

HR 02: Terms of Reference

Senior Adviser (CGE Modelling)

Short-Term Adviser

National Remuneration Framework:¹	Discipline Group C, Job Level 3
Counterparts:	Fiscal Policy Agency, Ministry of Finance
Work Location:	Jakarta, Indonesia
Reports to:	Senior Economist – Macro Lead
Duration of inputs:	30 input days. From Mar – Dec 2022
Activity Budget:	BT 2.1 Macro Policy

Summary of Expertise Required

Macroeconomic Policy Center, Fiscal policy Agency, Ministry of Finance (PKEM, BKF) is conducting a priority study on electric vehicles industry. This study aims to formulate policy options to boost mass adoption of electric vehicles as well as the development of a strong domestic electric vehicle industry. To model the impact of such policies, quantitative modelling will be needed due to the size of the automotive sector as a share of the economy as well as its strong backward and forward linkages with other sectors. Prospera is partnering with PKEM, BKF to formulate the study and will assist PKEM, BKF in quantitatively estimating the potential economic impact of mass EV adoption and assessing the welfare and transitional impact of various policy options using a computable general equilibrium (CGE) model. Prospera seeks a Senior Adviser (CGE modelling) to develop the model, provide guidance on the technical and theoretical aspect, and produce various policy simulation and impact analysis.

Background

Under the 2015 Paris Agreement, Indonesia has committed to a 29% unconditional reduction in emissions below business-as-usual (BAU) scenario by 2030². As emissions from the transportation sector currently contribute to 28% of national emissions, rapid electrification of motor vehicles will be a substantial part of Indonesia's emission reduction strategy. In addition, electrification will be key in securing Indonesia's energy security and dependence on foreign oil imports. A domestic electric vehicle (EV) industry will also serve as a key downstream sector for nickel-based inputs, leveraging Indonesia's strong resource comparative advantage.

As such, the government of Indonesia is currently pushing for mass adoption of electric vehicles as well as the development of a strong domestic electric vehicle industry as part of its long-term development

¹ To be negotiated with the preferred candidate based on skills and experience and within funding limits.

² Indonesia Intended Nationally Determined Contribution, accessed through https://www4.unfccc.int/sites/submissions/INDC/Published%20Documents/Indonesia/1/INDC_REPUBLIC%20OF%20INDONESIA.pdf

policy. Under Presidential Regulation No. 55 Year 2019, the government has made initial strides to improve the favorability of EVs to local consumers with policies such as luxury goods tax exemption.³ Such policies will hopefully lead to the emergence of a market large enough to attract both local and foreign players to enter the EV sector. Combined with supply-side incentives such as tax holidays, it is hoped that a domestic electric vehicle industry will then organically emerge. It is also hoped that building this industry from the ground up can help Indonesia capture a larger share of the automotive value chain beyond only assembly and manufacturing.

Nonetheless, significant hurdles remain with regards to model availability, consumer preference, and the sufficiency supporting charging infrastructures. Further supporting policies are likely to be implemented in the future in order to accelerate the pace of EV adoption. To model the impact of such policies, quantitative modelling will be needed due to the size of the automotive sector as a share of the economy as well as its strong backward and forward linkages with other sectors.

Prospera therefore seeks to assist the Indonesian government, in particular PKEM BKF, in quantitatively estimating the potential economic impact of mass EV adoption and the emergence of an electric vehicle industry. This estimation will be conducted using a computable general equilibrium (CGE) model to assess the overall macroeconomic and sectoral effects. CGE simulations will be conducted to estimate which incentives and regulations will be most effective for pushing EV adoption and creating a domestic EV industry. The welfare and distributional consequences as well as the transitional risk associated with such policies will also be assessed.

Scope of Services

The key roles and responsibilities of the Adviser are to provide the following:

- Assist the Macroeconomic Policy Center in develop a CGE model fit for the purpose of simulating mass EV adoption and industry emergence in Indonesia.
- Provide guidance to policymakers regarding the technical and theoretical aspects of CGE modelling, tailored to the context of simulating mass EV adoption and industry emergence.
- Assist in the simulation of various policy scenarios as well as analysis of the sectoral and macroeconomic effects of those scenarios.

The Adviser will work closely with PKEM BKF and Prospera's Macro Policy team. It will also require presentations to counterparts to seek feedback and refine the recommendations and analysis as well as to build consensus among stakeholders.

