Consumer Advisory Committee on Utilities
CACU
"The Consumers' Voice on Utilities"

E-mail: cacu2@our.org.jm
Mobile/WhatsApp: 876-322-9301

PROPOSALS FOR A REGULATORY FRAMEWORK TO FACILITATE THE PENETRATION OF ELECTRIC VEHICLES IN JAMAICA

Question 1: Barriers to EV Ownership

A. What are your views on the relevance of the identified barriers to EV ownership in our jurisdiction?

B. Are there other relevant barriers not contemplated? If so, please provide details?

C. What measures would you suggest to surmount these barriers?

CFA - 1.A: Not all the stated areas relate directly to ownership. I believe that cost is the most relevant barrier to ownership.

PAG – 1.A: Initial capital outlay and a lack of vision with the duty even at 30% reveals a lack of the potential longer term gains related to a reduced dependence on fossil fuel importation.

The other areas listed can be categorized as decision points to ownership rather than a Barrier.

GG - 1.A I believe that they are all relevant but when ranked, purchasing cost of EV is the highest followed by availability of charging infrastructure, lack of consumer information and charging time.

CFA - 1.B: Once the EV has all the equivalence to that of owning an ICE then a potential owner. As policies are being recommended one would expect that to register and license the EV would not take more time or effort than it would for an ICE so it will again come down to that cost of these transactions.

GG 1.C: - The availability of mechanics with the requisite skills for maintaining and repairing EV could be a barrier.

CFA – 1.C: Treat EVs as another category of motor vehicle and do not penalize the ownership of ICEs.

PAG - 1.C: Reduce the duty of EV because of the collective gains to be achieved as a country for EV.

GG - 1.C: Given the overall benefits to the environment and the economy that could be derived from converting the majority of the vehicles in Jamaica to EV, the GOJ should provide incentives such as lower duties for EV to help lower the overall purchasing cost. Incentives

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for the establishment of charging stations at strategic locations should also be provided. A consumer awareness campaign should also be undertaken through a joint public/private sector collaboration. Training programs for EV mechanics should implemented as soon as possible.

Question 2: Jamaica's Road Network

A. What are your views on the appropriateness of Jamaica's Road Network to support the location of charging infrastructure for EVs?

B. What would you consider to be an appropriate distance between EV charging stations in Jamaica to mitigate range anxiety?

C. Should the Jamaican Motor Vehicle Registry be allowed to share EV registration and owners location with JPS?

D. If the response to (c) is positive, do you think privacy concerns will act as a barrier to EV ownership?

CFA – 2.A: The road network for charging stations is as appropriate for gas stations. I don't think it is more or less.

GG – 2.A: I believe that Jamaica's road network is appropriate to support the location of charging infrastructure for EVs.

CFA – 2.B: I believe that people's experience and market forces can answer this question. This would be akin to the consideration given when locating a gas station.

PAG – 2.B: 50 miles on Highway in the first instance and 5 miles in the city depending on the number of charging ports at each station.

GG – 2.B: For cities and towns I believe the location of charging stations should be 10-15 miles apart and a minimum of 50 miles on highways to mitigate range anxiety.

CFA – 2.C: I am not seeing in the document where this has been presented as an argument. On the face of it I cannot see the necessity when one considers that the EV is a car.

PAG – 2.C: No issue if the intent is to develop the requisite infrastructure to deploy CP (Charging Port Stations)

GG – 2.C: I see no problem once the information will be used solely for the development of public charging stations.

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CFA – 2.D: Even if the response to (c) were negative, all vehicle ownership is registered and the EV should not be any different. The document should state the reason for JPS to access the information.

PAG – 2.D: No

GG – 2.D: No. I believe this information is currently available to insurance companies.

Question 3: Regulatory Approaches and Incentives

A. Do you think that the GOJ and its agencies are doing enough to encourage the uptake of EVs?Please provide detailed reasons for your response.
B. What steps, in your view, are required to implement the proposed incentives/ approaches?
C. What are your views on the proposed approaches and incentives considerations to encourage EV take-up locally?
D. Are there any other appropriate incentives and/or approaches not identified? Please provide details.
E. Do you share the view that GOJ should mandate EV targets for its own vehicle fleet?
F. What difficulties do you think the GOJ will experience in implementing the proposed incentives or adopting the proposed approaches?

CFA – 3.A: This consultation is designed to give the GOJ and its agencies ideas and so does not beg the question.

PAG – 3.A: - No

GG – 3.A: - No

CFA – 3.B: Looking at the international cases:

- Zero rate import duties
- Allowed electric bikes (two-wheelers) with a maximum speed of 20 km per hour to be operated without a license or registration
- Charge for use of any public charging station wrt to time used.

