From: [redacted]
To: Energy Matters
Cc: [redacted]
Subject: Re: Joint Select Committee on Energy Matters: Additional Matters
Date: Thursday, 3 April 2025 3:29:25 PM
Attachments: THA Energy Audit Pilot Trial Report_Summary Version.pdf
THA Energy audit questionnaire_v0 (pro forma).pdf

You don't often get email from [redacted] Learn why this is important

Dear Kiah

I am responding to your email of 19 March 2025 on behalf of Mr Steve Old, CEO, Tasmanian Hospitality Association.

Please find attached a summary version of the report detailing the outcomes of the Tasmanian Hospitality Association's (THA) energy audit pilot program.

A copy of this report was requested during the THA's in person presentation to the joint parliamentary committee on Energy Matters.

A copy of the blank audit recording form is also attached.

A key consideration in undertaking the pilot energy audit was the need to ensure it would be affordable for small, medium and large venues, and we hope the blank form will assist the committee members in understanding the nature and scope of the audit process.

Please note, the attached version of the final report has had the participating venue details and references removed.

While the committee is free to use the document for the purposes of its inquiry, for commercial reasons the pilot audit initiative was undertaken under the auspices of confidentiality agreements, and the attached reports should not be used for purposes beyond the Energy Matters committee inquiry, without the written permission of the THA.

The committee also sought information about power purchasing agreements (PPAs) or similar opportunities operating on the mainland.

We have consulted with Australian Hotels Association representatives on the mainland, and it is evident that the two PPA schemes operating in New South Wales have been successful, whereas this is not the case in the other mainland states that have pursued these initiatives.

In one instance the reason for a lack of success has been the inability in negotiating a cheaper tariff, compared with that offered by other electricity retailers in the open market. We also suspect that scale may be a consideration, with New South Wales being large enough to enter into 2 successful PPA schemes.

Of interest for the committee is that one of the New South Wales schemes was based on 100% of the supply being contracted from a NSW solar farm, the collective agreement of 260 hotels representing 150 GWh of demand (which is equivalent to around 10,000 homes).

In the case of the second agreement, the PPA was able to provide venues with a tariff that was around 86% of the average available on the market.

As we noted during our presentation to the committee, the THA also works in partnership with an electricity retailer in Tasmania and this does offer some benefits to those THA members that participate.

It is clear, however, that the success or otherwise of these schemes depends very much on the circumstances. That said, they are still considered worthwhile pursuing.

We hope this information is of value to the committee, and we are more than happy to assist in any way we can.

Kind regards

Peter

Peter Sheldon-Collins
Email: [redacted]
Mobile: [redacted]

From: Energy Matters <energymatters@parliament.tas.gov.au>
Sent: Wednesday, 19 March 2025 1:07 PM
To: Steve Old [redacted]
Cc: Energy Matters <energymatters@parliament.tas.gov.au>
Subject: Joint Select Committee on Energy Matters: Additional Matters

Dear Mr. Old

At the Tasmanian Hospitality Association's appearance before the Energy Matters

Committee on 12 February two matters were taken on notice in order to provide further information and/or documents to the Committee at a later date. Attached is a marked-up transcript of the appearances highlighting the matters taken on notice.

Could you please provide all information and/or documents in response to the questions/matters taken on notice by reply email by **COB 3 April 2025?**

If you have any questions, or concerns about this timeline, please do not hesitate to get in touch.

Kind Regards,

Kiah Charles

Parliamentary Support Officer: Legislation and Engagement,
House of Assembly
Ph: [redacted]

Energy Audit Pilot Trial Report

THA

May 09, 2024

→ **The Power of Commitment**

Project name		THA Energy Audit Pilot Trial					
Document title		Energy Audit Pilot Trial Report | For client review					
Project number		[redacted]					
File name		[redacted]					
Status Code	Revision	Author	Reviewer		Approved for issue		
			Name	Signature	Name	Signature	Date
S4	1	D Nordinson H Nasim	M Graver	On file	M Graver	On file	28/03/24
S4	2	D Nordinson	M Graver	On file	M Graver	On file	19/04/24
S4	3	D Nordinson	M Graver	On file	M Graver	On file	29/04/24
S4	4	D Nordinson	M Graver	On file	M Graver	On file	09/05/24

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Contents

Appendices

1. Introduction

GHD has been engaged by the Tasmanian Hospitality Association (THA) to conduct high-level energy audits for ten (10) hospitality venues across Tasmania as part of a pilot trial to identify potential cost saving opportunities and reductions in greenhouse gas emissions for the sector. The outcomes of this trial will also form a basis to encourage other Tasmanian hospitality venues to conduct similar audits as part of a potential wider rollout of this initiative in the future. All energy audits were undertaken during February and March 2024.

