# **Australia: Tassie Shoal Methanol Project**

(Melbana 100%)



## **Project Overview**

The Tassie Shoal Methanol Project ("TSMP") combines established proven technology in an innovative way to produce methanol from high  $CO_2$  feedstock gas. By designing for high  $CO_2$  in the feedgas stream, TSMP avoids the need for expensive separation, transportation and geosequestration costs in alternative LNG or domestic sales gas development scenarios.

Central located to regional high CO<sub>2</sub> feedstock gas

Single module

a low cost SE

Asian location

construction in

TSMP design marries proven technologies of a concrete gravity structure (CGS) with topsides processing based on Davy Process

Technology Steam Methane Reforming (SMR) technology.



For each TSMP, feedgas of ~200 million standard cubic feet per day (Mscfd) is required, depending upon  $CO_2$  content, to enable the production of 5000 tonnes of methanol per day or 1.75million tonnes of methanol per annum. Tassie Shoal site is located adjacent to many undeveloped high  $CO_2$  gas resources in the region.

# **Key Project Details**

Water Depth: ~15m

Plant Capacity (each): 1.75MTA

Single Module Construction

Platform: Concrete Gravity Structure

Technology: Davy Process Technology

Offloading: Single Point Mooring

Gas feed assumption: 10-30% CO<sub>2</sub>

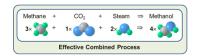
Storage: 20 days production within CGS

Fabrication Location: South East Asia

CO<sub>2</sub> is utilised in the methanol production process

# Designed by the World's Leading Experts

Designed by Industry Leaders The TSMP has been designed in conjunction with leading industry experts including Davy Process Technology (topsides), Arup (substructure) and WorleyParsons (utilities and integration).



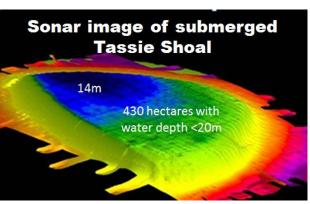
# **Environmental Approvals in Place**

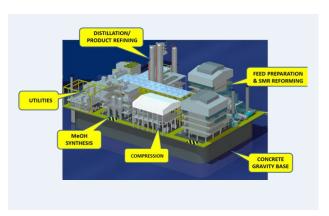
Melbana has secured Federal Government Environmental Approvals for two methanol plants to be located at Tassie Shoal. TSMP project was assessed by the Federal Government under the Environment Protection and Biodiversity Conservation Act 1999 and Environmental Approval was granted in 2002. The approval is valid until 2052.

# **Competitive Advantage – single module construction**

TSLNG design embeds a number of key competitive advantages when compared to onshore or floating alternatives:

- Shallow water development site at Tassie Shoal
- Benign metocean conditions
- Facilities to be located on sea floor, avoiding floating complexities, motion issues
- Accepts up to 30% CO<sub>2</sub> in the feedgas stream
- Proximal to regional high CO<sub>2</sub> resources, avoiding long pipelines
- World-scale capacity based on DPT SMR process
- CGS and plant topsides to be constructed in a single module in a casting basin and wet towed to site then ballasted directly onto sea floor
- Construction at a low cost SE Asian site





# **Major Project Facilitation Status**

The project has previously been granted Major Project Facilitation (MPF) status by the Federal Government Department of Infrastructure and Transport. MPF status is currently inactive but will be renewed once commercialisation hurdles are overcome and coordination of development approvals is required.

### Regional Undeveloped High CO<sub>2</sub> Resources

#### Evans Shoal (NT/RL7) ~28% CO2

The Evans Shoal gas discovery lies directly adjacent to NT/P68 and only 10 km from Tassie Shoal. An appraisal well was successfully drilled in late 2013. Eni have indicated they believe the raw gas in place is 8Tcf.

#### Barossa (NT/RL5) ~19% CO2

Recent successful appraisal results with high CO<sub>2</sub>; ongoing appraisal planned.

#### Heron (NT/P68) ~30% CO2

Recent drilling results under evaluation for field assessment.

#### Caldita (NT/RL6) ~13% CO2

The last well drilled in the permit in 2007 tested 13% CO<sub>2</sub> gas.

produce both a 25% CO<sub>2</sub> feedstock

The potential exists to optimise gas stream blends to produce both a 25% CO<sub>2</sub> feedstock stream for methanol production and a low CO<sub>2</sub> feedstock stream for the LNG project.

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Regional appraisal of high CO2 discoveries is ongoing

**Competitive** 

advantages

competitive cost outcomes

result in

globally