

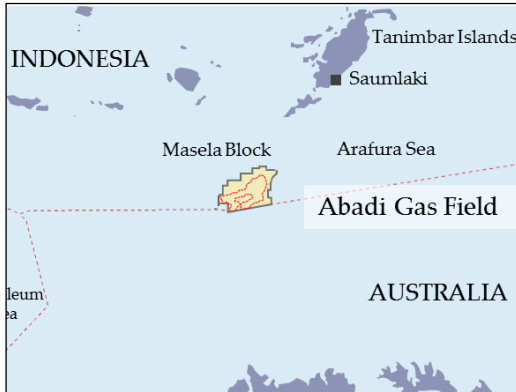
# Abadi LNG Project

Managing Executive Officer  
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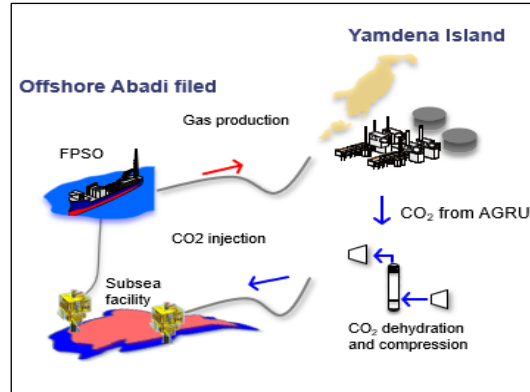


- **Competitive and clean project through comprehensive cost optimization and CCS**
- Investability to be maintained/increased through FEED period



## Project Economics

Aim to achieve an IRR  
in the mid 10% range



## Stable supply of clean LNG

LNG: 9.5 MTPA  
Pipeline gas: 150 mmscfd



## New partners

Contribution to energy security in  
Asia with national E&P companies  
(Pertamina and Petronas)

## Floating Production, Storage and Offloading Facility (FPSO)

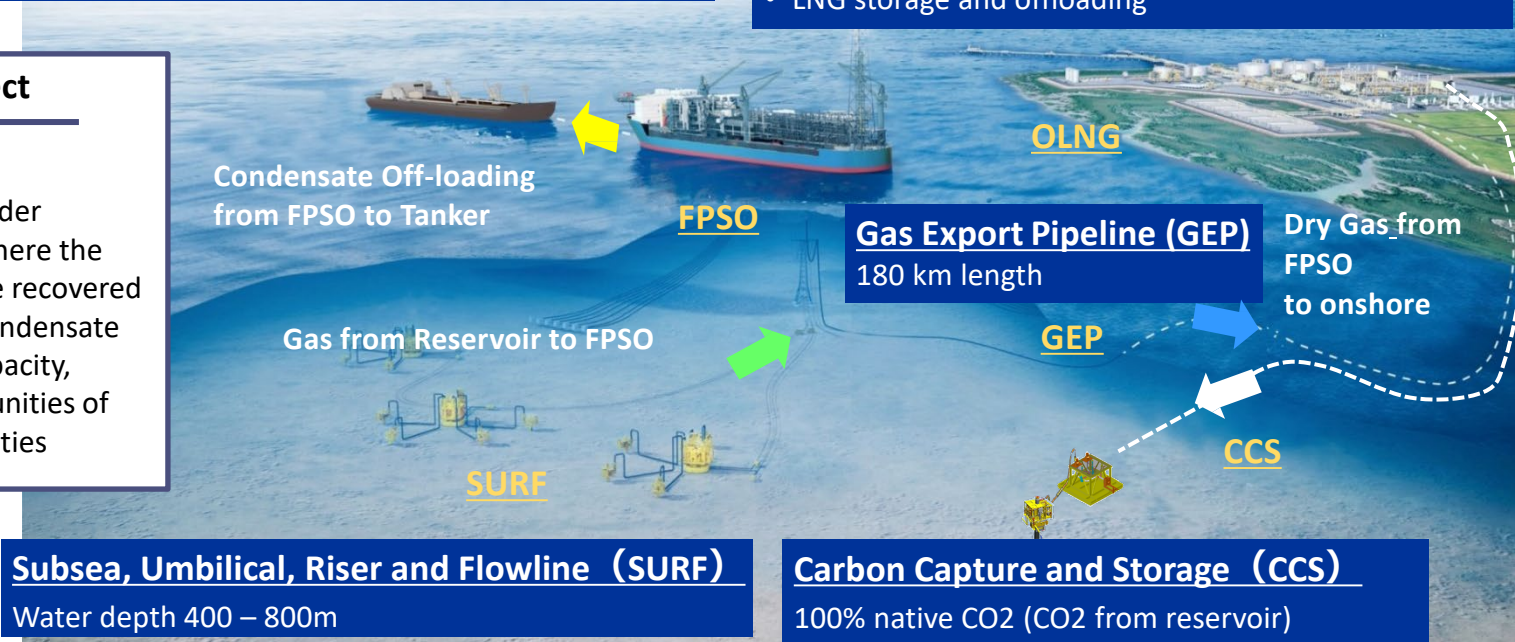
- Receiving reservoir gas from SURF
- Condensate stabilization and offloading to tankers
- Dehydration, dew point control and dry gas export to onshore LNG plant

