

Eligibility and Operational Issues

- 8.1 The Terms of Reference require the Review Panel to consider:
- the appropriateness of policy settings including the [...] inclusion of renewable energy sources and technologies not specified in the Act or Regulations
 - the appropriateness of the operating environment
- 8.2 A range of renewable energy sources and technologies are specified in s.17 of the Act, including hydro, wind, solar and various biomass products.³⁴³ During the course of the Review, issues were raised both in respect of existing Eligible Renewable Energy Sources and concerning the possible inclusion of new or future Eligible Renewable Energy Sources.
- 8.3 A number of operational issues were also raised including matters concerning accreditation of generators, provisions for extinguishing RECs, and the Renewable Energy (Electricity) Amendment Bill 2002.
- 8.4 This Chapter addresses the question of the eligibility of a range of renewable energy sources and technologies, and various operational issues raised by interested parties.

Treatment of existing eligible renewable energy sources

- 8.5 Section 17 of the Act defines both eligible and ineligible renewable energy sources for the purpose of MRET, and provides that regulations may provide further clarification on the treatment of any of these sources. This section will discuss the key issues brought forward in this Review relevant to the operation of these areas of the Act. The main renewable energy sources and technologies attracting comment from interested parties during the Review were: wood waste; energy crops; municipal solid waste; solar; and solar water heaters.

³⁴³ Under Section 17 of the Act, Eligible Renewable Energy Sources and technologies are hydro power; wind; solar; bagasse co-generation; black liquor; wood waste; energy crops; crop waste; food and agricultural wet waste; landfill gas; municipal solid waste combustion; sewage gas; geothermal-aquifer; tidal; photovoltaic and photovoltaic Renewable Stand Alone Power Supply systems; wind and wind hybrid Renewable Stand Alone Power Supply systems; micro hydro Renewable Stand Alone Power Supply systems; solar hot water (which displace electricity); co-firing; wave; ocean; fuel cells; and hot dry rocks.

Wood Waste

- 8.6 The inclusion of wood waste as an Eligible Renewable Energy Source was a contentious issue for the Australian Parliament, particularly regarding the use of native forest waste as an eligible source. After extensive debate, 'wood waste' (including native forest waste) and 'energy crops' were made eligible, with regulations developed to guide decision making by ORER.
- 8.7 Regulation 8 of the *Renewable Energy (Electricity) Regulations 2001* was developed to encourage ecologically sustainable and efficient use of biomass resources and deter unrestricted harvesting to supply wood waste for electricity generation. Six different categories of eligible wood waste were established, with a range of different eligibility criteria applying.
- 8.8 Several categories of eligible wood waste drew attention during the Review, with concerns principally raised about the inclusion and/or treatment of wood waste from native forests, and about the treatment of biomass from plantations. Interested parties also raised issues concerning sawmill residue and some other wood waste materials.

*Wood waste from native forests*³⁴⁴

- 8.9 The Terms of Reference require the Review Panel to consider:
- other environmental impacts that have resulted from the implementation of the provisions of this Act, including the extent to which non-plantation forestry waste has been utilised.
- 8.10 Under Regulation 8, for wood waste from native forests to be eligible for RECs, the proponent must satisfy a number of criteria, including:
- Compliance with relevant Australian Government as well as State and Territory and Local governments planning and approval processes
 - That the relevant harvesting regime is in accordance with ecologically sustainable forest management principles required under the relevant Regional Forestry Agreement (RFA) (or equivalent, as satisfies the Minister)
 - That the biomass concerned is genuine waste, established by the 'primary purpose' clause within the Regulations and determined through the application of a higher financial value test.
- 8.11 To date, no generator has been accredited under MRET using wood waste from native forests, although an application for accreditation has recently been received by ORER.

³⁴⁴ In this Report, the terms 'native forest' and 'plantation' are used according to the relevant definitions contained within Regulation 3 of the *Renewable Energy (Electricity) Regulations 2001*.

- 8.12 Submissions concerning the use of wood waste from native forests were received from a wide range of interested parties including environment groups,³⁴⁵ government authorities,³⁴⁶ electricity retailers,³⁴⁷ academic/professional institutions,³⁴⁸ political parties,³⁴⁹ and industry associations.³⁵⁰ These parties variously sought to clarify, review, restrict, or remove native forest wood waste from eligibility under MRET.
- 8.13 Those seeking its removal from eligibility generally argued that use of harvest residues from native forests would result in increased and more intensified logging of native forests in Australia. They argued that income from energy production would provide increasing revenues to forestry managers, leading to accelerated habitat loss with adverse impacts for biodiversity.
- 8.14 These parties also argued that removal of harvesting residues for energy production would reduce their contribution to maintaining the environmental values of the remaining forest. For example, Greenpeace stated:

*According to the Department of Agriculture, Fisheries and Forestry Report, Coarse Woody Debris in Australian Forest Ecosystems, fallen material such as dead branches and whole trees is important because of its habitat value for wildlife and as a carbon store. It also plays a critical role in forest ecosystems with the recycling of nutrients and assisting the functioning of streams and rivers. Woody debris is not waste timber.*³⁵¹

- 8.15 Some submissions put forward evidence to support the view that, in general, the Australian community does not support use of biomass from native forests for this purpose:

*In March 2001 the Wilderness Society commissioned a Morgan Poll (summary in Appendix 2) on behalf of environmental groups found that 88% of people opposed the use of native forest wood fired power. In addition only 8% of those polled thought burning native forests was renewable. [...] Bioenergy from native forest is deeply unpopular with the public.*³⁵²

³⁴⁵ Climate Action Network Australia, submission 222; Australian Conservation Foundation, submission 210; The Wilderness Society, submission 208; Greenpeace, submission 194; Qld Conservation Council, submission 223; Conservation Council of SA, submission 168; Tasmanian Conservation Trust, submission 187; Friends of the Earth, submission 228; Environmental Defenders Office, submission 219; Environment Victoria, submission 195

³⁴⁶ Forestry Tasmania, submission 149; Tasmanian Government, submission 229; SA Government, submission 246

³⁴⁷ Origin Energy, submission 170; TXU, submission 218; AGL, submission 226; Ergon Energy, submission 62

³⁴⁸ Doctors for the Environment, submission 42; Lawyers for Forests, submission 49

³⁴⁹ NT Greens, submission 120; Senator Brown & Blakers, submission 184; Tasmanian Greens, submission 214

³⁵⁰ Australian Business Council for Sustainable Energy, submission 165; Alternative Technology Association, submission 197; Australian Paper Industry Council, submission 64; Meridian Energy, submission 83; Bioenergy Australia, submission 138; NSW State Forests, submission 234; National Association of Forest Industries, submission 145

³⁵¹ Greenpeace Australia, submission 194, p14

³⁵² The Wilderness Society, submission 208, p4

- 8.16 Concern about community perceptions of the use of native forest residues were also reflected in comments by a number of electricity retailers. In general, they indicated that they would not purchase RECs sourced from wood waste because, in their view, the Australian community does not support use of native forest wastes for energy production.
- 8.17 In submissions³⁵³ and consultations, attention was drawn to actions by some State and Territory governments (New South Wales, Queensland and Victoria) who, through their own forest management policies, have removed the capacity for biomass from native forests to be used for energy production in their jurisdictions.
- 8.18 Attention was also drawn³⁵⁴ to the national Green Power scheme, which does not accredit biomass sourced from native forests.
- 8.19 The issue of native forest residues for eligible energy generation also drew submissions in support of its continued eligibility and the removal of perceived regulatory impediments. These views were mainly expressed by forestry interests and were mostly centred on the native forest residue proposal under consideration in Tasmania's Huon Valley.
- 8.20 In this regard, the National Association of Forest Industries (NAFI) commented that:

[...] to date no RECs have been produced from native forest resources even though the forestry and timber industry could supply a reasonable amount of material from existing operations based on the industry's ESFM (Ecologically Sustainable Forest Management) approach and the requirements for forest managers to comply with state legislation and the various codes of practice. In the future the regulatory approach to forest management will be backed up by companies meeting the requirements of the Australian Forestry Standard.³⁵⁵

- 8.21 NAFI argued that the forestry sector has the capacity to utilise, on average, around 50 per cent of the residue materials left after saw, veneer, pulp and pole logs have been removed from the forests for renewable energy production.

