

An aerial photograph showing a long, narrow dam structure extending from a coastal area into a large body of blue water. The dam is a concrete structure with a series of vertical supports. In the background, there are rolling hills and a small industrial or residential area on the shore. The sky is clear and blue.

# Adani Australia Lessons and Opportunities

4 June 2015

Hamish Manzi, Head of Environment & Sustainability

Source: NQBP.

# Presentation Outline

1. The Adani Business in India
2. The Adani Business in Australia
3. Opportunities taken and lessons learnt



Resources



Logistics



Energy

# Adani Group's Integrated Business Model : 'Pit-to-Plug'



**Largest Commercial Port in India (Mundra)**



**Largest coal import terminal in the world (Mundra)**



**Largest trader of coal in India (market share of over 50%)**

## 25 years of nation building



**Vision for setting up India's largest solar park of 10 GW in the renewable sector (operational)**

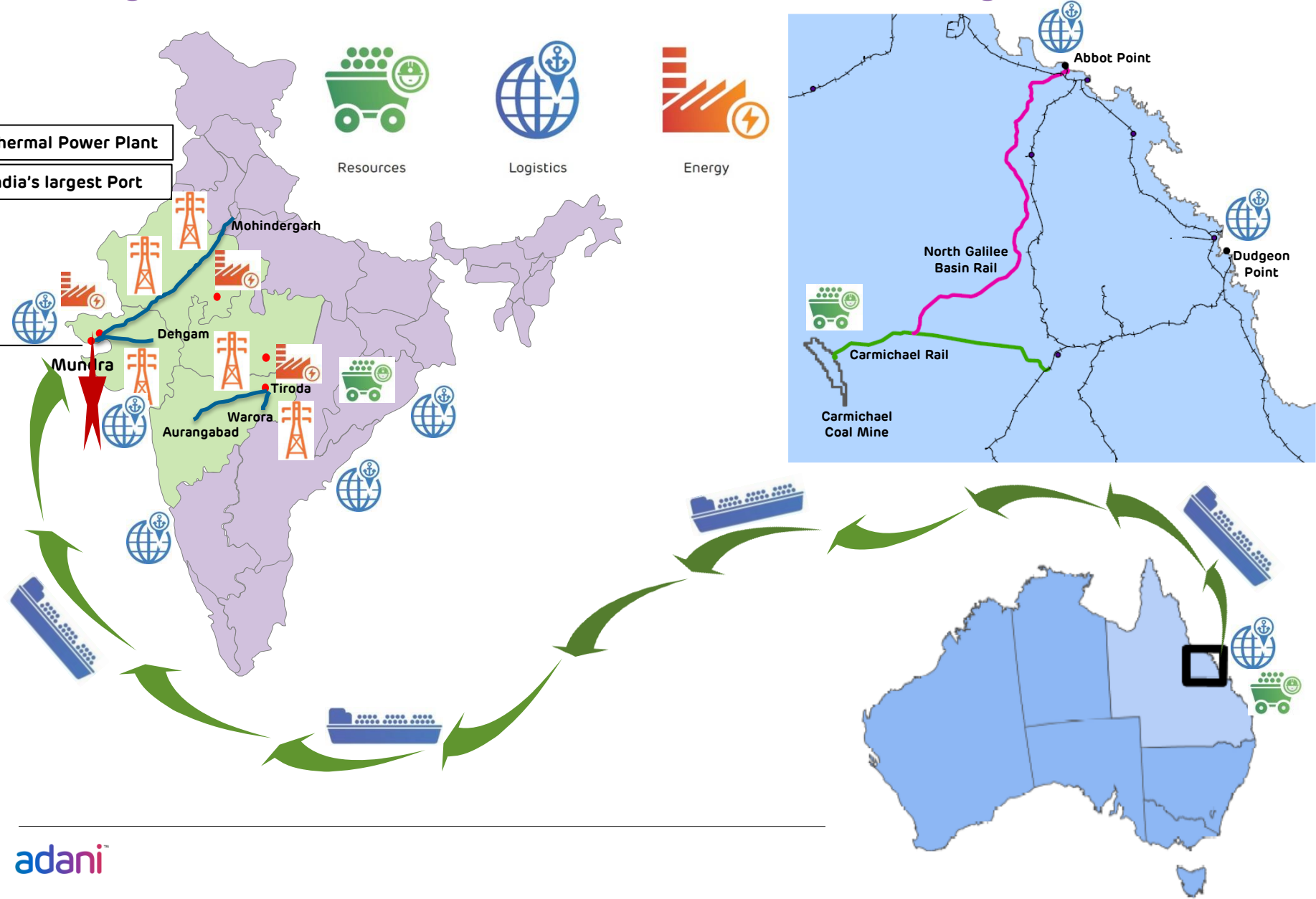


**2923 km power transmission line with 1000 km HVDC**



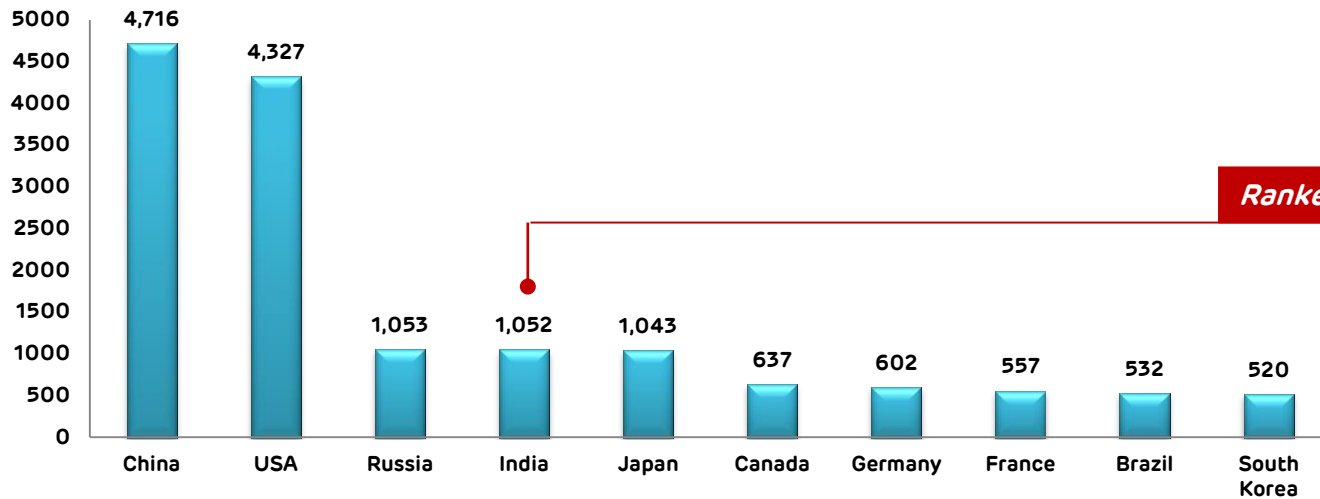
**Largest private rail network in India**

