



Project Mill Creek

NZWEA Conference - Construction Update

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Senior Project Manager

16 April 2014





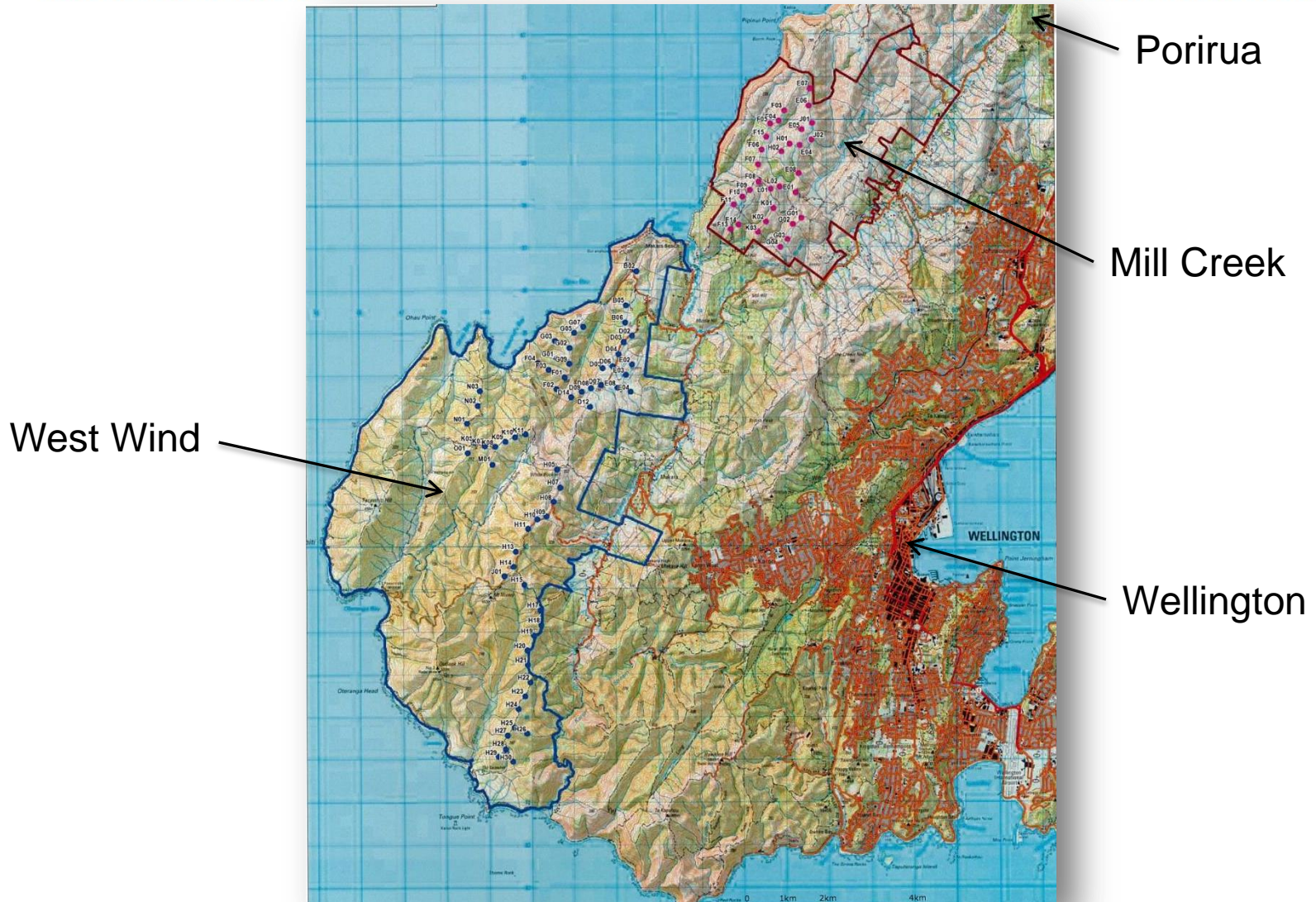
Presentation topics

- Project Location
- Project Specification
- Key Consultants and Contractors
- Challenges – status
- Project Status
- Questions



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Project Location



Project Site



Core Site



Ohariu Valley Rd

Spicer Forest

Spicer Landfill



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Project Specification

- 26 Siemens 2.3MW WTG
- Total output 60MW
- 30,000 average homes
- Capacity Factor approx 45%
- Project Cost \$170M

