

DOCKETED	
Docket Number:	21-BSTD-01
Project Title:	2022 Energy Code Update Rulemaking
TN #:	238781
Document Title:	Invinity Energy Systems (US) Corporation Comments - Support for Energy Storage Requirement in Specific Commercial Building Types
Description:	N/A
Filer:	System
Organization:	Invinity Energy Systems (US) Corporation
Submitter Role:	Public
Submission Date:	7/9/2021 3:34:43 PM
Docketed Date:	7/9/2021

Comment Received From: Invinity Energy Systems (US) Corporation
Submitted On: 7/9/2021
Docket Number: 21-BSTD-01

Support for Energy Storage Requirement in Specific Commercial Building Types

Additional submitted attachment is included below.



July 9, 2021
Commissioners & Staff
California Energy Commission
1516 Ninth Street Sacramento, CA 95814

**RE: Docket No. 21-BSTD-01 –
2022 California Energy Code, Comments on supply of energy storage systems**

Esteemed Commissioners and Staff Members:

Invinity Energy Systems appreciates the opportunity to respond to concerns raised by the California Business Properties Association (CBPA) with regard to proposed changes in the California Energy Code which would promote adoption of energy storage systems (ESS) in specific types of commercial buildings larger than 5,000 square feet. Among CPBA concerns is a perceived inability of the CEC and energy storage manufacturers to serve the increase in demand that the proposed code changes would generate. As one of the leading manufacturers of vanadium flow battery systems worldwide, with decades of experience in the commercialization of energy storage systems and both operations and active ESS projects in California, Invinity believes these concerns are unfounded. In the following paragraphs, Invinity responds to the individual concerns raised by CPBA in its June 21 letter to commissioner J. Andrew McAllister.

CPBA begins by asserting that “battery systems are not widely available at present”. The evidence showing hundreds of deployments across California in the last 10 years disproves this point. Many different storage technologies (lithium ion, flow batteries, and others) supplied by dozens of manufactures and sold and installed by hundreds of project developers and EPCs in California every year. Many studies document the rapid growth of energy storage installations in the United States. The US Energy Information Administration recently reported energy storage deployment growth of 40% each year from 2010 through 2018.¹

CBPA then posits that “the market supply of energy storage is “constrained by rapidly increasing demand in the transportation sector”. The reality is exactly the opposite. Manufacturers supplying lithium ion batteries to the automotive market, such as Tesla, have used demand in the automotive sector to support the very growth referenced in the EIA study above. Meanwhile, advanced battery storage technologies are increasingly available.. For its part, over the next three years Invinity expects to increase our annual manufacturing throughput to over 200 megawatt-hours per year, a 10x increase over our current manufacturing capacity.

¹ “Battery Storage in the United States: An Update on Market Trends”, July 2020 available at www.eia.gov/analysis/studies/electricity/batterystorage/pdf/battery_storage.pdf

Finally, CPBA observes that supply is almost exclusively reliant on imported products and foreign material extraction. CBPA overlooks that fact that the USA has ample reserves of these materials but until now lacked the capacity to extract and refine them to the level of purity required for energy storage applications. This is already changing. General Motors (a Tesla competitor) has just announced plans to extract lithium from a huge deposit in the Salton Sea in Southern California². In a similar move, Invinity is now working with domestic vanadium suppliers in collaboration with the US Department of Energy to ensure domestic sources of materials are available to support our continued growth.

Together, these misconceptions indicate to Invinity that CBPA perceives a misalignment of mandates and market supply that could have a negative effect on new construction and that the CEC is unprepared for the potential of such an outcome. Having observed the trajectory of the California solar industry, Invinity feels exactly the opposite: that the CEC is following a now proven formula for encouraging the beneficial evolution of energy markets by encouraging the widespread adoption of mature but transformative technologies. In the solar industry, we witnessed how the adoption of prudent market incentives established a stable, attractive market, which then became self-sustaining through the efforts of competing suppliers. Invinity believes the proposed changes to the California Energy Code, promoting adoption of ESS for certain commercial buildings, will deliver similarly successful results.

Sincerely,



Matt Harper
Chief Commercial Officer
Invinity Energy Systems

² <https://www.reuters.com/business/autos-transportation/gm-shakes-up-lithium-industry-with-california-geothermal-project-2021-07-02/>