Clean Energy Amendment Regulation 2012 (No. 6)[1]

Select Legislative Instrument 2012 No. 226

I, QUENTIN BRYCE, Governor-General of the Commonwealth of Australia, acting with the advice of the Federal Executive Council, make the following regulation under the *Clean Energy Act 2011*.

Dated 27 September 2012

QUENTIN BRYCE
Governor-General

By Her Excellency's Command

GREG COMBET
Minister for Climate Change and Energy Efficiency

1 Name of regulation

This regulation is the *Clean Energy Amendment Regulation 2012 (No. 6)*.

2 Commencement

This regulation commences on the day after it is registered.

3 Amendment of *Clean Energy Regulations 2011*

Schedule 1 amends the *Clean Energy Regulations 2011*.

Schedule 1 Amendments

(section 3)

[1] Regulation 21.1, table, after item 7

insert

7A	A decision under clause 915 of the program to determine a final LNG emissions number for a LNG project

[2] Schedule 1, subclause 201 (1)

insert

category A emissions, in relation to a LNG project: see subclause 915 (2).

category B emissions, in relation to a LNG project: see subclause 915 (2).

[3] Schedule 1, subclause 201 (1)

insert

eligible LNG emissions: see subclause 915 (4).

[4] Schedule 1, subclause 201 (1)

insert

final LNG emissions number means the number worked out by the Regulator under clause 915 for determining the LNG supplementary allocation adjustment.

[5] Schedule 1, subclause 201 (1)

insert

LNG facility means a facility, other than an upstream LNG facility, where the activity of producing liquefied natural gas is carried on wholly or partly.

LNG production activity means the production of liquefied natural gas within the meaning of Division 36 of Part 3.

LNG project means a project that involves:

(a) either of the following:

(i) one or more LNG facilities and one or more upstream LNG facilities, whether or not the facilities are co-located;

(ii) one or more LNG facilities, whether or not the facilities are co-located; and

(b) some or all of the gas mixture containing natural gas that is extracted, transported or handled by the facilities mentioned in paragraph (a) ultimately being transformed into liquefied natural gas at one or more of the LNG facilities.

LNG supplementary allocation adjustment: see subclause 914 (2).

LNG supplementary allocation rules: see Part 9, Division 10.

[6] Schedule 1, subclause 201 (1)

insert

network or pipeline facility means a facility that is in an industry sector mentioned in subregulation 2.20 (2) of the NGER Regulations.

[7] Schedule 1, subclause 201 (1)

insert

provisional LNG emissions number means the number worked out by an applicant in accordance with the LNG supplementary allocation rules, other than clause 918.

[8] Schedule 1, subclause 201 (1)

insert

upstream LNG facility means a facility that:

(a) meets both of the following criteria:

(i) the facility carries on either of the following activities:

(A) the extraction of a gas mixture containing natural gas from an upstream geological formation;

(B) the transportation or handling, or both, of a gas mixture containing natural gas from the location where it was extracted to a location where it is liquefied;

(ii) some or all of the gas mixture containing natural gas that is extracted, transported or handled by the facility is ultimately transformed into liquefied natural gas at a LNG facility that had, on 30 June of the previous financial year, a maximum productive capacity of at least 500 000 tonnes of liquefied natural gas a year; or

(b) meets all of the following criteria:

(i) the facility does not extract a gas mixture containing natural gas from an upstream geological formation;

(ii) the facility is supplied natural gas from a network or pipeline facility;

(iii) the facility handles the natural gas before it is transferred to a place where it is to be transformed into liquefied natural gas;

(iv) some or all of the natural gas extracted, transported or handled by the facility is ultimately transformed into liquefied natural gas at a LNG facility that had, on 30 June of the previous financial year, a maximum productive capacity of less than 500 000 tonnes of liquefied natural gas a year.

[9] Schedule 1, subclause 343 (3)

omit

moderately emissions-intensive

insert

highly emissions-intensive

[10] Schedule 1, after clause 346

insert

Division 47 Production of ceramic floor and wall tiles

347 (1) The production of ceramic floor and wall tiles is the physical and chemical transformation of raw clay and other raw materials, such as feldspar and quartz, into saleable ceramic floor and wall tiles that conform to ISO 13006:2012 (issued by the International Organization for Standardization), or an equivalent standard, as in force when the tiles are produced.