- 5km of external roading
- 18km core site roading
- 800,000m³ earthworks
- 6km of 33kv transmission line
- 36km 33kv cabling
- 1200 people inducted
- 300,000 man hours worked



Key Consultants and Contractors



Consultants:

- BBO/Tonkin & Taylor and Opus - Civil Design/Geotech
- Beca - Transmission line design
- Mittons - EBoP design
- Boffa & Tonkin & Taylor - Aquatic monitoring

Contractors/ subcontractors:

- Turbine supply - Siemens – Tranzcarr/Smith Cranes/ ISS
- Transmission Line - Electrix
- EBoP - Transfield Services
- Cables – Olex
- Civil - Higgins – Goodmans/Blackleys/Brian Perry
- Forestry - Goodmans

Challenges – Forestry - Spicer Forest



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Before

After



During





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Challenges - Ohariu Valley Road



BEFORE

AFTER





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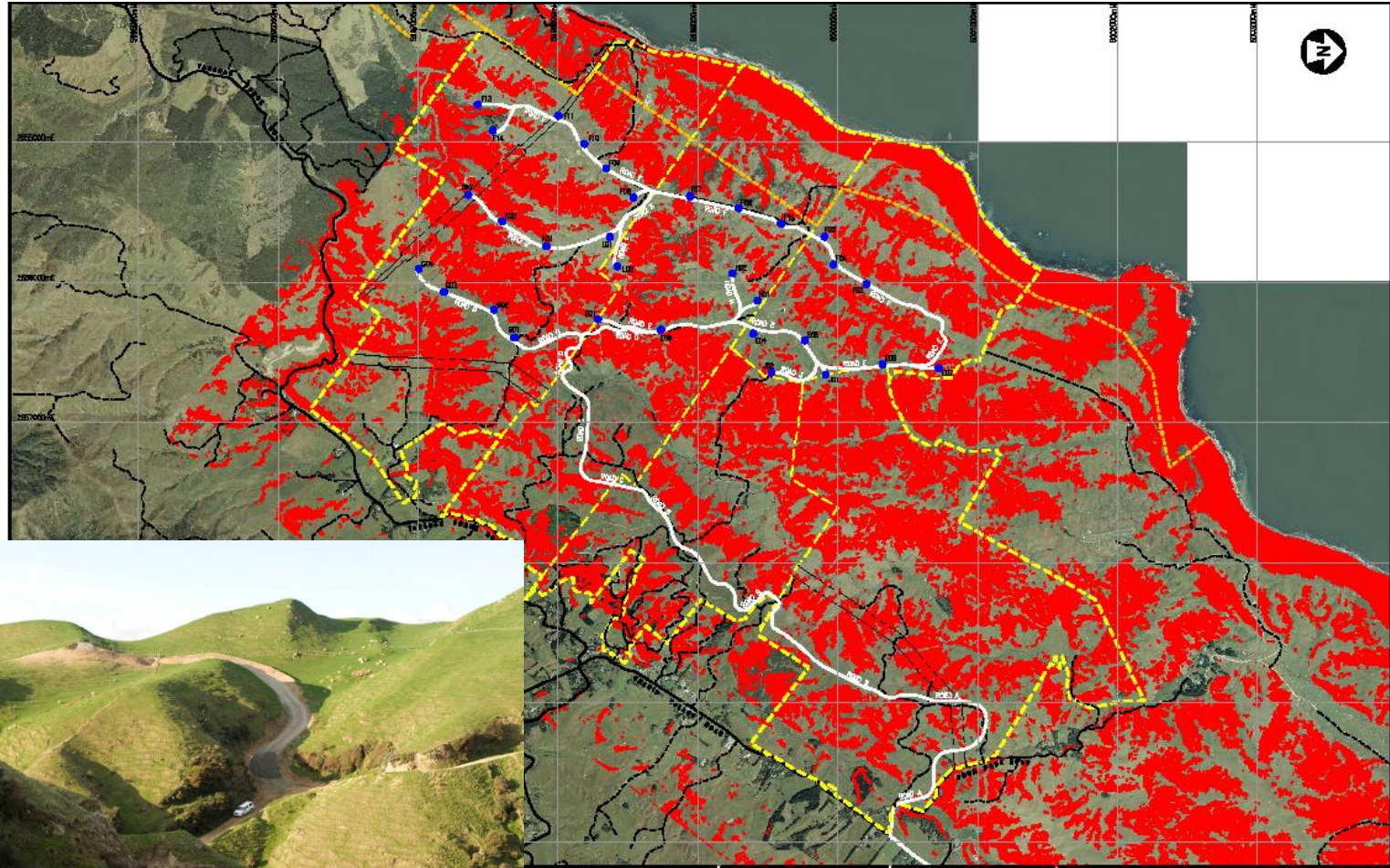
Ohariu Valley Road – in use