³⁵³ Australian Conservation Foundation, submission 210

³⁵⁴ The Wilderness Society, submission 208

³⁵⁵ National Association of Forest Industries, submission 145, p9

- 8.22 NAFI argued that removal of those resources would help reduce the potential fuel loads, and therefore, the intensity of bushfires if they do arise. NAFI also commented that approximately one quarter of the biomass would remain on the forest floor to assist the ecosystem regeneration process.
- 8.23 The Tasmanian Government³⁵⁶ also supported these proposals arguing that the MRET scheme should be amended to ensure that forest harvest waste, which is otherwise burnt or discarded, could be used as an eligible biomass fuel.
- 8.24 NAFI further argued:

*Given that Regulation 7 to the Act requires the use of resources to be ecologically sustainable and forest management in Australia is based on ESFM principles and regulated under State-based codes of practice, Regulation 8 is redundant and should be removed from the Act. This approach would allow all forms of biomass to be accounted for under Regulation 7.*³⁵⁷

- 8.25 Some submissions³⁵⁸ seeking to retain the eligibility of native forest residues drew attention to the central role of RFAs in determining ecologically sustainable forest management practices. These parties resisted strongly, attempts by other groups primarily environment organisations unhappy with the outcome from RFA negotiations—to re-open those land management regimes under the auspices of the MRET Review.
- 8.26 Submissions on both sides of the native forest residue debate acknowledged the confusion, uncertainty and administrative burden caused by the current regulations, and the inhibiting effect they have on other bioenergy sectors such as plantations and energy crops. The Western Australian Government commented:

*It appears that although there are a number of wood waste sources suitable as an eligible source, the onerous verification requirements, combined with the fairly complex pathways by which market participants obtain the fuel, has worked to discourage utilisation of the source. [...] The requirement for wood waste from a plantation to be “a product of a harvesting operation for which no product of a higher financial value than biomass for energy production could be produced at the time of harvesting” is severely hampering the development of biomass energy production from sustainable plantations. Forward contracts for biomass are unable to foresee the future value of alternative products from plantations and thus could be invalidated at the time of scheduled harvest. This risk is effectively preventing the development of biomass energy based on plantations.*³⁵⁹

³⁵⁶ Tasmanian Government, submission 229

³⁵⁷ National Association of Forest Industries, submission 145, p7

³⁵⁸ Forestry Tasmania, submission 149; Tasmanian Government, submission 229; National Association of Forest Industries, submission 145; NP Power Pty Ltd, submission 139

³⁵⁹ WA Government, submission 238, p4

- 8.27 On the basis of information received from electricity retailers and REC traders, it is apparent that the market is distinguishing between RECs from wood waste and RECs from other energy sources. Attention was drawn to the fact that wood waste RECs are trading at significantly lower prices than other RECs.³⁶⁰
- 8.28 However, under current regulations, the market does not always distinguish between wood waste RECs sourced from native forest waste and those sourced from plantation and other wood waste sources, as they are all classified as 'wood waste RECs'.
- 8.29 Early investment interest in renewable energy projects based on wood waste has not met expectations, with the anticipated contribution to the MRET target by biomass sources, particularly wood waste, falling well short of original projections.
- 8.30 While the reasons for this are not entirely clear, the complexity of the regulations (including the higher financial value test introduced primarily to govern eligibility of wood wastes from native forests) appears to have played a significant part.
- 8.31 The Review Panel determined that two options would be proposed for Government consideration. The preferred option will be a matter for the Government, having regard, not only to energy, greenhouse and industry policies, but also to the National Forest Policy Statement,³⁶¹ which is outside the Review Panel's Terms of Reference.

Option A: Remove wood waste from native forests as an Eligible Renewable Energy Source

- 8.32 Many submissions from diverse groups, including environmental groups, government authorities, electricity retailers, industry associations, political parties, and renewable energy generators, rejected the notion that native forests should provide fuel for renewable energy generation.
- 8.33 Furthermore, in consultations, a number of industry groups and individual companies advised they had internal energy policies prohibiting the use of, or support for, wastes from native forests for electricity generation.
- 8.34 Public opinion is firmly against use of native forest biomass for this purpose. A number of commercial interests commented that their corporate image might be damaged if they were viewed as supporting this activity.
- 8.35 In consultations, financial and other commercial interests advised that there are risks entailed in investing in projects based on any wood waste materials, because the project concerned may become associated in the public mind with broader native forest debates.

³⁶⁰ Electricity Weekly, Green Energy Markets

³⁶¹ *National Forest Policy Statement: A New Focus for Australia's Forests*, Commonwealth of Australia, 1992

- 8.36 RECs created from other eligible wood waste sources presently sell at a discount, despite no RECs being created directly from native forest wastes. Should any electricity generation project seek to create RECs from native forest waste materials, those RECs would be less attractive to MRET liable parties.
- 8.37 The potential generation capacity for renewable energy from native forest waste is considered to be small, particularly in context of some State and Territory government decisions to exclude this usage within their own forestry sectors. In these circumstances, native forest biomass is likely to make only a small contribution to the MRET's policy objectives.
- 8.38 Conversely, significant potential exists for other biomass energy sources, if concerns about wood as a renewable energy source can be removed from the public mind.
- 8.39 Separation of other wood waste and biomass sources from wood waste from native forests would go some way towards helping to realise the potential for bioenergy in Australia.
- 8.40 If wood waste from native forest is retained as an Eligible Renewable Energy Source, renewable energy generation may be compromised, particularly in regard to the bioenergy sector. This view is premised on the possibility that the objectives of the Act would be more easily achieved by the removal of this contentious element.
- 8.41 This Option does not preclude renewable energy generation from this source; it merely excludes eligibility under MRET to create RECs. State and Territory governments and relevant forestry managers remain responsible for the management of their resources according to relevant legislation and codes-of-practice.

Option B: Retain wood waste from native forest as a separate and independent Eligible Renewable Energy Source

- 8.42 This issue was canvassed widely at the time of passage of the Act and its Regulations and, after much debate, wood waste from native forests was included within the wood waste category.
- 8.43 Some interested parties argued that the MRET should not seek to substitute for nationally agreed land management policy and legislative frameworks. Sustainable forest management practices are governed by a number of purpose designed policies and measures, including RFAs.

- 8.44 MRET aims to encourage additional competitive renewable energy generation and is not intended to function as a forest management measure, nor does it substitute for regional planning regulations and processes, or air quality and pollution control regimes.
- 8.45 Some interested parties claim that use of this waste material for electricity generation will sustain unprofitable forestry operations. However, the value that can be attributed to this wood waste is little more than its collection, transport and processing costs even if used for REC eligible generation.
- 8.46 There was no compelling evidence presented, beyond precautionary concerns, that continued eligibility of wood waste from native forests would alter forest management practices or accelerate the rate of logging, particularly given other legislation and codes-of-practice governing these operations.
- 8.47 As a consequence, the establishment of wood waste from native forests as a separate and independent Eligible Renewable Energy Source category would minimise impediments to other biomass sources.
- 8.48 In this regard, several submissions³⁶² and consultations with interested parties proposed that the special regulations governing treatment of wood waste from native forests be reformed. However, there is no compelling evidence to suggest that Regulation 8 is not operating in accordance with its original intent.

Recommendation 16

As the treatment of wood waste from native forests raises issues outside the Review Panel's Terms of Reference, such as National Forest Policy, two options are proposed:

- A. wood waste from native forests to be excluded as an Eligible Renewable Energy Source; or***
- B. wood waste from native forests to be separately identified as an independent Eligible Renewable Energy Source with the existing regulatory arrangements applying to wood waste from native forests to be retained.***

³⁶² National Association of Forest Industries, submission 145; Forestry Tasmania, submission 149; MBAC Consulting, submission 129; Bioenergy Australia, submission 138; NSW State Forests, submission 234

*Wood waste from plantations*³⁶³

- 8.49 Regulation 8 also contains provisions regarding the eligibility of wood waste sourced from plantations. Several sub-regulations extend provisions, designed to deter accelerated harvesting of native forests, to waste from plantations. For example, sub-regulation 8(6)(a) includes a form of the higher financial value test otherwise applicable only to wood waste from native forests. This regulation also limits eligible biomass to waste material only from approved harvesting operations. Regulation 8(6)(b)(ii) also seeks to deter landclearing of native vegetation for the purpose of establishing plantations.
- 8.50 A number of parties argued that the inclusion of native forest wood waste is inhibiting the development of the plantation sector as well as other biomass energy sectors more generally. The WA Government noted:

*There also appears to be an emergence of product differentiation between RECs produced from sources such as wind and those produced from more contentious sources [i.e. wood waste], with a consequent increase in risk to generators utilising these sources. The apparent differentiation of RECs produced from native wood residues suggests electricity retailers recognise that the Australian community opposes the use of native forests to generate electricity. Notwithstanding this, investigation of possible ways of streamlining the process for energy crop and wood waste projects that do not compromise the sustainable management of Australian native and plantation forests should be considered in the review process.*³⁶⁴

- 8.51 The argument that the inclusion of wood wastes from native forest is impeding the use of plantation biomass is also borne out by the fact that wood waste RECs are trading at significantly lower prices than other RECs.³⁶⁵
- 8.52 Excessive regulation of the plantation biomass sector also runs counter to national plantation industry goals to:

*[...] expand Australia's commercial plantations of softwoods and hardwoods so as to provide an additional, economically viable, reliable and high-quality wood resource for industry. Other goals are to increase plantings to rehabilitate cleared agricultural land, to improve water quality, and to meet other environmental, economic or aesthetic objectives.*³⁶⁶

³⁶³ In this report, the terms 'native forest' and 'plantation' are used according to the relevant definitions contained within the Regulation 3 of the Renewable Energy (Electricity) Regulations 2001.