# Integrated Business Model : Pit to Plug



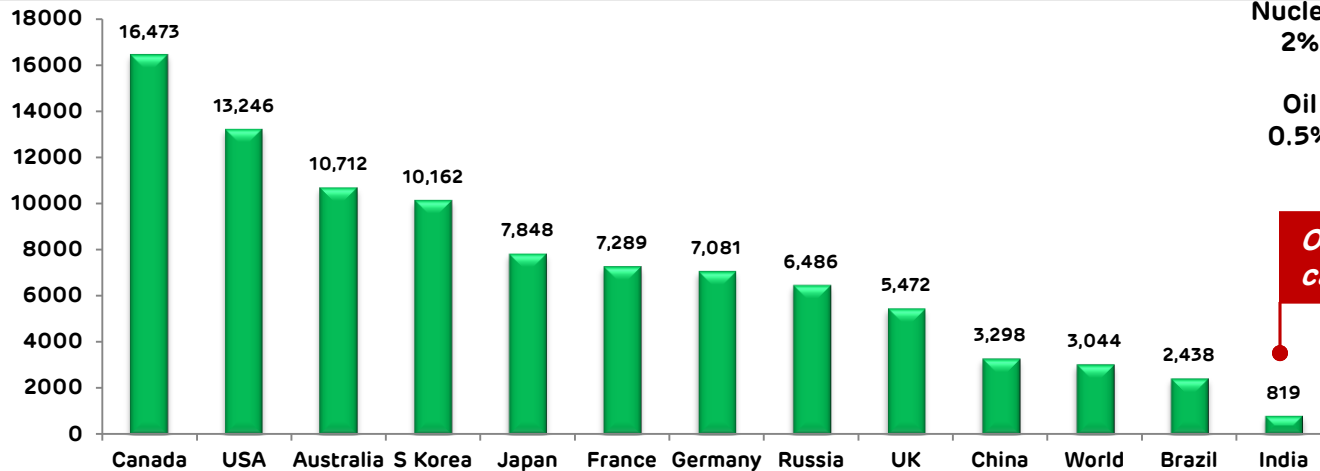
# India : Energy Scenario

## Electricity Generation (Billion KWH)



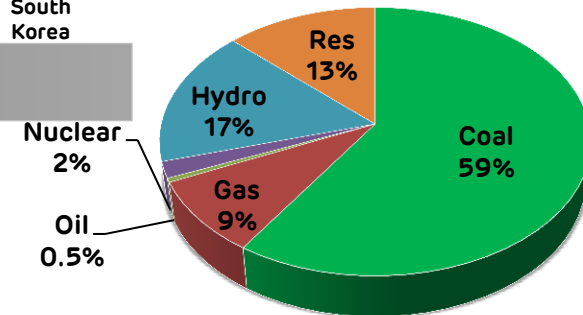
**Ranked 4 in electricity generation**

## Electricity Consumption Per Capita (KWH)



**One of the lowest in terms of per capita electricity consumption**

## Fuel Mix in India





# Adani Australia : Our Vision

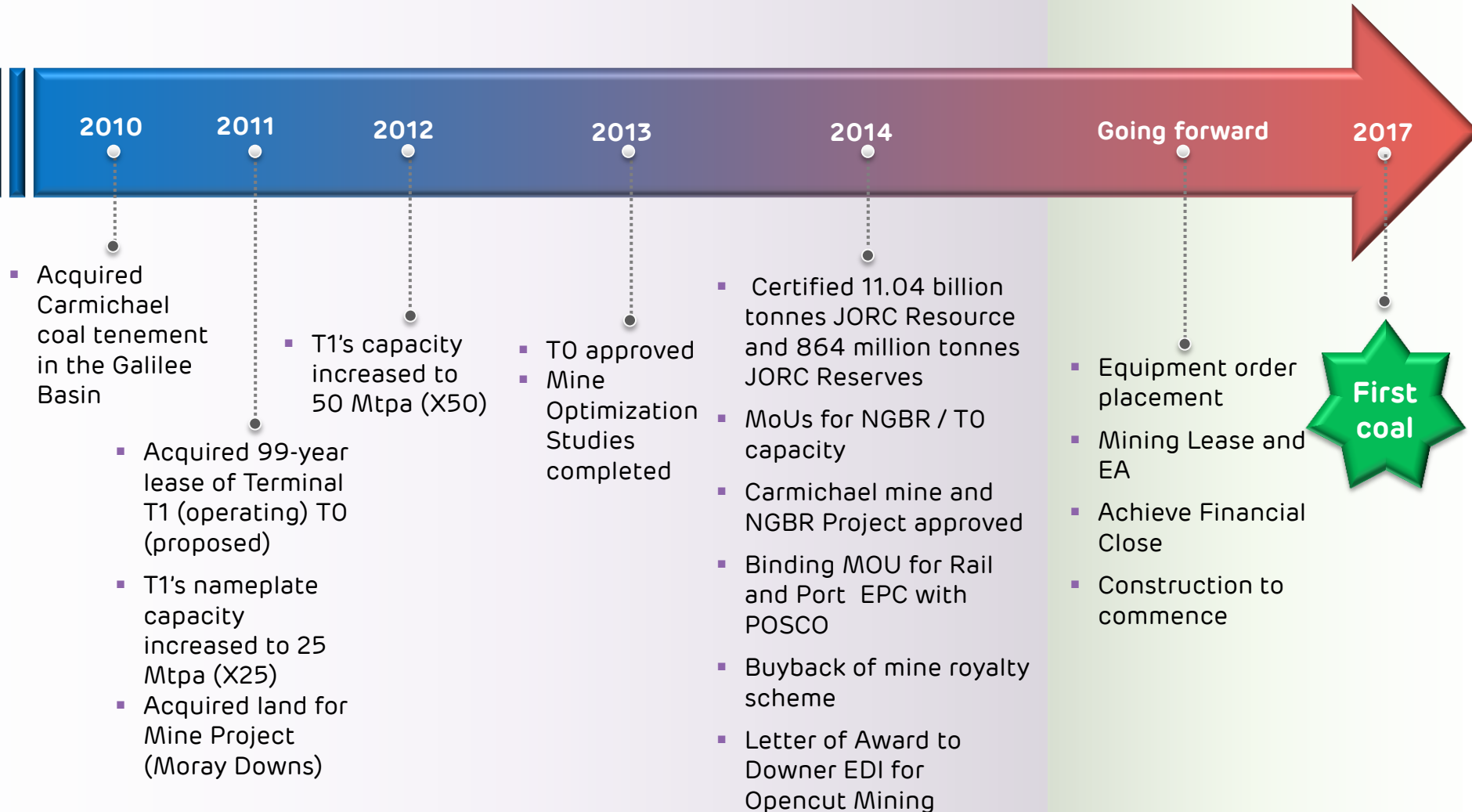
To be a global leader in the integrated resource, logistics and energy business through sustainable, innovative and responsible value creation



