INDONESIA FOSSIL FUEL REFORM: IMPLEMENTATION AND CHALLENGES

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Overview on the Indonesian Fossil Fuel Subsidy Reforms
Energy consumption moves inline with economic activity.

Indonesian energy mix is dominated by fossil base energy (oil, gas, and coal).

Domestic oil production has been declining in the last two decades due to growing energy demand. Oil imports is needed to fulfil the energy demand, which made Indonesia became a net oil importer in 2003.

Oil and gas trade balance recorded a deficit for the first time in 30 years in 2012, which contributed to the deficit of overall Indonesia’s trade balance.
ENERGY SUBSIDY REFORM: RATIONALES BEHIND THE REFORM

1. Indonesia transforms from exporter towards net oil importer

2. Limited Fiscal Space, Energy subsidy has taken a big portion of the budget and taking away the productive spending

3. Energy subsidy was poorly targeted

4. Energy subsidy becomes a disincentive for the development of renewable energy
Indonesia started subsidizing 7 types of fossil fuel

The type of fuel subsidy was decreased into 5

Indonesia became net oil importer

Increase gasoline price by 80% and withdraw subsidies for industrial sector. Government gives unconditional cash transfer (BLT) to middle and lower society to compensate the price increase

Subsidy budget increased to US$ 8 billion

Only 3 types of fuel subsidized by government (i.e. Gasoline (RON 88), Diesel, kerosene)

Increase electricity tariff by 15% excluding 450VA and 900VA

Government gives improved BLT (BLSM) to middle and lower society to compensate the price increase

Increase electricity tariff by 10% on July 2012 Converting public transportation from using gasoline to Compressed Natural Gas (CNG)

Kerosene-to-LPG conversion program was initiated. This program managed to reduce 9 million KL kerosene consumption until 2014

2008 Encouraging the utilization of new and renewable energy, such as: palm oil, biomass, biogas; not only for fuel but also for electricity

Reducing electricity subsidy and electricity tariff adjustment Fuel Price increase in November

Government completely eliminated gasoline subsidies and set fixed subsidies of IDR1,000 per liter for diesel, 12 Groups of consumer are no longer subsidized

Fixed subsidies of IDR500 per liter for diesel

Electric Subsidy for HH powered 900 VA set only for the poor and vulnerable
IMPACTS OF THE REFORM

Fiscal impacts: more fiscal space for productive spending

- Energy subsidy was mainly reallocated to infrastructure spending which significantly increased since 2015.
- The government continue the mandatory spending, which are 20% for Education (since 2009) and 5% for Health (since 2016).
- Efficient budget for subsidy expenditure would be beneficial for leveraging economic growth and alleviating poverty such as health, infrastructure, and social assistance.

Impacts on inflation: Reforms may create a short-term inflation impact, the GoI maintain the expected inflation steady low

- Fuel Price and Inflation, 2013-18
- Inflation and Electricity Subsidy Policies, 2013-18
INEFFICIENT ENERGY SUBSIDY

Changing paradigm from commodity based subsidy to people based subsidy (social assistance)

Energy Subsidy is Regressive, Social Assistance is Progressive

- Commodity based subsidy creates *inclusion error*
- Social Assistance programs proved to lower the inclusion error
- Transforming LPG and electricity subsidy into social assistance mechanism will be more effective at lowering poverty rate
- Energy subsidy reform is needed to strengthening the social assistance programs (PKH, PIP, etc.) to achieve the extreme poverty alleviation goal
ENERGI SUBSIDY IS REGRESSIVE

Not targeted energy subsidy is in fact increasing income inequality.

- **non-targeted** energy subsidy mechanism creates benefit leakage in which upper income households are benefited more as compared to lower income households. This leakage is apparent especially on LPG, diesel and kerosene.

- Benefit distribution of subsidy is determined by the number of consumption which is in line with the purchasing power. Therefore, the higher the income, the higher the energy subsidy benefit received.