³⁶⁴ WA Government, submission 238, p5

³⁶⁵ Electricity Weekly, Green Energy Market

³⁶⁶ National Forest Policy Statement: A New Focus for Australia's Forests 1992, p5

- 8.53 During the development of MRET, some parties argued that plantation biomass should not be diverted from the primary purpose of high value timber products.
- 8.54 During the Review, other views suggested that, providing adequate plantation management measures are in place, market forces would be sufficient to ensure that only waste and otherwise unusable plantation wood (for instance thinnings) would be used for energy generation.
- 8.55 Clearly, it would be advantageous for plantation managers to realise the highest value return for their investment, including the use of biomass for energy production should that purpose be financially competitive with other uses.
- 8.56 The Review Panel concluded that expansion of eligibility for plantation materials from 'wood waste' to 'biomass', to be inclusive of wood and other biomass, would assist towards freeing up plantation biomass for energy generation.
- 8.57 The Panel also viewed the regulations as they apply to plantation biomass as inhibiting the development of both the plantation biomass sector as well as the use of other biomass energy sources more generally. In particular, the higher financial value test as it applies to plantations is considered to be unduly restrictive.
- 8.58 The continued association, albeit chiefly a public perception, of plantation biomass with wood waste from native forests may also continue to inhibit the development of the plantation and other bioenergy sectors. While there may be a number of formulations that could be developed to serve this purpose, the separation of plantation biomass from other wood waste materials, and its redefinition under 'energy crops' would achieve this purpose.
- 8.59 Existing provisions, requiring relevant approvals³⁶⁷ and safeguards against landclearing,³⁶⁸ should be retained.

Recommendation 17

Eligibility for plantation biomass to be redefined under 'energy crops'. Provisions to ensure plantation harvesting operations are conducted according to relevant approvals, and to deter landclearing of native forests, to be retained.

³⁶⁷ Regulation (6)(a)(i) refers

³⁶⁸ Regulation (6)(b)(ii) refers

Sawmill residue

- 8.60 Regulation 8(3)(d) provides that 'sawmill residue' is an eligible category of wood waste material.
- 8.61 Sawmill residue is defined as 'waste material resulting from the production of squared timber in sawmill operations or rejection by a veneer mill, sawmill or other processing plant (other than a wood chipping plant) of a log found to be defective for the purposes of producing a commercial timber product, where the defect could not have been found on any reasonable inspection of the log before its arrival at the plant for processing'.³⁶⁹
- 8.62 In consultations, some interested parties expressed concern that wood waste materials that were otherwise ineligible under MRET may find a pathway to REC eligibility as sawmill residue, especially in circumstances where a sawmilling or other processing operation was located in the vicinity of a biomass-fuelled generator.
- 8.63 For instance, a biomass generator may transport logs to its facility via a sawmill, where the logs could be classified as defective, irrespective of whether the log actually contained defects. Such logs would be eligible in accordance with the letter of the Act, but would be contrary to the Act's intent.
- 8.64 In the light of the earlier conclusions and recommendations concerning wood waste from native forests, including its impact on other wood waste materials, the Review Panel proposes that further clarification of eligible sawmill residues is warranted, and that eligibility be restricted to biomass materials that are post-processing (only) residues from sawmilling, veneer or other processing operations (other than wood chipping).
- 8.65 This proposal to clarify eligible sawmill residues is not intended to impose limitations on the use of biomass from plantations, whether sourced from a sawmill, other processing operations (barring wood chipping plants), or directly from the plantation farm gate.

Recommendation 18

Eligibility for sawmill residue be restricted to post-processing residues from sawmilling, veneer or other processing operations (other than wood chipping).

³⁶⁹ ORER Guide to Wood Waste Eligibility Assessment Sheets, p3

Other wood waste materials

- 8.66 Some submissions³⁷⁰ proposed that wood waste from urban land development activities should be admitted as an eligible wood waste category. Stanwell Corporation commented:

Biomass from broad-scale rural land clearing is understandably specifically excluded from the MRET. [...] Urban land development is clearly different to rural land clearing, and results in different environmental outcomes and commercial drivers. [...] Application of these [wood waste] provisions to the urban environment is inhibiting the use of biomass resources that would otherwise be wasted. Stanwell believes wood waste from urban land development that is approved under state and local government legislation and policies, should be specifically included as an eligible fuel source under a revised MRET.³⁷¹

- 8.67 It is noted that many urban developments are located on the urban fringe and might, in some instances, involve clearing of native vegetation or forests.
- 8.68 The Review Panel considers that a new category of eligible wood waste is not warranted and may run counter to the original policy intent of the regulations.

Energy crops

- 8.69 Section 17 of the Act includes 'energy crops' as an Eligible Renewable Energy Source. Regulation 9 sets out further clarification stating:

an energy crop, including an agricultural or horticultural crop and its biomass by-products, must be grown as an energy source for the primary purpose of energy production.

- 8.70 No energy crops have yet been accredited under MRET, contrary to the original policy expectations that energy crops would make a contribution to the MRET target.
- 8.71 Many interested parties, including State and Territory governments, bioenergy proponents, researchers, and environmental groups, argued that legislative interpretations that exclude woody tree species as eligible, as well as the 'primary purpose' test within Regulation 9, are impeding the establishment of financially viable energy crops in Australia.

³⁷⁰ Stanwell Corporation, submission 146a; Bioenergy Australia, submission 138

³⁷¹ Stanwell Corporation, submission 146a, p3

- 8.72 Removal of plantation biomass from the current wood waste category and its redefinition under energy crops (see Recommendation 17), along with removal of the primary purpose test, would help achieve this purpose. For example, energy crops could be defined as 'an energy crop includes an agricultural or horticultural crop, and its biomass by-products, and biomass from plantations'.
- 8.73 Redefining energy crops in such a way would allow less restrictive use of materials from plantations, as well as providing less-restrictive access to biomass from woody trees species such as oil mallees, grown in plantation formation for multiple purposes.
- 8.74 By revising energy crops in this way, the Review Panel considers that the potential for woody tree species to combat salinity will be maximised, consistent with the views expressed by many interested parties.

Recommendation 19

The 'primary purpose' test applying to energy crops to be removed.

Municipal solid waste

- 8.75 During the Review, a number of issues relating to treatment of municipal solid waste (MSW) arose. These issues concerned both its inclusion as an Eligible Renewable Energy Source, as well as the treatment of MSW within MRET.

