

Homework 10 on Lecture 14 on Light Vehicle Policy**Date due: Monday, April 28, 2023**

This is a problem which is appropriate to do as a team assignment. I am most willing to review your team's answer, if you wish to submit.

Consider the policy formulation objectives discussed in lecture 14:

- **standards** of both gradual and technology forcing nature; and
- **incentives** of various forms including tax credits, *EV* purchase rebates, governmental *EV* purchases and research funding for sciences/engineering.

Next, consider some of the key barriers to the wider *EV* deployment and the current areas that require further development, such as batteries, cleanliness of charging electricity, the *EVCI* and the high vehicle prices. Provide your answers to the two problems on policy comparison for *EVs*.

1. Discuss two distinct policies that can, or do, address two different challenges in the introduction of *EVs*. It is acceptable to describe a policy that already exists. Or, if you wish to be more adventuresome, you may formulate a brand, new policy not yet in existence. In either case, please **provide** an example of a similar policy that has been used in the past. For each objective in the policy, focus on the specific policy mechanism required or proposed to addresses a particular problem. The problem may be either specific, *e.g.*, lack of high-capacity public *EVSEs*, or general, *e.g.*, climate change, but the policy instrument you propose must be specific and described in detail. For each of your policy objectives, describe:
 - a. **State** the specific problem that your proposed policy aims to solve.
 - b. **Describe** the thrust of specific policy you propose and **select** one of the two policy objectives listed above that your policy is aimed to pursue with the appropriate rationale for your selected choice.
 - c. **State** the government body – branch, agency, department or legislative body - that would pass or approve your proposed policy and also the one that would be responsible for its implementation?
 - d. **Describe** the outcomes – be they desirable or undesirable – that you expect from the enactment and implementation of the policy you proposed.
2. At the time at which mobile phones were introduced, they were big and awkward and very expensive. But since that time, their extensive deployment, without the intensive government interference, has become a global reality. Since the spread of battery-powered phones was achieved without extensive policy implementation, **discuss** the reasons for the policy needs of wider deployment of battery-powered *EVs*. **State** the specific reasons why such policy needs to

exist for *EVs* in 2023 in distinct contrast to the case of the mobile phone introduction in the early 1990s.