Initiative for Climate Action Transparency

Phase 2

Stakeholder Validation Workshop Report

Antigua & Barbuda

29th February 2024

Submitted to:
The Government of Antigua & Barbuda, Department of the Environment

Prepared by:
Caribbean Cooperative Measurement, Reporting & Verification Hub

DISCLAIMER

PREPARED UNDER

The Initiative for Climate Action Transparency (ICAT), supported by Austria, Canada, Germany, Italy, the Children's Investment Fund Foundation and the ClimateWorks Foundation.

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Stakeholder Validation Workshop Report

Initiative for Climate Action Transparency – ICAT

Deliverable # 16 (P)

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7th February 2024

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Acronyms

ABTB	Antigua & Barbuda Transport Board
ANB	Antigua & Barbuda
APC	Antigua Power Company
CCMRVH	Caribbean Cooperative Measurement, Reporting and Verification Hub
CSI	Climate Smart Initiatives (Pvt) Ltd.
DOE	Department of Environment
EV	Electric Vehicle
GACMO	The Greenhouse Gas Abatement Cost Model
GDP	Gross Domestic Product
GHG	Greenhouse gas
GHGMI	Greenhouse Gas Management Institute
ICAT	Initiative for Climate Action Transparency
ICE	Internal Combustion Engine
JICA	Japan International Cooperation Agency
LEAP	Low Emissions Analysis Platform
LNG	Liquefied Natural Gas
MW	Megawatt
NCT	National Coordinating Team
NDC	Nationally Determined Contribution
RE	Renewable energy
SDG	Sustainable Development Goals
SEI	Stockholm Environment Institute
SIDS	Small Island Developing States
SLIM	Sustainable Low Emission Island Mobility
SUVs	Sports Utility Vehicles

TraCAD	The Transport Climate Action Data Tool
UNFCCC	United Nations Framework Convention on Climate Change
UNOPS	United Nations Office for Project Services

1 Executive Summary

Antigua & Barbuda's Department of Environment (DOE) convened a validation workshop on 24th January 2024 under the **Initiative for Climate Action Transparency (ICAT) Phase II Project: National Electrification Impact Assessment**.

Phase II of the ICAT Project takes a deeper look at the transport sector, specifically, the strengthening of national modelling capabilities in this sector for policymaking, NDC updates and other reporting requirements, and the impact of its electric mobility transition.

To achieve its objectives, the project involved the following:

- ✓ The review of modelling tools available for the transport sector and the selection of appropriate modelling tools for the greenhouse gas (GHG) analysis of the transport sector for Antigua & Barbuda (ANB) including an analysis of the power requirements for this transition. The process of this selection was highlighted in the Transport Tool Selection Justification Report.
- ✓ Training workshops virtual and in-person on the modelling tools selected for analysis: The Transport Climate Action Data Tool (TraCAD) developed by the Climate Smart Initiative (CSI) and the Low Emissions Analysis Platform (LEAP) developed by the Stockholm Environment Institute (SEI)
- ✓ Ensure linkage with the Sustainable Low Emissions Island Mobility (SLIM) Project through the hosting of a Transport implementation project alignment workshop.
- ✓ The development of fully elaborated models for the selected modelling tools TraCAD and LEAP and updates of the models developed from phase 1 of the project LEAP and The Greenhouse Gas Abatement Cost Model (GACMO) with the new datasets obtained.

The modelling software chosen was used to assess various transport-related scenarios, which directly align with their NDC targets. Following this, an analysis of the emissions reductions associated with the transition of the transportation sector using various scenarios was carried out. The overall impact that the electric vehicle transition had on the power sector was also studied. The results of this analysis were used to draft two key reports:

- ✓ Draft electric mobility transition scenario impact assessment report
- ✓ Draft electric power mitigation analysis scenario report

The reports can also be found in ***Annex 5: Reports.***

Following the completion of the reports, a Stakeholder Validation Workshop of the modelling results was facilitated by the DOE with support from the consultants of the Caribbean Cooperative Measurement, Reporting and Verification Hub (CCMRVH).

Stakeholders from various organizations within ANB were invited to provide feedback on the results, including any possible areas for improvements to the modelling or to the draft

reports which were shared prior to the workshop. These stakeholders included persons and organisations who were either instrumental during the data collection process or represented key organizations within the energy and transportation sector which would be directly impacted by the results of the analysis. A wide range of stakeholders including members of power companies, transportation companies, statistics companies, recycling and waste companies and ministry officials were invited to attend.

A hybrid approach was used for the workshop, where in-person attendees assembled at the Department of Environment (DOE) Conference Room in ANB, and others attended virtually.

Overall, stakeholders were satisfied with the results presented; however, some questioned the level of ambition presented in Antigua & Barbuda's transport-related NDC targets, given the actions needed to achieve them. There were not many suggestions for improvements to the transport models themselves, however, concerns with cost and waste disposal were identified with specific assumptions made within the analysis that were necessary to achieve the targets within the specified timeframe. The modelling team also received updated data from stakeholders on the renewable energy (RE) capacity of the grid, the decommissioning dates for the power plants, and the correct installed capacity for the new LNG plant.

The outcomes of this workshop shall provide further insights to the ICAT project team and support the completion of the final Electric Mobility Transition Scenario Impact Assessment Report, and Electric Power Mitigation Analysis Scenario Report.

All workshop materials including recordings, participant list, agenda and Mentimeter results can be found using ***this link****.*

2 Opening Remarks and Introduction

Mr. Oraine Nurse, Technical Data Consultant, and member of the National Coordinating Team (NCT) for the ICAT project, opened the workshop, noting its overall objectives. He welcomed virtual and in-person participants and kicked off a round of verbal introductions, which included the project manager, in-country coordinators, the CCMRVH members and technical advisors from the Greenhouse Gas Management Institute (GHGMI).

3 National Transport Electrification Impact Assessment Overview

Mr. Sherwyn Greenidge, a member of the NCT, delivered the first presentation which provided a detailed overview of the Phase II ICAT project. He began with a brief synopsis of the first phase of the ICAT project, which was implemented from December 2020 to December 2021. He noted that the results of the Phase I project were included in the mitigation reporting for Antigua & Barbuda's 4th National Communication. Mr. Greenidge then highlighted the current phase II ICAT project by summarizing the overall project objectives, expected outcomes and activities, and interlinkages with another related initiative – the Sustainable Low-Emission Island Mobility (SLIM) Project. The ICAT Phase II project was done in collaboration with the ongoing SLIM project, due to their shared similar objectives. Through this overview, stakeholders were provided with the opportunity to re-familiarize themselves with the work done previously (phase I) under the ICAT, as well as the current work being undertaken during phase II.

