Ensuring Equitable Access to Energy Subsidy in Fossil Fuel Subsidy Reform to Support Energy Transition (A Case of LPG Subsidy Reform in Indonesia)

Office of The Vice President The Republic of Indonesia/
The National Team for the Acceleration of Poverty Reduction (TNP2K)
The Magnitude of LPG Subsidy in Indonesia

Energy Subsidies, are the LARGEST government subsidies/assistance in the Government Budget. Much bigger than subsidies/assistance for food, education, health, and the economy.

**Total Government Assistance and Subsidies** IDR 390 T*

- **Energy Subsidy (Fuel, Electricity, LPG)**: IDR 163,18 T
- **LPG Subsidy APBN 2020**: IDR 49,5 T
- **Beneficiaries**: 50 Million HH, >200 Million Individuals

Reducing the government's ability to finance other productive programs, such as education, health, poverty reduction and infrastructure development.
Existing LPG Subsidy Policy: An Ironic Policy

The LPG subsidy policy is very ironic. Huge budget allocation, mostly imported, but more than 12 million poor and vulnerable households still using firewood as a source of cooking energy.

*Source: Processed by TNP2K, 2020 Figures

**Source: Poor and vulnerable households database (DTKS) 2020, processed by TNP2K

- **7.75 million*** Metric Ton LPG Consumption
- **72%*** Imported
- **92%*** Subsidized
- **IDR 49.4 trillion*** Allocated Subsidy Budget
- **12.41 million HH** (56 Million Individuals) Still using firewood for cooking
- **2.7 million HH** Headed by Female Not have access to LPG
- **4.1 million HH** have family members with disabilities Not have access to LPG

*Source: Processed by TNP2K, 2020 Figures

**Source: Poor and vulnerable households database (DTKS) 2020, processed by TNP2K
Existing LPG Subsidy Policy Encourages Imported Fossil Fuel Dependency

Since the kerosene to LPG conversion policy in 2007, LPG consumption has continued to increase, with most of the sources of LPG procurement from imports.

LPG Consumption (Million Metric Ton)

Source: Fiscal Policy Agency, Ministry of Finance
Existing LPG Subsidy Policy Encourages More Consumption of Subsidized LPG and Criminal Acts

Due to price disparity, all income groups prefer to consume subsidized LPG. Price differences also encourage criminal acts of hoarding and adulteration for subsidized LPG.

Source: National Statistics Agency, Processed by TNP2K, 2019

*Price on January 1, 2019
The Impact of Existing LPG Subsidy Policy on Government Budget

LPG subsidy budget and high consumption of LPG have outweighed the benefits of the kerosene to LPG conversion policy of 2017.

**LPG Subsidy Budget Allocation (IDR trillion)**

- 2015: 25.87
- 2016: 24.94
- 2017: 38.75
- 2018: 58.14
- 2019: 54.14
- 2020: 49.39

**Impact of 2007 Kerosene to LPG Conversion Policy**

- 9.9 Million
- IDR 40 trillion
- IDR 20 trillion

Source: Ministry of Energy and Mineral Resources
Existing LPG Subsidy Policy Gives More Benefit to Rich Group

40% of households with the lowest socio-economic conditions enjoy only 32% of the LPG subsidies, while 68% are enjoyed by the more affluent groups.

Source: National Statistics Agency, Processed by TNP2K, 2019
Existing LPG Subsidy Policy Gives More Benefit to Rich Group

The bottom 40% group receive less LPG subsidy than the richest 50%.

Average Subsidy Received Based on Income Groups (IDR/Month)

Source: National Statistics Agency, Processed by TNP2K, 2019
Policy Alternatives

• To limit the consumption of subsidized LPG, only for the poor and vulnerable households.

• Changing the subsidy mechanism, from price subsidy to direct targeted subsidy to poor and vulnerable household.
The amount of subsidy is given in a fixed amount each month and transferred directly by the Government to the beneficiary’s account.

### From Price Subsidy to Direct Targeted Subsidy

Direct subsidies are provided in non-cash form to eligible households/families.

### Subsidized LPG to be sold at Economic Price

Subsidized LPG is sold based on economic price, like the price of non-subsidized LPG to eliminate price disparity in the market.

### Fixed Monthly Subsidy

The amount of subsidy is given in a fixed amount each month and transferred directly by the Government to the beneficiary’s account.

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Source: The National Team for the Acceleration of Poverty Reduction (TNP2K)
Work in Progress

• Data for targeting
• Mechanism of subsidy disbursement
• Technology of transfer
• Supported Regulations
Households Data for LPG Subsidy Policy Reform

The Government Has Unified Database of Poor and Vulnerable Households (DTKS) that can be used as targeting data for LPG Subsidy Reform

- **Energy Subsidy**: 40%
  - 27.2 million households
  - 29.3 million families
  - 99.3 million individuals
  - DTKS Contains Name and Address of 40% Lowest Socio-Economic Status. Integrated Data authorized by the Minister of Social Affairs.