1.1 Purpose of this report

The purpose of this report is to provide THA with a consolidated review of the existing energy efficiency practices in place for each participating venue, and provide recommendations to improve energy efficiency for individual venues, as well as provide overall recommendations applicable to all venues.

2. Scope and limitations

2.1 Scope of work

In identifying the opportunities to improve the energy efficiency (and associated cost) of each venue, the following was considered:

- Improved operational practices and staff awareness of energy efficiency;
- Improved maintenance of equipment and appliances;
- Improved understanding of optimal use of appliances and equipment;
- Replacement of old technology with energy efficient technologies;
- Improved lighting systems and controls;
- Improved mechanical controls and programming, including appropriate temperature setpoints; and
- Improved thermal performance of building envelope and glazing.

The audit included the following:

- Review of the nature and scale of the operations, and the equipment and appliance needs of the venue;
- Review of the venue's power and gas bills to understand the venue's energy use profile; and
- A walk-through inspection of key energy using equipment and appliances, to understand their age, type, condition, use and operating cycles.

2.2 Limitations

This report has been prepared by GHD for THA and may only be used and relied on by THA for the purpose agreed between GHD and THA as set out in section 1.1 of this report. GHD otherwise disclaims responsibility to any person other than THA arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

Estimates of costs and savings provided in this report must not be relied upon for the purposes of informing investment decisions. Detailed cost estimates and financial viability of the energy efficiency options are excluded from the energy audits.

3. Participating Venues

The following table summarises the participating venues in this energy audit trial.

Table 1 Participating trial venues

#	Venue name	Address	Venue type	Venue size
1	Venue 1	Tas - North		Small
2	Venue 2	Tas - North		Small
3	Venue 3	Tas - South		Medium
4	Venue 4	Tas - South		Medium
5	Venue 5	Tas - South		Medium
6	Venue 6	Tas - South		Medium
7	Venue 7	Tas - South		Medium
8	Venue 8	Tas - North		Medium
9	Venue 9	Tas - East		Large
10	Venue 10	Tas - North		Large

4. Energy Data Review

The following graph presents a comparison of energy consumption for a representative summer month and winter month for each venue. December 2023 was used to represent a summer month, and July 2023 was used to represent a winter month.

This graph shows that the summer and winter energy consumption is generally within 20% of each other. Some exceptions were two venues that had summer energy consumption significantly less than winter energy consumption – 25% and 61% respectively. As these two venues have solar panels installed, it is likely that onsite energy generation from these systems is a major contributor to reducing their annual energy bills, particularly during the summer months when the solar panels are generating the most energy.

