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AN OVERVIEW OF INDONESIA’S ENERGY SUBSIDIES
1. An Overview of Indonesia’s Energy Subsidies

The Government of Indonesia, like many countries around the world, has used subsidies for decades to promote a range of social and economic objectives. Among the priorities vying for support are poverty alleviation, infrastructure development, health and education. Given the competing demands, deciding where to allocate public financial resources is one of the government’s most important and difficult tasks.

Citizens have a vital stake in these decisions, but unfortunately there is often little public debate about what should be subsidized, or information about the costs and who benefits. This is partly a problem of transparency: in many cases subsidies are hidden and difficult to track. But it is also because regular citizens are busy making livings and raising families, with little time to devote to monitoring their government’s every activity.

Yet, if subsidies are to provide a genuine benefit, it is vital for the public to have effective oversight of government expenditure—a task that falls in large part to civil society groups and journalists, the intended audience of this guide.

The following pages gather the best available information on the costs and benefits of energy subsidies. Why focus on energy subsidies? First, subsidies for fuels and electricity receive huge amounts of public support in Indonesia. In fact, the government spends more on subsidies to fuel than it does on capital expenditure for public infrastructure (see Box 1). Second, these subsidies have major impacts on social equity, economic growth and environmental preservation: the three pillars of sustainable development.

The first part of this guide provides an overview of how various types of energy are subsidized in Indonesia. The second part looks at the implications of these subsidies on various aspects of sustainable development. The third part discusses the process of reforming energy subsidies, drawing on Indonesia’s earlier efforts, and lessons learned from other countries.
Did you know that the government spends the same on energy subsidies as it does on defence, education, health and social security combined?

Up until 2010, the Indonesian government spent more on energy subsidies than it spent on defence, education, health and social security combined. Before 2009, the government spent more on energy subsidies than it did on capital expenditures such as public infrastructure, transportation systems, and water and sanitation facilities. More recently, the government has increased its spending in other areas but energy subsidies remain very high by comparison.

### Table 1 » Government expenditures and subsidies (2005–2011) (in trillion Rupiahs [Rp])

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<tbody>
<tr>
<td>Total Expenditures</td>
<td>361</td>
<td>440</td>
<td>505</td>
<td>693</td>
<td>629</td>
<td>782</td>
<td>824</td>
</tr>
<tr>
<td>All Subsidies</td>
<td>121</td>
<td>108</td>
<td>150</td>
<td>275</td>
<td>138</td>
<td>201</td>
<td>185</td>
</tr>
<tr>
<td>• Energy Subsidies</td>
<td>105</td>
<td>95</td>
<td>117</td>
<td>223</td>
<td>95</td>
<td>144</td>
<td>134</td>
</tr>
<tr>
<td>– Fuel Subsidies</td>
<td>96</td>
<td>64</td>
<td>84</td>
<td>139</td>
<td>45</td>
<td>89</td>
<td>93</td>
</tr>
<tr>
<td>– Electricity Subsidies</td>
<td>9</td>
<td>31</td>
<td>33</td>
<td>84</td>
<td>50</td>
<td>55</td>
<td>41</td>
</tr>
<tr>
<td>Capital Spending (Investment)</td>
<td>33</td>
<td>55</td>
<td>64</td>
<td>73</td>
<td>76</td>
<td>95</td>
<td>122</td>
</tr>
<tr>
<td>Defense</td>
<td>22</td>
<td>24</td>
<td>31</td>
<td>9</td>
<td>13</td>
<td>21</td>
<td>45</td>
</tr>
<tr>
<td>Education</td>
<td>29</td>
<td>45</td>
<td>51</td>
<td>55</td>
<td>85</td>
<td>97</td>
<td>82</td>
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<tr>
<td>Health</td>
<td>6</td>
<td>12</td>
<td>16</td>
<td>14</td>
<td>16</td>
<td>20</td>
<td>13</td>
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<tr>
<td>Social Security</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: Data Pokok APBN 2011 (Ministry of Finance).

Note: LKPP, or Central Government Financial Report, refers to the actual government spending. APBN refers to the government budget (agreed on a particular year), and APBN-P refers to the revision of the government budget. Energy subsidies are allocated in the budget, but the actual spending of the subsidies are reported in LKPP.
1.1 What is an Energy Subsidy?

Commonly, energy subsidies are defined as “any government action that lowers the cost of energy production, raises the revenues of energy producers or lowers the price paid by energy consumers” (IEA, OECD and the World Bank 2010). Energy subsidies come in two main categories: those designed to reduce the cost of consuming energy, called consumer subsidies, and those aimed at supporting domestic production, called producer subsidies (Burniaux et al., 2009 cited in Ellis, 2010).

In practice, energy subsidies come in different forms. The OECD/IEA (2002) and UNEP (2008) identify the following typical mechanisms by which governments support the production and consumption of energy:

- Direct financial transfers: grants to consumers, grants to producers, low-interest or preferential loans and government loan guarantees;
- Preferential tax treatment: tax credits, tax rebates, exemptions on royalties, duties or tariffs, reduced tax rates, deferred tax liabilities and accelerated depreciation on energy-supply equipment;
- Trade restrictions: tariffs, tariff-rate import quotas and non-tariff trade barriers;
- Energy-related services provided directly by government at less than full cost: government-provided energy infrastructure, public research and development;
- Regulation of the energy sector: demand guarantees, mandated deployment rates, price controls, environmental regulations and market-access restrictions.