Note ISO 13006:2012 is published at www.iso.org.

(2) The production of ceramic floor and wall tiles is specified as an emissions-intensive trade-exposed activity.

(3) The production of ceramic floor and wall tiles is a moderately emissions-intensive activity.

(4) The basis for the issue of free carbon units for the production of ceramic floor and wall tiles is by a tonne of ceramic floor and wall tiles that:

(a) conform to ISO 13006:2012; and

(b) are produced by carrying on the emissions-intensive trade-exposed activity; and

(c) are of saleable quality.

Note ***Saleable quality*** is explained in Part 2.

[11] Schedule 1, subclause 401 (1), table, item 1.31

substitute

1.31	Production of chlorine gas and sodium hydroxide solution	100% equivalent dry sodium hydroxide	0.0732	2.67	n/a

[12] Schedule 1, subclause 401 (1), table, after item 1.32

insert

1.33	Production of fused zirconia	Fused zirconia of saleable quality	0.794	6.07	n/a

[13] Schedule 1, subclause 401 (1), table, item 2.11

substitute

2.11	Production of ceramic floor and wall tiles	Ceramic floor and wall tiles of saleable quality	0.316	0.221	n/a

[14] Schedule 1, subparagraph 604 (7) (c) (ii)

omit

the application.

insert

the application; and

[15] Schedule 1, after paragraph 604 (7) (c)

insert

(d) for an application to which clause 710 applies—

(i) the application presents fairly, in all material respects, the provisional LNG emissions number produced in each previous financial year that is relevant to the application in accordance with:

(A) the requirements for that number set out in the LNG supplementary allocation rules; and

(B) the measurement policies adopted and disclosed by the applicant in the application; and

(ii) any process flow diagram used to estimate the provisional LNG emissions number presents fairly, in all material respects, the flow of inputs and outputs of liquefied natural gas and saleable by-products through the LNG project in each financial year that is relevant to the application; and

(iii) if paragraph 710 (2) (f) applies—the application presents fairly, in all material respects, the average gigajoules per tonne of LNG production for the previous financial year in accordance with:

(A) the criteria set out in Division 36 of Part 3; and

(B) the measurement policies adopted and disclosed by the applicant in the application.

[16] Schedule 1, Part 7, after Division 7

insert

Division 8 Special arrangements for LNG supplementary allocations

710 (1) This clause applies if:

(a) an application relates to a LNG project involving the carrying on of a LNG production activity (which is an emissions-intensive trade-exposed activity); and

(b) the applicant wishes to apply for a supplementary allocation of free carbon units for the LNG production activity.

(2) The person completing the application form must give the Regulator a report, in a manner and form approved by the Regulator, containing the following:

(a) a calculation of the provisional LNG emissions number worked out in accordance with the requirements for that number set out in the LNG supplementary allocation rules;

(b) the amount of category A emissions;

(c) the amount of category B emissions;

(d) the following material bases on which the amount of category A and category B emissions were worked out, including the principles, methods and policies used:

(i) the quantities of liquefied natural gas and saleable by-products produced by the LNG project, measured in moles as transported away from the LNG project;

(ii) the quantities of liquefied natural gas and saleable by-products produced by the LNG project, measured in tonnes as transported away from the LNG project;

(iii) if a process molar percentage is used under clause 917—the quantities of moles of liquefied natural gas and saleable by-products produced by the LNG project that have been used to work out the process molar percentage;

(iv) for each process molar percentage that is used—the amount of category A and category B emissions that have been attributed and apportioned against each piece of machinery, equipment or process mentioned in subclause 915 (5);

(v) how emissions from liquefied natural gas and saleable by-products produced by the LNG project were attributed and apportioned, including:

(A) the amount of each category A emission; and

(B) the amount of each category B emission; and

(C) the method used for each apportionment;

(e) if method 2 in subclause 917 (3) was used to work out any eligible LNG emissions—a list of machinery and equipment that contributed materially to the provisional LNG emissions number and, for each piece of machinery and equipment, the hours of operation and the number set out in the technical specifications, being the maximum demand for the piece of machinery or equipment;

(f) if the LNG project included a LNG facility that had a maximum production capacity of less than 500 000 tonnes of liquefied natural gas in the previous financial year—the average gigajoules per tonne of LNG production that meets the criteria set out in Division 36 of Part 3 for the previous financial year;

(g) any other principles, methods, policies and data used by the applicant to work out the provisional LNG emissions number.

