

# Energy Intelligence



Together we can make a difference.™

# Creating cleaner, greener businesses

As an Australian business, embracing energy efficiency is one of the most immediate ways you can help make a difference to reduce greenhouse gas emissions. Origin Solutions helps businesses understand their current environmental impact. We then follow this up with informed recommendations on how to reduce energy consumption and greenhouse gas emissions.



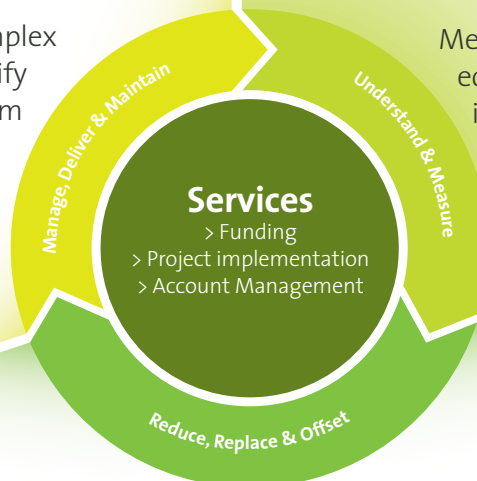
## Energy Infrastructure

Source and project manage complex installations, monitor and verify savings and manage long term equipment maintenance.



## Energy Intelligence

Measure and understand energy and equipment usage, efficiencies and impacts through assessment of customer operations.



## Energy Sustainability

Source and install energy efficiency solutions, and offset environmental impact where emissions can't be avoided, enabling customers to reduce costs and make a difference.

# Understanding your energy usage

With our range of energy efficiency and assessment tools you could improve productivity and achieve substantial savings on operating costs.

No matter what industry you are in, measuring, understanding and monitoring your energy usage are always critical steps in the journey towards establishing a more sustainable business.

## Assessing your carbon footprint

A Carbon Footprint assessment breaks down your greenhouse gas emissions, including both direct (onsite) and indirect (offsite) emissions, providing a detailed analysis of your current emission levels. This analysis identifies which activities, either within your business or via your supply chain, contribute the most to your carbon footprint.

This assessment will give you a clear understanding of your business' greenhouse gas emissions, so we can work with you to start planning your reduction strategies.

## Auditing your energy usage

Our energy audits carefully assess the energy dynamics of a building, process or system. We look at how much energy key equipment and procedures use and recommend strategies for making operations more efficient. Origin Solutions has the expertise to perform a wide range of audits, varying in complexity and detail. All meet Australian Standards AS/NZS 3598:2000.

- **Site Survey:** Similar to a Level 1 Audit, and includes a site visit. A site survey also identifies areas where savings may be made and the summary report includes recommended measures to be taken.
- **Level 1 Audit:** Consists of an entry level survey that provides a simple overview of an operation or process to determine if energy use is reasonable, or if there are problem areas that could be improved with efficiency measures.
- **Level 2 Audit:** Consists of more qualitative and quantitative detail, identifying the source of energy to a site, how much energy is supplied and what it's used for. It highlights where savings can be made, recommends measures to be taken and provides a statement of investment and payback periods.
- **Level 3 Audit:** Also known as an investment grade survey. It starts with an in-depth, on-site inspection and delivers a comprehensive report with detailed analysis of energy use and efficiency measures that can be implemented, together with a firm estimate of savings, as well as investment and payback periods.

## Is your building a 5 star performer?

The National Australian Built Environmental Ratings System (NABERS) is a national program that benchmarks the 'environmental performance' of whole buildings, base buildings or tenancies through a star ratings system in four key areas:

- Energy usage and greenhouse impact.
- Water usage.
- Waste disposal and toxicity.
- Indoor environment including air quality and noise pollution.

Buildings are rated from one to five stars, with five representing an exceptional level of efficiency. Currently, best market practice in Australia sits at three stars.

If you'd like an accreditation rating for your building, contact Origin Solutions today and speak to one of our accredited NABERS Assessors.

## Sub-metering pinpoints inefficiencies

By sub-metering key plant and equipment, we can provide dynamic information on how to efficiently utilise your energy consumption. Sub-metering allows you to monitor more specific areas and equipment, allowing the analysis of technical and behavioural changes. This process will enable you to pinpoint inefficiencies and understand how best to manage them.



## Regulatory reporting

### Environmental and Resource Efficiency Plans (EREP)

EREP is a program introduced by the Victorian Government to reduce the use of Energy, Water and Waste amongst large commercial and industrial sites. The program is mandatory for every Victorian customer whose site uses more than 100TJ of total energy and/or 120ML of water.

Through EREP, businesses are required to identify opportunities for efficiency improvements, and are obligated to implement those with a less than three year pay back.

Through our insights and experience, Origin Solutions can help you assess if, and when, you will reach the EREP reporting thresholds. Then, we can assist you in identifying and implementing energy saving solutions that will impact positively on your bottom line.