PAG – 3.B - Agree with 1 & 2 above. 3. Encourage the deployment of the requisite infrastructure to facilitate EV ownership and use throughout the country.

GG – 3.B:

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a) Launch a robust public education campaign to create awareness of the benefits of EV and the incentives available to all stakeholders.

b) Provide duty incentives to consumers and tax credits to dealers to encourage purchase of EV.

c) GOJ needs to lead by developing policies that mandate conversion of GOJ fleet over time to EV.

CFA - 3.C: Not all are necessary, such as free dedicated parking. The availability of parts would be taken care of by market demand. I do not believe the government should get into the business of providing free public charging stations nor provide grants for EV purchase.

Relevant approaches and incentives include removal of duty, starting with government fleets going electric, tax credits with dealerships can be discussed to determine its efficacy.

PAG – 3.C: Considering the potential benefits that will accrue, more should be done to encourage uptake. Dedicated parking from the perspective of charging ports at certain facilities will be required.

GG – 3.C: GOJ should focus on those incentives that directly impact the purchasing cost of EVs and incentivize dealers to stock and promote the sale of EVs.

CFA – 3.D: See point #2 in the response to 3B

PAG - 3D: Develop a policy to encourage Government Agencies to acquire EVs.

CFA – 3.E: Yes. This would help to reduce government spending in the long term.

PAG – 3.E: Yes.

GG – 3.E: Yes

CFA – 3.F: Not all of the proposed incentives should be implemented. Providing grants for example, may lead to corruption.

PAG – 3.F: Political will.

GG – 3.F: Political will

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Question 4: Business Models for Infrastructure Ownership

A. What policy options adopted in other mature EV markets would be appropriate for Jamaica?

B. What other challenges can you identify that may be unique to Jamaica and would require a different set of policy options or variations to other jurisdictions?

C. What are your views on the appropriateness of the integrated and the independent business models for Jamaica?

D. Are you of the view that both approaches are permissible in Jamaica? Please provide reasons for your answer.

E. If you are of the view that neither of the approaches in (c) is applicable, what business models for infrastructure ownership do you think would be suitable for Jamaica to successfully deploy EV charging infrastructure?

CFA – 4.A: Regard it as an unregulated service which would allow private investors to own and operate the infrastructure.

PAG – 4.A: Concur with response above.

GG - 4.A: Concur with above responses

CFA – 4.B: Based on the response to 4A I do not believe that Jamaica has any unique challenges.

PAG – 4.B: The cost of production of Electricity from JPS in Jamaica appears inefficient and is influenced by the price of oil which isn't independent of the price of crude oil.

GG – 4.B: None

CFA – 4.C: Both seem appropriate especially if JPS believes that it makes business sense for them.

PAG – 4.C: Free market should be allowed - Thus both should be encouraged and allowed to operate.

GG – 4.C: Both models are appropriate and should be allowed to operate.

CFA – 4.D: Yes, both approaches may be permitted in Jamaica.

PAG – 4.D: Yes.

CFA – 4.E: No further response

PAG – 4.E: nil

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Question 5: EV Charging Regulation

A. What are your views on utility participation in the EV charging market?
B. What, in your view, would be the benefits or disadvantages to utility participation in Jamaica?
C. What are your views on charging activities being considered a 'supply of electricity' under the current legislative and regulatory framework?
D. Do you think the current electricity regulatory framework facilitates or hinders the private ownership and deployment of EV charging infrastructure? Please provide detailed reasons for your response.
E. In your view, do you think that there are aspects of the regulatory framework that can facilitate the rapid uptake of EVs? If yes, what aspects?
F. What appropriate steps should the GOJ take to expressly exempt charging activity under the current legal and regulatory framework?
G. What are your views on regulation of EV charging activities?

CFA – 5.A: It is appropriate.

PAG – 5.A: No issue as long as other players are able to develop their own infrastructure. It would force them to be competitive and private players should be allowed to develop their own electricity generating capabilities and this should be encouraged,

GG – 5.A: They should be allowed to participate along with other private investors.

CFA – 5.B: Benefits would include a wide distribution of charging stations.

PAG – 5.B: Infrastructure exists to facilitate rapid deployment and encourage positive uptake.

GG – 5.B: The utility would be able to take advantage of its existing infrastructure in establishing charging stations islandwide.

CFA – 5.C: This should be worded to clearly state the construction of a charging station. Then I do not believe that installing charging stations (charging activities) constitute a supply of electricity according to the given definition.

