

Conversion to Electric Mobility in the United States : An Exercise in Historical Sensitivity and Policy Priorities & Civility

Preamble

Promoted, especially internally, as “*the world’s last remaining superpower,*” the USA is likely to be the last of the major industrialized nations to enact national policy that requires or mandates implementation of electric mobility.

Long heralded as having a national economy that is based upon hydrocarbon and carbon-based sources of energy (and will execute war to protect that basis), the USA has very little structural or political incentive to convert its transportation fleet to electric.

The notion that a *national* policy could be enacted which in any-way threatens a centuries-old arrangement, involving such powerful and entrenched players as Big Oil and Big Auto, is not merely naïve . . . such a notion confirms a deeply rooted disconnect in its author(s).

This is not to declare that the conversion to electric mobility will not take place; it will.

But the approach to advocating that conversion will be as unique, and as great, as the USA itself. We are talking about the world’s biggest most powerful economy in human history; one whose players can not only justify resistance to major changes, but one that can enforce that resistance with global reach and political influence. Such resistance will be especially formidable if the policy instigation of the conversion can be portrayed as “coming from the outside.”

Approach to Conversion to Electric Mobility in the USA : A Proposal Rooted in Cohesiveness and True Public Service

The approach that incentivizes or, to paraphrase the word in the course rubric, “schemes” to convert through policy must address the unique historical items (very briefly) discussed above, as well as the unique and vast geographic dimensions of the USA. What works in the balmy environment of Miami, Florida will not work *at all* in the frozen tundra of Utqiagvik, Alaska. What works in the congested densely populated monstrosity of my hometown, New York City, will not work for the open sparsely populated plains of Montana. Etc.

In fact, when one visits these dispersed areas of the USA, one can easily think that these are parts of . . . different countries!

Therefore the approach must be historically sensitive and politically civil; it must be flexible enough to address these vast differences in the specific needs and priorities at local state levels, while fulfilling a cohesive national purpose that is rooted in true public service. Five criteria that will assist with the prioritization process follow:

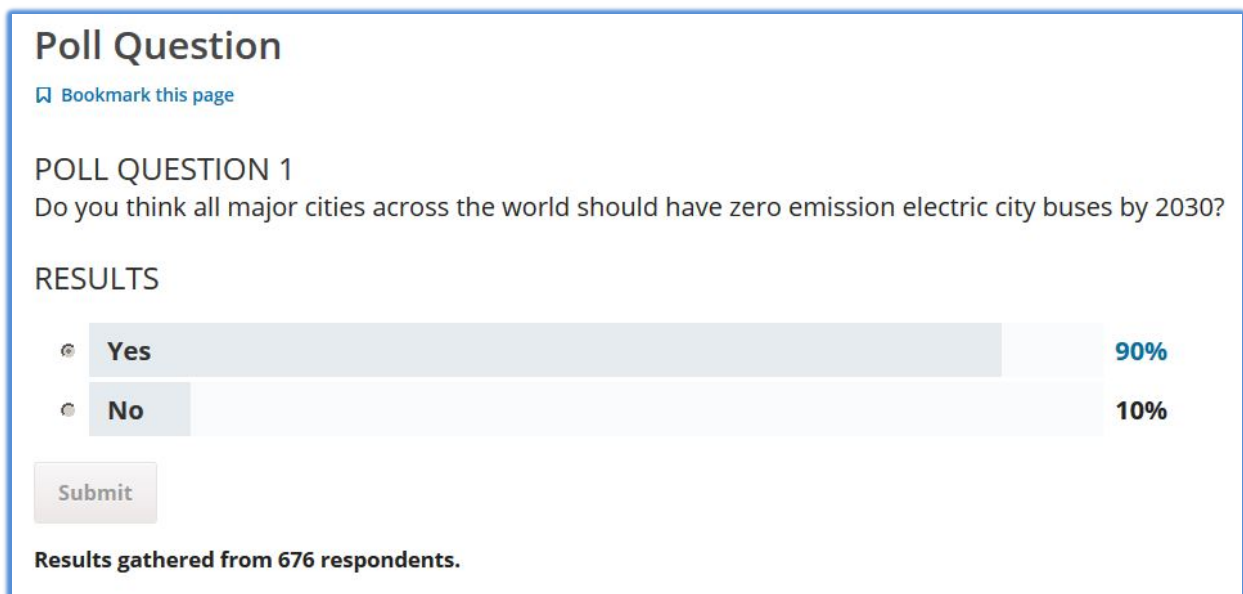
- (1) As a practical matter, one that will enhance public appeal, the proposal to incentivize conversion to electric mobility must address existing or anticipate future social problems.
- (2) The proposal must be broad/general enough to appeal to all the “nations” within the nation of the USA. That is, the States and their governments must not be confronted with, what they will view as, ANOTHER centralized political dictum. (In case someone missed it, this internal USA issue was especially effective in the 2016 presidential election.)
- (3) The proposal must reach the most people/citizens in the shortest possible time.
- (4) It must immediately present to those citizens so-exposed the wonderful benefits of electric mobility (i.e. safety). The direct exposure process/experience will garner their open and qualified support; a support that is individually and socially empirical.
- (5) The proposal must effect the major institutions of the USA, both public and private, in a manner that is seen as “fair” in terms of the burden associated with the conversion.