Note ***Category A emissions***, ***category B emissions***, ***LNG supplementary allocation rules***, and ***provisional LNG emissions number*** are explained in clause 201.

[17] Schedule 1, after subsubparagraph 902 (2) (a) (i) (E)

insert

(F) LNG supplementary allocation adjustments mentioned in clause 914; and

[18] Paragraph 902 (3) (e)

omit

913.

insert

913; and

[19] After paragraph 902 (3) (e)

insert

(f) LNG supplementary allocation adjustments mentioned in clause 914.

[20] Schedule 1, after clause 913

insert

Division 9 Calculation of supplementary allocation of units for LNG production activity

914 (1) This Division applies if:

(a) an application (the ***current application***) is made for the issue of free carbon units in a financial year in relation to the carrying on of a LNG production activity, which is an emissions-intensive trade-exposed activity; and

(b) either:

(i) an application was approved for the issue of free carbon units in relation to the carrying on of the LNG production activity for the financial year before the financial year to which the current application relates (the ***relevant previous financial year***); or

(ii) Division 3 of Part 13 applies in relation to the carrying on of the LNG production activity in that relevant previous financial year; and

(c) in the relevant previous financial year at least 1 tonne of liquefied natural gas was produced at a LNG facility that meets the criteria for the LNG production activity in Division 36 of Part 3; and

(d) before a decision is made on the current application, the number of free carbon units that would be worked out for the current application using the formula (the ***LNG starting formula***):

$$k^{a}_{t-1} \times (EI^{a}_{t-1} + EP^{a}_{t-1}) \times (P^{ia}_{t-1})$$

in accordance with Division 4 is less than 50% of the final LNG emissions number worked out under Division 10.

(2) The LNG supplementary allocation adjustment is the amount worked out by multiplying the final LNG emissions number by 50% and then subtracting from the resulting number the number worked out using the LNG starting formula in paragraph (1) (d).

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(3) The number of carbon units that are required to be issued in accordance with this Part in respect of the current application is to be increased by the amount worked out under subclause (2) and adjusted by:

(a) for the financial year starting on 1 July 2013—multiplying the number by $23.00, dividing the result by $24.15 and multiplying that number by (1+r); and

(b) for the financial year starting on 1 July 2014—multiplying the number by $24.15, dividing the result by $25.40 and multiplying that number by (1+r); and

(c) for the financial year starting on 1 July 2015—multiplying the number by $25.40, dividing the result by the benchmark average auction charge for the financial year starting on 1 July 2014 and multiplying that number by (1+r).

Division 10 LNG supplementary allocation rules

Final LNG emissions number

915 (1) The Regulator, in accordance with this Division, must work out a final LNG emissions number for a LNG project that is the subject of an application.

(2) The final LNG emissions number is worked out by adding together category A emissions and category B emissions for the relevant previous financial year, where:

Category A emissions are the following eligible LNG emissions that arise from the LNG project:

(a) if section 26, 27 or 28 of the Act applies to require an adjustment of a provisional emissions number in relation to covered emissions—the amount of any covered emissions that contribute to the adjusted provisional emissions number, worked out by multiplying the amount of the covered emissions by the prescribed percentage;

(b) if section 26, 27 or 28 of the Act do not apply to require an adjustment of a provisional emissions number in relation to covered emissions—the amount of any covered emissions not related to electricity generation;

(c) the amount of emissions that are attributable to the combustion of fuels mentioned in subsection 30 (2) of the Act and are not related to electricity generation;

(d) the amount of emissions from the combustion of the opt-in amount of taxable fuel specified in the Opt-in Scheme that are not related to electricity generation;

(e) the amount of any emissions from the production of steam imported from another facility that is not part of the LNG project, other than steam derived from another facility for the purpose of generating electricity for use within the LNG project.