- There is an exception for electricity subsidy which is more progressive and better targeted. Electricity subsidy for household intended only for all R1 450 VA, as well as R1 900 VA which is categorized as the poor and vulnerable, which have impact in decreasing the inclusion error. However, household in high decile tend to receive more benefit since they tend to have

In the context of inequality, program with Lorentz curve is above the 45 degree line reduces income inequality, while program with Lorentz curve is below the 45 degree increases income inequality.
DOMINO EFFECT OF COVID19 IN INDONESIA
Causing pressure on the economic both supply and demand sides

**HEALTH**

The spread of COVID-19 is very fast and reaches wide areas, creating a crisis on health sectors as the vaccine and medicine are not available yet, as well as the limited medical equipment and health workers.

**SOCIAL**

The effort to flattening the curve causes effect on the slowing down economic activities with labor intensives in all sectors, including informal.

**ECONOMIC**

Economic performance sharply declines
Contraction on the consumption, investment, trade → lowering economic growth

**FINANCE**

Volatility in the financial sector occurs suddenly at the time of virus spread, resulted in lowering level of investor confidence.

As well as the declining in the financial sector performance, ie higher NPL, lower profitability and solvability.
NEGATIVE EFFECTS OF THE LOWERED ECONOMIC GROWTH AND DECREASED WELFARE

Indonesia Economic Growth Projection 2020

- Before COVID-19: 5.3% (APBN 2020)
- After COVID-19: -0.4% (very heavy), 1.0% (heavy)

Social Effects

<table>
<thead>
<tr>
<th></th>
<th>(million people)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poverty</td>
<td>+5.71</td>
</tr>
<tr>
<td>Unemployment</td>
<td>+5.23</td>
</tr>
</tbody>
</table>

The escalation of COVID-19 and lowered economic growth should be mitigated in order to prevent the decreased welfare → needs extraordinary policy

Source: KEM PPKF 2021

BADAN KEBIJAKAN FISKAL KEMENTERIAN KEUANGAN RI
### BUDGET IN RESPONSE TO COVID-19 IDR695.2 T

#### Health IDR87.55

1. Expenditure for Handling Covid-19 IDR65.80T;
2. Incentives for Paramedic IDR5.90T;
3. Death Compensation IDR0.30T;
4. National Health Insurance Fee IDR3.00T;
5. Covid-19 Task Force IDR3.50T;
6. Tax Incentives in Health IDR9.05T

#### Social Protection IDR203.90

1. Conditional Cash Transfer Program (PKH) IDR37.40T;
2. Basic Foods IDR43.60T;
3. Social Assistance Jabodetabek IDR6.80T;
4. Social Assistance Non-Jabodetabek IDR32.40T;
5. Pre-Working IDR20.00T;
6. Electric Discount IDR6.90T;
7. Logistical / Foods / Basic Foods IDR25.00T;
8. Village Fund: Cash Transfer IDR31.80T

#### Corporate Financing IDR53.57 T

1. Labour Intensive-Fund Placement IDR3.42T
2. State Equity Participation (PMN) IDR20.50T (HK IDR7.5T, BPUI IDR6T, PN IDR1.5T, ITDC IDR0.5T, PPA IDR5T)
3. Working Capital Investment IDR29.65T (Garuda IDR8.5T, KAI IDR3.5T, PTPN IDR4T, KS IDR3T, Perumnas IDR0.65T, PPA IDR10T)

#### SMEs IDR123.46 T

1. Interesters Subsidy IDR35.28T;
2. Fund Placement IDR78.78T;
3. Guarantee Return (UP) IDR5.00T;
4. Working Capital Guarantee (Stop Loss) IDR1.00T;
5. Government-Borne Final Income Tax IDR2.40T;
6. Investment Financing to Cooperatives through LPDB KUMKM IDR1.00T

#### Sectoral & Regional Government IDR106.11 T

1. Line Ministries Labour Intensive Program IDR18.44T;
2. Housing Incentives IDR1.30T;
3. Tourism IDR3.80T;
4. Regional Incentive Fund (DID) for Economic Recovery IDR5.00T;
5. Physical Special Allocation Fund Reserve IDR8.70;
6. Regional Loan Facility IDR10.00T;
7. Diversification Reserve IDR58.87T

