



## **Strategis Partners — Advisers to Energy & Resource Companies**

*Our methods are a powerful weapon in your quest to  
get more value out of your energy and resource assets*

## Managing strategic risks has never been more important for energy and resources companies

Ask yourself: is the pace of change in your industry accelerating, and is your organisation well-prepared for the big challenges ahead? Customers demand more volume, quality and capacity at lower prices. Regulators demand that production generates far less emissions. Investors want steady profit growth but are also insisting on long-term sustainability. Communities want stability in jobs, but the global competitive landscape is more volatile and treacherous. All companies struggle to reconcile these tensions. And now the recognition of climate change may be affecting your competitive position in ways you might not realize.

Let us help you:

### Prepare for a Volatile World

How companies respond to the big uncertain issues of our time – global economic shifts, volatile energy and commodity prices, new technologies, climate change and emissions reduction – can benefit from scenario and real option thinking. Successful resource companies will be those that use scenario-based approaches to strategic planning, and have a portfolio of real options – projects focused on avoiding the downside risks, along with those which embrace growth opportunities.

### Improve capital returns

In today's competitive environment, success will flow from efficient utilisation of capital assets. How can you make your enterprise and your commodity supply chain more efficient, yet more flexible?

### Build Real Options for growth

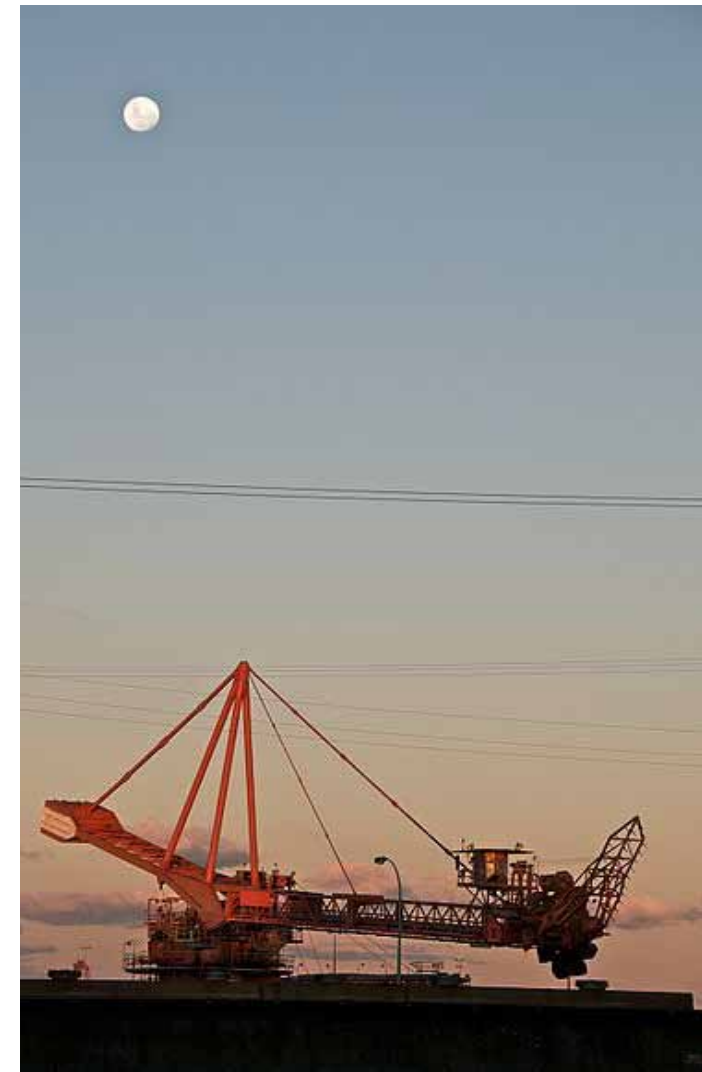
There are some fundamental forces shaping energy and resources. Global demand is growing and becoming more diversified. How can your company create new options for tomorrow's growth in new markets and regions? Real option analysis takes into account both flexibility and forward market prices when valuing assets. It also integrates the processes of formulating strategy and valuing assets.

