

Call for the Provision of Data (Production of Clay Bricks and Field Tiles) Notice 2023

Pursuant to section 161D of the Climate Change Response Act 2002, I, The Honourable James Shaw, Minister of Climate Change, give the following notice requiring information on the Production of Clay Bricks and Field Tiles to determine the emissions-intensity of this activity and the allocative baseline or baselines of the products of the activity, in accordance with sections 161D(3)(a)(i) and (ii) of the Climate Change Response Act 2002.

Notice

1. Title and Commencement

(1) This notice may be cited as the Call for the Provision of Data (Production of Clay Bricks and Field Tiles) Notice 2023.

(2) This notice takes effect from and including **13 October 2023**.

2. Interpretation

(1) Unless the context otherwise requires:

Act means the Climate Change Response Act 2002.

Activity outputs are the outputs used for the calculation of the revenue of the activity and mean the outputs specified in clauses 2(2)(a), 2(2)(b), and 2(2)(c) of this notice.

Basis of Preparation means the form available at <http://environment.govt.nz/data>.

Data collection rules means the methodologies for data collection specified in Schedule 1 of this notice.

Declaration means the statement of declaration located at <http://environment.govt.nz/data>.

Excluded emissions means the emissions specified in Schedule 3 of this notice.

Financial years means the financial years beginning on 1 July and ending on 30 June for each of the periods 2016/2017, 2017/2018, 2018/2019, 2019/2020, 2020/2021 during which the person carried out the activity.

Included emissions means the emissions specified in Schedule 2 of this notice from the sources listed in Emissions Rule 1 of Schedule 1.

Product (basis of allocation) means the:

- A. total tonnes of facing bricks and pavers primarily used for façade and landscaping
- B. total tonnes of field tiles and other clay based products related to the fitting and joining of field tiles and drainage
- C. total tonnes of fire bricks

where (A), (B), and (C):

- a. are produced by carrying out the activity; and
- b. are of saleable quality.

Data Form means the relevant data table template located at <http://environment.govt.nz/data>.

(2) **Activity** means the physical and chemical transformation of clays (including kaolinite and other clay minerals) by controlled mixing, forming, drying and firing of the raw materials at a single location, where clay makes up at least 90 per cent by weight of the raw materials (and additives to the clay do not exceed 10 per cent by weight of the raw materials) and the clay composition includes alumina, silica, and varying degrees of metal oxides, where the outputs include:

- a. facing bricks and pavers primarily used for façade and landscaping;
- b. field tiles and other clay-based products related to the fitting and joining of field tiles and drainage;
- c. fire bricks, where these are produced from clays as the raw material and additives to the clays (including feldspar, silica, and other metal oxides).

(3) **Saleable** in relation to a product or output specified in this Notice,—

- a. means the product or output is of a quality generally considered by persons who are regularly in the market for that product or output to be—
 - i. fit for sale; or
 - ii. of commercial value; but
- b. excludes any product or output that—

- i. is substandard and has been discarded by the person who produced the product or output;
- ii. is recycled while carrying out an eligible industrial activity;
- iii. is scrapped or lost before it is packaged for sale.

(4) Expressions have the same meaning as defined in the Act or Regulations under the Act unless the context otherwise requires.

3. Data Required to be Provided

(1) Any person carrying out the activity on the date of this notice must provide to the Ministry for the Environment ("Ministry") data for the financial years for the activity in the Data Form, calculated in accordance with the data collection rules, together with the completed Declaration and Basis of Preparation.

(2) In calculating the data for the activity, the person must include only input data related to the included emissions (as outlined by the emissions rules below), and must exclude the excluded emissions.

4. Deadline for Provision of Data

The data required by clause 3 of this notice must be provided to the Ministry within 45 working days of the date of this notice.

Schedule 1

Revenue Rules

1. Revenue must be calculated as the quantity of saleable activity outputs for each of the financial years, multiplied by an appropriate market price, exclusive of GST, for each activity output for each of the financial years.

2. Quantity of activity output(s) is either the direct measure of activity output(s) or is calculated from units sold and changes in inventory. The same methodology must be used for all years.

3. The market price must be a 'plant gate' price for the activity output. It is the price determined for the output under the applicable accounting standard. This is the fair value of the consideration received or receivable, as defined under New Zealand Equivalent to International Accounting Standard 18 Revenue (NZ IAS 18), adjusted for transport costs to reflect the market into which it is sold. If New Zealand Equivalent to International Financial Reporting Standard 15 Revenue from Contracts with Customers (NZ IFRS 15) is applied, the transaction price of the output is allocated to the product based on the relative stand-alone selling price of that product.