The benefits of energy subsidies typically accrue to wealthier classes of citizens, as they use more energy.
1.2 Why Subsidize Energy?

Policy-makers often justify energy subsidies with the argument that they contribute to economic growth, poverty reduction and security of supply (IEA, OPEC, OECD and World Bank 2010). It is true that subsidies can be an important policy to promote social welfare and address market failures. However, there are also risks associated with subsidizing energy. Artificially low prices potentially discourage energy conservation, and fossil fuel subsidies are a disincentive to shifting to cleaner sources of energy. Moreover, the benefits of energy subsidies typically accrue to wealthier classes of citizens, as they use more energy. These and other impacts of energy subsidies are discussed in more detail in the second section of this guide.

1.3 Indonesia’s Energy Subsidies

1.3.1 Gasoline and Diesel Oil

The Indonesian government subsidizes two petroleum products of the state owned oil company, Pertamina: gasoline fuel called “Premium” and diesel oil called “Solar”; the latter is used for public services, transportation, fisheries and small-and medium-sized enterprises. The retail prices of these products are regulated at below their actual market prices. The government no longer subsidizes petroleum for industrial consumption.

Indonesia has been subsidizing the retail price of fuels since 1967 (Dillon et al., 2008). During the 1980s, when Indonesian’s oil production was higher, fuel subsidies were more affordable, although they were broadly criticized for their distorting effect on the economy. When global oil prices soared in 2005, the government spent 24 per cent of total expenditure on subsidies and of that, 90 per cent was for fuel products (World Bank, 2007). To reduce its expenditure, the government raised the domestic prices of kerosene, gasoline and diesel twice in a six-month period in 2005. The first increase, in March, raised fuel prices by 29 per cent, and the second fuel prices increase, in October, by 114 per cent (World Bank, 2007).
### Table 2 » Domestic Fuel Prices vs. International Prices

<table>
<thead>
<tr>
<th></th>
<th>Before October Fuel Increase (Sept 05)</th>
<th>After October Fuel Increase (Oct 05)</th>
<th>Fuel Price in September 06</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Domestic Fuel Price (Rp)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gasoline</td>
<td>2,400</td>
<td>4,500</td>
<td>4,500</td>
</tr>
<tr>
<td>Kerosene</td>
<td>700</td>
<td>2,000</td>
<td>2,000</td>
</tr>
<tr>
<td>Diesel Oil</td>
<td>2,100</td>
<td>4,300</td>
<td>4,300</td>
</tr>
<tr>
<td>**B. International Price (Rp) *</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gasoline</td>
<td>6,570</td>
<td>5,876</td>
<td>4,509</td>
</tr>
<tr>
<td>Kerosene</td>
<td>6,493</td>
<td>6,218</td>
<td>5,808</td>
</tr>
<tr>
<td>Diesel Oil</td>
<td>6,470</td>
<td>6,225</td>
<td>5,545</td>
</tr>
<tr>
<td><strong>C. Domestic Prices as % of International Price (A/B)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gasoline</td>
<td>37</td>
<td>77</td>
<td>87</td>
</tr>
<tr>
<td>Kerosene</td>
<td>11</td>
<td>32</td>
<td>31</td>
</tr>
<tr>
<td>Diesel Oil</td>
<td>32</td>
<td>69</td>
<td>67</td>
</tr>
<tr>
<td><strong>D. Economic Variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crude oil price (ICP, US$/bbl)</td>
<td>62</td>
<td>58</td>
<td>63</td>
</tr>
<tr>
<td>Exchange rate (Rp/US$)</td>
<td>10,310</td>
<td>10,090</td>
<td>9,235</td>
</tr>
</tbody>
</table>

* MOPS plus 15 percent adjusted by exchange rate and tax.
Source: processed from Data Pokok APBN 2005-2011 (Ministry of Finance, 2010)

Again, in 2008, record prices for crude oil—almost US$145 a barrel—pressured the Indonesian government to increase the price of petroleum and diesel oil. However, when the price of crude oil came down in January 2009, the government reduced the price of gasoline (Premium) and diesel oil. In 2010, the government considered limiting the distribution of subsidized fuel in order to cut the cost of subsidies. However, this policy was still under development in late 2010. Escalating oil prices in 2011 may, once again, boost the government’s spending on fuel subsidies.
1.3.2 Kerosene

The government of Indonesia regulates the price of kerosene, keeping the retail price below the market price. The government reformed kerosene subsidies in mid-2005, removing the subsidy for industrial consumers; however, kerosene for households and small- and medium-enterprises (SMEs) is still subsidized. Kerosene is mainly used for household cooking and lighting. In 2007 the government introduced its kerosene-to-LPG conversion program, which further reduced the kerosene subsidies. In 2006, the government budgeted Rp31.5 trillion (US$3.5 billion) for kerosene subsidies, Rp36.5 trillion (US$4 billion) in 2007 and Rp38 trillion (US$3.8 billion) in 2008.\(^3\)
1.3.3 Liquefied Petroleum Gas (LPG)

Facing fiscal pressure from high kerosene subsidies, the Government of Indonesia started a kerosene-to-LPG conversion program to reduce the kerosene subsidy in 2007. The program provides a free start-up package consisting of a 3 kg LPG tank, a compact LPG stove and its accessories (regulator and hose). Originally, the plan was to roll the program out to 42 million households and small enterprises by 2012 in an effort to replace more than 6 million kiloliters of kerosene annually. The target has since been increased to 48 million start-up packages.