PAG – 5.C: It does not appear to appropriately take into consideration the provision of private person's ability to develop the power generation and distribution of the appropriate charging facility.

GG – 5.C: I do not believe that "charging activities" should be considered to be the supply of electricity under the current legislation and regulatory framework.

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CFA – 5.D: I do not believe it hinders. Persons who currently own EVs would have a charging station at their home and paying for the use of the electricity and there is the case of the private hotel in Kingston with charging stations, they would also be paying their regular utility bills based on the usage of those stations.

CFA – 5.E: No. I do not believe the regulatory framework will facilitate a rapid uptake of EV's only market driven forces, which is the cost and benefits of ownership.

PAG – 5.E: No. It will not.

GG – 5.E: No. I do not believe it will facilitate a rapid uptake of EV's.

CFA – 5.F: Speak to the installation of charging stations and provide standards for construction and placement (akin to constructing gas stations). Do not view charging as an activity.

PAG – 5.F: Charging facilities for EV should not be viewed in the same category as a Petrol (Gas) Station.

GG – 5.F: Amend legislation to ensure that charging activity is exempt under the current legal and regulatory framework.

CFA – 5.G: I do not believe it should be regulated.

PAG – 5.G: Similar to the ability of a private person being allowed to deploy an electric means of generating electrical power by either solar or wind turbine, the means should exist for a private person and or company to do the same for electrical power generation for an EV station should be allowed.

GG – 5.G: As stated before, EV charging activities should not be regulated.

Document goes from question 5 to question 7. There is no question 6.

Question 7: Relevant Legal and Regulatory Framework

A. Do you agree with the strategies proposed to incentivize EV penetration under the current regulatory framework?

B. In your view, what regulatory initiatives can be employed in short order to incentive EV take up.

C. What, in your view, are the challenges to any of the proposals identified?

D. In your view, what additional strategies can be employed to encourage EV take-up under the current regulatory framework?

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CFA – 7.A: I agree with the Government Procurement strategy. If charging is viewed as a service rather than the supply of electricity, the other strategies would not be required. The market would drive the activities.

PAG – 7.A: Yes.

GG – 7.A: Yes I agree with the proposed strategies to incentivize EV penetration under the current regulatory framework.

CFA – 7.B: Treat it as a service and anyone applying for connection to a charging station should be charged by JPS at a relevant commercial rate.

PAG – 7.B: Agree with 7B above.

GG – 7.B: GOJ investing in charging stations for its ministries, departments and agencies and making the service available to the public free of cost. Also providing incentives for commercial entities to establish charging stations for their own operations and also providing free charging service for their customers.

CFA – 7.C: Free charging would be a cost to taxpayers. I would not encourage this.

PAG – 7.C: A proper cost benefit analysis could be done. From a cursory perspective - it may not be a cost to the taxpayers and may be a net savings. Enough information is not available to make an informed assessment.

GG – 7.C: I concur with PAG

CFA – 7.D: No response.

PAG – 7-D: Additional Duty concession.

GG – 7.D: No other suggestions at this time.

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Question 8: Benefits of EVs Uptake

A. Do you think that more EVs in the system will significantly reduce the dependence on imported fuel? If yes, how? If no, why not?

B. Do you agree that largescale EV adoption will significantly reduce greenhouse gas emissions in the environment? If yes, how? If no, why not?

C. Do you agree that large scale EV adoption will have a positive impact on the economy? If yes, how? If no, why not?

D. The economic assessment carried out indicated that the pay-back period is more attractive for EV travelling a high number of miles. Do you think that EVs would be more economical for public passenger vehicles than private vehicles?

CFA – 8.A: No because the EVs will need charging stations that will depend on imported fuels.

PAG – 8.A: Yes. This should be done with alternate power generating abilities, but EV even as a stand-alone consideration, should reduce the dependence on imported oil.

GG – 8.A: Yes. The development of the charging infrastructure should be based on renewable energy. Also EV vehicles consume less fuel even if the electricity is generated from fossil fuels as compared to ICE vehicles.

CFA – 8.B Yes. This is a logical argument. Significant is a subjective term.

PAG – 8.B: Yes. It has been demonstrated that during the COVID pandemic with less ICE vehicles on the road, there was a significant reduction of greenhouse gases and its consequences. Thus, an increase in the use of EV would have similar gain.

GG – 8.B: Yes. As EV's replace ICE vehicles there will be far less emission of greenhouse gases.

CFA – 8.C: Where EVs may be used in public transportation, and lead to the reduction of fares then a large scale adoption would benefit the economy. Wide Scale adoption by the government will reduce costs but not necessarily benefit the economy.

