



# Fuel Economy Initiative in Indonesia

National Workshop, Four Seasons Hotel – Jakarta, 4 October 2012

## INVITATION

RSVP: Nurul 31906807



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## Cost Benefit Analysis

Term of Reference  
National Workshop, 4 October 2012

Four Season Hotel, Jakarta

### Background

Kebutuhan energi nasional senantiasa meningkat dari waktu ke waktu. Tidak terkecuali kebutuhan energi untuk sektor transportasi yang masih didominasi BBM, permintaannya cenderung meningkat. Faktor-faktor seperti peningkatan kebutuhan perjalanan dan logistik mendorong peningkatan penggunaan peralatan transportasi sehingga meningkatkan kebutuhan BBM. Faktor lain yang tidak bisa dipungkiri adalah penyalahgunaan penggunaan BBM dan ketidakakuratan perhitungan kebutuhan. Pun tingginya kebutuhan BBM ternyata tidak menjadi peluang bagus bagi industri minyak dan gas nasional tetapi justru menjadi beban pemerintah terutama dalam penyediaan subsidi, selain menciptakan *social cost* yang tidak kecil yang turut menekan pertumbuhan ekonomi nasional.

*Social cost* ini mencakup biaya kesehatan dampak pencemaran udara berikut dengan dampak ikutannya seperti berkurangnya produktivitas kerja, timbulan biaya kesehatan yang harus dibayar oleh masyarakat serta rusaknya prasarana dan sarana bangunan, terganggunya agriculture, dll. Isu terkini adalah *social cost* yang juga harus ditanggung oleh masyarakat global dengan hadirnya fakta dampak perubahan iklim, yaitu faktor emisi rumah kaca yang juga disumbangkan oleh sektor transportasi. Dampaknya antara lain peningkatan temperatur yang menyebabkan mencairnya es di kutub dan di kawasan pegunungan/puncak-puncak gunung seperti Himalaya, Kilimanjaro (Afrika), Pegunungan Sudirman (Papua), naiknya permukaan air laut, berubahnya pola penyebaran sakit/penyakit, penipisan energi, bencana alam (El-Nino, La Nina, badai, perubahan cuaca yang menyulitkan pola pertanian, penerbangan, pelayaran).

*The national energy demand tends to increase by time to time. There is no exception for the energy needs of transportation sector that is dominated by liquid fuel, the demand tends to increase. Factors such as the increased need for travel, and logistic needs encourage the transportation equipment use thereby increasing the need for fuel. Another factor that can not be denied is the abuse of the utilization of fuel, and the inaccuracies calculation needs. Thus, the high demand of fuel did not create opportunity for the oil and gas industry, instead it could be a burden for national economy, especially the government provision on fuel subsidy, in addition to creating a social cost which has significance pressure to the national economic growth.*

*The social cost includes the cost of health impacts of air pollution following the impact effects such as labor productivity reduction, health costs to be paid by the society and the destruction of infrastructure and buildings, disruption of agriculture, etc. The current issues are also social cost must be borne by the global community with the presence of the facts of climate change, the greenhouse emissions factors also contributed by the transport sector. Impacts include increased temperatures lead to melting of ice at the poles and in the mountains/mountain peaks such as the Himalayas, Kilimanjaro (Africa), Sudirman Mountains (Papua), rising sea levels, changes in the pattern of the spread of illness/disease, energy depletion, catastrophic nature (El-Nino, La Nina, storms, weather changes complicate farming, aviation, shipping). Meanwhile, in the last ten years the growth of energy consumption in the sector of transport in Indonesia reached approximately 5.7% per year. The increase is in-line with the needs of economic and population*





Dalam sepuluh tahun terakhir, pertumbuhan konsumsi energi di sektor transportasi darat di Indonesia mencapai sekitar 5,7% per tahun<sup>1</sup>. Peningkatan kebutuhan ini sejalan dengan pertumbuhan ekonomi dan penduduk. Pada tahun 2010, hampir semua energi yang dikonsumsi oleh sektor transportasi darat adalah BBM diikuti oleh Gas dan Listrik. Dari jenis BBM, konsumsi Bensin (Premium, Pertamina dan Pertamina Plus) merupakan yang terbesar (61,66%) diikuti oleh Solar (37,5%) dan Bahan Bakar Nabati (BBN) yang mencakup Bio-diesel, Bio-ethanol (0,84%)<sup>2</sup>. Sementara untuk BBM bersubsidi (Premium dan Solar), konsumsi Premium merupakan yang terbesar (61,29%) diikuti oleh Solar (37,85%), sisanya BBN (0,86%)<sup>3</sup>.

