



Australian  
Business Council  
for Sustainable  
Energy

## Survey of retailers' energy buy-back arrangements for small embedded power generators

### Introduction

There are a number of electricity retailers operating in Australia. In Victoria, South Australia, NSW, ACT and Queensland customers have a choice of retailer. Most retailers, but not all, offer to buy-back electricity generated by small renewable embedded generators, such as solar power systems. The products offered by retailers to buy-back electricity from these systems differ in a number of aspects.

Historically, access to information on which buy-back offers are available from retailers for current and prospective owners of renewable embedded generators has been poor. There has been no "one stop shop" where all this information is available. While information on buy-back offer/s is available on some company websites, at present this is not uniformly the case. This difficulty of accessing information has impeded decision-making by owners of these systems and hence the functioning of the marketplace.

This project aims to improve the functioning, transparency and competitiveness of the retail electricity market for owners of small renewable embedded generation systems, particularly solar photovoltaic systems (focussing on systems of 10kW or less). This project will inform system installers and their customers of the current commercial arrangements for buy-back of electricity from small generation systems. This publicly available report enables easier comparison of electricity retailers buy-back offers and by doing so will support the uptake of embedded generation systems. Furthermore, the availability of this data is a significant resource in the development of solar PV policy and also provides electricity retailers with information on the current offers of their competitors.

### Method

The Business Council for Sustainable Energy (BCSE) developed a survey on buy-back rates, which was distributed in July 2007 to all electricity retailers operating in Australia at the time.

The survey was designed to elicit information on:

- whether the retailer offers to buy-back electricity from small embedded energy generation systems
- any restrictions on eligibility for these offers and what these are i.e. technology type, capacity limit, limit on generated energy paid for or geographical area
- the tariffs offered for energy produced/exported to the grid, including whether time-of-use (ToU) tariffs are offered
- how the energy payments are billed – including how credit is managed and how GST is charged
- charges and costs that are incurred specifically to customers with small-scale generation systems;
- whether the retailer has training and procedures in place for their staff on how to manage inquiries relating to these arrangements
- differing arrangements between states in which the retailer operates
- whether the retailer requires the renewable energy certificates of the system as part of the buy-back offer, or whether or not they offer to buy them independent of the buy-back offer; and
- metering arrangements for customers

The survey was developed and then refined with feedback from two retailers. The BCSE identified and contacted eighteen retailers currently operating in different parts of Australia. Surveys were distributed to all companies who indicated that they have a buy-back offer. After survey responses were received, one round of clarification was then sought on any unclear responses.

The results of the survey will be available publicly on the BCSE website, where it will be possible to view the individual responses of each of the retailers. The results have also been presented to delegates attending the ATRAA 2007 conference of the solar power industry in Australia. Furthermore, notification of the survey and results will also be provided to system installers through the September edition of BCSE's monthly e-news mail out *Installer News*.

## **Results**

The responses of each retailer offering a buy-back arrangement can be separately viewed in the appendices.

An important note to readers of the surveys and this report, is that in this report import and export are worded from the perspective of the system owner, that is, *export* is actually energy going into the grid/produced by the system, and *import* is energy which leaves the grid/consumed by the customer. However, *in the survey*, as the target respondees were the electricity retailers, this was worded from the perspective of the grid, i.e. the meaning of import and export is reversed.

### *Electricity retailers offering buy-back arrangements for embedded energy generators*

How many retailers were offering to buy back electricity from embedded renewable generators? Of the eighteen retailers, one retailer declined to take part (Momentum Energy) and four retailers responded that they do not currently offer buy-back arrangements (Victoria Electricity, Powerdirect, Jack Green and Australian Power and Gas) and all the remaining retailers responded that they offer a buy-back arrangement. These were: ActewAGL, AGL, Aurora Energy, Country Energy, Energy Australia, Ergon Energy, Horizon Power, Integral Energy, Origin Energy, Power and Water Corp, Red Energy, Synergy, and TRUenergy.

### *Eligibility by geographical area*

It should be noted that, within a state, some retailers have limited networks on which they operate. Furthermore, not all the retailers who offer buy-back arrangements offer these in every network distribution area in which they operate. The geographical areas identified by each retailer as their eligible area for buy-back generation are listed in each of the retailer responses in the appendix. For example, AGL indicated that they offer to buy-back power from small embedded generators in Victoria only on the network where AGL is classed as the host or tier1 retailer.

**Table 1 Retailers offering 'buy-back' by state**

State	Retailers offering 'buy-back'
Australian Capital Territory	ActewAGL, Country Energy, TRUenergy
New South Wales	Country Energy, Energy Australia, Integral Energy, Origin Energy, TRUenergy
Northern Territory	PowerWater
Queensland	AGL, Country Energy, Ergon Energy, Origin Energy
South Australia	AGL, Country Energy, Origin Energy, TRUenergy
Tasmania	Aurora Energy
Victoria	AGL, Country Energy, Origin Energy, TRUenergy
Western Australia	Horizon Power, Synergy (AGL through joint venture)

*Eligibility by technology*

In all cases where a buy-back arrangement is offered, solar power is eligible. The below Table 1 indicates which other technologies are eligible for the buy-back arrangements of each of the retailers.

**Table 2 Eligibility for retailer energy buy-back arrangements by technology**

Offer for	Retailer
All renewable technologies	Power and Water Corp, Synergy
Solar power, small wind and hydro	Country Energy
Solar power and small wind	Aurora Energy
Solar power. Wind +/- hydro subject to meeting network connection requirements. May be negotiated on a case by case basis	Actew AGL, AGL, Energy Australia, Ergon Energy, Horizon Power, Integral Energy
Solar power. Wind negotiated separately	Origin Energy
Solar power only	TRUenergy
Unclear whether offered for other technologies	Red Energy

#### *Eligibility by system capacity*

Most retailers indicated that eligibility for their buy-back arrangements is determined by a cap on system capacity. See the below Table 2 for the relevant capacity caps.

**Table 3 Eligibility for retailer energy buy-back arrangements by capacity**

<b>Capacity Cap</b>	<b>Retailer</b>
3kW solar, 100kW wind	Aurora
5kW	Synergy, Horizon Power
10kW	Integral, Ergon Energy, Energy Australia, ActewAGL, Country Energy
30kW	Power and Water
100kW	AGL, TRUenergy
No Cap	Origin Energy

Aurora has a hybrid capacity or energy cap for small wind, which is explained in their survey response. It is unclear whether Red Energy has a cap on system capacity. Origin Energy does not have a cap on system capacity, instead they have a different arrangement with a cap on the electricity purchased from individual systems, and this is 500kwh per 'quarter' (three month billing period).

#### *Buy-back rates offered*

Essentially nearly all the retailers which offer buy-back rates offer '1 for 1' rates or similar, where the *rate at which energy bought back is equal to the retail rate paid, less GST*. These are paid by AGL, Country Energy, Energy Australia, Ergon Energy, Horizon Power, Integral Energy, Origin Energy, Power and Water, Synergy, and TRUenergy.

A variation on the '1 for 1' tariff is currently being offered by ActewAGL and Aurora. These companies pay '1 for 1' but only until the customer is in the position of being in net export to the grid over a billing period. That is, over a billing period once a household has exported as much energy as it has imported, then the net export is credited at a lower rate than 1 for 1. In the case of ActewAGL it is bought at 7.4c/kWh and in Aurora's case the net export is bought at wholesale price. Red Energy is currently offering to buy back electricity on the SP Ausnet distribution network in Victoria at the flat rate of 7c/kWh.

#### *Time-of-use tariffs*

Time-of-use (ToU) tariffs are those where customers are charged different rates for electricity usage depending on the time of day. Typically these involve different rates for peak and off peak times (with or without a 'shoulder' period) during the week and weekend. Some retailers that have retail ToU tariffs also offer a '1 for 1' buy back for customers on these tariffs. These retailers are Energy Australia, Origin Energy, Synergy and TRUenergy.

#### *Billing – GST and managing credit*

One potential issue for customers is how credit is managed in the situation where a customer gets into a position of net credit on a bill, that is, the retailer owes them money due to the value of their exported electricity being greater than the cost of their imported electricity over a billing period. While most retailers indicate that they carry the amount forward, Horizon Power, Integral Energy, Origin Energy and Energy Australia stated that customers could write to request that their credit be paid out. ActewAGL stated that they pay out at the end of the billing period.

