Pengadaan Batubara
Pembangkit Milik PLN

oleh : Firdaus Ilyas
Peneliti Visi Integritas
Jakarta, 29 Juni 2020
Bahasan:

• Perkembangan Konsumsi Batubara Domestik
• Batubara pada pembangkit dan beban keuangan PLN
• Temuan Pemborosan dan Indikasi Kerugian
## Konsumsi Batubara Indonesia Terus Naik

<table>
<thead>
<tr>
<th>Penggunaan Batubara</th>
<th>Domestik Indonesia, 2008 - 2018 (Ton)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Besi &amp; Baja</td>
<td>245.949</td>
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<tr>
<td>Pembangkit Listrik</td>
<td>31.041.000</td>
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<tr>
<td>Semen, Tekstil, Pupuk</td>
<td>6.842.403</td>
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<tr>
<td>Pulp &amp; Paper</td>
<td>1.251.000</td>
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<tr>
<td>Briket</td>
<td>43.000</td>
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<tr>
<td>Total</td>
<td>53.473.252</td>
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</table>

Sumber: Handbook of Energy and Economic Statistics of Indonesia, KESDM, 2019
Dominasi Batubara untuk Pembangkit Listrik

Komposisi Penggunaan Batubara Domestik Indonesia, 2008 - 2018 (%)

- Besi & Baja
- Pembangkit Listrik
- Semen, Tekstil, Pupuk
- Pulp & Paper
- Briket
- Lainnya

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66% Batubara Pembangkit Listrik merupakan Milik PLN

Konsumsi Batubara untuk Pembangkit Listrik milik PLN (Ton), 2008 - 2019

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</thead>
<tbody>
<tr>
<td>Batubara (Ton)</td>
<td>20.999.521</td>
<td>21.604.464</td>
<td>23.958.699</td>
<td>27.434.163</td>
<td>35.914.791</td>
<td>39.602.034</td>
<td>44.804.981</td>
<td>48.995.169</td>
<td>50.556.446</td>
<td>54.711.847</td>
<td>60.480.760</td>
<td>66.140.000</td>
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### 61% Produksi Listrik PLN
Hasil Pembakaran Batubara

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<tr>
<td><strong>Produksi Listrik Indonesia (GWH)</strong></td>
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<td>1. Produksi Sendiri (PLN) :</td>
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<tr>
<td>BBM</td>
<td>113.340</td>
<td>115.434</td>
<td>124.516</td>
<td>128.836</td>
<td>131.684</td>
<td>144.220</td>
<td>152.853</td>
<td>156.631</td>
<td>166.457</td>
<td>167.978</td>
<td>178.194</td>
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<td>43.138</td>
<td>46.685</td>
<td>54.950</td>
<td>66.633</td>
<td>74.269</td>
<td>83.373</td>
<td>90.275</td>
<td>91.701</td>
<td>101.244</td>
<td>109.563</td>
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<tr>
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<td>21.184</td>
<td>29.097</td>
<td>31.556</td>
<td>30.369</td>
<td>36.395</td>
<td>41.254</td>
<td>44.398</td>
<td>46.039</td>
<td>51.890</td>
<td>46.356</td>
<td>47.360</td>
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<td>Lainnya (surya, bayu, bio)</td>
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<td>1</td>
<td>3</td>
<td>35</td>
<td>142</td>
<td>138</td>
<td>350</td>
<td>245</td>
<td>472</td>
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<tr>
<td>3. Pembelian – IPP</td>
<td>31.389</td>
<td>36.169</td>
<td>38.076</td>
<td>40.682</td>
<td>50.563</td>
<td>52.223</td>
<td>53.258</td>
<td>57.510</td>
<td>64.802</td>
<td>73.235</td>
<td>78.387</td>
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<tr>
<td>Total Produksi Listrik</td>
<td>149.437</td>
<td>156.797</td>
<td>170.825</td>
<td>183.404</td>
<td>200.318</td>
<td>216.189</td>
<td>228.555</td>
<td>233.982</td>
<td>248.611</td>
<td>254.660</td>
<td>267.085</td>
</tr>
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</table>