Greenidge further detailed the activities completed within the project and highlighted those pending completion, as shown in **Table 1** below.

Table 1: Project Activities and Outputs Completed (Yellow highlights).

Activities & Outputs

Activity	Description	Outputs
Activity 0	Conduct Inception Phase	Inception workshop report, Monthly progress reports
Activity 1	Select transport modelling tool(s) appropriate to supporting electric mobility policy making in Antigua & Barbuda	Transport tool selection justification report
Activity 2	Training on selected transport tools	Training sessions, ICAT participant surveys, training reports
Activity 3	Elaborate selected transport modelling tools(s), collect input data, and institutionalise collection processes	Transport implementation project alignment workshop & report, Fully elaborated transport model(s), Draft Transport model/tool data collection process manual, Draft electric mobility transition scenario impact assessment report
Activity 4	Transfer new inputs and outputs from transport modelling into LEAP and GACMO	Updated versions of LEAP and GACMO, Updated LEAP and GACMO data collection procedures manual, Draft electric power mitigation analysis scenario report
Activity 5	Validate assessment outputs with stakeholders	Validation workshop & report
Activity 6	Integrate and inform electric mobility implementation projects in country	Transport assessment model planning and model capabilities workshops, Workshop reports
Activity 7	Document and institutionalise mitigation modelling capabilities for country	Final electric mobility transition scenario impact assessment report, Final electric power mitigation analysis scenario report Final transport model/tool data collection process manual Fully documented version of modelling tool(s)

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He explained some of the various activities undertaken within the project. The activities included an initial engagement with stakeholders (activity 0) to discuss the project's objectives, and the importance and need for stakeholder input to produce useful outputs. Following this, he noted the process taken to select the modelling software which would be used to perform the technical analyses within the project. This process included the analysis of various available software, based on the specified criteria to establish adequate justification for the chosen tools (activity 1). Following this, he highlighted the various training sessions under activity 2 (pictured in ***Figure 1*** below) which were held on the two software which most effectively met the criteria. The software tools chosen were LEAP and TraCAD.

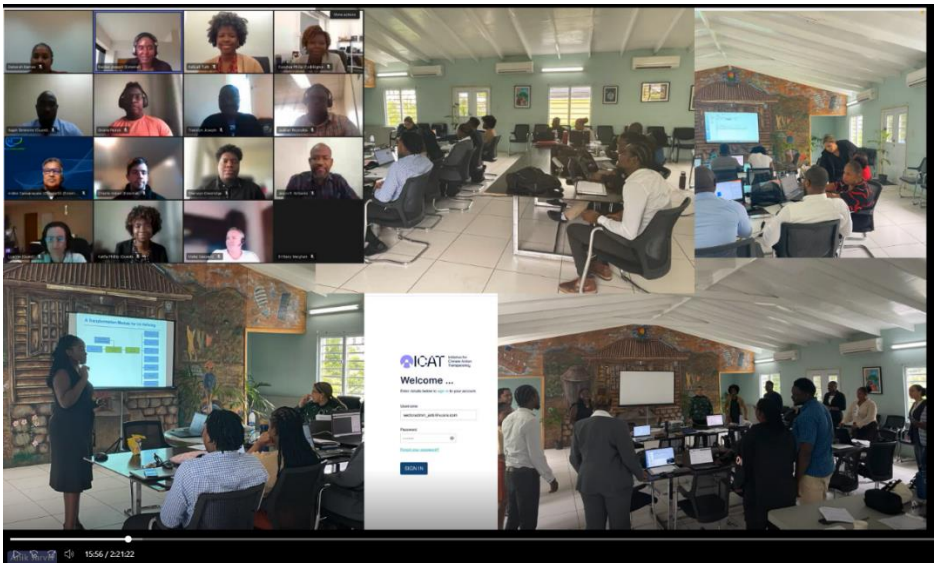


Figure 1: Activity 2 - Virtual & In-Person training sessions held on modelling software.

Mr. Greenidge explained that there were two separate training sessions held for each tool. In June 2023, a 4-day training on TraCAD was hosted virtually by the developers. This focused on navigation, data entry, user procedures and analysis in the tool. In July 2023, the CCMRVH team facilitated an in-person training on the LEAP software. Within the same period, the transport implementation project alignment workshop under activity 3 was held.

He noted that the in-country team simultaneously began the data collection process which was used to complete the fully elaborated transport models (activity 3), using the software.

The newly obtained data from stakeholders were used to update the previous LEAP model and GACMO produced during the phase I project. This was done under activity 4, which also included the joint completion of the updated LEAP and GACMO data collection procedures manual and the transport model data collection process manual for LEAP and TraCAD.

Two key reports were produced upon completion of the analysis – a draft electric mobility transition scenario impact assessment report and a draft electric power mitigation analysis scenario report. Mr. Greenidge noted that this workshop, which fell under activity 5, required the validation of the outputs of the assessments conducted, which were summarized in these reports. He further highlighted some of the final activities within the project which include transport assessment model planning and model capabilities workshops, which target higher-level stakeholders, experts, and other relevant public and private sector stakeholders to discuss the integration of the overall outputs of this project with impact assessments for other e-mobility projects and national policies for investments and decision making.

Mr. Greenidge closed his presentation by highlighting the key stakeholders who were consulted during the data collection process. He noted the key challenges experienced throughout the data collection process such as dataset inconsistencies, turnaround time and level of disaggregation and provided recommendations, as shown in ***Figure 2*** below.