The Ministry of Energy and Mineral Resources has estimated that the total cost for distributing 46 million start-up packages of 3 kg LPG tanks from 2007 to 2011 will amount to Rp14.11 trillion (US$1.56 billion). But it would save up to Rp35.34 trillion (US$3.9 billion) by reducing the kerosene subsidy (Evita Legowo, Director General of Oil and Gas, cited in Investor Daily Indonesia, 2011). The cost of start-up and distribution are covered by the annual state budget. In late 2010, the Ministry of Finance announced a Ministerial Decree that grants a Value-Added Tax (VAT) exemption for government subsidies on 3 kg LPG tank products.4

In addition to the free start-up package, the government also subsidizes the price of LPG for the 3 kg cylinder tank. In 2007, Ministry of Energy and Mineral Resources (MEMR) estimated that the production cost of one kilogram of LPG is Rp6,700. The subsidized price (before tax) for a 3 kg cylinder tank is Rp3,500/kg, meaning each kilogram of LPG is subsidized by Rp3,200. Currently, the selling price after tax is Rp4,500/kg, so 3 kg LPG costs about Rp13,500/tank (MEMR, 2007). It is unclear for how long the government will keep subsidizing the 3 kg LPG tank.

1.3.4 Electricity

The Indonesian government sets the electricity tariff for all consumer types (i.e. industry, business, residential and public services). The amount of subsidy is determined annually by the government, based on the difference between the average cost of electricity production proposed by Perusahaan Listrik Negara (PLN), the State-owned electric company, and the average electricity tariff set by the government. The average cost of electricity production is based on an estimate of the composition of the energy inputs for generating electricity and the power plants, transmission, distribution and supply costs, and a margin for PLN.
Subsidies for electricity jumped from Rp9 trillion (US$0.9 billion) in 2005 to Rp31 trillion (US$3.4 billion) in 2006 due to increasing international crude oil prices and high diesel oil consumption in electricity generation. In 2008, the subsidy for electricity skyrocketed to its highest cost at Rp84 trillion (US$8.4 billion) (Ministry of Finance, 2010b).

1.3.5 Coal

The Indonesian government subsidizes coal in two ways: through guaranteed supplies to the State-owned electricity company and domestic industries, and through regulating the domestic price of coal.

A coal subsidy is provided by way of a Domestic Market Obligation (DMO) policy, which sets a guaranteed amount of coal sales to electricity generation and domestic industries. The formulation of the DMO is primarily driven by the quantities of coal required by nominated domestic consumers to satisfy their annual operating requirements.

The DMO is distributed proportionally to the coal companies through their Work Budget and Program (CCoWRKAB) approval. The quota is recalculated and set annually, reflecting the change in demand and supply of coal. For instance, the coal DMO for 2009 was 68 million tons, and in 2010, it was 70 million tons.

In addition to the DMO policy, the government also sets the Indonesian Coal Price Reference (ICPR). The price setting aims to secure domestic coal supply, act as a reference price for producers and domestic consumers, and maximize the state revenue from coal. ICPR makes coal prices relatively uniform. The procedure to set ICPR is determined by the Minister of Energy and Mineral Resources Decree No. 17/2010. The determination is based on a formula and several attributes that might lower the domestic price below other international coal market indexes, such as Global Coal and Barlow Jonker.5

The major consumer of coal in Indonesia is the State-owned electricity company, PLN. The company consumes more than 80 per cent of domestic coal supply or about 34 million tons in 2010. The remaining coal is consumed by domestic industries such as steel and cement.
1.3.6 Upstream Oil and Gas Subsidies

The government provides several subsidies for oil and gas exploration and production activities in the form of tax incentives, an investment credit allowance and the oil domestic market obligation. Braithwaite et al. (2010) calculated that, in 2008 alone, oil and gas producers received about US$245 million (Rp2.37 trillion) in investment credit and tax incentives. In addition, Pertamina’s refineries benefit from buying crude oil supplied to them through the oil domestic market obligation system at heavily discounted prices. This subsidy to Pertamina was worth US$1.55 billion (Rp15 trillion) in 2008, to make the total subsidy value to upstream oil and gas worth US$1.8 billion (Rp17 trillion) in 2008. Moreover, the study identified several other potential subsidies; however, the information required to clarify and estimate these subsidies was not readily available.
ARE ENERGY SUBSIDIES GOOD FOR INDONESIANS?
2. Are Energy Subsidies Good for Indonesians?

The Indonesian government subsidizes fuel and electricity to help keep energy affordable, especially for low-income groups (Ministry of Finance, 2010b). Energy subsidies are intended to increase household incomes in two ways. The direct effect is that, by paying less for fuel, households have more disposable income to spend on other things. The indirect effect is that the goods and services purchased by households might be cheaper as a result of subsidies that reduce energy input costs for producers, distributors and service providers.

2.1 Do Poor People Benefit?

In actual fact, several studies show that most of the benefits of fuel subsidies are harnessed by high-income groups. Because fuel subsidies are provided per litre, and do not vary depending on income, those who consume the most fuel receive the largest share of the subsidy. The largest consumers of energy are the wealthiest households and those in urban areas.