PAG – 8.C: Yes. Consumer wide scale adoption would not necessarily benefit the economy as the purchase and maintenance of the vehicles will require foreign exchange.

GG – 8.C: Yes. Reduced dependence on fossil fuels resulting in reduction of foreign exchange outflows for purchase of fuel. Reduced emissions resulting in improved air quality and the health of Jamaicans

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CFA – 8.D: Yes EVs would be more economical for public passenger vehicles than private vehicles. The assessment supports this conclusion.

PAG – 8.D: Yes

GG – 8.D: Yes

Document goes from question 8 to question 10. There is no question 9.

Question 10: Impact of EV charging on Electricity Supply

A. What are your views on the effect of large-scale EV adoption on the electricity supply system?
B. What do you think of charging of EVs at home and work place?
C. Do you think high adoption of EVs in Jamaica will reduce your electricity bill?
D. Do you believe that the use of smart grid charging will allow for a greater penetration level of EVs when compared to uncontrolled charging? If yes, how? If no, why not?
E. What are your views on the effects of TOU billing on EV charging behaviour?
F. What incentives should be offered for EV private home charging?
G. Do you think that a TOU tariff option would reduce the impact of charging load on the grid? What other do you think should be considered to smooth the demand spike that EV charging is expected to produce?
H. Should the Jamaican Motor Vehicle Registry be allowed to share EV registration and owners' locations with JPS?

CFA – 10.A: No different from the large scale adoption of manufacturing or the increase in housing developments. It should be seen as part of the overall increase in electricity demand due to modernization/economic growth.

PAG – 10.A: The policy should be considered in conjunction with the encouragement of private development of electrical generating abilities for private building.

GG – 10.A: - This should be factored into the medium to long term growth plan for electricity supply.

CFA – 10.B: That is appropriate and in order for such a technology.

PAG – 10.B: Very appropriate,

GG – 10.B: Should be a part of the plan to promote the adoption of EV.

CFA – 10.C: No. It is an additional consumption.

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PAG – 10.C: Economies of scale should provide a benefit - it should. Other issues complicate the Jamaican operating environment such as eclectic stealing does add a dimension that is difficult to quantify.

GG – 10.C: It is difficult to say as there are many factors at play that could influence the cost of electricity.

CFA – 10.D: No. This question should be framed as a belief question. I do not belief that smart grid charging has a causal relationship with EV penetration.

PAG – 10.D: Unsure.

GG – 10.D: I believe it could contribute to greater penetration levels if the right price breaks in the rates are provided as an incentive.

CFA – 10.E: I believe that charging should be billed as a service and the connection point be metered. The owner of the service pays that electricity bill.

PAG – 10.E: Cost benefit analysis should be conducted. Not enough is known.

GG – 10.E: Not sure

CFA – 10.F: Do not charge a different rate from residential, it should be the same. The increase in consumption will reflect in the bill.

PAG – 10.F: Standard rate should be applied. The benefit should work itself out. However, people should be incentivized to produce their own electricity. EV vehicles will assist JPS if there is an increase in the private power generating ability. But it is difficult to quantify casually without more data.

GG – 10.F: Charge the same residential rate.

CFA – 10.G: See response at 10F. Furthermore I suggest that charging stations be placed in an existing rating category for commercial activity.

GG – 10.G: Not sure

CFA – 10.H: See response 2C and 2D.

PAG – 10.H: Previously responded however, with the electronic meter, consumption is consumption.

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General Comments:

1. Pg. 11 speaks to implementing regulatory and policy action needed to facilitate and support uptake of EVs – this is late in coming. It seems that the absence of regulatory and policy actions with regards to an evolving sector is the proverbial "dog wagging its tail", which makes it an impediment to the roll-out and development of the infrastructure. Private engagement is already ahead of the **proposed** policy and regulatory frameworks.
2. Charging rates should not be regulated as it does not represent the sale of electricity – it is in fact a service being provided to the EV market.
3. Regulatory treatment of charging infrastructure is one of the deterrents/disincentive to increased deployment of not only vehicles for the entire infrastructure around the establishment of a viable and smart e-mobility roll-out.
4. The very nature of the e-mobility market is that of a competitive marketplace.

The data/information contained in the document is outdated; it is difficult to respond to data which does not give a timely/forward-looking overview of the global marketplace. Having the most EVs in the Caribbean does not make the market a "leader". The supporting infrastructure around the vehicles is what determines the developmental state of the market. This consultation therefore is more static and backward-looking, with very litt