Submission Template

COAG Review Discussion Paper 3 – Support for small-scale off-grid renewable generation

Overview

This submission template should be used to provide comments on:

COAG Review Discussion Paper 3 – Support for small-scale off-grid renewable generation

The purpose of this discussion paper is to provide an introduction to the key issues relating to support for off-grid renewable generation within the Renewable Energy Target (RET), and to encourage input on these issues from individuals, businesses and organisations to inform the review process

Stakeholders are asked to use the template provided to answer the questions posed in the discussion paper. The Department will also accept any other documents, further information, costing tables etc that are attached to the submission template.

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Confidentiality

All submissions will be treated as public documents, unless the author of the submission clearly indicates the contrary by marking all or part of the submission as 'confidential'. Public submissions may be published in full on the Department of Climate Change website, including any personal information of authors and/or other third parties contained in the submission. If any part of the submission should be treated as confidential then please provide two versions of the submission, one with the confidential information removed for publication.

A request made under the *Freedom of Information Act 1982* for access to a submission marked confidential will be determined in accordance with that Act.

Do you want this submission to be treated as confidential? ☐ **Yes** ☒ **No**

Submission Instructions

Submissions should be made by **close of business 30 October 2009**. The Department reserves the right not to consider late submissions.

Where possible, submissions should be lodged electronically, preferably in Microsoft Word or other text based formats, via the email address - **RET@climatechange.gov.au**.

Submissions may alternatively be sent to the postal address below to arrive by the due date.

Renewable Energy Sub Group Secretariat
Department of Climate Change
GPO Box 854, Canberra ACT 2601

For more information phone: 02 6159 7428

Off-grid renewable generation

Question 1: Solar Credits currently apply up to the first 1.5 kilowatts (kW) of capacity installed. Should Solar Credits or a similar 'REC multiplier' mechanism under the RET be used to provide further incentives for off-grid renewable generation? If so, what level of eligible capacity (such as 20 kW) should apply? How would this compare with the level of support under the RRPGP and what size 'REC multiplier' would be appropriate?

The energy challenges in the off grid market and the reasons underpinning investment in energy infrastructure are vastly different to those in the grid market.

The reasons are often related to:

- the expense and complications in sourcing diesel supply
- the noise and exhaust fumes created from running diesel generators
- a desire to transition to an independent and secure energy system
- the cost of connecting to the grid being prohibitively high and in many instances not being available.

A stand alone power system is typically larger in remote locations of Australia because the system is used as the primary source of supply with limited alternate or back up options. This compares to the grid market where supply can be drawn down relatively easily and seamlessly.

The costs of these stand alone systems are typically twice that of grid installs, in part a function of the system size but also due to the need for additional components and parts to enable the customer to operate independently, batteries, structural parts and cost of travel to install in remote locations.

System Size

BP Solar believes that the current system cap imposed under Solar Credits of 1.5kW is too small and for the off grid market is an inappropriate level.

The design of any replacement programme to RRPGP should take into account the fact that the system requirements in remote and regional Australia are on average larger than in the grid market. It is understood that in 2008/2009, 52% of the systems funded under RRPGP were less than 10kW, 46% 10-20kW and further 2% 20-30kW.

We believe that any new system size constraint should be set at 30kW to enable larger cattle station owners and communities to operate independently as well as households, Indigineous communities. Systems larger than this should be catered for under additional complimentary initiatives, Solar Flagships, taxation incentives.

REC Multiplier vs Capital Support

BP Solar supports the continuation of an upfront capital subsidy programme to encourage deployment of solar PV systems to the off grid market in preference to using the Solar Multiplier as the primary deployment mechanism.

The reasons for this include:

- The Solar Credits scheme being based on generation thus not fully recognizing the unique characteristics and value attributes associated with fossil fuel displacement in remote locations. Eg, reversing urbanization and encouraging people to stay in regions and rural towns.
- The multiplier would need to adjust as the REC price moved to maintain a fixed percent support level – noting that REC pricing movements since MRET was introduced have ranged from $11 - $50.
- Fixing the multiplier at a higher level makes the off grid market more sensitive to any movements in the REC price, thus decreasing / increasing the total dollar support received.
- Maintaining the equivalent of 50% subsidy would require a step change in the multiplier, circa 15-20 times. However, applying a larger multiplier will result in a larger number of "phantom REC's" being created, meaning that there would be significantly less than 45,000GWh of additional renewable energy installed by 2020 unless these were added back to the annual target.

Question 2: What other eligibility criteria should apply and what would be an appropriate process for phasing out the incentive?

We do not believe there is a need for any additional eligibility criteria to be applied to any replacement scheme but do believe that any support should be phased down to 20% over a minimum 5 year period with the reduction to be in line with installed cost reductions.

The following is an indication of the cost breakdown of a typical off grid install compared with a grid install.

OFFGRID		GRID	
Modules	30%	Modules	70%
Inverters	17%	Inverters	20%
Batteries	37%	Structure/ Installation	10%
Structure	5%		
Installation	11%	TOTAL	100%
TOTAL	100%		

The influence of solar PV module prices does not figure as prominently in the cost build up of an off grid system compared with grid conmnected. This partly explains why installed prices have not shifted as dramatically in the last 2 years relative to grid installs despite there being a module costs reduction of 30%.

Additionally it should be noted that batteries are by far the biggest cost of a standalone system representing almost 40% of the installed costs. Whilst module costs have declined batteries costs have increased in line with movements in the price of lead.

BP Solar recommends that further modelling and investigation of the off grid market would need to be conducted to determine the appropriate trajectory / design elements of any replacement scheme (outside of an extended multiplier arrangement) and for the review to determine if there is a need for complementary policies to be adopted for instance, a loan package to help with financing large systems and what exactly these should be.

