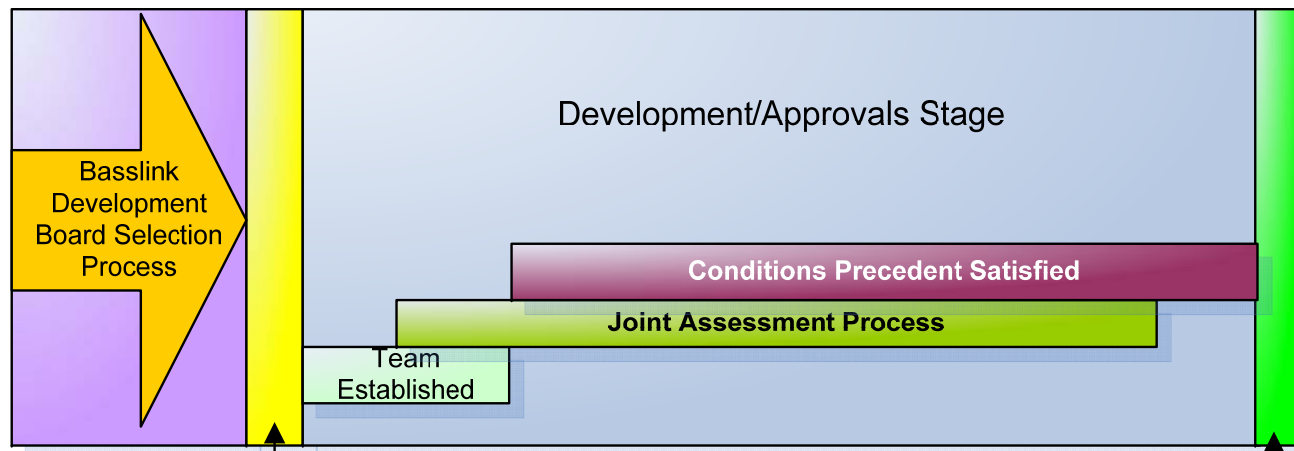
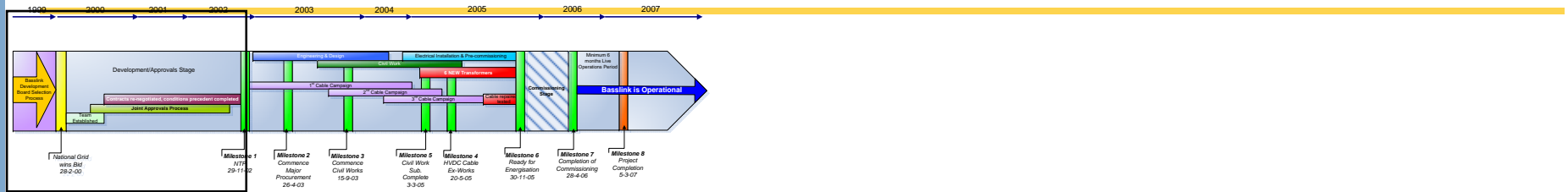