The World Bank (2011) used data from the 2009 Indonesian National Household Socioeconomic Survey (SU SENAS) to show that households and private uses may account for around a third of subsidized fuel consumption. The remainder appears to be used commercially for transport, such as by buses and businesses (Figure 2). The study also found that the top half of households by wealth consumed 84 per cent of the subsidized gasoline, with the richest decile alone accounting for almost 40 per cent. In contrast, the poorest decile accounted for less than 1 per cent of subsidized gasoline use. Further detailed examination of household survey data suggested that about two thirds of the poor and near-poor households (defined as the bottom 5 deciles) do not consume gasoline whatsoever.

90 per cent of Indonesia’s fuel subsidies benefit the richest 50 per cent of households.
Similar results have been found by other researchers. Agustina et al. (2008), for example, found that more than 90 per cent of Indonesia’s fuel subsidies benefit the richest 50 per cent of households (Figure 3). The Indonesian government is aware of these effects. The Coordinating Ministry of Economic Affairs advised in May 2008 that the wealthiest 40 per cent of families receive 70 per cent of the subsidies, while the bottom 40 per cent benefit from only 15 per cent of the subsidies (Mourougane, 2010).
2.2 Are Energy Subsidies Good for Economic Development?

Fuel subsidies affect the economy in several ways. A readily observable effect is the cost on the government budget, but there are more subtle and equally important impacts on the economy. By artificially lowering the price of certain types of energy, subsidies encourage overconsumption and inefficient use of those resources. Lower prices also alter investment decisions by discouraging energy diversification and reducing the incentive for energy suppliers to build new infrastructure. The key economic impacts of fuel subsidies are discussed below.⁶

Large subsidies on imported oil make Indonesia’s fiscal position highly vulnerable to changes in global energy prices.

Figure 3 » The distribution of fuel subsidies across Indonesian households

Source: Agustina et al., 2008
2.2.1 Fuel Price Volatility and Government Financing

As a net fuel importer, Indonesia must buy most of its fuel at international market prices. Selling that fuel more cheaply domestically results in huge losses for Pertamina that must be funded by the government (i.e., the taxpayer), resulting in a major financial burden on the whole economy.

Large subsidies on imported oil make Indonesia’s fiscal position highly vulnerable to changes in global energy prices. When international oil prices rise dramatically, like they did in 2008, the government is forced to either drastically increase prices—which can be politically difficult and cause a sudden rise in inflation—or make corresponding increases to its subsidy budget, which can be crippling for the economy.

If the government chooses to maintain subsidies at times of high oil prices, it must borrow the additional funds or cut expenditures to other programs. The volatile oil market and uncertainty about the government’s financing needs increases the cost of government borrowing, adding to future debt repayments (World Bank, 2011). Cutting spending on infrastructure, health or education will also have long-term negative impacts on development and economic competitiveness.

2.2.2 Increased Energy Imports

Overconsumption of subsidized energy leads to an increased demand for imported fuel and a reduction in the amount of domestically produced energy available for exports. Subsidies can thus result in a deterioration of the balance of payments and increase the country’s dependence on energy imports (Mourougane, 2010).

A large disparity between subsidized and non-subsidized fuel encourages consumers to switch from Pertamina’s non-subsidized “Pertamax” fuel (octane 92) to subsidized “Premium” fuel (octane 88). In the first quarter of 2011, the government reported that sales of subsidized fuel (Premium) surpassed the quota by an average of 7 per cent, while Pertamax sales dropped approximately 11 per cent (Jakarta Post, 2011b; Jakarta Post, 2011e; Kontan, 2011). The Indonesian Downstream Oil and Gas Regulatory Agency (BPH Migas) predicts that the quota of 38.5 million kiloliters of Premium for 2011 will be exceeded by up to 3.5 million kiloliters (Jakarta Post, 2011d). Pertamina’s refineries are only capable of producing 10.58 million kiloliters of “Premium” fuel annually, and therefore the remaining amount of fuel must be imported to meet domestic demand (Detik Finance, 2011).
2.2.3 Investment

For energy providers, such as petroleum refining facilities or electricity generators, mandated low prices mean that there is less incentive to invest in new capital, due to lower expected returns. This is true in Indonesia, where subsidies have led to deterioration in the financial situation of state-owned energy companies and under-investment in infrastructure (Mourougane, 2010). In 2009 the revenue from the sale of electricity by the State-owned power company, PLN, was only around half of the cost of supply (on average Rp650 per kWh and Rp1,300 per kWh, respectively). Compensation received from the central government was insufficient to fill this gap. As a result, PLN has been unable to fund new investment, expand electrification in rural areas and sometimes even to conduct standard maintenance (Mourougane, 2010). The result has been a lack of development of its generating capacity and frequent blackouts.

2.2.4 Competition

Artificially low prices for fossil fuels make it harder for alternative energy sources to compete commercially. These alternative sources could ultimately become more economically and environmentally attractive, but are disadvantaged by the subsidies provided to their competitors. Subsidies can thus “lock in” existing technologies to the exclusion of other, more promising ones.