### Respond to customer trends

For customers of energy and minerals, sustainability is more important than ever. What do changing customer preferences mean for your company? How should you respond to increased focus on supply security and environmental sustainability?

### Our Team

Strategis Partners is a team of advisers working with clients in Australia and Asia to solve their toughest and most urgent problems – delivering higher returns through better investment decisions, faster business growth, and superior customer value propositions.



Coal loader - Port Waratah, Newcastle, NSW. Source: posted to Flickr as Moon & Machine. Author: Nomad Tales, 6 June 2009.



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## Case Studies

### Scenario Planning at Oil & Gas Company, P.T. Medco Energi, Indonesia

Developing organisational and management skills in strategic scenario planning

In MedcoEnergi's quest to secure its long-term growth, the ability to anticipate the unexpected and develop responses is not just an optional add-on to planning practice. It is potentially the most critical factor for success in the fast-changing oil and gas industry in South East Asia.

Scenario planning was selected by Medco Energi as a key planning framework for making decisions now—but with the medium and long-term risks and opportunities in mind.

Strategis Partners was selected as MedcoEnergi's alliance partner to build organisational and management skills in strategic scenario planning.

A key aim of the Scenario Program is to prepare Medco Energi's executives and managers for the very big opportunities that lie ahead in a world that needs more oil and gas. The Program aims to develop managers' conceptual abilities: long-term strategic thinking, flexibility and innovative ideas. Increasingly, they will be called upon to lead and support a diversity of new energy initiatives.



### Scenarios for Australia's Stationary Energy Sector to 2030

Setting overall strategic direction involves long-term scenario planning under uncertainty for the Australian Energy Market Operator

Australia's stationary energy sector is currently facing the challenge of planning long-term investments in an environment of change and uncertainty. A transition towards a low carbon intensive economy implies that the future landscape for the stationary energy sector may be quite different from the past.

Strategis Partners teamed with energy economic experts MMA (now part of SKM Strategic Consulting) to develop five plausible scenarios on the future of Australia's electricity sector to 2030 for the Australian Energy Market Operator. Scenarios were based on three major drivers of change:

Long term energy and peak demand growth, driven by economic growth and population growth;

Centralised supply-side response to global and domestic carbon policies; and

Decentralised supply-side and demand-side responses to global and domestic carbon policies.



## Case Studies

### Lifting performance of the Hunter Valley Coal Chain

Management needed a fact-based analysis for solving complex logistics

The Hunter Valley Coal Chain is a 100 million tonnes a year operation with over twenty coal load points across the region supplying the sea-borne export coal trade to Asia. It is a complex, closely coupled set of processes where system bottlenecks and unplanned changes have wide-reaching repercussions.

In 2000, the Managing Director of Strategis Partners was asked to lead a team of operations analysts to provide an independent and objective assessment of the constraints in the Hunter Valley Coal Chain (from mine to shiploading); and to identify short term and long term solutions to maximise throughput in the Chain. Maximising throughput in a multi-mine Coal Chain faced a range of challenges. And lifting the return on investment of all operators in the Coal Chain requires an integrated and collaborative approach. Fact-based analysis of the logistics operations uncovered an interrelated set of problems.

The recommended solution was:

An integrated Coal Chain teaming approach involving better end-to-end coordination

Improved information and communications up and down the supply chain,

System-wide planning and scheduling, and integrated rail track and port infrastructure maintenance.

Full implementation of the Action Plan delivered major benefits for all stakeholders. From 2000 to 2010 coal output increased from 68 to 100 million tonnes per year. For Coal customers this means increased confidence in the Hunter Valley as a reliable source of quality coal. For coal exporters this means reduced demurrage and increase returns on assets. For rail freight companies, this means higher volumes and higher returns; and for the port operator, satisfied customers.



## Case Studies

### Real Options and Risk Analysis for New Energy Investments

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#### Valuing opportunity and flexibility in energy and mining investments

Our client—a major Australian electricity generator—was faced with major uncertainty over a proposed Combined Cycle Gas Turbine (CCGT) investment. Management believed CCGT opportunity had merit. It was consistent with their strategy to move towards “greener” energy.