Clarifying eligible components of MSW

- 8.76 Some submissions³⁷² were concerned about the inclusion of MSW within MRET, seeing its eligibility as perpetuating current unsustainable waste production. Other submissions³⁷³ identified a number of environmental and economic benefits arising from this current Eligible Renewable Energy Source.
- 8.77 In this context, relevant State, Territory and Local government authorities are, to varying degrees, developing strategic waste management frameworks which prioritise actions for reducing and managing waste materials, including use of excess biomass and biogas for electricity generation. The WA Department of the Environment commented:

*In Western Australia, as in other states in Australia, the waste management hierarchy is the cornerstone of the waste management policies and strategies. The hierarchy aims to extract the maximum benefits from products and to generate the minimum amount of waste. Working in order from most desirable to least desirable actions, the hierarchy is: avoid, minimise, recycle, treat, dispose.*³⁷⁴

³⁷² Department of Environment WA, submission 207; NT Greens, submission 120; Environmental Defenders Office, submission 219; Greenpeace Australia, submission 194; Australian Conservation Foundation, submission 210

³⁷³ Business Council for Sustainable Energy, submission 165; Energy Developments Ltd, submission 143; Rethmann Aust Environmental Services, submission 176; Stanwell Corporation, submission 146

³⁷⁴ Department of Environment WA, submission 207, p1

- 8.78 Waste streams contain both renewable and non-renewable components. There is evidence from the experience of waste incinerators internationally that risks to public health may arise from facilities that allow non-biomass (i.e. non-renewable) materials to be incinerated along with the biomass waste elements.
- 8.79 ORER's MSW guidelines³⁷⁵ provide clear instruction that only the biomass-based components of MSW are eligible under MRET.
- 8.80 The Review Panel supports continued eligibility of MSW within MRET because of its potential to serve multiple environmental objectives.
- 8.81 The focus within the current MSW guidelines that it is only the biomass elements of MSW that are eligible for claiming RECs under MRET also warrants confirmation. The Panel notes that clarification of the MSW definition along these lines is proposed under the revised Eligible Renewable Energy Source listing within the Renewable Energy (Electricity) Amendment Bill 2002. The Panel supports this proposal (see also Recommendation 26).

Harmonising MSW and addressing anomalies

- 8.82 The current definition of MSW within MRET corresponds to the definition described in the National Waste Database. This definition includes as eligible: waste materials sourced from domestic garbage collections; waste materials delivered by domestic residents to licensed landfills or transfer stations; and waste materials from other council operations such as street sweeping, roadside tree pruning, and clearances from other council litter bins.
- 8.83 Interested parties³⁷⁶ expressed a need to harmonise MRET definitions of MSW with other renewable energy schemes, for example, the national Green Power scheme, and broaden the eligibility of biomass components sourced from licensed landfill or transfer stations. These submissions also sought to remove incentives for biomass materials to go to landfill, rather than energy recovery, and to reduce the administrative burden associated with maintaining complex audit trails.
- 8.84 Examples of the need for clarification cited by Stanwell Corporation involved different treatment of green waste³⁷⁷ in MRET:

The most glaring anomaly is that the "green waste" component of "Municipal Solid Waste" (MSW) is eligible, while green waste from "commercial" sources is currently ineligible. [...] A simple example is that a tree cut down by a householder and taken to a Council waste transfer station is eligible as MSW, but should that same tree be taken to the same facility by a commercial gardener or tree lopper, it is not eligible as it is no longer classified as MSW and fails to fall into any other eligible category under the Act. This appears to be an unintended anomaly.³⁷⁸

³⁷⁵ Office of the Renewable Energy Regulator. 2001. Guideline for Determining the Renewable Components in Waste for Electricity Generation.

³⁷⁶ Stanwell Corporation, submission 146a; Rethmann Australian Environmental Services, submission 176

³⁷⁷ 'Green waste' is a generic term used to describe waste vegetation, including grass clippings, tree trunks, branches and leaves. Green waste, whether from domestic or commercial operations, is a significant component of MSW.

³⁷⁸ Stanwell Corporation, submission 146a, p1

- 8.85 Stanwell Corporation also references another anomaly in the treatment of municipal wood wastes³⁷⁹ in waste transfer stations or landfills:

*A trailer load of old furniture and wood off-cuts from a building extension taken to the waste transfer station by a householder is eligible as MSW, but the same material delivered to the same facility by a commercial operator is no longer MSW and hence not immediately eligible. [...] While most commercial wood waste is likely to be from an eligible source, it becomes impracticable and costly to separate, classify and quantify it at the transfer station as a separate stream to the MSW wood waste.*³⁸⁰

- 8.86 It is recognised that broadening eligible biomass under MSW might risk some unintended impacts, such as biomass waste from non-eligible wood wastes being sourced under the umbrella of MSW.
- 8.87 Some interested parties expressed concern that expanded eligibility of MSW biomass may provide an incentive for increased biomass waste being deposited to landfill. In this context, it is noted that many licensed urban landfill and waste transfer stations now charge fees for depositing waste materials—the waste management objective being to minimise recyclable or renewable wastes going to landfill. It was also acknowledged that fees were rarely applied in rural landfill sites.
- 8.88 The Review Panel concludes that any biomass material that is directly sourced from a licensed landfill or licensed waste transfer station, which would otherwise be disposed of in a landfill, should be eligible under the MSW provisions of MRET. This re-defining of eligible MSW biomass would be broadly consistent with the eligibility provisions for biomass wastes under the national Green Power scheme.
- 8.89 In this regard, the eligibility of biomass-based components of MSW should now be determined at the licensed landfill or licensed waste transfer station. This will serve to relieve accredited generators from the current requirement to maintain audit trails for biomass waste from the originating waste source. However, audit trails from licensed landfill, or licensed waste transfer station, to generator should remain in place for verification purposes.
- 8.90 The Review Panel also considers that a broader risk management approach should be applied to the administration of MSW eligibility. Rather than MSW generators conducting an audit of their fuel source every six months, it is accepted that sufficient rigour would be provided by a self-assessment of the biomass components of the fuel source upon accreditation, followed by further self-assessments upon any significant change to the kerbside service (as already required), and/or upon identifying a new MSW source, and/or following a complaint to ORER.

³⁷⁹ 'Municipal wood waste' describes the wood material separated out from the general waste stream at waste transfer stations and includes processed timber wastes such as old furniture, packaging, pallets and building waste, as opposed to green waste from vegetation.

³⁸⁰ Stanwell Corporation, submission 146a, p2

Recommendation 20

All biomass material directly sourced from a licensed landfill or licensed waste transfer station, which would otherwise be landfilled, to be eligible under the MSW provisions of MRET.

Solar

8.91 Solar and PV stand-alone power supply systems, including small generation units (SGUs) are existing Eligible Renewable Energy Sources. Presently, SGUs are defined³⁸¹ as:

a device is a small generation unit if

- (a) its energy source is hydro, solar or wind generation; and
- (b) it has a generation capacity of less than 10 kW and it generates up to 25 MWh of electricity each year.

8.92 A number of issues concerning the treatment of these sources came to light during the Review.

Deeming period for small generation units

8.93 SGUs, including PV units, with a rating of not more than 10 kW, are not required to measure their electricity output directly, but instead can have their REC eligibility 'deemed', either annually or following installation for rolling 5 year periods. This provision³⁸² is known as the SGU deeming period. It allows parties creating RECs to anticipate the average electricity generation by the SGU following installation for rolling 5 year intervals for the life of the unit.

8.94 As noted earlier in this report, only a small proportion of eligible SGUs have created RECs under MRET, despite the administrative opportunity provided by the deeming period. The deeming period for SGUs, including PV units, is limited to rolling five year terms, despite the average lifetime of the PV units being around 20 years. This decision is principally due to concerns about the potential for inverter technology failure.

³⁸¹ Regulation 3(2) of the *Renewable Energy (Electricity) Regulations 2001*

³⁸² Regulation 20(6)(b) refers

8.95 In submissions and consultations, several interested parties sought to consolidate the rolling five year deeming period into a single 20 year deeming period, particularly for PV SGUs, for the following reasons:

- manufacturers' warranties for PV units are now 20 years³⁸³
- the allowable deeming period for solar water heaters is 10 years, in line with manufacturers' warranties for this equipment³⁸⁴
- inverter technologies have improved significantly over the past five years³⁸⁵
- given the costs of PV units, most users would repair a failed inverter rather than see the unit lie inoperative³⁸⁶
- the high(er) transaction costs associated with REC creation for SGUs need to be reduced³⁸⁷
- an extended deeming period would offset some of the capital costs associated with PV SGUs.³⁸⁸

8.96 The Review Panel concludes that the deeming period for PV SGUs should be extended. In light of Recommendation 9 that new renewable generation projects be able to create RECs for a maximum period of 15 years, the deeming period for PV SGUs with a rating of not more than 10 kW should also be aligned with this timeframe, claimable following installation.

Recommendation 21

Photovoltaic Small Generation Units with a rating of not more than 10 kW (or 25 MWh per annum) to be eligible to create RECs for a single deeming period of 15 years.

Threshold generation capacity for deemed small generation units

8.97 Above 10 kW, a SGU is assessed under general power station provisions, requiring reliable metering data to provide the basis for determining the level of eligible RECs.

