

# **Background**

Cast Solutions has developed a tool for energy intensive buildings to increase energy efficiency and reduce carbon emissions.

Reduce the carbon footprint of your organisation.

Improve energy efficiency of your building portfolio.

Australia's 2030 emissions reduction target has been announced, in preparation for the United Nations Framework Convention on Climate Change's (UNFCCC) next meeting in Paris, and part of the Government's plan to combat climate change.

Australia has committed to a 26-28 per cent reduction in greenhouse gas emissions below 2005 levels by 2030.

The 2030 target constitutes a reduction of 50 per cent per head of population between 2005 and 2030, and a reduction of 64 per cent of emissions per unit of Gross Domestic Product (GDP).

# Use case

Problem

Solution

Outcome

#### **Problem**

- Non-compliance to current energy efficiency requirements for commercial buildings
- Inability to measure and predict energy consumption patterns
- Limited operational visibility
- Inability to accurately report into the government Emissions and Energy Reporting System (EERS).

## **Background**

An Australian tier 1 university with an ambitious net zero target wanted a partner to assist with their operational energy efficiency project outcomes.

Their diverse building portfolio required a customisable and cognitive energy data modelling and visualisation solution.

The tool needed to be easy to use for the business, operational and end users.

Engagement and Impact. Targets and Transparency. Enable energy efficiency project allocation for maximum impact.



## Solution

- Real-time energy efficiency data modelling
- Analysis of energy consumption data and trends
- Multiple data source integration
- Advanced geo-analytics with custom map layers
- Integrate weather APIs for normalised energy consumption patterns.
- Data anomaly detection
- Energy consumption and supply optimisation



#### **Outcomes**

- Optimised energy consumption patterns
- Improved operational business outcomes
- Eliminated human error and data anomalies
- EERS streamlined with increased reporting efficiency and quality
- Transparency, engagement, measurable impact

# What is an emission reduction tool?

In response to Australia's 2030 Emission Reduction Targets, Cast Solutions has launched a SMART tool for building energy efficiency and associated organisational carbon footprint optimisation. Our solution offers an easy-to-use reporting and emission reduction discovery tool that connects to your building energy consumption data.

# Sectors with significant building portfolios can instantly benefit

Our solution is designed for building portfolio owners to monitor, analyse, predict and report building energy levels, based on real time data insights.

It is well suited for large portfolios of energy inefficient assets. Examples include:

- State and Federal Government
   Departments
- Universities and schools
- Clean energy authorities
- Healthcare and Aged Care
- Logistics facilities, warehousing and supply chain

- Large retail and fast food chains
- Cold storage facilities
- Significiant hospitality and hotel chains
- Social housing portfolios
- Property facilities management

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# More about our solution

Our solution provides easy to use compliance reporting and emission reduction discovery, using your buildings and data analytics. It encourages early stakeholder engagment to ensure that the tool is easy to use and provides the right data for actionable insights

- Real-time building energy efficiency data modelling
- Easy to use governed and customisable dashboard interface
- Analyse energy consumption data and trends
- Analyse information from multiple data sources
- Contextual data on buildings (repairs / shutdowns / change of hours)

- Embed building floor plans to identify regions with high usage.
- Integrate with weather APIs to produce weather normalized energy consumption.
- SAP, Relational Databases (SQL),
   NoSQL, Data Warehousing & Data
   Lakes, Data Streaming
- Multi Cloud and Hybrid Cloud ready

## How does it help Facility Managers/Asset Managers/ Building Portfolio Managers?

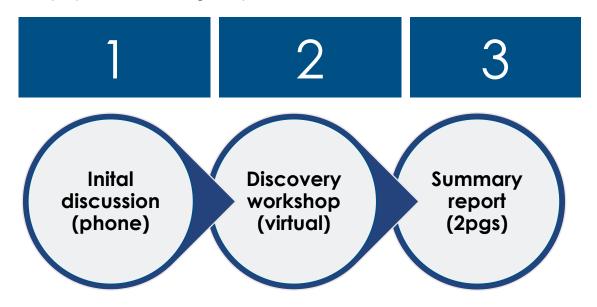
- Determine levels of compliance and identify trends in behavior
- Early detection of possible contraventions and ability to assess various mitigation actions
- Assess the effectiveness building operations and business case development of solutions
- Prevent non-compliance.
- Identify gaps, challenges and opportunities for the energy emission reduction strategy and policy improvement.



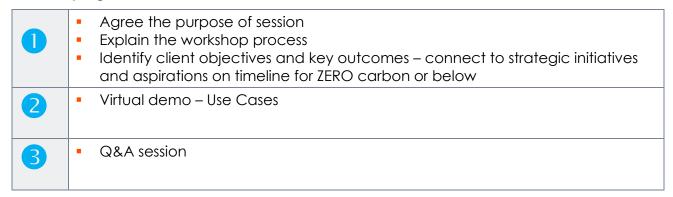
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# Want to know more?

We propose the following 3 steps



## Workshop agenda



## **Outcomes**

A two-page summary report including aspirations, outcomes, priorities, data sources, key milestones and ideas on next steps.

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