GST is charged on imports/consumption and not on exports/production. On a 1 for 1 basis this means the rate paid is 10/11ths of the rate charged. In the case of net metering with a single 'disc' meter it is only possible to apply GST to the overall net at the end of the billing period. In the cases where import

and export are recorded separately most retailers indicate that GST is charged on all the electricity imported/consumed before deducting the credit for export.

#### *Staff training procedures*

All retailers indicated that they have training and procedures in place within their sales channels to ensure that staff has the appropriate information on how to process enquiries for buy-back of small renewable generators.

#### *Up-front charges*

Direct comparison of charges between companies is hampered by the fact that some retailers are vertically integrated energy companies including a distribution business, while others only have retail functions. Three companies currently charge an upfront administration/application fee - of approximately \$100. These companies are Synergy, Horizon Power and Ergon Energy. Some of the companies also detailed meter fees which may apply. While metering is the domain of distribution companies this survey was seen to be a useful opportunity to gather some of this information. Three companies indicated there was no charge for the purchase of the meter – ActewAGL, Energy Australia and Integral Energy.

#### *Metering methodology*

While the vast majority of metering practices involve metering either net import/export, two retailers – Integral Energy in NSW and Power and Water Corporation in the ACT - indicated that it is their standard practice to meter gross production/consumption. Furthermore Origin Energy indicated that some of their Queensland customers have gross production/consumption metered.

#### *Renewable Energy Certificates*

Retailers were asked whether they seek to acquire the Renewable Energy Certificates (RECs) from the systems of their buy-back customers. Four retailers – Origin Energy, Ergon Energy, Aurora and AGL – indicated that while they do offer to buy their customers RECs this is independent of their buy-back offer i.e. it does not impact on eligibility for buy-back or the rate they pay. ActewAGL indicates that when customers enter into a buy-back arrangement with ActewAGL, the contract states that ActewAGL owns all RECs creatable from the imported generation. The remaining retailers do not offer to buy RECs from their buy-back customers.

Of the thirteen retailers who offer feed-in rates and completed a survey, six indicated a recent or approaching change in their offer. Most were modifying their existing offer – extending to a new State, ToU tariff, or other product. We understand, however, that Country Energy was reassessing their buy-back arrangements including the tariff rate.

### **Discussion**

The vast majority of retailers surveyed offer a buy-back arrangement for at least solar power and in some cases other forms of small renewable embedded generation. In all cases solar power is eligible for these offers. In some cases wind and hydro power is also or may also be eligible, however a majority do not yet include these technologies as standard eligible systems.

It now appears that a '1 for 1' tariff has now been taken up by almost all major retailers who offer a buy-back arrangement, essentially creating an industry standard for tariff rate. Most retailers other than Origin Energy have chosen to limit access by system capacity caps, rather than by limiting the amount of energy per system that will be paid for.

Of interest for customers with solar PV systems and solar PV installers, a '1 for 1' buy-back on ToU tariffs is offered by four retailers. By offering higher rates in the middle of the day when all PV energy is produced, a customer with a solar PV system can receive greater value for their produced energy. A Californian study has found that in the Californian energy market, which is similar to that of Australia, solar PV being paid an average wholesale rate (as a component of the average flat retail rate) rather

than the real-time market rate resulted in it being significantly undervalued<sup>1</sup>. When solar PV production was valued according to the time varying wholesale market value, the energy generated by solar PV was worth 29-48% more than its remuneration on a flat wholesale '1 for 1' basis. The same study found that if ToU tariffs were paid for solar power this predominantly closed the 'undervaluing gap' and customers received value for their solar power much closer to the real-time value. However this is unlikely to be advantageous for customers who are in general still in a net import position during peak periods (and who are unable to effect significant demand management gains during these periods) which are greater than that of the electricity produced from the system.

The survey shows that half of the retailers have just modified or are contemplating changing some aspect of their buy-back arrangements. This is an indication of the dynamic nature of these offers and that retailers are taking an interest in the type of arrangements they provide to owners of small renewable embedded generation systems. This also emphasises the importance of having a dedicated contact point within each company and/or information on company websites, so that interested parties, particularly installers of these systems (on behalf of their customers), can access up-to-date information on the current offer available. To this end, the BCSE will also seek to make available on the BCSE website contact information for the relevant contact point within each retailer.

This survey of retailers received funding from the Australian Greenhouse Office.

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<sup>1</sup> Borenstein, S. (2005) Valuing the time-varying electricity production of solar photovoltaic cells. Centre for the Study of Energy Markets (CSEM) Working Paper Series. University of California Energy Institute. <http://www.ucei.berkeley.edu/PDF/csemwp142.pdf>, accessed August 2, 2007.

## **Appendix A – Retailer Survey Responses**

**Business Council for Sustainable Energy**  
**Survey of retailers' energy buy-back arrangements for**  
**small embedded power generators**

**ActewAGL response**

The following buy-back arrangements apply to solar power only.

1. Do you offer buy-back arrangements (energy purchase facility) for customers with small embedded generators which export electricity to the grid, such as solar photovoltaic? <i>If yes, please fill in the relevant sections of the grid on the reverse side as well as the questions below. If no, thank you for your time.</i>	Yes
2. Are your current arrangements for buy-back of embedded generation <i>just about to change</i> ? If so, please outline the new arrangements if possible.	No
3. In which States/Territories do you offer this? If your metering and billing arrangements differ between the states, please specify how they differ for each of the questions below and over the page.	ACT only
4. What is the upper limit of system capacity (kW) for this service?	10 kW
5. In regard to metering, do you require meter data in intervals i.e. half hourly?	No
6. Is there a cap on the amount of energy (kWh) purchased? If so, please detail.	No, however output is limited by nominal system size (see 4 above – maximum of 10kW of installed generation).
7. How is billing credit managed? i.e. carried forward indefinitely, paid immediately, paid once amount reaches a threshold	Full retail offset of customer's electricity exports against imports from ActewAGL's distribution network. Once customer becomes a 'net exporter', net exports attract a rate of 7.4c/kWh (GST incl.) Net credit is paid out at the end of the billing period.
8. Do you have training and procedures in place within your sales channels (call centres, promotions) to ensure that staff know how to process/refer those customers?	Yes
9. Do you seek to acquire the Renewable Energy Certificate's associated with your customers' renewable energy systems? If yes, does this affect the rates you offer these customers for their electricity?	Yes. When customer enters into a buy-back arrangement with ActewAGL, ActewAGL owns all RECs creatable from the imported generation.
10. Please detail any up-front/once-off charges on new customers with small embedded generators.	No up front charges. ActewAGL install appropriate metering free of charge (although it is the customer's responsibility to ensure sufficient switchboard space).

<b>Type/s of customer metering utilised</b>	<b>Billing method</b> How do you calculate the amount of electricity on which tariffs are paid? i.e. are tariffs paid on <i>total</i> import or production OR on <i>net</i> (export less import) over a certain period? If net billing - over what period?	<b>Tariff offered</b> What rate do you offer system owners? i.e. a “1 for 1” feed-in tariff - where the feed-in rate equals the retail rate OR feed-in tariff different to retail tariff – if so, what rate/s (c/kWh) do you offer?	<b>Time-of-use (ToU) tariffs</b> Please detail the feed-in rate/s you offer customers on time-of-use tariffs.	<b>GST</b> Please specify how GST is calculated i.e. on all energy exported, net (export less import), all energy consumed in the house, etc.
<b>Import/export metering</b> (where electricity <i>imported to</i> and <i>exported from</i> the grid are separately metered)	Full offset of exports against imports from grid (ie. Exports attract full retail rate). If exports exceed imports during a billing period, then the excess fed into the grid attracts 7.4 c/kWh (GST incl.)	“1 for 1” offset until customer becomes a ‘net exporter’ during a billing period. Net exports attract the rate of 7.4 c/kWh (GST incl.)	Not applicable	GST is calculated on net energy (exports minus imports). For net exporters attracting 7.4c/kWh, GST component is calculated as 1/11 <sup>th</sup> of this 7.4c/kWh.
<b>Net metering</b> (where only the net of electricity <i>exported from</i> the grid less all electricity <i>imported to</i> the grid is metered)	Not applicable	Not applicable	Not applicable	Not applicable
<b>Gross production/consumption metering</b> (where all electricity produced by the generator is metered as well as all electricity consumed in the household)	Not applicable	Not applicable	Not applicable	Not applicable

**Thank you for your assistance.**

**Business Council for Sustainable Energy**  
**Survey of retailers' energy buy-back arrangements for**  
**small embedded power generators**

**AGL response**

The following details apply to buy-back of solar power. AGL would respond to a request for buy-back of wind or hydro power up to 100kW on a case-by-case basis.

