Recent geothermal activities – NZGW 2014
• Merging of two world-class professional services firms
• Both companies have strong brand recognition in their respective industries in the global market place. Therefore for the foreseeable future we will each **continue to operate with our existing brands**.
• For our clients in the geothermal space it is business as usual, with a continuing focus on **technical excellence and client service**.
WSP / Parsons Brinckerhoff globally

31,500
Employees

500
Offices

39
Countries
Our geothermal services

Geothermal capabilities
- Prefeasibility studies
- Environmental and consenting
- Lender’s Advisor
- Owner’s Engineer (EPCM)
- Conceptual and detailed design
- Construction supervision
- Operation and maintenance trouble-shooting
- Evaluation of key power plant components
- Power plant modelling & optimisation

Other power capabilities
- Regulatory analysis
- Asset valuation/revaluation
- Tariff analysis
- Due Diligence for acquisitions
- Condition assessment
- Model development, forecasting and risk analysis
- QA Services & inspection
- Asset management and performance analysis
- Strategic planning and advisory services
Recent Projects - New Zealand

• **Contact Energy**
  - Te Mihi 2 x 83 MW EPC implementation
  - Officially opened 14th August 2014

  First 3-flow geothermal turbine in the world (3 exhausts into condenser) significantly lowering turbine exit losses

  Cost: $623 million
  Generation: 166 megawatts, enough to power about 160,000 homes

  Peak workforce: About 500 people

  Local spending: $60 million

  Construction started: February 2011

Recent Projects - New Zealand

- Mighty River Power
  - Rotokawa Steam Purity Improvements
    - Process calculations
    - Preliminary layout and piping design
    - MTOs and technical specifications
    - Input to business case preparation

- Geothermal Standard Specifications
  - Providing standard library of specifications, lists, datasheets

- Valve Manufacturer QA/QS Inspection Services
  - Quality Services team for factory inspections and QA/QS review (ISO 9000, ASME, ISO 14000).
Recent Projects - New Zealand

- Ngawha Generation Ltd (Top Energy)
  - Independent Review / Risk Assessment of Ngawha Power Stations
Recent Projects - Philippines

**First Gen / Energy Development Corporation (EDC)**

- Nasulo 49 MW geothermal power plant
  - Power plant relocated from Northern Negros to Nasulo in the Southeast
  - Owner’s engineer and provided team for Commissioning assistance
  - Started operation April 2014
Recent Projects - Philippines
Recent Projects - Philippines
Recent Projects - Philippines

- First Gen / Energy Development Corporation (EDC)
  - FEED for New Northern Negros power plant
    - Identify 5 – 10 MW technology options
    - Optimise integration with existing site
    - Prepare specifications
Recent Projects - Indonesia

- PT BBSI
  - Karaha Bodas 30 MW FEED / bid engineering
- Wayang Windu Equity DD
Recent Projects - Indonesia

- PGE (PT Pertamina Geothermal Energy)
  - Geothermal Training (Bandung, Indonesia)
  - Conducted advanced training modules as part of ongoing PGE training program
  - In partnership with Auckland Uniservices
Looking Ahead

- NZ – O&M, optimisation and Asset Management
- Indonesia
- Philippines
- East Africa – Rift Valley
Thank you

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