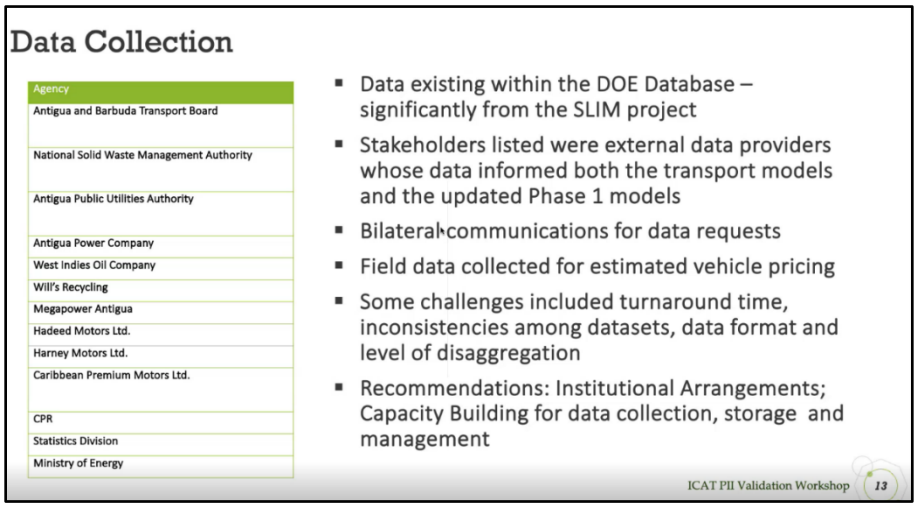


Figure 2: Key data sources, data collection process challenges and recommendations.

4 Electric Mobility Transition Scenario Assessment: Overview of Modelling Tools Used

Ms. Kalifa Phillip and Ms. Benise Joseph, members of the CCMRVH team for Antigua's ICAT Phase II project, provided an overview of the modelling tools used for the assessment. Ms. Phillip focused on their methodologies, and the different scenarios modelled within the tools and Ms. Joseph focused on the input data, assumptions, and results of the modelling process.

4.1 Methodologies

Ms. Phillip explained the key methodologies used to model the transport scenarios within the tools. In TraCAD, two key methodologies were used (also pictured in ***Figure 3 and*** **Figure 4** below):

- Transport Pricing Methodology – developed by ICAT.
- Small-scale Methodology | Emission reduction by electric and hybrid vehicles – developed by the United Nations Framework Convention on Climate Change (UNFCCC) under the Clean Development Mechanism (CDM)

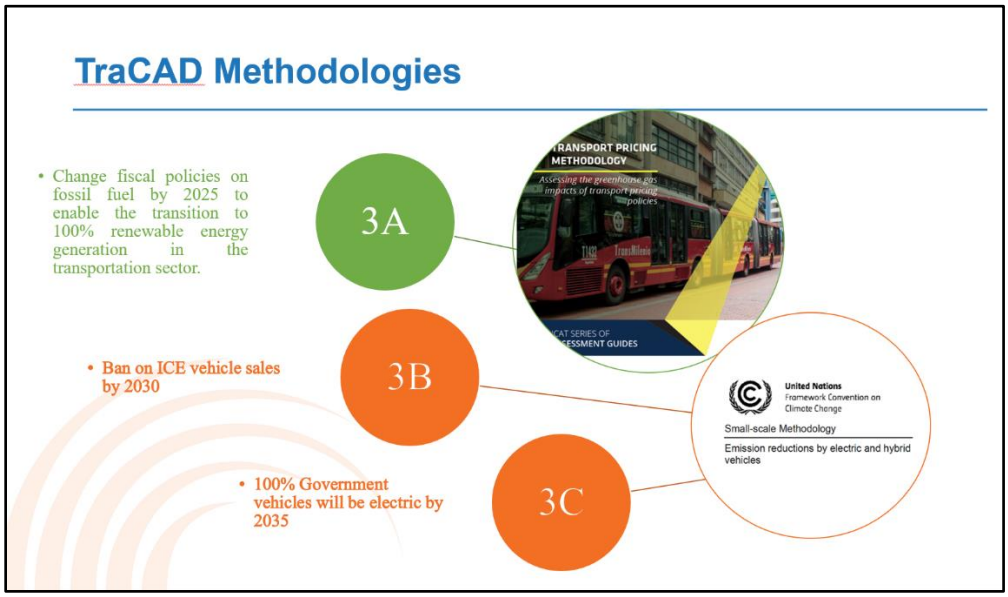


Figure 3: Slide highlighting TraCAD methodologies used for transport scenarios.

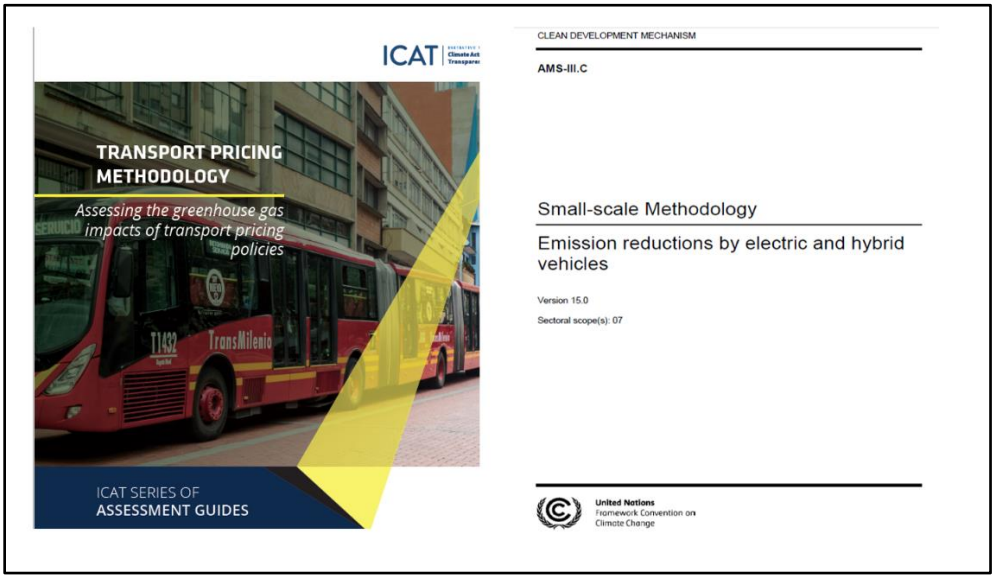


Figure 4: TraCAD methodologies used during analysis.

She noted that the TraCAD features over 20 standard methodologies developed by ICAT, UNFCCC or Japan International Cooperation Agency (JICA), and the methodologies chosen were based on the desired outcomes and scope of the analysis.

She briefly summarized the stock turnover approach as shown in **Figure 5** below, which is the approach used in LEAP to conduct transport analyses. She noted that this approach is ideal for energy devices with long lifespans, such as in the case of vehicles.