Anecdotally, we believe there would be a need for loan assistance in the off grid market because many struggle not just with energy poverty but also financial difficulties thus making affording a PV system or connecting to the grid out of reach of many.

Experience of the Renewable Remote Power Generation Programme

Question 3: Are the RRPGP program parameters still relevant if incentives for off-grid renewable generation are provided under the RET? Views are sought on:

- whether 1km from a main grid is an appropriate definition for remote 'off-grid';
- whether the $30,000 connection costs threshold is appropriate for sites that are considered close to a main grid; and
- whether support equivalent of up to 50 per cent of the cost of the renewable generation and essential enabling equipment is appropriate.

BP Solar believes that it is essential that subsidy support be the equivalent of 40-50% to enable the deployment of renewable energy technologies to occur in the scale required to satisfy the energy demands in the bush.

Any subsidy level below this will deliver sub-optimal results and will delay the development of a an off grid market uptake.

Cost of renewable generation

Question 4: Information is sought on the costs of different small-scale off-grid renewable generation systems for example in different geographical locations, in particular:

- the capital cost of the technology, including installation;
- annual running costs, including maintenance;
- the effective life of the system;
- the capacity factor of the system, if applicable; and
- how this compares to fossil fuel based generation (such as diesel).

Impact on existing eligible technologies and REC market

Question 5: Would providing incentives for off-grid renewable generation have a major impact on the deployment of existing eligible technologies?

Under the Solar Credits scheme multiplier arrangement, Renewable Energy Certificates can be created without being associated with any new renewable energy generated. The creation of these “phantom REC’s” will mean that the deployment of renewable energy will be less than the target 45,000GWh under the Renewable Energy Target legislation unless the legislation is amended.

Further, if the Solar Credits schemes Solar Multiplier was lifted in the off grid market to a number higher than 5 and extended to systems larger than 1.5kW, the number of phantom REC’s created would increase significantly. Meaning that a greater proportion of renewable energy target would be taken up by REC’s not associated with any new renewable energy projects.

BP Solar has maintained consistently that the phantom REC’s should be added back to the target figure. This should be done each year particular given that in the initial years of the RET coming into effect there is forecast to be an oversupply of REC’s in the market which will and has already resulted in a significant softening of the REC price. Whilst the creation of phantom RECs is not the only reason there is an oversupply of RECs today this is part of the problem and needs to remedied to ensure policy integrity.

A continued oversupply of REC’s versus the target will continue to dampen the REC price and thus impact adversely on the viability of commissioning many new renewable energy projects not just solar PV.

For this reason, BP Solar recommends that the phantom REC’s be added back to the annualized target number to ensure that the deployment of ALL renewable energy technologies not just those that are cheaper are encouraged regardless of whether the multiplier is lifted in the off grid market,

Remote Indigenous communities

Question 6: What would be the wider economic and social benefits of renewable generation under the RET for remote Indigenous communities? How can these benefits be used to close the gap in Indigenous disadvantage?

The Bushlight program has been receiving capital support for the deployment of solar PV systems to remote Indigineous communities from RRPGP.

Since Bushlight commenced in 2002, they have installed more than120 systems and have played a pivotal role in ensuring Indigineous communities have access to renewable energy. As a result of the Bushlight programme, the lifes of many Indigineous have improved materially with an estimated 3000 being the beneficiaries of having solar power systems installed across remote communities.

The Bushlight program also created business opportunities for the regional network of solar PV installers and provided direct employment opportunities for some 30 people in managing and rolling out this programme. This skill base and significant resource will be lost without any additional capital funding and obviously is preventing any further systems being deployed.

The provision of energy, running water etc are services that city dwellers take for granted but these otherwise essential services are often not readily accessed by many Australians. Addressing this must form part of the answer to “closing the gap” in the significant economic and social gap that exists in the Indigineous communities. Lifting these people out of energy poverty must be viewed as being a pressing need.

Any other additional comments

BP Solar welcomes the opportunity to respond to the COAG review of specific Renewable Energy Target issues, in particular Discussion Paper 3, “Support for small scale off-grid renewable generation”.

We fully support the introduction of the expanded Renewable Energy Target of 20% by 2020 enabling the equivalent of 45,000GWh of new renewable energy generation to be installed. The Solar Credits scheme within this legislation is a novel idea but will provide limited assistance to deployment of solar PV to the grid and off grid market. BP Solar believes the shortcomings with this scheme are best addressed by transitioning the industry to a gross national feed in tariff (FIT) for the grid market and a long term commitment to a subsidy programme for the off grid market.

Prior to the introduction of Solar Credits, the Federal Governments Remote and Regional Power Generation Programme (RRPGP) was the primary mechanism advancing deployment of renewable energy to remote and regional parts of Australia and since its premature demise in June 2009 demand for solar PV systems has declined significantly, many potential customers left in limbo are extremely disappointed and many people have lost their jobs.

The stated primary objective of the RRPGP was to encourage the displacement of fossil fuel generation with low carbon sources. The programme was funded by applying a levy on remote diesel and was a popular, simple and effective programme. The programme in providing a 50% capital subsidy support overcame the financial hurdle of funding fully the upfront cost of an otherwise prohibitively expensive standalone system.

BP Solar fully supported this programme and the rationale for its introduction and believe the Solar Credits Scheme will not be able to deliver the same outcomes without significant and impractical structural changes to the scheme.

Our strong preference is for the introduction of a 5 year subsidy programme similar to RRPGP as the immediate policy solution to address the outstanding policy vacuum in this market and for this to be complemented by additional policy solutions for this market.