³⁸³ Victorian Government, submission 173; Australia and New Zealand Solar Energy Society, submission 57; Greenpeace, submission 194; Origin Energy, submission 170; Pacific Solar, submission, 125; BP Solar, submission 193; Business Council for Sustainable Energy, submission 165b

³⁸⁴ Australia and New Zealand Solar Energy Society, submission 57; Greenpeace, submission 194; Pacific Solar, submission 125

³⁸⁵ Australia and New Zealand Solar Energy Society, submission 57; Pacific Solar, submission 125; Australian Business Council for Sustainable Energy, submission 165b

³⁸⁶ Australia and New Zealand Solar Energy Society, submission 57; Australian Business Council for Sustainable Energy, submission 165b; Pacific Solar, submission 125

³⁸⁷ Australia and New Zealand Solar Energy Society, submission 57; Origin Energy, submission 170; Pacific Solar, submission 125; BP Solar, submission 193; Australian Business Council for Sustainable Energy, submission 165b

³⁸⁸ Victorian Government, submission 173; Australia and New Zealand Solar Energy Society, submission 57; Greenpeace, submission 194

- 8.98 Interested parties³⁸⁹ argued that the threshold capacity for deemed PV SGUs should be increased to 100 kW (or 250 MWh) to act as an incentive for increased uptake of higher capacity PV SGUs, particularly within commercial building settings, which presently lags behind installation rates in private dwellings. The installation of higher capacity systems in commercial buildings is also ineligible for other government support measures such as the Photovoltaic Rebate Program, which excludes non-community/commercial installations.
- 8.99 By increasing the threshold capacity for PV SGU deeming, interested parties argued that impediments to the installation of larger capacity systems in commercial buildings would be significantly reduced, as commercial building owners would experience reduced capital and installation costs from access to multi-year REC creation available through the MRET deeming provisions.
- 8.100 There are sound industry assistance grounds to bring MRET assistance for larger systems, utilising similar technologies, into line with that for smaller generation units.
- 8.101 SGUs above 10 kW capacity are typically metered, with considerable effort directed towards the optimal installation and operation of the unit concerned, in order to maximise the eligible generation from these units. Under MRET deeming arrangements, it is only the average generation that is eligible for REC creation. In these circumstances, for some SGUs (between 10 to 100 kW), owners may prefer access to power station eligibility rather than an extended deeming provision. This decision should be one for the commercial parties concerned.
- 8.102 On the grounds that there should be an equivalent treatment of PV SGUs in both domestic and commercial building settings, the Review Panel concludes that PV SGUs with a generating capacity between 10 kW (or 25 MWh) and 100 kW (or 250 MWh) should be eligible for RECs and that proponents should have the option for assessment under either MRET deeming provisions or under metered power station provisions.

Recommendation 22

The threshold generating capacity for eligible Photovoltaic Small Generation Units to be increased from 10 kW (or 25 MWh per annum) to 100 kW (or 250 MWh per annum). Generators with a capacity between 10 kW (or 25 MWh per annum) and 100 kW (or 250 MWh per annum) to have the option for eligibility to be assessed under either the proposed 15 year deeming provisions or under the metered power station provisions.

³⁸⁹ BP Solar, submission 193; Australian Business Council for Sustainable Energy, submission 165b

Increased REC value for PV generation

- 8.103 All MRET accredited generators are able to create one REC for each whole MWh of electricity generated from Eligible Renewable Energy Sources. That is, 1 REC is equivalent to 1 MWh of electricity.
- 8.104 Some PV industry proponents³⁹⁰ sought to create value within MRET for the distributed generation impacts and other benefits associated with grid-connected PV systems, including:
- Distributed generation produces power exactly where it is generally used; there are no distribution losses, inherent with a centralised power source. These losses can typically account for up to 20 per cent of the power generated.
 - Distributed generators do not require additional distribution infrastructure and the significant costs associated with additional transmission infrastructure are avoided.
 - Distributed generation encourages more private investor sponsored generation because of its interface with the building owners.
 - Distributed generation encourages increased energy efficiency at an appliance level, as owners like to see their electricity meter spinning backwards.
 - In addition, PV is unique in that its generation correlates strongly with peak electricity demands particularly during summer months. This can result in reduced peak demand on the distribution grid, and reduced load on distribution grid assets. This serves to extend asset life and defer costly distribution grid upgrades as well as providing distributed generation at the point of consumption.
- 8.105 According to some submissions from the solar energy sector, the combined grid and CO₂-e benefits of grid-connected PV would amount to approximately \$120 per MWh, roughly equivalent to trading price of three RECs. Submissions also cited an international example³⁹¹ of attributing distributed generation values for rooftop PV.
- 8.106 The Review Panel acknowledges the benefits from distributed generation within the national grid, particularly from embedded systems.
- 8.107 However, the Review Panel considers that issuing multiple RECs for PV generation is equivalent to adopting a 'portfolio approach' which, as set out in Chapter 7, is not supported. The Panel is also disinclined to alter the fundamental principle within MRET that one MWh of electricity is equivalent to one REC.

³⁹⁰ Pacific Solar, submission 125; BP Solar, submission 193

³⁹¹ New Mexico (USA)

Special consideration for PV

- 8.108 While less than one per cent of RECs created under MRET have been generated from PV systems, the Australian PV industry delivers significant benefits to the Australian economy:
- around 17 per cent of employment within the renewable energy sector in Australia
 - around 50 per cent of the renewable sector's exports in 2001–02
 - there are presently three local manufacturers in Australia, with a fourth manufacturing facility being established
 - world class and frontline R&D, accompanied by high levels of local intellectual property
 - distributed generation associated with its embedded installation as well as peak load benefits (as profiled above).
- 8.109 MRET has not been a key driver for the uptake of PV systems in Australia. This role has primarily been taken by other government assistance programs, particularly the Photovoltaic Rebate Program (PVRP).
- 8.110 In this regard, PVRP has experienced very high levels of public support with funding originally available under this program fully committed several months before its scheduled expiry in June 2003. While the Australian Government has subsequently allocated additional funding for PVRP in 2003–04, the level of financial assistance now available is significantly reduced.³⁹²
- 8.111 As a result, the PV industry has experienced some turbulence, often associated with stop start funding, which is particularly challenging. During early 2003, industry participants reported a severe cut in PV sales, adversely affecting revenues and employment in PV manufacturing, installation and retail. This industry turbulence has also affected the sector's public image.
- 8.112 Acknowledging that MRET is technology neutral, the Review Panel is nonetheless supportive of further consideration being given to assistance measures that would support the development of the PV industry in Australia, including measures to support increased installation of PV systems. This recognises that a strong local market will also reduce costs and improve international competitiveness.

³⁹² The original PVRP rebate level was \$5 per watt, up to a max of \$7500. The current program now provides \$4 per watt, up to a max of \$4000.

Recommendation 23

A review to be undertaken to determine how further consideration can be given to special assistance for the Australian photovoltaic industry, either through enhancement of MRET or other measures.

Solar water heaters

- 8.113 The eligibility of solar water heater installations was a key component of the Prime Minister's *Safeguarding the Future* statement. The inclusion of solar water heaters both stimulates industry development and enhances participation levels in the MRET measure by enabling individual home and building owners to participate in, and benefit from, the MRET measure.
- 8.114 The eligibility for solar water heaters includes that: it must be a device that heats water using solar energy; it must displace non-renewable electricity; and be installed on or after 1 April 2001. It must also replace an existing electric hot water system or an electric-boosted solar water heater that has been installed at the same location for over 1 year; or be installed in a new building; or be the first installation of a solar water heater in an existing building.
- 8.115 The number of RECs that can be created for a particular solar water heater installation varies according to model and location. RECs can be created by the owner of the solar water heater or assigned to another person who is registered under the Act.
- 8.116 A number of parties³⁹³ drew attention to possible adverse consequences for home and building owners, including potentially contrary greenhouse outcomes, arising from the exclusion of some solar water heater installations or replacement units from the measure. Anomalies include:
- Replacing an electric hot water heater with a solar water heater (gas or electric boosted) was eligible but replacing a gas hot water system was not.
 - Installing a solar water heater in a new building is eligible to create RECs for the full extent of electricity displaced by that unit, while replacing an existing solar water heater is only eligible to create RECs for the net increase in displaced electricity from the new unit installed.
- 8.117 Other submissions³⁹⁴ also suggested that solar water heater retrofits to existing hot water systems should be eligible, on the basis that these units also displaced electricity.

