

# AUSTRALIAN CLIMATE JUSTICE PROGRAM

Level 13, 235 Jones St, Ultimo NSW 2007 Ph: +61 418 884 804

15 August 2008



**By email:** [eca.sen@aph.gov.au](mailto:eca.sen@aph.gov.au)

Committee Secretary  
Senate Standing Committee on Environment, Communications and the Arts  
Department of the Senate  
PO Box 6100  
Parliament House  
Canberra ACT 2600  
Australia

Dear Committee Secretary,

The Australian Climate Justice Program (ACJP<sup>1</sup>) commends the Senate's inquiry into the Renewable Energy (Electricity) Amendment (Feed-In-Tariff) Bill 2008. The ACJP supports the development of feed-in-tariff laws as an effective means of providing greater financial support for the commercialisation of a broad range of prospective renewable energy technologies, particularly those that are generally unsupported by the mandatory renewable energy target scheme.

The ACJP was launched in 2003 and is based at Climate Action Network Australia (CANA<sup>2</sup>). It has a strong relationship with the London-based international Climate Justice Programme.<sup>3</sup>

The ACJP is based on the fundamental premise that the law can be a powerful and effective tool in the campaign for climate protection. Since 2003, the ACJP has executed and supported a range of successful legal actions. At the same time, the climate crisis is worsening; and political and corporate leaders are failing to deliver sufficient cuts in greenhouse pollution.

The information contained in this submission is sourced from PACT (Policy Action on Climate Toolkit).<sup>4</sup> The development of the PACT site involved about 25 people based around the world – in the US, Europe, Asia and Latin America. The main content was written by a combination of lawyers, feed-in tariff experts and interns, with one of the main authors being Peter Roderick (co-Director of the Climate Justice Programme). This content was reviewed by leading experts in the field and transformed into a web-based resource.

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The submission of the ACJP will focus upon (1) the benefits of a feed-in-tariff law and (2) the features of a good feed-in-tariff law. It will provide examples of FITs in other jurisdictions.

We look forward to the conclusions of the Senate and to the enactment of a feed-in-tariff law by the Commonwealth.

Sincerely,

Keely Boom  
Legal Officer  
The Australian Climate Justice Program

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## **A. What is a Feed-In-Tariff Law?**

A FIT requires energy companies to purchase renewable energy from producers, and sets the price which these companies pay per unit of electricity. The purpose of this is to ensure that renewable energy is a sound long-term investment and hence greatly increase the economic incentive for investing in renewable. As the cost is normally shared amongst the end-users, the increase in price per household is very small.<sup>5</sup>

Renewable energy producers face huge discrimination due to subsidies provided to fossil fuel, and the failure to internalise the negative external effects (pollution) that conventional energy sources cause. FITs provide an effective means of overcoming these structural barriers.<sup>6</sup>

## **B. What are the benefits of a Feed-In Tariff Law?**

In order to meet the challenge of climate change, Australia needs to significantly increase the amount of electricity generated by renewable energy. There are a number of methods to do this, however a Feed-In-Tariff law is the best available mechanism for increasing the uptake of renewable energy in grid-connected areas.<sup>7</sup> Moreover, a good FIT system acts as a democratic mechanism by making it cost-effective for citizens to generate their own clean energy.<sup>8</sup>

Some of the benefits of good FITs demonstrated in other jurisdictions are:

1. Reduce CO2 emissions through replacing fossil fuel-based power production with clean, renewable sources of energy.
2. Create jobs: for example in Germany the renewable energy industry employs around 234,000 people. Almost 60% of these people were employed as a direct result of the German FIT law.
3. Guarantee investment security for renewable energy investors.
4. Drive technological innovation.
5. Provide fair market conditions for renewable which without this system, compete with heavily subsidised conventional energy.<sup>9</sup>

