INDONESIAN COAL POLICY
Presented for Indonesia-Japan Coal Seminar 2020

The Ritz-Carlton Hotel

Jakarta, 23 January 2020
I. CURRENT POLICY
I. CURRENT POLICY

- **Indonesian Constitution 1945 Article 33 Section 3**: Natural resources available on Indonesian soil should be utilized fully for the prosperity of the people.

- Achieve economic independence by driving the strategic sector of the domestic economy.
- Mineral and coal mining activities must provide maximum benefits to support national development.
II. LICENSE SIMPLIFICATION
REVOKING REGULATION/LICENSING

MEMR Regulation Number 26/2018 regarding Implementation of Good Mining Practice and Supervision of Mineral and Coal Mining

MEMR Regulation Number 25/2018 regarding Implementation of Good Mining Practice and Supervision of Mineral and Coal Mining Business Activities

MEMR Regulation Number 8/2018 regarding Revocation of MEMR Decision Related to Mineral and Coal Business Activities

MEMR Regulation Number 11/2018 regarding Procedure for Granting Areas, Licensing, and Reporting on Mining Business Activities

MINERBA

32 regulasi
64 perizinan
96 regulasi/ perizinan
E-PNBP

Minerba Online Monitoring System (MOMS)
Modul Verifikasi Penjualan (MVP)

Minerba One Data Indonesia (MODI)
Can be downloaded on Playstore: MODI Dashboard ESDM modi.minerba.esdm.go.id

Minerba One Map Indonesia (MOMI)

Online Licensing

ON PROGRESS
MINERS, SIKEMBAR, ELANG
EMS, EDW, RKAB ONLINE
III. RESOURCES AND RESERVES
## Coal Resources and Reserves

<table>
<thead>
<tr>
<th>Region</th>
<th>Resources</th>
<th>Reserves</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sumatera</td>
<td>53,724,492</td>
<td>13,894,69</td>
</tr>
<tr>
<td>Java</td>
<td>58,468</td>
<td>7,217</td>
</tr>
<tr>
<td>Kalimantan</td>
<td>97,408,207</td>
<td>25,986,916</td>
</tr>
<tr>
<td>Sulawesi</td>
<td>64,179</td>
<td>2,132</td>
</tr>
<tr>
<td>Papua</td>
<td>135,84</td>
<td>-</td>
</tr>
<tr>
<td>Maluku</td>
<td>8,217</td>
<td>-</td>
</tr>
<tr>
<td>Sulawesi</td>
<td>64,179</td>
<td>2,132</td>
</tr>
</tbody>
</table>

### Total Amount (Billion ton)

<table>
<thead>
<tr>
<th></th>
<th>Resources</th>
<th>Reserves</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resources</td>
<td>151,399,40</td>
<td></td>
</tr>
<tr>
<td>Reserves</td>
<td>39,890,96</td>
<td></td>
</tr>
</tbody>
</table>

*In million ton

Sources:

Geological Agency, MEM
<table>
<thead>
<tr>
<th>COAL QUALITY</th>
<th>RESOURCE (Million tons)</th>
<th>RESERVE (Million tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hypothetic</td>
<td>Inferred</td>
</tr>
<tr>
<td>Low rank</td>
<td>433.03</td>
<td>14,580.77</td>
</tr>
<tr>
<td>Medium rank</td>
<td>3,288.04</td>
<td>22,744.14</td>
</tr>
<tr>
<td>High rank</td>
<td>598.08</td>
<td>4,611.77</td>
</tr>
<tr>
<td>Very high rank</td>
<td>2.06</td>
<td>2,131.79</td>
</tr>
<tr>
<td>TOTAL</td>
<td>4,321.21</td>
<td>44,068.47</td>
</tr>
</tbody>
</table>

Note:
- Low rank: <5100 Cal/gr
- Medium rank: 5100 – 6100 Cal/gr
- High rank: 6100 – 7100 Cal/gr
- Very high rank: >7100 Cal/gr