³⁹³ Victorian Government, submission 173; Australia and New Zealand Solar Energy Society, submission 57; Sola Kleen, submission 6

³⁹⁴ Victorian Government, submission 173

- 8.118 In consultations, interested parties also sought to encourage increased installation of solar water heaters within public housing settings, and not restrict eligibility to owner-occupied dwellings and buildings.
- 8.119 The Review Panel is satisfied that broadening the REC eligibility for all complete solar water heater installations is warranted to address potential adverse consequences and remove possible disincentives to the installation of solar water heaters.
- 8.120 However, the Review Panel is not satisfied that solar retrofit kits should be eligible. While the retrofit kit is tested against relevant Australian Standards, residual (possibly ageing) equipment is not necessarily subject to renewed testing against Australian Standards. In these circumstances, the Review Panel is not confident that the residual equipment has the necessary reliability and durability to warrant a further ten years of REC deeming.
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Recommendation 24

All complete solar water heater systems installed, including replacement systems, to be eligible to create RECs to the full extent of their energy displacement capacity.

Consideration of new Eligible Renewable Energy Sources

- 8.121 The Review Panel's Terms of Reference also requires consideration of renewable energy sources and technologies not specified in the Act or Regulations.
- 8.122 A number of submissions sought to broaden the classification system of existing Eligible Renewable Energy Sources, to include new technology developments utilising existing renewable energy sources, or to make provision for new innovations to be incorporated into the MRET measure.
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Refined waste oil

- 8.123 In its submission, Wren Oil proposed that re-refined waste oils should be eligible under MRET:

The definition of a renewable energy resource is one that can be replaced as it is used. Traditional definitions of renewable energy resources include solar, wind, geothermal, hydro and biomass; municipal solid waste (MSW) is now also considered to be a renewable energy resource. We propose that re-refined oil should also be included in this definition as it replaces new oil and its re-refining capability is indefinite. [...] This product is an environmentally beneficial source in the startup fuel for coal fired boilers used at power stations and fuel for heat requirements of industry. As such, waste oil should be classed as renewable energy when it is cleaned and meets all specifications.³⁹⁵

- 8.124 Section 17(2) of the Act states:

The following energy sources are not Eligible Renewable Energy Sources:

- (a) fossil fuels;
- (b) waste products derived from fossil fuels.

- 8.125 It is accepted that re-refined waste oil, based on fossil fuels, provides some environmental benefits in displacing primary oil use. It is also recognised that s.17(1) of the Act includes a number of waste products sourced from biomass, for example MSW and bagasse, among others.

- 8.126 In its report to the Government on implementation planning for MRET, the Renewables Target Working Group³⁹⁶ recommended that only specified wastes, sourced from organic/biomass materials should be eligible. That recommendation was accepted by the Australian Government, and carried through into the legislation.

- 8.127 Accordingly, the Review Panel concludes that, since the inclusion of re-refined waste oil would run counter to the intent of the MRET legislation, waste oil should not be an Eligible Renewable Energy Source.

³⁹⁵ Wren Oil, submission 23, p4

³⁹⁶ Renewables Target Working Group. 1999. *Final Report to the Greenhouse Energy Group*. p55

Other greenhouse abatement technologies

- 8.128 A number of submissions drew attention to other technologies (for example energy efficiency technologies, high-efficiency combined cycle gas turbines, geosequestration, hydrogen technologies, fuel cells) that abate greenhouse gas emissions within the electricity generation sector, seeking recognition under MRET for the contribution of these alternate technologies to the MRET greenhouse abatement objective.
- 8.129 Woodside Energy's³⁹⁷ submission recommended extending eligibility across a range of abatement technologies. Rio Tinto's³⁹⁸ submission recommended treating all technologies that would achieve greenhouse gas abatement neutrally, and that a broad-based approach to Australia's climate change response, including under MRET, should be accommodated.
- 8.130 AlintaGas also favoured a broader approach than the current technologies under MRET:

*[MRET] is prescriptive in nature, requiring that generators address their impact by choosing from a limited range of eligible technologies/fuel types. This excludes a number of alternative approaches, which may well be lower cost. Alternative possibilities include changing to a lower emissions generation technology, carbon sequestration or paying another party to reduce their emissions. Which is the lowest cost solution will vary from business to business and across industry sectors. But by giving the widest possible range of options and allowing businesses to choose which meets their requirements at the lowest cost, overall emissions cost is likely to be minimised.*³⁹⁹

- 8.131 Some submissions sought to include eligibility for energy efficiency projects as well as renewable energy generation projects. For instance, until a national emissions trading scheme can be implemented, AGL recommended:

*the Federal Government consider whether amendments to the Act could be used as a transitional mechanism to achieve a national emissions trading scheme. This would include broadening the Act to focus on emissions abatement by including low emission fuels and energy efficiency.*⁴⁰⁰

- 8.132 Eastern Star Gas⁴⁰¹ also commented that renewable energy can also emit greenhouse gases, and that combined cycle gas turbines are highly efficient in their electricity generation, relative to coal-fired generators.

³⁹⁷ Woodside Energy, submission 236

³⁹⁸ Rio Tinto, submission 51

³⁹⁹ AlintaGas, submission 56, p4

⁴⁰⁰ Australian Gaslight Company, submission 226, p1

⁴⁰¹ Eastern Star Gas, submission 63

- 8.133 The Review Panel acknowledges merit in the arguments raised by these parties that the inclusion of other greenhouse abatement technologies would serve the MRET greenhouse abatement objective.
- 8.134 However these alternate abatement technologies, not based on renewable sources, would not contribute to other MRET objectives concerning additional generation of renewable energy, nor would they contribute to the MRET policy objective of renewable energy industry development.
- 8.135 The Review Panel concludes that inclusion of alternate technologies, not based on renewable energy sources, is inconsistent with the policy objectives of the MRET measure.

Other energy displacement technologies

- 8.136 Solar water heaters, as an example of energy displacement technologies, are eligible for claiming RECs under MRET.
- 8.137 At the time of its report, the Renewables Target Working Group⁴⁰² recommended that heat pumps utilising solar energy should be considered under MRET, following development of an appropriate Australian Standard for the design and manufacture of this technology. Such an Australian Standard has now been developed, and heat pumps are now eligible under MRET's solar water heater provisions.
- 8.138 Cogeneration itself is an energy efficiency process, and therefore is not inherently renewable or non-renewable. Electricity production from a cogeneration facility that uses an underlying eligible renewable energy source as fuel is eligible under MRET. It was argued⁴⁰³ that cogenerators producing thermal energy should also be eligible to the extent that the heat produced displaces electricity.
- 8.139 Another submission⁴⁰⁴ sought to include other energy displacement technologies under MRET, such as variable frequency driven pond aeration systems.
- 8.140 Other interested parties sought to include capacity for MRET to recognise solar central heating systems and solar swimming pool heaters for residential and commercial settings.
- 8.141 The Victorian Government also gave broad support for other renewable-based technologies that displace energy:

⁴⁰² Renewables Target Working Group. 1999. *Final Report to the Greenhouse Energy Group*, p56

⁴⁰³ Males, submission 114

⁴⁰⁴ Peterson, submission 98

At present the Act only allows for the accreditation of facilities which directly generate electricity. An exception is made for solar hot water heaters, which can be accredited to earn RECs because they typically displace electricity from non-renewable sources. There are, however, other technologies which displace non-renewable electricity whilst not actually generating electricity such as those used to heat water and provide steam for commercial use and industrial processes. Such technologies include concentrating solar collectors, Solar Ponds, and Low-Temperature Geothermal Aquifers.⁴⁰⁵

- 8.142 It is acknowledged that there is some merit in these proposals, particularly in light of the precedent established by solar water heaters. However, these energy displacement technologies do not contribute to MRET's objective to encourage the additional generation of electricity from renewable sources.
- 8.143 The Review Panel concludes that broadening MRET eligibility to include other energy displacement technologies would serve the achievement of some, but not all, of MRET's policy objectives.

Future energy sources

- 8.144 Any attempts to anticipate future innovations and/or other developments in the renewable energy sector that may occur over the proposed life of the MRET measure are inherently ambitious.
- 8.145 It is also recognised that issues associated with existing Eligible Renewable Energy Sources may arise over time, and that a mechanism for clarifying, amending or adding new sources to the listing would be desirable.
- 8.146 A number of submissions⁴⁰⁶ advocated an expert advisory group be established to advise ORER on other Eligible Renewable Energy Sources that should be considered. Others⁴⁰⁷ suggested that ORER or the Minister be given discretionary powers under the Act to admit new sources that may emerge over the life of the measure.
- 8.147 Other submissions⁴⁰⁸ proposed that specific criteria be articulated for assessing the eligibility of any new Eligible Renewable Energy Source.
- 8.148 Many submissions supported an alternate, more responsive, mechanism for amending the Eligible Renewable Energy Source listing than the present requirement for formal legislative amendments, with its lengthy timeframes and the inherent uncertainties involved.

