Pertamina Strategy
In Fulfilling Domestic Gas Demand

The 5th International Indonesia Gas Infrastructure
Jakarta, 18 June 2014
Agenda

1. Indonesia’s Gas Balance
2. Pertamina: Gas Business Strategy
3. Pertamina: Gas Infrastructure Development
4. Conclusion and Recommendation
Domestic Gas Demand Expected to Grow at 5.1% p.a, with Power and Industry Sectors Accounting for ~70% (or ~ 6.0 bcfd) of Demand by 2025

mmscfd

HIGH CASE DEMAND SCENARIO

<table>
<thead>
<tr>
<th>Year</th>
<th>City Gas</th>
<th>Refinery</th>
<th>Industry</th>
<th>Fertilizers</th>
<th>Power (Captive)</th>
<th>Power (Grid)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>1,890</td>
<td>1,097</td>
<td>1,765</td>
<td>1,130</td>
<td>1,448</td>
<td>5,435</td>
</tr>
<tr>
<td>2018</td>
<td>6,800</td>
<td>2,344</td>
<td>2,344</td>
<td>2,244</td>
<td>1,448</td>
<td>1,890</td>
</tr>
<tr>
<td>2020</td>
<td>7,782</td>
<td>2,555</td>
<td>2,555</td>
<td>2,555</td>
<td>1,530</td>
<td>2,344</td>
</tr>
<tr>
<td>2025</td>
<td>8,922</td>
<td>3,008</td>
<td>3,008</td>
<td>3,008</td>
<td>2,005</td>
<td>2,555</td>
</tr>
</tbody>
</table>

CAGR (%)

- City Gas: 18.0%
- Refinery: 28.3%
- Industry: 4.8%
- Fertilizers: 3.4%
- Power (Captive): 9.2%
- Power (Grid): 1.3%

1 High case demand assumes the fuel and feedstock demand from refineries and two GRR projects while the low case Refinery scenario assumes only feedstock demand from existing refineries.

Source: Pertamina Gas Balance 2025_V 2014
Deficit in Java is Expected to be ~1.7-2.1 bcfd by 2025, with Kalimantan, Papua is Expected to Remain Surplus Regions

Source: Pertamina Gas Balance 2025_ v2014
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Interfacing area between oil (blue area) and gas (red area) can only be run effective & efficient by Pertamina, which integrates Upstream through Downstream Sectors in Oil and Gas Business.

Operational Vehicles:\(^{(1)}\):

<table>
<thead>
<tr>
<th>Upstream</th>
<th>Midstream</th>
<th>Downstream</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT Pertamina EP</td>
<td>Pipe : PT Pertamina Gas</td>
<td>PT Pertamina Trans Kontinental</td>
</tr>
<tr>
<td>PT Pertamina EP Cepu</td>
<td>LNG : PT Arun NGL</td>
<td>PT Pertamina Retail</td>
</tr>
<tr>
<td>PT Pertamina Drilling Services Indonesia</td>
<td>PT Badak NGL</td>
<td>Pertamina Energy Trading Ltd.</td>
</tr>
<tr>
<td>PT Pertamina Hulu Energi</td>
<td>PT DSLNG</td>
<td>PT Patra Niaga</td>
</tr>
<tr>
<td>PT Pertamina Geothermal Energy</td>
<td>Regas : PT Nusantara Regas</td>
<td>PT Pertamina Lubricants</td>
</tr>
<tr>
<td>International LNG Access</td>
<td>PT Perta Arun Gas</td>
<td>PT Pertagas Niaga</td>
</tr>
<tr>
<td></td>
<td>PT Perta Daya Gas</td>
<td></td>
</tr>
</tbody>
</table>

\(^{(1)}\) Pertamina also has some non-core-business vehicles.
Pertamina’s Concept on Gas Business (2/2)

**Upstream:** Securing reserves and production (domestic & overseas)

- Domestic gas reserves (Indonesia has 2% of world’s reserves) & International LNG portfolio.