Anggaran subsidi BBM pada tahun 2010 mencapai hampir Rp 61 triliun<sup>4</sup>. Konsumsi BBM bersubsidi nasional pada tahun tersebut mencapai 38,4 juta KL yang terdiri dari Premium (23,0 juta KL), Solar (12,8 juta KL), dan minyak tanah (2,4 juta KL), serta Bahan Bakar Nabati (0,2 KL)<sup>5</sup>. Bila kecenderungan harga minyak naik terus, maka anggaran subsidi BBM akan semakin memberatkan APBN dan/atau menyedot devisa negara.

Dalam konteks co-benefit guna menyelesaikan masalah pencemaran udara, penghematan konsumsi BBM, pengurangan beban Pemerintah atas subsidi BBM, sekaligus berkontribusi dalam memitigasi emisi rumah kaca penyebab global warming, adalah saatnya menimbang kebijakan peningkatan kualitas BBM sebagai prasyarat penerapan co-benefit tersebut.

*growth. In 2010, almost all of the energy consumed by the land transportation sector is the fuel, followed by gas (CNG/LGV) and electricity. From the type of fuel, the consumption of gasoline (Premium, Pertamina and Pertamina Plus) is the largest (61.66%) followed by diesel fuel (37.5%) and the bio-fuel (BBN), which includes Bio-diesel, bio-ethanol (.84%). As for subsidized fuel (Premium and Regular Diesel), the consumption of Premium is the largest (61.29%) followed by Solar (37.85%), the rest BBN (0.86%).*

*Fuel subsidy budget in 2010 reached nearly IDR 61 trillions ~ USD 6.5 billions. National subsidized fuel consumption in 2010 reached 38.4 millions KL consisting Premium (23.0 millions KL), Diesel Fuel (12.8 millions KL), and kerosene (2.4 millions KL), and Bio-fuels (0.2 millions KL). When the trend of rising oil price continues, the fuel subsidy would further burden the state budget.*

*At the context of co-benefits in order to solve the problem of air pollution, fuel consumption savings, reducing the burden of government on fuel subsidy, as well to contribute to the mitigation of greenhouse gas emissions, it is time to consider the policy for improved fuel quality as a prerequisite for co-benefits application. In the fact, failure to provide appropriate fuel quality (low aromatic/ benzene/ olefin gasoline, and low sulfur diesel) led the automotive industry sputtered the investment schedule to adopt an advance technology (low emissions, and low fuel consumption). As a result, auto industry in Indonesia fail to fulfill global demand on cleaner car with higher fuel efficiency, and the most of their products are only sold to domestic market segments. The fact, Thailand has adopted the automotive industry since 1996 (Euro 1), and Euro 2 to Euro 4 in 2001 and 2012. Malaysia also did not want to miss, applying Euro 1 in 1997, Euro 2 to Euro 4 in 2000 and 2012. While Vietnam and Laos have each entered on Euro 1 in 1998 and 2000 and is poised to enter the Euro 4 in 2014. As a result, opportunities and market share of Indonesian automotive industry in Southeast Asia to be very narrow, and absorbed by neighbors countries auto industry which more advanced. In the past Indonesia is leading on market share of automotive market, but today Indonesia is follower behind Thailand, and Malaysia.*

<sup>1</sup> Direktorat Jenderal MIGAS, 2010

<sup>2</sup> Pertamina, 2008 (Diolah)

<sup>3</sup> Pertamina, Direktorat Jenderal MIGAS, 2008 (Diolah)

<sup>4</sup> APBN-P 201

<sup>5</sup> <http://esdm.go.id/berita/migas/40-migas/4280-konsumsi-harian-premium-melebihi-kuota-sebesar-265.html>



