ClimateWorks AUSTRALIA

ClimateWorks FOUNDATION

CALSTRS

ENERGY PRODUCTIVITY INDEX FOR COMPANIES

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Final

AIRLINE SECTOR SUMMARY

ABOUT THIS SUMMARY

This sector summary is one of a series of six sector fact sheets to be used in conjunction with the guide for investors titled, *Could boosting energy productivity improve your investment performance?* These companion pieces are the result of analysis under the *Energy Productivity Index for Companies* project, designed to help investors identify key sectors and portfolio companies within those sectors, where improving energy productivity can deliver significant benefits to companies and their value as investments.

RESULTS SNAPSHOT

> Given very high energy costs and low profit margins, companies in this sector are particularly exposed to energy-related risks

> United Continental Holdings demonstrated the best overall energy performance by delivering the highest weighted average score across all measures

> Air New Zealand generates 2x more revenue per GJ of energy used compared to the least productive company

> Changes in energy productivity of companies in recent years were varied, showing improvements of up to 17% or deteriorations of up to -5% per annum

> Finnair and United Continental achieved the highest energy savings in the sector, equivalent to 1.5% and 1.4% of their annual energy costs per year respectively

> Attaining energy savings equivalent to the average of the two companies (top 20%) could deliver over 10% boost to annual profits for a third of airline companies

> US $513 million annual savings were achieved across the sector through energy efficiency improvements

> Sector improvements required an estimated US $770 million in capital investment. When annualised, this is approximately equivalent to 39% of annual cost savings

> Improvements implemented by reporting companies also achieved significant emissions reductions. For each 1% reduction in energy costs achieved, emissions were reduced by 1.7%.

Summaries available for six sectors

AIRLINES | AUTOMOBILES | CHEMICALS | CONSTRUCTION MATERIALS | PAPER | STEEL

COMPARING COMPANIES IN THE AIRLINE SECTOR

The Energy Productivity Index compares companies in each sector based on three measures – **Resilience to energy cost**, **Energy productivity outcome**, and **Energy efficiency performance**.

Airline company scores against key measures

Company	General Rating	Energy cost resilience	Energy productivity outcome	Energy efficiency performance
United Continental Holdings	83%	25%	94%	100%
Finnair	74%	0%	84%	100%
Southwest Airlines Co.	70%	42%	58%	91%
Air New Zealand	59%	37%	80%	52%
Air France - KLM	41%	2%	78%	29%
Korean Air	39%	8%	21%	67%
Air Canada	37%	29%	76%	11%
British Airways	35%	28%	58%	20%
Delta Air Lines	34%	31%	32%	38%
Qantas Airways Ltd	31%	0%	82%	4%
Cathay Pacific Airways Limited	14%	17%	30%	0%
American Airlines Group Inc	13%	32%	0%	14%
7 companies	Incomplete/insufficient data provided to CDP to conduct analysis (Aer Lingus Group PLC, Asiana Airlines, easyJet, Gol Linhas Aereas Inteligentes S.A., TAM S.A., Virgin Australia Holdings, WestJet Airlines Ltd.).			
Non reporters	All other companies did not respond to CDP			
5 companies	Reviewed but excluded from analysis (Air Partner Plc, Hong Kong Aircraft Engineering, IBERIA, International Consolidated Airlines Group, S.A., SAS).			

Satisfactory data

- Positive results; could discuss potential to optimise
- Request clarification of results and discuss potential to improve

Insufficient data

- Results provisional due to data uncertainty. Request additional data to confirm rating
- Data provided is insufficient to conduct analysis; require more information

Not included in analysis

- Out of scope; different type of activity, or low energy cost making analysis too uncertain

For further details on identifying companies to engage with and how to measure a company's performance against its competitors, refer to section 03 of the **Guide for Investors**.

A note about project scope and limitations:
Analysis undertaken was limited by the availability and quality of company data. Energy data used in the analysis was primarily sourced from CDP, complemented with other voluntary company reporting where required. This leads to potential limitations as outlined on page 2 of the Guide for Investors.

Guide for Investors and Technical Report available at **energyproductivity.net.au**

Using data from CDP, companies were scored and ranked based on their performance against seven metrics (presented in the table below) which underpin the measures shown on the previous graph.