# Australia Project timeline

Significant momentum in Project Development in the last 12 months

Current *Planned*



# Adani Australia : Project Overview

## Carmichael Coal Mine

Capacity to produce 60 MTPA

Over 830 holes drilled; established 11.04 Billion Tonnes of JORC compliant thermal coal resource

Construction start 2015; First coal in 2017

## Rail: multi user

Greenfield standard gauge heavy haul rail line from Carmichael Mine to Abbot Point port (388km)

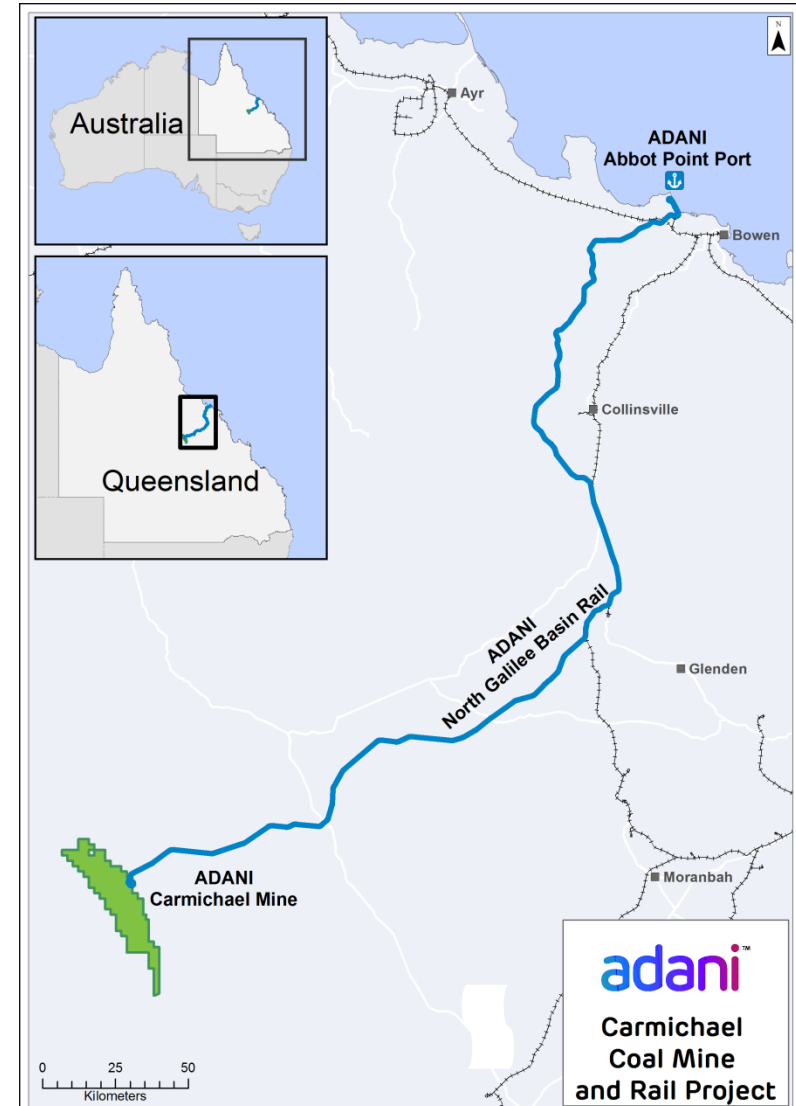
Construction start 2015; Commissioning in 2017