#### Business Incentives IDR120.61 T

2. Income Tax Exemption on Import IDR14.75T;
3. Tax Deduction PPh 25 IDR14.40T;
4. VAT Return IDR5.80T;
5. Corporate Rate Reduction IDR20.00T;
6. Other Stimulus IDR26.00T
**ENERGY SUBSIDY POLICY (ELECTRICITY) IN RESPONSE TO THE COVID-19**

1. **Government’s support provided for the poor and SME’s to maintain the capability to access electricity during the pandemic**

2. **Government’s support in specific terms, for business activities, including industries**

3. **The support stays for July-December amounted IDR15,40 T**

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### Social Security Cluster

<table>
<thead>
<tr>
<th>Month</th>
<th>Discounted tariff</th>
<th>IDRs</th>
</tr>
</thead>
<tbody>
<tr>
<td>April-Jun</td>
<td>450 VA (100%)</td>
<td>IDR 7,84 T</td>
</tr>
<tr>
<td>July-Sept</td>
<td>450 VA (100%)</td>
<td>IDR 4,34 T</td>
</tr>
</tbody>
</table>

**TOTAL IDR 12,18 T**

### Business Incentive Cluster

- **Relaxation the E-min payment for for the customer with the electricity usage under E-min (40 hrs), for Social, Business and Industries.**

- **Discounted tariff for small business and industries 450VA (100%) - SME**

<table>
<thead>
<tr>
<th>Month</th>
<th>IDRs</th>
</tr>
</thead>
<tbody>
<tr>
<td>May-Oct</td>
<td>IDR 0,11 T</td>
</tr>
<tr>
<td>Oct-Des</td>
<td>IDR 0,04 T</td>
</tr>
</tbody>
</table>

**TOTAL IDR 0,15 T**
The Upcoming Agenda on Energy Subsidy Reform
There is a wide gap between market price (harga patokan) and administered price (harga jual eceran HJE) which creates fiscal pressure and market distortion.

Growing trend in shifting from nonsubsidised LPG to subsidized LPG

Susenas Study showed that LPG subsidy benefited higher income households more:  
→ 4 lowest decile received 36.2% of total subsidy  
→ 4 higher decile received 42.2% of total subsidy

Most of LPG supply is imported, which have impact to trade account deficit especially when LPG’s consumption continue to increase.
TRANSFORMING COMMODITIES BASED LPG SUBSIDY INTO DIRECT CASH TRANSFER (INTEGRATED TO SOCIAL ASSISTANCE)

**Transformation Concept**

**Getting the Price Right**
Applying market price on LPG and Kerosene to avoid price gap and market distortion, while at the same time to reduce smuggling activity and inclusion error.

**Protect the Poor**
Targeted groups (poor and vulnerable) are protected by social assistance mechanism such as cash transfer or in-kind benefit so they can fulfill their energy needs.

**Targeted Beneficiaries:**

**Sosio-economic Status**
Lowest income households' group under certain threshold (eg: 40%)

**Employment Status**
- Micro Business
- Small Farmer
- Small Fisherman
Can get additional benefit in addition to the benefit received based on socio-economic status criteria.

<table>
<thead>
<tr>
<th>Target</th>
<th>Jumlah Sasaran</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>KPM (40% poorest)</td>
<td>29,1 juta</td>
<td>Certain amount of money to protect the purchasing power (closing the gap between ability to pay and market price). Assistance is delivered on a monthly basis.</td>
</tr>
<tr>
<td>Micro Business</td>
<td>0,6 juta</td>
<td></td>
</tr>
<tr>
<td>Small Farmer</td>
<td>4,0 juta</td>
<td></td>
</tr>
<tr>
<td>Small Fisherman</td>
<td>0,3 juta</td>
<td></td>
</tr>
</tbody>
</table>
The Urgency to Transform Electricity Subsidy Policy for Households Customers (R1)

- Since 2017, government have started the target electricity subsidy policy by providing subsidy to all 450 VA customers and to poor and vulnerable 900 VA customers.
- For social and market stability reasons, government has postponed tariff adjustment since 2017 which lead to compensation expenses.
- The electricity subsidy and compensation increase from Rp53.2T in 2017 to approximately Rp80.1T in 2020.
- Electricity subsidy has been well targeted as poor and vulnerable household group get more benefit, while compensation benefit mostly the higher income households.
- Compensation is regressive → receive by large scale industry (55.2%), large scale businesses (21.4%), well-off household (18.5%), dan others (5%).