<p>1. Do you offer buy-back arrangements (energy purchase facility) for customers with small embedded generators which export electricity to the grid, such as solar photovoltaic?  <i>If yes, please fill in the relevant sections of the grid on the reverse side as well as the questions below.</i>  <i>If no, thank you for your time.</i></p>	<p>YES</p>
<p>2. Are your current arrangements for buy-back of embedded generation <i>just about to change</i>?          If so, please outline the new arrangements if possible.</p>	<p>YES, IN THE NEXT 3-6 MONTHS.</p>
<p>3. In which States/Territories do you offer this?          If your metering and billing arrangements differ between the states, please specify how they differ for each of the questions below and over the page.</p>	<p>QLD, SA, VIC, WA (through JV). Looking into NSW in 3-6 months.</p>
<p>4. What is the upper limit of system capacity (kW) for this service?</p>	<p>100 kW</p>
<p>5. In regard to metering, do you require meter data in intervals i.e. half hourly?</p>	<p>NO</p>
<p>6. Is there a cap on the amount of energy (kWh) purchased? If so, please detail.</p>	<p>NO</p>
<p>7. How is billing credit managed? i.e. carried forward indefinitely, paid immediately, paid once amount reaches a threshold</p>	<p>CARRIED FORWARD INDEFINITELY</p>
<p>8. Do you have training and procedures in place within your sales channels (call centres, promotions) to ensure that staff know how to process/refer those customers?</p>	<p>YES, WITHIN LIMITATIONS.          REVIEWING IN 3-6 MONTHS.</p>
<p>9. Do you seek to acquire the Renewable Energy Certificate's associated with your customers' renewable energy systems?          If yes, does this affect the rates you offer these customers for their electricity?</p>	<p>YES. AT PRESENT NO EFFECT ON BUYBACK RATE IF CUSTOMER CHOOSES NOT TO ASSIGN THE RECS TO AGL.          UNDER REVIEW.</p>
<p>10. Please detail any up-front/once-off charges on new customers with small embedded generators.</p>	<p>METERING FEES PASSED ON BY DISTRIBUTORS. ETSA/SA, UNITED ENERGY/VIC, ALINTA AE/VIC, ENERGEX,</p>

	QLD.
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<b>Type/s of customer metering utilised</b>	<b>Billing method</b> How do you calculate the amount of electricity on which tariffs are paid? i.e. are tariffs paid on <i>total</i> import or production OR on <i>net</i> (export less import) over a certain period? If net billing - over what period?	<b>Tariff offered</b> What rate do you offer system owners? i.e. a “1 for 1” feed-in tariff - where the feed-in rate equals the retail rate OR feed-in tariff different to retail tariff – if so, what rate/s (c/kWh) do you offer?	<b>Time-of-use (ToU) tariffs</b> Please detail the feed-in rate/s you offer customers on time-of-use tariffs.	<b>GST</b> Please specify how GST is calculated i.e. on all energy exported, net (export less import), all energy consumed in the house, etc.
<b>Import/export metering</b> (where electricity <i>imported to</i> and <i>exported from</i> the grid are separately metered)	<b>CATER FOR ALL METHODS.</b>	VIC On-Patch <sup>1</sup> : 12.84 c/kWh  QLD: 1 for 1 SA: 1 for 1	N/A	GST on supply/export ; no GST on generated/import.
<b>Net metering</b> (where only the net of electricity <i>exported from</i> the grid less all electricity <i>imported to</i> the grid is metered)	<b>CATER FOR ALL METHODS.</b>	1 for 1  <u>If net import to grid:</u> Excess in Vic: 12.84 c/kWh Excess in QLD: 1 for 1 Excess in SA: 1 for 1	N/A	GST on NET
<b>Gross production/ consumption metering</b> (where all electricity produced by the generator is metered as well as all electricity consumed in the household)	<b>CATER FOR ALL METHODS.</b>	VIC On-Patch: 12.84 c/kWh  QLD: 1 for 1 SA: 1 for 1	N/A	GST on supply/export. No GST on generated/import.

**Thank you for your assistance.**

<sup>1</sup> “On-patch” means on a network where AGL is classed as the host or tier 1 retailer.



**Business Council for Sustainable Energy**  
**Survey of retailers' energy buy-back arrangements for**  
**small embedded power generators**

**Aurora Energy response**

The following buy-back arrangements are available for wind and solar power.

<p>1. Do you offer buy-back arrangements (energy purchase facility) for customers with small embedded generators which export electricity to the grid, such as solar photovoltaic?  <i>If yes, please fill in the relevant sections of the grid on the reverse side as well as the questions below.</i>  <i>If no, thank you for your time.</i></p>	<p>Yes</p>
<p>2. Are your current arrangements for buy-back of embedded generation <i>just about to change</i>?          If so, please outline the new arrangements if possible.</p>	<p>No</p>
<p>3. In which States/Territories do you offer this?          If your metering and billing arrangements differ between the states, please specify how they differ for each of the questions below and over the page.</p>	<p>TAS</p>
<p>4. What is the upper limit of system capacity (kW) for this service?</p>	<p>Solar – 3 KW (greater than 3KW on case-by-case basis),          Direct Connected: Wind; 100KW max (for aggregated generation &lt;5MW).          Site meter connected: Wind; the limit of eligibility for the offer is <i>the lesser of</i> 100KW of customer installation OR expected generation of no more than 60% of customer's normal generation (based on a 40% capacity factor).          Max aggregated load &lt;250KW. (Systems which exceed this limit are paid wholesale rates.)</p>
<p>5. In regard to metering, do you require meter data in intervals i.e. half hourly?</p>	<p>Yes, smart meters are required.</p>
<p>6. Is there a cap on the amount of energy (kWh) purchased? If so, please detail.</p>	<p>Solar – no cap. Variable rates based on customers consumption.</p> <p>Wind: related to upper limit capacity restriction (as above).</p>
<p>7. How is billing credit managed? i.e. carried forward indefinitely, paid immediately, paid once amount reaches a threshold</p>	<p>Small generators – as per their electricity billing cycle (ie; mthly or qtrly). In the event a net export occurs usually the next invoice is credited rather than paying the credit out.          Large users – negotiated with customer on a case-by-case basis.</p>
<p>8. Do you have training and procedures in place within your sales channels (call centres, promotions)</p>	<p>Yes</p>

<p>to ensure that staff know how to process/refer those customers?</p>	
<p>9. Do you seek to acquire the Renewable Energy Certificate's associated with your customers' renewable energy systems? If yes, does this affect the rates you offer these customers for their electricity?</p>	<p>Small generators: Yes, however it is not a requirement to be eligible for the feed-in rate. Large generators: negotiated on a case-by-case basis.</p>
<p>10. Please detail any up-front/once-off charges on new customers with small embedded generators.</p>	<p>Small generators: The customer would normally be required to meet any additional metering costs (above the cost of a standard meter) as assessed on a case by case basis for the proposed installation. However Aurora is able to waive the meter costs in most situations at present. Large generators: negotiated on a case-by-case basis.</p>