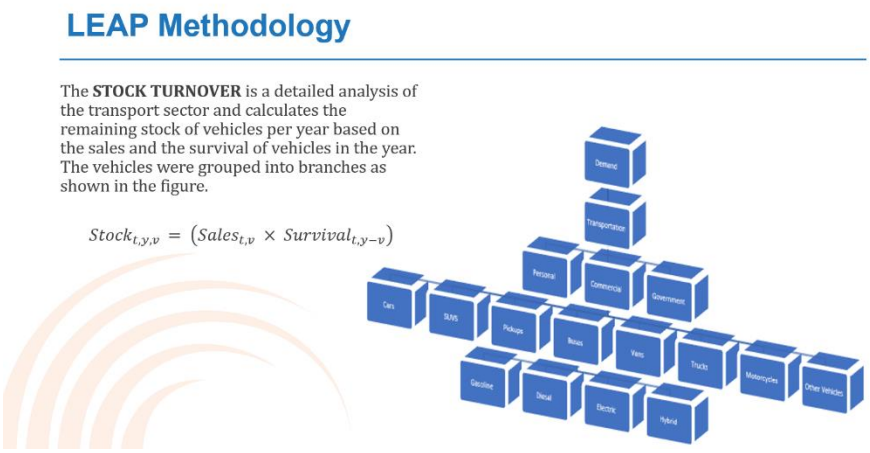


Figure 5: Stock turnover methodology used for LEAP Analysis.

4.2 Electric Mobility Transition Scenarios

Ms. Phillip continued her presentation by explaining the specific scenarios that were modelled within the different tools. She explained that all the scenarios modelled were directly linked to one of the four transport-related targets stated in Antigua & Barbuda's

Updated Nationally Determined Contribution to the UNFCCC. The three NDC targets modelled are shown in *Error! Reference source not found.* below.

Table 2: NDC Targets modelled within TraCAD and LEAP

	NDC Code	Targets	Completion Date
Transport Related Targets	3a	Change fiscal policies on fossil fuel by 2025 to enable the transition to 100% renewable energy generation in the transportation sector	2025
	3b	Ban on the importation of new internal combustion engine vehicles (with an indicative start year of 2025)	2030
	3c	100% of government vehicles will be electric vehicles	2035

During her explanation, she highlighted three of the NDC scenarios which were modelled in TraCAD and two which were modelled in the LEAP software.

Within TraCAD, the following scenarios were considered:

- 3A – The impact of an increase of 15% of the levies on ICE vehicles
- 3B – The transition of the full 2022 stock of vehicles to electric vehicles, where the impact is assessed during the year 2045.
- 3C – The impact of the transition of the full stock of ICE government vehicles to EVs, where the impact is assessed during the year 2035.

She noted that the assessment year of 2045, for 3B was chosen to align with the SLIM project, as well as under the assumption that more development is needed within the EV space to accommodate this transition.

Within LEAP, multiple scenarios analyzed a gradual decline in sales of ICE vehicles and a simultaneous increase in EV sales from 2025, to all vehicle sales being EVs in 2030. The following scenarios were considered:

- The complete ban on sales of all ICE vehicles,
- The complete ban on sales of ICE cars and Sports Utility Vehicles (SUVs) only,
- The complete ban on sales of ICE commercial buses only,
- The complete ban on sales of all ICE private/personal vehicles only and
- The complete ban on sales of all ICE commercial vehicles only.
- The complete ban on sales of all Government vehicles only and full transition by 2035

The scenarios were analysed with two key grid types to power the transportation sector:

- Fossil fuel with minimal RE penetration
- 100% RE energy supply to the grid

4.3 Data used, assumptions, and analysis.

Ms. Joseph then continued, noting the differences between the scope of the Phase I project, which covered all 5 IPCC sectors, and the Phase II project, which focuses on the electrification of the transportation sector and the impact this has on the power sector.

She continued to explain the data used within the different models. She noted that historical data was used to create projections for each scenario within the "ex-ante" assessments.

She explained the different input data and data sources which were used in both the TraCAD and LEAP models and further described the specific additional data which were unique to each software.

She emphasized the essential drivers which were used to model the transportation sector, i.e. population and gross domestic product (GDP), which were locally obtained, and supplemented with international data.

Another key data input was the vehicle stock and sales data, which were categorized into personal, commercial and government vehicles as well as by vehicle type. These were obtained directly from the Antigua & Barbuda Transport Board (ABTB).

Ms Joseph presented some other data used in the modelling, which was based on data collected, expert judgement, and desk reviews. These data include the annual mileage and the vehicle cost data. Additional data such as fuel and grid emission factors, fuel consumption, and others were also collected from typical international standards found online.

Ms Joseph then presented the assumptions used in the modelling for both tools (LEAP and TraCAD) to enable the creation of the scenarios necessary to analyse the mitigation actions. **Figure 6** shows the assumptions for climate action 3A used in the TraCAD model.