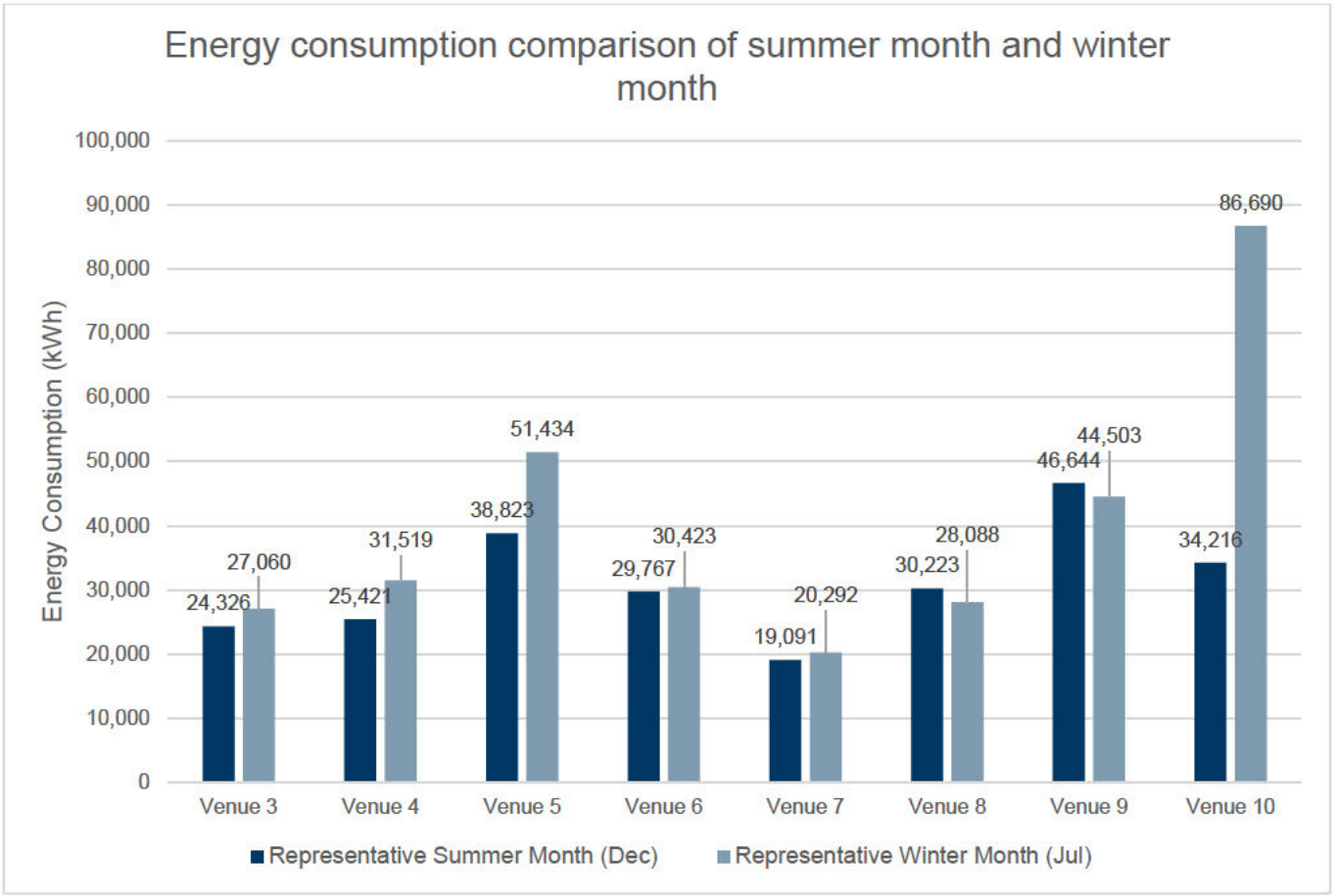

Figure 1 *Energy consumption comparison of representative summer and winter months*

From the table below, some venues have significantly lower peak and off peak retail charges compared to the other sites. While this assessment is focused on improving energy efficiency, each venue should consider if they are getting the best deal from their retailer as this can have significant impact to overall cost to their business.

Table 2 *Comparison of retail charges and environmental schemes for each venue*

	Venue 3	Venue 4	Venue 5	Venue 6	Venue 7	Venue 8	Venue 9	Venue 10
Retail Charges								
Peak (c/kWh)	19.3975	19.3975	14.4738	14.4738	19.3975	6.972	14.4738	8.1009
Off peak (c/kWh)	9.9819	9.9819	10.703	10.703	9.9819	5.0331	10.703	4.8525
Environmental Schemes								
LRECs (c/kWh)	1.1778	1.1778	1.08451	1.08451	1.1778	0.2197	1.08451	0.6508
SRECs (c/kWh)	0.6475	0.6475	0.7173	0.7173	0.6475	0.6508	0.7173	0.9182

5. Energy-use Breakdown

The approximated breakdown of energy-use for Tasmanian hospitality venues is shown in Figure 2. This is based on a combination of Australian and international studies in the hospitality sector, including for cafes, restaurants, business hotels, and catering services[1][2][3][4][5].