Kegagalan menyediakan bahan bakar yang baik (bensin rendah aromatik dan olefin; solar rendah belerang) menyebabkan industri otomotif tergagap menjadwalkan investasi untuk pengembangan teknologi yang lebih mutakhir (rendah emisi dan rendah konsumsi BBM). Walhasil, produk kendaraan dengan standar yang tak jelas demikian ini hanya laku dijual untuk segmen pasar di dalam negeri. Padahal, industri otomotif Thailand telah mengadopsi Euro 1 sejak 1996 dan Euro 2 pada 2001 serta Euro 4 pada 2012. Malaysia juga tak mau ketinggalan, menerapkan Euro 1 pada 1997, Euro 2 pada 2000 dan Euro 4 pada 2012. Sementara Vietnam dan Laos masing-masing telah masuk pada Euro 1 pada 1998 dan 2000 dan berancang-ancang masuk ke Euro 4 pada 2014. Akibatnya, peluang dan pangsa pasar industri otomotif nasional di Asia Tenggara menjadi sangat sempit, karena pasar otomotif negara tetangga jauh lebih maju.

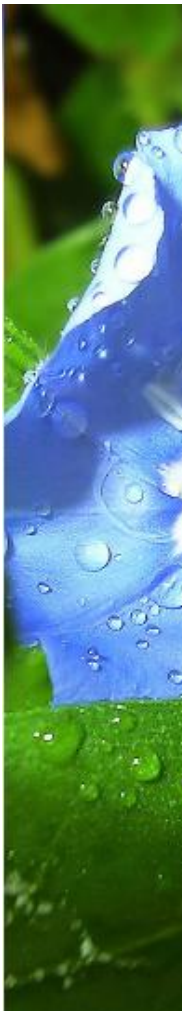
Kualitas BBM tidak saja berdampak pada kegagalan dalam penurunan pencemaran udara perkotaan tetapi juga menyebabkan penurunan competitive advantage yang merugikan perekonomian Indonesia. Tentu saja, competitive advantage ini tidak saja hanya berlaku bagi industri otomotif nasional tetapi juga berlaku bagi industri minyak dan gas nasional.

### ***Maksud dan Tujuan***

1. Menyampaikan hasil studi Cost-benefit Analysis "Fuel Quality and Fuel Economy Initiative in Indonesia".
2. Terjadinya proses diskusi antara para stakeholder guna memberikan masukan, review dan tanggapan terhadap hasil studi sebagai disebut pada diktum 1 di atas.
3. Melakukan harmonisasi koordinasi dan membangun komitmen serta kemauan politik antar para stakeholder terutama pengambil kebijakan guna

*Fuel quality not only affects the failure of urban air pollution reduction but also causes a decrease in the adverse competitive advantages of the Indonesian economy. Of course, the competitive advantage is not just only for the national automotive industry but also applies to oil and gas industry. If it does not start improving the fuel quality, certainly a niche market needs of quality fuel will be taken by foreign oil and gas industry.*

*It is time for the government and stakeholders to draft a policy paper based on the cost-benefit analysis to consider issuing a regulation or policy interventions to improve fuel quality parallel with fuel economy requirements policy implementation through (1) reduced levels of sulfur (sulphur) on fuel up to 50 ppm, and (2) to promote fuel economy standards in Indonesia. Interventions such policies are expected to lead to a positive impact in improving air quality, national fuel consumption savings, reducing the burden of government on fuel subsidy, the growth of the automotive industry with products of lower emission vehicle, and high fuel economy (lower fuel consumption), open market on clean fuels, growing of cleaner fuel industry alternative, and contribute to mitigating climate change, and increased export of motor vehicles.*



### ***Aims and Objectives***

1. To deliver Cost-benefit analysis "Fuel Quality and Fuel Economy Initiative in Indonesia"
2. To conduct dialog among stakeholders to provide input, review and response to the results of a CBA study as above mentioned in point 1.
3. To harmonize coordination, and binding commitment/ political will among the stakeholders especially policy makers to develop policies based on clean fuel/fuel economy perspective in Indonesia.

mengembangkan kebijakan bahan bakar bersih berlandaskan persepctif *fuel economy* di Indonesia.