Source: Geological Agency 2019
IV. COAL PRODUCTION AND EXPORT
## COAL PRODUCTION AND EXPORT

### COAL PRODUCTION AND EXPORT 2019

<table>
<thead>
<tr>
<th></th>
<th>Plan</th>
<th>Actual</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td>489,73</td>
<td>610,03</td>
<td>125%</td>
</tr>
<tr>
<td>PKP2B</td>
<td>324,97</td>
<td>331,45</td>
<td>102%</td>
</tr>
<tr>
<td>IUP OP Pusat</td>
<td>58,97</td>
<td>60,51</td>
<td>103%</td>
</tr>
<tr>
<td>IUP OP PMDN</td>
<td>105,79</td>
<td>218,07</td>
<td>206%</td>
</tr>
<tr>
<td>Export</td>
<td></td>
<td>458,8</td>
<td></td>
</tr>
</tbody>
</table>

* Data as of December 2019
** Volume in million ton

Actual production is bigger than national production planned:
1. Installed production capacity is bigger than national target.
2. Companies requesting for production increase
3. Production plan of IUP OP PMDN is larger than the quota set by Government
4. Decline in price resulting in increase in production
5. Central and Regional Govt need the export revenue from coal

### PRODUCTION PLAN 2020

- **National** = 550 juta ton
  - **Central** = 340 juta ton
  - **Regional** = 210 juta ton

Considering:
1. Optimal coal production (no over supply & stable price);
2. Market potential (domestic & export);
3. Production capacity and company’s feasibility is in accordance with the Feasibility Study and Environmental Impact Analysis;
4. Non tax revenue in mineral and coal for 2020 is set at IDR 44,2 T
<table>
<thead>
<tr>
<th>No</th>
<th>End User</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PLN</td>
<td>109.000.000</td>
<td>121.000.000</td>
<td>129.000.000</td>
<td>135.000.000</td>
<td>137.000.000</td>
</tr>
<tr>
<td>3</td>
<td>FERTILIZER</td>
<td>1.733.110</td>
<td>1.731.098</td>
<td>1.731.098</td>
<td>1.731.098</td>
<td>1.733.110</td>
</tr>
<tr>
<td>4</td>
<td>CEMENT</td>
<td>14.545.630</td>
<td>15.016.188</td>
<td>15.492.118</td>
<td>15.991.688</td>
<td>16.650.335</td>
</tr>
<tr>
<td>7</td>
<td>BRIQUET</td>
<td>10.53</td>
<td>11.488</td>
<td>12.44</td>
<td>13.40</td>
<td>14.359</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>155.000.006</strong></td>
<td><strong>168.135.385</strong></td>
<td><strong>177.020.886</strong></td>
<td><strong>184.078.164</strong></td>
<td><strong>187.384.632</strong></td>
</tr>
</tbody>
</table>

Note: The numbers above is calculated based on data reconciliation from power plant (RUPTL PLN 2019-2028) and industrial needs.
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Realisasi Produksi Nasional (ton)</td>
<td>458,069,707</td>
<td>461,566,080</td>
<td>438,160,811</td>
<td>461,248,184</td>
<td>557,772,940</td>
<td>610,036,130</td>
</tr>
<tr>
<td>Realisasi Produksi dari PKP2B (ton)</td>
<td>291,907,901</td>
<td>276,559,761</td>
<td>272,747,614</td>
<td>278,482,930</td>
<td>295,660,048</td>
<td>331,450,313</td>
</tr>
<tr>
<td>Realisasi Ekspor Batubara dari PKP2B,IUP BUMN &amp; IUP PMA ke Jepang (ton)</td>
<td>31,231,750</td>
<td>23,252,076</td>
<td>29,798,203</td>
<td>22,177,159</td>
<td>23,080,635</td>
<td>17,183,892</td>
</tr>
<tr>
<td>% Ekspor ke Jepang dari Realisasi Produksi Nasional</td>
<td>7%</td>
<td>5%</td>
<td>7%</td>
<td>5%</td>
<td>4%</td>
<td>3%</td>
</tr>
<tr>
<td>% Ekspor ke Jepang dari Realisasi Produksi PKP2B</td>
<td>11%</td>
<td>8%</td>
<td>11%</td>
<td>8%</td>
<td>8%</td>
<td>5%</td>
</tr>
<tr>
<td>% Ekspor ke Jepang dari Realisasi Ekspor PKP2B</td>
<td>12%</td>
<td>11%</td>
<td>27%</td>
<td>11%</td>
<td>11%</td>
<td>7%</td>
</tr>
</tbody>
</table>
COAL EXPORT BY COUNTRY DESTINATION 2018