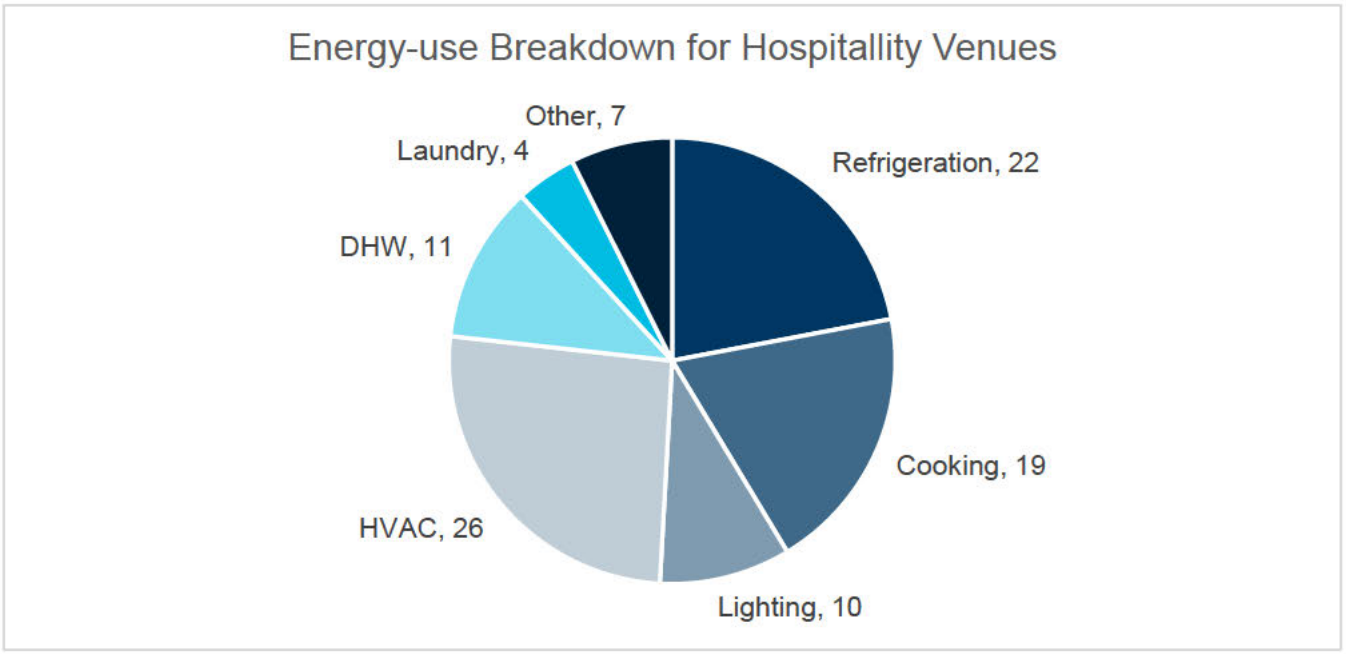

Figure 2 *Approximate breakdown of energy-use for hospitality venues in Tasmania*

This chart shows that space heating, ventilation and air conditioning (HVAC) accounts for approximately a quarter of total energy consumption, followed closely by refrigeration (i.e. fridges, freezers and cool rooms). While cooking accounts for around 20% of energy use, the majority of this is likely to be in the form of gas consumption and not electricity (depending on the type of equipment the kitchen uses). Both lighting and domestic hot water (DHW) account for around 10% of total energy consumption each, but energy-use for hot water will be higher for venues with accommodation. Similarly, energy consumption for laundry services will vary and is generally very minor for cafes, restaurants and bars (if applicable at all). Energy consumption for administrative office computers and equipment would form part of the 'Other' category, accounting for approximately 7%.

This breakdown forms the basis of all cost estimates presented in this report, and due to the general nature of these assumptions across different types of hospitality venues, any cost estimates and savings presented in this report should not be relied upon for investment decisions. It is recommended that detailed cost estimates specific to the venue are carried out prior to any investment being made.

[1] https://niccolo.co.uk/for-customers/how-much-energy-does-an-average-restaurant-use-every-year
[2] https://electricityplans.com/landing/electricity-for-restaurants/
[3] https://www.researchgate.net/publication/281091977_BUSINESS_HOTEL_UTILITY_CONSUMPTION_AND_SAVING_OPPORTUNITIES
[4] https://www.researchgate.net/figure/Break-down-of-energy-consumption-from-the-food-service-industry-Catering-for-a_fig5_236026610
[5] https://smartenergy.illinois.edu/restaurants/

6. Government Schemes

This section provides key information on some of the government schemes that can help small businesses improve their energy efficiency. These schemes include:

– Energy Saver Loan Scheme & Business Energy Efficiency Scheme (Tasmanian Government)
– Energy Efficiency Grants for Small and Medium Sized Enterprises (Australian Government)
– Small-scale Renewable Energy Systems (Australian Government)

6.1 Energy Saver Loan Scheme & Business Energy Efficiency Scheme

The Energy Saver Loan Scheme is targeted at small businesses that use less than 150 megawatt-hours (MWh) per year, whereas the Business Energy Efficiency Scheme is for businesses than use more than 150 MWh per year. Key details are:

– The schemes provides interest-free loans of up to $10,000 over 3 years to invest in energy efficient products.
– Eligible products include rooftop solar, battery storage systems, electric heating/cooling, hot water heat pumps, solar hot water heating, efficient electrical appliances, and building upgrades like double glazing.
– The loans are provided through Brighte Capital, which has an established network of accredited vendors across Tasmania to supply and install the energy efficient products.
– The scheme aims to help small businesses reduce their electricity costs through improved energy efficiency, while also supporting Tasmanian businesses to grow and employ more people.
– In addition to the $10,000 interest-free loans, the government is also offering eligible businesses the option to apply for a further low-interest loan of up to $50,000 for 3 years.

Relevant Links

– **https://business.gov.au/grants-and-programs/energy-saver-loan-scheme-tas**
– **https://business.gov.au/grants-and-programs/business-energy-efficiency-scheme-bees-tas**
– **https://brighte.com.au/**

6.2 Energy Efficiency Grants for Small and Medium Sized Enterprises

Key details of the Energy Efficiency Grants for Small and Medium Sized Enterprises program are:

– Although Round 2 of this program recently closed in April 2024, the program provided grants of $10,000 to $25,000 to cover up to 100% of eligible costs for small and medium businesses to upgrade or replace inefficient equipment and improve their energy efficiency.
– Eligible activities included upgrading or replacing technologies like display fridges, gas cookers, space and water heating systems, as well as conducting energy audits and installing monitoring systems.
– The program aimed to improve energy efficiency practices, increase awareness and uptake of energy efficient technologies, assist small to medium enterprises (SMEs) to manage their energy usage and costs, and reduce greenhouse gas emissions.
– The intended outcomes were to increase awareness of energy efficiency opportunities, help SMEs save energy and reduce power bills, and contribute to Australia's target of a 43% reduction in emissions from 2005 levels by 2030.
– The program was open to SMEs with 1-199 employees that have been in operation for at least 24 months. Applicants must have an ABN and consent from the owner of the project location if they are not the owner.

– A total of $41.2 million was available in Round 2 of the program which closed in April 2024, with funding allocated across the states and territories based on the distribution of SMEs nationally. The program is likely to be available again in February 2025,
– Businesses interested in this program should visit the program website for future rounds of the program early next year.

Relevant Links

– **https://www.dcceew.gov.au/energy/programs/energy-efficiency-grants-small-medium-sized-enterprises**

6.3 Small-scale Renewable Energy Systems

The Small-scale Renewable Energy Systems (SRES) provides incentives for a range of small-scale renewable energy technologies. Key details are:

– Eligible systems include solar photovoltaic (PV) systems, wind turbines, hydro systems, solar water heaters, and air source heat pumps.
– Small-scale systems must have a capacity of no more than 100 kW, and the annual electricity output must be less than 250 MWh.
– To be eligible for Small-scale Technology Certificates (STCs) under the SRES, newly installed small-scale systems must have the STCs created within 12 months of installation, use components (panels, inverters) listed on the Clean Energy Council's approved products list, and be designed and installed by accredited professionals.
– To claim the STCs, owners can either assign the STCs to their installer in exchange for an upfront discount, or sell the STCs themselves on the open market or through the STC Clearing House.

Relevant Links

– **https://cer.gov.au/schemes/renewable-energy-target/small-scale-renewable-energy-scheme**

7. Summary of Key Observations

The following summarises the key observations across all the venues:

– In general, it was found that while all the venues had fridges and freezers in good working order with no obvious signs of perishing or damaged seals, the temperature setpoints were cooler than they needed to be.
– Temperature settings for space heating and cooling were generally too cold in summer and too hot in winter, however adjusting this requires a change in staff/patron expectations.
– Only a few venues had an energy management system that onsite staff could directly access and monitor.
– Most heating/cooling and lighting systems were controlled manually and sometimes left on when not required.
– No venues had efficient heat pump hot water systems installed.
– Most venues had single glazing windows, and while insulation was not observed, it’s unlikely to be adequate.
– Only 2 venues took advantage of onsite solar energy generation.
– There was some appreciation across all venues for energy efficiency and the direct impact on overall operational costs, however this could be strengthened through better staff awareness and education.

