

## **Greenhouse Gas Benchmark Rule (Carbon Sequestration) No. 5 of 2003**

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Minister for Energy

### **1 Name and commencement**

This rule is the *Greenhouse Gas Benchmark Rule (Carbon Sequestration) No. 5 of 2003* and commences on [Insert Date]. At its commencement, this Rule is to be taken as having amended the *Greenhouse Gas Benchmark Rule (Carbon Sequestration) No. 5 of 2003* that commenced on 3 October 2003 (“October Rule”), to the extent that this Rule differs from the October Rule.

### **2 Objects of the Rule**

The object of this Rule is to provide specific arrangements for the creation of New South Wales Greenhouse Abatement Certificates (NGACs) through Carbon Sequestration in Eligible Forest in New South Wales or in another jurisdiction if approved in accordance with section 97DA of the Act by the Minister, and as permitted by the Act and Regulations, including:

- (a) the methods to be used to estimate the amount of carbon sequestered in Eligible Forest by those seeking to create or who have created NGACs; and
- (b) the number of NGACs which may be created through a Carbon Sequestration Activity.

### **3 Application of the Rule**

Without limiting the person to whom this Rule applies, this Rule applies to Accredited Abatement Certificate Providers who are accredited to create NGACs with respect to carbon sequestration in accordance with the Act and the Regulations.

### **4 Status and Operation of the Rule**

This rule is a Greenhouse Gas Benchmark Rule made under Part 8A of the Act.

### **5 Eligibility to be an Accredited Abatement Certificate Provider in respect of Carbon Sequestration**

The Scheme Administrator may accredit a person as an Accredited Abatement Certificate Provider in respect of a Carbon Sequestration Activity if:

- (a) the person is a Sequestration Pool Manager who carries out a Carbon Sequestration Activity;
- (b) the person owns or controls Carbon Sequestration Rights registered on Eligible Land;

- (c) the person can demonstrate, to the satisfaction of the Scheme Administrator, that the person is capable of meeting the requirement to maintain the Greenhouse Gas abatement secured by Carbon Sequestration Activities for 100 years from the Compliance Year in which NGACs may be registered;
- (d) the person has in place risk management procedures with respect to hazards and risks such as, but not limited to, fire, disease or pests, which the Scheme Administrator considers to be appropriate; and
- (e) the person has in place record keeping arrangements with respect to the Carbon Sequestration Activity that the Scheme Administrator considers appropriate.

## 6 Persons Eligible to Create NGACs under this Rule

Despite any other provision in this Rule, only Accredited Abatement Certificate Providers accredited for the purpose set out in clause 5 may create NGACs under this Rule.

## 7 Eligibility to create NGACs from Carbon Sequestration

7.1 NGACs may only be created in respect of Carbon Sequestration that:

- (a) takes place on or after 1 January 2003;
- (b) arises from Eligible Forest planted on Eligible Land over which an Accredited Abatement Certificate Provider owns or controls Carbon Sequestration Rights; and
- (c) has not been brought to account or traded for any purpose other than for the creation of NGACs under this Rule.

7.2 For the purposes of this Rule, the only permitted form of Carbon Sequestration is that which takes place on Kyoto-Consistent Land and that meets the definitions of afforestation and reforestation that are specified in United Nations Framework Convention on Climate Change document FCCC/CP/2001/13/Add.1 and Appendix A of the Interim Australian Standard AS4978.1(Int.) 2002 - *Carbon Accounting for Greenhouse Sinks Part 1: Afforestation and Reforestation* (referred to in this Rule as the "Standard").

**Note:** Article 3.3 of the Kyoto Protocol is intended to define a form of Carbon Sequestration during Kyoto Commitment Periods that may be used to offset emissions that occur over the same period. The Kyoto Protocol does not give credit for any sequestration of carbon in Forests on Kyoto-Consistent Land that takes place prior to 2008 and thus has no direct bearing on the operation of this Rule up to that date. However, there may be some indirect interactions in that obligations arising from the creation of NGACs prior to the first Commitment Period will have to be maintained.

**Note:** It is proposed that Kyoto Protocol Article 3.4 sinks will be incorporated in this Rule in future, once accounting rules for such sinks have been developed.

- 7.3 In accordance with the Standard, the harvesting or physical loss of any part of an Eligible Forest must be accounted for as an emission in the year in which that part of the Eligible Forest was harvested or suffered physical loss.