FITs are sometimes rejected on the basis that they are 'interventionist' or interfere with the free market. However this is the case for all renewable energy support mechanisms. The distinguishing feature of FITs is that they have proven to be the most effective mechanism for increasing the uptake of renewable energy, and the best at creating market growth.<sup>10</sup>

While there are costs in initially establishing a FIT law (see more under the Price Objective below), there are overall financial benefits of a FIT law. Germany's FIT law was estimated to provide €9.3 billion financial benefits in 2006 (taking into account avoided fuel imports, avoided negative external effects and the "merit-order effect") compared with an increased cost to consumers of €3.3 billion.<sup>11</sup>

A number of in-depth studies have been conducted in the US and EU demonstrating the advantages of FITs, comparing them with other support mechanisms, and considering how they can be combined.<sup>12</sup>

## **C. What are the features of a good Feed-In Tariff Law?**

Good FIT laws have two main objectives, as well as several supplementary objectives. These are:

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1. The Access Objective:<sup>13</sup> this objective requires that grid operators have an obligation to connect renewable energy producers to the grid and must transmit the electricity they produce. This would include renewable energy producers that are utilities, other businesses or private households.<sup>14</sup> To achieve this objective, these features need enacting:
  - a. Ensuring connection to the grid
    - i. China's FIT law imposes obligations on grid operators, which is supplemented in guidelines;<sup>15</sup>
    - ii. In the EU, Member States are required by law to guarantee transmission of electricity from renewable sources and requires dispatch of the electricity. EU law also allows Member States to require priority access;<sup>16</sup>
    - iii. In Germany, FIT law imposes an immediate and priority obligation (and provides a good example of a strong FIT law);<sup>17</sup>
    - iv. In Spain, FIT law provides priority rights of grid access and connection to producers.<sup>18</sup>
    - v. In Ontario, this objective is not met well, as supply of electricity from renewable energy sources is dependent upon transmission constraints.<sup>19</sup>
  - b. Extending and reinforcing the grid (where this is needed)
    - i. Germany has provided a clear legal obligation for upgrading the grid<sup>20</sup>
    - ii. China has provided for undertaking grid upgrades in its FIT guidelines.<sup>21</sup>
  - c. Who pays the costs of connecting and reinforcing? There are three ways for charging and the method chosen should be clearly provided in the FIT law. These methods are:
    - i. Shallow connection charging
    - ii. Deep connection charging
    - iii. Mixed of shallower connection charging<sup>22</sup>
  - d. Transparency
    - i. The EU provides that grid access and its cost is transparent, objective and non-discriminatory.<sup>23</sup>
2. The Price Objective: By maintaining a predictable income for renewable energy suppliers, a FIT law provides investment opportunities even for small and medium-sized enterprises and private households. This is one of the main advantages of a FIT law.<sup>24</sup> To achieve this objective, the following features need to be enacted:
  - a. Technologies and plants<sup>25</sup> to be covered;
    - i. In Italy, the only technology covered is solar PV<sup>26</sup>
    - ii. In China, a wide definition of technologies has been enacted with an exception that might be typical in less industrialized nations<sup>27</sup>
    - iii. In Austria, a definition of technology covered has been adopted that is typical of the EU.<sup>28</sup>
    - iv. In Greece, the hydro capacity limit has been set at 20MW,<sup>29</sup> while in Spain it is 50MW.<sup>30</sup>
    - v. As FITs are intended to benefit privately-owned utilities, some FITs have excluded plants due to public ownership. An example of this is in Germany.<sup>31</sup>
  - b. Imposition of a priority purchase obligation so that electricity from renewable energy sources is purchase ahead of electricity from other sources independent from short-term demand;
    - i. An obligation to purchase renewable energy has been enacted in Switzerland<sup>32</sup> and adopted by policy in Pakistan.<sup>33</sup> Germany<sup>34</sup> and Nicaragua<sup>35</sup> have enacted priority obligations.
  - c. Set an appropriate tariff (or price), ensuring that:

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- i. Technology-specific tariffs (or prices) are set at a reasonable level
    - ii. Payment is guaranteed for a certain number of years and
    - iii. A mechanism for adjusting the tariff (or price) is established.<sup>36</sup>
  - d. Clarify financing the FIT law through a cost sharing mechanism or a fund:
    - i. Sri Lanka announced an Energy Fund in 2007.<sup>37</sup>
  - e. Consider combination with other support mechanisms.<sup>38</sup>
3. Supplementary features that also need to be addressed to ensure effective operation of the FIT law include:
  - a. Combining the FIT law with a target for the amount of electricity from renewable energy
    - i. Ontario recognises the contribution of its FIT rules to meeting a target set outside the law<sup>39</sup>
  - b. Requiring the government to make regular progress reports
    - i. The German FIT law requires the government to make a progress report to parliament every four years, with tariff (or price) revisions scheduled for the following year.<sup>40</sup>
  - c. Requiring that renewable energy plants meet technical and safety standards<sup>41</sup>
  - d. Promoting local content
    - i. Chubut Province in Argentina has enacted a tariff (or price) payment that is dependent upon locally produced or assembled wind energy components.<sup>42</sup>
  - e. Minimise administrative barriers in the way of effective FIT law operation, for example through minimising lead times for necessary permits, minimising and coordinating the authorities involved and including renewable electricity projects into spatial planning.<sup>43</sup>
  - f. Ensuring that the FIT is introduced by law and not policy.<sup>44</sup>

## D. Conclusion

Renewable energy producers face huge discrimination due to subsidies provided to fossil fuels, and the failure to internalise the negative external effects (pollution) that conventional energy sources cause. FITs have been proven to be the most effective mechanism for increasing the uptake of renewable energy, and the best at creating market growth.

To be effective, a FIT law needs to effectively provide for the Access Objective, Price Objective and Supplementary features.

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<sup>1</sup> Find out more about the ACJP at [www.cana.net.au/ACJP](http://www.cana.net.au/ACJP)

<sup>2</sup> CANA is a non-profit alliance of environmental, public health, social justice and research organisations throughout Australia that are concerned about climate change (global warming). Formed in 1998, CANA is also the Australian branch of the global Climate Action Network, which has members in over 70 nations. To find out more about CANA, visit [www.cana.net.au](http://www.cana.net.au)

<sup>3</sup> [www.climatelaw.org](http://www.climatelaw.org)

<sup>4</sup> <http://www.onlinepact.org/>

<sup>5</sup> <http://onlinepact.org/fit.html>

<sup>6</sup> <http://onlinepact.org/price.html>

<sup>7</sup> <http://onlinepact.org/fit.html>

<sup>8</sup> Ibid.

<sup>9</sup> Ibid.

<sup>10</sup> Ibid.

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<sup>11</sup> <http://onlinepact.org/p4.html>

<sup>12</sup> [Rickerson W., Bennhold F., Bradbury J. \(2008\): Feed-in Tariffs and Renewable Energy in the USA - a Policy Update;](#) [Rickerson, W., Grace, R. C. \(2007\): The Debate over Fixed Price Incentives for Renewable Electricity in Europe and the United States: Fallout and Future Directions, Washington;](#) [Optres \(2007\): Recommendation for implementing effective and efficient renewable electricity policies, Vienna, February 2007;](#) [Stern, N. \(2007\): The Economics of Climate Change - Stern Review, Part IV: Policy Responses for Mitigation, Cambridge University Press, Cambridge, UK;](#) [Federal Environmental Agency \(2006\): Monitoring and evaluation of policy instruments to support renewable electricity in EU Member States - Final Report, Dessau, Germany;](#) [Klein et al. \(2006\): Evaluation of different Feed-in tariff design options - Best practise paper for the International Feed-In Cooperation.;](#) [European Commission \(2005\): The support of electricity from renewable sources, COM\(2005\) 627 final;](#) [Bechberger, M., Reiche, D. \(2005\): Europe banks on fixed tariffs, New Energy, 2/2005, pp. 14-16.;](#) [EWEA \(2005\): Support schemes for renewable energy - a comparative analysis of payment mechanisms in the EU, Brussels;](#) [Butler, L., Neuhoff, K. \(2004\): Comparison of Feed in Tariff, Quota and Auction Mechanisms to Support Wind Power Development, Cambridge Working Papers in Economics CWPE 0503](#)

