



issues backgrounder

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NSW Parliamentary Research Service

Burning native forest biomaterial for electricity generation

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1. INTRODUCTION

The [Protection of the Environment Operations \(General\) Regulation 2009](#) prohibits the combustion of native forest biomaterials for electricity generation with several exemptions. On 7 March 2014, the [Protection of the Environment Operations \(General\) Amendment \(Native Forest Bio-material\) Regulation 2013](#) amended the original Regulation to permit the combustion of four additional types of native forest biomaterials for electricity generation. According to [Anthony Roberts](#), NSW Minister for Resources and Energy, “The new regulation is in line with the NSW Renewable Energy Action Plan to remove barriers to renewable energy production”.

This backgrounder sets out links to key sources including NSW and Commonwealth regulatory material, Australian and international research, and key stakeholder groups. For copyright reasons, links to journal articles and media are generally only available through the Parliament’s Intranet.

2. NSW

LEGISLATION

Prohibitions on the combustion of native forest biomaterials for electricity generation were first introduced in 2003 by the [Protection of the Environment Operations \(General\) Amendment \(Burning of Bio-Material\) Regulation 2003](#). The [objects](#) of the Regulation were to amend the [Protection of the Environment Operations \(General\) Regulation 1998](#) to:

... prohibit the use of Australian native trees as fuel for electricity generating plants with a capacity of 200 kilowatts or more, and to enforce that prohibition by means of the establishment of record-keeping procedures to be followed in connection with generating plants that burn bio-material for fuel. A number of new offences are created, each of which can be dealt with by way of penalty notice.

From that point onwards, until 7 March 2014, only the following native forest biomaterials could be used for electricity generation:

- (a) bio-material obtained from:
 - (i) an authorised plantation within the meaning of the [Plantations and Reafforestation Act 1999](#), or
 - (ii) an existing plantation within the meaning of section 9 of that Act, or
 - (iii) land on which exempt farm forestry (within the meaning of that Act) is being carried out, or
 - (iv) land on which ancillary plantation operations (within the meaning of section 9 of that Act) are being carried out, or
- (b) sawdust or other sawmill waste, or
- (c) waste arising from wood processing or the manufacture of wooden products, other than waste arising from activities (such as woodchipping or the manufacture of railway sleepers) carried out at the location from which the Australian native trees are harvested ([Protection of the Environment Operations \(General\) Regulation 2009](#), cl 96).

On 7 March 2014, the [Protection of the Environment Operations \(General\) Amendment \(Native Forest Bio-material\) Regulation 2013](#) amended the original Regulation to permit the combustion of four additional types of native forest biomaterials for electricity generation:

- (a) bio-material obtained from trees (invasive native species) cleared in accordance with property vegetation plans that have been approved under Part 4 of the [Native Vegetation Act 2003](#) after an assessment under Chapter 7 of the Assessment Methodology (within the meaning of the [Native Vegetation Regulation 2013](#));
- (b) bio-material obtained from trees cleared in accordance with a declaration relating to invasive species by an order under clause 38 of the [Native Vegetation Regulation 2013](#) (and, if the order is subject to any conditions, in accordance with those conditions);
- (c) bio-material obtained from pulp wood logs and heads and off-cuts resulting from clearing carried out in accordance with a private native forestry property vegetation plan approved under Part 4 of the [Native Vegetation Act 2003](#) or forestry operations carried out in accordance with an integrated forestry operations approval under Part 5B of the [Forestry Act 2012](#); and
- (d) bio-material obtained from trees cleared as a result of thinning carried out in accordance with a private native forestry property vegetation plan approved under Part 4 of the [Native Vegetation Act 2003](#) or an integrated forestry operations approval under Part 5B of the [Forestry Act 2012](#).

The second type of native forest biomaterial in the above list was not included in the [public consultation draft](#).

The [Protection of the Environment Operations \(General\) Amendment \(Native Forest Bio-material\) Regulation 2013](#) is made under the [Protection of the Environment Operations Act 1997](#).

ENVIRONMENTAL PROTECTION AUTHORITY

Under the new arrangements, regulatory responsibilities for burning native forest biomaterial to generate electricity will be divided between three bodies:

- The EPA will regulate related forestry operations. The EPA will also be responsible for regulating the compliance of large electricity generators (those with a capacity greater than 200 kilowatts) with the Regulation's recordkeeping requirements under clause 98;
- The Office of Environment and Heritage (OEH) will regulate native vegetation clearing;
- Local government will regulate small electricity generators (those with a capacity less than 200 kilowatts).

