

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

Hydro is a fully integrated aluminium company with 36,000 employees in 40 countries on all continents, combining local expertise, worldwide reach and unmatched capabilities in R&D. In addition to production of primary aluminium, rolled and extruded products and recycling, Hydro also extracts bauxite, refines alumina and generates energy to be the only 360° company of the global aluminium industry. Hydro is present within all market segments for aluminium, with sales and trading activities throughout the value chain serving more than 30,000 customers. Based in Norway and rooted in more than a century of experience in renewable energy, technology and innovation, Hydro is committed to strengthening the viability of its customers and communities, shaping a sustainable future through innovative aluminium solutions.

Hydro is a resource rich, fully integrated aluminium company with operations in all major activities along the aluminium industry's value chain. Our operations include one of the world's largest bauxite mines and the world's largest alumina refinery, both located in Brazil. We have primary metal production facilities in Europe, Canada, Australia, Brazil and Qatar. We are a leading worldwide supplier of value-added casthouse products, such as extrusion ingots, sheet ingots and foundry alloys.

We are an industry leader as a supplier to a range of downstream markets in particular the packaging, lithographic, building, automotive and transport sectors. We deliver high-quality, energy-saving aluminium products and solutions, and have strong positions in markets that provide opportunities for good financial returns.

With more than 100 years of experience in hydropower, Hydro is the second-largest operator of power production in Norway. We have substantial, self-generated power capacity to support our production of primary metal, and are engaged in a number of initiatives to secure competitive power supplies for our aluminium operations.

Starting from 2020, Hydro has the following approach to our CDP related reporting:

- We continue to submit the CDP Climate Change, Water and Supply Chain questionnaires, but will only fill in the information we believe is relevant to our activities (including referring to where such information can be found in our annual reports and other publicly available sources) and that is particularly requested by our main stakeholders – knowing that this will further reduce our CDP scores

- We continue to include information on climate change and water in our annual report based on the following reporting frameworks:

- o TCFD (Task Force on Climate Related Financial Disclosures)

- o GRI Standards (all applicable)

- o ICMM (International Council on Mining & Metals) Water reporting guidelines

All relevant quantitative information is also available at www.hydro.com in Excel format.

Please also see <https://www.hydro.com/en-NO/sustainability/our-performance/> for more information about Hydro's approach to CDP.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1 2019	December 31 2019	Yes	3 years

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.

- Australia
- Brazil
- Canada
- China
- Denmark
- France
- Germany
- Hungary
- India
- Luxembourg
- Mexico
- Netherlands
- Norway
- Portugal
- Qatar
- Slovakia
- Spain
- Sweden
- United Kingdom of Great Britain and Northern Ireland
- United States of America
- Viet Nam

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

- NOK

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

- Equity share

C-MM0.7

(C-MM0.7) Which part of the metals and mining value chain does your organization operate in?

Row 1

- Mining
 - Bauxite
- Processing metals
 - Aluminum
 - Alumina

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

- Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Other, please specify (Board/Executive board)	Hydro has a two tier board structure and climate change is an important part of the responsibility of both boards.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions and divestitures Monitoring and overseeing progress against goals and targets for addressing climate-related issues	<Not Applicable>	Climate related issues are integrated in Hydro's strategy process, annual business planning, enterprise risk management and other relevant processes.

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Other C-Suite Officer, please specify (EVP Arvid Moss) <i>Executive Vice President and head of Energy and Corporate Climate office and Business Development Arvid Moss. Moss is a member of the Corporate Management Board and reports to the President and CEO.</i>	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Half-yearly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