<sup>13</sup> <http://onlinepact.org/features.html>

<sup>14</sup> <http://onlinepact.org/access.html>

<sup>15</sup> [Renewable Energy Law 2005](#), Article 14 provides that:

Grid enterprises shall enter into grid connection agreement with renewable power generation enterprises that have legally obtained administrative license or for which filing has been made, and buy the grid-connected power produced with renewable energy within the coverage of their power grid, and provide grid-connection service for the generation of power with renewable energy.

[Management Guidelines](#), Clause 11 provides that:

Power grid enterprises should vigorously undertake power grid design and research according to the planning requirements, and conduct power grid construction and renovation based on the progresses and needs of renewable energy power generation projects to ensure supply of electricity to power grids at full load.

<sup>16</sup> [Directive 2001/77/EC](#), Article 7.1 provides that:

Without prejudice to the maintenance of the reliability and safety of the grid, Member States shall take the necessary measures to ensure that transmission system operators and distribution system operators in their territory guarantee the transmission and distribution of electricity produced from renewable energy sources. They may also provide for priority access to the grid system of electricity produced from renewable energy sources. When dispatching generating installations, transmission system operators shall give priority to generating installations using renewable energy sources insofar as the operation of the national electricity system permits.

<sup>17</sup> [Renewable Energy Sources Act 2004](#), Article 4(1) provides that:

(1) Grid system operators shall immediately and as a priority connect plants generating electricity from renewable energy sources or from mine gas to their systems and guarantee priority purchase and transmission of all electricity from renewable energy sources or from mine gas supplied by such plants. (...) Notwithstanding Article 12(1), plant operators and grid system operators may agree by contract to digress from the priority of purchase, if the plant can thus be better integrated into the grid system. When determining the charges for use of the grid, grid system operators may add any costs incurred in accordance with a contractual agreement pursuant to the third sentence above, provided that such costs are substantiated.

<sup>18</sup> Royal Decree 661/2007, Article 17 provides that:

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[T]he operator of production plants covered by the special regime shall have the following rights:

- a) Parallel-connect their generating unit or units to the electricity distribution or transmission company's network.
- b) Transfer to the system their production or electrical energy surpluses through the electricity distribution or transmission company provided that it is technically possible for the network to absorb those surpluses.
- c) Receive for the sale, total or partial, of the net electricity generated ... the remuneration laid down in the economic regime provided for under this Royal Decree...
- d) Sell all or part of the net production through direct lines.
- e) Priority in access and connection to the electricity grid under the terms established in annex XI of this Royal Decree or under the norms replacing it.

<sup>19</sup> Ontario's [Renewable Energy Standard Offer Program 2006](http://onlinepact.org/a1.html), section 1.2 offers an example of what the PACT project (<http://onlinepact.org/a1.html>) do not consider to be a good provision:

Applicants are cautioned that certain areas of the transmission grid are limited in their ability to accept incremental power. For this reason, the OPA may be required to restrict or decline project applications in certain designated areas.

The rules establish a complex system under which the right to connect depends on whether the producer's project is based in a particular zone. The relevant provisions, in section 4 of the [Standard Offer Program](#), are included almost in full below, in order to illustrate what a good FIT law should **NOT** contain:

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4.1...Subject to the exceptions described in Section 4.2 below, the OPA will impose limits on the approval of Applications in certain designated areas as follows:

(a) "Green Zones" are areas designated by the OPA as being locations where no transmission constraints have been identified. Applications for Projects in areas designated on the Website as "Green Zones" will not be rejected by the OPA on the basis of transmission constraints.

