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UC Berkeley response to RFI

University of California, Berkeley is transforming its energy system by building a zero-emissions central heat pump and hot water network that can serve the campus's heating and cooling needs. That will allow the campus to retire its natural gas-powered co-generation plant and rely instead on utility-provided electricity. Key to this effort is the buildout of new electricity generation and storage resources that can help the campus island in the case of unforeseen power outages. Based on our in-depth system plans and studies, we believe the resource and attributes list provided in this Request for Information generally fit the alternatives that we are examining to power us to a zero-emissions future. UC Berkeley would look forward to contributing to state energy system reliability resources.

In response to this RFI, we would like to share several specific points feedback that we believe can strengthen your system planning. UC Berkeley has learned the importance of the following points while advancing our own clean energy project.

- We believe up-front capital as well as operations and maintenance costs should be a key attribute to be considered when examining any energy generation and storage resource. Those factors have certainly guided the planning of our system, with energy resources such as renewable hydrogen and lithium-ion batteries far more effective and viable at lower costs.
- We suggest safety be added to the attribute list. Safety is a particular consideration for UC Berkeley as we examine possible energy generation and storage resources that could be built on the vegetation-covered hillside above our main campus.
- We suggest adding co-benefits to the attribute list. Specifically, UC Berkeley has looked at how energy storage systems such as pumped hydro or our hot water-based thermal system could also help provide campus recycled water back-up in times of need.
- We suggest adding simplicity and ability to add on and upgrade the technology as a resource evaluation attribute.
- Finally, we suggest considering any resource's potential for accelerating the decarbonization of the overall energy system. At UC Berkeley, any energy generation and storage resource we consider must help advance the campus toward a zero-emissions future.

Thank you for this opportunity to help shape California Energy System Reliability planning. We hope to continue contributing to the state's grid reliability needs.