

From: [Zeeshan Ali](#)
To: [Secretary, Board](#)
Subject: [EXTERNAL] Straw proposal review and feedback -Zeeshan Ali
Date: Tuesday, May 26, 2020 11:03:17 AM

To whom it may concern,

Thank you for sharing the straw proposal. I went through it briefly to understand how State is taking an initiative in increasing the usage of electric vehicles while reducing the carbon foot print. Please allow me to introduce myself I am Zeeshan Ali, NJ resident at Bergen County who offers professional consulting services in Finance and Technology.

As a New Jersey resident, I feel obligated to further extend by technical and professional services on volunteer basis to help bring this initiative to a reality. My technical competencies include Software, Hardware and data analytics.

While reviewing the proposal, I noticed few things the first section of the proposal talks about how New Jersey is starting this initiative to reduce the carbon foot print of transportation, which is currently 40 percent and if I look closely to that chart it also shows the second largest CO2 emissions are caused by electric generation, which brings me to a conclusion that if State reduces CO2 emissions from transportation by introducing EVs those EV charging will equally increase the amount of power required to be generated to fuel the fast charging network across the state.

Apart from that, I went through the terminology and the proposal of extending EDCs and how EVSE can facilitate the growth of the network however as an individual resident I believe the acceptance and adoption of New Jersey resident slightly weighs higher than the network availability and I can elaborate that further.

If State of NJ incentivizes the purchase of the new fully electric vehicle and such incentive is driven with respect to the range of the vehicle , the State should be able to accomplish its mandate of charging network span earlier than the set forth milestone. This is due to the evolving technology of Electric vehicles and further reduction in cost of mass produced batteries.

In earlier age of semiconductor revolution (70s), the industrial skeptics wondered how long would it take for the silicon wafer to reach the density and volume where it can be cheaper and at the meet the needs of end user computing. In that industry, we have relied on Moore's law for the last half the century to deliver spectacular results.

Analogous to the Moore's law – the mass production of batteries and competition to bring more and more vehicle to consumer's price point will drive the cost further down and eventually if we compare the statistics of the industrial leader – Tesla motors; we can conclude that the earlier models cost up to three times the cost of the current model and at the same time, new models range has increased significantly up to two folds.

Apart from this perspective, one of the point that I have noticed with Straw proposal is the usage of fast charging, I would like emphasize the technical aspect here related to the chemical composition of lithium ion battery. The Lithium ion batteries life are significantly reduced when they are charged with higher voltage to provide user a gas tank fill experience (under 15 minutes full charge). Now at first it may seem a trivial matter however if you consider the overall impact on the environment of producing the battery with certain life span and reducing such life span with fast charging – it partially defeats the purpose of clean energy because the efficiency factor is reduced due to the production waste of battery and early recycling – it will not deliver the optimum results contrary to the expectation.

I would wish if board could consider the alternative strategy to increasing EV adoption across the State. I believe in capitalism and I think if State provides hefty incentives on EV purchase, such strategy will eventually increase the adoption rate across the State thereby allowing multiple vendors to deploy specialized and generic fast charging stations throughout the State.

This incentive can be rolled out by keeping two aspects in mind, firstly higher upfront cost of EV ownership. How can Board help and assist average New Jersey Resident to take advantage of such financial incentive, similar to Tax credit I believe Governor announced five thousand dollars of rebate on new EV purchase. However due to the absence of framework for rebate process and guidelines, most of the manufacturers are not able to close the sales lead that such incentive new is bringing to them.

Second aspect is the operating cost and range anxiety. I believe by providing the electric utility provider level incentive, State of New Jersey can offset the cost of operating cost. This can be further enhanced by adding solar energy and off grid installation incentives.

Finally, I would like to thank the State for giving New Jersey resident a chance to reclaim cleaner and healthier environment while keeping up with the future of transportation.

Sincerely,

Zeeshan Ali