2.2.5 Corruption and Smuggling

The price disparity created between subsidized and non-subsidized products can create a strong incentive for illegal practices such as fuel smuggling and diversion to unintended recipients. The production side of fossil fuels is a highly lucrative business and subject to government oversight that can be vulnerable to bribery. Six areas of particular vulnerability have been identified: underpayment of royalties, awarding licenses for oil and gas extraction, irregularities in State-owned enterprises, distribution of profits in production-sharing arrangements and the exploitation of loopholes in new subsidy schemes (Global Subsidies Initiative, 2010). In the case of LPG in Indonesia, the price difference between a subsidized 3 kg LPG tank and a non-subsidized 12 kg LPG tank encourages the illegal transfer of the content of 3 kg tanks into 12 kg tanks. Without the proper refilling process, this is extremely dangerous and has caused explosions that have injured and killed hundreds of people (KOMPAS, 2010; KOMPAS, 2011a).
Growing retail price disparity has increased fuel smuggling and illegal selling of subsidized fuel. The Downstream Oil and Gas Implementing Agency (BPH Migas) reported that between 10 and 15 per cent of the subsidized fuel distributed by the government was illegally sold to industries, particularly at gas stations close to industrial and mining areas (Jakarta Post, 2011h). This increase in illegal selling and smuggling of fuel has led to an increase in the demand of subsidized fuel. BPH Migas predicts that subsidized fuel consumption might reach 40 million kiloliters by the end of 2011, exceeding the quota by 4 per cent (Jakarta Post, 2011g).

Controlling illegal activities incurs large administrative costs to prevent, monitor and deal with abuse. Such costs add to the subsidy budget that is shared by all taxpayers.

### 2.3 What about the Environment?

Energy subsidies encourage excessive consumption and reduce incentives for energy efficiency. The logical consequences of high fossil fuel consumption are greater greenhouse gas emissions, local air pollution and resource depletion. Based on data from the International Energy Agency (IEA), phasing out consumption subsidies for fossil fuels between 2011 and 2020 would cut global CO₂ emissions by 5.8 per cent, compared with a “business as usual” scenario (IEA, 2010). The Organisation for Economic Co-operation and Development (OECD) estimates that emissions reductions could be as high as 10 per cent by 2050 if the same subsidies for fossil fuel consumption are removed by 2020 (IEA, OPEC, OECD, World Bank 2010). Eliminating fossil fuel subsidies provides a way for countries like Indonesia to make a major contribution to greenhouse gas reduction without introducing carbon taxes or an emissions trading system. Yusuf et al. (2010) found that removing fuel and electricity subsidies would reduce national CO₂ emissions by 6.66 per cent by 2020 (5.79 per cent from removal of fuel subsidies; 0.92 per cent from removal of electricity subsidies).

The logical consequences of high fossil fuel consumption are greater greenhouse gas emissions, local air pollution and resource depletion.
Subsidies also undermine the incentive to invest in existing cleaner energy sources and technologies by artificially reducing the consumer price for fossil fuel products. In the same way, fuel subsidies discourage innovation in the production and deployment of cleaner types of energy, such as LPG and renewables, even though Indonesia’s endowment in these energy resources is substantial.

2.4 Who Would be the Winners and Losers if Energy Subsidies were Removed?

As noted above, the benefits of fuel subsidies accrue mainly to high-income groups and their cost falls on the whole taxpaying population. As a result, fuel subsidies are a regressive policy, with poor households paying relatively more and receiving fewer benefits than wealthier ones. The removal of subsidies would therefore have long-term economic benefits for the economy as a whole, including the poor.

Nonetheless, removal of subsidies would have some short-term negative impacts on some groups. Economic modelling by Clements, Jung and Gupta (2007) found that those most impacted by the reduction of subsidies in Indonesia would be high-income groups in urban and rural environments as they consume the most petroleum products. These groups would most likely reduce their overall consumption in the short-term in order to manage higher fuel prices.

In general, rural and lower-income groups consume a larger portion of agricultural goods, whose price is less sensitive to changes in fuel price. However, the urban poor were also found to be vulnerable to fuel price rises (Clements, Jung and Gupta, 2007). This is probably because, compared with the rural poor, they are more likely to rely on utilities (such as electricity) and their employment is capital-intensive (i.e., it relies on energy-intensive machinery).

In the longer term, a higher petroleum price is unlikely to have harmful effects on the poor because it would be compensated by the economy-wide benefits of subsidy reduction: improved fiscal sustainability, increased social spending by the government, more efficient allocation of resources and increased investment (Clements, Jung and Gupta, 2007).
2.5 What Plans has the Government Announced to Reform Energy Subsidies?

The government has repeatedly publicized plans to reduce fuel subsidies but has delayed implementation. Most recently, the government announced a plan in 2010 to raise electricity prices and limit fuel subsidies. The measure would have restricted private cars from buying subsidized fuel from April 2011 for the Greater Jakarta area. Only public transportation would be entitled to subsidized fuel. In 2012, subsidies were to be further reduced (Wei, 2011). However, the plan was postponed indefinitely (Jakarta Post, 2011c).

In March the government’s Fuel Subsidy Assessment Team recommended three options to limit sales of subsidized fuel. The first option is to impose a price cap of Rp8,000 (US$0.91) per litre for non-subsidized Pertamax gasoline to ensure that private car owners would not be negatively affected if the fuel price continues to rise. The second option is to raise the price of the subsidized Premium gasoline by Rp500 per litre from the current Rp4,500 per litre. The third option is to limit the allocation of Premium gasoline through an allotment system to better target the sales of subsidized fuel (Jakarta Post, 2011a).

In May 2011 the government announced that fuel subsidies will be retained but the distribution mechanism will be changed to a direct and targeted subsidy. A roadmap for the reform will be announced in July 2011 (KOMPAS, 2011b).

