



GHD Energy & Resources

WATER | ENERGY & RESOURCES | ENVIRONMENT | PROPERTY & BUILDINGS | TRANSPORTATION

“Securing efficient energy supplies at a reasonable price and optimizing production processes are the imperatives driving development in the energy and resources sector. We deliver solutions that boost efficiency, drive sustainability and improve competitiveness.”

Mark Read - Market Leader - Enerhy & Resources, Australia



Around the world, the energy & resources sectors enhance economic development and social progress. Issues such as increasing demand for resources and energy, production optimization, energy efficiency and sustainable development are shaping the future. At GHD, we are committed to helping you satisfy the goals of multiple stakeholders, while balancing economic, social and sustainable demands.

Who we are

With considerable experience in delivering landmark energy and resources projects around the world, GHD offers a broad range of services to meet your needs. Whether you seek to explore the feasibility of your project, improve performance, expand your existing operations or develop new greenfield operations - GHD has the answers.

Project delivery

We have a track record and proven suite of systems to deliver major projects. We're experienced in a range of project delivery methods including EPCM, PMC, D&C and EPC. We recognize the need for flexibility and work collaboratively in partnerships, joint ventures and other teaming approaches to enable successful project outcomes.

Capability

Mining

- Exploration and assessment
- Feasibility studies

- Mine planning and design (underground and open cut)
- Mine support infrastructure including ports, rail, power, water, accommodation, roads and aviation
- Project delivery and commissioning
- Operations support, mine expansion and upgrades
- Mine closure and rehabilitation
- Environmental assessments and approvals

Oil & Gas

- Oil, gas and petrochemicals
- Production, processing, refining and delivery
- AGIs, pump and compressor stations
- CSG, GTL, CTL and LNG
- Integrated pipeline systems (onshore and offshore)

Power

- Strategic engineering advice
- Thermal generation - coal, gas, oil, gasification
- Renewable energy - hydro, wind, solar, biomass, geothermal
- Option and feasibility studies - modeling, estimates, evaluation
- Project implementation - management, procurement, design
- Transmission and distribution network engineering - planning, modeling, procurement, design
- Major industrial applications - cogeneration, electrical distribution, efficiency
- Operations and maintenance, audits, rebuilds, asset management services
- Owner and Independent Engineer role

Our approach

Safety

Nothing is more important than safety. That's why at GHD we not only have an outstanding track record and awards for our safety systems, but we are continuously pursuing innovative and better ways to make our people, clients and communities safer.

Client focus

Our mission is to be recognized by our clients as safety conscious, trustworthy, reliable, technically competent, easy to work with and delivering measurable value. We work hard at listening and understanding our clients business and what it is that they are wanting to achieve.

Our performance in the eyes of our clients and their expectations are evaluated on every project to enable us to measure the level of client satisfaction and to assist us with continuous improvement.

Track record

We have been in business for more than 80 years. Whether you are a developer looking to establish a new facility, an existing asset owner, a network company or major industrial customer, we can offer an extensive breadth of knowledge, depth of experience and the right mix of people to put you on the path to project success. As a professional services company, our reputation is paramount - we are proud of our track record.

Global, yet local

With more than 6500 professionals in 100 offices across five continents, we're likely to have a presence in close proximity to your operations or may have previously undertaken project activity in the region. Combine this with our ability to access our people and knowledge from anywhere globally using standardized and proven systems and our clients truly enjoy access to our One GHD network.

Sustainability

We view sustainability as a way of managing the regulatory requirements and stakeholder expectations that impact on construction and operation of your mine. We're known for our pragmatic approach. We build sustainability assessment criteria into each stage of the decision-making process to demonstrate a consistent understanding of the relevant environmental impacts, climate change impacts, and biodiversity and cultural issues associated with your project.

Where we've done it well

Southdown Joint Venture (SDJV) Magnetite Project

As part of a Joint Venture, GHD was engaged by Grange Resources and Sojitz Corporation on behalf of the Southdown Joint Venture (SDJV) to undertake a pre-feasibility study for the Southdown Magnetite Project. The Southdown Joint Venture set a very demanding timeframe to study and deliver a high quality prefeasibility report. The study needed to be completed in less than 6 months to an accuracy of +/- 20%. All aspects of the project were to be covered to develop a robust solution using proven technology where possible.

QCLNG Export Pipeline, Australia

As owner's engineer for QGC Pty Limited on the QCLNG export pipeline, GHD is helping ensure the pipeline transporting Coal Seam Gas (CSG) has been designed in accordance with Australian standards and regulatory requirements. Our team is supporting QGC in all phases of pipeline engineering including technical support to review documentation for pipeline, process, mechanical, civil, safety, environmental, instrument and electrical engineering. The export pipeline is a critical part of the project infrastructure that will enable QGC to efficiently transport the CSG at high pressure from the gas fields to the Liquefied Natural Gas (LNG) production facility on Curtis Island, near Gladstone

Taysan Copper Mine, The Philippines

GHD has examined the feasibility of providing power to the proposed mine in Taysan, 68 miles south of Manila. When developed, the mine will treat 30 Mt/y of copper concentrate as well as some gold, silver and magnetite. GHD was engaged to provide advice for a cost-effective solution to meet forecasted electrical energy loads for both the mine and the port facility. The type of fuel and form of generation is also being considered with choices including shipped coal, oil, diesel or LNG from nearby major oil and gas terminals.



Recent projects

Mining

- Washpool Coal Project Definitive Feasibility Study, Australia
- MCC Cape Lambert Feasibility Study, Australia
- Shenhua Watermark Coal Exploration Study, Australia
- Southdown Joint Venture Feasibility Study, Australia
- Hawsons Magnetite Iron Ore Pre Feasibility Study, Australia
- Boggabri Coal Mine Feasibility Study, Australia

Power

- Power and Water Corporation Expansion, Australia
- Taysan Copper Mine Feasibility Study, Philippines
- Verve Energy High Efficiency Gas Turbine, Australia
- Sino Iron Project Power Transmission, Australia

Oil & Gas

- Santos GNLG Upstream, Australia
- Jemena Gas Pipeline, Australia
- QCLNG Export Pipeline, Australia
- Gorgon Joint Venture Pipeline Receiving Facility, Australia
- Rubicon Front Puffin FPSO Process Review, Australia



About GHD

GHD is one of the world's leading professional services companies operating in the global markets of water, energy and resources, environment, property and buildings, and transportation. We provide engineering, architecture, environmental and construction services to private and public sector clients.

Established in 1928 and privately owned by our people, GHD operates across five continents – Asia, Australia, Europe, North and South America. We employ more than 8500 people in 200+ offices to deliver projects with high standards of safety, quality and ethics across the entire asset value chain. Driven by a client-service led culture, we connect the knowledge, skill and experience of our people with innovative practices, technical capabilities and robust systems to create lasting community benefits.

Committed to sustainable development, GHD improves the physical, natural and social environments of the many communities in which we operate. We are guided by a Practice Quality Management System, ISO 9001:2008 and an Environmental Management System, ISO 14001:2004 which are certified by Lloyds Register Quality Assurance.

In alignment with the global demands of water, energy and urbanisation, our aim is to exceed the expectations of our clients and contribute to their success.

For more information, visit www.ghd.com