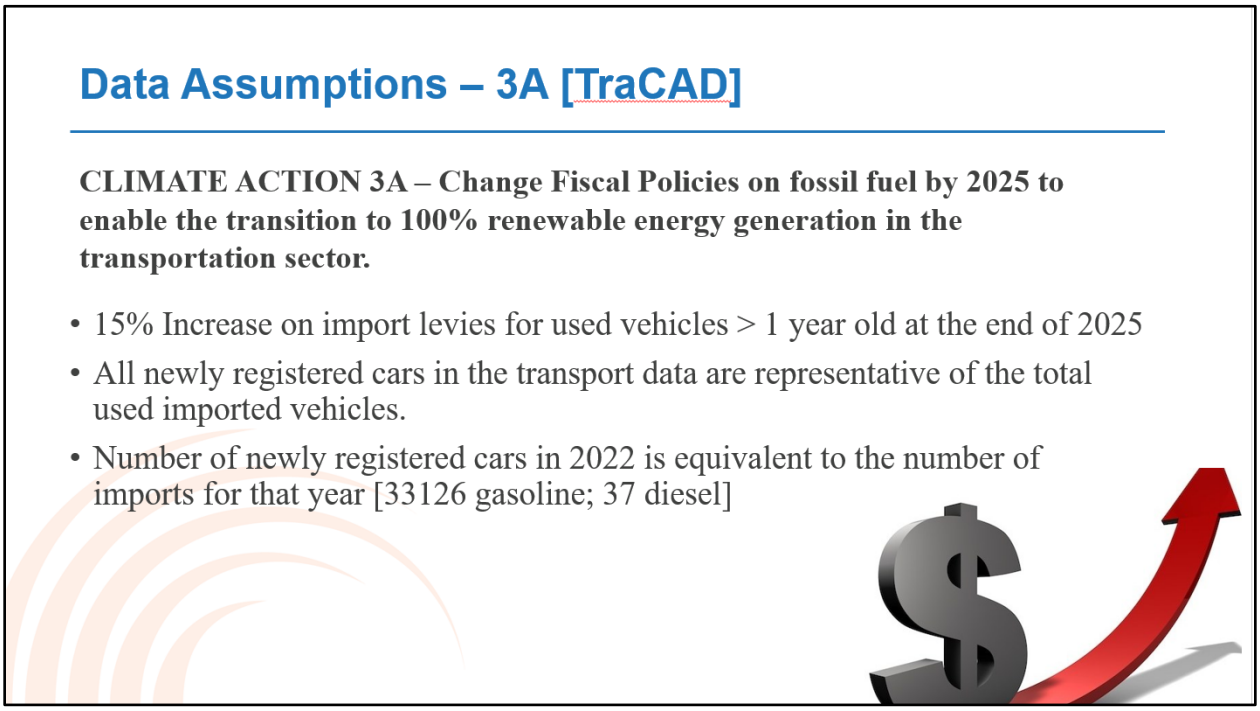


Figure 6: Assumptions in the TraCAD model for Climate Action 3A.

5 Transition Scenario Modelling Results

This aspect of the workshop presented and compared the results obtained from the analyses of the two software – TraCAD and LEAP. The stakeholders were presented with the opportunity to critique and provide suggestions for improvement to the results, if necessary.

Ms. Joseph explained the different emissions reductions obtained within the TraCAD model. The results suggested that the implementation of the different scenarios would result in significant emissions reductions which would enable the achievement of the NDC targets.

For the LEAP model, Ms. Joseph explained the results obtained for the various scenarios modelled within the two transportation actions considered 3B and 3C, as shown in **Figure 7**. She also clarified, after being questioned, the reason for the consideration of a scenario with "Cars and SUVs" which is separate from "Private vehicles". She noted that the "Cars and SUVs" scenario considered all vehicles of that type in the different categories, and this presented a possible scenario for a phased approach with readily available EV replacements for these types of vehicles in the market currently.

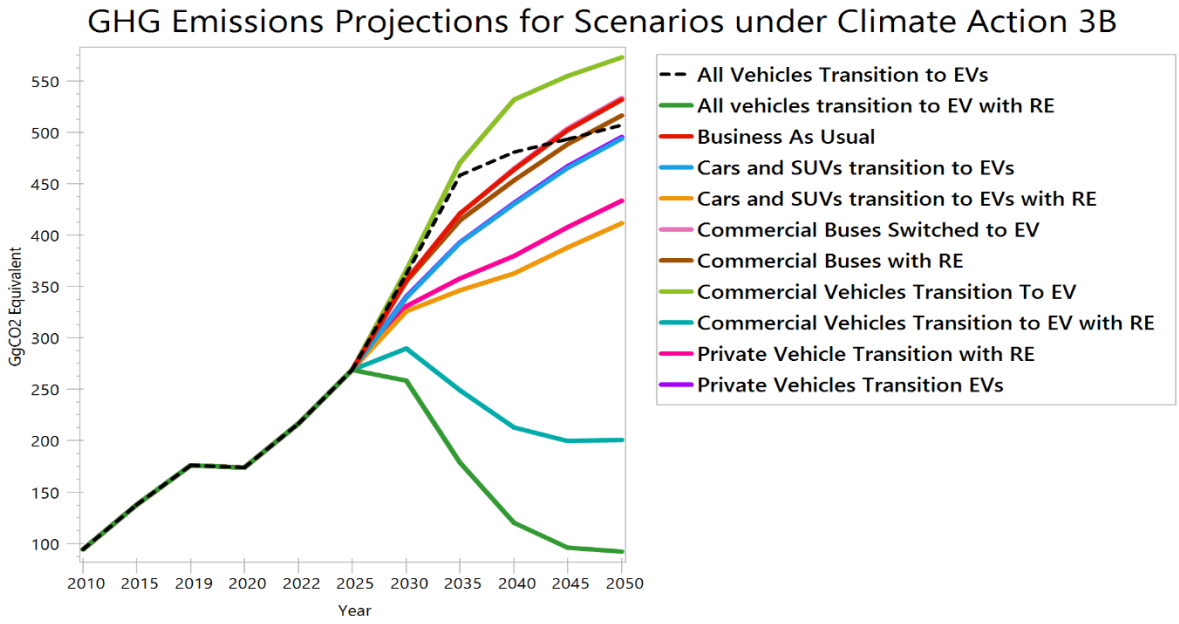


Figure 7: Model results - GHG Emission Projections for Climate Action 3B scenarios.

Ms Joseph presented a comparison of the results obtained from both transport models, noting the differences between the models and the difficulties posed when comparing models of this nature.

As a result, the only comparison highlighted was for Climate Action 3B which focused on the transition of the entire 2022 vehicle stock, as shown in **Table 3**. She highlighted the vast differences obtained for the baseline emissions as well as the emissions reductions, which she indicated could be due to several factors such as the difference in the methodologies

available within each software. The TraCAD tool analyses GHG emissions per project while the LEAP tool does a complete analysis

Table 3: Comparison of results for climate action 3B with LEAP and TraCAD

GHG Emissions /$GgCO_2e$				
	2022		2045	
	TraCAD	**LEAP**	**TraCAD**	**LEAP**
Baseline Emissions	467.085	216.637	517.593	501.987
Emissions Reductions			426.513	8.148

6 Electric Power Mitigation Analysis

This section, presented by Ms. Joseph, explored the interaction between the previously presented transport analysis, with the supply of electricity in Antigua & Barbuda. The electricity generation was initially powered by fossil fuels using the current penetration of renewables estimated to be 12.3%. The scenarios were analysed with the addition of fossil fuels to meet the EV electricity demand and with 100% renewables by 2030. The analysis did not take into consideration other demands for electricity such as residential, industrial and services sectors. This analysis was only conducted through the LEAP software and the electricity generation requirements for both fossil fuel and renewable powered scenarios are shown in **Figure 8.**

Ms. Joseph explained the additional power sector requirements for each of the scenarios considered during the models. Additional capacity was added to meet the energy demand for EV vehicles. For the baseline projections, the power sector was maintained at mainly fossil fuel base and for the mitigation scenarios the demand was analysed with fossil fuels and with a 100% supply of renewable power with battery storage. Ms. Joseph highlighted the graph below obtained from LEAP, which shows the additional energy requirements for each scenario.

