INDONESIAN RENEWABLE ENERGY POLICY AND INVESTMENT OPPORTUNITIES

Indonesia’s New Regulation and Its Impact of Renewable Development

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AGENDA

NATIONAL ENERGY POLICY

NRE TARGET BY 2025

MARKET OPPORTUNITIES AND TARIFFS

INCENTIVES AND FACILITIES
NATIONAL ENERGY POLICY
(GOVERNMENT REGULATION NO 79/2014)

2025

<table>
<thead>
<tr>
<th>National Power Plant Capacity</th>
<th>135 GW</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRE Power Plant Capacity</td>
<td>45 GW</td>
</tr>
</tbody>
</table>

NRE Electricity
45 GW

1. Geothermal, 7,2 GW
2. Hydro, 17,9 GW
3. Microhydro, 3 GW
4. Bioenergy, 5,5 GW
5. Solar, 6,5 GW
6. Wind, 1,8 GW
7. Other NRE, 3 GW

Biofuel
13,69*)
Million kilo liter

Biomass
8,4
Million ton

Biogas
489,8
Million m3

CBM
46,0
mmmscf

*) exclude biofuel for power plant:: 0,7 million kL at 2025
NRE TARGET BY 2025

Total Installed Capacity

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>2015</th>
<th>2025</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GW</td>
<td>55</td>
<td>135</td>
</tr>
</tbody>
</table>

NRE Power Plant Capacity

<table>
<thead>
<tr>
<th>Year</th>
<th>Capacity</th>
<th>2015</th>
<th>2025</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GW</td>
<td>8.7</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>(15.7%)</td>
<td></td>
<td>(33%)</td>
</tr>
</tbody>
</table>

2025

- Geothermal: 7.2 GW
- Hydro: 21 GW
- Bioenergy: 5.5 GW
- Solar: 6.4 GW
- Wind: 1.8 GW
- Other NRE: 3.1 GW
- Total: 45 GW
• National electrification ratio was 91.16% in 2016.
• There are 2 provinces (NTT and Papua) having electrification ratio lower than 70%.
• Indonesia’s electrification ratio is still low (91.16%) compared to other ASEAN countries.
• Target of electrification ratio: 97.35% by 2019 (RPJM) and 100% by 2024 (RUKN)
RENEWABLES POWER GENERATION:

- Solar PV;
- Wind;
- Hydro;
- Biomass;
- Biogass;
- Municipal Waste; and
- Geothermal.

→ PT PLN (Persero) is obligated to purchase
Minister of EMR Regulation No. 12 Year 2017 concerning the Utilization of Renewable Energy for Electricity Provisioning.

1) Renewable-based electricity price is set;

2) Especially to meet the needs of electricity in certain areas (the eastern part of Indonesia, rural and outer islands);

3) Incentives to boost the economy of renewable-based power generation development;

4) To ensure renewable-based power generations (with capacity up to 10 MW) must run - not to apply least cost policy;

5) Open the opportunity for B2B co-operation;

6) Simplified process;

7) Market size for renewable investment is considered big.
<table>
<thead>
<tr>
<th>No.</th>
<th>Renewable Energy Sources</th>
<th>Method of Appointment</th>
<th>Tariff</th>
<th>Tariff</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Regional Grid BPP &gt; National BPP</td>
<td>Regional Grid BPP ≤ National BPP</td>
</tr>
<tr>
<td>1.</td>
<td>Solar PV</td>
<td>Auction in capacity quota with minimum 15 MW</td>
<td>Maximum Grid BPP 85% x Regional Grid BPP</td>
<td>100% x Regional Grid BPP</td>
</tr>
<tr>
<td>2.</td>
<td>Wind</td>
<td>Auction in capacity quota with minimum 15 MW</td>
<td>Maximum Grid BPP 85% x Regional Grid BPP</td>
<td>100% x Regional Grid BPP</td>
</tr>
<tr>
<td>3.</td>
<td>Hydro</td>
<td>Reference Price</td>
<td>Maximum Grid BPP 85% x Regional Grid BPP</td>
<td>100% x Regional Grid BPP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Direct Selection</td>
<td>Price determined by direct selection process</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>a. Capacity ≤ 10 MW: Capacity Factor minimum 65%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>b. Capacity &gt; 10 MW: Capacity Factor depends on Regional Grid system requirements</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Biomass</td>
<td>Reference Price (for 10 MW or less)</td>
<td>Maximum Grid BPP 85% x Regional Grid BPP</td>
<td>100% x Regional Grid BPP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Direct Selection (for more than 10 MW)</td>
<td>Price determined by direct selection process</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Biogass</td>
<td>Reference Price (for 10 MW or less)</td>
<td>Maximum Grid BPP 85% x Regional Grid BPP</td>
<td>100% x Regional Grid BPP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Direct Selection (for more than 10 MW)</td>
<td>Price determined by direct selection process</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Municipal Waste</td>
<td>Reference Price</td>
<td>Maximum 100% of Local Generation BPP</td>
<td>Mutual agreement between PLN and IPP</td>
</tr>
<tr>
<td>7.</td>
<td>Geothermal</td>
<td>Reference Price</td>
<td>Maximum 100% x Regional Grid BPP</td>
<td>Mutual agreement between PLN and IPP</td>
</tr>
</tbody>
</table>