Challenges - Core Site topography



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Source Opus

Civil Works



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Foundations



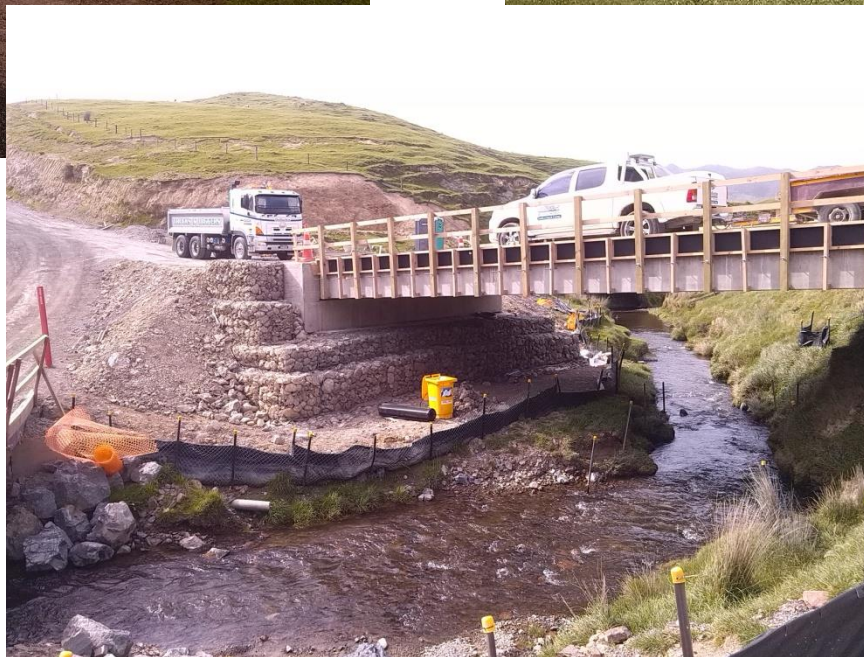
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Civil works - other