(b) "Yellow Zones" are areas designated by the OPA as being locations where existing or potential transmission constraints have been identified and where certain limitations on new capacity may be required. An Application for a Project in a Yellow Zone will not be accepted unless:

(i) the Gross Nameplate Capacity of the Project, in combination with the Gross Nameplate Capacity of all other Projects which have previously been accepted in such Yellow Zone is less than the available threshold capacity in such Yellow Zone; and

(ii) the Gross Nameplate Capacity of the Project, in combination with the Gross Nameplate Capacity of all other electricity generation facilities ranking ahead of the Project in the relevant connection queues, is less than the available threshold capacity in such Yellow Zone. Applications for Projects in areas designated on the Website as "Yellow Zones" may be rejected once the OPA has accepted a number of Projects under the Program which, when connected, would cause certain threshold capacity limits to be reached, after which such Yellow Zones will be redesignated as "Orange Zones" ...

(c) "Orange Zones" are areas designated by the OPA as being locations where significant transmission constraints have been identified. Applications for Projects in areas designated on the Website as "Orange Zones" will not be accepted, subject to the exceptions described below.

4.2 The following exceptions shall apply to the designated zone system described above:

(a) An Application which relates to a Project which has already connected to a Distribution System and has already attained Commercial Operation, or has an executed Connection Cost Agreement with an LDC will not be rejected on the basis of transmission constraints, even if the Project is located in a Yellow Zone or an Orange Zone at the time of the Application, provided that Commercial Operation or the execution of a Connection Cost Agreement was attained prior to 12:01 am on November 8, 2006.

(b) An Application which relates to:

(i) a Project with Gross Nameplate Capacity of 10 kW or less; or

(ii) a Farm-Based Project with a Gross Nameplate Capacity of 250 kW or less; will not be rejected on the basis of transmission constraints, even if the Project is located in a Yellow Zone or an Orange Zone, unless:

(iii) Applications for other such Projects which have, in the aggregate, Gross Nameplate Capacity of 10,000 kW or more have already been accepted by the OPA in the same Yellow Zone or Orange Zone; or

(iv) the Applicant for a Farm-Based Project or a Person not at Arm's Length to the Applicant for a Farm-Based Project has submitted one or more Applications for one or more Projects located in the same Yellow Zone or Orange Zone which, in combination with the relevant Project, in the aggregate, Gross Nameplate Capacity exceeding 250 kW.

4.3 The designation of areas as Green Zones, Yellow Zones and Orange Zones will change from time to time following periodic reviews by the OPA in consultation with LDCs, Hydro One and the IESO and will be made available on the Website.

<sup>20</sup> [Renewable Energy Sources Act 2004](#), Article 4(2) and 4(3) provide that:

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(2) The obligation under [paragraph \(1\) first sentence](#) shall apply to the grid system operator that is most closely located to the plant site and is in possession of a grid technically suitable to receive electricity if there is no other grid with a technically and economically more suitable grid connection point. A grid shall be deemed to be technically suitable even if - notwithstanding the priority established under [paragraph \(1\) first sentence](#) - feeding in the electricity requires the grid system operator to upgrade its grid at a reasonable economic expense; in this case, the grid system operator shall upgrade its grid without undue delay, if so requested by a party interested in feeding in electricity. If the plant must be licensed in accordance with any other legal provisions, the obligation to upgrade the grid in accordance with the second sentence above shall only apply if the plant operator submits either a license, a partial license or a preliminary decision. The obligation to upgrade the grid shall apply to all technical facilities required for operating the grid and to all connecting installations which are owned by or passed into the ownership of the grid system operator.

