WHY THE SMALL-SCALE RENEWABLE ENERGY SCHEME SHOULD BE RETAINED

CLEAN ENERGY COUNCIL

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The Small-scale Renewable Energy Scheme (SRES), which operates under the Renewable Energy Target (RET) legislation, has been a major success and has delivered significant benefits.

The SRES should remain as it is currently legislated for the following reasons:

- The SRES has delivered jobs and investment. It has leveraged consumer investment of more than $10 billion in the last five years.
- The impact of SRES on retail electricity prices is small and will continue to decline. This is offset by the downward pressure that solar places on the wholesale electricity market.
- While long term costs of solar are in decline, system prices have stabilised and in some cases have increased over the last year.
- Incentives for rooftop solar have been wound back by over 90 per cent in the last five years through the reduction of the RET multiplier and state-based feed-in tariffs. The SRES incentive is already scheduled to reduce further from 2017, which is appropriate.
- Solar brings system-wide benefits that deliver value for all electricity users.
- Scrapping SRES would lead to the loss of up to 5,800 jobs.
- The SRES makes a vital contribution to safety and consumer protection by mandating product standards and installation practices.

THE SRES HAS DELIVERED SIGNIFICANT JOBS AND INVESTMENT

Solar is the most popular energy source in Australia, and today, more than 4 million Australians live in a house with solar on the roof. The highest solar penetration rates are typically in rural and regional communities or the outer metropolitan mortgage belt. Solar is particularly popular among retirees and in low- to middle-income suburbs where households are most concerned about rising electricity prices.

Australian households have invested more than $10 billion in solar and the SRES has been the key driver for this. Australian businesses have also embraced solar, with more than 15,000 large rooftop systems (between 10 kW and 100 kW) installed to date. In total, more than 2.1 million renewable energy systems have been installed under the SRES. Most of those installations have been solar PV (more than 1.2 million), solar hot water (more than 690,000) and air-sourced heat pumps (more than 179,000 installations). This has driven the development of a skilled workforce to meet consumer demand. There are about 13,000 full-time equivalent jobs in Australia's solar PV sector and the number of CEC-accredited solar installers has grown from just a few hundred in 2007 to more than 4,500 today.

The SRES also brings significant benefits to the community in addition to the direct benefits to solar households, businesses and installers. The rapid adoption of rooftop solar has been a significant factor in the recent, unprecedented decline in overall electricity demand. This has helped to ensure that the market is well supplied, which has curbed peak energy demand and reduced wholesale electricity prices.

THE COST OF SRES IS SMALL AND DECLINING

SRES accounts for only 1.2 per cent of average retail electricity bills in 2014-2015 and will decline to between 0.9 and 1.0 per cent out to 2019-2020.

TABLE 1 **COST OF SRES FOR ELECTRICITY TARIFFS AND CUSTOMER BILLS**

Component	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
SRES as % of bill[1,2]	**1.2%**	**0.9%**	**0.9%**	**0.9%**	**1.0%**	**1.0%**

PRICES HAVE STABILISED OR INCREASED OVER THE LAST YEAR

Recent media reports have overstated solar price reductions, leading some to mistakenly believe that the SRES may no longer be required. Although the price of Chinese solar panels has fallen, for Australian consumers there are a range of factors beyond panel prices that determine the overall cost of installed solar systems. Over the last twelve months the average price across all states and territories for a 1.5kW solar PV system has increased by 2.7 per cent. For a 3kW system the average price reduced by about 3.3 per cent over the last year.

TABLE 2 **CHANGES IN SOLAR SYSTEM COSTS**

	June 2014[3]	June 2013[4]	Change
Average price for 1.5kW system ($)	**3,792**	**3,692**	**+ 2.7**
Average price for 3.0kW system ($)	**5,883**	**6,082**	**- 3.3**

For a 3kW system exporting 50 per cent of generation the annual benefits are between $587 and $911[5]. This represents a simple payback period between seven and 11 years.

Taking account of feed-in tariffs, SRES certificates and avoided energy purchases, households that installed solar PV systems between 2010 and 2012 received an average internal rate of return of 10 per cent after tax[6]. This is about the same return a utility could reasonably expect for the same investment. This seems reasonable and certainly does not present an argument for further reducing support available under the SRES.