The initial DCF analysis covered a range of scenarios, covering a large range of potential financial outcomes both positive and negative. However the analysis did not reveal a single clear story, nor capture all the relevant issues. It left unresolved what was the right investment decision.

Our “real options” analysis was able to uncover the value-maximising strategy, taking risk and uncertainty into account. Real options take into account both flexibility and forward market prices when valuing assets. It also integrates the processes of formulating strategy and valuing assets.

Key risks and opportunities across many market scenarios were identified, and the optimal decisions to maximise the value of the opportunity were uncovered using a structured approach.

The insights from this analysis were:

Be willing to pay for flexibility in designing and building assets

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De-construct your capital project into stages and identify the real options at each stage

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Don't give away real options; they may be valuable.

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For our clients real options have realised a wide range of economic benefits: better decisions on capacity expansions; more accurate pricing of assets in competitive auctions; all-inclusive cost-benefit analysis of vertical integration; and full value recognition of market entry decisions.





## Helping companies chart their best course

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### Selected Client Engagements

- Scenario planning for long-term energy and mineral resource development and export markets
- Real option valuation of capital & technology investments
- Review of I.T. and physical asset maintenance outsourcing programs for Energy utilities
- Review of a regional Coal Supply Chain, to identify the capacity constraints and opportunities for increasing throughput
- Long term capital investment program for supply chain operations in Indonesia.
- Supply chain optimisation in base metals, coal, LPG, and natural gas
- Development of a contracting strategy for a renewable energy producer
- Scenario planning for new energy product development
- Monte Carlo risk analysis of major mining capital projects
- Competitive bid risk assessment for contract mining
- Innovation strategy for global mining corporation's IT operations
- Design of enterprise-wide performance measurement systems
- Strategic review of physical asset management and maintenance policies
- Real option valuation of energy & power generation investments
- Long term capital program for supply chain operations in Australia and S.E. Asia
- Design of contracting strategies for electricity supply
- Business divestment review of manufacturing assets
- Investment planning in quarry and concrete supply networks

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### Who are our clients?

Producers and marketers of energy and minerals in Australia and Asia

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Electricity and water utilities

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Government energy agencies and industry regulators

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Major resource customers in steel and industrial products manufacturing

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Oil and gas explorer-producers in South East Asia

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Power producers with coal, hydro, and natural gas generation assets

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Quarry and construction materials companies

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Rail freight, ports and bulk commodity shipping companies

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Renewable energy producers in hydro, wind and bio-fuels

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Suppliers of contract mining services.

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## Let us help you on the challenges ahead

Successfully managing strategic change and achieving breakthrough performance is rarely realised alone. Let us provide you with the specialist skills needed to deal with the challenges ahead – ensuring better decisions, greater resilience and a thriving future.

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### Scenario Planning for setting overall strategic direction

How energy and resources companies respond to the big uncertain issues of our time – volatile commodity prices, shifts in global demand, food supply expansion, new technologies, climate change– can benefit from scenario thinking.

In this next era, investments will succeed or fail depending on how well they are designed to cope with uncertainty. Our scenario planning methods enables companies to design a portfolio of strategic initiatives to succeed in a volatile world.

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### Decision and risk analysis of M&A and capital investments

Planning investments in mining, energy or natural resource assets?

A bigger menu of uncertainties in today's dynamic world provides innovative companies with opportunities to create new kinds of value – real option value.

Real Option Valuation is the method for dealing with risk and uncertainty in capital investment decisions.

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### Driving performance and value

Our Strategy and Program reviews of energy and minerals supply chains are an effective catalyst for meaningful change.

With our operations analysis methods, your Return on Assets will improve – along with your ability to adapt production and supply chain operations to an ever-changing marketplace.

Use our methods of designing improved contracts for strategic sourcing



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### Benefits for your Company

The confidence of knowing the best strategy to follow, and the basis for beating competitors through fact based analysis

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Delivering on both shareholder value and sustainability objectives

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Improving strategic planning and decision making processes

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Driving implementation to deliver breakthrough results

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Identifying savings of millions of dollars annually in operations, with the risks of strategies analysed, quantified and reduced

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## Contact us

[www.strategispartners.com.au](http://www.strategispartners.com.au)  
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