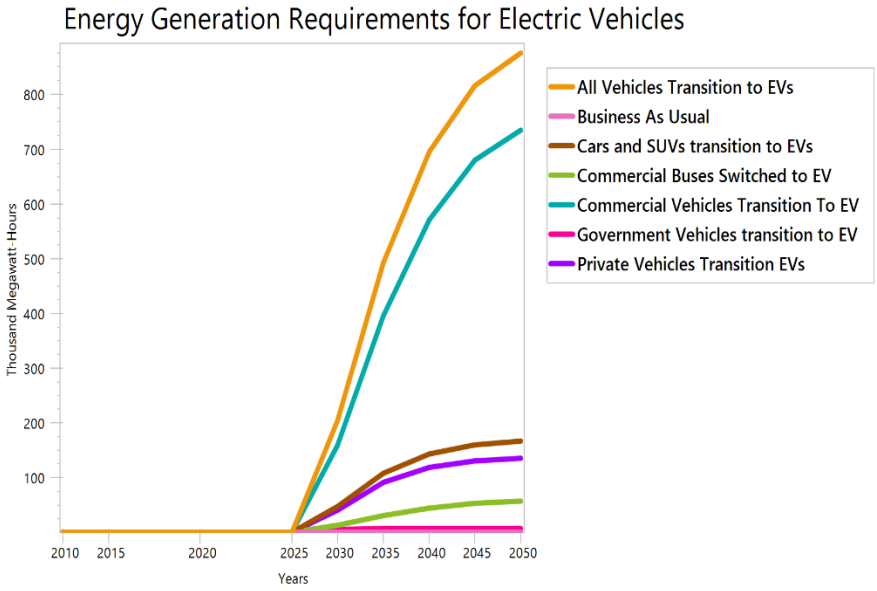


Figure 8: Energy Generation Requirements for Electric Vehicles

7 Mentimeter and Discussions

Based on these presentations, stakeholders were invited to comment on the accuracy of the input data used and assumptions made, as well as give feedback on their thoughts on the results obtained from the two software models. Pointed questions were posed using the online Mentimeter polling software, to ascertain feedback from stakeholders on the areas mentioned. The full list of questions along with results can be found in ***Annex 6: Mentimeter results.***

The key input data which were validated during the session are as follows:

- Vehicle Mileage
- Vehicle Costing
- Increased import levy assumption
- Commencement of LNG plant operations
- Policy recommendations/assumptions

Vehicle Mileage

Average annual vehicle mileage data were obtained based on SLIM project surveys, online sources and expert judgment as shown in **Table 4.** As a result of this and given the significance of the vehicle mileage data to the overall modelling results, stakeholders were asked to give their feedback on the mileage values used.

Table 4: Average annual vehicle mileage of distance travelled for vehicles

Vehicle Type	Private	Commercial	Government
	Distance in kilometres travelled		
Cars	10,000	20,000	10,000
SUVs	10,000	20,000	10,000
Buses	25,000	30,000	25,000
Vans	20,000	25,000	15,000
Pick Ups	10,000	20,000	10,000
Trucks	25,000	30,000	20,000
Motorcycles	15,000	20,000	10,000
All Other	5,000	8,000	6,000

The stakeholders seemed to generally think the average mileage values within the private sector for buses, trucks, motorcycles & other vehicles were too low. Similarly, within the commercial sector, stakeholders seemed to agree that the annual mileage values for all the vehicle types were too low in value and for the government sector, most mileage values seemed to be reasonably weighted, except for vans, pickups and trucks, which stakeholders believed were too low. As a result, the necessary adjustments will be made to the TraCAD and LEAP models in line with stakeholder feedback and expert judgment.

Vehicle Costing

Vehicle cost data were obtained from surveys conducted by the National Coordinating Team in ANB, desk review and expert judgement as shown in **Table 5**. These estimates, as a result, were also subject to stakeholder feedback.

Table 5: Average cost of vehicles in USD

Cost of Vehicles in USD			
The final cost used in the model	Fossil fuel	Hybrid	EV
Cars	33126	36126	44352
SUVs	47603	50603	51161
Pickup	60731	63731	73731
Bus	59627	62627	72627
Vans	47113	52113	62113
Motorcycles	2500		4000
Other vehicles	101218	104218	114218
Trucks	101218	104218	114218

Based on the resulting Mentimeter polls, the stakeholders seemed to generally agree with the cost for most fossil fuel, hybrid, and electric vehicle types with the exception of the electric motorcycles, and electric "other vehicles" which were too low. As a result of this, the cost estimates were adjusted based on additional research and expert judgment. These amendments shall be reflected in the final datasets and models as necessary.

Import Levy

The team proposed an import levy of 15% to be applied to new ICE vehicles, to achieve scenario 3A, which describes a change in fiscal policies to enable the full transition to renewable energy generation within the transportation sector, as noted in the NDC.

100% of the stakeholders surveyed agreed that this percentage was too high, thus adjustments to models were reviewed as a result of this statement.

Commencement of LNG plant operations

The LEAP model also considered the impact of the operation of an LNG plant, which would begin operations in 2030. Although the results from the Mentimeter were inconclusive, the LNG plant's manager noted that the plant is currently in operation with diesel, and will transition to LNG, by the end of 2024. Thus, a full transition can be analyzed for the year 2025. It was also noted by the Energy Division representative that the LNG plant is now anticipated to be 46 MW instead of 30 MW. These updates will be implemented in the LEAP model.

Policy Recommendations/Assumptions

A recommended new policy that requires the government to change their vehicles every 7 years was included in the modelling to be able to meet the 2035 target. The opinion of stakeholders was sought via a Mentimeter platform on this proposed new policy.