### ***Bentuk Kegiatan***

1. Nama Kegiatan:  
Workshop Nasional: **Cost Benefit Analysis on Fuel Quality and Fuel Economy Initiative in Indonesia**
2. Tempat dan waktu penyelenggaraan:  
Kegiatan ini akan diselenggarakan di Four Seasons Hotel Jakarta pada 4 Oktober 2012.
3. Penyelenggara:  
Kementerian Lingkungan Hidup RI bekerjasama dengan KPBB dan didukung oleh UNEP, US-EPA dan GFEI.
4. Peserta:  
500 orang representasi stakholder di sektor transportasi, bahan bakar, kebijakan publik, otomotif dll.
5. Agenda  
(*terlampir*)

### ***Activity***

1. *Name of activity:*  
*National Workshop: Cost Benefit Analysis on Fuel Quality and Fuel Economy Initiative in Indonesia*
2. *Venue, and time:*  
*The venue is Four Seasons Hotel – Jakarta, Jalan Prapatan – Jakarta Pusat, on 4 October 2012*
3. *Organizer:*  
*Ministry of Environment, KPBB, UNEP, US-EPA, GFEI*  
*Contact secreatariat: Ministry of Environment Republic of Indonesia, Assistant Deputy for Mobile Source Emission, Gedung B Lt 4 - Kementerian Lingkungan Hidup RI, Jalan DI Panjaitan Kav 24 Jakarta, Phone: +62-21-31906807, +62 21 8591 1207, Facs : +62 21 85906678, +62-21-3153401, e-mail: [gfei@kpbb.org](mailto:gfei@kpbb.org)*  
*Contact person: Puput (+62-816 897959, [puput@kpbb.org](mailto:puput@kpbb.org)), Linda (+62 8176352010, [lkrisnawati@yahoo.com](mailto:lkrisnawati@yahoo.com)).*
4. *Participants:*  
*150 people representing the fuel and transportation stakeholder in Indonesia*
5. *Agenda*  
(*enclosed*)



AGENDA  
**Fuel Economy Initiative in Indonesia**  
**The National Workshop on Cost Benefit Analysis**  
October 4, 2012, Jakarta, Indonesia

- 08:00 – 08:30 **Registration**
- 08:30 - 08:45 **Welcome Remarks**, Deputy Minister for Env. Pollution Control, MOE
- 08:45 - 08:55 **Opening Remarks**, Mr Mark Kasman, US-EPA
- 08.55 – 09.05 **Remarks**, Ir Jero Wacik, Minister of Energy Republic of Indonesia
- 09.05 – 09.15 **Keynote Speech**, Dr Agus Martowardoyo, Minister of Finance Republic of Indonesia
- 09:15 - 09:25 **Keynote Speech and Opening** Prof. Dr. Balthasar Kambuaya, Minister – Ministry of Environment (MoE)
- 09.25 – 09.50 **PRESS CONFERENCE**
- 09.50 – 10.10 Coffee break
- Session 1 – **Fuel Economy Overview**, Chair: Ade Palguna, Ministry of Environment
- 10.10 – 10:35 **Overview of the GFEI & Status of Global Fuel Economy and Path to getting policies in place**, David Rubia, United Nations Environment Programme (UNEP)
- 10:35 - 11:05 **Cost Benefit Analysis Study on Fuel Quality and Fuel Economy in Indonesia**
- Linda Krisnawati, MoE – Project Overview
  - Ahmad Safrudin, KPBB – CBA & Baseline work
- 11:05 - 11:35 **Economic instruments for fuel economy**, Anup Bandivadekar, ICCT
- 11:35 - 12:00 **Benefits of lowering energy demand from transport**, François Cuenot, International Energy Agency (IEA)
- 12.00 – 12.30 **Open discussions**
- 12.30 – 13.30 LUNCH
- Session 2 – **Interactive Discussions**, Chair: Prof Herman Agustiawan, National Energy Council
- 13:30 - 14:00 **Experience of Country(ies) in the process of adopting policies**
- Herbert Fabian, CAI-Asia - Regional Best practices
- 14:00 - 14:30 **Auto Manufacturer Perspectives on Fuel Economy**
- Daihatsu
  - Honda
  - Toyota
  - BMW
- 14:30 - 16:00 **Panel Session with discussion** (issues, solutions, lessons learnt and recommendations for fuel economy implementation in Indonesia), Chair: Eko Rudianto, (GAIKINDO):
- Ministry of Energy
  - Ministry of Transport
  - Ministry of Finance
  - PERTAMINA
  - Indonesian Automotive Association (Gaikindo)
  - Indonesia Motorcycle Manufacturer Association (AIS)
- 16:00 - 16:10 **Takeaways from the workshop, Discussion & Wrap-ups**, Ade Palguna, Ministry of Environment
- 16.10 - ... COFFEE BREAK