(3) The obligation for priority connection to the grid system pursuant to [paragraph \(1\) first sentence](#) shall apply even if the capacity of the grid system or the area serviced by the grid system operator is temporarily entirely taken up by electricity produced from renewable energy sources or mine gas, unless the plant does not have a technical facility for reducing the feed-in in the event of grid overload...

<sup>21</sup> [Management Guidelines](#), Clause 11 provides that:

Power grid enterprises should vigorously undertake power grid design and research according to the planning requirements, and conduct power grid construction and renovation based on the progresses and needs of renewable energy power generation projects to ensure supply of electricity to power grids at full load.

<sup>22</sup> For more, see <http://onlinepact.org/a3.html>

<sup>23</sup> [Directive 2001/77/EC](#), Article 7.2 - 7.6 provide that:

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2. Member States shall put into place a legal framework or require transmission system operators and distribution system operators to set up and publish their standard rules relating to the bearing of costs of technical adaptations, such as grid connections and grid reinforcements, which are necessary in order to integrate new producers feeding electricity produced from renewable energy sources into the interconnected grid.

These rules shall be based on objective, transparent and nondiscriminatory criteria taking particular account of all the costs and benefits associated with the connection of these producers to the grid. The rules may provide for different types of connection.

3. Where appropriate, Member States may require transmission system operators and distribution system operators to bear, in full or in part, the costs referred to in paragraph 2.

4. Transmission system operators and distribution system operators shall be required to provide any new producer wishing to be connected with a comprehensive and detailed estimate of the costs associated with the connection. Member States may allow producers of electricity from renewable energy sources wishing to be connected to the grid to issue a call for tender for the connection work.

5. Member States shall put into place a legal framework or require transmission system operators and distribution system operators to set up and publish their standard rules relating to the sharing of costs of system installations, such as grid connections and reinforcements, between all producers benefiting from them.

The sharing shall be enforced by a mechanism based on objective, transparent and non-discriminatory criteria taking into account the benefits which initially and subsequently connected producers as well as transmission system operators and distribution system operators derive from the connections.

6. Member States shall ensure that the charging of transmission and distribution fees does not discriminate against electricity from renewable energy sources, including in particular electricity from renewable energy sources produced in peripheral regions, such as island regions and regions of low population density.

Where appropriate, Member States shall put in place a legal framework or require transmission system operators and distribution system operators to ensure that fees charged for the transmission and distribution of electricity from plants using renewable energy sources reflect realisable cost benefits resulting from the plant's connection to the network. Such cost benefits could arise from the direct use of the low-voltage grid.

<sup>24</sup> <http://onlinepact.org/access.html>

<sup>25</sup> Including size categories, time restrictions, ownership restrictions and territorial restrictions (<http://onlinepact.org/p1.html>)

<sup>26</sup> [Decree of 19 February 2007](#), Articles 1 and 2.1.a) provide:

#### Art. 1. Purpose

1. The present decree lays down the criteria and the arrangements for encouraging the production of electrical energy by solar photovoltaic systems, implementing art. 7 of the [legislative decree of 29 December 2003](#), No 387.

#### Art. 2. Definitions

1. The following definitions apply for the purposes of the present decree:

a) A solar photovoltaic system (or photovoltaic system) is a system that produces electrical energy by means of the direct conversion of solar radiation through the photovoltaic effect; it mainly comprises a series of photovoltaic modules, hereinafter also referred to as modules, one or more inverters that convert direct current into alternating current and other minor electrical components;

<sup>27</sup> [Renewable Energy Law 2005](#), Article 2 provides that:

Renewable energy in this law refers to non-fossil energy of wind energy, solar energy, water energy, biomass energy, geothermal energy, and ocean energy, etc.

but it excludes:

the direct burning of straw, firewood and dejecta, etc. on low-efficiency stove.

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<sup>28</sup> Green Electricity Act 2002, as amended in 2006, Article 5(1) 11 provides that:

(1) For the purposes of this Act the term...