Policy Proposal – Conversion of the USA Transport Bus Fleets to Electric Mobility

All major bus transport fleets of the United States must be converted to electric mobility not later than the year 2030. These fleets include, but are not limited to the following categories:

Municipalities
Major Airports
Grade Schools
Major Universities

This policy proposal fulfills all of the five criteria listed above, and is consistent with a poll taken in the Technology portion of the instant course:



This policy proposal is, proverbially speaking, in terms of the five criteria listed above, the:

Low-Hanging Fruit



All of the states of the USA have both private and public educational institutions, but **the only one** that has converted its bus fleet to electric mobility, and with complete success, is the University of Montana (photograph is hyperlink):



<https://www.youtube.com/watch?v=1UI-KWhA-54>

The Policy Issue of Exemplars – Municipality

In terms of State appeal, the exemplar in the USA is California, which has municipalities that are already mandating the year-2030 electric mobility conversion.

For example, the City of Los Angeles is a C-40 Group signatory, which lauds the following moniker: Cities Will Shape Our Future. The Los Angeles section states:

Procure, with our partners, only zero emission buses from 2025.

LA Metro has endorsed a goal of a fully zero-emission bus fleet by 2030, which means all bus procurements moving forward will be electric. Metro has already started

towards this goal with the recent procurement of 100 electric buses. LADOT will procure only electric buses starting in 2025.

<https://www.c40.org/other/fossil-fuel-free-streets-declaration>

The Policy Issue of Exemplars – Municipality

But the national exemplar is clearly China . . . As just one example, the great metropolis of Shenzhen has already converted all of its municipal bus transport fleet to electric mobility. A staggering 16,359 bus units were converted to electric in 2016:



<https://www.youtube.com/watch?v=sLo3Pn4KC3w>

No city in the USA even comes close to this laudable accomplishment.

Conclusion – Part One

Two of the five criteria above provoke further elaboration. Policy Proposal Criteria 1 states:

(1) As a practical matter, one that will enhance public appeal, the proposal to incentivize conversion to electric mobility must address existing or anticipate future social problems.

The ‘existing or anticipate future social problems’ aspect is the electric grid / infrastructure of the USA. In a word, in its current condition, the grid in the USA is a mess. Much of the grid componentry, as unbelievable as this sounds, dates and is actually time-stamped to the 1930s. Yes . . . you read that correctly . . . the 1930s.

In a recent visit with the Chinese SAE I presented the following paper, entitled:

The Electric Vehicle Paradigm: EVs as a Driver of Grid Modernization and Sustainable Nuclear Power

The proposal to convert the Municipal, Major Airports, Grade Schools and Major University bus fleets to electric fulfills Criteria 1 by incentivizing modernization of the US electric power grid: <http://pvsheridan.com/Sheridan2Shanghai-1-12September2018.pdf>

Conclusion – Part Two : The All-Important Issue of Safety

Combined with Policy Proposal Criteria 1, we conclude with Criteria 4:

(4) It must immediately present to those citizens so-exposed the wonderful benefits of electric mobility, and in the process garner their open and qualified support; a support that is individually empirical.

Although this connects to all four fleets, it is especially urgent for the Grade School bus fleets, which are currently all internal combustion engine based, primarily diesel cycle.



The only grade school in the USA to convert *all* of its fleet to electric is the District of White Plains New York.

District Superintendent Dr. Joseph Ricca: “The White Plains City School District is very excited at the prospect of using electric school buses . . . our children will experience the most technologically advanced means of transportation and our community will benefit from the positive environmental impact. We’re anxious to roll out the buses in September and continue


working to identify innovative and sustainable measures throughout our district.”

But the most important benefits of this Grade School fleet conversion, a benefit that trumps all five of these Proposal Criteria in terms of policy priority and civic responsibility, **is the issue of safety.** A few weeks ago, this conflagration occurred in Fort Wayne, Indiana:



That the school children and school bus driver were able to escape without horrible injury or death was the result of both training and . . . luck. The conversion of our school fleets to electric mobility must occur as-soon-as-possible. Such a conversion **eliminates the issue of recurring fuel-fed conflagrations:** <https://www.youtube.com/watch?v=tP06nZHS7KM>

No incentive, or “scheme,” is more important than safety . . .



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First and Foremost Safety is a
Management Issue

DDM CONSULTING

The Safety and Efficiency of the Transportation Fleet

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