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# **Subject Comments on 19-ERDD-01**

Additional submitted attachment is included below.



Date: January 9, 2020

California Energy Commission Docket # 19-ERDD-01 Research Idea Exchange

Subject: Comments on 19-ERDD-01

Sujen International LLC provides micro wind turbines solutions based on American Wind Inc. MicroCube™ (9"x 9"x13" wind turbine), that can be configured by combining multiple units in DERs to generate the power needed. American Wind turbines will produce power even where traditional wind, and solar cannot due to limited land, low wind speeds and environmental restrictions and is very well positioned to deliver the listed use-cases. Simplicity in configuration of American Wind turbines, operation, and maintenance makes it feasible to be installed on a parking structures, roofs, factory chimney stacks, high rise buildings or an open wind farm.

In response to the questions:

## 1. Of the candidate use-cases and vehicle types listed above, which ones should we prioritize in this solicitation and why?

American Wind's innovative technology offers many product solutions to provide resilient, renewable power, 22 to 24 hours per day, 365 days per year, ranging from 6 kw to 100 kw per unit. In the listed use-cases, prioritization should go to those with the infrastructure to support vehicle charging stations. The American Wind product will be selected per use-case to provide enough power to either power the entire vehicle garage facility or to groups of electric vehicles charging stations.

The American Wind product would require next to no maintenance (only one product requires annual maintenance), would permit integration with any other renewable in a DER configuration and/or with the grid. With a 30-year plus life and daily resiliency, the American Wind product is ideal for any of the use-cases. Environmentally safe the American Wind product will meet all California emission regulations and goals. American Wind products are lightning, static and fire resistant eliminating the fire hazards California is currently undergoing. A use-case not listed but very well may be applicable is the ability to integrate the American Wind product into parking garages, providing power to the garage and to electric vehicle charging stations.

# 2. Will distribution capacity constraints be a major barrier to the deployment of the charging infrastructure needed for that use-case in the short- to medium term?

The American Wind solution can be self-sufficient and islanded for charging purposes in both short to long term. Each product has its own control box and meter permitting transmission of electrical generation information and can be adapted to meet other reporting needs. The above benefits of our product obviate the issues related to distribution capacity constraints that can be a major barrier to the deployment of the charging infrastructure needed for the listed use-cases



#### Will vehicles and charging equipment be readily commercially available in the short- to medium-term?

American Wind solution required for the use cases can be manufactured and delivered/installed within 3 to 6 months and would be available to integrate into a DER or commercially off-the-shelf electric vehicle charging station give the compact form factor of our solution.

## 4. Are there use-cases that would particularly benefit from the reliability and resiliency value of the DER strategy?

American Wind solutions will provide DERs the ability to rapidly deploy resilient, reliable, renewable power generation, with our largest unit requiring only 242 sq. feet, the solution/product can be located next to the use-case, painted to blend into the environment, or mounted in an appropriate way to facilitate use. It's static-free, lightning and fire-resistant housing makes the American Wind product ideal for the California climate. American Wind turbines would be ideal to create hybrid micro grids. Such micro grids make the grid more resilient, potentially cheaper, more efficient and more impenetrable to cyber-attacks.

Sujen International LLC looks forward to working with California to meet its greenhouse gas and air pollution emission reduction targets using our innovative renewable energy technology and benefit the state's economy by reduction of the state's dependence on imported fossil fuels.

Sincerely,

Subhash Mendonca

CEO

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