

Adelaide Airport Carbon Action

Key Outcomes

- Sustainability and Low Carbon Policies.
- Comprehensive Carbon Management Plan.
- Achieved Levels 2 and 3 Airports Carbon Accreditation.
- 1.17MW solar array. 915 tCO₂-e saved. 8.1 year payback on \$2.45 million investment.
- Overall reduction in carbon of 2.8% per passenger (3-year rolling average).

Adelaide Airport is an economic hub for South Australia transporting over 8 million passengers per year. Its vision is to be a top tier Airport Business Centre in Asia Pacific and aims to deliver high quality facilities and services that are regarded as best in class, safe, secure and sustainable. Adelaide Airport's Environment Plan commits to the ongoing reduction of its carbon emissions and to Airports Council International's carbon accreditation program - the only institutionally-endorsed, carbon management certification standard for airports.

Rationale

The benefits of ongoing carbon reduction for Adelaide Airport include:

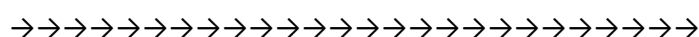
- Reducing operating costs
- Managing energy related risks including price rises and potential carbon imposts
- Enhancing corporate image
- Making sound investment decisions
- Delivering sustainable development and increasing Airport Business District rental potential
- Meeting stakeholders' expectations of a responsible company
- Delivering on 2015 Airport Environment Strategy key commitments
- Assist SA Government in achieving its renewable energy target.

Approach

A framework was established for the governance of carbon action including a working committee of employee representatives. A Low Carbon Policy was developed and a Carbon Manager and Energy Manager were allocated. Carbon reduction was split into structural and behavioural categories.

Electricity use makes up about 85% of Adelaide Airport's carbon footprint followed by gas and combustion fuel. A technical analysis was undertaken to identify the areas of greatest use and potential reduction opportunities. These structural opportunities were quantified and the size and cost per tonne of carbon for each project was presented in a marginal abatement cost curve showing the optimal order of delivery.

From 12 potential projects a large solar array was estimated to achieve the greatest abatement opportunity of around 900 tCO₂-e and matched the airport's commitment to renewable energy. A Request for Information proved the likely feasibility of this project and a subsequent tender secured an acceptable business case for a 1.17MW array on the roof of the short term car park (for more information see *Adelaide Airport Solar Photovoltaic Case Study*). Other projects included the



retrofitting of office lights with LEDs, installation of sensors, the adjustment of air-conditioning temperature settings and the introduction of electric vehicles.

Critical to the ongoing success of carbon reduction is the creation of tools and processes to ensure that carbon impact is considered in budgets and procurement. All staff were trained in how to use these tools. An internal carbon program was initiated to engage staff and has included regular presentations, events and other initiatives to help embed low carbon practices.

Steps	Activities
Engage, consult, educate	Staff workshops, consultation, ideas generation, research
Design and develop	Identify, quantify and rank projects, create carbon management plan, gain sign-off
Implement	Energy project business cases, analysis of ideas, tenders, approvals

Outcomes

A combination of structural and behaviour change programs has led to a reduction in carbon emissions of 2.8% over a three-year rolling average per passenger to December 2015. Adelaide Airport has achieved Levels 2 and 3 (first in Australia) of Airports Council International’s Airport Carbon Accreditation. Carbon impact is now embedded into budgeting and decision-making processes and understood by all executives and managers.

A 1.17MW solar array on the short term car park roof will produce enough renewable energy to power around 8.5% of total airport electricity consumption including 100% of the car parks’ usage. On completion in early 2016 this will be largest private commercial solar array in Australia and the second largest in SA.

Overall this work has contributed to cemented Adelaide Airport’s position as a leader in sustainability in its industry in Asia-Pacific.

*“**Suzanne Ridding** is a highly experienced, skilled and versatile professional who played a pivotal role in assisting Adelaide Airport Ltd to be the first Australian airport to achieve Airport Carbon Accreditation from Airports Council International. She was able to provide crucial and effective support in multiple areas alongside her expertise in carbon, including technical research, financial analysis, staff engagement and communications”.*

Stephanie Bolt, Environment Manager, Adelaide Airport Ltd

