

**Senate Standing Committee on Environment, Communications and the Arts
Legislation Committee**

**Inquiry into the Renewable Energy (Electricity) Amendment Bill 2010 [Provisions];
Renewable Energy (Electricity) (Charge) Amendment Bill 2010 [Provisions]; Renewable
Energy (Electricity) (Small-scale Technology Shortfall Charge) Bill 2010 [Provisions]
Climate Change and Energy Efficiency Portfolio
Department of Climate Change and Energy Efficiency**

Answers to questions on notice
May 2010

Topic: Australia's climate change aid assistance

Hansard Page ECA: ECA 54

Senator Boswell asked:

How much have we paid out in climate aid to overseas countries (for a period of 12 months)?

Answer:

Australia publishes a detailed record of its expenditure on climate change activities in developing countries in our regular National Communication to the United Nations Framework Convention on Climate Change. The Fifth National Communication is available on the Department of Climate Change and Energy Efficiency website. The relevant Chapter for international climate change finance is Chapter 7. It provides detail on all the Australian Government programs of spending in developing countries.

www.climatechange.gov.au/~media/publications/greenhouse-gas/Australia-fifth-national-communication.ashx

The report states that overall "Australia has provided a total of approximately \$476 million of new and additional resources over five years (2005 to 2009) for climate change related programs in developing countries."

Australia's contribution for the financial year 2008-09 was AU\$284.69 million (assuming an average exchange rate of AUD 1 = 0.7477 USD).

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Climate Change and Energy Efficiency Portfolio
Department of Climate Change and Energy Efficiency

Answers to questions on notice
May 2010

Topic: Demand for small-scale RECs

Hansard Page ECA: ECA 58

Senator Fisher asked:

I also heard you in answer to Senator Troeth effectively say—in my words—that state and territory initiatives on top of the SRES could influence demand as well. Going back to my earlier question whether there is anything in the bill that will influence demand, can you take on notice and consider a little more the question about the price differential and also your response to Senator Troeth's question about what states and territories might do in that context?

Answer:

The Renewable Energy (Electricity) Amendment Bill 2010 will separate the existing scheme into two parts; the Small-scale Renewable Energy Scheme (SRES) and the Large-scale Renewable Energy Target from 1 January 2011.

Modelling undertaken by McLennan Magasanik Associates (MMA) on behalf of the Department of Climate Change and Energy Efficiency indicates that, based on a price of \$40 for small-scale Renewable Energy Certificates (RECs), the number of RECs created by small-scale systems each year is expected to fall over the next three to five years starting at around 10.8 million RECs in 2011 and declining to around 6 million RECs in 2015 where it remains for the remainder of the scheme. The number of small-scale RECs is expected to decline as the Solar Credits multiplier reduces and rebates for solar and heat pump water heaters expire and as the state based schemes reach their maturity dates.

MMA has separately undertaken modelling of the uptake of small-scale electricity generation and displacement technologies supported through the SRES, accounting for current policy settings at both the state and Commonwealth level that incentivise households to switch from conventional systems. For solar water heaters and heat pumps, these include measures such as rebate support and changes to national and state level building codes that limit the installation of inefficient forms of water heating. For roof-top solar photovoltaic systems MMA have considered current state-based feed-in-tariff (FIT) initiatives, such as the NSW gross premium FIT scheme announced recently, and the Commonwealth's 'Solar Credit' scheme under the RET.

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Climate Change and Energy Efficiency Portfolio
Department of Climate Change and Energy Efficiency

Answers to questions on notice
May 2010

Topic: Clean Energy Council (CEC) solar photo-voltaic systems
installation accreditation requirements

Hansard Page ECA: ECA 58

Senator (Fisher) asked:

Can you highlight those requirements (to be a CEC accredited installer) and provide them to the committee?

Answer:

The attached documentation, available from the Clean Energy Council's website, details the requirements and process to become a CEC-accredited installer of solar photo-voltaic systems. The attachments are:

- 'What is Solar PV accreditation?':
<http://www.cleanenergycouncil.org.au/cec/accreditation/Solar-PV-accreditation/aboutaccreditation.html>
- 'Required training':
<http://www.cleanenergycouncil.org.au/cec/accreditation/Solar-PV-accreditation/accreditationprocess/required-training.html>
- 'Provisional accreditation':
<http://www.cleanenergycouncil.org.au/cec/accreditation/Solar-PV-accreditation/accreditationprocess/Provisional-Accreditation.html>
- 'Full accreditation':
<http://www.cleanenergycouncil.org.au/cec/accreditation/Solar-PV-accreditation/accreditationprocess/Full-Accreditation.html>



Clean Energy Council

Solar PV Accreditation

What is Solar PV accreditation?