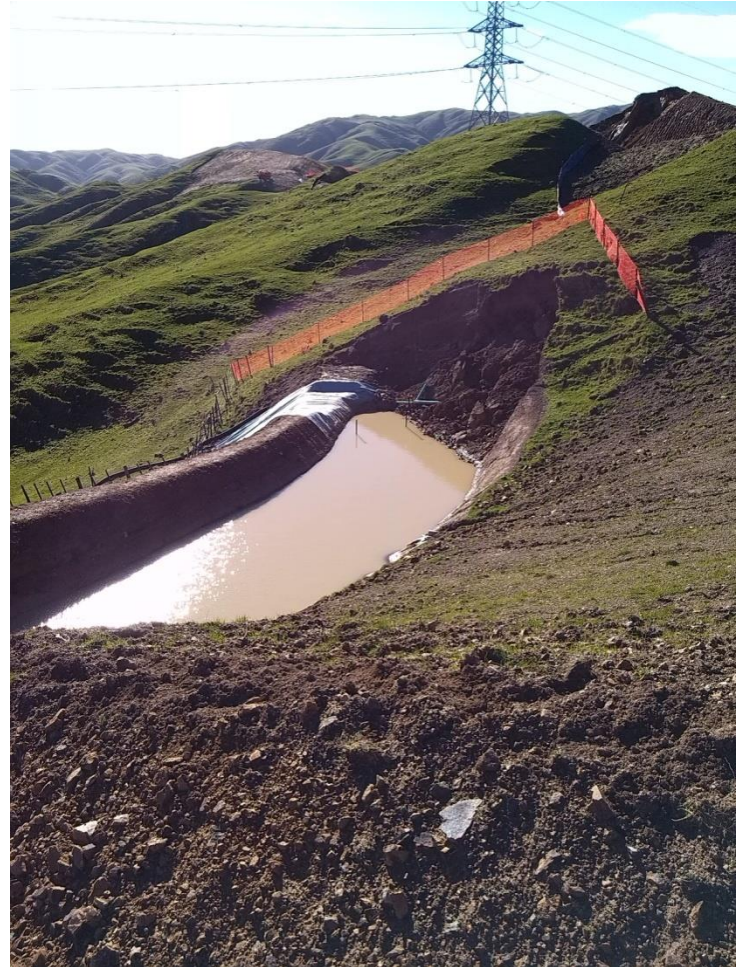
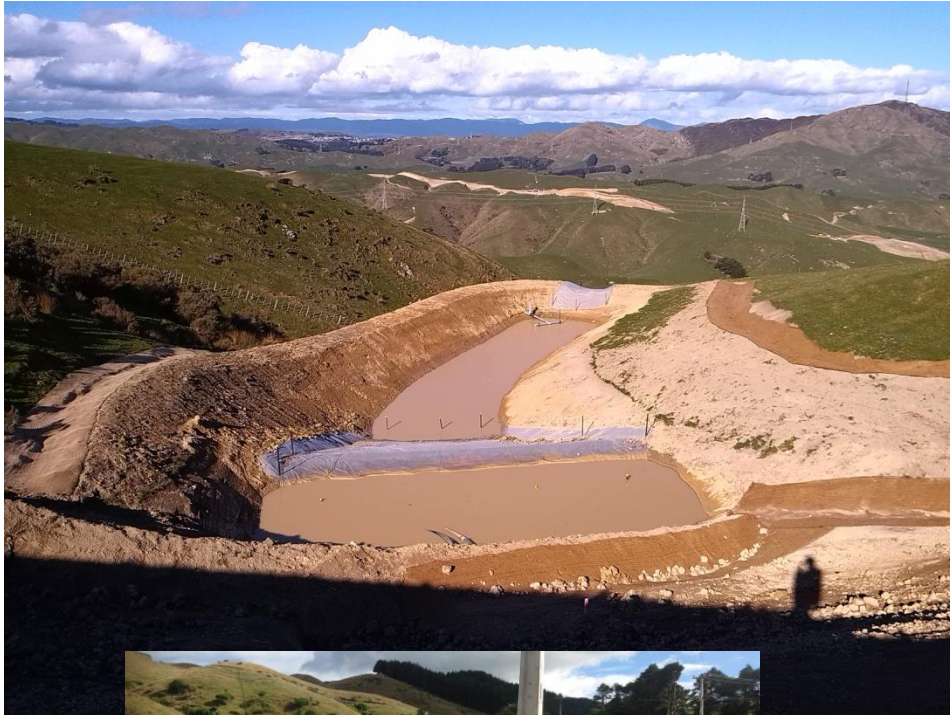
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Challenges - Environmental



