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Expanding the pilot line beyond lithium ion technologies

Additional submitted attachment is included below.

Expanding the pilot line beyond lithium ion technologies

Inlyte Energy is developing the next generation long duration energy storage solution, using abundant materials - iron and sodium. By leveraging the 40+ year history of research and commercialization of the sodium metal chloride battery, Inlyte is able to capture a unique combination of high efficiency, long lifetime, competitive energy density, and stellar safety, all at a cost that is attractive to the utilities market. In fact, due to the combination of the very low cost of adding additional active material to the cells and the high round-trip efficiency, this technology is uniquely positioned to access two markets: 1) the 6-10 hour daily cycle, and 2) the 12-24+ hour resilience cycle.

In order to support the commercialization and deployment of Inlyte's technology, we would value the openness of the CEC's Battery Pilot Manufacturing Line to non-lithium battery technologies. The most valuable asset to us would be through module testing. We have no specific module testing requirements with regard to the equipment, for example, cyclers suitable for lithium-based module testing could be directly translated to our application, as we require ~40 A, 240 V and ~100 kW. This will be comparable to other long duration energy storage technologies. However, we ask that the CEC does not implement blanket restrictions on all module testing users. These should be specific to the technology, for example energy limits may be required for lithium ion batteries to minimize fire risk, however implementing standardized energy limits on modules for all technologies will prevent access for many higher energy long duration energy storage technologies that do not pose a fire risk, including ours.

To fit within budgetary constraints, the CEC could consider outdoor testing pads. This may require fewer safety constraints, whilst being more applicable to utility applications. It provides the additional benefit of typically making logistics and transition between users quicker and more efficient. Additionally, having the capability to simulate a microgrid by allowing users to connect an inverter integrated energy storage system to controlled AC loads would be extremely valuable. This 'sandbox' testing environment would further California's dominance in battery technologies, by enabling users to validate a new product before taking it to a customer in the field.

We are very excited about the future Battery Pilot Manufacturing Line and look forward to being able to use it to test our modules to move us closer to commercialization and large scale deployment.