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Docket Number:	19-ERDD-01
Project Title:	Research Idea Exchange
TN #:	228926
Document Title:	Santa Clara Valley Transportation Authority Comments VTA supports the LACI feedback for managed electrified fleet charging especially for transit bus fleets.
Description:	N/A
Filer:	System
Organization:	Santa Clara Valley Transportation Authority
Submitter Role:	Public Agency
Submission Date:	7/9/2019 3:27:16 PM
Docketed Date:	7/9/2019

*Comment Received From: Santa Clara Valley Transportation Authority
Submitted On: 7/9/2019
Docket Number: 19-ERDD-01*

VTA supports the LACI feedback for managed electrified fleet charging especially for transit bus fleets.

VTA would like to encourage the CEC to consider repurposing 2nd life batteries to build smart storage systems as a stage before full recycling. Useful packs are repurposed avoiding complicated recycling / manufacturing.

The Santa Clara Valley Transportation Authority (VTA) started introducing electric buses in 2018 to its transit bus fleet. The fleet currently consists of more than 480 hybrid and diesel-combustion buses. Leveraging funding from the California Energy Commission, the California Air Resources Board, the Bay Area Air Quality Management District, and the Federal Transit Administration, VTA has planned procurement for 35 electric buses and with a goal to go 100% electric in the next several years. All transit agencies in the State of California have a mandate by the California Air Resources Board to be 100% zero emission by 2040, adding to the urgency for transit to build the most efficient, cost effective and renewable infrastructure solutions.

However, with PG & E peak pricing shifting to 4pm to 10pm and solar output dropping during the new peak pricing, having a reliable energy storage solution to leverage the current 960 KWH solar installation at VTA Cerone bus yard to allow for charging during low cost periods is crucial for shaving the utility costs, and reducing the impact on the transmission network.

At the core of the site power distribution approach is the design, operation, and control of a microgrid that will improve how electric bus charging operates, manage emergency power, and how the microgrid controller manages the load coming from the power grid. Microgrids are small power systems with local generation and energy storage that can provide local and often lower-cost electricity with higher efficiency than legacy power installations; as such microgrids are being viewed by VTA as a critical component of the overall solution.

Specifically, VTA welcomes new partnerships with vendors with properly sized novel new material batteries or with reusable 2nd life battery packs to develop microgrid solutions for the VTA system. The goal is to use a microgrid that utilizes a set of battery packs for beta testing at VTA. A 2-4 MWh battery pack set charged by VTA's 960kWh solar energy is required to power up multiple VTA EV Proterra buses.

VTA serves the communities of Santa Clara County, CA, which is the sixth most populous in the state. The bus fleet serves 70 routes, including connections to VTA light rail, ACE train, the new VTA southern extension of BART, and Caltrain stations. More than 44 million riders use the bus fleet annually, and VTA serves an estimated under-served community of 500,000.