Solar PV accreditation is a qualification that demonstrates competence in design and / or installation of stand-alone (SPS) and/or grid-connected (GC) solar photovoltaic power systems.

The aims of the Accreditation scheme are -

1. to increase the uptake of solar photovoltaic power systems for the provision of energy services, by giving customers increased confidence in the design and installation work;
2. to improve the safety, performance and reliability of solar photovoltaic power systems installed in the field;
3. to encourage Industry Best Practice for all design and installation work involving solar photovoltaic power systems (see Accreditation Standards and Accreditation Rules);
4. to provide a network of competent solar photovoltaic power systems designers and installers.

The Clean Energy Council (CEC) takes advice from its Standards, Training and Accreditation (STA) committee. This committee is formed from industry members, across the nation, with wide experience with renewable energy, plus a representative from government and a Clean Energy Council Director.



Clean Energy Council

Solar PV Accreditation

Required Training

Individuals who have completed (or received Recognition of Prior Learning (RPL) or Advanced Learning) the required Accreditation training can become Accredited.

For a list of required training units, click here.

Note: Individuals applying for 'Grid-Connect Design and Install' and 'Grid-Connect Install Only' must hold an unrestricted Electrical License.

Registered Training Organisations

There are numerous registered training organisations (RTOs) that currently offer (or have recently offered) one or more of the modules required for Accreditation.

For a list of registered training organisations (RTOs), click here.

The offerings of each RTO vary from semester to semester and are dependent on student numbers enrolling. For course specific information, such as duration, cost and Recognition of Prior Learning (RPL), please contact the registered training organisations directly.

Online (Correspondence) Training

Currently, there are three providers of online (correspondence) training:

1. SkillsTech Australia TAFE in Brisbane
SkillsTech Australia TAFE offers an online course in Grid Connect Installer and Design Accreditation.
2. Sunshine Coast TAFE in Nambour
The Sunshine Coast TAFE runs a Certificate IV in Electrical – Photovoltaic Systems for licensed electricians. It is two weeks in length. The first week is on-line reading of resources at home. The second week is five days at the Nambour Campus doing practical training and both the theory and practical assessments.
3. GSES in NSW
GSES runs the course Design & Install Grid-Connected PV Systems for licensed electricians. This involves online training and a three day practical component.

Time-Intensive Training

1. Chisholm TAFE (Berwick, Victoria) is running the course Certificate IV in Renewable Energy for licensed electricians, over a period of ten Saturdays.
2. NMIT (Epping, Victoria) runs short-courses Grid Connect Design and Grid Connect Install for Qualified Electricians.

Recognition of Prior Learning (RPL)

If you are an experienced designer and/or installer but you do not have the necessary qualifications to satisfy the Clean Energy Council's Provisional Accreditation requirements, then you may apply for Recognition of Prior Learning (RPL) through any of the listed registered training organisations (RTOs).



Clean Energy Council

Solar PV Accreditation

Provisional Accreditation

On completion (or Recognition of Prior Learning (RPL) or Advanced Learning) of the required training (see Accreditation Pathways document) the applicant may submit an application to be provisionally accredited.

A Provisional Accreditation Applications must include –

1. Signed and completed application form (see Accreditation Application form)
2. Certificate of Currency / Proof of Public Liability Insurance cover – minimum of \$5 million coverage
3. Record of successful completion of all required training units (see Accreditation Pathways)
4. Copy of unrestricted Electrical License (required for 'Grid-Connect Design and Install' and 'Grid-Connect Install Only')
5. Payment – Full \$660 (or 2 x payments \$330)
6. Provisional Accreditation expires 18 months from the date of award. Before expiry the Accredited person must submit an application to upgrade to Full Accreditation.



Clean Energy Council

Solar PV Accreditation

Full Accreditation

An accredited person can apply to the Clean Energy Council for Full Accreditation by submitting three case studies as proof of competence in the Design and Installation of solar photovoltaic power systems (see Case Study Overview, GC-Accreditation Case Study form and SPS-Accreditation Case Study form).