8. General Recommendations

The following summarises the general recommendations, however please refer to the individual audit reports for specific recommendations to each venue.

- All venues should consider taking advantage of the available government schemes to install new energy efficient equipment, including new LED lighting throughout, with timers and sensors. These include the Tasmanian government's Energy Saver Loan Scheme and the Business Energy Efficiency Scheme, and the Australian Government Energy Efficiency Grants for Small and Medium Sized Enterprises program. The Australian Government's Small-scale Technology Certificates are available for new renewable energy generation systems and can be discussed with your system installer.
- From an energy-saving perspective, fridges and freezers should be set to minimum required temperatures (i.e. 5°C for fridges and -18°C for freezers). As a rule of thumb, for every degree increase in cooling, 5% of energy can be saved. Cool rooms should be installed with both a door and a plastic curtain for reduced heat loss.
- Only use air-conditioning and heating when necessary and set the temperature between 22°C and 24°C during warmer periods and between 18°C and 20°C during colder periods using a programmable thermostat to suit the schedule. Every degree higher in summer and lower in winter can save between 5 and 10% on energy use. The greater the difference between outside and inside temperatures, the poorer the system efficiency to maintain comfortable internal temperatures, therefore these temperature ranges help balance occupant comfort and energy efficiency. Occupant comfort is highly subjective and can vary based on occupant expectations, level of clothing (which varies throughout the year), activity, and a range of other personal factors.
- Consider if heat pump hot water systems are suitable when existing systems are due for replacement. These systems typically use around 60 to 70% less electricity than a conventional electric hot water system.
- Significant opportunity for more solar PV panels across all sites. Solar panels have a typical payback period of approximately 3-5 years depending on peak hours of operation.
- Energy monitoring systems can be considered to track energy consumption in real-time and identify areas of inefficiency. This data can then help with implementation of targeted energy-saving measures and support in measuring the effectiveness of energy reduction initiatives over time.
- Consider installing appliances (e.g. refrigerators, air conditioners, and TVs) that have a rating within 1 star of the maximum Energy Star available for that appliance type and capacity. Although the capital cost may be slightly higher, these appliances consume less energy and provide the same level of performance. These savings typically result in lower costs over their life-cycle.
- All accommodation units should have a master switch to turn off heating/cooling and lighting when the room is vacant.
- Ensure high-performance double glazing and insulation in future refurbishments to improve energy efficiency.
- All venues should consult with their energy retailers on options to reduce the retail charges.

9. Industry Benefits

Adoption of the energy audit initiative more broadly across the Tasmanian hospitality sector can drive significant cost savings, emissions reductions, competitiveness, and branding benefits for Tasmanian businesses. It is recognised that the participating venues in this energy audit trial are generally well-managed with respect to energy efficiency, therefore the average energy performance across the state's 2,500 venues is assumed to be less than the participating venues. For this reason, the overall benefits identified in this report are considered conservative. Furthermore, it is acknowledged that for many venues, the property is not owned by them but a property investor and that in these instances the venue owner would need to discuss the opportunity with the property owner.

9.1 Zero Cost Savings

From the energy audit trial participants, through simple changes such as increasing the thermostats by 1°C in fridges, freezes and cool rooms, individual venues can save around $500 on average each year. The more cold storage the venue has, the greater the savings. Furthermore, where cooling equipment is operating significantly colder than the minimum food storage requirements, increasing the temperature by 2°C will double the savings. Similar savings can also be made through increasing the cooling temperature of air-conditioning and reducing the heating temperature of space heating systems by 1°C respectively. **Approximately, $3 million can be saved each year at zero cost if adopted statewide simply through minor adjustments of temperature settings.**

9.2 Initiatives with Short Payback Periods

9.2.1 LED Upgrades

While lighting upgrades to LED is a commonly-adopted initiative across the participating venues, there were some venues that were postponing this to coincide with future refurbishments. While government schemes are currently available to support businesses in making this transition, the payback for LED upgrades is generally around 1.5 years based on typical lighting use in hospitality, making this initiative economically appealing even without direct government support. **It's estimated that lighting upgrades could provide at least $8 million in savings each year if adopted statewide.**