Negara Tujuan Ekspor Batubara PKP2B, IUP BUMN dan IUP PMA
Januari - Desember 2018

- China: 88,421,946 (29%)
- India: 49,967,317 (23%)
- Japan: 25,080,655 (11%)
- Korea: 18,751,742 (9%)
- Malaysia: 12,700,649 (6%)
- Philippines: 12,211,739 (6%)
- Thailand: 6,611,295 (3%)
- Taiwan: 7,614,857 (3%)
- Hong Kong: 3,422,539 (2%)
- Spain: 3,227,435 (1%)
- Vietnam: 2,623,500 (1%)
- Others: 13,838,854 (6%)

Total: 313,248,147
*) Data taken from Secgen DEN, DGE, Pusdatin and DG NRE

<table>
<thead>
<tr>
<th>Year</th>
<th>Primary Energy Supply</th>
<th>MTOE</th>
<th>Volume Equality</th>
<th>Primary Energy Mix</th>
</tr>
</thead>
<tbody>
<tr>
<td>2025</td>
<td>Coal</td>
<td>119.8</td>
<td>205.3 Juta Ton</td>
<td>30.0%</td>
</tr>
<tr>
<td>2050</td>
<td>Coal</td>
<td>255.9</td>
<td>438.8 Juta Ton</td>
<td>25.3%</td>
</tr>
</tbody>
</table>

Source: Presidential Reg 22/2017 RUEN
<table>
<thead>
<tr>
<th>1</th>
<th>Coal price for power plant is regulated by Government (Coal price index USD 70/Ton)</th>
<th>CONTINUE</th>
<th>Coal price for power plant is regulated by Government (Coal price index USD 70/Ton)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>DMO applies for all coal companies</td>
<td>CONTINUE</td>
<td>DMO applies for all coal companies</td>
</tr>
<tr>
<td>3</td>
<td>Minimum percentage for DMO is 25% of total production</td>
<td>CONTINUE</td>
<td>Minimum percentage for DMO is 25% of total production</td>
</tr>
<tr>
<td>4</td>
<td>Sanction for offender: production cut off (4 times DMO realized)</td>
<td>REPLACED</td>
<td>Sanction for offender: Pay DMO compensation fee and additional sanction of production cut off for companies breaching contract agreement with PLN</td>
</tr>
<tr>
<td>5</td>
<td>Quota transfer for companies that can not meet DMO</td>
<td>ERASES</td>
<td>Quota transfer does not apply</td>
</tr>
<tr>
<td>6</td>
<td>Reward: Increase production for companies that can meet DMO</td>
<td>ERASED</td>
<td>No reward applies, however companies complying with DMO requirement does not need to pay DMO compensation fee</td>
</tr>
</tbody>
</table>
This trend is more or less triggered by:
1. Trend in world commodity price index;
2. Ease of getting Leasehold of Forest Area License for exploration activity (Ministr of Forestry and Environment Reg No. 27/2018)

*Exploration Expenditure is only 3% of the total investment in mineral and coal mining*
**MINERAL AND COAL EXPLORATION (2)**

### CHALLENGE

- **LOW ACTIVITY RELATED TO GREENFIELD EXPLORATION**
  - Promote exploration by *Junior Mining Company*
  - Assigning SOEs or private sector to do exploration on new area
  - Reviewing the data and information compensation for specific area

- **BARRIER IN EXPLORATION ACTIVITY**
  - Synchronizing exploration activities with other sector’s at the same area
  - Cooperation agreement with Ministry of Environment and Forestry (MEF)
  - Providing funding for advanced exploration