An Upgrade to Full Accreditation Application must include --

1. Signed and completed application form (see Accreditation Application form)
2. Certificate of Currency / Proof of Public Liability Insurance cover -- minimum of \$5 million coverage
3. Three case studies (see GC-Accreditation Case Study form and SPS-Accreditation Case Study form).
4. Copy of unrestricted Electrical Licence (required for 'Grid-Connect Design and Install' and 'Grid-Connect Install Only')
5. Payment -- Full \$880 (or 2 x payments \$440)

If applying to upgrade:

1. Accreditation for stand-alone (SPS) and grid-connected (GC) photovoltaic power systems: two stand-alone (SPS) photovoltaic power system case studies and one grid-connected (GC) photovoltaic power system case study must be submitted.
2. Accreditation for grid-connected (GC) photovoltaic power systems: three grid-connected (GC) photovoltaic power system case studies must be submitted.
3. Accreditation for stand-alone (SPS) photovoltaic power systems: three stand-alone (SPS) photovoltaic power system case studies must be submitted.

Case study reports

All case study reports for Accreditation must include (see Case Study Overview):

1. A completed case study form for design and / or installation of stand-alone (SPS) and/or grid-connected (GC) photovoltaic power systems (see GC-Accreditation Case Study form and SPS-Accreditation Case Study form); and
2. A design summary (required for both stand-alone (SPS) and grid-connected (GC) photovoltaic power system case studies) and photographs to demonstrate compliance with relevant standards.

Stand-alone (SPS) Photovoltaic Power Systems Case Study Reports

To be deemed suitable for stand-alone (SPS) photovoltaic power systems, case study reports must:

- be for a variable load i.e. not a telecomm's system
- be for a fixed structure i.e. not a mobile system like a trailer
- have a minimum rating of 450W PV or 1kWh/day for systems utilising other energy sources along with PV
- have been designed and installed in the previous two years
- not previously have been submitted to the Clean Energy Council for Accreditation purposes

A design summary for a stand-alone (SPS) photovoltaic power system case study must be provided in a format either:

- as provided in AS4509.2 Appendix B (Blank Worksheets)
- printed from a program designed to size power system components in accordance with AS 4509.2, such as the stand-alone (SPS) photovoltaic power system and grid-connected (GC) photovoltaic power system spreadsheets (available from the Clean Energy Council for \$99) OR
- if using another sizing system; this is possible, but you must call the Clean Energy Council to discuss this option.

Grid-connected (GC) Photovoltaic Power System Case Study Reports

Any sizing program may be used to supply a design summary for your grid-connected (GC) photovoltaic power system case study, as long as it shows system performance for best and worst months, taking into account:

- location
- orientation
- tilt
- shading (if any)

Install-only Case Study Reports

When applying for Install-only Accreditation (where the design is performed by a person other than the accredited installer) the case study submitted must show full design details in exactly the same way as if the design work was performed by the accredited person.

Design-only Case Study Reports

When applying for Design-only Accreditation (where the installation is performed by a person other than the accredited designer) the case study submitted need not include photographs of the installation.

Note: Applicants who fail to provide a design summary risk having their case study rejected.

Assessment of Case Study Reports

The Standards Training and Accreditation (STA) Committee will examine case studies as they are submitted and will either:

- Accept that the case studies meet the requirements of relevant Australian Standards and Industry Guidelines (see Standards / Accreditation Rules and Accreditation Rules); or
- Accept that the case studies have minor deficiencies and provide advice on design / installation practice for future work; or

Reject the case studies until identified deficiencies are rectified at the expense of the accredited person. Proof of remedial work is required prior to acceptance; or
Reject the case studies until identified deficiencies are rectified at the expense of the accredited person and requiring one or more further case studies. Proof of remedial work again is required prior to acceptance.

Accreditation Extension

Extensions will be granted up to a maximum of six months for the upgrade process from Provisional Accreditation to Full Accreditation (see Extension Application form). All extensions must be paid for, unless an extension is required to complete further work for an application which has been deemed 'not adequate' or 'not to standard'. For extensions longer than six months, the applicant will need to apply to the Standards, Training and Accreditation (STA) committee.

Full Accreditation Expiry

Full Accreditation expires 24 months from the date of the last expiry date. Before expiry the Accredited person must submit an application to renew their Full Accreditation.