Category B emissions are the following eligible LNG emissions that arise from the LNG project:

(a) the amount of any covered emissions mentioned in paragraphs (a) to (d) of the definition of category A emissions that are related to electricity generation;

(b) the amount of any emissions generated from the consumption of electricity within the LNG project supplied by electricity generators that are part of a facility within the LNG project, or are connected to a facility within the LNG project by a dedicated line, worked out by:

(i) measuring (in MWh) the amount of electricity supplied by the generators consumed within the LNG project; and

(ii) multiplying the amount from subparagraph (i) by the total amount of emissions produced by the generators; and

(iii) dividing the amount from subparagraph (ii) by the total amount of electricity generated by the generators, measured in MWh at all the generator terminals;

(c) the amount of emissions which relate to electricity purchased from an electricity grid and consumed within the LNG project, measured in MWh, multiplied by EAF^{i}_{t} (as defined in subclause 907 (10));

(d) the amount of any emissions from the production of steam imported from another facility that is not part of the LNG project for the purpose of generating electricity for use within the LNG project.

(3) The Regulator must be satisfied that the emissions used to work out the final LNG emissions number are eligible LNG emissions from the LNG project that are:

(a) not excluded under subclause (6) or (7); and

(b) attributable to the production of liquefied natural gas under clause 916; and

(c) apportioned to the production of liquefied natural gas under clause 917; and

(d) for a LNG project that includes small-scale upstream emissions—estimated under clause 918.

(4) ***Eligible LNG emissions*** are emissions with the following characteristics from machinery, equipment and processes used in the LNG project that are mentioned in subclause (5):

(a) the emissions are able to be measured using a method determined under section 10 of the NGER Act;

(b) either:

(i) the emissions are directly emitted from the machinery, equipment or process; or

(ii) the emissions arise from the consumption of electricity or steam by the machinery, equipment or process.

(5) The machinery, equipment and processes are the following:

(a) the extraction of a gas mixture containing natural gas for liquefaction from an upstream geological formation;

(b) the transportation or handling, or both, of a gas mixture containing natural gas from the location where it was extracted to a location where it is liquefied;

(c) the liquefaction of natural gas;

(d) the use of machinery, equipment or processes that are integral to, and essential for:

(i) the physical transformation in the LNG production activity described in Division 36 of Part 3; or

(ii) the extraction, transportation or handling of a gas mixture containing natural gas that is to be liquefied or consumed within the LNG project;

Examples

1 Machinery used to move liquefied natural gas within the LNG project.

2 Machinery, equipment or processes used to conduct operations in control rooms, laboratories or maintenance workshops.

3 Machinery used to create non-electrical energy for use in the LNG project.

(e) the processing of by-products that involve the recovery of materials for re-use in the LNG project;

(f) the processing within the LNG project of waste materials created at the LNG project to comply with Commonwealth, State or Territory obligations;

(g) the use of gas that is not directly derived from the upstream geological formation that forms part of the LNG project for commissioning purposes;

(h) the recovery of waste heat within a LNG project;

(i) the consumption of steam within a LNG project;

(j) the treatment of a gas mixture containing natural gas that is subsequently transformed into liquefied natural gas, including the following treatments:

(i) bulk water removal (such as the separation of water from a gas mixture containing natural gas and flaring of entrained hydrocarbons in this water);

(ii) removal of acid gases (such as carbon dioxide and hydrogen sulphide);

(iii) dehydration and mercury removal;

(iv) flaring or venting of greenhouse gases and any fugitive emissions related to that treatment or the liquefaction process (such as flaring or venting compressor seals and valves);

(k) the supply of utilities (such as compressed air, nitrogen and water) used to support the LNG project;

(l) the regeneration of any catalysts or solvents used within a LNG project;

(m) drilling activities where a gas mixture containing natural gas is extracted and transformed into liquefied natural gas within the LNG project;

(n) the short-term buffer storage of liquefied natural gas where the volume of that buffer storage is designed specifically for enabling efficient loading of liquefied natural gas on transportation, as a gas or a liquid, away from the LNG project;

(o) the loading of the liquefied natural gas on transportation (such as ocean going tankers and other waterborne vessels or facilities, pipeline systems and road transport) away from the facility, other than gasification for the resupply of natural gas in gaseous form.