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### Beban Biaya Bahan Bakar Pembangkit Listrik Milik PLN

#### Beban Pengeluaran untuk Bahan Bakar Pembangkit Listrik Milik PLN

<table>
<thead>
<tr>
<th>Bahan Bakar (Rp juta)</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
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<tbody>
<tr>
<td>BBM</td>
<td>89.572.962</td>
<td>47.796.192</td>
<td>54.385.548</td>
<td>87.618.765</td>
<td>71.401.932</td>
<td>68.364.738</td>
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<tr>
<td>Batubara</td>
<td><strong>10.273.578</strong></td>
<td><strong>15.861.743</strong></td>
<td><strong>15.226.567</strong></td>
<td><strong>27.053.972</strong></td>
<td><strong>37.281.547</strong></td>
<td><strong>37.167.790</strong></td>
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#### Beban Pengeluaran untuk Bahan Bakar Pembangkit Listrik Milik PLN

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<tbody>
<tr>
<td>Batubara</td>
<td><strong>44.805.655</strong></td>
<td><strong>45.078.428</strong></td>
<td><strong>30.901.389</strong></td>
<td><strong>42.415.815</strong></td>
<td><strong>46.285.905</strong></td>
<td><strong>49.397.601</strong></td>
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<tr>
<td>Gas Alam</td>
<td>47.664.395</td>
<td>45.078.428</td>
<td>51.079.829</td>
<td>47.604.339</td>
<td>55.438.805</td>
<td>58.054.184</td>
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<td>No</td>
<td>Alokasi Berdasaran Pemasok 2009 - 2019:</td>
<td>Jumlah MT</td>
<td>%</td>
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<tr>
<td>1</td>
<td>PT KPC, PT Arutmin Indonesia dan PT Darma Henwa</td>
<td>149.521.000</td>
<td>26,2%</td>
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<tr>
<td>2</td>
<td>PT Bukit Asam (Persero) Tbk</td>
<td>112.249.519</td>
<td>19,7%</td>
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<td>3</td>
<td>PT Adaro Indonesia</td>
<td>39.731.652</td>
<td>7,0%</td>
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<tr>
<td>4</td>
<td>PT Kasih Industri Indonesia cs</td>
<td>36.870.000</td>
<td>6,5%</td>
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<tr>
<td>5</td>
<td>PT Berau Coal</td>
<td>32.065.000</td>
<td>5,6%</td>
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<tr>
<td>6</td>
<td>PT Exploitasi Energi Indonesia, PT Dwi Guna Laksana</td>
<td>30.993.936</td>
<td>5,4%</td>
<td></td>
<td></td>
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<tr>
<td>7</td>
<td>PT Titan Infra Energy (Titan Mining Energy)</td>
<td>30.470.000</td>
<td>5,3%</td>
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<td>8</td>
<td>PT Oktasan Baruna Persada cs</td>
<td>29.287.000</td>
<td>5,1%</td>
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<tr>
<td>9</td>
<td>PT Kideco Jaya Agung</td>
<td>23.155.000</td>
<td>4,1%</td>
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<tr>
<td>10</td>
<td>PT Indominco Mandiri</td>
<td>18.900.000</td>
<td>3,3%</td>
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<tr>
<td>11</td>
<td>PT Hanson Energy</td>
<td>14.276.000</td>
<td>2,5%</td>
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<tr>
<td>12</td>
<td>PT Risna Karya Whardana Mandiri dan Rizki Anugrah Pratama</td>
<td>11.274.968</td>
<td>2,0%</td>
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<tr>
<td>13</td>
<td>PT Tunas Inti Abadi</td>
<td>2.400.000</td>
<td>0,4%</td>
<td></td>
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<tr>
<td>14</td>
<td>PT Samantaka Batubara</td>
<td>2.000.000</td>
<td>0,4%</td>
<td></td>
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<tr>
<td>15</td>
<td>Lainnya</td>
<td>37.684.500</td>
<td>6,6%</td>
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<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td><strong>570.878.575</strong></td>
<td><strong>100%</strong></td>
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Beban Komponen Bahan Bakar
pada Pembangkit Milik PLN (Rp/Kwh)

