

ERARING ENERGY **CASE STUDY**



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ERARING ENERGY: vital stats in brief

- A state government owned corporation
- Equal largest electricity generator in Australia, producing up to 25% of all NSW's power requirements
- Operates a portfolio of coal-fired, hydro- and wind-generated assets at nine sites throughout NSW
- Has a generation capacity of over 3,000 MW in NSW alone
- An active trader of electricity derivative contracts and environment products including Renewable Energy Credits, NSW Greenhouse Gas Abatement Certificates, Green Energy

CERTIFICATIONS AND RELATED SERVICES PROVIDED BY NCS INTERNATIONAL:

ISO 14001 Environmental
Management System

AS/NZS 4801 Occupational
Health and Safety

Management of Eraring
Energy's Mallee Eucalyptus
Plantations

National Greenhouse Gas
and Energy Reporting
Compliance Assessment



BACKGROUND

Eraring Energy has adopted a culture of innovation, sharing information and early adoption of best practice approaches across the board of its operations.

Whether in the field of safety and risk management; minimising environmental impacts; exploring initiatives that secure the future of green power generation or heading the line when it comes to meeting the latest in compliance requirements, Eraring Energy is determined to stay ahead of the game.

And the company is supported in all of its activities by its robust, comprehensive management systems. These help ensure not only compliance but continuous improvement in the business, helping to cement Eraring Energy into a leadership position in this highly complex and ever-more-demanding industry.

Key challenges for Eraring Energy

- Meeting new and constantly changing legislative and regulatory requirements – most recently under the new National Greenhouse and Energy Reporting Act
- To supply the growing energy needs of NSW via extensive upgrades while continuing to meet other critical imperatives such as environmental and safety performance
- To continue to reduce other environmental impacts of operations through a variety of means
- To ensure the ongoing safety of all employees by providing a safe working environment, accessible, comprehensive procedures and effective induction, training and education programs





Meeting growing environmental challenges

Eraring Energy's Environment Manager is the person who's overseen much of the corporation's advances in environmental management in recent years.

While Eraring has long been concerned with managing the environmental impacts of operations and had over time evolved a formalised system, the Environment Manager says that the organisation has really leaped ahead since the implementation of its ISO 14001 certified Environmental Management System (EMS).

Further, he stresses that choosing the ISO 14001 system was a considered decision that resulted from extensive research into the best ways for the organisation to achieve its aim. It was far from an automatic 'tick the box' response to the growing environmental challenges faced by the industry in general.

"The imperative at the time stemmed from the fact that although we had formalised systems to meet many needs we did not have a structured EMS as such," explains the Environment Manager. "So we went on a fact finding mission to assess the pros and cons of the various alternatives. We looked at other generators and saw the advantages inherent in the system – for example having regular reviews and updates and the enhanced ability to assess risk and review processes both internally and throughout every stage of management.

"After considerable such research we felt convinced that the EMS would deliver greater structure, improved documentation and a process approach to doing things that gave us the advantage of predetermined time frames and increased assurance that what was needed to be done, was being done – and more. That's because the action plans the system entails increase our ability to plan and thus continuously improve – to set goals and so forth, making it very clear what we are all working toward and how we intend to achieve it."

As critical as the choice of system was the choice of the organisation to assess and certify it. And NCS International was the body of choice for this role because of its extensive experience at the environmental forefront within the energy sector.

"There is a high degree of confidence throughout the industry and certainly within Eraring that NCS International is very competent in this space technically and in terms of being tuned into the latest in regulatory and legislative requirements. The sort of practical, hand-on experience they possess in the auditing side in particular is very considerable and knowing you are dealing with someone who literally knows your business when so much is mission critical is essential," says the Environment Manager.

"Eraring Energy is an example of a committed power generator that is taking considered steps across a broad range of fronts to meet the ever more complex and often competing demands placed on today's energy sector. They are planning for the future and taking a real leadership role in determining their place in a carbon constrained economy. Eraring are actively participating in the development of alternative energy sources including wind and hydro and have taken a systematic approach to managing their key environmental and safety risk profile across the whole of business"

Paul Cheal
Division Manager for Utilities and Resources, NCS International





“Perhaps one of the most useful exercises we undertook with NCS International was the gap analysis relating to the scheme. This really gave us direction and guidance as to where we should be focusing our attention and resources.”