The government of Indonesia has been trying to reduce subsidies for electricity by increasing tariffs. In July 2010 the government increased the electricity tariff by 18 per cent on average for most PLN consumers, excluding 33.6 million small residential consumers with a 450 and 900 Volt-Amper (VA) connection. Despite the tariff increase, in 2010, electricity subsidies still exceeded the target by Rp2.5 trillion, totalling Rp57.6 trillion (US$6.4 billion). 7

In May 2011 the government announced a plan to increase the base price of the electricity tariff by between 10 to 15 per cent in 2012, with expected savings of Rp15 trillion (US$1.65 billion) for the state budget (Jakarta Post, 2011f). The plan is expected to be approved by Parliament as part of the 2012 budget.
The government has also announced a change to the distribution model for subsidized 3 kg LPG canisters from the current open system to a closed system by 2014. The government intends to introduce a control card, limiting subsidized 3 kg LPG canisters for poor families and small businesses. The distribution of the control card will be based on data provided by local governments and the government’s pilot projects in several regions, which were trialled in 2009 and 2010 (Republika, 2010). The kerosene-to-LPG conversion program is due to end in 2012 and without limiting the LPG subsidy, the government could face increasing costs on completion of the program.
WHAT DO WE KNOW ABOUT THE REFORM OF ENERGY SUBSIDIES?
3. What do We Know about the Reform of Energy Subsidies?

Although many fuel subsidies help the rich more than the poor, we should not lose sight of the fact that some poor households—especially those in urban areas—depend on subsidies to make energy affordable. For these people, expenditure on energy takes up a larger portion of their budget than it does for the wealthy. Energy price rises and possible inflation can put poor households under severe financial stress.

But subsidy reform can be designed and implemented in a way that minimizes the negative impacts for poor households. A suite of policies have been used by countries around the world, including Indonesia, to ease the transition away from fuel subsidies. The policies can be grouped into two categories: those that provide assistance to poor households and those that help the broader community to understand and support reform. The best chance for successful reform (which can be defined as the long-term elimination of subsidies with minimal negative impacts on the poor and society at large) requires a comprehensive strategy drawing on a range of transitional support policies (Laan, Beaton & Presta, 2010). Research into the nature of the subsidy, how its costs and benefits are distributed, and identification of those most likely to be impacted by its removal will help design the reform strategy.

3.1 Policies to Support Poor Households

Reducing energy subsidies would free-up government funds for other purposes. By allocating these funds to programs that directly target the poor, the government would redirect money from fuel subsidies (that mostly benefit the rich) to those most in need. There are two main ways that governments can do this: cash transfers and increased social spending.

Indonesia has experience with both of these approaches. In 2005 and 2008, the Indonesian government used the Cash Transfer Assistance program (Bantuan Langsung Tunai or BLT) to reduce opposition to fuel price increases and help poor families cope with higher energy costs. The

A suite of policies have been used by countries around the world, including Indonesia, to ease the transition away from fuel subsidies.
program provided two payments of Rp.300,000 (around US$30) directly to poor families (Widjaja, 2009). The BLT was accompanied by short-term measures referred to as the Fuel Subsidy Reduction Compensation Program (Program Konpensasi Pengurangan Subsidi Bahan Bakar Minyak or PKPS-BBM). These programs provided targeted support for affected groups by increasing social spending in the areas of education, health and rural infrastructure (Beaton & Lontoh, 2010).

In a review of these policies, Beaton and Lontoh (2010) considered that they were reasonably successful in assisting poor households and reducing opposition to fuel price increases. According to various reviews of the 2005 BLT program, mistargeting is thought to have been relatively low and the majority of households did actually receive the funds they had been promised (Hastuti et al., 2006).

However, there were problems. Some cash transfers were misappropriated and some deserving recipients did not receive payments, which resulted in social unrest (Cameron & Shah, 2011). Those missing out on payments vented their frustration on the local administrators of the scheme, leading in some cases to violence and the resignation of village officials. Any future implementation of the BLT would need to take into account lessons learned from previous experience, such as the need for better targeting, stronger oversight and greater support for village officials.

An alternative approach would be to link cash payments to behaviours that assist community development. Conditional Cash Transfers (CCTs) require recipient families to commit to certain activities, generally related to children’s health care and education. Mexico’s Oportunidades program is one such scheme. It started with approximately 300,000 beneficiary households in 1997 but covered 5 million households by 2009 (Fiszbein & Schad, 2009). Significant data collected over the years indicate that the program has been successful in assisting the poor. Mexico’s program was not coupled with reductions to fossil fuel subsidies, but it nonetheless provides an example of a social safety net that could be used to compensate for fuel price increases while maximizing development outcomes.

Alternative avenues for social spending (funded by subsidy elimination) can also be observed in other countries. Jordan, for example, supported subsidy reform in 2008 by increasing the minimum wage and providing a salary increase to low-paid government employees. A one-time bonus was given to low-income government employees and pensioners and electricity tariffs were maintained at low levels. In the same year, Thailand initiated a six-month B46 billion (US$1.3 billion) program to help the poor in response to high international oil prices. The plan offered free electricity to those consuming less than 80 kilowatt-hours a month (and half the cost for households consuming less
than 150 kilowatt-hours), free rides on the 800 ordinary buses operated by the state-run Bangkok Mass Transit Authority and on third-class trains, free water for the first 50 cubic metres, excise exemption on ethanol-gasoline blends and diesel, and a ceiling on LPG prices (Kojima, 2009).