## Abbot Point Port: multi user

99 year lease on existing operational Terminal 1 with capacity of up to 50 MTPA

Terminal 0 proposed to export up to 70 MTPA

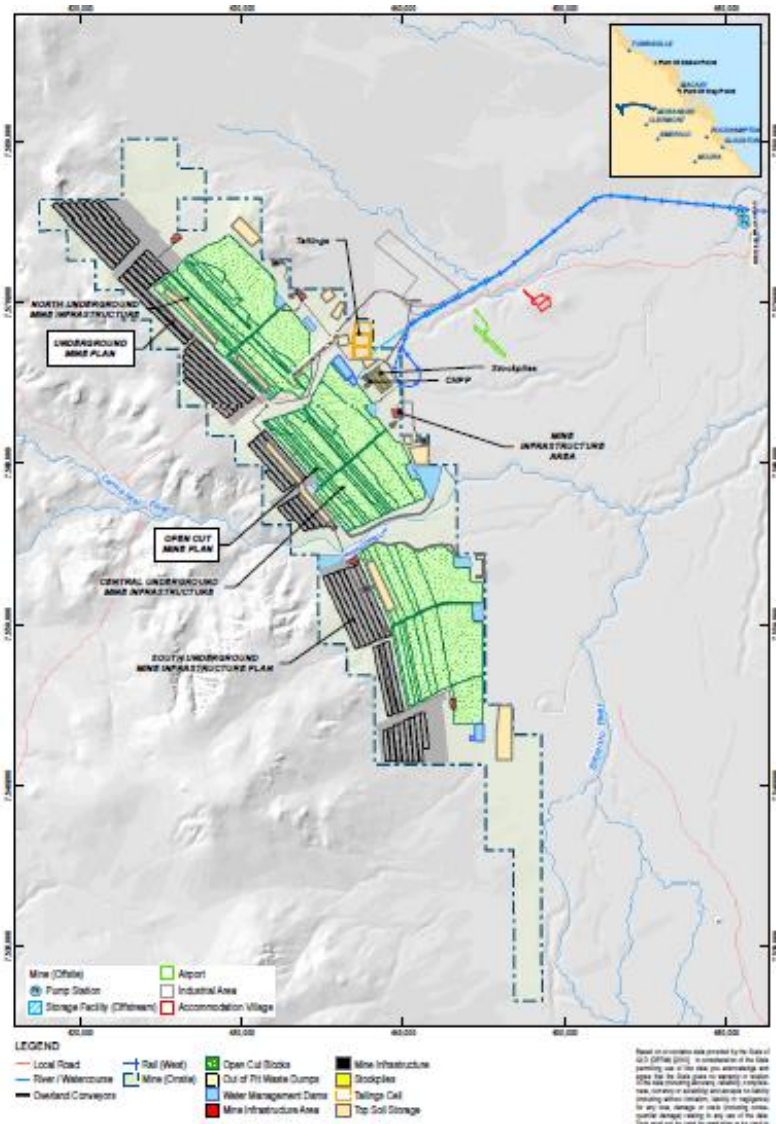
Construction start 2015; Commissioning in 2017



The Project comprise a large scale, high quality, low cost thermal coal resource with cost effective integrated rail and port infrastructure located in the world's next major coal basin



# Carmichael Coal Mine Project



**1**

- JORC Resources: ~11 bn tonnes
- One of the largest thermal coal resources in the world

**Resources**

**2**

- Production ~ 40 mtpa (Stage 1), peak production ~60 mtpa
- Open cut with truck and shovel with underground longwalls
- Use of contract miners

**Production**

**3**

- Agricultural landscape mixture of improved pasture and native woodland grazing habitat
- Habitat for threatened species and ecological communities
- Groundwater – artesian and non artesian
- Natural Spring ecological complexes
- Regional mining communities
- Carmichael River Corridor

**Environmental & Social Values**

**4**

- State EIS Approval received in May 2014
- Federal EIS Approval received in July 2014
- Mining Lease and Env. Authority ~ Q3 2015
- Programs and plans under development / being finalized