⁴⁰⁵ Victorian Government, submission 173, p24

⁴⁰⁶ Sustainable Solutions, submission 26; Electricity Retailers Assoc of Australia, submission 204; Australia and New Zealand Solar Energy Society, submission 57

⁴⁰⁷ Westpac, submission 30; Energy Developments Ltd, submission 143

⁴⁰⁸ Renewable Energy Generators Association, submission 108; Tasmanian Government, submission 229

- 8.149 In this context, it is noted that the provisions within the Renewable Energy (Electricity) Amendment Bill 2002 (s.17 [3–5] refers) would enable regulations to be made to restrict the meaning of any Eligible Renewable Energy Source, or clarify the meaning of ineligible sources. The Senate ECITA Committee⁴⁰⁹ supported the intent and the suggested provisions contained in this Bill.
- 8.150 The Review Panel concludes that the ECITA report proposals within the Renewable Energy (Electricity) Amendment Bill 2002 are appropriate for clarifying existing eligible and ineligible sources.
- 8.151 While the Review Panel notes the suggestion that ORER be empowered to admit new technologies, such a role would extend beyond the statutory role of the Regulator in administering the MRET legislation. Instead, the Panel proposes that the Minister be empowered to make such regulations, as necessary. This would provide a mechanism to enable the MRET measure to respond to the pace of innovation in the renewable energy industry.

Recommendation 25

The Act to be amended to empower the Minister to make regulations to clarify the interpretation of Eligible Renewable Energy Sources, or to determine the eligibility of new renewable energy sources.

Nomenclature

- 8.152 Presently, the Eligible Renewable Energy Source nomenclature within s.17 of the Act includes a number of either redundant or ill-defined terms, principally arising from substantial amendments made to this listing during parliamentary passage of the legislation.

⁴⁰⁹ The Senate Environment, Communications, Information Technology and the Arts Legislation Committee: *Provisions of the Renewable Energy (Electricity) Amendment Bill 2002*, p16

8.153 The Renewable Energy (Electricity) Amendment Bill 2002 proposed a revised list of Eligible Renewable Energy Sources:

Hydro	Black liquor
Solar	Food waste and food processing wastes
Wave	Biomass-based components of municipal solid waste
Tide	Waste from processing agricultural products
Ocean	Hot dry rocks
Energy crops	Landfill gas
Wood waste	Sewage gas
Bagasse	Agricultural waste
Wind	Geothermal aquifers

8.154 This revised listing sought to clarify the meaning of some Eligible Renewable Energy Sources and to remove redundant terms in order to focus the list on the true renewable energy source rather than the technology used to generate electricity.

8.155 This proposal was supported by the Senate ECITA Legislation Committee.⁴¹⁰ Some submissions⁴¹¹ to this Review also supported this nomenclature, while suggesting that it be contained within the regulations rather than the primary legislation.

8.156 A number of submissions⁴¹² sought to amend the nomenclature to a less-prescriptive listing, especially as it relates to biomass sources:

*The various forms of eligible renewable energy sources [should] be consolidated into major categories of: hydro, wind, solar, biomass, ocean and geothermal in Section 17 of the Act. [...] Biomass is very diverse in its nature. There potentially many other forms of biomass resources that would meet the policy objectives and sustainability criteria, yet may not be listed in Section 17. An example may be high lipid content algae, or cotton ginning wastes (not strictly a crop waste) which are not explicitly listed. As such, forms of sustainable biomass may be unintentionally excluded under the Act.*⁴¹³

8.157 Supporting this proposal, while acknowledging concerns about some biomass sources, State Forests of New South Wales further suggested that the Regulations contain qualifications of the compliant forms of bioenergy, to minimise the risk that sustainable forms of biomass would be unintentionally excluded.

⁴¹⁰ The Senate Environment, Communications, Information Technology and the Arts Legislation Committee: Provisions of the Renewable Energy (Electricity) Amendment Bill 2002, p16

⁴¹¹ Energy Developments Ltd, submission 143

⁴¹² Bioenergy Australia, submission 138; CSIRO Bioenergy Business Group, submission 135; Stanwell Corporation, submission 146; State Forests of NSW, submission 234

⁴¹³ Bioenergy Australia, submission 138, p2

- 8.158 Other submissions⁴¹⁴ suggested that the current specific Eligible Renewable Energy Source listing should be replaced by suitable eligibility criteria. Others⁴¹⁵ suggested a two tiered classification focussed on 'true' renewable sources such as hydro, wind, solar, biomass, geothermal etc, and recycled or 'by-product' renewables such as bagasse, crop waste and agricultural wet waste.
- 8.159 On balance, the Review Panel does not propose to further broaden the current nomenclature, other than to accommodate its proposals for wood waste from native forests, biomass from plantations and energy crops (see Recommendations 16, 17 and 19). Any extension to the Eligible Renewable Energy Source nomenclature would imply a willingness to admit new energy sources currently ineligible under the MRET measure. This would run counter to MRET's policy objectives and risk distortions and additional administrative costs to the operation of the measure.
- 8.160 A two-tiered classification system is also not supported on the basis that this proposal may well see further examples of a two-tiered REC price structure, similar to that already experienced with wood waste and non-wood waste RECs. This outcome would be particularly undesirable and likely to impede the industry development objective of this measure.
- 8.161 The Panel recommends the adoption of the proposed nomenclature described within the Renewable Energy (Electricity) Amendment Bill 2002, noting the proposed emphasis on the energy source, rather than the technology concerned.
- 8.162 This approach would also address the issues raised in some submissions that sought to have a particular technology, based on an eligible renewable energy source, included in the Eligible Renewable Energy Source listing.

Recommendation 26

Other than to accommodate Recommendations 16, 17 and 19, the list of Eligible Renewable Energy Sources contained within the Renewable Energy (Electricity) Amendment Bill 2002 be adopted.

Other operational issues

- 8.163 A number of submissions raised some concerns about operational aspects of the Act.

⁴¹⁴ Broadbent, Mitchell and Tanaka, submission 233

⁴¹⁵ Transgrid, submission 245

Accreditation of generators before operation

- 8.164 Presently, ORER is only able to accredit generators following certain eligibility criteria being met, including that the power station is operated in accordance with any relevant Australian Government and State, Territory and Local government planning and approval requirements.
- 8.165 However, such approvals may not be forthcoming until the generation plant is commissioned and operational. These requirements can delay the development of some projects, particularly those that would not be commercially viable in the absence of MRET eligibility, and the capacity to generate revenue from RECs.
- 8.166 Several submissions⁴¹⁶ noted the paradox in this approvals sequence, and sought capacity for a 'pre-accreditation' mechanism to be established. Western Power Corporation noted:

To go ahead, new renewable energy generating plant usually requires substantial development of fuel supply (where applicable) and energy offtake agreements to provide sufficient certainty for financial backers. Further, most renewable energy plants would not be economically viable without the value of RECs produced. Consequently, it is extremely difficult to finance a plant without some indication of its ability and eligibility to produce RECs. [...] Renewable energy projects would be assisted if the project proponent could receive an accreditation on the undertaking (subsequently audited) that the generator and purchased fuel will comply with the Act and Regulations—in a similar way to which conditional environmental approvals are provided to projects.⁴¹⁷

- 8.167 At present, ORER seeks to respond to these requests by providing, in some cases, 'indicative approval letters'. These indicative approval letters have provided some comfort, establishing that applications 'could' or, in some cases, 'would' be eligible for accreditation, subject to meeting other eligibility requirements.
- 8.168 ORER, however, has not issued any indicative approvals stating that applications 'will' be eligible for accreditation, subject to other requirements, despite representations from some parties.
- 8.169 Acknowledging the concerns of applicants with regards to pre-accreditation, it is noted that there would be attendant risks associated with 'approval-in-principle' or 'pre-accreditation'. For example:
- Pre-accreditation might see some power stations accredited that ultimately fail to achieve MRET accreditation following an audit, with accompanying sovereign risks transferred from the proponent to the Australian Government.