³ Presidential Regulation No. 55 Year 2019, accessed through <https://jdih.esdm.go.id/storage/document/Perpres%20Nomor%2055%20Tahun%202019.pdf>

Output / Deliverables

The adviser is expected to deliver the following outputs over the term:

Output	Description	Input Days Claimable
Output 1: Model Development and Training	<p>Technical support and knowledge sharing technical and theoretical aspects of CGE modelling, particularly in developing CGE model fit for the purpose of simulating mass EV adoption and industry emergence in Indonesia.</p> <p>The CGE model will assess the overall macroeconomic and sectoral effect to see which incentives and regulations will be most effective for pushing EV adoption and creating a domestic EV industry. The CGE model must also assess the welfare and distributional consequences as well as the transitional risk associated with such policies.</p>	27
Output 2: Input Completion Report	Input Completion Report (ICR) in a format supplied by Prospera and approved by the Prospera Project Leader at the completion of the assignment.	3

Selection Criteria – Qualifications and Experience

The Adviser will possess strong qualifications and experience to deliver the expected outputs:

- Tertiary qualifications in Economics. PhD or Master's degree with research publication developing a CGE modelling are preferred.
- Minimum of 10 years of professional experience working on CGE modelling.
- Knowledge and experience working on the Indonesian economy, with Indonesian and international policymakers, are preferred.
- Mastery of CGE modelling software such as GAMS or GEMPACK is essential.
- Excellent communication skills with fluency in Indonesian and English (both written and oral), including advocacy and presentation skills.
- Proven ability to write a concise report in Indonesian and English.
- Ability to work under strict time limits and apply high production and technical standards for the purpose of maintaining high level of professionalism.

Overview of Prospera

Prospera is a partnership between the Government of Australia's Department of Foreign Affairs and Trade and the Government of Indonesia's Coordinating Ministry for Economic Affairs. It aims to foster strong, sustainable, and inclusive economic growth in Indonesia.

Commencing from 1 March 2018, Prospera is a planned five-year investment. The program combines advisers who have extensive knowledge of Indonesia with those who have experience in the Australian public service or emerging markets.

Prospera aims to achieve three outcomes:

- Expanding markets, creating jobs – including building a robust private sector through a sound enabling environment; Growing jobs, capital and technology through trade and investment
- Safeguarding economic and financial stability – including ensuring a strong foundation for growth through balanced macro-financial policy; strengthening financial system integrity through supervision and literacy
- Improving public finances and government performance – including more revenue and better spending through improved policy and systems; improved government performance through data and public integrity bodies

The following standard requirements apply for all Prospera team members:

<p>Confidentiality</p> <p>Due to the sensitivity of much of the information the position will encounter, there is an obligation, pursuant to the contract of engagement to maintain full confidentiality of information and to not disclose this to third parties without the express written approval of PROSPERA. In some cases, a separate confidentiality agreement may be required authorising the review of sensitive material.</p>	<p>Conflict of Interest</p> <p>The team member will use her/his best endeavours to ensure that a situation does not arise which may result in a conflict of interest. Where a conflict of interest or a potential conflict of interest arises in the performance of the obligations under this Terms of Reference, the team member must immediately notify the Chief of Operations</p>
<p>Knowledge and Performance</p> <p>The team member will support PROSPERA's Knowledge and Performance team through reporting and communication products for knowledge capture and learning purposes. The team member will also support monitoring and evaluation through the supply of high quality data, participation in data collection methods and case studies that may arise from the inputs.</p>	<p>Diversity and Inclusion</p> <p>PROSPERA recognises the importance of embracing workplace diversity, specifically valuing the unique qualities, attributes, skills, and experience all employees bring to the workplace. PROSPERA is committed to supporting a positive work environment based on respect. These values should be reflected in the function and behaviour of all team members.</p>
<p>Code of Conduct</p> <p>The team member is to conduct themselves in a manner consistent with the <i>Public Service Act 1999</i> (Cth), (including the Australian Public Service Values and Employment Principles, and Code of Conduct) and the employer's professional standards.</p>	<p>Policy Compliance</p> <p>The team member will work within Department of Foreign Affairs and Trade policy and PROSPERA guidelines on gender, child protection, poverty, the environment, human rights, and governance</p>