[1] AEMC (2013) *Residential Electricity Price Trends report*, 13 December 2013, Sydney
[2] ROAM Consulting (2014), *RET policy analysis*, report commissioned by Clean Energy Council, available at http://www.cleanenergycouncil.org.au/policy-advocacy/renewable-energy-target/ret-policy-analysis.html
[3] Martin, J. (2014) 'Solar PV price check' published in *Climate Spectator*, 10 July 2014
[4] Martin, J. (2013) 'Solar PV price check' published in *Climate Spectator*, 4 July 2013
[5] Solar Business Services (2014), analysis for revisions to CEC's Solar PV consumer guide, available at https://www.cleanenergycouncil.org.au/policy-advocacy/reports.html
[6] Mountain, B. and Szuster, P. (2014), 'Australia's million solar roofs: Disruption on the fringes or the beginning of a new order?' in Sioshansi, F. *Distributed Generation and its Implications for the Utility Industry*, Academic Press

THE SRES INCENTIVE IS SCHEDULED TO REDUCE FROM 2017

In response to the 2012 review of the Renewable Energy Target regulations were amended to reduce the deeming periods for solar PV and solar hot water. The reduced deeming period commences from 2017 and rebates will be progressively reduced by about 7 per cent per year. There will be no rebate beyond 2030. This is appropriate – by then solar will be fully competitive with other forms of electricity supply[7].

SOLAR BRINGS SYSTEM-WIDE BENEFITS THAT DELIVER VALUE FOR ALL ELECTRICITY USERS

Australian households have invested more than $10 billion in rooftop solar, which accounts for about 2 per cent of electricity generated in Australia. Around 90 per cent of daily solar electricity generation occurs from 10am to 4pm and during this period share of generation from solar rises to around 5 per cent[8]. Solar makes a predictable and significant contribution to meeting peak demand. During the heatwave in South Australia and Victoria in January 2014 solar contributed to reducing demand by nearly 5 per cent[9]. Both states would have set new records for peak electricity demand had it not been for the contribution of solar.

Independent analysts have acknowledged that rooftop solar has reduced wholesale electricity prices[10,11,12]. All electricity users benefit from this. Solar also reduces the need for network expenditure. Rooftop solar installed between the start of 2010 and the end of 2012 delivered savings in network augmentation of between $900 million and $2.1 billion[13].

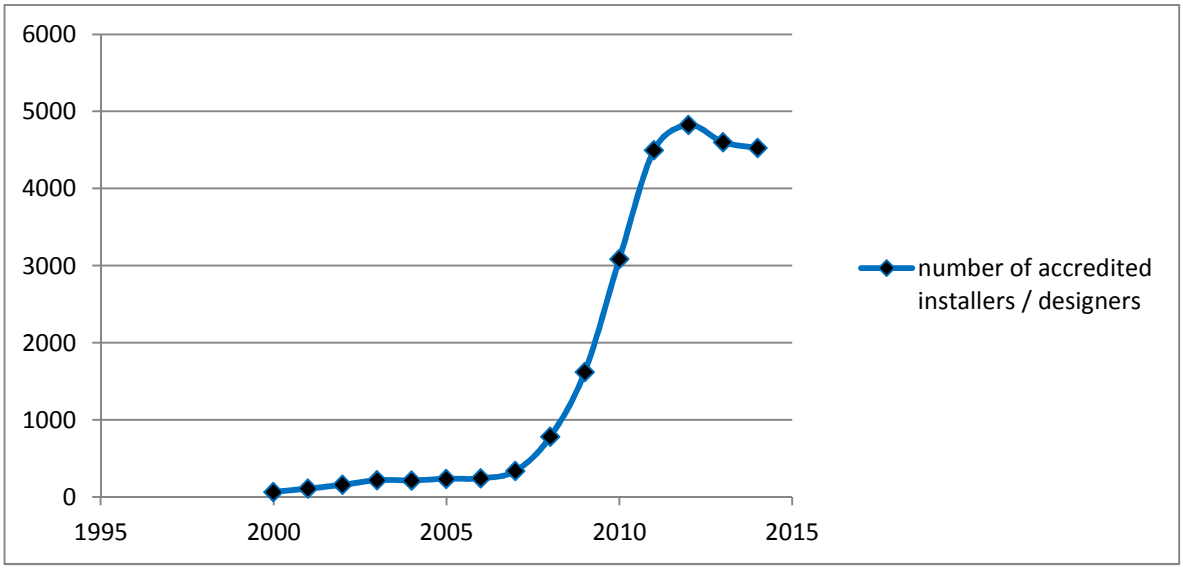
UP TO 5,800 JOBS WOULD BE LOST IF SRES IS SCRAPPED

There are about 13,000 full-time equivalent jobs in Australia's solar PV sector. Employment in the sector has declined significantly in recent years, partly due to a reduction in sales brought about by changes to state-based feed-in tariffs and the reduction of the solar multiplier under the SRES scheme. It is also due to restructuring and improved labour productivity within the sector.