<b>Type/s of customer metering utilised</b>	<b>Billing method</b> How do you calculate the amount of electricity on which tariffs are paid? i.e. are tariffs paid on <i>total</i> import or production OR on <i>net</i> (export less import) over a certain period? If net billing - over what period?	<b>Tariff offered</b> What rate do you offer system owners? i.e. a "1 for 1" feed-in tariff - where the feed-in rate equals the retail rate OR feed-in tariff different to retail tariff – if so, what rate/s (c/kWh) do you offer?	<b>Time-of-use (ToU) tariffs</b> Please detail the feed-in rate/s you offer customers on time-of-use tariffs.	<b>GST</b> Please specify how GST is calculated i.e. on all energy exported, net (export less import), all energy consumed in the house, etc.
<b>Import/export metering</b> (where electricity <i>imported to</i> and <i>exported from</i> the grid are separately metered)	Import/export metering required for systems >3kW	For installations with a capacity of less than 3kW: tariff of '1 for 1' Where, for any metered period, the quantity of energy imported to the grid exceeds the quantity of energy exported from the grid, the difference will be credited at a price related to Aurora's wholesale energy purchasing costs.	Not to date	For sites where both import and export is measured GST inclusive rates are used to calculate the amounts in both directions.
<b>Net metering</b> (where only the net of electricity <i>exported from</i> the grid less all electricity <i>imported to</i> the grid is metered)	Net metering only for systems under 3kW.	For systems with capacity >3kW: energy will be credited at a price related to Aurora's wholesale energy purchasing costs. Credit will not be given at the standard connected tariff rate.  Step 1 First 500 kWh/Qtr: 15.923 cents per kWh Step2 Next 1,000 kWh: 15.153 cents per kWh Remainder units at 11.135 cents per kWh (All rates include GST)		

<b>Gross production/ consumption metering</b> (where all electricity produced by the generator is metered as well as all electricity consumed in the household)				
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**Thank you for your assistance.**

**Attachment A:**

**GRID INTERACTIVE SOLAR POWER  
&  
NET METERING OPTION**

**1) Does Aurora allow customer grid interactive solar connections?**

Yes, provided relevant technical and safety requirements are met

**2) Who is the relevant contact person at the company?**

Darren Brown      03 6237 3509      Darren.Brown@[auroraenergy.com.au](mailto:auroraenergy.com.au)

**3) Do you offer special package systems? (Solar panels, inverters, meters, etc)**

Not currently. There are a number of local suppliers of associated equipment in Tasmania.

#### **4) What costs are involved for the consumer? (eg, meter, connection, etc)**

The customer is responsible for installation costs and costs involved in meeting Aurora's technical and safety requirements. The customer would normally be required to meet any additional metering costs (above the cost of a standard meter) as assessed on a case by case basis for the proposed installation. However Aurora is able to waive the meter costs in most situations at present.

For installations with a capacity of less than 3kW, the metering system needs only to record the net energy flow (ie the balance of import energy less export energy). For installations over 3kW the metering system needs to be capable of measuring and recording separately imports from and exports to the Grid.

#### **5) Will the consumer be credited for the electricity generated?**

Yes.

#### **6) If yes, at what rate will they be credited?**

For installations with a capacity of less than 3kW, net metering applies. Therefore, the energy is credited to the account at the same rate as the import energy rate (ie the marginal rate of the applicable tariff). Where, for any metered period, the quantity of energy exported exceeds the quantity of energy imported, the difference will be credited at a price related to Aurora's wholesale energy purchasing costs

For systems with an installation capacity above 3kW energy will be credited at a price related to Aurora's wholesale energy purchasing costs. Credit will not be given at the standard connected tariff rate.

#### **7) What is the standard domestic rate?**

The 2007 standard domestic Tariff 31 (Residential light and power) is a 3-step rate:  
For a standard 91 days,

## **Rates**

Step 1 First 500 kWh/Qtr: 15.923 cents per kWh  
Step2 Next 1,000 kWh: 15.153 cents per kWh  
Remainder units at 11.135 cents per kWh

(All rates include GST)

For other tariff rates refer to your latest Aurora bill.

#### **8) What is the Commonwealth Government PV Rebate Program (PVRP):**

Under the Photovoltaic Rebate Program (PVRP), cash rebates are available to householders (and for community buildings to install grid-connected or stand-alone photovoltaic systems.

Rebates are available at the rate between \$2.5 to \$4.0 per Watt peak of photovoltaic capacity with a maximum rebate of \$4,000 (minimum size capacity is 450 Watts). Conditions apply, and applicants must seek approval before a system is installed.

For more information contact the Photovoltaic Rebate Program national information line on 1300 138 122. Information is also available online at [www.greenhouse.gov.au/renewable](http://www.greenhouse.gov.au/renewable)

## **Clarification/Additions to Country Energy Response**

The following buy-back arrangements outlined are offered for small wind and hydro systems as well as solar power.

Q7 – If net credit - this is paid on each account.

GST is paid on the energy the customer imports from the grid.

Metering appears to be a mix of import/export and net (disc) metering.

**Business Council for Sustainable Energy**  
**Survey of retailers' energy buy-back arrangements for**  
**small embedded power generators**

Thank-you for taking the time to respond to this survey, this information will be important to improving the functioning of the market for small embedded power generation systems.

<p>1. Do you offer buy-back arrangements (energy purchase facility) for customers with small embedded generators which export electricity to the grid, such as solar photovoltaic?  <i>If yes, please fill in the relevant sections of the grid on the reverse side as well as the questions below.</i>  <i>If no, thank you for your time.</i></p>	<p>Yes</p>
<p>2. Are your current arrangements for buy-back of embedded generation <i>just about to change</i>?  If so, please outline the new arrangements if possible.</p>	<p>Yes. Country Energy has modelled different options for a revised buy-back tariff and policy. The revised package is currently subject to Executive approval. Details will be provided to the BCSE once approval has been granted.</p>
<p>3. In which States/Territories do you offer this?  If your metering and billing arrangements differ between the states, please specify how they differ for each of the questions below and over the page.</p>	<p>ACT NSW QLD SA VIC  The same arrangements apply in each jurisdiction where CE holds a retail license. It is the customer or installer's responsibility to liaise with network owners and operators</p>
<p>4. What is the upper limit of system capacity (kW) for this service?</p>	<p>200kW installed capacity. Above this limit, Country Energy's Energy Trading team will consider the most appropriate form of buyback</p>
<p>5. In regard to metering, do you require meter data in intervals i.e. half hourly?</p>	<p>No</p>
<p>6. Is there a cap on the amount of energy (kWh) purchased? If so, please detail.</p>	<p>No (residential solar PV) – as long as the system is under 10kW installed capacity. For systems over this threshold, reviewed on a case by case basis</p>
<p>7. How is billing credit managed? i.e. carried forward indefinitely, paid immediately, paid once amount reaches a threshold</p>	<p>For the current policy, export energy is net metered, with the exported energy appearing on the customer account as a credit. The account is calculated as import minus export + billed amount.</p>
<p>8. Do you have training and procedures in place within your sales channels (call centres, promotions) to ensure that staff know how to process/refer those customers?</p>	<p>Yes – Q&amp;A for contact centre staff, with dedicated referral points within the business for administration and technical inquiries. Negotiations are underway with potential external service providers to streamline this process.</p>
<p>9. Do you seek to acquire the Renewable Energy Certificate's associated with your customers' renewable energy systems?  If yes, does this affect the rates you offer these customers for their electricity?</p>	<p>No . Country Energy generally deals directly with system wholesalers/distributors who seek to aggregated RECs and sell them on the open market.</p>
<p>10. Please detail any up-front/once-off charges on new customers with small embedded generators.</p>	<p>N/A</p>

<b>Type/s of customer metering utilised</b>	<b>Billing method</b> How do you calculate the amount of electricity on which tariffs are paid? i.e. are tariffs paid on <i>total</i> import or production OR on <i>net</i> (export less import) over a certain period? If net billing - over what period?	<b>Tariff offered</b> What rate do you offer system owners? i.e. a "1 for 1" feed-in tariff - where the feed-in rate equals the retail rate OR feed-in tariff different to retail tariff – if so, what rate/s (c/kWh) do you offer?	<b>Time-of-use (ToU) tariffs</b> Please detail the feed-in rate/s you offer customers on time-of-use tariffs.	<b>GST</b> Please specify how GST is calculated i.e. on all energy exported, net (export less import), all energy consumed in the house, etc.
<b>Import/export metering</b> (where electricity <i>imported to</i> and <i>exported from</i> the grid are separately metered)	N/A	N/A	N/A	N/A
<b>Net metering</b> (where only the net of electricity <i>exported from</i> the grid less all electricity <i>imported to</i> the grid is metered)	3 monthly Billing Cycle	1 for 1 for residential solar PV (less than 10kw) <tariff rates dependent on location.  Commercial Generation TOU	Only for above 10 kw  Price on application and reflective of current market rates.	All bill calculations are done excluding GST. GST added to combined components.
<b>Gross production/consumption metering</b> (where all electricity produced by the generator is metered as well as all electricity consumed in the household)	N/A	N/A	N/A	N/A

**Thank you for your assistance.**

**Business Council for Sustainable Energy**  
**Survey of retailers' energy buy-back arrangements for**  
**small embedded power generators**

**Energy Australia response**

The following details apply to solar power systems. They would also apply to other renewable technologies subject to the system meeting network connection requirements.