BPP = Production Cost of Electricity
Regional Grid BPP and National BPP will be determined by the Minister based on the proposal of PT PLN (Persero)
OTHER FEATURES

(1) Hydro (for capacity more than 10 MW), Biomass, and Geothermal projects to be awarded on a Build, Own, Operate, and Transfer/BOOT basis.

(2) Construction of the transmission interconnection between the IPP and the PLN grid may be done through business-to-business basis.

(3) PLN will conduct the Due Diligence on technical and financial aspects of the IPP.

(4) PLN may appoint a procurement agent to conduct the Due Diligence.

(5) The IPP’s proposal should be attached with Interconnection Study Document.

(6) The IPP must meet local content requirements (Minister of Industry Regulation No. 5/2017).

(7) The local content must meet national standards, international standards, or other standards as long as not on the contrary with the ISO or IEC.

(8) The construction must meet national standards, international standards, or standard applicable in PLN as long as not on the contrary with the ISO or IEC.

(9) PLN is obligated to:
   a. publish the conditions of regional grid systems which are ready to be integrated with renewable power
   b. publish the regional grid system’s production cost to the IPPs who are interested in developing renewables

(10) PLN is obligated to set and publish:
   a. Standard Bidding Document; and

(11) a. In case of delayed construction, the IPP will get sanctions and/or penalties.
     b. Rewards, if the construction is finished earlier than the schedule or on PLN request.
     c. The sanctions and/or penalties and rewards will be stated in PPA.
According to Ministerial Decree Number 1404 K/20/MEM/2017

Exchange rate assumption = IDR 13,307/USD
ACCELERATION PROGRAM TO ELECTRIFY RURAL, BORDERLINES AND SMALL ISLANDS BASED ON MEMR REGULATION NO. 38/2016

To provide electricity in certain area upto 50 MW:

- Undeveloped rural areas
- Remote areas
- Borderlines
- Small islands

Mechanism:

- Propose Business Area to Non PLN Business Entities
- Minimum Business Area is 1 (One) District or Equivalent
- Subsidy can be allocated to Small Scale Electricity Supply Business
SMALL SCALE BUSINESS AREA APPOINTMENT MECHANISM (MEMR REGULATION NO. 38/2016)

1. GOVERNOR PROPOSE BUSINESS AREA TO MEMR THROUGH BKPM
2. BKPM
3. DGE CONDUCT VERIFICATION ON GOVERNOR’S PROPOSAL FROM BKPM REQUEST
4. BUSINESS AREA APPOINTMENT
5. THE SELECTION OF BUSINESS ENTITIES FOR SMALL SCALE BUSINESS AREA (BY GOVERNOR)
6. GOVERNOR APPOINT BUSINESS ENTITY TO MANAGE THE SMALL SCALE BUSINESS AREA AND ISSUE PERMIT
7. GOVERNOR
8. GOVERNOR REQUEST THE ASSIGNMENT OF BUSINESS ENTITY TO MEMR
9. DGE ON BEHALF OF MEMR ASSIGN THE SELECTED BUSINESS ENTITY

Required documents to be completed for Business Area Proposal by the Governor:

- Business Area, minimum area is 1 (one) district or equivalent;
- Renewable Energy Resource(s) Analysis;
- Electricity Demand and Supply Analysis;
- Number of Household to be electrified;
- Ability to Pay and Willingness to Pay from the local consumer;
- Cost estimation of material, services, and transportation

MEMR : Minister of Energy and Mineral Resources
DGE : Director General of Electricity
BKPM : Investment Coordinating Board
Indonesia RE Investment Opportunities remain attractive

A huge potential of RE is available in 13 priority areas

<table>
<thead>
<tr>
<th>Region</th>
<th>Potential RE Giga Watt (GW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aceh</td>
<td>14.18</td>
</tr>
<tr>
<td>Sumut</td>
<td>12.05</td>
</tr>
<tr>
<td>Riau</td>
<td>12.41</td>
</tr>
<tr>
<td>Kalbar</td>
<td>14.45</td>
</tr>
<tr>
<td>Kaltim</td>
<td>10.94</td>
</tr>
<tr>
<td>Sulutenggo</td>
<td>18.92</td>
</tr>
<tr>
<td>Maluku</td>
<td>16.62</td>
</tr>
<tr>
<td>Babel</td>
<td>14.72</td>
</tr>
<tr>
<td>Kalselteng</td>
<td>8.76</td>
</tr>
<tr>
<td>Sulselrabar</td>
<td>8.03</td>
</tr>
<tr>
<td>NTB</td>
<td>13.54</td>
</tr>
<tr>
<td>NTT</td>
<td>16.94</td>
</tr>
<tr>
<td>Papua</td>
<td>13.67</td>
</tr>
</tbody>
</table>