**Midstream:** Availability of reliable and efficient infrastructures with sufficient capacity

- Optimize of existing infrastructures, & efficiency of planned infrastructures are needed.
- Coordination between open access pipeline & inter-island infrastructures.

**Downstream:** Developing conducive market (acceptable price and giving incentives for U/S dan M/S)

- Availability of gas for all consumers with competitive price to reduce fuel subsidy, giving optimum multiplier effects.
- Assures re-invests for Upstream sectors.

Example: CNG Conversion Program

<table>
<thead>
<tr>
<th>Big Cities</th>
<th>Converted Public Transportation ‘000 units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jakarta</td>
<td>186</td>
</tr>
<tr>
<td>Surabaya</td>
<td>23</td>
</tr>
<tr>
<td>Medan</td>
<td>18</td>
</tr>
<tr>
<td>Palembang</td>
<td>12</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>239</strong></td>
</tr>
</tbody>
</table>

Potential saving of 1.5 – 2 Billion USD in Governmental Expenditures through CNG conversion program.

If those three sectors are integrated and coordinated, gas will become source of energy that can be accepted in market, reliable / uninterrupted, and able to accelerate upstream monetization (develop together, don’t have to wait each other).

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Pertamina’s Planning on Infrastructure Projects Covering All Major Regions in Indonesia to Meet Growing Gas Demand

Pertamina Gas Directorate’s planning on key infrastructure development projects

**Pipeline, Regasification, and LNG development**
- **Existing pipelines**
- **Planned pipelines**
- **Existing FSRU**
- **Planned FSRU**
- **LNG KTI development**

**West Java**
- Cirebon – KHT Pipe
- Tegalgede - Muara Tawar Pipe
- Nusantara Regas West Java

**Central Java**
- Gresik - Semarang pipe
- Semarang - Cirebon Pipe

**East Java**
- EJGP Grati Pipe
- Arun LNG Receiving & Regas
- Lhoksueumawe-Medan
- Medan Dumai

**Trans Sumatera**
- Arun FSRU Jateng
- Trans Sumatera pipeline

**East Indonesia**
- LNG KTI
- Tempino – Plaju oil pipe
- Power & Renewables

**Other infrastructures**
- NGL plant Sumsel
- LPG plant Pondok Tengah
- Arun IPP

**Value chain expansion**
- CNG Transport
- CNG Industry
- LNG Indominco
- LNG for transportation & marine

**Maximize downstream**
- LNG Trading & sourcing

**Sourcing & trading**
- LNG for transportation & marine

**Others**
- Gas for RU IV & VI
- LPG Trading
- LPG Transhipment
- City Gas
Existing & Ongoing Gas Pipelines Infrastructure to Meet Growing Gas Demand

Arun – Belawan Gas Pipeline
- Dimension: 24” x 340 km
- Consumers: Power Plant, Industries
- Onstream: Q3 2014

M. Karang – Tegalgede Gas Pipeline
- Dimension: 28” x 265 km
- Consumers: Industries, Petrochemical & Fertilizer Plants
- Onstream: Q1 2016

FSRU Nusantara Regas

SUPPLY:
- Domestic
- International

INFRASCTURES:
- FSRU
- Pipelines
- CNG
- LPG/NGL Plant

CONSUMERS:
- Power Plants
- Fertilizer & Petrochemical Plants
- Industries
- City Gas

Upstream
Midstream
Downstream

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Pertamina’s View of The Challenges & Opportunities on Gas Infrastructure Development

• Indonesia retains the national energy sustainability by optimizing potential domestic sources as well as securing overseas supply supported by a complete Gas Chain Portfolio such as an integrated inter-island infrastructure through open access pipeline. Redouble efforts, including to extent possibility to procure LNG from new supplier, to lock in long term LNG contracts from global suppliers.

• Government has to ensure the availability of reliable and efficient gas infrastructures with sufficient capacity, moreover, their support is essential to accelerate the gas infrastructures development, such as gas/LNG domestic allocation, permits and import licenses.

• **Pertamina as 100% State Owned Company** has the obligation to support the Government to develop integrated infrastructure.
Thank You