All installers and designers of solar PV systems must be accredited to be eligible for rebates under the SRES. There are more than 4,500 accredited solar PV installers and designers. The accredited workforce for design and installation grew rapidly between 2008 and 2011. It has now stopped growing, and numbers reduced between 2012 and 2013. This was the first time there was a reduction in the number of accredited installers and designers.

[7] Bureau of Resources and Energy Economics (2012), *Australian Energy technology Assessment*, Canberra
[8] Mountain, B. and Szuster, P., op.cit.
[9] REC Agents Association (2014), *Solar PV making a significant contribution*
[10] Mountain, B. and Szuster, P., op.cit.
[11] Melbourne Energy Institute (2013), *The impact of distributed solar generation on the wholesale electricity market*
[12] McConnell, D., Hearps, P., Eales, D. Dunn, R. and Bateman, L. (2011), *Retrospective modelling of the merit-order effect on wholesale electricity prices from distributed photovoltaic generation in the Australian National Electricity Market*
[13] Mountain, B. and Szuster, P., op.cit.

FIGURE 1 **NUMBER OF ACCREDITED INSTALLERS/DESIGNERS**[14]



In 2014 the Clean Energy Council commissioned two expert solar industry consultants to provide an estimate of the impact that the abolition of the SRES would have on employment within the solar PV sector[15]. They estimated that the abolition of the SRES would reduce PV installation volumes by 40 to 45 per cent, which would result in the loss of between 5,200 and 5,850 FTE jobs. In modelling commissioned by the RET Review Panel, ACIL-Allen estimated – with limited consultation with the solar industry - that the abolition of SRES would reduce deployment by around 30 per cent. This would result in expected job losses of about 3,900.

THE SRES MAKES A VITAL CONTRIBUTION TO SAFETY AND CONSUMER PROTECTION

The SRES plays a vital role in ensuring high standards of quality and safety in the solar industry.

Only solar PV systems that are designed and installed by accredited individuals are able to access SRES support. This provides an important financial incentive for guaranteeing ongoing professional development, accreditation and quality assurance.

Clean Energy Council accreditation of designers and installers ensures there is a strong focus on correct design and installation, that industry best practice is followed and that consumers are provided with safe systems that meet their needs. The link between accreditation and access to rebates under the SRES is the basis for the enforcement of safety standards under the Clean Energy Regulator's inspection program and the CEC's accreditation demerit point procedure.

The SRES also ensures accredited installers only use 'approved' products that meet international or Australian Standards. This consumer protection measure ensures solar products

[14] Clean Energy Council accreditation database, accessed 20 August 2014

[15] Solar Business Services and Sunwiz (2014), Unpublished analysis used as input data for ROAM Consulting (2014), op.cit.

satisfy all relevant safety standards. Without this protection consumers would be exposed. Vulnerable consumers would be particularly exposed without the consumer protection afforded by SRES and the inspection and accreditation schemes associated with it.

The inspection and accreditation schemes also assist with investigations of fraudulent re-badging of panels and other false or misleading marketing claims. Without the SRES this activity would not be undertaken.

The SRES processes, including the inspection program, have been streamlined such that any regulation burden on industry has been minimised. The benefits they provide far outweigh any compliance costs.

The SRES enables the Clean Energy Regulator to track the amount of solar PV generation on the grid. This will be an important information source for the Australian Solar Energy Forecasting System (ASEFS), which the Australian Energy Market Operator is developing. The ASEFS will make generation from distributed solar PV systems more predictable, which will inform the bidding strategies of dispatchable generators and will help to ensure stable network operation.

The Clean Energy Council strongly advises the government not to remove incentives for quality and safety. The experience of the Home Insulation Program demonstrates the risks when governments do not provide either a financial incentive or a regulatory requirement for safety and quality.

CONCLUSION

The SRES should be retained in its current form.

It has been a major success and continues to deliver multiple benefits to the Australian economy for little cost.

Scrapping the SRES would lead to the loss of up to 5,800 jobs, see local companies go out of business, put significant consumer protection and safety measures at risk and would put the cost of installing solar out of reach to many everyday Australians.