9.2.2 Heat Pump Hot Water

Replacing conventional electric resistance domestic hot water systems with heat pump hot water systems also has the potential to provide significant savings, particularly for accommodation venues. While this initiative generally has a longer payback period than lighting upgrades (3-5 years) and may not be suitable for all venues, **heat pump hot water systems can save upwards of $5 million each year if adopted statewide.**

9.2.3 Solar PV

With the potential to achieve similar payback periods to heat pump hot water systems for the right installation, solar PV panels can also provide significant reductions in a venue's overall annual energy bills. While the benefits of solar PV will vary from site to site, venues with unshaded north-facing roofs should obtain an assessment of their solar energy generation potential from any solar PV provider. These assessments are generally provided at no cost to the venue, but allow them to compare their potential generation against their energy bills. Although a 10kW rooftop solar system can cost between $10,000 and $15,000, and have a useful life of at least 25 years, not all venues will be suitable especially venues that primarily operate in the evenings. Battery energy storage systems can help when peak energy generation and peak energy demand periods do not align, however the overall benefits of combined solar and battery systems for the Tasmanian hospitality sector is unclear at this stage.

9.3 Initiatives for Planned Refurbishments

9.3.1 Double Glazing and Insulation

Improvements to building fabric elements such as double glazing and insulation will provide overall benefit to the venues, including reduce energy consumption, and improved thermal and acoustic comfort for all building users. However, the investment costs and practicality of undertaking such upgrades can outweigh the financial savings from any energy efficiency gains. Due to the relatively low savings in energy, the payback period for window and wall insulation upgrades can be up to 20+ years, therefore these upgrades are often done for other reasons, such as acoustic treatment in accommodation suites. As ceiling insulation is generally more effective in maintaining room temperature than wall insulation, the economics and practicality of installing ceiling insulation generally means that it should be done now. However, the best time for window and wall insulation upgrades is during planned major refurbishment works where the windows and internal wall linings were being replaced anyway.

10. Next Steps

Based on the findings from this energy audit pilot trial and the benefits identified, it is recommended that a cost-effective energy audit service be developed and promoted to the industry. An expanded energy audit program across the state has the potential to provide significant cost savings to individual businesses and the industry as a whole.

Energy Audit Trial Pilot

Tasmanian Hospitality Association

About this document

This energy audit has been conducted by GHD as part of the Energy Audit Pilot Trial for the Tasmanian Hospitality Association (THA). This audit contains observations of the venue's current state of energy efficiency and recommendations to improve energy efficiency.

The outcomes of the Energy Audit Pilot Trial will form a basis to encourage other Tasmanian hospitality venues to conduct similar audits as part of a wider rollout of this initiative. Cost and emissions savings achieved through these energy efficiency measures will provide direct benefit to the Tasmanian hospitality sector and the State.

This energy audit considered the following:

- operational practices and staff awareness of energy efficiency;
- maintenance of equipment and appliances;
- understanding of optimal use of appliances and equipment;
- general condition and age of the technology;
- lighting systems and controls;
- mechanical controls and programming, including temperature setpoints; and
- thermal performance of building envelope and glazing.

Potential financial benefits of the nominated recommendations are high-level estimations only, based on visual inspection of the venue, review of energy bills, and industry best-practice. Cost estimates contained in this report should not be relied upon for investment decision. It is recommended that detailed costings and modelling is undertaken to ensure financial benefits are site-specific and appropriate for the venue.

For further information, please contact the THA.

GHD

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Project Name	THA Energy Audit Pilot Trial
Site Name	
Site Address	
Site Contact Name	
Site Contact Number	
Date and Time of Site Visit	
GHD personnel	

Initial questions		**Response**
1	Are you able to provide electricity and gas (if applicable) bills for the last 12 months? What are the tariffs?	
2	Has anything changed recently that may impact your energy bills?	
3	Which areas of the venue (equipment or operations) do you think should be prioritised for energy-saving improvements?	
4	Do you have a building/facility maintenance program to keep your equipment in optimal condition? (e.g. filter changing, condenser coil cleaning, fridge and freezer temperatures, regular defrosting, cleaning vents etc)	
5	Would you prefer to retrofit or replace existing equipment?	
6	Are you currently using any energy-efficient appliances or lighting?	
7	What are the peak hours of operation/energy consumption in the restaurant?	
8	Do you have an energy management system in place?	
9	If eligible, would you consider an interest-free loan to install high energy efficiency equipment?	
	https://business.gov.au/grants-and-programs/energy-saver-loan-scheme-	
	https://business.gov.au/grants-and-programs/business-energy-efficiency-	