(6) Eligible LNG emissions do not include emissions from the following machinery, equipment and processes used in the LNG project:

(a) the transportation of equipment used in any part of the LNG project;

(b) the transportation of saleable by-products produced within the LNG project away from the LNG project;

(c) the transportation of saleable by-products produced within the LNG project within or between LNG facilities forming part of the LNG project, if the by-products do not contain the natural gas that is to be liquefied within the LNG project;

(d) processing solely for the production of saleable by-products for transportation away from the LNG project, if the by-products are not to be liquefied into liquefied natural gas by the LNG project;

Examples

1 Condensate stripping operations.

2 LPG fractionation.

3 Acid gas removal of a solely domestic gas stream.

(e) the carrying out of complementary activities (such as packaging, operating a head office and administrative and marketing operations) whether or not these activities are carried out at the same location as the LNG project;

(f) the transportation of people or supplies to and from the LNG project or the operation of accommodation buildings.

Note ***Saleable by-products*** are explained in paragraph 916 (2) (a).

(7) An emission from within a LNG project, other than an emission from the consumption of steam or electricity imported into the LNG project, that has not been reported for the purposes of Parts 3 to 3F of the NGER Act is not an eligible LNG emission.

(8) An emission from a facility within a LNG project that has not been reported under subclause 710 (2) is not an eligible LNG emission.

(9) To avoid doubt, an emission that cannot be measured using a method determined under section 10 of the NGER Act is not an eligible LNG emission.

(10) The Regulator may reduce the final LNG emissions number to zero if:

(a) the applicant has not provided sufficient information under clauses 710 and 801 for the Regulator to make a reasonable estimate of the final LNG emissions number; or

(b) the auditor's report included in the application in accordance with clause 604 does not include an auditor's reasonable assurance opinion in relation to the matters set out in paragraph 604 (7) (d).

Attribution of emissions

916 (1) This clause sets out the rules that apply to the attribution of emissions from a particular source within a LNG project to the production of liquefied natural gas or the production of saleable by-products.

(2) The rules to be applied are as follows:

(a) saleable by-products for this Division are hydrocarbon products determined to be of a saleable quality when transported away from the LNG project;

(b) emissions directly emitted from, or arising from consumption of electricity or steam by, a particular piece of machinery, equipment or process are to be treated as follows:

(i) if the machinery, equipment or process is demonstrated to have been used solely for the production of saleable by-products—the emissions must not be attributed as eligible LNG emissions;

(ii) if the machinery, equipment or process is demonstrated to have been used solely for the production of liquefied natural gas—the emissions must be attributed as eligible LNG emissions;

(iii) if the machinery, equipment or process cannot be demonstrated to have been used solely for the production of saleable by-products or the production of liquefied natural gas—the emissions must be apportioned in accordance with clause 917;

(c) the origin of emissions may be demonstrated by using:

(i) the molar percentage of saleable products that flow through, or are immediately upstream of, the piece of machinery, equipment or process; or

(ii) process flow diagrams, based on reasonable assumptions, that represent the flow of inputs and outputs of liquefied natural gas and saleable by-products through the LNG project;

(d) if electricity consumption of a particular piece of machinery, equipment, or process has not been monitored, method 2 in subclause 917 (3) may be used to estimate emissions to be attributed under subparagraphs (b) (i) and (ii).

Apportioning of emissions

917 (1) This clause sets out how emissions from a particular source within a LNG project are to be apportioned between the production of liquefied natural gas and the production of saleable by-products.

(2) Category A emissions that are not fully attributable to the production of liquefied natural gas are to be apportioned by multiplying the emissions by the percentage derived using one or both of the following methods for each piece of machinery or equipment or several pieces of machinery or equipment that are used as part of a single process (the ***equipment or process***):

Method 1—work out the final molar percentage of eligible LNG emissions by measuring the total number of moles of liquefied natural gas as a percentage of the total number of moles of liquefied natural gas and saleable by-products that have been measured as final saleable products from the activity.

Method 2—work out the process molar percentage of eligible LNG emissions by measuring the total number of moles of liquefied natural gas as a percentage of the total number of moles of liquefied natural gas and saleable by-products that have flowed through the equipment or process.