## Onshore LNG Plant (OLNG)

- Dry gas receiving from FPSO via GEP
- Acid gas removal, dehydration and mercury removal
- LNG production 9.5 mtpa and natural gas supply 150 mmscfd
- LNG storage and offloading

## Adding CCS to the project

- Cleaner LNG project
- 1<sup>st</sup> CCS bundled project under Indonesian PSC scheme where the CCS-associated cost can be recovered from the produced gas/condensate
- With its huge reservoir capacity, potential business opportunities of CCS for CO<sub>2</sub> from third parties



## Subsea, Umbilical, Riser and Flowline (SURF)

Water depth 400 – 800m

## Carbon Capture and Storage (CCS)

100% native CO<sub>2</sub> (CO<sub>2</sub> from reservoir)

- Drive the project with partners toward early production start while keeping due consideration for the project economics



Present

- New partners
- Revised Plan of Development
- Production Sharing Contract Amendment



~Final Investment Decision (Mid 2020s)

- Engineering (G&G surveys, FEED)
- Marketing (Securing gas buyers)
- Financing
- Permits (Environment, Land procurement)
- EPC tenders (Pulling in capable contractors)
- Project economics (Ensuring profitability (IRR))



~ (Early) Production start

- EPC implementation (Schedule and cost management)

|                  | Item                           | Deliverable/target   | Until FID<br>(Engineering phase)   | Until Production start<br>(Construction phase)                        |
|------------------|--------------------------------|--|--|---|
| <b>Technical</b> | On- / Off-shore<br>G&G Surveys | G&G surveys for plant site<br>and pipeline route               | Incorporating the detailed data into<br>FEED   | —   |
|                  | FEED                           | Optimize engineering for<br>construction                       | Engineering / Design competition<br>among contractors  | —   |
|                  | EPC                            | Project management to<br>maintain planned schedule<br>and cost | <ul style="list-style-type: none"> <li>• EPC contracting strategy</li> <li>• Tenders to evaluate technical and<br/>commercial</li> </ul> | Construction and management<br>by seasoned and capable<br>contractors |
| <b>On-site</b>   | Environment<br>Permits         | Meet the local and<br>international standards                  | Construction/operation planning in line<br>with the standards  | Complying with the<br>construction-related standards                  |
|                  | Land Procurement               | Secure suitable site   | Land securing for LNG plant and<br>offloading facility   | —   |
|                  | Local Community                | Support for community<br>development                           | Implementing community<br>development plans  | Creating jobs associated with<br>construction activities              |

|                       | Item                         | Deliverable/target                        | Until FID<br>(Engineering phase)   | Until Production start<br>(Construction phase) |
|-----------------------|------------------------------|---|--|--|
| <b>Commercial</b>     | Contracts with gas buyers    | Long-term contracts with credible buyers  | Negotiation on price, quantity, contract period and so forth   | —  |
|                       | Financing                    | Financing for LNG facilities construction | Securing support from governmental financial institutions and banks                                    | —  |
|                       | Economic competitiveness     | Achieve an IRR in the mid 10% range       | Re-evaluation of the project economics with Indonesian Government based on FEED results                | Maintaining planned schedule and cost          |
| <b>Carbon Neutral</b> | CCS for CO2 from reservoir   | Carbon reduction by CCS                   | Detailed engineering   | Construction management of related facilities  |
|                       | CCS for CO2 from 3rd parties | CCS service provision business            | Business development planning, support for regulatory development about carbon credits, CCS hubs, etc. |  |
|                       | Other than CCS               | Contribution to carbon neutral/reduction  | Planning of carbon neutral/reduction activities such as tree planting                                  |  |

## Upstream

## Mid/Downstream

## Sales

Stable supply of natural gas/LNG (Contribution to energy security)

Abadi Gas Field

Natural gas  
production

CCS



Abadi Gas Field

Onshore LNG

LNG production

Ammonia Plant

Ammonia production

Blue ammonia production



Yamdena Island

Stable supply for Indonesia, Japan  
and Asian countries

Clean LNG

CCS for CO2 from third parties  
such as LNG buyers (new business)

CO2 storage

CCS (Contribution to clean energy)

Pursuing possibility for comprehensive partnership  
(Gas sales, transportation, electricity, carbon business, local community development)