

Sustainable Living Tasmania (SLT) would like to thank the Government for the opportunity to comment on the development of the Tasmanian Energy Strategy. The following contains mainly specific comments about particular elements of the strategy document.

4.1.3 Energy Efficiency

SLT strongly supports the Government's efforts to improve residential and business energy efficiency. Energy efficiency has the potential to provide substantial, cost-effective savings to households and businesses; thereby reducing hardship and freeing up money and energy to be utilised more productively in other parts of the economy.

SLT has delivered many energy efficiency programs over decades. In the past three years, these have included two Tasmanian Government programs, "Power Savings for Tenants" and "Energy Champions". We are also currently implementing the Australian Government's Low Income Energy Efficiency Program named "Get Bill Smart" in partnership with the University of Tasmania and Mission Australia. Through those three programs we have visited more than 4,000 Tasmanian households, delivering targeted upgrades and advice on energy efficiency and achieving substantial savings, demonstrated through analysis of participants' billing data.

Energy Champions

The Energy Champions project has successfully delivered a quality energy efficiency service to 3,306 Housing Tasmania properties. Overall the project has benefitted 7,062 residents, including 928 people over the age of 65. In total, 9,587 hours (4.9 full-time years) were spent delivering services within Housing Tasmania properties.

The service delivered energy efficiency upgrades and education sessions. In total almost 25,000 lights were changed, 4,800 doors draft-proofed and over 2,000 showerheads replaced. These upgrades have contributed to estimated water savings of 127,000 kL per year, valued at over \$120,000 per year. An analysis of energy billing data in December 2013 showed that the average household was saving 3.3 kWh per day from their bills, equating to \$262 per household per year (\$866,172 per year across the project).

The project has been favourably received by target households. There has been an increase in warmth, with 20% more tenants reporting they were warm in their living room. This is backed up by verbal reports and unsolicited thanks from project clients.

Power Savings for Tenants

The Power Savings for Tenants project delivered 813 home energy efficiency visits. These included upgrades and behaviour change sessions. Overall these benefitted a total of 813 households, with 2,068 tenants. Of these around 6% were aged pensioners and 22% came from single parent households.

The program has delivered tangible benefits to the households that participated. The collection of billing data from Aurora indicates that the average household has reduced their energy usage by 2.4kWh per day. This equates to around \$190 per year or a combined total of approximately \$157,000 per year across the project. The project has also resulted in reduced water usage. Simply changing the showerheads in 483 households has resulted in average water saving of 129 litres per day, which equates to a cumulative saving of 38,537 kL/year valued at around \$35,000. Combined the water and energy savings provide a project with a 4 year payback.

In follow-up surveys, participating households provided overwhelmingly positive feedback. Overall there has been a reduction in energy poverty, including warmer homes and improved health of occupants. Tenants have been implementing the advice that has been recommended and have linked this to their reduced energy bills.

Recommendations

Learning lessons from previous programs will assist in better program design. From SLT's experience in delivering energy efficiency services to more than 4,000 households targeting low-income Tasmanians in the past 3 years, we recommend that residential energy efficiency programs be:

- **Eligibility criteria simple and open:** Narrow eligibility criteria hampers recruitment and delivery of programs and is often unfair;
- **Multi-year:** Programs with short timeframes create workforce and project design issues. A multi-year program improves economic efficiency by reducing program design and set up costs. Importantly, it also allows the skills of the workforce to be consolidated and improved rather than a rushed roll-out process.
- **Focus on low-cost interventions and education:** Low cost interventions are the "low hanging fruit" that give the greatest return on investment. A combination of physical upgrades as well as education is the best of both worlds;
- **Flexibility:** Every home and situation is different. A program needs to have the flexibility to adapt deliverables to the home and occupant rather than a "1 sized fits all" package;
- **No need to reinvent the wheel:** There are existing skilled auditors and assessors, project management staff and software to deliver effective and efficient programs;
- Exempt thermostat adjustment of electric hot water cylinders from requiring an electrician's or plumber's license. This simple procedure can save a significant amount of energy. It can be safely carried out with adequate training; however it is currently considered "Prescribed Works" by Workplace Standards and therefore can only be performed by licensed electricians or plumbers, which makes it uneconomical to perform;
- Insulation and draught-proofing are the most cost effective actions to improve thermal performance;
- Resistive electric heaters should be avoided in favour of heat pumps (approximately four times more efficient) by all government agencies;
- Energy savings of around 10% of the average bill are achievable at the program level. This equates to programs with around 3.5 year simple payback, and
- SLT regularly receives requests for services that cannot be serviced by existing programs.

SLT believes that abilities to change energy efficiency are different in each segment of the community. Programs need to be designed to understand the strengths and weakness of the target group. For example:

- For low income households, information gaps are present, but more often than not these are trumped by other considerations, in particular split incentives and access to capital, and
- For small businesses, time limitations have resulted in the majority of failures of energy efficiency uptake. Programs in this area need to address time availability if they are to be successful. Programs should not rely on educating business people to make their own energy efficiency assessments and decisions. While that approach can be optimal for some technical businesses (e.g. manufacturing and processing), for the majority of businesses it is time-confusing and too far outside the businesses' core skillset. Most businesses are best off outsourcing energy efficiency services while getting on with their core business, and any government energy efficiency program should reflect that.

