Request for comment notice 2022-58

Comments from Jim Bardia of Wind & Solar Tower, the emission-free Level-4 off-grid EV charger, on Alternative Fuel Infrastructure Tax Credit

CONTACT Jim Bardia (914) 273-3762 JBardia@WindAndSolarTower.com

In 2021 the U.S. transportation sector was responsible for approximately 27 percent of the country's CO2 emissions. Since the industrial revolution began around 200 years ago, the earth's CO2 concentration has risen as much as they had during the preceding 10,000 years: from a total of 280 parts per million (PPM) to 421 PPM.

In this threat to the welfare of Americans and people of the world, I see an obvious call to action, so I applaud the Treasury's efforts to incentivize the private sector to deploy the capital required to install and operate nationwide alternative fuels infrastructure.

In the U.S. there are more than 1.1 million fuel nozzles, so replacing that trusted refueling capacity with electric "fuel" constitutes an enormous undertaking. This challenge becomes painfully obvious when noting that a fossil-fuel fill-up takes approximately three minutes, whereas a lesser-range EV DC fast-charge can take a half-hour, or ten times longer.

With that refueling-time bottleneck, simple math shows that the U.S would require over 10 million out-of-home charging stations to equal the output of 1.1 million petrol nozzles. The California Energy Commission in June, 2021 forecast that the state will require 1.2 million remote EV chargers by 2030.

More important, part of the challenge of creating new nationwide charge-dispensing infrastructure requires the creation and implementation of new manufacturing techniques with the capacity to vastly expand hydrogen production and distribution infrastructure.

Likewise, electric utility generation capacity must be increased to meet the added load from EV charging. Also, Boston Consulting Group forecasts that strengthening the grid will cost $1,700 to $5,800 per EV.

However, the underlying need to slow -- and ultimately to reverse -- atmospheric CO2 levels is being undermined by the fact that *60.8 percent of the U.S. electric grid is powered by burning dirty coal, oil, and gas. Thus, charging EVs from the grid simply transfers tail-pipe emissions to out-of-sight and out-of-mind smokestacks.*

This inconvenient reality translates to the fact that battery electric vehicles (BEVs) charged from a "dirty" grid are NOT zero emission vehicles (ZEVs as described.) Far from it. Rather, "Z"EVs are merely 39.2 percent emission-free.

Therefore, to truly and realistically slow and then reverse global warming, I urge the Department of the Treasury to recommend a series of extraordinary tax credit**s** that would encourage proliferation of *TRUE zero-emission* EV charging stations, whether powered by both wind and sun (as the Wind & Solar Tower is) or by-simple solar-panel-powered charging stations.

[1] https://web-assets.bcg.com/img-src/costs-revving-up-the-grid-for-electric-vehicles_tcm9-236324-64_tcm9-237341.pdf