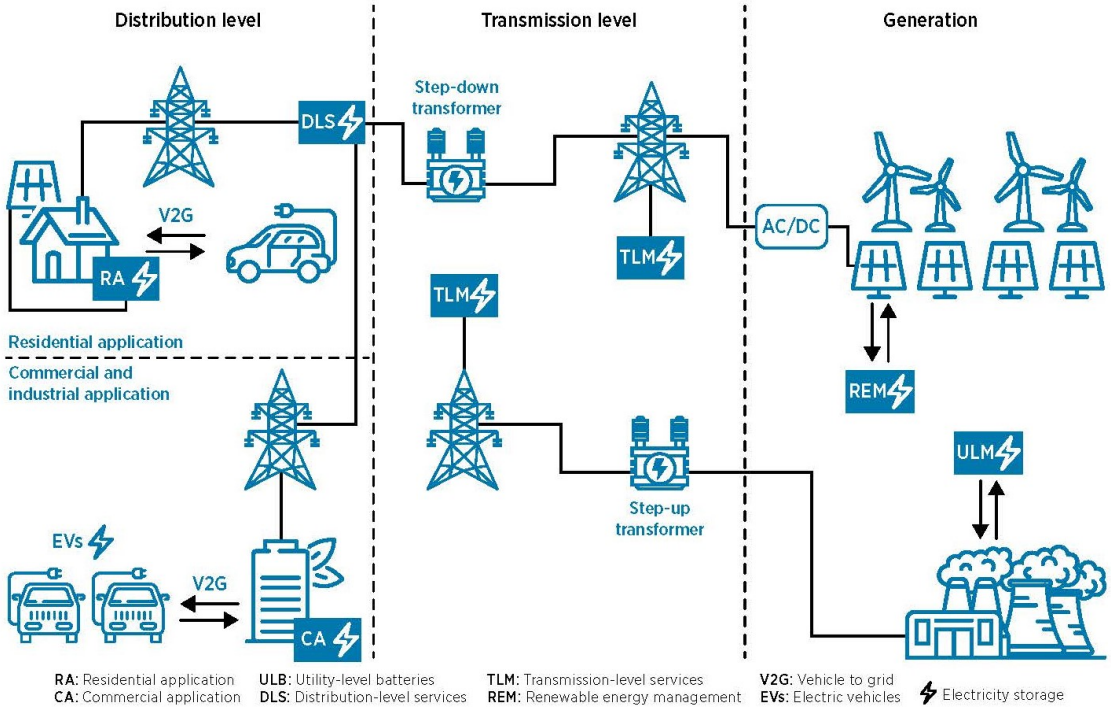


Figure 5: Grid applications of energy storage



[5] International Renewable Energy Agency, *Electricity Storage Valuation Framework: Assessing System Value and Ensuring Project Viability*, at pages 22 and 23 (March 2020). Available here: https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2020/Mar/IRENA_Storage_valuation_2020.pdf

- *The contract term necessary in order for a battery storage QF to have a reasonable opportunity to obtain financing.*

ICL observes that since the Commission reduced the PURPA contract term to two years no project has been able to negotiate a reasonable PURPA contract. In frequent conversations with developers the two-year contract term is always raised as an absolute bar to development in Idaho, so much so that most developers do not even consider Idaho a meaningful place to participate in utility planning or regulatory processes. Because storage projects can provide unique values compared to solar or wind projects, ICL does not know the correct contract term, but in preparing these comments the input we received is that 2 years is a non-starter and 5 years is the minimum to be considered a state that supports an independent development sector.

- *Best practices in surrounding states and analysis on the development of QFs in those states.*

ICL did not have the opportunity to conduct this analysis in the current timeframe. We agree that assessing the best practices in other areas is a good step in developing contracting rules for Idaho. We encourage the Staff to look beyond just surrounding states and consider any state that has a robust storage development environment. We also encourage staff to look beyond projects pursuing PURPA contracts and consider all forms of independent developers entering into power purchase agreements with utilities.

Conclusion

We appreciate and strongly support the PUC Staff's exploration of the developing market for independent storage projects. Because independent developers can provide resources at lower costs than utilities, and due to the constrained timeline and process to request input in this docket, we encourage the Commission to engage in further exploration of these issues before making any decisions in this case.

Respectfully submitted this 6th day of August 2020,

Respectfully submitted,

/s/ Benjamin Otto
Benjamin J. Otto
Idaho Conservation League

CERTIFICATE OF SERVICE

I hereby certify that on this 6th day of August, 2020, I delivered true and correct copies of the foregoing COMMENTS to the following persons via the method of service noted:

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