Electricity Subsidies and Compensations
(Rp trillions)

Distribution of Subsidies Benefit and Electricity Compensation Interhouseholds Groups

Compensation Beneficiaries 2019

<table>
<thead>
<tr>
<th>Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
<td>4.2%</td>
</tr>
<tr>
<td>Special service</td>
<td>0.8%</td>
</tr>
<tr>
<td>Well-off households</td>
<td>18.5%</td>
</tr>
<tr>
<td>Large scale industry</td>
<td>55.2%</td>
</tr>
<tr>
<td>Large scale businesses</td>
<td>21.4%</td>
</tr>
</tbody>
</table>
**Auto Tariff Adjustment**

Tariff adjustment applied periodically based on electricity economic price, with consideration to the the electricity price efficiency (allowable and non-allowable cost, specific fuel consumption, performance based regulatory, etc).

**Integrated Energy Support for The Poor**

Certain amount of assistance is provided for the targeted beneficiaries. The amount is given in fixed value based on average electricity consumption of targeted beneficiaries to maintain their purchasing power.

**Targeted Beneficiaries:**

**Socio-economy Status**

Lowest income households' group under certain threshold (eg: 40%)

**Consumer Groups**

- RT 450VA
- RT 900VA (non-RTM)

*Note:* 23 other customer types are still entitled to electricity subsidy. (social, small bismis, small industry, public, etc.)

**Transforming subsidy mechanism from electricity commodity to targeted beneficiaries.**

**Social assistance is provided for the poor and vulnerable households in RT 450VA and RT 900VA customers that is integrated with other energy social assistances.**

**Social assistance is provided in fixed value on monthly basis.**

**Electricity tariff is adjusted automatically based on efficient economic price.**
Indonesia commits to support CO2 reduction (Paris Agreement):

→ 29% in 2030 by its own effort
→ 41% in 2030 by International support

Indonesia Energy Transition is captured in the RUEN (National Energy Framework)

Renewables target is set at 23% in 2025, & 31% in 2050 to the national energy mix (PP No. 79/2014 on RUEN).

Emission reduction through renewable power plants is equal to 48.9 GW and 156.6 Mton CO₂e, required around IDR 1700 Trillion in funding (MEMR, 2018)

Indonesia has abundant resources on RE

The share of RE in national energy mix increasing, but remain left behind
FISCAL POLICY ON PROMOTING RENEWABLE ENERGY

**Revenue Side**
- **Tax Incentives**
  - Income Tax Facilities
  - VAT Exemption on Capital Import Goods
  - Land and Building Tax
  - Import Duties

**Expenditure Side**
- **Central Govt.**
  - Line Ministries Exp.
  - Deconcentration Funds

- **Sub National Govt.**
  - Transfer to the Region
  - Special (DAK) and General (DAU) Allocation Fund

**Public Financing**
- SOE (PMN)
- Private
- **PPP**
  - PDF
  - AP dan VGF
  - Direct Lending
  - Subsidiary Loan
  - Guarantee

Limitation on the budget capacity pushes the Govt. to create another source of financing: **BLENDED FINANCE**
I. Tax Incentives
   a. Luxury VAT (PPnBM)
   b. Income Tax
      i. Tax Holiday
      ii. Tax Allowance
      iii. Super deduction
   c. Import duties
      i. On capital goods
      ii. Import duties paid by the govt (BM DTP)

Subsidy on charging cost in charging station (SPKLU)

Financing Support on SPKLU infrastructure
Thank You