The best options for transitional support measures will be country-specific depending on the administrative capacity of the country and coverage of services. Targeted cash transfers require that the poor can be identified and a cash delivery mechanism established. A prerequisite to providing cheap access to electricity is comprehensive electricity coverage. Where such infrastructure does not exist, governments can increase social spending through publicly funded health clinics, schools, roads, public transport, and water and sanitation infrastructure.

### 3.2 Good Processes to Support Reform

The way in which subsidies are eliminated can also ease the transition to market prices and build public support for reform. Good practice includes a clear communications campaign, stakeholder consultation, transparency about fuel prices, a gradual phase-out of subsidies, and monitoring of the impacts of implementation with adjustments if necessary. Indonesia has experience with several of these approaches.

#### 3.2.1 Communication

In 2005, the government implemented a public relations campaign alongside cash transfers and social spending as a means for building support for reform. In contrast with previous attempts to increase fuel prices, the 2005 reforms met with no substantial opposition (Beaton & Lontoh, 2010).

The Indonesian government makes some information public about fuel prices. Public understanding and acceptance of changing fuel prices can be encouraged by regularly publishing information such as price surveys, comparisons of domestic and international prices, historical and current prices, and the composition of each key petroleum product (such as import prices, refining and distribution costs and taxes) (Kojima, 2009). In addition, governments should encourage competition in the retail sector by requiring filling stations to post prices on display boards.

Clear communication with stakeholders and the public appears to be a key element of an effective reform strategy.
Chile, for example, has strong transparency arrangements for its fuel subsidies and pricing policies (Subsidy Watch, 2009). The National Energy Commission determines fuel price structure, monitors prices set by National Petroleum Company and provides weekly media briefings about pricing. While Chile still has some fuel subsidies, transparency has helped the public to understand price fluctuations and pave the way for liberalization of the domestic fuels market.

Clear communication with stakeholders and the public appears to be a key element of an effective reform strategy. If stakeholders participate in the decision-making process from the beginning, opposition to subsidy reform can be addressed early and taken into account in designing policies to ease the transition. Public awareness campaigns help citizens to understand why reform is necessary and how their money can be redirected to other services, or returned to them in the form of lower taxes.

### 3.2.2 Gradual Phase-Out

A gradual phase-out of subsidies can give recipients time to adjust. The longer a subsidy has been in place, the more difficult it will be to remove and the longer the likely timeframe required for reform. Subsidies have a tendency to become perceived as entitlements and any attempt to reduce them can be politically hazardous (Steenblik, 2007). In December 2010 the Bolivian government made sudden and dramatic increases to the price of subsidized fuel, raising prices by over 80 per cent, with few supporting measures to ease the transition (Deutsche Gesellschaft für Internationale Zusammenarbeit [GIZ], 2011). The result was a major public backlash and a rapid reinstatement of subsidies by the government. The GIZ (a German Government-owned company that supports sustainable development) recommends that governments should avoid price jumps of over 10 per cent per adjustment when instituting reform.

However, there can be opportune moments to deregulate quickly. Falling oil prices in the second half of 2008 provided an opportunity for several governments to undertake price-subsidy reforms, including China, Ethiopia and Vietnam (Kojima, 2009).

### 3.2.3 Monitoring and Adjustment

Monitoring and adjusting reform on an ongoing basis is necessary to assess whether measures have been effective, to check whether there have been unintended negative consequences, and to adapt policies over time (Laan, Beaton & Presta, 2010). Temporary assistance policies also require careful monitoring in order to ensure that the assistance is reaching the target groups and that support does not continue for so long that it becomes entrenched.
Finally, strong governance practices must be put in place to prevent the government from becoming enmeshed in fuel pricing again in the future. Governments will always be called upon by the public to intervene when fuel prices are high. Market-based pricing overseen by independent bodies that regulate competition and transparency regarding fuel prices allow governments to demonstrate to citizens that fuel prices are dictated by international forces, not the government.

3.3. Conclusion

Indonesia’s fuel subsidies were put in place to make energy more affordable, particularly for poor people. However, overwhelming evidence suggests that most of the subsidies—likely to be worth over Rp134 trillion (US$15 billion) in 2011—go to the well-off. In addition, the subsidies interfere with energy supplies and economic development by reducing investment in energy infrastructure (both current and emerging technologies), wasting government resources and undermining Indonesia’s international competitiveness.

The Indonesian government is well aware of these problems and has made repeated attempts to remove the subsidies. It is also aware of the various policies that can be used to help the transition away from energy subsidies, having implemented several of them. So what has gone wrong and what hope is there for lasting reform?

The government has had some success in raising energy prices through the use of transitional policies such as cash transfers, social spending, information campaigns and increased transparency. However, the subsidy reductions were subsequently eroded by increases in international oil prices.

A more comprehensive reform strategy might meet with greater success: research to identify the winners and losers of reform, an information campaign to build public support, a carefully designed and targeted package of assistance measures that is implemented impeccably, the gradual phase-out of subsidies over a fixed time frame, and governance structures to oversee a liberalized energy market.

