



East Harbour Management Services

Geothermal Energy

East Harbour undertakes commercial and strategic projects for a range of energy companies.

East Harbour's team has considerable technical and commercial geothermal capability, based on practical experience, that they can bring to your projects. Focus areas with respect to geothermal projects include:

- Strategic advice and support
- Resource and market assessments and advice
- Feasibility studies and business case development
- Project management covering all stages of geothermal energy projects: investigation, feasibility and development
- Equipment and system selection, solution optimisation and specification definition
- Commercial project assessment including technical and financial modelling
- Electricity connection and commercial off-take arrangements
- Commercialisation of projects including assistance in securing partners and funding

Some recent geothermal projects

East Harbour has seconded Brian White into the role of Executive Officer of the New Zealand Geothermal Association (NZGA). This followed reform of the Association onto more commercial lines to take a more active role in the New Zealand energy scene.

East Harbour staff have worked with Castalia economic consultants in reviewing the technical, commercial, and regulatory aspects of geothermal and coal power station developments across a wide range of resources in Indonesia as part of a World Bank project. The project included the development of geothermal supply curves for the various networks in Indonesia. This project assisted the World Bank in identifying mechanisms to accelerate the uptake of geothermal energy to reduce carbon emissions, and further work in this area is pending.

East Harbour has undertaken a range of broad regional energy assessments within New Zealand, including consideration of geothermal options, and is working on feasibility studies for smaller scale distributed geothermal developments. A report was recently completed looking at the distributed energy opportunities (heat and electricity) for geothermal energy in New Zealand.

Brian White recently completed an assignment in Australia, assisting in the development of programme for a geothermal development company focussed on enhanced geothermal projects. He has also been involved in due diligence of major geothermal plants in the Philippines in association with PB Power and an overseas client.

East Harbour has worked extensively with government departments in developing technical databases and policy inputs related to renewable energy uptake, including geothermal and both heat and electricity options. This has included papers published by:

- The Energy Efficiency & Conservation Authority (EECA) in co-operation with the NZ Geothermal Association on the direct use of geothermal energy and more recently for EECA looking at possible renewables targets for which the geothermal direct use targets report was written in co-operation with GNS Science.
- The Ministry of Economic Development on broad renewable energy resources (including geothermal energy).

The company has taken a strong advocacy position on the potential of geothermal for both electricity generation and heat supply.

These projects build on the experience of key staff members including Brian White and Darrell Chin who have extensive experience in the investigation, design, operation and management of geothermal power and heat projects in New Zealand, Indonesia and the Philippines. This experience covers both generation and steam-field aspects of geothermal plant and covers all required disciplines. This has enabled due diligence with broad technical and commercial focus.

Staff

Key East Harbour staff with a geothermal focus include:

Mike Suggate, Director:

Mike has more than 30-years experience, predominantly in the energy sector. This experience includes engineering and management positions in electricity generation, distribution and retailing businesses and a period as engineering manager for an oil company. Mike also has wide experience in manufacturing and distribution businesses and prior to joining East Harbour and was general manger of a start up energy business focussed on the provision of heat and electricity services from ownership and operation of on-site energy plant operating on renewable and fossil fuels. This experience includes work on both large and small scale geothermal projects and ensures a practical basis for strategic, commercial and project management work carried out.

Brian White, Commercial Development Manager

Brian has 20 years' experience in the management and implementation of technical projects. This experience has ranged from geothermal feasibility studies, field investigation reports, well siting and measurements, consenting, design, construction, operations and maintenance, energy audits, contractual reviews, and due diligence exercises on a range of technical plant through to management roles. His specialised experience in geothermal energy and energy markets has enabled him to provide strategic advice to potential investors and to Government. Brian is currently Executive Officer of the New Zealand Geothermal Association.

Brian Cox, Director

Brian has 30 years' experience in large infrastructure projects (roading, large industrial, petrochemical) and over 16 years' experience in the energy industry. He has had extensive senior management experience particularly in strategic advice and development groups. His primary role has been the management of investigations to evaluate the technical, environmental and economic viability of new business opportunities and, where appropriate, following them through to subsequent phases of development. He has managed the commercial development of a number of industrial energy facility projects.

East Harbour's full range of services

East Harbour and its staff have worked across a range of disciplines and industries with the areas in which the business works including:

- Commercial strategy and investment planning
- Due diligence

- Energy advice, monitoring, management, auditing and advisory services
- Renewable energy project development, e.g. wind, biomass, bio-gas, geothermal
- Technical and commercial assessment of fuel crop options and applications
- Optimisation studies
- Project evaluation (technical, environmental, and commercial)
- Energy billing and network charges
- Database and information systems
- Project management
- Business planning and implementation
- Energy price and supply forecasting
- Commercial electricity supply, pricing and network charges
- Commercial project facilitation including assistance with partnering and project financing
- Policy and strategic advice (corporate, local, and national government)
- Executive and project manager leasing
- Resource consent advice and planning

Please contact us for further information or with any enquiries that you may have.

Email:	eastharb@eastharb.co.nz
Web:	www.eastharb.co.nz
Address:	Level 8, CMC Building 89 Courtenay Place Te Aro, Wellington 6011
Phone:	0-4-385 3398
Fax:	0-4-385 3397