“There are around 210 GW of RE potential in 13 priority areas which remain attractive (regional grid BPP > national BPP)”
INCENTIVES TO SUPPORT RENEWABLES

FINANCIAL INCENTIVES
• Provide loan interest at below-market rates

FISCAL INCENTIVES
• Tax Holiday
• Tax Allowance
• Import Duty and VAT Exemption
Incentive and Facilities

**TAX ALLOWANCE**

Gov’t Regulation No.9/2016

30% of investment value

Reduction of corporate net income tax for 6 years, 5% each year.

145 business segments Eligible for tax allowance, expanded from 129 segments in the previous regulation.

Under certain requirements among others: investment value or export orientation, manpower absorption, local content.

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**IMPORT DUTY FACILITY**


Import duty on Machineries and Equipments, goods, and raw materials for production

- Exemption of import duty on machineries and equipments
- 2 years exemption of import duty on raw materials
- Additional 2 years import duty exemption for raw materials if company using locally-produced machineries and equipments (min 30%)

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**TAX HOLIDAY**

MoF Regulation No.159/PMK.010/2015

Tax relief facility, starting from the commencement of commercial production. Can be extended for Max. 20 years under certain consideration.

- IDR 1 trillion
  - Minimum investment plan (USD 80 million). Or Minimum IDR 500 Billion if introduce new technology
  - Max.100%
    - 10-100% Reduction of corporate income tax for Pioneer Industry. Max. 50% for industry that implement high technology with investment plan IDR 500 M – less than 1 Trillion.

Pioneer Industry:

1. Upstream metal;
2. Oil refinery;
3. Basic organic-chemical from oil and gas;
4. Machinery industry that manufacture industrial machine;
5. Processing industry based on commodity from agriculture, forestry and fishery;
6. Telecommunication, information and communication;
7. Sea transport;
8. Processing industry as main industry located in Special Economic Zone (SEZ); and or
9. Infrastructure (economical, non-PPP scheme)
# Investment Incentives For Electricity Sector

## TAX ALLOWANCE

Based on Government Regulation No. 9/2016, MoF Regulation No. 89/PMK.010/2015 and Chairman of BKPM Regulation No. 18/2015, investment in new and renewable energy as Power Producer (KBLI 35101), with the product coverage: the conversion of new energy (hydrogen, CBM, liquefied coal or gasified coal) and renewable energy (hydro, solar, wind, or marine energy) into power, is eligible for income tax facilities of:

a. A reduction in net income of up to 30% of the amount invested, pro-rated at 5% for six years of the commercial production, provided that the assets invested are not transferred out within six years.

b. Acceleration of depreciation & amortization for building and non-building.

c. A reduction of income tax on dividends paid to non-residents to 10% or lower rate according to double taxation avoidance agreement.

d. Extension of tax losses carry forwards for 5 years and up to 10 years (if it meets certain criteria) for 5 years and up to 10 years (if meet certain criteria).

* Tax Allowance application is submitted to OSS-BKPM and will be processed in 25 days.

## TAX HOLIDAY

Based on Government Regulation No. 94/2010, MoF Regulation No. 159/PMK.011/2015, and Chairman of BKPM Regulation No. 18/2015, corporate income tax exemption for the period of 5 to 15 years from the start of commercial production is granted for company with minimum investment project value of IDR 1 Trillion (approx. USD 69 Million) in 9 priority “pioneer industries” including infrastructure not under PPP scheme, for example renewable energy power plant.

* Tax Holiday application is submitted to OSS-BKPM and will be processed in 45 days.

## IMPORT DUTY EXEMPTION

Based on Minister of Finance (MoF) Regulation No. 66/PMK.010/2015, all green-field or expansion investment of power plant for public usage (not including transmission, distribution and supporting services) are granted import duty exemption on imported machineries and equipment (for 2 years) for the company usage during construction period, provided that they are not or inadequately produced in Indonesia.

* Import Duty Exemption application is submitted to OSS-BKPM and will be processed in 5 days.
Electricity supply should be efficient in order not burden electricity subsidy and the consumers gain a better electricity tariff.

Electricity subsidy in national budget is gradually reduced, to get more fair and equitable development.

RE investment remains attractive, partially in the 13 priority areas (regional grid BPP > national BPP).

There are around 210 GW of RE potential in the 13 priority areas.

Attractive RE investment are indicated by the interest of investors, ongoing technical studies and signed PPAs.
Thank You

Go Green Indonesia!
GREEN ENERGY, FUTURE ENERGY

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