<p>1. Do you offer buy-back arrangements (energy purchase facility) for customers with small embedded generators which export electricity to the grid, such as solar photovoltaic?  <i>If yes, please fill in the relevant sections of the grid on the reverse side as well as the questions below.</i>  <i>If no, thank you for your time.</i></p>	<p>Yes.</p>
<p>2. Are your current arrangements for buy-back of embedded generation <i>just about to change</i>?          If so, please outline the new arrangements if possible.</p>	<p>Yes, we are about to introduce time of use buy back rates.</p>
<p>3. In which States/Territories do you offer this?          If your metering and billing arrangements differ between the states, please specify how they differ for each of the questions below and over the page.</p>	<p>EnergyAustralia only offer buy back rates in our network area in NSW.</p>
<p>4. What is the upper limit of system capacity (kW) for this service?</p>	<p>Standard buy back rates apply for all systems up to 10kW capacity. Individual rates are negotiated for systems larger than 10kW.</p>
<p>5. In regard to metering, do you require meter data in intervals i.e. half hourly?</p>	<p>Yes, for time of use buy back.           No, for single consumption buy back.</p>
<p>6. Is there a cap on the amount of energy (kWh) purchased? If so, please detail.</p>	<p>No</p>

<p>7. How is billing credit managed? i.e. carried forward indefinitely, paid immediately, paid once amount reaches a threshold</p>	<p>The credit for buy back is provided on the customers monthly or quarterly invoice. For customers in a position of net credit, this will generally be carried forward, however customers may request for this to be paid out.</p>
<p>8. Do you have training and procedures in place within your sales channels (call centres, promotions) to ensure that staff know how to process/refer those customers?</p>	<p>Yes</p>
<p>9. Do you seek to acquire the Renewable Energy Certificate's associated with your customers' renewable energy systems? If yes, does this affect the rates you offer these customers for their electricity?</p>	<p>No</p>
<p>10. Please detail any up-front/once-off charges on new customers with small embedded generators.</p>	<p>Integral Energy supply the meter free of charge. The customer must arrange and pay for the installation of the meter. No additional charges.</p>

<b>Type/s of customer metering utilised</b>	<b>Billing method</b> How do you calculate the amount of electricity on which tariffs are paid? i.e. are tariffs paid on <i>total</i> import or production OR on <i>net</i> (export less import) over a certain period? If net billing - over what period?	<b>Tariff offered</b> What rate do you offer system owners? i.e. a “1 for 1” feed-in tariff - where the feed-in rate equals the retail rate OR feed-in tariff different to retail tariff – if so, what rate/s (c/kWh) do you offer?	<b>Time-of-use (ToU) tariffs</b> Please detail the feed-in rate/s you offer customers on time-of-use tariffs.	<b>GST</b> Please specify how GST is calculated i.e. on all energy exported, net (export less import), all energy consumed in the house, etc.
<b>Import/export metering</b> (where electricity <i>imported to</i> and <i>exported from</i> the grid are separately metered)	<p style="text-align: center;">-</p>	<p style="text-align: center;">1 for 1</p>	<p style="text-align: center;">1 for 1</p>	<p>GST on energy consumed.</p> <p>No GST on buy back credit as residential customers generally are not registered for GST.</p> <p>Whilst this is a GST taxable supply, unless you are registered for GST ie a business, you cannot charge GST.</p> <p>GST legislation does not allow for transactions to be netted off so EnergyAustralia has no discretion to impose GST just on the net electricity supplied.</p>
<b>Net metering</b> (where only the net of electricity <i>exported from</i> the grid less all electricity <i>imported to</i> the grid is metered)				

<b>Gross production/ consumption metering</b> (where all electricity produced by the generator is metered as well as all electricity consumed in the household)				
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**Thank you for your assistance.**

**Business Council for Sustainable Energy**  
**Survey of retailers' energy buy-back arrangements for**  
**small embedded power generators**

**Ergon Energy response**

The following details apply to solar power systems, requests for buy-back of energy from other renewable energy systems such as wind and hydro power are considered on a case by case basis.

<p>1. Do you offer buy-back arrangements (energy purchase facility) for customers with small embedded generators which export electricity to the grid, such as solar photovoltaic?  <i>If yes, please fill in the relevant sections of the grid on the reverse side as well as the questions below.</i>  <i>If no, thank you for your time.</i></p>	<p>Yes</p>
<p>2. Are your current arrangements for buy-back of embedded generation <i>just about to change</i>?          If so, please outline the new arrangements if possible.</p>	<p>Yes – This survey is being completed based on the new agreement</p>
<p>3. In which States/Territories do you offer this?          If your metering and billing arrangements differ between the states, please specify how they differ for each of the questions below and over the page.</p>	<p>QLD (note that Ergon Energy is only legally able to sell electricity to customers in their retail area in Queensland)</p>
<p>4. What is the upper limit of system capacity (kW) for this service?</p>	<p>10kW</p>
<p>5. In regard to metering, do you require meter data in intervals i.e. half hourly?</p>	<p>No – However we are installing interval type meters</p>
<p>6. Is there a cap on the amount of energy (kWh) purchased? If so, please detail.</p>	<p>No</p>
<p>7. How is billing credit managed? i.e. carried forward indefinitely, paid immediately, paid once amount reaches a threshold</p>	<p>Carried forward as a credit on the account</p>
<p>8. Do you have training and procedures in place within your sales channels (call centres, promotions) to ensure that staff know how to process/refer those customers?</p>	<p>Yes</p>
<p>9. Do you seek to acquire the Renewable Energy Certificate's associated with your customers' renewable energy systems?          If yes, does this affect the rates you offer these customers for their electricity?</p>	<p>The customer is able to sell their RECs to either a third party or Ergon Energy at their discretion.</p>
<p>10. Please detail any up-front/once-off charges on new customers with small embedded generators.</p>	<p>There are two fees:</p> <ul style="list-style-type: none"> <li>• An administration fee of \$100; and</li> <li>• A meter installation fee of \$100</li> </ul>

<b>Type/s of customer metering utilised</b>  <b>Note that depending on the physical nature of the installation either Import/export or Net metering may be used</b>	<b>Billing method</b> How do you calculate the amount of electricity on which tariffs are paid? i.e. are tariffs paid on <i>total</i> import or production OR on <i>net</i> (export less import) over a certain period? If net billing - over what period?	<b>Tariff offered</b> What rate do you offer system owners? i.e. a “1 for 1” feed-in tariff - where the feed-in rate equals the retail rate OR feed-in tariff different to retail tariff – if so, what rate/s (c/kWh) do you offer?	<b>Time-of-use (ToU) tariffs</b> Please detail the feed-in rate/s you offer customers on time-of-use tariffs.	<b>GST</b> Please specify how GST is calculated i.e. on all energy exported, net (export less import), all energy consumed in the house, etc.
<b>Import/export metering</b> (where electricity <i>imported to</i> and <i>exported from</i> the grid are separately metered)	Charges are levied on a net basis per quarter (for residential).	Feed in Tariff is on a 1 for 1 basis	Not applicable	GST is calculated on the net metered component
<b>Net metering</b> (where only the net of electricity <i>exported from</i> the grid less all electricity <i>imported to</i> the grid is metered)	Charges are levied on a net basis per quarter (for residential).	Feed in Tariff is on a 1 for 1 basis	Not applicable	GST is calculated on the net metered component
<b>Gross production/ consumption metering</b> (where all electricity produced by the generator is metered as well as all electricity consumed in the household)				

**Thank you for your assistance.**

**Business Council for Sustainable Energy**  
**Survey of retailers' energy buy-back arrangements for**  
**small embedded power generators**

**Horizon Power response**

The following rates apply to solar power systems. Other renewable technologies such as small wind systems may also apply and would be assessed on a case-by-case basis. They would need to meet the network connection requirements.