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Climate Change and Energy Efficiency Portfolio
Department of Climate Change and Energy Efficiency

Answers to questions on notice
May 2010

Topic: Risk assessment

Hansard Page ECA: ECA 59

Senator Fisher asked:

Bearing in mind the concerns today which, as I say, do take me aback, I really did not want them to be before us, but given that is there any contemplation that there might be an independent risk analysis done of the sort that was done in respect of the home insulation program, in that case by Minter Ellison? If the answer is, no, to that question can the department take on notice some sort of examination of the risks that were identified in the Minter Ellison risk analysis for the home insulation program and address each of those risks? You may well indicate that you consider some are not relevant, but identify each of those risks and then identify what in your view is in place to minimise the prospect of those risks being realised.

Answer:

The Department of Climate Change and Energy Efficiency is currently undertaking a risk assessment of small-scale generation systems, focused on safety and performance aspects of systems eligible under the Renewable Energy Target. As part of this process, the Department will be consulting with key industry stakeholders in June this year.

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Climate Change and Energy Efficiency Portfolio
Department of Climate Change and Energy Efficiency

Answers to questions on notice
May 2010

Topic: Cost impact of Renewable Energy Target on the aluminium industry

Hansard Page ECA: ECA 60

Senator Barnett asked:

Do you accept that the figures at the first dot point on page of the [Australian Aluminium Council] submission where there is a downside, as in a cost, to the industry of \$0.7 billion to \$1.4 billion over the next decade?...Could you please examine them and provide a response to the committee on notice?

Answer:

The Department of Climate Change and Energy Efficiency estimates that based on the expected trajectory for Renewable Energy Certificate (REC) prices in modelling undertaken by McLennan Magasanik Associates (MMA), that the enhanced Renewable Energy Target (RET) will increase the total expected costs to the aluminium industry in the period 2011 to 2020 by around \$60 million.

The Australian Aluminium Council cost estimate of between \$0.7 billion and \$1.4 billion in the 10 years to 2020 appears to include the cost impact of the existing 9,500 gigawatt-hour Mandatory Renewable Energy Target (MRET), the expanded RET passed by Parliament in August 2009 and the enhanced RET changes. The \$0.7 billion estimate is a reasonable measure of the total cost of the RET but not the policy changes for the enhanced RET.

In August 2009 the *Renewable Energy (Electricity) Act 2000* (the Act) was amended to provide for partial exemptions in respect of emissions-intensive trade-exposed (EITE) activities. The regulations under the Act reflect the Government's policy to provide assistance to all EITE activities (at the 90 per cent or 60 per cent level), through partial exemption from RET liability, in relation to:

- first, the higher annual targets above the original MRET's 9,500 gigawatt-hour level; and
- second, if the REC price increases above \$40, then the impact of the higher REC price on the 9,500 gigawatt-hour liability under the old MRET.

This second component of assistance is conditional upon passage of the Carbon Pollution Reduction Scheme (CPRS), recognising the cumulative cost impact of the CPRS and the RET.

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Climate Change and Energy Efficiency Portfolio
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Answers to questions on notice
May 2010

Topic: Clearing house and SRECs

Hansard Page ECA: Written

Senator McEwen asked:

The small-scale technology installers who spoke at the hearing were concerned that underestimates of the STP could mean that the market for SRECs at the fixed price may not clear, meaning they sit in the clearinghouse for more than a quarter. Does the department have an expectation of or any estimate of the average time that an SREC would sit in the clearing house, noting that sellers of SRECs may need to sell them at a discount on the optional spot market in order to maintain cash flow etc? What sort of discount would this entail if it took three months or a year to sell an SREC through the clearing house?

Answer:

The Renewable Energy (Electricity) Amendment Bill 2010 creates an optional clearing house to transfer Renewable Energy Certificates (RECs) at \$40. However, in most cases, householders will choose to get the value of RECs immediately, as an agreed upfront discount on the cost of installing their solar water heater or solar photovoltaic system, as they do under the current arrangements, through trading arrangements that sit outside the clearing house. The value of the upfront discount would be agreed between the buyer and seller and may be less than \$40 per REC. The rooftop solar photovoltaic and solar water heater industry is very competitive and households considering installing these products are encouraged to shop around for the best deal.