## **8 Carbon Sequestration Estimation Methodology**

### **8.1 Purpose**

The Carbon Sequestration Estimation Methodology (referred to in this Rule as “CSEM”) described in this clause 8 is to be used by Accredited Abatement Certificate Providers to estimate the amount of net change in Carbon Stock that is eligible under this Rule, through:

- (a) calculation of net change in Carbon Stock from Eligible Forest over a Carbon Sequestration Period, in accordance with the Standard; and
- (b) calculation of that portion of the net change in Carbon Stock arising from clause 8.1(a) that is eligible for creation of NGACs.

### **8.2 Carbon accounting methodology**

Carbon accounting for the CSEM is to be undertaken in accordance with the Standard which is adopted for the purposes of this Rule.

**Note:** The Standard allows an entity to select its own procedures for carbon accounting provided those procedures are consistent with the Standard.

### **8.3 Restrictions on Carbon Accounts**

- 8.3.1 The estimate of change in Carbon Stock over a defined period arising from application of the Standard will be subject to uncertainty, because the input values are subject to uncertainty. Accredited Abatement Certificate Providers must be able to demonstrate, using the uncertainty distributions arising from application of the Standard, that there is at least a 70% probability that the net increase in Carbon Stocks in any given period exceeds the quantum of carbon represented by NGACs created with respect to that period (referred to in this Rule as the “70% rule”). *Net Carbon Stock Change* in any year is determined as the difference between the Carbon Stock in that year and the Carbon Stock in the preceding year, applying the Standard and the 70% rule (referred to in this Rule as “Net Carbon Stock Change”).
- 8.3.2 The Accredited Abatement Certificate Provider must demonstrate, to the satisfaction of the Scheme Administrator, that uncertainty estimates made at the time, using the best data available at the time, indicated compliance with the 70% rule. If subsequent audits demonstrate non-compliance with the 70% rule, no further NGACs can be created until the Accredited Abatement Certificate Provider can demonstrate compliance with the obligation, with regard to all registered NGACs previously created by the Accredited Abatement Certificate Provider, to maintain the Greenhouse Gas abatement secured by Carbon Sequestration Activities for 100 years, to the satisfaction of the Scheme Administrator.

**Note:** Estimates of Carbon Stock and their associated uncertainty for a given period will

change for a number of reasons, in particular, because recurrent standing assessments and improvements to growth models are likely to lead to both greater accuracy and reduced uncertainty. While the adoption of the 70% rule should reduce the likelihood that the amount of NGACs created is in fact less than carbon sequestered, it is possible that a subsequent audit of Carbon Stocks, using later or more accurate data, will determine that the total of NGACs created for a given period has in fact exceeded the new estimate (after application of the 70% rule) of increase in Carbon Stock for that period.

## 8.4 Changes in the Carbon Stock

### 8.4.1 Increases

Accredited Abatement Certificate Providers may increase the Carbon Stock in its Sequestration Pool by the following means:

- (a) through additional Carbon Sequestration in Eligible Forests on the Eligible Lands comprising the Sequestration Pool; or
- (b) by acquiring additional Eligible Forest or additional Carbon Sequestration Rights from Eligible Land. Such acquisitions can only increase the Sequestration Pool after the Carbon Stock of the acquired land has been reduced to account for any NGACs that may have been created with respect to those lands.

**Note:** Land acquisition may involve acquisition of Carbon Sequestration Rights on the titles of others' land rather than actual land purchases.

### 8.4.2 Reductions

In the event physical Carbon Stock is reduced through forest harvesting, fires or other unplanned depletion processes, clause 7.3 applies. In the event that physical Carbon Stock is reduced through disposal of Carbon Sequestration Rights over Eligible Land or the withdrawal of the Eligible Forest from the Sequestration Pool, clause 10 applies.

## 9 Calculation of NGACs from Carbon Sequestration

- 9.1 An Accredited Abatement Certificate Provider can only create NGACs with respect to a calendar year when there is a net increase in the Carbon Stock held by the Accredited Abatement Certificate Provider
- 9.2 The maximum *Number of NGACs that may be created* shall be calculated in accordance with **Equation 1**.

### Equation 1

Number of NGACs that may be created = Net Carbon Stock Change x 44/12

Where:

- *Number of NGACs that must be created* is expressed in tonnes of carbon dioxide emissions equivalent.