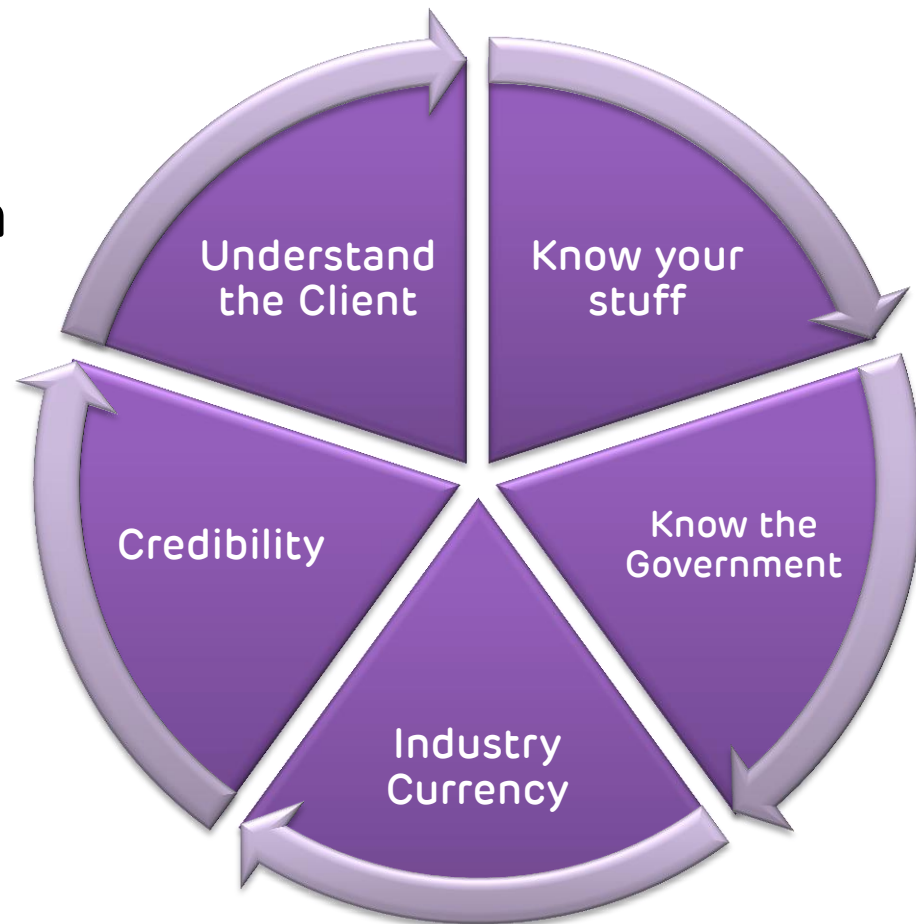
**Project Status**

# Carmichael Coal Mine Project EIS

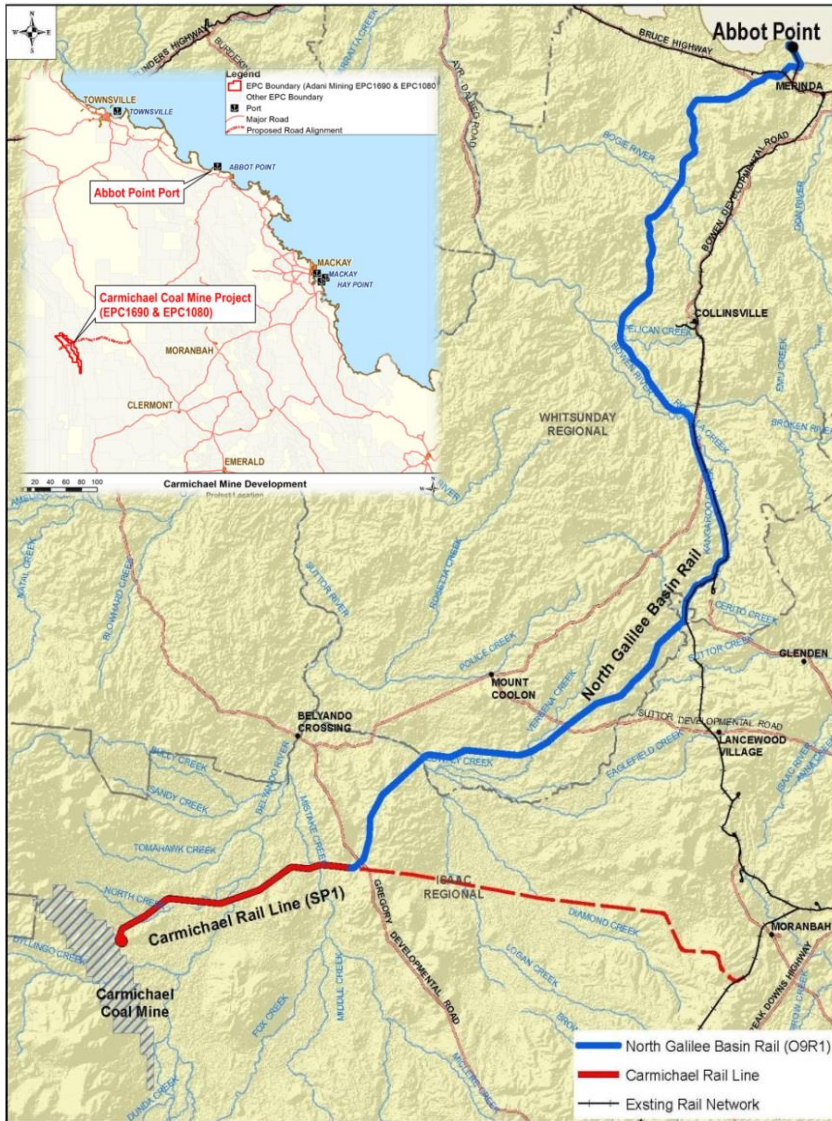
## Challenges:

- Large project
- Government policy evolution
- Concurrent processes
- Developing business

*"Potential risks of soil and coal dust affecting carbon based flora and fauna happily habituating in the natural environment is very low (the flora grows in soil for example)"*



# North Galilee Basin Rail Project



**1**

- Connecting the Carmichael Coal Mine directly to Abbot Point (388 kms)
- Regionally significant: within the GBSDA and a multi user rail line

**Strategic location**

**2**

- Standard gauge (1435 mm); first in Queensland
- Payload per consist: 23,760 tonnes
- Train Consist: 3 Locos, 220 wagons
- Staged capacity: 40 mtpa > 60 mtpa > 100 mtpa

**Capacity**

**3**

- Predominantly agricultural (grazing) landscape
- Over 400 water way crossings with around 20 major bridges
- Habitat for threatened species associated with scattered remnant vegetation
- Regional mining communities and services