BBM (Rp/Kwh)  Batubara (Rp/Kwh)  Gas Alam (Rp/Kwh)

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## Harga Komponen Bahan Bakar Pembangkit Milik PLN

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</thead>
<tbody>
<tr>
<td>Batubara (Rp/Ton)</td>
<td>489.229</td>
<td>734.188</td>
<td>635.534</td>
<td>986.142</td>
<td>1.049.747</td>
<td>938.556</td>
<td>1.004.499</td>
<td>920.059</td>
<td>611.226</td>
<td>775.258</td>
<td>765.300</td>
<td>746.864</td>
</tr>
<tr>
<td>Gas Alam (Rp/MMBTU)</td>
<td>29.128</td>
<td>37.998</td>
<td>42.287</td>
<td>43.724</td>
<td>64.919</td>
<td>92.186</td>
<td>105.876</td>
<td>98.749</td>
<td>101.123</td>
<td>106.480</td>
<td>121.465</td>
<td>132.795</td>
</tr>
</tbody>
</table>

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Perbandingan Harga Batubara PLN vs Harga Impor/CIF India dan China (HS 2701) - Rp/Ton

Batubara PLN (Rp/Ton) | India - Rp/Ton (CIF) | China - Rp/Ton (CIF) |
----------------------|---------------------|---------------------|
2008: 489.229        | 1.040.4             | 940.580             |
2009: 734.188        | 728.574             | 630.773             |
2010: 635.534        | 732.902             | 713.226             |
2011: 986.142        | 876.620             | 890.245             |
2012: 1.049.7        | 773.434             | 880.956             |
2013: 938.556        | 820.413             | 945.283             |
2014: 1.004.4        | 804.408             | 867.657             |
2015: 920.059        | 711.179             | 755.353             |
2016: 611.226        | 646.889             | 703.169             |
2017: 775.258        | 857.516             | 949.067             |
2018: 765.300        | 970.986             | 1.069.3             |
2019: 746.864        | 794.976             | 868.050             |

Perbandingan Harga Batubara PLN vs Harga Impor/CIF India dan China (HS 2701) - Rp/Ton

Harga Batubara Pembangkit PLN Lebih Mahal

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Harga Batubara Pembangkit PLN Lebih Mahal

Perbandingan Harga Batubara PLN vs Harga Impor/CIF China (HS 2702) - Rp/Ton

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<tbody>
<tr>
<td>Batubara PLN (Rp/Ton)</td>
<td>734.188</td>
<td>635.534</td>
<td>986.142</td>
<td>1.049.7</td>
<td>938.556</td>
<td>1.004.4</td>
<td>920.059</td>
<td>611.226</td>
<td>775.258</td>
<td>765.300</td>
<td>746.864</td>
</tr>
<tr>
<td>China - Rp/Ton (CIF)</td>
<td>525.739</td>
<td>561.019</td>
<td>675.419</td>
<td>610.295</td>
<td>631.492</td>
<td>641.287</td>
<td>558.663</td>
<td>480.265</td>
<td>664.484</td>
<td>753.078</td>
<td>588.560</td>
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Harga Batubara Pembangkit PLN Lebih Mahal

Harga FOB Batubara Lignite (HS 2702) Tujuan China vs Harga Pembelian Batubara PLN

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<tbody>
<tr>
<td>Batubara PLN (Rp/Ton)</td>
<td>734.188</td>
<td>635.534</td>
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<td>611.226</td>
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<td>765.300</td>
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<td>FOB - Tujuan China</td>
<td>359.110</td>
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<td>369.435</td>
<td>495.348</td>
<td>556.587</td>
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Harga Batubara PLN vs Harga Impor/CIF China - HS 2702

• Ternyata untuk tahun 2009 sampai 2019, biaya pembelian batubara untuk pembangkit PLN rerata selalu lebih mahal dibandingkan harga impor batubara jenis lignite (HS 2702) China dari Indonesia
Indikasi Kemahalan harga Batubara Pembangkit PLN