1. Do you offer buy-back arrangements (energy purchase facility) for customers with small embedded generators which export electricity to the grid, such as solar photovoltaic? <i>If yes, please fill in the relevant sections of the grid on the reverse side as well as the questions below.</i> <i>If no, thank you for your time.</i>	Yes
2. Are your current arrangements for buy-back of embedded generation <i>just about to change</i> ? If so, please outline the new arrangements if possible.	No
3. In which States/Territories do you offer this? If your metering and billing arrangements differ between the states, please specify how they differ for each of the questions below and over the page.	WA
4. What is the upper limit of system capacity (kW) for this service?	5kW
5. In regard to metering, do you require meter data in intervals i.e. half hourly?	No
6. Is there a cap on the amount of energy (kWh) purchased? If so, please detail.	No
7. How is billing credit managed? i.e. carried forward indefinitely, paid immediately, paid once amount reaches a threshold	If the account is in credit the customer can request a payout of that credit. However this is limited to once every six months.
8. Do you have training and procedures in place within your sales channels (call centres, promotions) to ensure that staff know how to process/refer those customers?	Yes
9. Do you seek to acquire the Renewable Energy Certificate's associated with your customers' renewable energy systems? If yes, does this affect the rates you offer these customers for their electricity?	No
10. Please detail any up-front/once-off charges on new customers with small embedded generators.	\$107 ( inc GST) Application fee \$199 (inc GST) for connection and supply of single phase connection and meter \$499 (inc GST) for connection and supply of three phase connection and meter

<b>Type/s of customer metering utilised</b>	<b>Billing method</b> How do you calculate the amount of electricity on which tariffs are paid? i.e. are tariffs paid on <i>total</i> import or production OR on <i>net</i> (export less import) over a certain period? If net billing - over what period?	<b>Tariff offered</b> What rate do you offer system owners? i.e. a “1 for 1” feed-in tariff - where the feed-in rate equals the retail rate OR feed-in tariff different to retail tariff – if so, what rate/s (c/kWh) do you offer?	<b>Time-of-use (ToU) tariffs</b> Please detail the feed-in rate/s you offer customers on time-of-use tariffs.	<b>GST</b> Please specify how GST is calculated i.e. on all energy exported, net (export less import), all energy consumed in the house, etc.
<b>Import/export metering</b> (where electricity <i>imported to</i> and <i>exported from</i> the grid are separately metered)	Both imports and exports are metered. Charges are based on net usage (import less exports) for our normal billing period. Typically a two-month billing period.	Buy back tariff rate is the same as our normal sales tariff rate applicable for that account. Effectively “1 for 1”. We have separate tariffs for import and export components. The import including GST, the export excluding GST. However the underlying rates are the same. See <a href="http://www.horizonpower.com.au/residential/about_account/prices_fees/">http://www.horizonpower.com.au/residential/about_account/prices_fees/</a>	N/A	GST and billing are applied to the net energy. If the account ends up with credit for a bill, the credit value excludes GST. The net component of the next bill is still charged GST inclusive ( if it is in debit ) and the customers previous credit (GST exc) is applied against it.
<b>Net metering</b> (where only the net of electricity <i>exported from</i> the grid less all electricity <i>imported to</i> the grid is metered)	N/A	N/A	N/A	N/A
<b>Gross production/ consumption metering</b> (where all electricity produced by the generator is metered as well as all electricity consumed in the household)	N/A	N/A	N/A	N/A

**Thank you for your assistance.**

**Business Council for Sustainable Energy**  
**Survey of retailers' energy buy-back arrangements for**  
**small embedded power generators**

**Integral Energy response**

The following details apply to solar power systems, requests for buy-back of energy from other renewable energy systems such as wind and hydro power would be considered on a case by case basis. They would need to meet the network connection requirements.

<p>1. Do you offer buy-back arrangements (energy purchase facility) for customers with small embedded generators which export electricity to the grid, such as solar photovoltaic?  <i>If yes, please fill in the relevant sections of the grid on the reverse side as well as the questions below.</i>  <i>If no, thank you for your time.</i></p>	<p>Yes</p>
<p>2. Are your current arrangements for buy-back of embedded generation <i>just about to change</i>?          If so, please outline the new arrangements if possible.</p>	<p>No</p>
<p>3. In which States/Territories do you offer this?          If your metering and billing arrangements differ between the states, please specify how they differ for each of the questions below and over the page.</p>	<p>NSW – in the Integral Network area only</p>
<p>4. What is the upper limit of system capacity (kW) for this service?</p>	<p>The upper limit is the 10kW inverter capacity for solar power systems (a Sun Power contract). Contact Integral Energy regarding connection of other technologies.</p>
<p>5. In regard to metering, do you require meter data in intervals i.e. half hourly?</p>	<p>No</p>
<p>6. Is there a cap on the amount of energy (kWh) purchased? If so, please detail.</p>	<p>No, however there is a cap on the system capacity – see Q4 above.</p>
<p>7. How is billing credit managed? i.e. carried forward indefinitely, paid immediately, paid once amount reaches a threshold</p>	<p>Carried forward indefinitely and paid out upon customers request</p>
<p>8. Do you have training and procedures in place within your sales channels (call centres, promotions) to ensure that staff know how to process/refer those customers?</p>	<p>Yes</p>
<p>9. Do you seek to acquire the Renewable Energy Certificate's associated with your customers' renewable energy systems?          If yes, does this affect the rates you offer these customers for their electricity?</p>	<p>No</p>
<p>10. Please detail any up-front/once-off charges on new customers with small embedded generators.</p>	<p>Integral Energy charges no administration fees. The meter (a standard Type 6 meter) is</p>

	provided at no cost. The customer must pay for the installation of the meter.
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<b>Type/s of customer metering utilised</b>	<b>Billing method</b> How do you calculate the amount of electricity on which tariffs are paid? i.e. are tariffs paid on <i>total</i> import or production OR on <i>net</i> (export less import) over a certain period? If net billing - over what period?	<b>Tariff offered</b> What rate do you offer system owners? i.e. a "1 for 1" feed-in tariff - where the feed-in rate equals the retail rate OR feed-in tariff different to retail tariff – if so, what rate/s (c/kWh) do you offer?	<b>Time-of-use (ToU) tariffs</b> Please detail the feed-in rate/s you offer customers on time-of-use tariffs.	<b>GST</b> Please specify how GST is calculated i.e. on all energy exported, net (export less import), all energy consumed in the house, etc.
<b>Import/export metering</b> (where electricity <i>imported to</i> and <i>exported from</i> the grid are separately metered)				
<b>Net metering</b> (where only the net of electricity <i>exported from</i> the grid less all electricity <i>imported to</i> the grid is metered)				
<b>Gross production/ consumption metering</b> (where all electricity produced by the generator is metered as well as all electricity consumed in the household)	Meter reading, gross generation	Same rate as the first block of the inclined block tariff less GST. Presently set at 12.34270c/kwh	Not offered	GST collected for consumption only

**Thank you for your assistance.**

**Business Council for Sustainable Energy**  
**Survey of retailers' energy buy-back arrangements for**  
**small embedded power generators**

**Origin Energy response**

The following refer to buy-back rates for solar power. Origin Energy do buy back wind but negotiate this separately.

1. Do you offer buy-back arrangements (energy purchase facility) for customers with small embedded generators which export electricity to the grid, such as solar photovoltaic? <i>If yes, please fill in the relevant sections of the grid on the reverse side as well as the questions below. If no, thank you for your time.</i>	Yes
2. Are your current arrangements for buy-back of embedded generation <i>just about to change</i> ? If so, please outline the new arrangements if possible.	No
3. In which States/Territories do you offer this? If your metering and billing arrangements differ between the states, please specify how they differ for each of the questions below and over the page.	NSW QLD SA VIC
4. What is the upper limit of system capacity (kW) for this service?	No limit to system
5. In regard to metering, do you require meter data in intervals i.e. half hourly?	No
6. Is there a cap on the amount of energy (kWh) purchased? If so, please detail.	Yes, the cap is 500kwh per quarter
7. How is billing credit managed? i.e. carried forward indefinitely, paid immediately, paid once amount reaches a threshold	Carried forward indefinitely or until customer requests refund cheque
8. Do you have training and procedures in place within your sales channels (call centres, promotions) to ensure that staff know how to process/refer those customers?	Yes
9. Do you seek to acquire the Renewable Energy Certificate's associated with your customers' renewable energy systems? If yes, does this affect the rates you offer these customers for their electricity?	Yes  Does not affect rates at this time
10. Please detail any up-front/once-off charges on new customers with small embedded generators.	Project Fees applied by the distribution businesses only.