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Transmission Line



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Switching Station



Oceanfreight

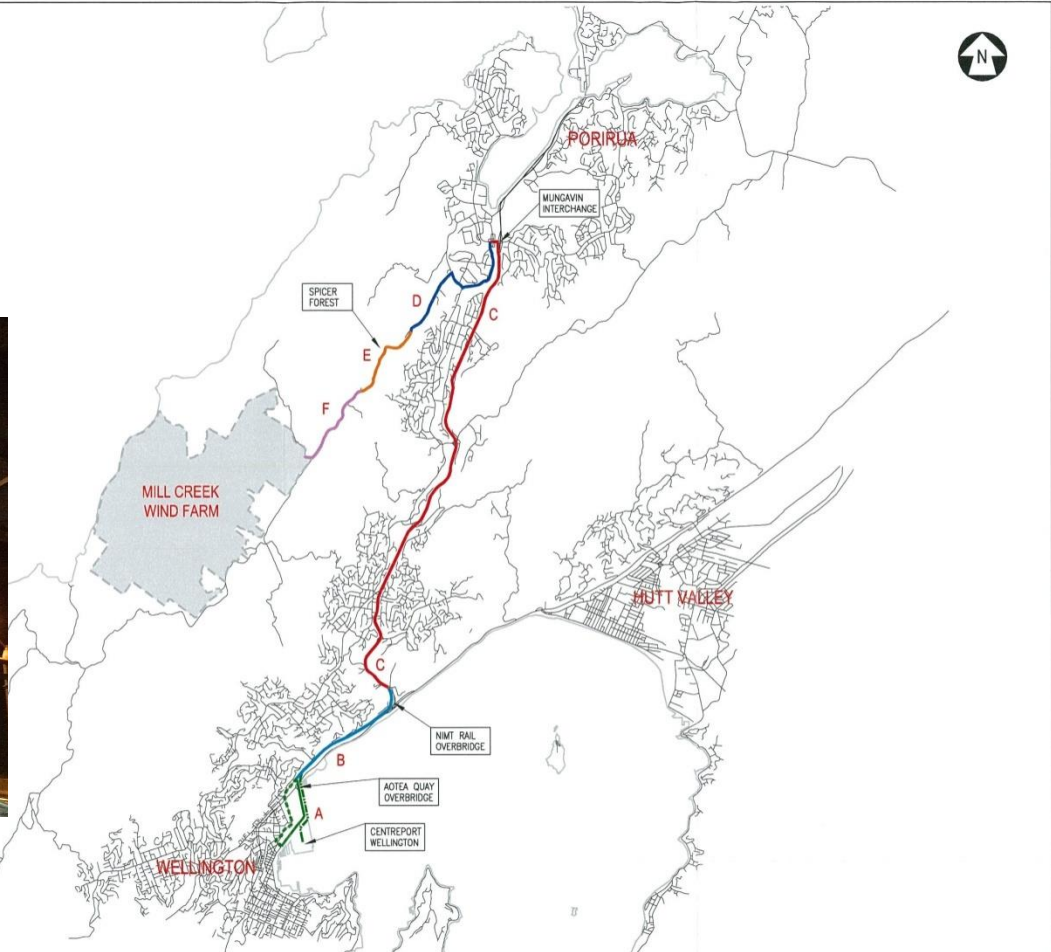
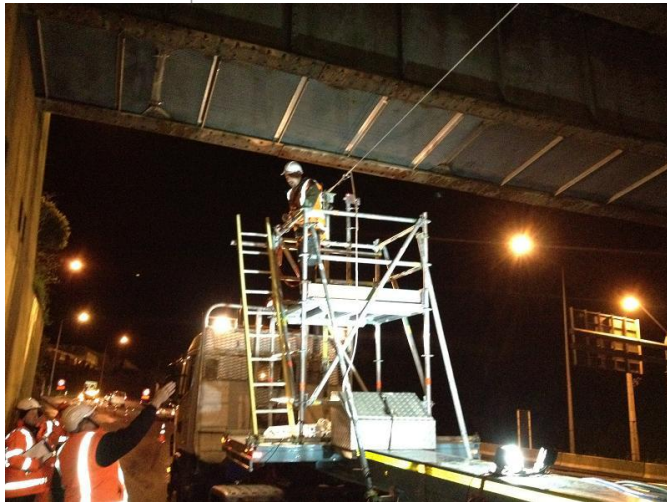


Challenges – Over dimensional Transport Route



TRAFFIC IMPACT ASSESSMENT STUDY 2007

KEY:	ROAD SECTION
A	PORT TO HUTT ROAD (WCC)
B	HUTT ROAD TO CENTENNIAL HIGHWAY (WCC)
C	CENTENNIAL HIGHWAY TO MUNGAVIN INTERCHANGE (TRANSIT)
D	MUNGAVIN INTERCHANGE TO SPICER LANDFILL (PCC)
E	SPICER FOREST (WCC)
F	OHARU VALLEY ROAD TO BOOM ROCK ROAD (WCC)



Document Name LOCALITY PLAN PROPOSED ROUTE TO WIND FARM LOCATION		Subject Matter MERIDIAN ENERGY LIMITED MILL CREEK WIND FARM TRAFFIC IMPACT ASSESSMENT (TIA)	
Client Name MERIDIAN ENERGY LIMITED		Commissioned By	Project ID 5C1267.00
		Drawn By	Sequence Number FIGURE 1

Logistics



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Turbines



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Health and Safety

- Safe site (to date)
- Focus on:
 - Increased incident reporting
 - No Blame culture
 - Internal and external audits
- Dedicated HS Advisor, support from Corporate

Status Report



Key Dates	Milestone/ Activity
May 2012	Board decision.
Jul 2012	Spicer Forest tree harvesting works commences Complete
Sep 2012	Site mobilisation (project and civil). Civil works (Spicer Forest) commences Complete
Oct 2012 to Mar 2013	Ohariu Valley Road upgrade Complete
April 2013 to Mar 2014	Core Site civil Complete
April 2013 to Mar 2014	33kV transmission line Complete
July 2013 to April 2014	EBoP construction Complete
Mar to June 2014	Turbine component deliveries to site ongoing
Apr to Jul 2014	Turbine installation ongoing
May 2014	First turbines commissioned on track
Aug 2014	Turbine commissioning complete on track
Dec 2014	Construction complete/ Handover to Operations



Questions??

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