Stakeholders seemed to have several concerns surrounding the overall cost implications and amount of waste associated with this policy, and commented on the following:

- "Not sure about this. Where will the money come from."
- "What [is] the disposal plan for the vehicles that we are aiming to dispose of every 7 years?"
- "A 10-year cycle may be more achievable."
- "Does that policy have a plan to dispose of batteries or re-use batteries? Is the waste management unit involved"?
- "Disposal/exporting these vehicles may be costly"

Based on this feedback, it seems as though the achievement of such a policy would require careful consideration of the disposal plans for vehicle waste, and necessary costs as indicated in the report. An alternative suggestion was made which considers a 10-year disposal timeframe versus 7 years as modelled. As a result of the modelling tool, only one one-year time frame could be years and to be able to meet the transition period of 2035, the team decided to keep the 7-year cycle.

In addition to the assumptions made for the analyses, the stakeholders provided updated data on the commencement of the LNG plant operations, and retirement values for the different plants. For the analysis, all plants were assumed to be decommissioned by 2030, however, the following were noted as the exact decommissioning dates by the relevant stakeholders:

- LNG plant: 2048,
- APC 1 – 4: 2031,
- BlackPine 3 & 4: 2029,
- BlackPine 1 & 2: 2022.

The representative from the Ministry of Energy also noted the renewable energy constraints of the distribution network, stating that solar has a maximum of 25 MW and wind 4 MW.

Other General Queries

Stakeholders had additional comments based on the presentations, which were not covered by the Mentimeter validation and added to the overall discussion.

During the first half of the session, one stakeholder had a query on the 100 MW solar assumption, which was used in the LEAP modelling of climate action – 3B. The stakeholder questioned whether considerations were made for the variability of land, and the impact that

100 MW of solar on the grid would have in terms of its stability. Ms. Joseph noted that this assumption was used because it is mentioned in Antigua & Barbuda's Updated NDC to achieve the 100% renewable energy grid. However, she also noted that during the upcoming presentation on the electric power mitigation scenario results, this would be addressed. She explained that the second report analyzed the variability of the solar plant and storage.

The suggestion was made that the best usage of energy would require EVs to be charged during the night because the load demand is less. However, Ms Joseph explained that an analysis of time-of-day charging was not done during this project.

Further to this, Ms Joseph also noted that improvements to the overall transmission & distribution sector in ANB are necessary to allow the uptake of renewables to meet the transportation sector demands and thus achieve the NDC target. She noted that additional analyses, including a cost analysis, would need to be done to determine the necessary improvements.

8 Next Steps and Closing Remarks

Ms. Anik Jarvis offered the closing remarks to the stakeholders. She presented the next steps in the project which included:

1. Validation Workshop report
2. Incorporation of stakeholder feedback in final transport models and reports
3. Finalization of electric mobility transition scenario impact assessment & electric power mitigation analysis scenario reports
4. Transport Modelling Planning & Capabilities Workshops
5. Final transport model/tool data collection process manual
6. Fully documented versions of modelling tool(s)

In conclusion, she thanked the stakeholders for their support throughout the project and for their time and participation during the session.

9 Annexes

9.1 Annex 1: Agenda

The agenda can also be accessed using the following link.

Initiative for Climate Action Transparency Phase 2:
National Transport Electrification Impact Assessment

Stakeholder Validation Workshop

Agenda

Objective: *To present the transport modelling assessment, modelling scenarios and associated assumptions to the stakeholders and allow stakeholders to comment and give recommendations based on the assessment.*

Date: Wednesday 24th January 2024
Time: 10:00 a.m. – 12:00 p.m.
Location: DOE Conference Room
Event Type: Stakeholder Validation Workshop
Meeting Facilitator: ICAT PII NCT

Agenda Items		
	Opening & Workshop Objectives	
10:00 - 10:05	Welcome & Team Introduction	NCT
	National Transport Electrification Impact Assessment Overview	
10:05 – 10:15	Antigua and Barbuda Transport Electrification Impact Assessment Project - Purpose of Workshop - Recap of the Project I. Project Activities Completed II. Project Activities Remaining - Data Collection Process	NCT
	Electric Mobility Transition Scenario Assessment: Overview of Modelling Tools Used	
10:15 – 10:30	- Methodologies - Electric Mobility Transition Scenarios - Data used, assumptions, and analysis	CCMRVH
10:30-10:40	- Discussions Session	
	Transition Scenario Modelling Results	
10:40 – 11:10	- TraCAD results - LEAP results - Comparison of results	CCMRVH
11:10-11:20	- Discussions Session	
	Electric Power Mitigation Analysis	
11:20 – 11: 40	- Electric Power Mitigation Analysis & Results	CCMRVH
11:40 -11:50	- Discussions Session	CCMRVH
11:50 -12:00	Next Steps and Closing	NCT

9.2 Annex 2: Presentations

The presentation for sessions 2 – 4 can be found here.

9.3 Annex 3: Recordings

The workshop recording can be viewed here.

9.4 Annex 4: Reports

The following reports can be found here:

- ✓ Draft electric power mitigation analysis scenario report
- ✓ Draft electric mobility transition scenario impact assessment

9.5 Annex 5: Mentimeter results

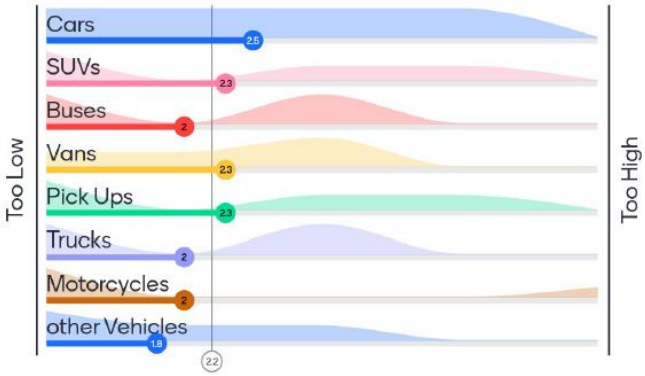
The full Mentimeter results are shown below and can also be found here.