<b>Type/s of customer metering utilised</b>	<b>Billing method</b> How do you calculate the amount of electricity on which tariffs are paid? i.e. are tariffs paid on <i>total</i> import or production OR on <i>net</i> (export less import) over a certain period? If net billing - over what period?	<b>Tariff offered</b> What rate do you offer system owners? i.e. a "1 for 1" feed-in tariff - where the feed-in rate equals the retail rate OR feed-in tariff different to retail tariff – if so, what rate/s (c/kWh) do you offer?	<b>Time-of-use (ToU) tariffs</b> Please detail the feed-in rate/s you offer customers on time-of-use tariffs.	<b>GST</b> Please specify how GST is calculated i.e. on all energy exported, net (export less import), all energy consumed in the house, etc.
<b>Import/export metering</b> (where electricity <i>imported to</i> and <i>exported from</i> the grid are separately metered)	Net- billed Quarterly all states NSW, VIC, SA  QLD does have some import/export metered separately as well as net	1/1 buyback- generation is credited at retail rate  c/kWh are dependent upon what product/tariff the customer is on	1/1 buyback.  These rates differ from state to state and between products. Standard within Powercor distribution area is 18.55c peak and 7.21c offpeak.	GST is calculated on all energy imported to the house.
<b>Net metering</b> (where only the net of electricity <i>exported from</i> the grid less all electricity <i>imported to</i> the grid is metered)	NSW, VIC, SA, QLD			
<b>Gross production/ consumption metering</b> (where all electricity produced by the generator is metered as well as all electricity consumed in the household)	Some QLD customers have Gross metering as determined by the distribution company			

**Thank you for your assistance.**

**Business Council for Sustainable Energy**  
**Survey of retailers' energy buy-back arrangements for**  
**small embedded power generators**

**Power and Water Corporation response**

The following buy-back tariff covers any renewable energy approved by the Office of the Renewable Energy Regulator (ORER).

1. Do you offer buy-back arrangements (energy purchase facility) for customers with small embedded generators which export electricity to the grid, such as solar photovoltaic? <i>If yes, please fill in the relevant sections of the grid on the reverse side as well as the questions below.</i> <i>If no, thank you for your time.</i>	Yes
2. Are your current arrangements for buy-back of embedded generation <i>just about to change</i> ? If so, please outline the new arrangements if possible.	No
3. In which States/Territories do you offer this? If your metering and billing arrangements differ between the states, please specify how they differ for each of the questions below and over the page.	NT
4. What is the upper limit of system capacity (kW) for this service?	30 kVA
5. In regard to metering, do you require meter data in intervals i.e. half hourly?	No
6. Is there a cap on the amount of energy (kWh) purchased? If so, please detail.	No
7. How is billing credit managed? i.e. carried forward indefinitely, paid immediately, paid once amount reaches a threshold	Credited to the account when the meter is read. If there is a net credit to the customer over the billing period, this would be carried forward.
8. Do you have training and procedures in place within your sales channels (call centres, promotions) to ensure that staff know how to process/refer those customers?	Yes
9. Do you seek to acquire the Renewable Energy Certificate's associated with your customers' renewable energy systems? If yes, does this affect the rates you offer these customers for their electricity?	No
10. Please detail any up-front/once-off charges on new customers with small embedded generators.	\$150 for the meter is the only charge. No installation charge as the meters are plug-in meters, the electrician provides the socket as part of the job.

<b>Type/s of customer metering utilised</b>	<b>Billing method</b> How do you calculate the amount of electricity on which tariffs are paid? i.e. are tariffs paid on <i>total</i> import or production OR on <i>net</i> (export less import) over a certain period? If net billing - over what period?	<b>Tariff offered</b> What rate do you offer system owners? i.e. a "1 for 1" feed-in tariff - where the feed-in rate equals the retail rate OR feed-in tariff different to retail tariff – if so, what rate/s (c/kWh) do you offer?	<b>Time-of-use (ToU) tariffs</b> Please detail the feed-in rate/s you offer customers on time-of-use tariffs.	<b>GST</b> Please specify how GST is calculated i.e. on all energy exported, net (export less import), all energy consumed in the house, etc.
<b>Import/export metering</b> (where electricity <i>imported to</i> and <i>exported from</i> the grid are separately metered)				
<b>Net metering</b> (where only the net of electricity <i>exported from</i> the grid less all electricity <i>imported to</i> the grid is metered)				
<b>Gross production/consumption metering</b> (where all electricity produced by the generator is metered as well as all electricity consumed in the household)	A separate meter records the gross production and all of the renewable energy is paid for.	15.01 cents/kWh which is the same as the retail rate.	N/A	GST is collected for the energy consumed in the premises. RE purchased is treated the same as RECs.

**Thank you for your assistance.**

**Business Council for Sustainable Energy**  
**Survey of retailers' energy buy-back arrangements for**  
**small embedded power generators**

**Red Energy response**

<p>1. Do you offer buy-back arrangements (energy purchase facility) for customers with small embedded generators which export electricity to the grid, such as solar photovoltaic?  <i>If yes, please fill in the relevant sections of the grid on the reverse side as well as the questions below.</i>  <i>If no, thank you for your time.</i></p>	<p>Yes. Currently only SP Ausnet area.</p>
<p>2. Are your current arrangements for buy-back of embedded generation <i>just about to change</i>?          If so, please outline the new arrangements if possible.</p>	<p>Yes. Looking to expand to other networks, starting with United.</p>
<p>3. In which States/Territories do you offer this?          If your metering and billing arrangements differ between the states, please specify how they differ for each of the questions below and over the page.</p>	<p>VIC</p>
<p>4. What is the upper limit of system capacity (kW) for this service?</p>	<p>Residential/SME market</p>
<p>5. In regard to metering, do you require meter data in intervals i.e. half hourly?</p>	<p>No, but I think this is a metrology requirement.</p>
<p>6. Is there a cap on the amount of energy (kWh) purchased? If so, please detail.</p>	<p>No</p>
<p>7. How is billing credit managed? i.e. carried forward indefinitely, paid immediately, paid once amount reaches a threshold</p>	<p>Standard retail billing cycle</p>
<p>8. Do you have training and procedures in place within your sales channels (call centres, promotions) to ensure that staff know how to process/refer those customers?</p>	<p>Limited. In house experts to deal with it, but looking to train Customer Service Representatives more widely in future as market grows.</p>
<p>9. Do you seek to acquire the Renewable Energy Certificate's associated with your customers' renewable energy systems?          If yes, does this affect the rates you offer these customers for their electricity?</p>	<p>Not necessary. Red's parent Snowy Hydro will consider purchase of RECs separately.</p>
<p>10. Please detail any up-front/once-off charges on new customers with small embedded generators.</p>	<p>Meter addition and/or alteration usually required for which Red charges a fee (subject to a prompt payment discount). Rates vary by network and a quote should be sought from Red who will request the work from the network.</p>

<b>Type/s of customer metering utilised</b>	<b>Billing method</b> How do you calculate the amount of electricity on which tariffs are paid? i.e. are tariffs paid on <i>total</i> import or production OR on <i>net</i> (export less import) over a certain period? If net billing - over what period?	<b>Tariff offered</b> What rate do you offer system owners? i.e. a "1 for 1" feed-in tariff - where the feed-in rate equals the retail rate OR feed-in tariff different to retail tariff – if so, what rate/s (c/kWh) do you offer?	<b>Time-of-use (ToU) tariffs</b> Please detail the feed-in rate/s you offer customers on time-of-use tariffs.	<b>GST</b> Please specify how GST is calculated i.e. on all energy exported, net (export less import), all energy consumed in the house, etc.
<b>Import/export metering</b> (where electricity <i>imported to</i> and <i>exported from</i> the grid are separately metered)				
<b>Net metering</b> (where only the net of electricity <i>exported from</i> the grid less all electricity <i>imported to</i> the grid is metered)				
<b>Gross production/ consumption metering</b> (where all electricity produced by the generator is metered as well as all electricity consumed in the household)				

**Thank you for your assistance.**

**Business Council for Sustainable Energy**  
**Survey of retailers' energy buy-back arrangements for**  
**small embedded power generators**

**Synergy response**

The following details apply to rates offered for all renewable technologies.