The EPA [plans](#) to shortly update and gazette [Guidelines for the Burning of Bio-material: Record keeping and Reporting Requirements for Electricity Generating Facilities](#) (January 2005).

The Forestry Corporation of NSW will be [required](#) to publish the volume of biomass sold for domestic electricity production on an annual basis.

[Amendments to the burning of native forest biomaterials: questions and answers](#)

EPA

7 March 2014

[Consultation on the draft POEO \(General\) Amendment \(Native Forest Bio-Material\) Regulation 2013: Summary of submissions](#)

EPA

February 2014

DEPARTMENT OF PRIMARY INDUSTRIES

[Harvested forests provide the greatest ongoing greenhouse gas benefits. Does current Australian policy support optimal greenhouse gas mitigation outcomes?](#)

Fabiano Ximenes, Brendan George, Annette Cowie, Georgina Kelly, Justin Williams, Graham Levitt and Ken Boer

June 2012

MEDIA RELEASES

Anthony Roberts, [Removing barriers to renewable energy generation](#), Media Release, 7 March 2014

John Kaye, [Wood-chip power not clean or green](#), Media Release, 7 March 2014

John Kaye, [O'Farrell government's plan to burn koala habitat for power](#), Media release, 20 July 2013

Environmental Protection Authority, [EPA announces consultation on a proposal to allow the burning of logging waste](#), Media release, 11 July 2013

POWER STATIONS

The Table below sets out the NSW power stations accredited by the [Clean Energy Regulator](#) to generate Renewable Energy Certificates (RECs) from the combustion of wood waste (see section 3 of this paper for a discussion of RECs).

Table: NSW power stations accredited to generate Renewable Energy Certificates from burning wood waste

Power station	Owner	Accredited fuel sources	Primary fuel
Bayswater	Macquarie Generation	Wood waste, municipal solid waste combustion, biomass-based components of municipal solid waste (MSW)	Black coal
Big River Timbers ww Grafton	Big River Timbers Pty Ltd	Wood waste	Wood waste
Broadwater Mill	Delta Electricity	Wood waste, energy crops, bagasse, waste from processing of agricultural products	Bagasse

Power station	Owner	Accredited fuel sources	Primary fuel
Condong Sugar Mill	Delta Electricity	Bagasse co-generation, wood waste, bagasse, biomass-based components of MSW	Bagasse
Harwood Mill	NSW Sugar Milling Co-operative	Bagasse co-generation, wood waste, bagasse	Bagasse
Liddell	Macquarie Generation	Wood waste, food and agricultural wet waste, MSW combustion, biomass-based components of MSW, waste from processing of agricultural products	Black coal
Mt Piper	Delta Electricity	Wood waste, MSW combustion, biomass-based components of MSW	Black coal
Vales Point	Delta Electricity	Wood waste, MSW combustion, biomass-based components of MSW	Black coal
Visy Pulp and Paper	Visy Pulp and Paper Pty Ltd	Black liquor, wood waste, energy crops, waste from processing of agricultural products	Black liquor & wood waste
Wallerawang	Delta Electricity	Wood waste, MSW combustion, biomass-based components of MSW	Black coal

3. COMMONWEALTH

LEGISLATION

The [Renewable Energy \(Electricity\) Act 2000 \(Cth\)](#) includes 'wood waste' in its definition of eligible renewable energy resources (s17). Prior to 10 July 2011, 'wood waste' of any type was allowable under the Regulations. The [Renewable Energy \(Electricity\) Amendment Regulations 2011](#), which commenced on 10 July 2011, amended Regulation 8 of the [Renewable Energy \(Electricity\) Regulations 2011](#) by changing the definition of 'wood waste' to exclude waste sourced from native vegetation. At present, wood waste sourced from native vegetation cannot be used for the generation of Renewable Energy Certificates (REC), except where the power station was accredited under the Act on or before 10 July 2011. The power station must also have been granted at least one REC from the electricity generated through the use of wood waste on or before 10 July 2011. Should the power station increase its nameplate generation capacity, the level of generation from which renewable energy certificates can be created would be limited to the power station's maximum historical annual generation level from the use of wood waste. This exemption ceases on 31 December 2020.