11. 'renewable energy sources' shall mean renewable non-fossil energy sources (wind, solar, geo-thermal, wave, tidal, hydropower, biomass, waste containing a high percentage of biogenous materials, landfill gas, sewage treatment plant gas and biogases);

<sup>29</sup> [Law 3468 of 27 June 2006](#), Article 27.4 provides that:

4. Hydropower produced by hydroelectric plants which have a total installed capacity of more than 20 MW shall be excluded from the application of the provisions of this law.

<sup>30</sup> Royal Decree 661/2007, Article 2.1 provides that:

The electric power production plants covered by article 27.1 in the 1997 Electricity Act shall be eligible for the special regime under this Royal Decree.

Those plants are classified in the following categories, groups and subgroups in line with the primary energies used, production technologies employed and energy performances obtained: ...

b) Category b): installations that use as primary energy any of the non-consumable renewable energies, biomass or any type of biofuel, as long as their operator does not carry out activities in the ordinary regime.

This category b) is in turn broken down into eight groups: ...

5.º Group b.5. Hydroelectric power plants plants whose installed capacity is more than 10 MW but no greater than 50MW.

<sup>31</sup> [Renewable Energy Sources Act, 2004](#), Article 2(2) provides that:

(2) This act shall not apply to plants of which over 25 per cent are owned by the Federal Republic of Germany or one of its Länder ...

<sup>32</sup> Energy Law 1998, Article 7a.1 as amended by the Electricity Supply Act 2007, provides that:

In their grid area, grid operators are obliged to purchase and pay for all electricity generated from new plants from solar energy, geothermal, wind energy, hydro energy up to 10 MW, biomass and waste from biomass, in a form suitable for the grid, in so far as these new plants are suitable for the pertinent site. New plants are all plant which have started operations after 1st January 2006 or have been, after that date, substantially amended or renovated.

<sup>33</sup> [Policy for Development of Renewable Energy for Power Generation 2006](#), section 8.2.1 & 8.2.2 provide that:

8.2.1 Guaranteed Market: Mandatory Purchase of Electricity

It shall be mandatory for the power distribution utilities to buy all the electricity offered to them by RE projects established in accordance with the provisions given in Section 8.2.2.

8.2.2 Grid Connection, Off-take Voltage and Interface

Electricity shall be purchased from RE power producers at a voltage of 220 kV at the outgoing bus bar of the power station if the power station is located within 70 km of an existing 220 kV transmission line, or at 132 kV if it is within 50 km of an existing 132 kV transmission line, or at 11 kV if it is within 5 km of an existing 11 kV transmission line, or at 400V if it is within 1 km of a 400 V distribution feeder. The minimum average power to be supplied in each case would be 1,250 kW/km, 250 kW/km, 100 kW/km, and 20 kW/km, respectively. The producer may also undertake to lay a new transmission line for connection with the main electricity grid. The power purchase tariff determination will be adjusted accordingly for each of these options.....

<sup>34</sup> [Renewable Energy Sources Act 2004](#), Article 4(1) provides that:

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§ 4 (1) Grid system operators shall immediately and as a priority connect plants generating electricity from renewable energy sources or from mine gas to their systems and guarantee priority purchase and transmission of all electricity from renewable energy sources or from mine gas supplied by such plants.

<sup>35</sup> Law 532/05 for the Promotion of Electricity Generation from Renewable Sources, Article 12 provides that:

**Prioritization of renewable energy in the distributors' contracts.** It will be an obligation of the distributors to include within their processes of bidding the contraction of energy and/or electric power from power plants with renewable energy, prioritizing hydro, geothermal, wind, biomass, taking into account the construction time necessary to begin operating each type of these projects for establishing the date of beginning the bidding.

<sup>36</sup> <http://onlinepact.org/p3.html>

<sup>37</sup> [National Energy Policies and Strategies of Sri Lanka 2006](#) provides that:

The NCRE strategy shall not cause any additional burden on the end use customer tariffs. If justified, the Government may subsidize the energy utilities for this purpose.