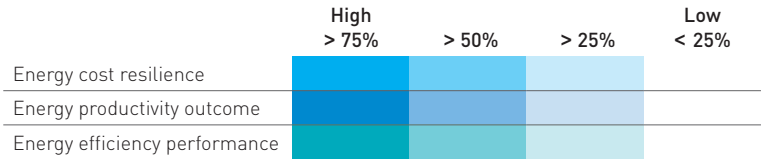
Performance against each metric

Data is sourced from 2013-15 CDP responses and financial reports for corresponding years unless otherwise specified.

			Energy cost resilience		Energy productivity outcome		Energy efficiency performance			Additional information
		Weights	10%	10%	20%	15%	15%	15%	15%	
	Company	General Rating	Energy cost estimate, % opex (latest)	Profitability, EBIT / Revenue	Energy productivity, $'000 Revenue / GJ	Energy productivity, Average annual % change (earliest to latest)	Savings per year, % est. energy cost	Potential financial uplift (% EBIT) if reach top quintile	Potential financial uplift (% EBIT) if reach second quintile	Emissions reduction from energy efficiency activities, % gross scope 1 & 2 emissions
~	United Continental Holdings	83%	35-40%	5.0%	0.09	16.6%	1.42%	0.2%	0.0%	2.0%
	Finnair	74%	30-35%	-0.2%	0.10	1.2%	1.49%	0.0%	0.0%	3.7%
	Southwest Airlines Co.	70%	30-35%	8.4%	0.07	5.2%	0.92%	2.1%	0.2%	0.9%
^	Air New Zealand	59%	25-30%	6.6%	0.10	0.3%	0.40%	3.9%	2.1%	0.4%
	Air France - KLM	41%	40-45%	0.4%	0.09	1.8%	0.88%	90.4%	13.8%	1.6%
	Korean Air	39%	40-45%	1.7%	0.06	0.0%	1.01%	11.5%	0.0%	1.1%
	Air Canada	37%	25-30%	4.9%	0.09	-0.5%	0.08%	7.3%	4.7%	0.3%
	British Airways	35%	30-35%	5.6%	0.07	9.9%	0.20%	6.8%	4.2%	0.2%
	Delta Air Lines	34%	30-35%	6.2%	0.07	-1.1%	0.39%	5.8%	3.1%	0.5%
	Qantas Airways Ltd	31%	30-35%	-2.4%	0.08	4.4%	0.22%	-16.5%	-9.9%	0.3%
	Cathay Pacific Airways Limited	14%	35-40%	3.4%	0.05	1.9%	0.00%	16.1%	10.6%	0.0%
	American Airlines Group Inc	13%	30-35%	6.5%	0.06	-5.1%	0.04%	6.8%	4.5%	0.1%

Performance legend

Cells colour-coded based on 0-100% scores attributed to companies for each metric*



Low quality/uncertain data

Uncertain data 1.49%

^ Latest CDP responses forthcoming
~ High annual % change in Energy Productivity possibly inaccurate. Data from annual report filings suggest 4.5% p.a.
* Detailed translation of metrics into scores is presented in the Technical Report (energyproductivity.net.au/resources)

GREATER ENERGY EFFICIENCY CAN LIFT AIRLINE SAVINGS

Of all sectors analysed, airline companies reported the largest monetary savings through energy efficiency. United Continental reported annual savings of US $343 million in 2014, through fuel management initiatives such as installing winglets, improved flight planning, fleet replacement, engine washing and aircraft software updates.

ENGAGING WITH COMPANIES

1. Seek clarification on a company's performance

Start with metrics that are incomplete or appear to indicate lower performance. As an indication of a company's current efforts, energy efficiency activities that have been implemented by others in this sector are presented below to help identify whether a company is considering all areas worth investigating.

2. What to ask of companies where low performance is identified

Once a company's performance has been confirmed (or re-assessed after additional information), investors can suggest a range of internal energy management practices which could improve that company's performance.

3. Ways to engage with underperforming companies

Where further engagement with companies is required, refer to section 04 of the **Guide for Investors** which suggests questions that companies could be asked and internal energy management practices they might consider.

The payback range was unspecified for many of the energy efficiency opportunities implemented in this sector. Of those disclosed, over 80% had a less than 3 year payback, or an equivalent of about 50% internal rate of return.

Energy savings shown as percentage of energy cost, coloured by payback period

Energy efficiency improvements detailed in callout boxes