The market price for the output must be calculated for each of the financial years either from the revenue received from all external activity output sales during each of the financial years, divided by the number of units of external activity output sales during each of these years; or by using an observable market price for each of the financial years that is appropriate to the duration of time when the output was produced in those years.

An observable market price must be based on a relevant price listed on an international exchange, a price obtained from an industry analyst's report, or a price derived from government or industry body statistics.

4. Market price must be converted from foreign currencies to New Zealand dollars at the historical rate relevant to the period of activity output.

Emissions Rules

1. Data must be supplied for each financial year from only the following emissions sources, expressed in tonnes of CO₂ equivalent:

- a. the direct use (eg, oxidation or use as feedstock) of any coal, natural gas, used oil, or waste oil as part of the activity; and
- b. the direct use (eg, example oxidation or use as feedstock) of any coal, natural gas, used oil, or waste oil to generate steam that is used as part of the activity; and
- c. the direct use of geothermal fluid as part of the activity, including the direct use of geothermal fluid to generate steam that is used as part of the activity; and
- d. any of the activities listed in Part 4 of Schedule 3 of the Act carried out as part of the activity; and
- e. the direct use of any liquid fossil fuel in stationary equipment; and
- f. fugitive coal seam gas from coal that is used as part of, or to generate steam that is used as part of, the activity; and
- g. the electricity used as part of the activity; and
- h. the combustion of used tyres for the purpose of generating industrial heat; and
- i. the consumption of carbon dioxide as a feedstock if that carbon dioxide is derived from an activity in Schedule 3 or 4 of the Act and a participant is required to surrender units under this Act for that activity.

2. Emissions must be calculated using the applicable formulae and emission factors specified in these data collection

rules and in the Data Form. Direct measures cannot be used as a substitute.

The formulae and emission factors used in calculating emissions, except for the use of CO₂ as a feedstock, must be those listed in Schedule 2 of the Climate Change (Stationary Energy and Industrial Processes) Regulations 2009, Schedule of the Climate Change (Liquid Fossil Fuels) Regulations 2008, the data collection rules, and the relevant Data Form.

The following formulae should be used to measure direct emissions and fugitive emissions of eligible activities.

Coal

$$\text{Emissions} = \Sigma(A_i \times CV_i \times EF_i)$$

Where:

A_i = tonnes of coal consumed for the relevant coal class

CV_i = calorific value of the relevant coal class

EF_i = emission factor for the relevant coal class

i = index for the relevant coal class.

Fugitive coal seam gas

$$\text{Emissions} = \Sigma(A_i \times EF_i)$$

Where:

A_i = tonnes of coal consumed for the relevant coal class from the relevant mine type

EF_i = emission factor for the relevant mine type

i = index for each relevant mine type.

Natural gas

$$\text{Emissions} = \Sigma(A_i \times EF_i)$$

Where:

A_i = terajoules (tonnes if LPG) of natural gas consumed from the relevant natural gas source or field

EF_i = emission factor for the relevant natural gas source or field, (use the national average if the gas field(s) is not known)

i = index for each relevant natural gas source or field.

Geothermal fluid

$$\text{Emissions} = \Sigma(A_i \times EF_i)$$

Where:

A_i = tonnes of geothermal fluid for the relevant type (ie. steam or 2 phase) consumed from the relevant source

EF_i = emission factor for the relevant geothermal fluid source

i = index for each relevant geothermal fluid source.

Used or waste oil and used tyres

$$\text{Emissions} = \Sigma(A \times CV \times EF)$$

Where:

A = tonnes of used or waste oil, or used tyres consumed

CV = calorific value of used, or waste oil, or used tyres

EF = emission factor for used, or waste oil, or used tyres.

Liquid fossil fuels

$$\text{Emissions} = \Sigma(A_i \times EF_i)$$

Where:

A_i = kilolitres of liquid fossil fuel consumed from the relevant source

EF_i = emission factor for the relevant liquid fossil fuel source

i = index for each relevant liquid fossil fuel source.