Even after successful reform, subsidies will remain a politically popular measure during times of high oil prices. And politicians find it hard to resist policies that deliver easy votes. The Indonesian government will need to establish a plan for how it will help vulnerable households without reinstating subsidies, through measures such as cash handouts to eligible households. The Indonesian public would take some time to adjust to a liberalized energy market but it would benefit from a stronger economy and more help for the poor, which lead to a higher standard of living for everyone.
4. Endnotes

1 LKPP: Laporan Keuangan Pemerintah Pusat (Central Government Financial Report); APBN: Anggaran Pendapatan Belanja Negara (Annual State Budget and Expenditure); APBN-P: Anggaran Pendapatan Belanja Negara-Perubahan (Revised Annual State Budget and Expenditure)

2 Before January 15, 2009, the gasoline (Premium) price was set to Rp5,000/litre and diesel oil (Solar) price was set to Rp4,800/litre. From January 15, 2009 onwards, the Minister of Energy and Mineral Resources Decree No. 16/2008 set the prices of Premium and Solar to Rp4,500. See the historical price of petroleum 2009, retrieved from: http://www.esdm.go.id/publikasi/harga-energi/harga-bbm-dalam-negeri/doc_download/909-harga-bbm-dalam-negeri-2009.html

3 Unless otherwise stated, the following historical exchange rates, taking the annual average, have been used (www.oanda.com):
   - 2005: Rp1 = US$0.00010; US$1 = Rp9627.81074
   - 2006: Rp1 = US$0.00011; US$1 = Rp9117.55864
   - 2007: Rp1 = US$0.00011; US$1 = Rp9213.27757
   - 2008: Rp1 = US$0.00010; US$1 = Rp10514.17362
   - 2009: Rp1 = US$0.00010; US$1 = Rp9552.43458
   - 2010: Rp1 = US$0.00011; US$1 = Rp8916.28347
   - 2011: Rp1 = US$0.00011; US$1 = Rp8533.64 (as at 1 June 2011)


5 The Indonesia coal price formula refers to two Indonesia Coal Indexes, ICI and Platts, and two Australian Indexes: NEX and Global Coal (GC). The four price indexes averaged at the same caloric value to obtain a Reference Coal Price. The Reference Coal Price will be used as the reference price for each coal mine.

6 This section draws on an OECD paper by Mourougane (2010).

7 Ministry of Energy and Mineral Resources estimated that the electricity subsidy spending in 2010 topped Rp62.8 billion, about 5.2 trillion more than the projection of Ministry of Finance. However, the actual subsidy will only be known after the audit of Supreme Audit Agency (BPK) has completed its analysis on the government expenditure. Retrieved from http://www.thejakartapost.com/news/2011/01/06/ despite-rate-increase-govt-spent-more-power-subsidy.html
5. References


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The International Institute for Sustainable Development’s Global Subsidies Initiative

The International Institute for Sustainable Development (IISD) launched the Global Subsidies Initiative (GSI) in December 2005 to put a spotlight on subsidies – transfers of public money to private interests – and how they undermine efforts to put the world economy on a path toward sustainable development.

Subsidies are powerful instruments. They can play a legitimate role in securing public goods that would otherwise remain beyond reach. But they can also be easily subverted. The interests of lobbyists and the electoral ambitions of officeholders can hijack public policy. Therefore, the GSI starts from the premise that full transparency and public accountability for the stated aims of public expenditure must be the cornerstones of any subsidy program.

But the case for scrutiny goes further. Even when subsidies are legitimate instruments of public policy, their efficacy – their fitness for purpose – must still be demonstrated. All too often, the unintended and unforeseen consequences of poorly designed subsidies overwhelm the benefits claimed for these programs. Meanwhile, the citizens who foot the bills remain in the dark.

When subsidies are the principal cause of the perpetuation of a fundamentally unfair trading system, and lie at the root of serious environmental degradation, the questions have to be asked: Is this how taxpayers want their money spent? And should they, through their taxes, support such counterproductive outcomes? Eliminating harmful subsidies would free up scarce funds to support more worthy causes. The GSI’s challenge to those who advocate creating or maintaining particular subsidies is that they should be able to demonstrate that the subsidies are environmentally, socially and economically sustainable – and that they do not undermine the development chances of some of the poorest producers in the world.

To encourage this, the GSI, in cooperation with a growing international network of research and media partners, seeks to lay bare just what good or harm public subsidies are doing; to encourage public debate and awareness of the options that are available; and to help provide policy-makers with the tools they need to secure sustainable outcomes for our societies and our planet.

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The GSI is an initiative of the International Institute for Sustainable Development (IISD). Established in 1990, the IISD is a Canadian-based not-for-profit organization with a diverse team of more than 150 people located in more than 30 countries. The GSI is headquartered in Geneva, Switzerland and works with partners located around the world. Its principal funders have included the governments of Denmark, the Netherlands, New Zealand, Norway, Sweden and the United Kingdom. The William and Flora Hewlett Foundation have also contributed to funding GSI research and communications activities.

For further information contact Ms. Kerryn Lang at: klang@iisd.org or info@globalsubsidies.org or +41.22.917.8920

Institute for Essential Services Reform (IESR)

IESR is a non-governmental organization that promotes the just and equitable use of natural resources for human development. IESR is designed as a think-thank for civil society in promoting alternative public policy approaches and measures to further the public interest and strengthen good governance in areas of energy, electricity, climate change and extractive industries. IESR works to ensure that the use of limited non-renewable energy sources are for a greater public benefit, and respect the environment and social justice. IESR combines analysis and research, with active intervention in policy and regulatory areas, public campaigns and capacity building for civil society organizations.

Email: iesr@iesr.or.id Website: www.iesr-indonesia.org