### Energy Efficiency Opportunities (EEO)

The Australian Government's EEO program is mandatory for corporations that use more than 0.05 petajoules (PJ) of energy per year and is designed to encourage these businesses to improve their energy efficiency. By forcing participants to identify, evaluate and report publicly on cost effective energy savings opportunities, EEO aims to:

- Improve identification and uptake of cost-effective energy efficiency opportunities.
- Improve productivity and reduced greenhouse gas emissions.
- Promote greater scrutiny of energy use by large energy consumers.

Origin Solutions has a team of experts that can work with your business to help you understand your EEO obligations and develop an action plan to take advantage of the energy savings identified.

Origin Solutions can also offer a suite of tailored analyses to suit your business needs. We can work closely with you to study particular parts of your business that have been identified as having the potential to run inefficiently. We will then provide a detailed report which will outline our recommendations to improve your energy efficiency and potentially save you money.

## Monitoring your emissions

We test emissions at your place of business to ensure they meet load-based licensing requirements. This includes:

- Assessing annual carbon monoxide, carbon dioxide, nitrogen oxide and sodium oxide emissions along with any other emissions to be reported to the Environmental Protection Authority (EPA).
- Identifying the source of contaminant emissions (such as chicken hatcheries and plant nurseries).
- Testing flammable gases and vapours for concentration and explosive dangers.
- Conducting an odour investigation to ascertain the possibility of thermal oxidation or incineration.

## Burn less, save more

Inadequately adjusted burners could be costing money, reducing efficiency and affecting productivity. They may cause quality control problems such as breakdowns or the exposure of employees to dangerous levels of carbon monoxide.

Origin Solutions can conduct a comprehensive, onsite Combustion Analysis to ascertain flue gas, gas flow and stack temperatures. Our report will make careful recommendations which may involve fine-tuning of equipment and operational practice modifications.

## Investigating carbon monoxide levels

Carbon monoxide from faulty fuel burning appliances and engines (eg. forklift trucks), can be a cause of nausea, headache or fatality, depending on exposure concentration and time. An indication of carbon monoxide presence is often by the smell of a pungent combustion type odour in the vicinity of its source. Origin Solutions provides a service whereby suspected carbon monoxide is measured, and recommendations are made as to how to rectify the condition. We will also carry out any necessary work if required, and provide a written report of new carbon monoxide results.

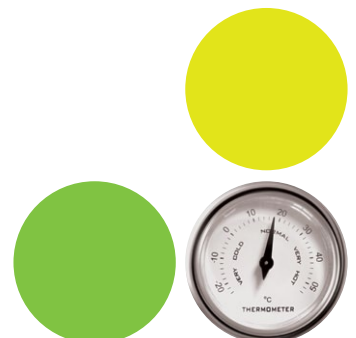
## What's your Maximum Daily Quantity?

Avoid expensive Maximum Daily Quantity (MDQ) overrun penalties.

An MDQ is the peak usage of natural gas on any one day during the contracted supply period based on historical information from the gas smart meter. Overrunning MDQ may incur higher distributor network charges which escalate during the natural gas contract year.

In an MDQ analysis, a specialist engineer will survey gas usage, identify peaks and the reasons they occur, and provide recommendations that will flatten the peaks.

The results of the MDQ analysis can be used to negotiate a lower and cheaper MDQ level at contract review.



### Steam and boiler power: is it effective?

By reviewing your boiler efficiency you can reduce the loss of heat and energy, whilst at the same time improving the overall effectiveness of your boiler system. Continuing regular boiler maintenance is vital in achieving optimal performance and will allow you to identify and rectify problem areas.

Our Steam and Boiler System Study will review:

- The temperature and pressure of the steam production.
- Steam applications and boiler suitability.
- Steam leaks.
- Operation of steam traps and condensate return.
- Pipework distribution system efficiency and pipework insulation.

### What's surrounding your building?

The Building Envelope (or surface and external wall structure) affects how the external environment (weather) impacts internal temperatures and lighting needs. Not to mention your energy use. In response, Origin Solutions can offer a Building Envelope Review which assesses your building envelope for energy efficiency in the following areas:

- Wall, roof and foundation insulation.
- Windows and doors.
- Steam leaks.
- Air infiltration.
- Solar penetration.

### Origin Solutions for your peace-of-mind

Origin has been part of the energy industry for over 150 years. From this depth of experience we've grown to become Australia's leading green energy provider, delivering sustainable energy solutions that can have a positive impact on your business – and the environment.

Origin Solutions has extensive experience in delivering efficiency solutions to Australian industry. We're committed to working closely with your business to deliver:

- End-to-end energy solutions.
- Sustainable strategies.
- Specialised payment options tailored to your pay back needs.
- The advantages of a fully integrated energy company.

Best of all, you don't have to be an existing Origin customer to speak with an Origin Solutions specialist about making your business more efficient and sustainable.



### We're ready to talk when you are

Contact one of our specialists today and see how we can help your business become more energy efficient and sustainable. At the same time, you can also request a free brochure for more information about any of our energy management solutions.

Call **13 23 34** or email [originsolutions@originenergy.com.au](mailto:originsolutions@originenergy.com.au)

## Contact us today:

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or visit [originenergy.com.au/solutions](http://originenergy.com.au/solutions)