CO₂ as a feedstock

$$\text{Emissions} = A \times EF$$

A = tonnes of CO₂ used as a feedstock

EF = emission factor for CO₂ (1 tCO₂e/ tCO₂)

3. Emissions from the direct oxidation or use as feedstock of coal or natural gas must be calculated as zero when either:

(1) the feedstock is used to produce an obligation fuel defined in the Climate Change (Liquid Fossil Fuels) Regulations 2008, or

(2) the production of the output is eligible to earn emission units under the Climate Change (Other Removal Activities) Regulations 2009.

4. Emissions for which no obligation to be a participant of the NZ ETS exists under the Act due to an exemption made by Order in Council under section 60 of the Act must be included; however, upon submission, the applicable threshold will be applied and any emissions sources below the threshold will be withheld from the relevant calculation of the industrial allocative baseline and calculation of the emissions intensity metric.

5. Total emissions from a combined heat and power plant must be allocated to an activity in proportion to its use of the output of the plant. Total emissions from co-generation must be split between heat/steam and electricity emissions on the basis of relative efficiencies of production, using efficiency rates of 80 per cent for steam and 35 per cent for electricity, then the heat/steam emissions must be allocated to the activity in proportion to its use of the output of heat from the plant.

Emissions allocated to heat/steam production must be estimated using the following formula:

$$E_H = \frac{\frac{H}{e_H}}{\frac{H}{e_H} + \frac{P}{e_P}} \times E_T \quad \text{and} \quad E_P = E_T - E_H$$

Where:

E_H = emissions allocated to steam production

H = steam output (MWh)

e_H = assumed efficiency of steam production

P = delivered electricity generation (MWh)

e_P = assumed efficiency of electricity generation

E_T = total direct emissions of the combined heat and power plant system

E_P = emissions allocated to electricity production

6. Emissions from industrial processes must be calculated using the formulae set out in Part 3 of the Climate Change (Stationary Energy and Industrial Processes) Regulations 2009.

7. Indirect emissions from electricity use must be calculated using the following formula:

Emissions = $A \times \text{EAF}$

Where:

A = consumption of electricity (MWh) used as part of the activity

EAF = relevant electricity allocation factor.

8. For eligibility purposes, electricity emissions must be estimated using an electricity allocation factor of 1 tonne of CO₂-e per megawatt hour of consumption.

9. For allocative baseline purposes, electricity emissions must be estimated using an electricity allocation factor of 0.537 tonnes of CO₂-e per megawatt hour of consumption.

10. Best endeavours must be used in calculating emissions.

Simplified and reasonable emission calculation methods of the person's own design can be used for specified small emissions sources that are either excluded or included emissions defined in Schedules 2 and 3 of the relevant *New Zealand Gazette* Notice. These estimations of emissions data must be, in aggregate, estimated to be no more than 5 per cent of total emissions from the activity at the site, provided that a 5 per cent change in total estimated emissions would not change the eligibility status of the activity, if the activity of the person was considered in isolation when making a decision about eligibility. All methods used must be disclosed in the Basis of Preparation.

11. All emissions associated with the activity must be counted, regardless of whether the output is of saleable quality.

Data Preparation Rules

1. The methods, assumptions and calculations used to produce the data must be disclosed in the Basis of Preparation along with the data in the Data Form.

2. Where uncertainties arise when determining emission and revenue data, these uncertainties must be declared in the Basis of Preparation.

3. Firms have the option to nominate data affected by COVID-19 from either 2019/20 or 2020/21 to be disregarded from the allocative baseline and emissions-intensity calculations. This must be disclosed in the Basis of Preparation.

Schedule 2

Included Emissions

Emissions that must be included in any information provided in response to this notice are emissions resulting from:

- a. the direct use (for example oxidation or use as feedstock) of any coal, natural gas, used oil or waste oil, or the use of geothermal fluid, or electricity, as part of the activity as defined, including from machinery, equipment and processes which are integral to, and essential for, the physical, chemical and/or biological transformation involved in the activity as described, including, for example:
 - machinery used to move materials within and as part of the activity
 - control rooms, laboratories, maintenance workshops
 - machinery used to create non-electrical energy for use in the activity as defined
 - the processing of by-products where they involve the recovery of materials for re-use within the activity or are necessary for the activity to proceed as described
 - onsite processing of waste materials from the activity to comply with regulatory obligations (including liquid discharge treatment, treatment of gaseous discharges and management of solid wastes);
- b. the direct use (for example oxidation or use as feedstock) of any coal, natural gas, used oil or waste oil, or the use of geothermal fluid, or electricity, to generate steam that is used as part of the activity as described;
- c. the use of liquid fossil fuels in stationary equipment;
- d. the combustion of used tyres for the purpose of generating industrial heat;
- e. the consumption of carbon dioxide as a feedstock (if it is derived from an activity in Schedule 3 or 4 of the Act and a participant is required to surrender units for that activity);
- f. coal seam gas emissions that escape in the process of mining coal (fugitive coal seam gas emissions);
- g. waste heat recovery that is part of the activity as described;
- h. forming of clay minerals into clay mass, including addition of water in pug mills;
- i. crushing, grinding and milling of clay minerals prior to the firing process that are contiguous with the brick making process;
- j. glazing where this is part of the first firing of the brick;
- k. drying of wet bricks; and
- l. cooling of bricks after firing.