(3) Category B emissions that are not fully attributable to the production of liquefied natural gas are to be apportioned using one or more of the following methods for each source of category B emissions:

Method 1—work out the final molar percentage of eligible LNG emissions by measuring the total number of moles of liquefied natural gas as a percentage of the total number of moles of liquefied natural gas and saleable by-products that have been measured as final saleable products from the activity and multiply the emissions by that percentage.

Method 2—work out the total amount of category B emissions from the consumption of a particular source of electricity that have not been apportioned using another method and multiply that amount by the predetermined percentage for the equipment or process and by the process molar percentage, where:

predetermined percentage is the proportion of equipment energy demand of the total energy demand expressed as a percentage.

equipment energy demand is the number set out in the technical specifications for each piece of equipment, being the maximum demand for the equipment or process, multiplied by the run-time factor for the equipment or process.

total energy demand is the total of the equipment energy demand of every piece of machinery or equipment being apportioned by this method that consumes electricity from a particular source of Category B emissions.

run-time factor is the ratio of the hours of operation of the equipment or process in the previous financial year to the total hours of operation in the previous financial year, expressed as a percentage.

Method 3—

Step 1: work out the emissions as follows:

(a) for a piece of equipment or single process—by multiplying the electricity consumption for the equipment or process by the emissions intensity of the generated source the equipment or process is connected to;

(b) for a piece of equipment or process that consumes electricity from multiple sources of generation—by multiplying the electricity consumption for the equipment or process by the total emissions from each of the sources and dividing that number by the total electricity generated from each of the sources.

Step 2: work out the process molar percentage of eligible LNG emissions by measuring the total number of moles of liquefied natural gas as a percentage of the total number of moles of liquefied natural gas and saleable by-products that have flowed through the equipment or process and multiply the emissions worked out in step 1 by that percentage.

(4) For the apportioning of category B emissions, method 2 must not be used if electricity consumption of the equipment or process has been monitored in the previous financial year.

(5) In working out the run-time factor using method 2, if the hours of operation are not monitored for the equipment or process, a reasonable estimate of the hours of operation may be used, based on either or both of the following:

(a) an explanation of the engineering design of the equipment or process;

(b) the hours of operation for the equipment or process that was used in the applicant's application in the year prior to the previous financial year, adjusted as required to reflect any change in operations.

Small-scale upstream emissions

918 (1) This clause does not apply to the calculation of a provisional LNG emissions number.

(2) For a LNG facility that had a maximum production capacity of less than 500 000 tonnes of liquefied natural gas in the previous financial year, upstream emissions from the production are to be included in the relevant final LNG emissions number for the facility's LNG project using the formula:

$$SSLF_{t-1} \times P^{ia}_{t-1}$$

where:

P^{ia}_{t-1} is the amount or volume of the relevant product produced in the financial year before the financial year to which the application relates.

$SSLF_t$ is the small-scale upstream LNG facility emission factor for an area that is worked out by the Regulator as follows:

(a) adding together all direct emissions (measured in CO_2-e) reported under section 19 of the NGER Act for the year ending 30 June 2009 from the following:

(i) all facilities that extract a gas mixture containing natural gas which is consumed within a metropolitan or non-metropolitan area of a State or Territory;

(ii) all network or pipeline facilities that transport or handle natural gas which is consumed within a metropolitan or non-metropolitan area of a State or Territory;

(b) dividing the number worked out under paragraph (a) by the total amount of natural gas (measured in gigajoules) consumed in a metropolitan or non-metropolitan area of the State or Territory and reported under section 19 of the NGER Act for the year ending 30 June 2009;

(c) multiplying the number worked out under paragraph (b) by:

(i) the average gigajoules per tonne of LNG production that meets the criteria in Division 36 of Part 3 for the previous financial year; or

(ii) if the auditor's report included in the application in accordance with clause 604 does not include an auditor's reasonable assurance opinion in relation to the matters set out in paragraph 604 (7) (d)—54.5 gigajoules per tonne of LNG production.

(3) In subclause (2):

metropolitan means:

(a) the area that is on, or east of, the Great Dividing Range in New South Wales, and includes Queanbeyan; and

(b) Canberra, Melbourne, Brisbane, Adelaide and Perth.

Note

1. All legislative instruments and compilations are registered on the Federal Register of Legislative Instruments kept under the *Legislative Instruments Act 2003.* See www.comlaw.gov.au.