INDONESIAN COAL UPDATES:
UPSTREAM TO DOWNSTREAM

COAL RESOURCES 2019
TOTAL: 149,009.59
*All numbers are in million tons

Compiled from various sources by PYC research team. The data can also be accessed through the PYC Data Center at www.datacenter-pyc.org.
TYPE OF POTENTIAL DOWNSTREAM COAL INDUSTRY

- **Coal gasification**: A process of producing syngas that can be used for electricity generation or chemical feedstocks. It could also produce methanol or gasoline through additional treatment.
- **Coal liquefaction**: A process of converting coal into liquid hydrocarbon, liquid fuels and petrochemicals.
- **Coal upgrading**: A process to remove moisture and certain pollutants from low-rank coals in order to raise their calorific values.
- **Coal briquetting**: A process to compress coal dust (a side product from mining) or other combustible biomass material into a block of briquette used for fuel and kindling to start a fire.
- **Cokes making**: A process of heating coal to remove impurities and leaving almost pure carbon. Coke is used in metallurgical process, such as in the blast furnaces or foundry cupolas in the steel production.
- **Underground coal gasification**: A process of converting hydrocarbon materials into synthesis gas in situ for exploiting coal that cannot be mined because the seams are too deep, thin or fractured.
- **Coal slurry/coal water mixture**: A combustible mixture of fine coal particles suspended in water. It can be used to power boilers, gas turbines, diesel engines, heaters and power stations.

DOWNSTREAM COAL INDUSTRY

- **Coal Mucking** (Bukungan, North Kalimantan)
  - PT Magh Energi Kalutama
  - Feedstock: 10,000-20,000 TYP
  - Output: 5,000-10,000 TYP

- **Coal Upgrading** (Barito Timur, Central Kalimantan)
  - PT Bumi Asam
  - Feedstock: 800,000-1,000,000 TYP
  - Output: 400,000-500,000 TYP

- **Coal Upgrading** (Batu Kawan, South Sumatera)
  - PT Bumi Asam
  - Feedstock: 400,000-500,000 TYP
  - Output: 150,000-200,000 TYP

- **Coal Upgrading** (Batang, South East Sumatra)
  - PT Nusantara Prima Abadi
  - Feedstock: 200,000-300,000 TYP

Notes:
- **Low Rank Coal calories**: <5,100 kcal/kg
- **Medium Rank Coal calories**: 5,100-6,100 kcal/kg
- **High Rank Coal calories**: 6,100-7,100 kcal/kg
- **Very High Rank Coal calories**: >7,000 kcal/kg

Abbreviations:
- DME: Dimethyl Ether
- KESDM: Ministry of Energy and Mineral Resources
- MEG: Monoethylene Glycol
- TYP: Ton per Year

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