⁴¹⁶ Bioenergy Australia, submission 138; Tasmanian Government, submission 229; Western Power Corporation, submission 70 and 132; National Association of Forest Industries, submission 145; Yallourn Energy, submission 180; Forestry and Forest Products Committee, submission 220

⁴¹⁷ Western Power Corporation, submission 132, p6

- Pre-accreditation mechanisms would shift the onus for ensuring 'ecologically sustainable' fuel sources from the responsible Australian Government, or State, Territory and Local government authorities to ORER, duplicating similar processes within other Australian Government, as well as State, Territory and Local government authorities.

8.170 The Review Panel commends the efforts of ORER to respond to these requests by providing indicative approval letters. However, it still considers that extending this proposal to provide for 'provisional accreditation' would strengthen investor confidence in proposed renewable energy projects. Any 'provisional accreditation' from ORER at this pre-commissioning stage could only be provided on the basis of what is known at the time of application, and would be subject to the proponent satisfying all the requirements of the Act.

Recommendation 27

ORER to assess proposed generation projects with a view to providing 'provisional accreditation', on the basis of what is known at the time of the application and subject to the proponent satisfying the eligibility requirements of the Act.

Establishing a statutory timeframe for decision making by ORER

8.171 Some submissions⁴¹⁸ sought to establish a legislated timeframe under which the ORER would be required to make decisions on applications for accreditation of generators. The Tasmanian Government advocated:

*[T]he Tasmanian Government recommends that the legislation be amended to require the ORER to provide binding rulings within a specified and expeditious time frame concerning the eligibility for RECs of specific projects.*⁴¹⁹

8.172 NAFI supported this call, stating:

*[T]he Act does not currently provide a timeframe for the Regulator to make a decision on mill or resource eligibility. A number of companies have found the process of working with the regulator extremely arduous and frustrating. The delay in obtaining decisions from the Regulator impacts on the length of project approvals and assessment periods and unnecessarily raises the costs of project assessment.*⁴²⁰

⁴¹⁸ Tasmanian Government, submission 229; National Association of Forest Industries, submission 145; Forestry and Forest Products Committee, submission 220

⁴¹⁹ Tasmanian Government, submission 229, p12

⁴²⁰ National Association of Forest Industries, submission 145, p4

- 8.173 Similar precedents exist within other legislation, for example, the Australian Government's *Environment Protection and Biodiversity Conservation Act 1999*, among others, whereby the relevant time-clock commences when an application is received. This clock is suspended when further information is requested, and then re-commences upon receipt of outstanding information.
- 8.174 ORER's Corporate Plan already specifies a similar organisational performance indicator, reported against in its annual reports:

*Majority of accreditation applications assessed within six weeks after receipt of a completed application and other necessary information.*⁴²¹

- 8.175 The Review Panel views this request as reasonable, seeing no difficulty with this practice becoming a requirement, noting that it would minimise uncertainty for applicants and financiers at the approval stage for renewable energy projects.

Recommendation 28

ORER to be required to assess accreditation applications within six weeks after receipt of a completed application and other necessary information.

Extinguishing RECs voluntarily

- 8.176 Under the Act, there is no constraint on the parties who may purchase RECs. Restrictions, though, are placed on those parties eligible to surrender RECs, with only MRET-registered liable parties able to surrender RECs against a liability.
- 8.177 A number of submissions⁴²² drew attention to this anomaly, and sought to include a provision to allow any party to purchase and surrender RECs for any purpose, not merely against MRET liabilities.
- 8.178 A number of submissions noted that interested individuals or organisations may wish to purchase RECs for philanthropic purposes, seeking to remove these RECs from circulation through voluntary retirement and, therefore, further encourage additional generation of renewable energy. However, while these parties are able to purchase RECs, they are unable to formally surrender these RECs, unless they are MRET-registered liable parties.

⁴²¹ Office of the Renewable Energy Regulator Corporate Plan 2001–2006

⁴²² National Green Power Accreditation Steering Group, submission 158, p2

- 8.179 Some submissions also noted the potential for double counting of RECs between the Green Power scheme and MRET, whereby Green Power retailers are able to use RECs to acquit their liability under that scheme, but are unable to surrender or formally retire these RECs unless they are also MRET-registered liable parties.
- 8.180 In this regard, Green Power participants have determined that Green Power should be additional to MRET—that is, retailers should not be able to obtain both a REC and a premium under Green Power for the same energy:

*To comply, Green Power Retailers are required to set aside Renewable Energy Certificates (RECs) equivalent to any new generation that is sold through their Green Power product. This is in keeping with the objectives of both the Green Power program and the Renewable Energy (Electricity) Act 2000, in that it stimulates additional demand for renewable energy generation in Australia.*⁴²³

- 8.181 ORER has attempted to accommodate the wishes of Green Power participants, by allowing Green Power retailers to establish a secondary account, into which 'Green Power' RECs can be deposited. However, while Green Power retailers and other parties may 'set aside' RECs in this way, these RECs are still not extinguished, merely held in indefinite escrow. They remain valid and are potentially tradeable and able to be on-sold or surrendered against a liability. This current practice also adds complexity to the administration of the Green Power scheme.
- 8.182 The Review Panel concludes that an amendment to the Act to enable voluntary surrender of RECs by owners not registered as liable parties under MRET is desirable.

Recommendation 29

The Act to be amended to allow any registered owner of a REC to surrender the REC to ORER, either voluntarily or against a registered liability.

The Renewable Energy (Electricity) Amendment Bill 2002

- 8.183 The Renewable Energy (Electricity) Amendment Bill 2002 was introduced to the House of Representatives on 26 June 2002, and passed on 12 December 2002. It was introduced to the Senate the following day, and passed with amendments on the same day. The Bill remains before the House of Representatives.

⁴²³ ECITA Committee, Provisions of the Renewable Energy (Electricity) Amendment Bill 2002, p7

- 8.184 The provisions of the Bill were referred to the Senate Environment, Communications, Information Technology and the Arts Legislation Committee on 26 September 2002. The report was tabled on 2 December 2002.
- 8.185 The Bill is intended to be an administrative bill, making administrative changes to the Act without broaching any issues of substantial policy. The Senate Committee agreed:

*With limited exception, the bill has the support of almost all the submissions, which reflects the largely administrative nature of most provisions.*⁴²⁴

- 8.186 One issue of more substance, addressed in the Bill and raised with the Review Panel, was the issue of 'double liability'. This issue is particularly relevant to the contractual arrangements between the Gladstone Power Station, the Boyne Island Smelter, and a Queensland Government-owned company named Enertrade. Due to the provisions of these contractual arrangements, both Enertrade and the Gladstone Power Station may be liable under MRET with respect to the same block of energy.
- 8.187 All parties to this transaction agree that there should be only one liability with respect to a single quantity of energy. There remains, however, disagreement as to who should attract the liability. The Review Panel received submissions from all of the parties, and met with both Enertrade and Comalco (as the principal member of the Gladstone Power Station joint venture). In addition, the Treasurer of Queensland, the Hon. Terry Mackenroth MLA, and the Queensland Minister for Energy, the Hon. Paul Lucas MLA, both wrote to the Review Panel on this issue.
- 8.188 The Renewable Energy (Electricity) Amendment Bill 2002 sought to resolve this difficulty by specifying that one party alone should be liable with respect to a block of energy. In the Amendment Bill, item 60 seeks to amend s.32 in order to clarify, again, that a party in Enertrade's position should be liable with respect to the Bill. The Senate Committee, suggested further consultation between the Minister for the Environment and Heritage and the other parties, but concluded:

*Given that Item 60 of the bill recognises Enertrade's liability as a wholesaler and eliminates the question of double liability, the Committee recommends it be passed without amendment.*⁴²⁵

⁴²⁴ ECITA Committee, *Provisions of the Renewable Energy (Electricity) Amendment Bill 2002*, p32

⁴²⁵ ECITA Committee, *Provisions of the Renewable Energy (Electricity) Amendment Bill 2002*, p32

- 8.189 The Review Panel supports that the proposed resolution to the issue of ‘double liability’ as contained within the Renewable Energy (Electricity) Amendment Bill 2002. Should the parties concerned be dissatisfied with the allocation of this liability, this issue could be resolved through commercial negotiations rather than further legislative or administrative amendments.
- 8.190 The other provisions contained within the Renewable Energy (Electricity) Amendment Bill 2002 are considered to be uncontroversial. A number of these provisions have been revisited in this Review, from a policy rather than an administrative perspective. A number of changes are proposed, and chiefly contained within this Chapter.

Recommendation 30

Except where amendment is necessary to accommodate the Review Panel’s recommendations for changes to MRET, all other provisions in the Renewable Energy (Electricity) Amendment Bill 2002 to be adopted.