For the clearing house option, there are four surrender periods throughout the year, 28 days after the end of each quarter for the first three quarters and then up to 14 February of the following year by 28 April, 28 July, 28 October and 14 February. As such, there would typically be a period of around six weeks from system sale and the need for a liable entity to surrender the REC. The cost of carry or time value of money for a six week period at an interest rate of 7 per cent would be around \$0.30 a REC.

Under the new arrangements the Renewable Energy Regulator will establish an estimate each year for the number of small-scale RECs needed to be acquired by liable entities expressed as the *small-scale technology percentage*. The estimate will be set to align with expected rates of small-scale REC creation based on historic rates, analysis of government support, and expert judgement.

There is a small risk that there may be a delay in the purchase of small-scale RECs if that estimate is too low. However, the new arrangements include a number of mechanisms to minimise any possibility of delay, including:

- allowing system installers to continue to give householders an upfront discount at the point of sale;
- ensuring the clearing house transfers RECs on a 'first in, first out' basis;
- front-end loading (35 per cent in the first period) the required small-scale REC liability to encourage purchase of RECs by liable parties early each year; and
- ensuring the REC projection each year takes account of any excess RECs from the previous year.

There is no discount applied if households or other system owners go through the clearing house.

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Climate Change and Energy Efficiency Portfolio
Department of Climate Change and Energy Efficiency

Answers to questions on notice
May 2010

Topic: Australian Aluminium Council

Hansard Page ECA: Written

Senator McEwen asked:

The Australian Aluminium Council noted that as the large-scale target increases, more marginal renewable generation projects will need to be commissioned, raising the price of LRECs over time.

- a) Are there countervailing forces, such as economies of scale or improved technology and efficiency that would act to reduce the price over time?
- b) The AAC were particularly concerned that if sufficient investment did not take place, or sufficient projects were not viable at prevailing REC prices, demand for RECs would outstrip supply, the REC price would rise to the shortfall charge of \$92, and the RET may not be met. What is the department's assessment of the likelihood of this happening?

Answer:

- a) Yes. There are a number of factors impacting on the price of Renewable Energy Certificates (RECs). The McLennan Magasanik Associates (MMA) report for the Department of Climate Change and Energy Efficiency estimates that the contract price of RECs under the Large-scale Renewable Energy Target (LRET) will fall over time from around \$67 in 2011 to \$22 by 2030.

The model makes a number of assumptions on renewable technology costs and availability, which are derived from published data and industry. MMA also maintains a database of renewable energy projects, which contains information on capacity, generation levels, operating costs, capital costs and other costs for each renewable generation project-operating, committed or planned.

MMA also assumes the real capital costs for all technologies fall over time. A capital cost reduction factor is included for each technology in the analysis to model this effect, with the reduction factor specific to the technologies.

In addition, the Carbon Pollution Reduction Scheme will reduce the REC price over time as the carbon price increases the wholesale price of electricity.

- b) MMA modelling includes generation from operating, committed or planned projects, based on a database of renewable energy projects. This is incorporated into the results which suggest that, given known and planned projects, the REC price will not reach the after tax shortfall charge of \$92.

The Government's policy is that the existing stock of banked RECs and all new RECs created from large-scale and small scale renewable technologies installed before 1 January 2011 will be made available for use in the Large-scale Renewable Energy Target.

These banked RECs will provide an important source of liquidity in the REC market, providing liable entities with flexibility to manage their REC liability and manage their short term obligations, thereby reducing the likelihood that the shortfall charge will apply.

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Climate Change and Energy Efficiency Portfolio
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Answers to questions on notice
May 2010

Topic: Liquidity in the LRET

Hansard Page ECA: Written

Senator McEwen asked:

The department has noted that the inclusion of all existing RECs in the LRET market, including all that are created in the remainder of 2010, is useful as it provides liquidity to the market. However, several witnesses were concerned that including ‘banked’ RECs would postpone investment for a number of years. Please explain further the need for liquidity in the LREC market and provide a response to concerns by witnesses regarding the number of existing ‘banked’ RECs.

Answer:

The Large-scale Renewable Energy Target’s (LRET) substantial targets will provide certainty out to 2030 to incentivise large-scale investment. The LRET annual targets take into account the anticipated uptake of small-scale technologies. However, while the number of Renewable Energy Certificates (RECs) created by small-scale technologies was around nine million last year the LRET targets have been reduced by only four million RECs (or 4,000 gigawatt-hours) per year less than the current RET targets, reaching 41,000 gigawatt-hours by 2020.