Schedule 3

Excluded Emissions

Emissions that may not be included in any information provided in response to this notice are emissions resulting from:

- a. the use of machinery and equipment, and other processes, that are not integral to, nor essential to, the physical, chemical, biological, and/or other transformation taking place when the activity as defined is carried out;
- b. any extraction or production of raw materials, that are subsequently used when the activity as defined is carried out (excluding fugitive coal seam gas emissions);
- c. the transportation of inputs used in the activity to storage at the location where the activity as defined is carried out;
- d. the transportation of outputs of the activity from storage at the location where the activity as defined is carried out to another location;
- e. the transportation of intermediate products between different locations where the activity as defined is carried out;
- f. operations that are complementary to the activity as defined, including (but not limited to) packaging, head office operations, and administration and marketing (whether carried out at the same location where the activity is carried out or at a different location);
- g. the generation of electricity at the location where the activity is carried out;
- h. the generation of steam that is not used as part of the activity;
- i. the consumption of carbon dioxide as a feedstock that is not derived from an activity in Schedule 3 or 4 of the Act (ie, is not priced in the New Zealand Emissions Trading Scheme);

- j. further downstream processing of bricks, including but not limited to, the application of a slurry; double-fired (or secondary) glazing that does not occur as part of the initial mixing, forming, drying and firing of the raw materials; tumbling to produce an antique appearance; and
- k. ceramics produced from raw materials including anything other than clay minerals, for example, including, but not limited to, ceramics where feldspar, silica and other metal oxides are added as a separate raw material.

Dated at Wellington this 13th day of October 2023.

HON JAMES SHAW, Minister of Climate Change.

Explanatory Note

This note is not part of the notice but is intended to indicate its general effect.

This notice, which comes into effect on 13 October 2023, requires any person carrying out the production of clay bricks and field tiles (as that activity is defined in the notice) to provide the information requested by the Minister in accordance with the data collection rules specified in the notice. Only the emissions set out in Schedule 2 of the notice from the sources listed in Emissions Rule 1 of Schedule 1 of the notice should be included, and those emissions set out in Schedule 3 of the notice should be excluded.

The information is being requested to assist the Minister to determine the emissions-intensity of this activity and the allocative baseline or baselines of the products of the activity in accordance with sections 161D(3)(a)(i) and (ii) of the Act.

The Data Form, Declaration, and Basis of Preparation required by this notice, together with the guidance document for filling in these documents can be downloaded from <http://environment.govt.nz/data>.

The Data Form, Declaration and Basis of Preparation must be completed and returned to the Ministry for the Environment within 45 working days of the date of this notice. Please provide this information in the original file format to the Ministry as attachments via the email industrialallocation@mfe.govt.nz. If you cannot email the forms, please contact the Ministry to arrange another method.

While the notice does not require submission of the source information and records on which the data in the Data Form is based, it would be prudent to retain this information for a period of seven years. The Minister is able to request any further information that he considers necessary to enable the verification of the accuracy of the information provided under this notice.

Persons to whom this notice applies should note that, under section 161D(6) of the Act, if they fail to supply the required information by the date specified, the Minister may give a notice to the person that requires the information to be provided within 10 working days. Failure to provide this information within that time period will render the person ineligible for an allocation of New Zealand units.

Persons should also note that it is in their interest to supply the required information to ensure decisions on allocative baselines are accurate and to ensure they can continue to receive an allocation.

In addition, it is an offence to knowingly provide altered, false, incomplete or misleading information (section 132 of the Act) or, with the intent to deceive and for the purpose of obtaining a material benefit or avoiding a material detriment, to fail to provide information or to provide altered, false, incomplete or misleading information (section 133 of the Act).