- **National Healthcare Program Contribution Assurances**: 35%
  - 15.2 million families
  - 78.4 million individuals

- **Food assistance Program (BPNT)**: 25%
  - 10.19 million families
  - 51.6 million individuals

- **Conditional Cash Transfer Program (PKH)**: 20%
  - 9.2 million families
  - 47.2 million individuals

- **Poverty Line (September 2020)**: 10.19%
  - 4.05 million families
  - 21.8 million individuals

Source: The National Team for the Acceleration of Poverty Reduction (TNP2K)
LPG Subsidy Disbursement
To Use Existing G2P System

Through the Banking System and Using Electronic Transactions

GOVERNMENT → BANK → SAVING ACCOUNT# → E-WALLET → ELECTRONIC TRANSACTION TOOLS → BENEFICIARIES

- Government
- Bank
- Saving Account
- E-wallet
- Electronic Transaction Tools
- Beneficiaries

# Bank Savings Account Opening
* Restricted: only to be used for the program
** Cash transfer

Source: The National Team for the Acceleration of Poverty Reduction (TNP2K)
Policy Reform Expected Impact

- Government budget savings  ✓
- Poverty and inequality reduction  ✓
- Gender and social inclusion  ✗
- Promoting the use of alternatives energy and support energy transition  ✗
Government Budget Savings (IDR Trillion)

Subsidy IDR 45,000/Month

- Budget Allocation 2020: 49.4
- Only for Family: 33.6
- For Family, SME, Farmers & Fisherman: 28.7

The government can reallocate the savings to funds more productive programs e.g., Health, Education, Infrastructure (include energy access and renewable energy development).

Source: The National Team for the Acceleration of Poverty Reduction (TNP2K)
Projected Impact on Poverty and Inequality

Baseline Poverty Rate:
- Baseline: 7%
- Subsidy IDR 45,000: 9.82%
- Subsidy IDR 60,000: 9.50%

Baseline Gini Index:
- Baseline: 0.394
- Subsidy IDR 45,000: 0.392
- Subsidy IDR 60,000: 0.390

Source: Fiscal Policy Agency, Ministry of Finance
However, Direct Targeted Subsidy Policy Alone Will Not Solve Energy Inequality Problem

Only 12.28 million poor and vulnerable people have access to LPG and LPG subsidies. Without further policy changes, inequality of access will continue.

**Entry Barrier To LPG and LPG Subsidies**

- Do not have money to buy LPG gas cylinders and LPG stoves
- There is no LPG available in the area
- Choosing to use other fuels that are more accessible and cheaper (e.g. firewood)

**Energy Access for Cooking For Poor and Vulnerable Households (Million Households)**

- **LPG**
  - 12.28 million
- **Firewood**
  - 12.51 million
- **Kerosene**
  - 0.57 million
- **Other Source of Energy**
  - 1.94 million

Source: Poor and vulnerable households database (DTKS) 2020, processed by TNP2K
The Same Problem Also Happens In Electricity Subsidy

There are more than 7.6 million households, who do not have access to electricity or are not the customers of PLN (State-owned Electricity Company)

Entry Barriers to Access Electricity Subsidy

- Can’t afford the installation fee
- Using other power sources that are not provided by PLN (Solar, micro hydro, biomass)
- PLN electricity network not available

Source: Poor and vulnerable households database (DTKS) 2020, processed by TNP2K
Additional Reform to Increase Equitable Access to Energy

In addition to shifting subsidies from price subsidy to direct targeted household subsidy, policy modification is also required:

1. The value of the transferred subsidy can also be used to buy LPG cylinder, LPG stoves and tube regulators OR to pay installation fee for electricity.

2. If there is no availability LPG AND electricity in the area, encourage the use of the value of the transferred subsidies to access/purchase alternative energy sources that are available locally (solar, biogas etc.)
Policy Reform Expected Impact With Additional Policy Modification

- Government budget savings
- Poverty and inequality reduction
- Gender and social inclusion
- Promoting the use of alternatives energy and support energy transition
Potential Impact

The renewable energy mix increase by
0.021% to 0.0581%

Welfare Impact

Number of children attending school: 5,143,884
Number of job creations: 592,536
Girls attending school: 2,471,516
Job opportunities for women: 473,938

Preliminary findings, TNP2K study for the use of electricity and LPG subsidy to access alternative locally available renewable energy (2021)
Key Messages

• There is a huge inequality access to energy subsidy, creating more wealth disparity.

• Fossil fuel subsidy reform with direct targeted subsidy disbursement alone will not solve the problem of inequality.

• Better policy design and mechanism are required to address inequality problem, especially to those who have no access to existing energy.

• Addressing inequality access to energy subsidy is as important as energy transition.

• Solving inequality access to energy must start now, without it, inequality will remain, even in the successful energy transition.
Thank You