The [Regulation](#) defines wood waste as follows:

- (a) biomass:
 - (i) produced from non-native environmental weed species; and

- (ii) harvested for the control or eradication of the species, from a harvesting operation that is approved under relevant Commonwealth, State or Territory planning and approval processes; and
- (b) a manufactured wood product or a by-product from a manufacturing process, other than a product or a by-product that is derived from biomass from a native forest; and
- (c) waste products from the construction of buildings or furniture, including timber off-cuts and timber from demolished buildings; and
- (d) sawmill residue, other than sawmill residue derived from biomass from a native forest.

The Regulation was subject to a disallowance motion, [moved](#) by Rob Oakeshott in the House of Representatives on 8 February 2012, which was negated on 19 March 2012 (see [here](#) and [here](#)).

PARLIAMENT

Committees

[Seeing the forest through the trees: Inquiry into the Australian Forestry Industry](#)
House Standing Committee on Agriculture, Resources, Fisheries and Forestry
November 2011

CLIMATE CHANGE AUTHORITY

Renewable Energy Target

[Renewable Energy Target Review – Final Report](#)
Climate Change Authority
December 2012

4. VICTORIA

The Victorian Government supports the use of native forest wood waste for electricity generation.

DEPARTMENT OF ENVIRONMENT AND PRIMARY INDUSTRIES

[Timber Industry Action Plan](#)
Department of Primary Industries
December 2011

REGIONAL DEVELOPMENT VICTORIA

[Fuelled for Growth: Investing in Victoria's biofuels and bioenergy industries](#)
Regional Development Victoria
July 2012

5. RESEARCH

AUSTRALIAN RESEARCH

[Forest biomass for energy: Current and potential use in Tasmania and a comparison with European experience](#)

Andreas Rothe
July 2013

[Seeing the Forest for the Trees – Australian Forest Biomass for Energy: An Investigation of Understanding, Acceptance, Trust & Legitimacy](#)

Kai Ulrik; Masters Thesis, Lund University
September 2012

[An assessment of biomass for bioelectricity and biofuel, and for greenhouse gas emission reduction in Australia](#)

Damien Farine, Deborah O'Connell, Robert Raison, Barrie May, Michael O'Connor, Debbie Crawford, Alexander Herr, Joely Taylor, Tom Jovanovic, Peter Campbell, Michael Dunlop, Luis Rodriguez, Michael Poole, Andrew Braid and Darren Kriticos; *GCB Bioenergy*
March 2012

[Greenhouse Gas Balance of Native Forests in New South Wales, Australia](#)

Fabiano Ximenes, Brendan George, Annette Cowie, Justin Williams and Georgina Kelly; *Forests*
2012

[Biomass Fuelwood Study](#)

South East Fibre Exports
June 2011

[Scoping Biorefineries: Temperate Biomass Value Chains](#)

Parratt & Associates; Prepared for Biotechnology Innovation Policy Section, Pharmaceuticals, Health Industries & Enabling Technologies Branch, Innovation Division, Department of Innovation, Industry, Science and Research
2010

INTERNATIONAL RESEARCH

[Carbon accounting of forest bioenergy](#)

Alessandro Agostini, Jacopo Giuntoli and Aikaterini Boulamanti; European Commission JRC Technical Reports
2013

[Large-scale bioenergy from additional harvest of forest biomass is neither sustainable nor greenhouse gas neutral](#)

Ernst-Detlef Schulze, Christian Körner, Beverly Law, Helmut Haberl and Sebastiaan Luyssaert; *GCB Bioenergy*
2012

[Bioenergy Review](#)

Committee on Climate Change

December 2011

[Sustainable Biofuels from Forests: Meeting the Challenge](#)

Marilyn Buford and Daniel Neary, Ecological Society of America

February 2010

6. MEDIA

[Forest plan sparks outrage](#), 10 March 2014, *Grafton Daily Examiner*

[‘Devastating’ changes allow forests to be burned for power](#), 7 March 2014, *SMH*

[Woodchip change powers protest](#), 29 October 2013, *Manly Daily*

[Koalas threatened by forest fuel plan](#), 20 August 2013, *Bega District News*

Additional media articles can be found [here](#)

7. STAKEHOLDERS

ENERGY

[Bioenergy Australia](#)

[Clean Energy Council](#)

ENVIRONMENT GROUPS AND NON-GOVERNMENT ORGANISATIONS

[Markets for Change](#)

[The Australia Institute](#)

[The Wilderness Society](#)

[Total Environment Centre](#)

FORESTRY

[Australian Forest Products Association](#)

[Forest & Wood Products Australia](#)

[Forest Stewardship Council Australia](#)

[Institute of Foresters of Australia](#)

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For further information please contact the Research Service on 9230 2356

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