- 9.3 Where the harvesting or physical loss of any part of an Eligible Forest has resulted in a net decrease in the Carbon Stock held by the Accredited Abatement Certificate Provider, the Accredited Abatement Certificate Provider must surrender to the Scheme Administrator the number of NGACs calculated in accordance with Equation 2.

**Equation 2**

Number of NGACs that must be surrendered = Net Carbon Stock Change x 44/12

Where:

- *Net Carbon Stock Change* shall be entered in Equation 2 as an absolute value.
- *Number of NGACs that must be surrendered* is expressed in tonnes of carbon dioxide emissions equivalent.

**9.4 Adjustment of number of NGACs that may be created for GGAP funded projects**

Despite any other provision in this Rule, if on or after 1 January 2003 approval for GGAP funding has been granted for a project, the maximum number of NGACs that an Accredited Abatement Certificate Provider can create under this Rule from the number of tonnes of carbon dioxide equivalent of Greenhouse Gas emissions abated by the project equals the percentage of the total number of NGACs that it is otherwise entitled to create under this Rule from that project corresponding to the percentage of project funding that is not provided by GGAP.

Note: For example, if GGAP funding represents 20% of total project funding, then the project developer can only create NGACs for 80% of the eligible abatement achieved.

**10 Insufficient Carbon Stock**

- 10.1 An Accredited Abatement Certificate Provider may be in a position where its Carbon Stocks are insufficient for the number of NGACs it has created.

Note: This may occur for a number of reasons, including harvesting, land disposal or adjustment of the Carbon Stock.

- 10.2 Once an Accredited Abatement Certificate Provider becomes aware that its Carbon Stocks are insufficient for the amount of NGACs it has created, it must immediately inform the Scheme Administrator. The Accredited Abatement Certificate Provider must:

- (a) not create further NGACs until it holds sufficient Carbon Stock to meet all of its Carbon Sequestration Maintenance Obligation, or
- (b) if directed by the Scheme Administrator, surrender to the Scheme Administrator a number of NGACs equal to the difference between the Accredited Abatement Certificate Provider's Carbon Sequestration Maintenance Obligation and its actual Carbon Stock.

- 10.3 The Accredited Abatement Certificate Provider can only adjust its Carbon Stock through the acquisition of sufficient Eligible Forest or Carbon Sequestration Rights from Eligible Land within such time as is specified by the Scheme Administrator.
- 10.4 An Accredited Abatement Certificate Provider who has created NGACs but then wishes to sell or withdraw an Eligible Forest from the Sequestration Pool, must continue to comply with its Carbon Sequestration Maintenance Obligations in respect of any NGACs created from the Carbon Sequestration Activity which took place before the withdrawal of the relevant Eligible Forest from the Sequestration Pool. The Accredited Abatement Certificate Provider may comply with their Carbon Sequestration Maintenance Obligation by:
- (a) maintaining sufficient Carbon Stock in Eligible Forest planted on Eligible Land to meet that Carbon Sequestration Maintenance Obligation; or
  - (b) transferring that Carbon Sequestration Maintenance Obligation to another Accredited Abatement Certificate Provider, provided that the Scheme Administrator approves the transfer and is satisfied that the Carbon Stock of that other Accredited Abatement Certificate Provider's Sequestration Pool is sufficient to meet both:
    - (i) the Carbon Sequestration Maintenance Obligation being transferred (as if each NGAC for which the Carbon Sequestration Maintenance Obligations arose had been created by that other Accredited Abatement Certificate Provider); and
    - (ii) the Carbon Sequestration Maintenance Obligation of that other Accredited Abatement Certificate Provider arising under clause 73ID of the Regulation for any NGACs created from its Sequestration Pool; or
  - (c) surrendering to the Scheme Administrator a number of NGACs equal to the number of NGACs in respect of which the Carbon Sequestration Maintenance Obligation arose.

## 11 Definitions and Interpretation

### 11.1 In this Rule:

**“Carbon Pool”** means a reservoir or system that has the ability to accumulate or release carbon and includes living trees (usually further separated for accounting purposes into stemwood, canopy and roots), litter, dead wood and soil.

**“Carbon Sequestration”** means the process of increasing the carbon held within a specific Eligible Forest or Sequestration Pool.

