

HOW TO GET CASHBACKS FOR YOUR REFRIGERATION UPGRADES AND RECEIVE \$100,000s

Big industrial refrigeration users can spend 70% of their electricity costs on refrigeration. Yet if you've upgraded your refrigeration plant recently, the chances are the changes you've made, or the equipment you've purchased, were also more energy efficient.

Did you know that cashbacks for these types of improvements can be easily obtained by creating Energy Savings Certificates that represent the energy saved? Cash from the sale of these certificates can range from \$10,000s, to \$100,000s, depending on the size and type of project.

Has your organisation installed any of the following improvements to its refrigeration plant since July 2008?

- Compressor or condenser upgrades, replacements, or additions
- VSDs installed on compressors, condensers, fans or pipes
- Commercial Freon or R22 to ammonia plant conversions
- Liquid-injection to thermosiphon conversions
- Improvements/additions to economizer vessels (side loading/liquid sub-cooling)
- Lifting suctions and/or splitting suctions
- Adding vessels to avoid long wet suction runs
- Increasing pipe sizes
- Taking water of out LT vessels
- Projects to stabilise head pressure, suction pressure, or liquid levels, or to maintain sufficient head pressures in summer
- Improved compressor sequencing.

If so, there is a high chance that you are eligible for the creation of Energy Savings Certificates (ESCs).

Out Performers can create and sell ESCs on your behalf. We are the largest creator of ESCs in NSW, and we have extensive experience in creating ESCs in the industrial sector, working with over 80 large energy users such as large cold storage facilities, food and beverage manufacturers, and wineries. We are specialists in energy measurement and verification ('M&V'), which means we can identify and measure energy savings across a wide range of improvement projects (not just refrigeration), that you may have conducted across one or several of your sites.

Considering a refrigeration upgrade?

Out Performers has expert in-house industrial refrigeration engineers with experience across a wide range of refrigeration and chiller projects. We can also advise you on the many government grants available for refrigeration upgrades and other energy efficiency projects. Improving energy outcomes must never be, and do not need to be, at the expense of reducing operational performance. We can improve plant reliability and cut down on energy costs as an added benefit.

Call us for more information on 02 8094 1742 or email nsw@outperformers.com.au



About Energy Savings Certificates

Energy Savings Certificates (ESCs) are created under the NSW Energy Efficiency Scheme, which is administered and regulated by IPART. Each ESC is equivalent to one tonne of CO₂ mitigated, and is calculated using engineering methodologies that must first be registered and approved by IPART. Out Performers has the largest number of these approved methodologies and so holds approvals to create ESCs for the widest range of energy efficiency technologies and projects in NSW.

What it costs to have ESCs created for your project:

There are no up-front costs to our clients as we deduct our fees from the income generated when the certificates are sold, and remit the balance to the client. If we cannot create ESCs for your project, there are no fees payable at all.

OUT PERFORMERS WORKS WITH AUSTRALIA'S BIGGEST ENERGY USERS

We work with large industrial and commercial energy users spending more than \$1m on electricity annually to reduce their energy costs while improving plant performance. Our core competency is energy measurement and verification ('M&V') which ensures we improve financial returns and reduce the risks associated with implementing energy projects.

Our engineers implement a comprehensive process to develop rigorous investment grade business cases for energy efficiency opportunities, and then follow them through the implementation phase to ensure energy savings are realised with the best possible payback. Our independence from manufacturers and suppliers means we offer unbiased advice based on objective criteria. Working with over 80 of Australia's top 200 energy users, we have reviewed more than 700 energy efficiency projects and we've learnt what works and what doesn't. We are confident about the energy savings we can achieve for you. Ask us about our **Energy Savings Guarantee**.

CASE STUDY 1

METROPOLITAN COLD STORAGE

SITUATION:

The client had six compressors in total: three were low stage compressors and three were high stage.

SOLUTION:

Variable Speed Drives were installed on one low stage and one high stage compressor. The capacity control logic on the compressors was also optimised.

ENERGY SAVINGS:

→ Annual energy savings: 771,290 kWh

ENERGY CALCULATIONS:

- A Confidence Factor of 0.9 was used as substantial metering data was available.
- Govt grant received.*

BENEFITS:

→ 2,207 ESCs created, generating **\$38,747** ESC income for the client within 3 months.

A further estimated \$89,040 in ESC income over 10 years is available if energy savings can be shown to have been maintained.

Year	No. of ESCs	ESCs \$
2011	2,207	\$ 38,747
2016	4,028	\$ 67,670
2020	1,272	\$ 21,370
Total		\$127,787

CASE STUDY 2

REGIONAL WINERY

SITUATION:

The client installed a condensate sub-cooling plate heat exchanger operating in flooded mode with a pressure vessel. The suction from the vessel was directed to the economiser port of the screw compressors, resulting in increased efficiency (COP) of the refrigeration plant.

SOLUTION:

Out Performers were engaged to create ESCs.

ENERGY SAVINGS:

→ Annual energy savings: 366,552 kWh

ENERGY CALCULATIONS:

- A Confidence Factor of 0.8 was used as insufficient sub-metering data was available.

BENEFITS:

→ 993 ESCs created, generating **\$12,700** ESC income for the client within 3 months.

A further estimated \$32,312 in ESC income over 10 years is available if energy savings can be shown to have been maintained.

Year	No. of ESCs	ESCs \$
2010	993	\$12,700
2015	1,730	\$23,008
2020	692	\$ 9,304
Total		\$45,994

CASE STUDY 3

REGIONAL MEAT PROCESSING

SITUATION:

The client used multiple air-cooled Freon racks to refrigerate 10 chiller rooms.

SOLUTION:

The Freon rack systems were decommissioned, and replaced with a more efficient, water-cooled ammonia plant. Additional chiller and freezer duties were added to this plant rather than using more commercial Freon equipment.

ENERGY SAVINGS:

→ Annual energy savings: 230,571 kWh

ENERGY CALCULATIONS:

- A Confidence Factor of 0.8 was used as insufficient sub-metering data was available.

BENEFITS:

→ 586 ESCs created, generating **\$11,413** ESC income for the client within 3 months.

A further estimated \$27,184 in ESC income over 10 years is available if energy savings can be shown to have been maintained.

Year	No. of ESCs	ESCs \$
2011	586	\$11,413
2016	1,061	\$20,660
2020	335	\$ 6,524
Total		\$38,597

In all cases, the PIAM was used to calculate the ESCs, and five years of savings were brought forward.

* The client confirmed they had received a government grant for the project, which could have precluded ESC creation. Out Performers checked with the relevant department and identified that the grant was only issued to assess the project, not for the actual implementation. Therefore we determined that ESCs could still be created for the project.