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<tr>
<td>Wil Riau</td>
<td>-</td>
<td>708</td>
<td>629</td>
<td>643</td>
<td>524</td>
<td>676</td>
<td>1.781</td>
<td>908</td>
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<td>314</td>
<td>442</td>
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<td>648</td>
<td>611</td>
<td>548</td>
<td>602</td>
<td>600</td>
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<td>Wil Sulsel, Sultra, dan Sulbar</td>
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<td>521</td>
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<td>500</td>
<td>481</td>
<td>500</td>
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<tr>
<td>Kit Sumbagut</td>
<td>283</td>
<td>532</td>
<td>549</td>
<td>532</td>
<td>539</td>
<td>-</td>
<td>462</td>
<td>570</td>
<td>593</td>
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<tr>
<td>Kit Sumbagsel</td>
<td>271</td>
<td>343</td>
<td>365</td>
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<td>332</td>
<td>357</td>
<td>375</td>
<td>432</td>
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<td>Pembangkitan Tanjung Jati B</td>
<td>314</td>
<td>363</td>
<td>318</td>
<td>335</td>
<td>334</td>
<td>304</td>
<td>397</td>
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<tr>
<td>Kit Jawa Bag Barat</td>
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<td>360</td>
<td>392</td>
<td>364</td>
<td>344</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Indonesia Rerata</td>
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<td>349</td>
<td>396</td>
<td>496</td>
<td>533</td>
<td>357</td>
<td>333</td>
<td>423</td>
<td>421</td>
</tr>
</tbody>
</table>

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### Specific Fuel Consumption (SFC), Tahun 2010 - 2018

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<tr>
<td>Wil Riau</td>
<td>-</td>
<td>0,87</td>
<td>0,86</td>
<td>1,04</td>
<td>1,09</td>
<td>1,14</td>
<td>2,88</td>
<td>1,28</td>
<td></td>
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<td>Wil Kalsel dan Kalteng</td>
<td>0,77</td>
<td>0,76</td>
<td>0,78</td>
<td>0,73</td>
<td>0,75</td>
<td>0,77</td>
<td>0,79</td>
<td>0,80</td>
<td>0,79</td>
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<tr>
<td>Wil Sulut, Sulteng, dan Gorontalo</td>
<td>0,60</td>
<td>0,56</td>
<td>0,97</td>
<td>0,96</td>
<td>0,96</td>
<td>0,91</td>
<td>0,73</td>
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<td>Wil Sulsel, Sultra, dan Sulbar</td>
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<td>0,95</td>
<td>0,86</td>
<td>0,84</td>
<td>0,81</td>
<td>0,86</td>
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<td>PT PLN Batam</td>
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<td>0,73</td>
<td>0,67</td>
<td>0,70</td>
<td>0,69</td>
<td>n/a</td>
<td>n/a</td>
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<tr>
<td>Kit Sumbagut</td>
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<tr>
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<tr>
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<td><strong>0,53</strong></td>
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</tbody>
</table>
Biaya Komponen Batubara Pembangkit (Rp/Kwh),
PT IP vs PT PJB

- PT IP - Rp/Kwh
- PT PJB - Rp/Kwh

Firdaus Ilyas @29062020
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<tbody>
<tr>
<td>PLTU Paiton (a)</td>
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<td>322</td>
<td>424</td>
<td>322</td>
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<td>343</td>
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<td>PLTU Suralaya (b)</td>
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<td>391</td>
<td>392</td>
<td>355</td>
<td>392</td>
<td>386</td>
<td>351</td>
<td>432</td>
<td>434</td>
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<tr>
<td>Selisih (b) – (a)</td>
<td>116</td>
<td>82</td>
<td>69</td>
<td>(32)</td>
<td>33</td>
<td>40</td>
<td>43</td>
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Atau rerata tiap tahun nilai indikasi infisiensinya sebesar Rp 1,240 triliun. Angka ini bisa disimpulkan sebagai indikasi inefisiensi pada pembangkit PLTU Suralaya yang dikelola oleh PT Indonesia Power.
Kesimpulan & Rekomendasi
Sekian & Terimakasih