- Landholders – private, corporations and government

**Environmental & Social Values**

**4**

- State EIS Approval received in August 2014
- Federal EIS Approval received in September 2014
- Corridor Land Approvals expected by Q3 2015
- Programs and plans under development / being finalized

**Project Status**

# North Galilee Basin Rail Project EIS

## Challenges:

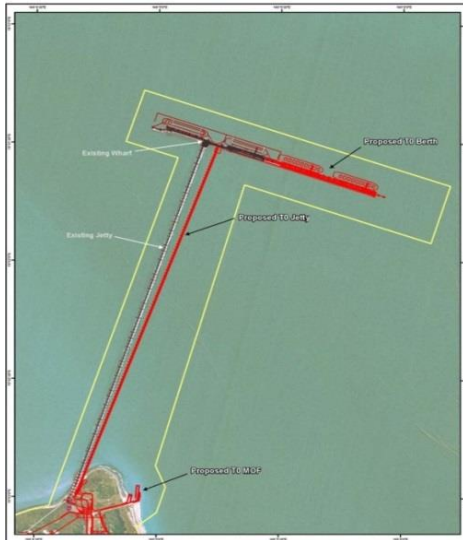
- Accessing the Galilee Basin
- Evolving government policy constraints
- Competing infrastructure





# Abbot Point Terminal 0

## T0 - Offshore Plan



## T0 - Onshore Plan



1

- Located to the east of existing T1
- Australia's most northerly coal port and closest to key export markets of India and Asia

Strategic location

2

- Capacity: 70 mtpa (in 2 phases)
- Multi-user facility, with Adani Mining as major customer
- Ongoing discussions with other users for ToP contracts

Capacity / Contracts

3

- Marine Fauna and Turtle nesting beach
- Caley Valley Wetlands and migratory birds
- Intergenerational local community connections
- Ecological Communities
- Cultural heritage