Item	**Inventory**	**Audit comments**
Kitchen		
A1	Refrigerators	
A1.1	Door/seal condition?	
A1.2	Temperature range? (i.e. 0°C - 5°C)	
A2	Freezers	
A2.1	Door/seal condition?	
A2.2	Temperature range? (i.e. < -18°C)	
A3	Dishwashers	
A3.1	Are dishwashers only run when full?	
A4	Ovens and warmers	
A4.1	Oven door/seal condition?	
A5	Microwaves	
A6	Heat lamps	
A7	Range hoods	
A7.1	Variable volume control?	
A8	Lighting	
A9	Other	
A10	General - Are cold appliances such as fridges and freezers separated from hot appliances such as ovens?	
Bar /		

2 Salamanca Square, Hobart TAS 7000 | +61 3 6210 0600 | hbamail@ghd.com

B1	Refrigerators	
B1.1	Door/seal condition?	
B1.2	Temperature range? (i.e. 0°C - 5°C)	
B2	Freezers	
B2.1	Door/seal condition?	
B2.2	Temperature range? (i.e. < -18°C)	
B3	Coffee Machine	
B3.1	Overnight shutdown?	
B4	Lighting	
B5	Other	
B6	General - Can food display units (cold)	

Outdoor			
C1	Heating		
C2	Lighting		
B2.1	Time switch?		
C3	Other		

Laundry			
D1	Washing Machines		
D2	Dryers		
D3	Steamers		
D4	Ironers		
D5	Other		

Rooms		
E1	HVAC	
E2	Operable windows	
E3	Lighting	
E4	Hot water	
E5	Master switch	
E6	Other	

General		
F1	HVAC	
F1.1	Zoning?	
F1.2	Temperature setpoint?	
F1.3	Controls?	
F2	DHW	
F3	Lighting	
F3.1	Zoning?	
F3.2	Controls?	
F4	Insulation	
F5	Glazing	
F6	Shading	
F7	Solar Panels	
F8	Other	

Final audit feedback and recommendations

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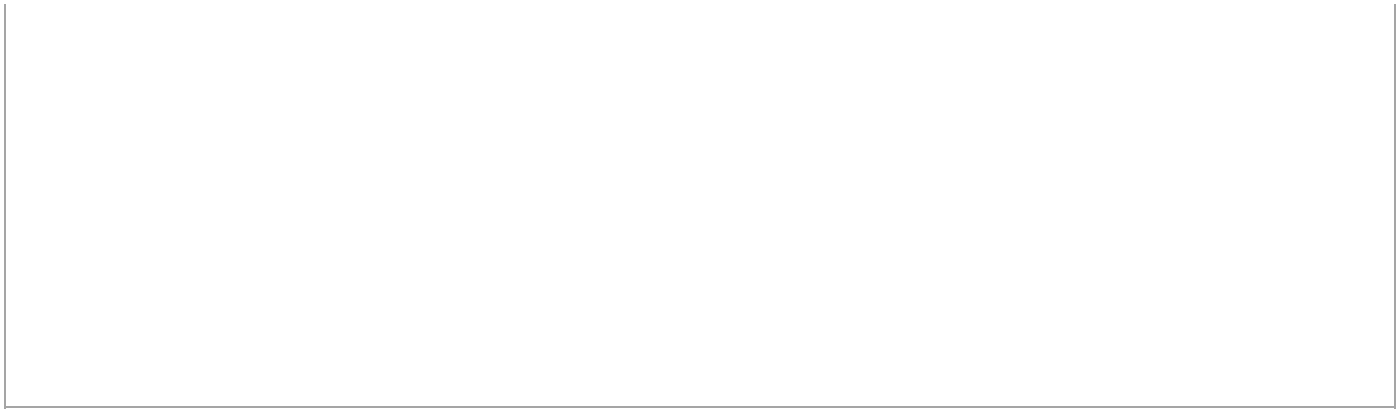

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