Basslink HVDC Interconnector

The Journey from Project to Operations



History – Development & Approvals



National Grid
wins Bid
28-2-00

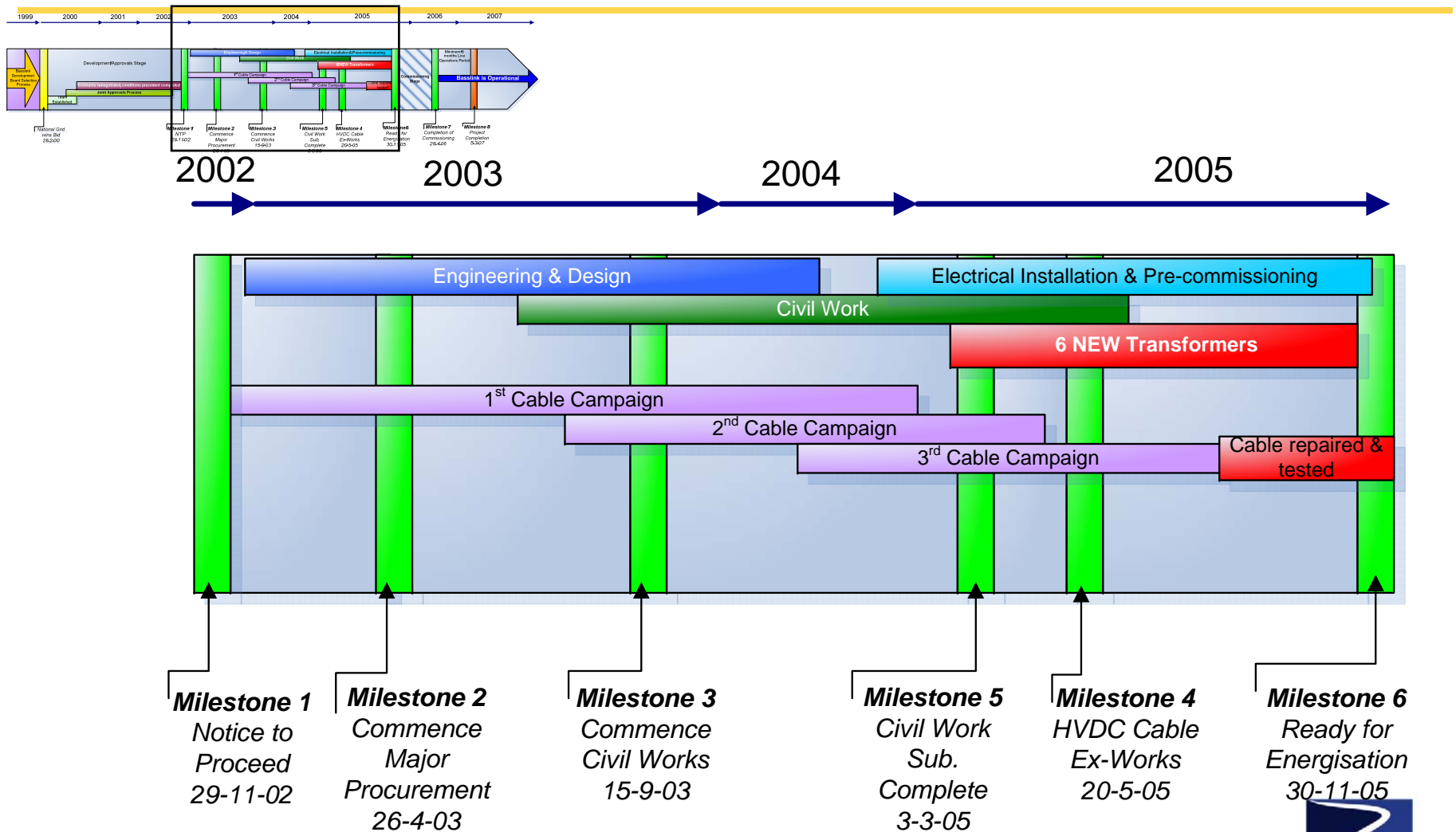
Milestone 1
NTP
29-11-02



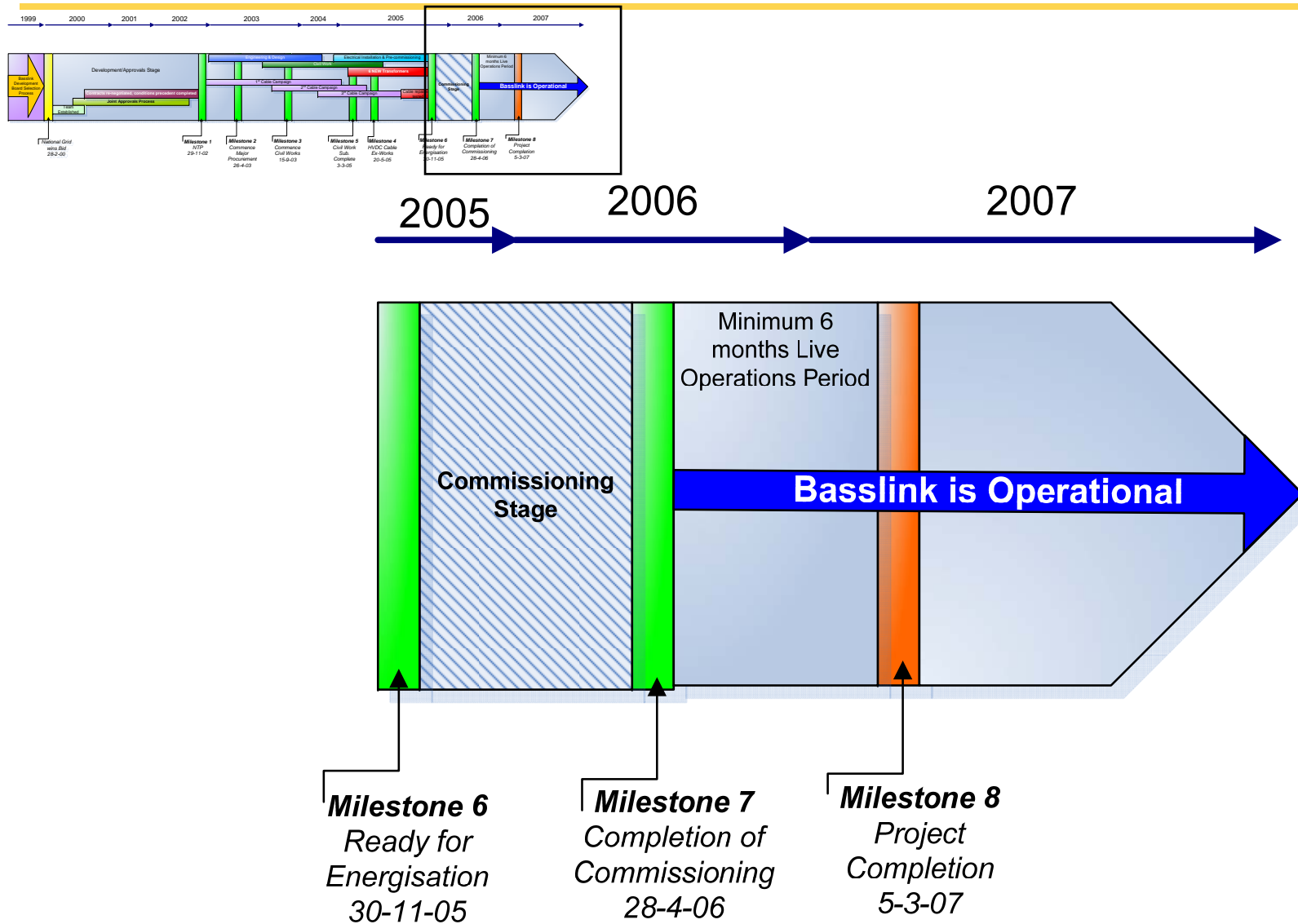
Construction Contract

- ◆ Employers Obligations (**Basslink**)
 - ◆ Obtain government approvals
 - ◆ Procure freehold land and easements
 - ◆ Place construction insurance
- ◆ Contractors Obligations (**Siemens, Prysmian**)
 - ◆ Obtain all design data including surveys
 - ◆ Entire design and design documentation
 - ◆ Provision of all supplies and services for the works
 - ◆ All construction works including access works
 - ◆ Impacts on existing infrastructure (such as diversion of distribution lines)
 - ◆ Reporting
 - ◆ Records and operating manuals
 - ◆ Training
 - ◆ Site Safety
 - ◆ Site security
 - ◆ Care of the works
 - ◆ Compliance with applicable laws