Environmental upgrade Agreements

Environmental upgrade agreements do offer a mechanism to remove the split incentives in multi occupant business premises. SLT understands that the uptake of these agreements has been slow and the contractual agreements can be overly complicated. A sensible approach may be to discuss opportunities with the owners of business premises in the major Tasmanian cities as well as develop best practice legal frameworks.

4.1.7 Competition and efficient use of transport fuels

Eco-driving

The efficient use of transport fuels including safe and efficient driving techniques includes the driving skill known as "Eco Driving". Focusing on vehicle maintenance, trip planning, smooth driving and other tips; fuel efficiency savings of over 20% are achievable. SLT has delivered training with Kentish Council that has resulted in a 10% fuel saving in the council fleet. Programs such as this can be cost effective for fleets we recommend that this training be further adopted. A short video on the technique can be found on the SLT YouTube Channel.

Electrification of Vehicles

We note that the strategy has recognised the vulnerability of the state to transport fuel rises and the potential for vehicle electrification. SLT believes there is much more opportunity here than briefly outlined and would like to see greater work conducted in this area.

All-electric vehicles have been commercially available for some time, and a number are already on Tasmanian roads, including in the University of Tasmania fleet. People won't purchase all-electric vehicles until there is sufficient charging infrastructure, but businesses won't build charging infrastructure until there is sufficient market to ensure a return on investment. In Australia, Tasmania is in a unique position due to the relatively short distances between population centres, meaning fewer charging stations are required to achieve good coverage. With the right mix of stakeholders, SLT believes a tourism-led venture can kick-start the vehicle electrification in Tasmania.

We envisage "the Great Australian Renewable Road Trip" – electric vehicle fast-recharge stations strategically located at tourism destinations throughout Tasmania. This could be a marketable point of difference that works on Tasmania's clean, green image. Tourism operators would benefit by having a captive audience (fast charging gives 80% charge in 30 minutes for the Nissan Leaf). It could also breathe new life into towns that have suffered since being bypassed by highways. A partnership involving tourist operators, hire companies and tourism agencies would be required to develop and promote this idea. SLT is interested in pursuing this opportunity in liaison with other partners.

4.1.9 Actions

As elaborated on throughout this document, SLT endorses the recommended Actions: 11,12,13,14, 15, 20, 30, 32,36,40,41,42,43,44,45 and 46.

4.3.1 Retaining existing business and attracting new load

This relates to clause 4.1.7, the electrification of the vehicle fleet could replace the load from the loss of a large industrial customer. Financially this could have several benefits:

- a) having individual residential customers paying higher tariffs than industrial customers would result in higher Government Incomes;
- b) Electric vehicles are cheaper to operate than petrol, therefore a higher proportion of money will be available to Tasmanian consumers. Moreover the money spent on fuels will remain in Tasmania rather than leaving the state and nation (currently over \$1B per annum)

4.2.2 Cost Reflective Pricing

SLT does not support increasing the “fixed charges” proportion of electricity bill. Increasing the fixed charges proportion of the bill reduces pricing impacts on energy consumption, in effect working against energy efficiency initiatives. It sends a price signal to consume more energy, which is risky in a world that is heading in the other direction. When a price on carbon is reinstated, Tasmania would need to readjust once more.

Perhaps of greater concern, increasing fixed charges would eventuate in more people going off-grid and increasing fixed costs for remaining energy users, thereby exacerbating the “death spiral”.

4.3.2 Renewable Energy

SLT would like to see Tasmania as 100% renewable in its energy use for stationary *and* transport energy. Tasmania is well placed to achieve this. SLT also believes that the global energy trajectory is heading towards distributed renewable energy and storage systems. The Tasmanian Government needs to prepare for this to ensure that its energy infrastructure assets remain viable and relevant. Distributed generation and Tasmania’s hydro resources could be combined to create a strong, resilient energy system that would be the envy of the world.

SLT supports the following recommendations also suggested by the Tasmanian Renewable Energy Alliance

- The government should instruct TasNetworks that improving voltage regulation in the distribution network is a priority where high voltages are leading to disconnections for solar PV customers. Ensuring that the distribution network operates at closer to the target voltage would facilitate the integration of distributed generation.
- Review the methodology used to calculate the feed-in tariff for small embedded generators so that it adequately compensates small generators for avoided network costs and other benefits of distributed generation.
- Investigate a mechanism to support location specific feed-in tariffs in locations where there are network constraints.

4.3.5 Smart Network

SLT sees that a smart network could have benefits for managing grid capacity constraints. However, given consumer concerns about these meters we think a “customer led take –up”, whereby consumers are not forced to have the meters, would be the only way to support their uptake. Vulnerable customers may also be



Comments on Draft Tasmanian Energy Strategy

disadvantaged by time of use tariffs and the impact on these customers should be investigated prior to the roll out of time of use tariffs.