The modelling undertaken by McLennan Magasanik Associates (MMA) on behalf of the Department of Climate Change and Energy Efficiency indicates that the enhanced RET is expected to drive the deployment of more renewables in 2020 than the current RET design, reaching around 22 per cent of electricity generation in 2020.

It is not unusual for the stock of RECs to exceed the current or following year’s annual target. Banked RECs are an important source of liquidity in the REC market, providing liable entities with flexibility to manage their REC liability and manage their short term obligations. While liable parties such as electricity retailers tend to enter into long term contracts for the majority of their RECs, they use banked RECs or RECs purchased on the spot market to meet their exact liabilities which may fluctuate within the year depending on their final electricity purchases from the wholesale market.

The modelling report estimates the stock of banked RECs to be around 16.2 million following the February 2011 surrender of RECs to meet the 2010 annual target. It estimates that assuming no change to current and committed levels of large-scale renewable generation, the stock of banked RECs falls below the LRET target by 2014.

However, the report also notes that RET liable entities tend to manage their liability over the long term and would be expected to utilise the existing surplus of RECs to manage their obligations over the life of the scheme, rather than simply meet the targets in the short term.

If the stock of banked RECs was reduced and there was a delay in the development of large-scale projects coming on line, there is a risk that liable entities would pay the shortfall charge, instead of supporting the deployment of renewable energy.

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Climate Change and Energy Efficiency Portfolio
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Answers to questions on notice
May 2010

Topic: Estimating the small-scale technology percentage (STP)
Hansard Page ECA: Written

Senator McEwen asked:

Please provide the Committee with more detail regarding how the Office of Renewable Energy Regulator will estimate the STP.

Answer:

The Renewable Energy (Electricity) Amendment Bill 2010 will require that the small-scale technology percentage for a particular year be set in regulations on or before 31 March of that year. The legislative structure for the small-scale technology percentage mirrors that in section 39 of the Act for the determination of the renewable power percentage.

The Explanatory Memorandum states in paragraph 138:

“As is currently the case, the Regulator will be expected to provide advice to the Minister on what the percentage should be. It is also envisaged that other expertise will also be drawn upon in developing the estimate.”

A number of factors and inputs may be relevant for determining the estimate of the number of small-scale technology certificates which are expected to be created during the year. These include:

- the information and trends on the historical creation of small-scale technology certificates held by the Regulator in the REC registry;
- the impact of Commonwealth, State and Territory policies regarding small-scale technologies, including direct subsidies, feed-in tariffs and regulatory interventions;
- the impact of expected electricity costs on the uptake of small-scale technologies; and
- the potential cost of small-scale technologies over time.

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Answers to questions on notice
May 2010

Topic: SRES fourth quarter liability

Hansard Page ECA: Written

Senator McEwen asked:

Please explain the committee the operation of the ‘true-upping’ mechanism for the fourth quarter surrender period under the proposed SRES.

Answer:

The Renewable Energy (Electricity) Amendment Bill 2010 will separate the existing scheme into two parts; the Small-scale Renewable Energy Scheme (SRES) and the Large-scale Renewable Energy Target from 1 January 2011.

Under the new SRES, a liable entity will be liable to surrender Renewable Energy Certificates for the first three quarters of each year (due on 28 April, 28 July and 28 October) calculated with reference to their relevant acquisitions (wholesale electricity purchases) in the previous year. For the final quarter, the actual electricity acquisitions during a year will be used.

For example, if the small-scale technology percentage for 2011 is five per cent and a retailer has one million megawatt-hours of relevant acquisitions in the 2010 calendar year, their first three quarter surrender amounts will be:

- For Quarter 1:
 - 35 per cent x 1 million x 5 per cent = 17,500 small-scale technology certificates on or before 28 April;
- For Quarters 2 and 3:
 - 25 per cent x 1 million x 5 per cent = 12,500 small-scale technology certificates on or before 28 July and 28 October.

Further, if at the end of the year it was determined that the retailer had actually acquired 1.3 million megawatt-hours of electricity in 2011, their remaining fourth quarter liability would be their 2011 acquisitions multiplied by the small-scale technology percentage minus their first three quarters liability:

- For Quarter 4:
 - 1.3 million x 5 per cent - (17,500 + 12,500 + 12,500) = 22,500 small-scale technology certificates.

This is assessed on 14 February each year with the liable entity's energy acquisition statement.