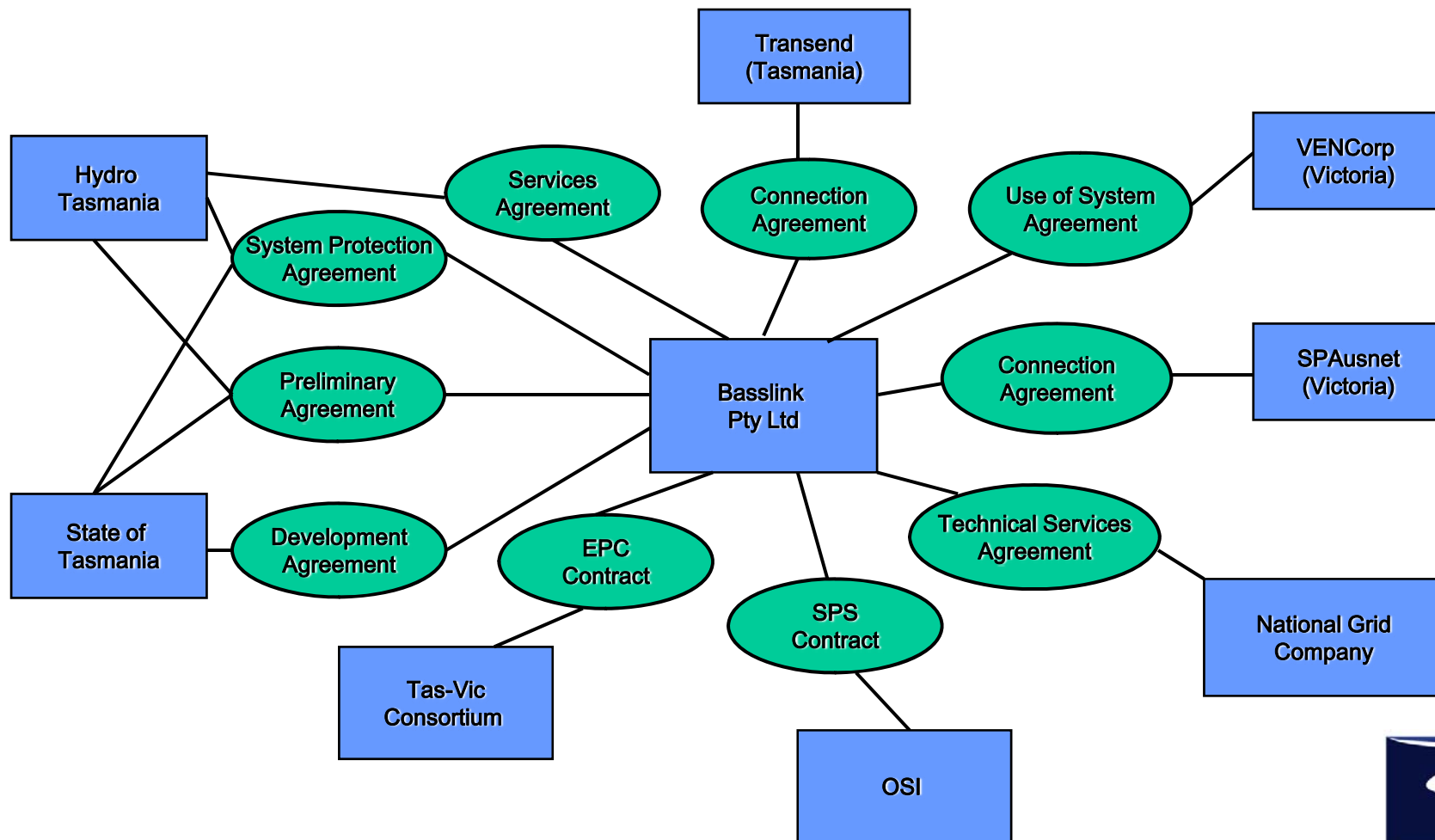
History - Construction



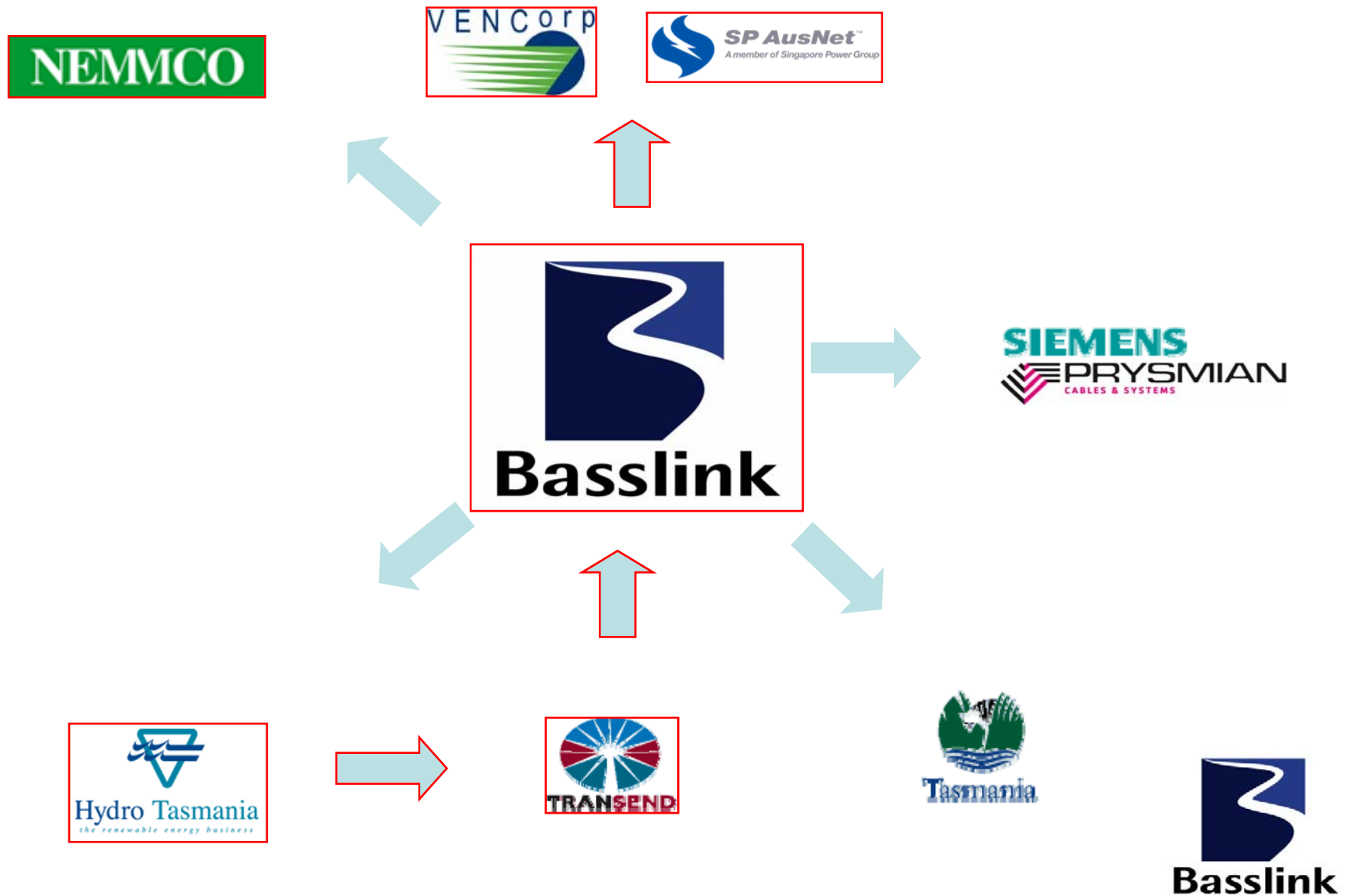
History – Commissioning & Beyond



Principal Project Agreements



Primary Operational Relationships



National Electricity Market

Very Brief Summary

- ◆ Generators submit price bids
- ◆ Bids enter bid stack from lowest to highest
- ◆ NEMMCO balances supply and demand
- ◆ Generators are paid the highest bid price to match supply and demand
- ◆ NEMMCO dispatch power targets to generators
- ◆ The Basslink Interconnector is dispatched a power target the same as a generator



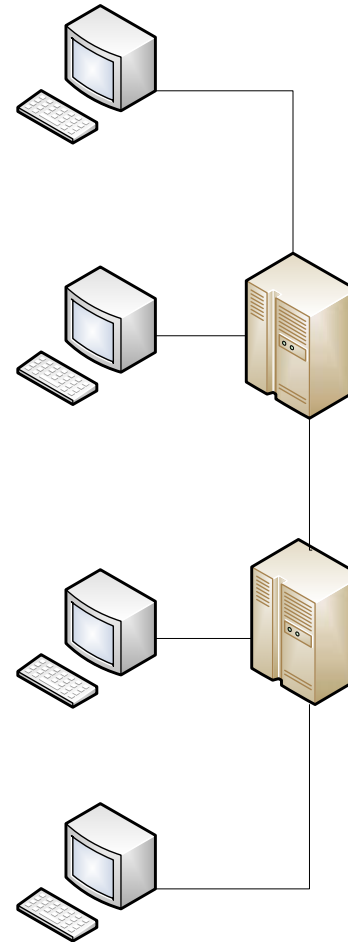
Basslink Operations

SP-AUSnet Control Room
24/7 Operation

Basslink Loy Yang Converter
3 Site Personnel
On Call 24/7

Basslink George Town Converter
3 Site Personnel
On Call 24/7

Siemens 3rd Line Support
On Call 24/7



HVDC Project Suggestions

1. Clearly Define Operational Requirements
 1. Decide on operations structure
 2. Specify training requirements
 3. Train operations personnel prior to commissioning
2. Clearly define HVDC functional specifications
 1. Continuous rating
 2. Interface to AC systems
 3. Frequency control?
 4. Reduced voltage starting?
3. Request demonstration of all supplied special tools