Achieving growth while managing emissions

Eraring is facing a special challenge because it is currently upgrading the existing coal burning station. And while the station is expanding, so is the need to reduce environmental impacts. Meeting both aims is no mean feat and one that has involved detailed ground-up planning and risk analysis.

“It’s all about bottom line measuring of everything we do, making sure that at every stage we take positive action to address any effects from our operation or expansion in a systematic way,” says the Environment Manager.

For example, the corporation has undertaken extensive retrofitting to reduce impacts. This includes a tempering reservoir to control and reduce thermal discharge to the lake on which the power station sits; installation of a low nitrogen oxide boiler and a program that recycles ash waste generated by the plant – ash products are now sold, primarily to building and construction companies for use in building and road foundations.

The conundrum of NGER Act compliance

Another area in which Eraring has blazed a trail is in its go-ahead approach to greenhouse reporting and compliance.

Eraring has been taking positive steps to establish a system of reporting and developed a fully documented system early on in the piece.

“We have a set-up that identifies what we are doing in relation to greenhouse reporting that started with determining precisely what our emissions are and then went on to establish our responsibilities under the Act,” explains the Environment Manager.

Again, NCS International was able to provide insight and information that helped Eraring steer steadily closer to its forthcoming first official external audit under the NGER Act.

“We found that NCS International, and a couple of the specialist auditors in particular, were able to provide us with the best available information, by virtue of their extensive knowledge of the energy industry and their position in a lot of the key committees involved in getting the scheme up and running,” says the Environment Manager. “It made it slightly less of a learn-as-you-go experience than it might otherwise have been. Perhaps one of the useful exercises we undertook with NCS International was the gap analysis relating to the scheme. This really gave us direction and guidance as to where we should be focusing our attention and resources.

“We are now collecting data for our first year’s reporting. The proof of the pudding will, naturally enough, be in the auditing. We are however confident that we’re on the right track and the further along the NGER scheme gets, the clearer the expectations and detail.”





It's all about the people

Eraring Energy's strategic intent is to be a leader – and to do so by 'developing and involving our people'.

As the Environment Manager explains, this involvement takes many forms but starts, first and foremost, with consideration for the safety of every employee paramount. In a heavy industry in which changes and advances are commonplace, a comprehensive system that can encompass the degree and complexity of risk involved and be revised and expanded with ease is the key.

To this end, Eraring operates an AS/NZS 4801 Safety Management System (SMS).

"We give top priority to minimising or eliminating risks to our people and that is measured by our performance in terms of lost time due to injuries and medical treatment," he says. "No job is done or assigned unless it can be done safely and this applies from the shop floor through to management with thorough risk assessment taking place supported by a culture of stop, think – don't rush and don't do it if you're not comfortable."

One of the challenges to which Eraring has to rise in this regard is that new workplace activities are introduced as the organisation expands both the size and nature of its operations.

"With each new activity – for example the management of Mallee eucalypt forests – comes a whole new raft of risk. A fundamental driving force in risk and safety is having a risk database and of course, this is also central to good corporate governance," explains the Environment Manager. "So much of this comes back to the strong process of training and from developing core competencies, conducting gap analyses and so on. It's an intricate process of understanding roles and responsibilities and it has to work from the top down.

"Our strategy and culture clearly send the message that safety is paramount and the SMS is the tool by which we both document what that promise entails and deliver on it," explains the Environment Manager. "NCS International in turn is the third party who comes in and verifies what we are doing, makes sure we are on track and as often as not is able to help out with facilitating further improvements."

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Key messages from Eraring Energy



- Understand that your management systems and the way they work must sit at the very core of operations and be in line with and supportive of your strategic intent. They are not add-ons but are key facilitators to achieving your business and other aims – all should be inextricably bound.
- Learn from your own people and from other organisations. You don't have to reinvent the wheel. "I am a member of the National Generators Forum and we meet three or four times a year and talk about what works and what doesn't and so on," says the Environment Manager. "You can learn from both the mistakes of others and the things they do right. In our industry it's in the absolute best interests of the whole industry that we all do the best we can and that we have a united front."
- Learn from your certification body. NCS International for example sees the benefits and shortfalls of many different systems. So it's about information gathering and using the collective skills of a range of different people to put into your systems.
- Be prepared for, and open to, change. The system you start off with will, with time, change as your organisation and its environment does – especially as you improve. Don't lock in a system, keep it dynamic and receptive.

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