**“Carbon Sequestration Activity”** means Carbon Sequestration in an Eligible Forest.

**“Carbon Sequestration Maintenance Obligation”** means an Accredited Abatement Certificate Provider's obligations under clause 73ID of the Regulations.

**“Carbon Sequestration Period”** means the time period over which Carbon Sequestration is estimated, usually 1 calendar year.

**“Carbon Sequestration Right”** means

- (a) in respect of land within NSW, a carbon sequestration right within the meaning of section 87A of the (NSW) Conveyancing Act 1919; or
- (b) in respect of land in any other jurisdiction approved by the Minister in accordance with section 97DA(4)(b) of the Act, any other right that is substantially similar, or equivalent to, or has the same effect as, a carbon sequestration right as defined in paragraph (a).

Note: The *Conveyancing Act 1919* provides that a “carbon sequestration right, in relation to land, means a right conferred on a person by agreement or otherwise to the legal, commercial or other benefit (whether present or future) of carbon sequestration by any existing or future tree or forest on the land after 1990.” Carbon Sequestration Rights over land can be transferred independently of ownership of the land itself or of other rights over the land. Only holders of Carbon Sequestration Rights that have been registered on Eligible Land (whether or not they are also owners of the Eligible Land in question) can create NGACs from Carbon Sequestration.

“**Carbon Stock**” means the total amount in tonnes of carbon contained in a Sequestration Pool at a given time.

“**Compliance Year**” means the calendar year with respect to which a Benchmark Participant’s compliance with its Benchmark is measured.

“**Demand Side Abatement Rule**” means *Greenhouse Gas Benchmark Rule (Demand Side Abatement) No. 3 of 2003*

“**Eligible Forest**” means a Forest planted on or after 1 January 1990 on Eligible Land.

“**Eligible Land**” means Kyoto-Consistent Land located in New South Wales (or as otherwise provided under the Act) that may be used for the purposes of growing planted forests capable of Carbon Sequestration under this Rule and on which Carbon Sequestration Rights can be registered and are registered prior to the creation of NGACs.

“**Forest**” has the same meaning as is specified in United Nations Framework Convention on Climate Change document FCCC/CP/2001/13/Add.1 and the Standard.

“**Generation Rule**” means *Greenhouse Gas Benchmark Rule (Generation) No.2 of 2003*.

“**GGAP**” means the Greenhouse Gas Abatement Program administered by the Australian Greenhouse Office of the Commonwealth.

“**Kyoto Commitment Period**” means the five year periods (the first being 2008-2012) during which the emissions of countries undertaking emission reduction commitments under the Kyoto Protocol (if ratified) will be measured, for the purposes of comparison with their emissions in 1990.

“**Kyoto-Consistent Land**” means land that meets the definition of Article 3.3 of the Kyoto Protocol which states that:

*“The nett changes in greenhouse gas emissions by sources and removals by sinks resulting from direct human-induced land-use change and forestry activities, limited to afforestation, reforestation and deforestation since 1990, measured as verifiable changes in carbon stocks in each commitment period, shall be used to*

*meet the commitments under this Article of each Party included in Annex I. The greenhouse gas emissions by sources and removals by sinks associated with those activities shall be reported in a transparent and verifiable manner and reviewed in accordance with Articles 7 and 8.”*

“**Kyoto Protocol**” means the Kyoto Protocol to the United Nations Framework Convention on Climate Change, adopted 11 December 1997.

“**Minister**” means the New South Wales Minister for Energy.

“**NGAC**” (New South Wales Greenhouse Abatement Certificate) means a transferable abatement certificate under section 97F of the Act, which is created in accordance with the Generation Rule, The Demand Side Abatement Rule and this Rule.

“**Regulations**” means the regulations made pursuant to Part 8A of the Act.

“**Sequestration Pool**” means an aggregation of Eligible Forests that are managed to provide Carbon Sequestration and over which an Accredited Abatement Certificate Provider exercises control sufficient to enforce Carbon Sequestration Rights. The Eligible Forests, the Eligible Lands, and the Carbon Sequestration Rights over the Eligible Lands, may be owned or controlled by more than one entity.

“**Sequestration Pool Manager**” is a person who manages a Sequestration Pool.

“**the Act**” means the *Electricity Supply Act 1995*.

11.2 Notes in this Rule do not form part of the Rule.

11.3 The terms and expressions used in this Rule have the same meaning as in the Act or as defined in Part 8A of the Act except the terms that are expressly defined in this Rule.