<p>1. Do you offer buy-back arrangements (energy purchase facility) for customers with small embedded generators which export electricity to the grid, such as solar photovoltaic?  <i>If yes, please fill in the relevant sections of the grid on the reverse side as well as the questions below.</i>  <i>If no, thank you for your time.</i></p>	<p>Yes</p>
<p>2. Are your current arrangements for buy-back of embedded generation <i>just about to change</i>?          If so, please outline the new arrangements if possible.</p>	<p>No</p>
<p>3. In which States/Territories do you offer this?          If your metering and billing arrangements differ between the states, please specify how they differ for each of the questions below and over the page.</p>	<p>WA</p>
<p>4. What is the upper limit of system capacity (kW) for this service?</p>	<p>5kW</p>
<p>5. In regard to metering, do you require meter data in intervals i.e. half hourly?</p>	<p>No</p>
<p>6. Is there a cap on the amount of energy (kWh) purchased? If so, please detail.</p>	<p>No:</p>
<p>7. How is billing credit managed? i.e. carried forward indefinitely, paid immediately, paid once amount reaches a threshold</p>	<p>Paid immediately – credit applied to each account. If the amount in credit on the bill exceeds the amount in debit by more than \$100 each month for more than 6 consecutive months (\$200 per bi-monthly billing cycle for 3 bills), then Synergy will pay the balance to the customer, on written request, by cheque.</p>
<p>8. Do you have training and procedures in place within your sales channels (call centres, promotions) to ensure that staff know how to process/refer those customers?</p>	<p>Yes</p>
<p>9. Do you seek to acquire the Renewable Energy Certificate's associated with your customers' renewable energy systems?          If yes, does this affect the rates you offer these customers for their electricity?</p>	<p>No</p>

10. Please detail any up-front/once-off charges on new customers with small embedded generators.

\$107 Assessment Fee payable to Western Power (network operator).  
Meter upgrade costs may apply.

<b>Type/s of customer metering utilised</b>	<b>Billing method</b> How do you calculate the amount of electricity on which tariffs are paid? i.e. are tariffs paid on <i>total</i> import or production OR on <i>net</i> (export less import) over a certain period? If net billing - over what period?	<b>Tariff offered</b> What rate do you offer system owners? i.e. a “1 for 1” feed-in tariff - where the feed-in rate equals the retail rate OR feed-in tariff different to retail tariff – if so, what rate/s (c/kWh) do you offer?	<b>Time-of-use (ToU) tariffs</b> Please detail the feed-in rate/s you offer customers on time-of-use tariffs.	<b>GST</b> Please specify how GST is calculated i.e. on all energy exported, net (export less import), all energy consumed in the house, etc.
<b>Import/export metering</b> (where electricity <i>imported to</i> and <i>exported from</i> the grid are separately metered)	Customers are billed for their net import and credited for their net export of electricity over a billing period.	Customers are offered renewable energy buyback rates equal to their selected electricity purchase rates, less the GST component. This means that Synergy will buy power from the customer at 10/11ths of the price Synergy sells to the customer.	Please refer to Synergy website: <a href="http://www.synergyenergy.com.au/Residential_Segment/Green_Energy/Sale_%26_Purchase_Rates.html">http://www.synergyenergy.com.au/Residential_Segment/Green_Energy/Sale_%26_Purchase_Rates.html</a>	GST is applied to all energy exported from the grid.
<b>Net metering</b> (where only the net of electricity <i>exported from</i> the grid less all electricity <i>imported to</i> the grid is metered)				
<b>Gross production/consumption metering</b> (where all electricity produced by the generator is metered as well as all electricity consumed in the household)				

**Thank you for your assistance.**

**Business Council for Sustainable Energy**  
**Survey of retailers' energy buy-back arrangements for**  
**small embedded power generators**

**TRUenergy response**

The following buy-back arrangements apply to solar power only.

<p>1. Do you offer buy-back arrangements (energy purchase facility) for customers with small embedded generators which export electricity to the grid, such as solar photovoltaic?  <i>If yes, please fill in the relevant sections of the grid on the reverse side as well as the questions below.</i>  <i>If no, thank you for your time.</i></p>	<p>Yes</p>
<p>2. Are your current arrangements for buy-back of embedded generation <i>just about to change</i>?          If so, please outline the new arrangements if possible.</p>	<p>Yes          In August 2007, Truenergy will be able to offer the following products: Go for More, Go Easy &amp; GRTs with a 1:1 buy back ratio. Currently, TRUenergy does not have a solar business product on the market.</p>
<p>3. In which States/Territories do you offer this?          If your metering and billing arrangements differ between the states, please specify how they differ for each of the questions below and over the page.</p>	<p>ACT NSW SA VIC</p>
<p>4. What is the upper limit of system capacity (kW) for this service?</p>	<p>100kW. Larger systems dealt with on a case by case basis.</p>
<p>5. In regard to metering, do you require meter data in intervals i.e. half hourly?</p>	<p>No</p>
<p>6. Is there a cap on the amount of energy (kWh) purchased? If so, please detail.</p>	<p>Yes          As stated above.</p>
<p>7. How is billing credit managed? i.e. carried forward indefinitely, paid immediately, paid once amount reaches a threshold</p>	<p>Credits are not paid in cash, it is an energy credit only.</p>
<p>8. Do you have training and procedures in place within your sales channels (call centres, promotions) to ensure that staff know how to process/refer those customers?</p>	<p>Yes</p>
<p>9. Do you seek to acquire the Renewable Energy Certificate's associated with your customers' renewable energy systems?          If yes, does this affect the rates you offer these customers for their electricity?</p>	<p>No</p>
<p>10. Please detail any up-front/once-off charges on new customers with small embedded generators.</p>	<p>No additional charges other than metering charges which may be incurred from the distributor.</p>

Type/s of customer metering utilised	Billing method How do you calculate the amount of electricity on which tariffs are paid? i.e. are tariffs paid on <i>total</i> import or production OR on <i>net</i> (export less import) over a certain period? If net billing - over what period?	Tariff offered What rate do you offer system owners? i.e. a “1 for 1” feed-in tariff - where the feed-in rate equals the retail rate OR feed-in tariff different to retail tariff – if so, what rate/s (c/kWh) do you offer?	Time-of-use (TOU) tariffs Please detail the feed-in rate/s you offer customers on time-of-use tariffs.	GST Please specify how GST is calculated i.e. on all energy exported, net (export less import), all energy consumed in the house, etc.
Import/export metering (where electricity <i>imported to</i> and <i>exported from</i> the grid are separately metered)	All photovoltaic data received by Truenergy has been in the form of both imported & exported energy.	Currently the rate that TRUenergy offers to our photovoltaic customers is based on a “1 for 1” ratio. Truenergy reserve the right to alter this pricing structure in future price changes.	<p><u>Go Easy/Go for More</u> Peak (7am – 11pm Mon – Fri) *** p/kWh  Off Peak (All other times) *** p/kWh</p> <p><u>GRT - GHGL</u>  (Government Regulated Tariff – available to ‘In area’ (SP Ausnet) customers)  Peak (7am – 11pm Mon – Fri) ***p/kWh  Off Peak (All other times) ***p/kWh</p> <p>- TOU tariffs are only offered to custs with TOU meter configs.  - Rates differ based on state.</p>	GST is only calculated on energy that customers export from the grid. GST is not applied to any imported energy that residential customers put back into the grid.
Net metering (where only the net of electricity <i>exported from</i> the grid less all electricity <i>imported to</i> the grid is metered)				

Gross production/ consumption metering (where all electricity produced by the generator is metered as well as all electricity consumed in the household)				
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**Thank you for your assistance.**