- **UTILIZATION OF INFORMATION AND TECHNOLOGY (IT)**
  - Data and information on exploration is managed by government
  - Regulation to manage confidentiality of data and its utilization

### SOLUTION
VI. COAL DOWNSTREAMING AND ADDED VALUE
Coal Added Value is obligated when the economically proven technology is available.
**Cokes Making**

Semi Coking Coal Plant PT. Megah Energi Khatulistiwa (MEK) in Bulungan, North Kalimantan
- Feedstock: 1,000,000 ton/year (500,000 ton with calorific value 3100 kkal/kg + 500,000 ton calorific value 6300 kkal/kg)
- Product: 600 thousand ton Semi Coke, 50 thousand Coal Tar

**Coal Briquette**

- Briquette PT Bukit Asam (South Sumatera)
  - Feedstock: 30-40 thousand, product: 10-20 thousand (ton/year)
- Briquette PT Thriveni (South Sumatera)
  - Feedstock: 130 thousand, Product: 79-85 thousand (ton/year)

**In operation**

Follow up:
- Consideration of giving incentive from coal: royalty incentive or special coal price for petrochemical industry
- Pricing Guarantee for DME resulting from coal gasification
- Finishing the Feasibility Study for project in Tanjung Enim & Peranap

**Coal Upgrading**

In operation
- There are five coal Upgrading operating in Indonesia:
  1. PT ZJG Resources Tech Indonesia (Tj Selor, North Kalimantan)
  2. PT Asiatic Universal Indonesia (Kutai Kartanegara, East Kalimantan)
  3. PT Borneo Pasifik Global (Kutai Kartanegara, East Kalimantan)
  4. PT Prima Coal Chemical (Barito Timur, Central Kalimantan)
  5. PT Kartika Prima Abadi (Buton, Southeast Sulawesi)

**Progress of coal gasification**

- HoA Coal to Chemicals among PT Pertamina, Pupuk Indonesia, and Chandra Asri was signed in December 2017
- MoU Kerja Joint Project Coal to DME was signed in Peranap in November 2018
- Principle Agreement to form a joint venture for Coal to DME Project was signed in Peranap in January 2019

Follow up:
- Consideration of giving incentive from coal: royalty incentive or special coal price for petrochemical industry
- Pricing Guarantee for DME resulting from coal gasification
- Finishing the Feasibility Study for project in Tanjung Enim & Peranap

**Coal Liquifaction**

- Coal Slurry
  - No project yet

**CURRENT PROGRESS**

TANJUNG ENIM – South Sumatera
- Coal Quality: 4000 kcal/kg
- Industry: Coal to DMM (DME, Methanol, MEG)

PT Bukit Asam Gasification project is scheduled to operate commercially by 2024
1. Prepare a comprehensive study on financial, technical and non-technical aspects related to coal gasification
2. Prepare regulation related to guidelines for the use of coal gasification and the coal gasification concession
3. Encouraging other state owned company (SOC) to develop coal gasification project (particularly first generation of Coal Contract of Works)

Once PT BA starts its operation in 2023, other SOC is expected to also produce DME. So that coal downstreaming will have a greater effect on Indonesia's economic growth

Coal to DMM (DME-Methanol-MEG) project PT Bukit Asam Tanjung Enim, South Sumatera
- Coal consumption: 8 million tons/year (GAR 4000 kcal/kg)
- Product: 1.4 million tons DME, 300 thousand tons Methanol, 4250 thousand ton MEG

MEMR policy to support this project:
- Incentive to reduce coal royalty and/or
- Special pricing for coal to DMM project

1st Gen CCOW:
- 1. PT Berau Coal
- 2. PT Arutmin Indonesia
- 3. PT Adaro Indonesia
- 4. PT Indominco Mandiri
- 5. PT Kaltim Prima Coal
- 6. PT Kendilo Coal
- 7. PT Kideco Jaya Agung
- 8. PT Multi Harapan Utama
DIMETHYL ETHER (DME) AS NEW ENERGY