Antigua and Barbuda Phase 2 Validation Workshop

Transport Analysis

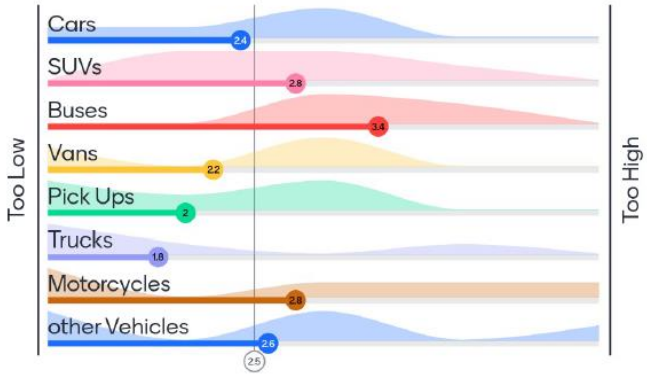
Mentimeter

Please assess the annual vehicle mileage used in this assessment (Private Sector)



Mentimeter

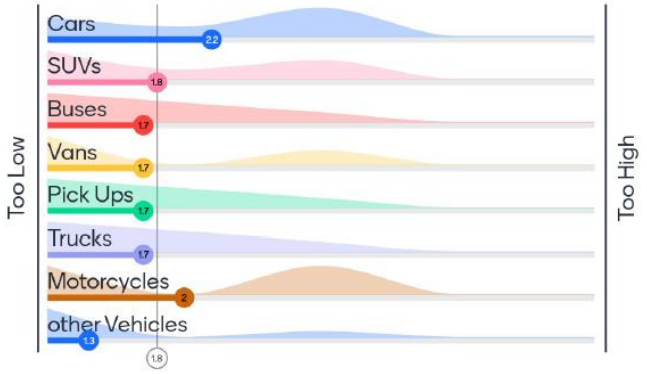
Please assess the annual vehicle mileage used in this assessment (Government)



5

Mentimeter

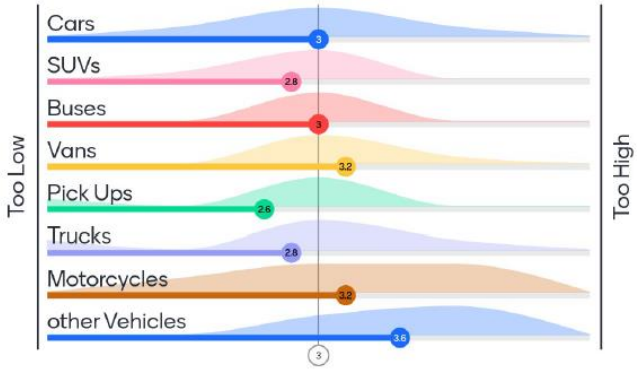
Please assess the annual vehicle mileage used in this assessment (Commercial Sector)



6

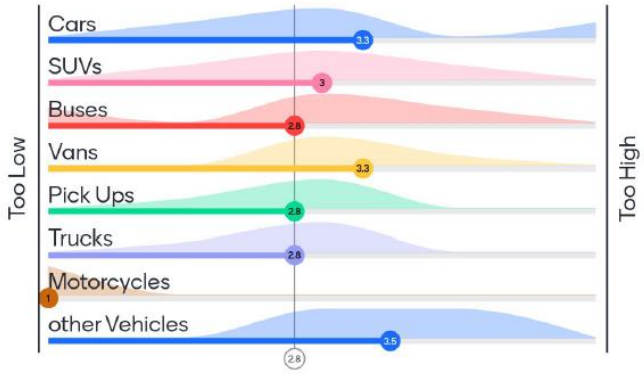
Mentimeter

Please assess the costs of the vehicles used in this assessment (ICE)



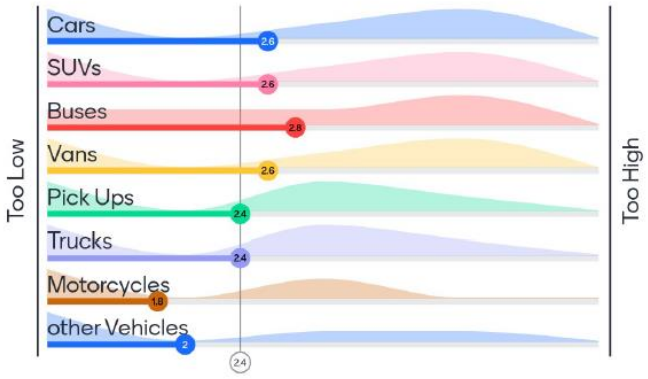
Mentimeter

Please assess the costs of the vehicles used in this assessment (Hybrid)



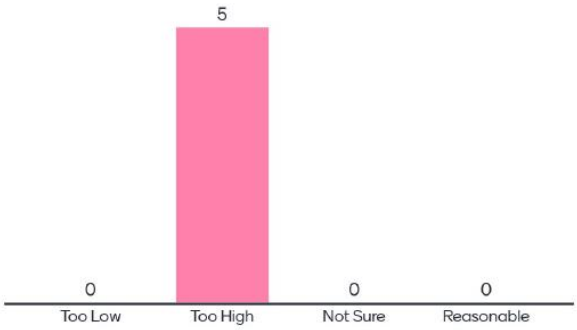
Mentimeter

Please assess the costs of the vehicles used in this assessment (EVs)



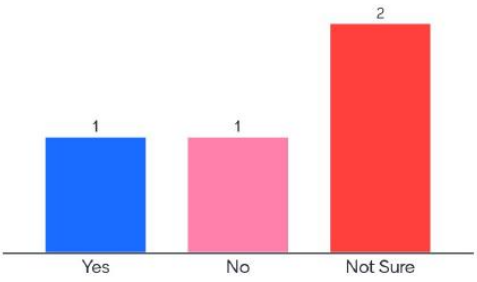
Mentimeter

What do you think about 15% increase in the environmental levy on used vehicles?



Mentimeter

The LNG plant is estimated to begin operations in 2030? Do you think this time frame is reasonable?



Mentimeter

A new policy in the analysis is the change of Government vehicles every 7 years. What do you think of this policy?

- Not sure about this. Where will the money come from.
- What are the disposal plan for these vehicles that we are aiming to dispose of every 7 years?
- A 10 year cycle might be more achievable.
- Does that policy have a plan to dispose batteries, or re-use batteries? is the waste management unit involved?
- Disposal/ exporting these vehicles may be costly

Mentimeter

What can be included in the modelling to improve the results?

energy storage with batteries from BEV?