The Government recognises that certain NCRE technologies would require incentives to ensure their capacity build-up to contribute to the national NCRE target. These incentives shall be provided on a competitive basis, in which the NCRE developers shall bid for a share of the NCRE target, subject to a price ceiling. NCRE incentives shall be technology-specific and based on actual energy supplied to the grid.

To make available the incentives for NCRE technologies, the Government will create an 'Energy Fund', which will be managed by the ECF. This fund will be strengthened through an energy cess, grants received from donors and well wishers, as well as any funds received under CDM. This fund will be used to provide incentives for the promotion of NCRE technologies and strengthen the transmission network to absorb the NCRE technologies into the grid.

NCRE developments will not be charged any resource cost (royalty) for a period of 15 years from the commercial operation date. Resource costs charged from selected NCRE technologies after the 15th year of commercial operation shall be used to finance incentives for further NCRE development, through the Energy Fund.

<sup>38</sup> <http://onlinepact.org/p5.html>

<sup>39</sup> [Renewable Energy Standard Offer Program 2006](#), section 1.1 provides that:

The Ontario Power Authority (OPA) and the Ontario Energy Board (OEB) have developed a Renewable Energy Standard Offer Program (the 'Program') for the Province, designed to encourage and promote greater use of renewable energy sources including wind, waterpower, biomass, and solar, from smaller generating projects that would be connected to an electricity distribution system in Ontario.

Renewable energy facilities connected can contribute to cleaner air and a healthier environment. When implemented, the Program will make a significant aggregate contribution toward achieving the Government's target of having 2,700 megawatts of electrical power generated by new renewable energy sources in Ontario by the year 2010...

<sup>40</sup> [Renewable Energy Sources Act 2004](#), Article 20 provides that:

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(1) The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety shall, in agreement with the Federal Ministry of Consumer Protection, Food and Agriculture and the Federal Ministry of Economics and Labour, report to the Bundestag by 31 December 2007 and subsequently every four years thereafter about the state of affairs with regard to the introduction to the market of plants generating electricity from renewable energy sources and from mine gas and about the development of electricity production costs in such plants and shall if necessary propose an adjustment of the amount of the fees to be paid in accordance with Articles 6 to 12 and of the degressive rates, in line with the development of technology and markets for plants commissioned after that date. The progress report shall also assess the storage technologies and the ecological effects of the use of renewable energy sources on nature and landscapes...

(2) For the purpose of spot checks of electricity production costs within the meaning of paragraph (1) above and in order to ensure the functioning of the equalisation scheme pursuant to Article 14, plant operators whose plants were commissioned on or after 1 August 2004 and who have received payment of fees in accordance with Articles 5 to 12, and grid system operators shall, upon request, provide the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety and its authorised representatives with truthful and accurate information about all facts that may be relevant for the assessment of electricity production costs and of equalised energy quantities and payments of fees in accordance with Article 14. If the plant operators and grid system operators are traders within the meaning of the Commercial Code, the account books shall in addition be disclosed upon request where they may give information about facts that may be relevant for assessing the electricity production costs and the equalised energy quantities and payments of fees. The principles of data protection shall be observed.

<sup>41</sup> <http://onlinepact.org/s3.html>

<sup>42</sup> Wind energy law 2005, Article 4 provides that:

... to enjoy this benefit, the wind mills installed have to comply with a timeline detailed further below of including components made or assembled in the Province of Chubut:

- a) As from 1 January 1999: 10%
- b) As from 1 January 2001: 30%
- c) As from 1 January 2003: 60%
- d) As from 1 January 2005: 80%
- e) As from 1 January 2007: 100%

<sup>43</sup> <http://onlinepact.org/s5.html>

<sup>44</sup> <http://onlinepact.org/s6.html>