Environmental and Social Values

4

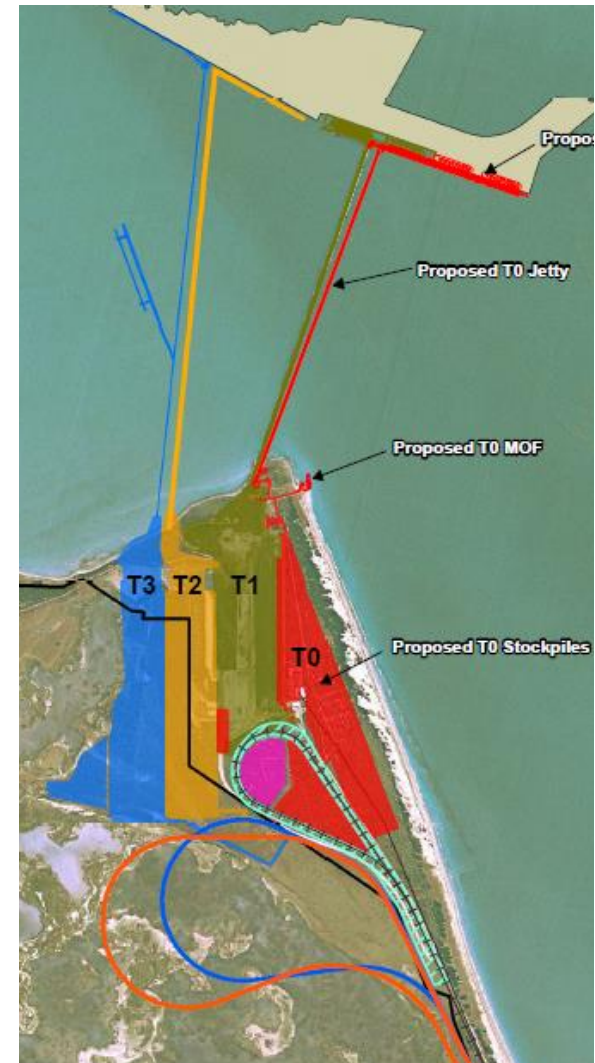
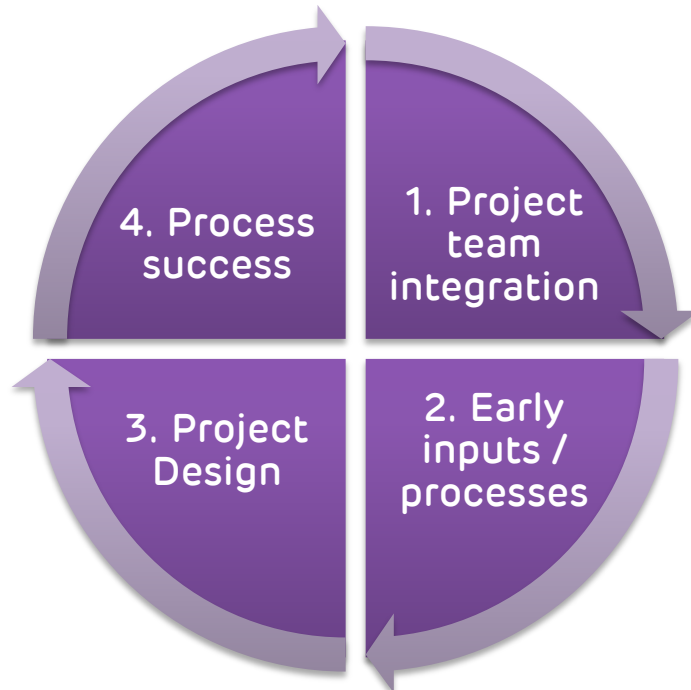
- Federal EIS Approval received in December 2013
- State Planning approvals anticipated Q2 2015
- Programs and plans under development / being finalized

Project Status

# Abbot Point Terminal 0 Project EIS

## Challenges:

- Locational constraints
- Project sensitivities
- Timing





# What have we learnt?

## Challenges to the work of professionals

- Understanding clients and industry
- Understanding government
- Pressure and challenge from non professionals

## The important role of Environmental Professionals

- Quality of work
- Confidence in work
- Honesty and integrity
- Navigate process complexity
- Staying focussed

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# Thank You

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Resources



Logistics



Energy