DME can be produced from several raw materials such as: Natural Gas, Coal or Biomass;

DME can be produced from Low Rank Coal. Indonesia has large potential of low rank coal

COAL UTILIZATION FOR DME :
1. Saving foreign exchange: reducing importation of LPG
2. Low Rank Coal Utilization: Coal for domestic use
3. Increasing Utilization of New Energy: Coal Gasification to DME
4. Investment: promoting economic growth
5. Pemerataan Pelayanan Gas: • Untuk rumah tangga dan industri • Pertumbuhan kawasan ekonomi baru

DME as alternative fuel to replace LPG

• Demand of LPG keeps rising (7 mio MT, 2016). 67% LPG demand is supplied by importation (4.7 mio MT)

Some countries have replaced LPG with DME
Developing coal processing facility is high capital investment that requires fiscal certainty to enable business entities doing economic feasibility study for the project.

Currently, coal processing has not attracted the interest of capitalists because of the high investment that must be spent and the lack of fiscal incentives from the Government.

To attract investment in coal downstreaming, the Government needs to offer facilities in terms of taxation and non-tax state revenue, such as:
- Tax Holiday (10 or 20 years)
- Tax allowance
- Reduction and/or elimination of coal royalty tariff for low rank coal
- Elimination of VAT for coal downstreaming
- Reduction of Capitalization Figures in calculating Mining and Land Taxes
- Facility of exemption from import duty and VAT on the import of goods, equipment, and supporting machinery for coal mining downstreaming.
# Overview Coal Gasification Project of PT BUKIT ASAM

Coal to DME, Methanol, MEG (DMM)

## Keekonomian Proyek

<table>
<thead>
<tr>
<th>Gambaran Keuangan</th>
<th>Dalam USD</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAPEX 3)</td>
<td>2,983 Juta</td>
<td></td>
</tr>
<tr>
<td>DME Price / Ton</td>
<td>480</td>
<td></td>
</tr>
<tr>
<td>MeOH Price / Ton</td>
<td>310</td>
<td></td>
</tr>
<tr>
<td>MEG Price / Ton</td>
<td>710</td>
<td></td>
</tr>
<tr>
<td>Coal Price / Ton</td>
<td>27,22</td>
<td></td>
</tr>
<tr>
<td>Project IRR 1) 2)</td>
<td>11,52%</td>
<td></td>
</tr>
<tr>
<td>NPV 1) 2)</td>
<td>923</td>
<td></td>
</tr>
</tbody>
</table>

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**Coal to DMM**

Lokasi: Tanjung Enim-Sumatera Selatan  
Kualitas Batubara: GAR 4000 kcal/kg  
Produk: DME, Methanol, MEG
Thank You

www.minerba.esdm.go.id
www.esdm.go.id
NATIONAL MEDIUM TERM DEVELOPMENT PLAN 2020 - 2024

STRATEGIC POLICY IN MINERAL AND COAL 2020 - 2024

1. National Resilience
   - Inventory of resources and reserves
   - Production control
   - Management of Export and Import
   - Conservation
   - Optimization of non-tax state revenue

2. Mineral and coal for resilient industry
   - Increasing local content and local expenditure
   - Improving effective supervision and monitoring
   - Monitoring regulation and policy compliance
   - Enhancing law certainty and ease of doing business

3. Human Resources Development as Asset
   - Creating roadmap and implementing bureaucratic reform
   - Improving the competences of human resources
   - Analysis of training and competences needs
   - Evaluating staff performance

4. Fit Organization
   - Synchronizing data management
   - Implementing Internal Control System
   - Adjustment of organizational structure and function
   - Evaluating business process

5. Innovation and Modernization of Information, Communication, and Technology
   - Providing modern information technology
   - Strengthening integration system with related organization
   - Increase the utilization and maintenance of Information Technology
   - Improving services and accessibility

INDONESIAN MINING POLICY

1. Inventory
2. Management
3. Mining Environmental Management
4. People’s mining

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