Executive Vice President and head of Energy and Corporate Climate office and Business Development. He is a member of the Corporate Management Board and reports to the President and CEO.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive	Type of incentive	Activity incentivized	Comment
Chief Executive Officer (CEO)	Monetary reward	Emissions reduction target Other (please specify) (Greener products)	The President and CEO's bonus scheme includes 10 strategic, operational, financial and organizational goals. Of these, six are related to sustainability in general, and two to climate in particular. These relate to "Emissions of CO2 equivalents per tonne of aluminium equivalent produced within the identified upper limit" and greener products "Meet target for volume growth for external sales of CIRCAL". See Hydro's Annual Report 2019 p. 185 https://www.hydro.com/Document/Index?name=Annual%20report%202019%20web.pdf&id=506433
Corporate executive team	Monetary reward	Emissions reduction target Other (please specify)	The Corporate Management Board's bonus scheme includes 10 strategic, operational, financial and organizational goals. Of these, six are related to sustainability in general, and two to climate in particular. These relate to "Emissions of CO2 equivalents per tonne of aluminium equivalent produced within the identified upper limit" and greener products "Meet target for volume growth for external sales of CIRCAL". See Hydro's Annual Report 2019 p. 185 https://www.hydro.com/Document/Index?name=Annual%20report%202019%20web.pdf&id=506433
Management group	Monetary reward	Emissions reduction target	Included in Primary Metals' bonus scheme.
All employees	Monetary reward	Emissions reduction target	Included in bonus scheme for relevant employees in Primary Metal.

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?
Please select

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term			
Medium-term			
Long-term	1		

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

Hydro has quantified a set of ambitions to improve our performance on climate, environment and social responsibility toward 2030. By emphasizing safety in our operations, improving relations with stakeholders and neighbors, increasing resource efficiency, reducing our own emissions and developing new markets, Hydro's business will be more robust. Hydro aims to lift profitability and drive sustainability, in order to increase long-term value for our stakeholders and contribute to a viable society. The two main pillars of our strategy are to deliver 10 percent capital returns over the business cycle and to reduce our CO2 emissions by 30 percent by 2030.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?
Please select

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?
Please select

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?
Please select

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?
Both absolute and intensity targets

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number

Abs 1

Year target was set

2019

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (location-based)

Base year

2018

Covered emissions in base year (metric tons CO2e)

13300000

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)

100

Target year

2030

Targeted reduction from base year (%)

30

Covered emissions in target year (metric tons CO2e) [auto-calculated]

9310000

Covered emissions in reporting year (metric tons CO2e)

% of target achieved [auto-calculated]

<Calculated field>

Target status in reporting year

Underway

Is this a science-based target?

Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science-Based Targets initiative

Please explain (including target coverage)

We have set targets to reduce greenhouse gas emissions by 10 percent by 2025 and 30 percent by 2030, based on a 2018 baseline (2017 for Paragominas, Alunorte and Albras due to the production embargo at Alunorte and curtailment at Albras and Paragominas). The baseline emissions equal 13.3 million tonnes CO2e and includes direct emissions and indirect emissions from electricity generation (scope 1 and scope 2 emissions). See more in Hydro's Annual Report 2019, page 81.

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number

Int 1

Year target was set

2009

Target coverage

Business division

Scope(s) (or Scope 3 category)

Scope 1

Intensity metric

Metric tons CO2e per metric ton of aluminum

Base year

2009

Intensity figure in base year (metric tons CO2e per unit of activity)

1.85

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure

40

Target year

2019

Targeted reduction from base year (%)

14

Intensity figure in target year (metric tons CO2e per unit of activity) [auto-calculated]

1.591

% change anticipated in absolute Scope 1+2 emissions

% change anticipated in absolute Scope 3 emissions

Intensity figure in reporting year (metric tons CO2e per unit of activity)

1.6

% of target achieved [auto-calculated]

96.5250965250965

Target status in reporting year

Please select

Is this a science-based target?

Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science Based Targets initiative

Please explain (including target coverage)

The target covers Hydro's business area Primary Metal, which is responsible for about 40 percent of Hydro's scope 1 emissions. The long-term target is EU benchmark, and we publish a specific quantitative goal every year. Hydro is part of the EU ETS quota system which is in line with EU's 2 degrees target. See also Hydro's Annual Report 2019 pages 81-83, and note E1.6 and E1.7 on page 227 in the Environmental statements.

Target reference number

Int 2

Year target was set

2012

Target coverage

Please select

Scope(s) (or Scope 3 category)

Scope 1+2 (location-based) +3 (downstream)

Intensity metric

Please select

Base year

2014

Intensity figure in base year (metric tons CO2e per unit of activity)

2000000

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure

100

Target year

2020

Targeted reduction from base year (%)

100

Intensity figure in target year (metric tons CO2e per unit of activity) [auto-calculated]

0

% change anticipated in absolute Scope 1+2 emissions

% change anticipated in absolute Scope 3 emissions

Intensity figure in reporting year (metric tons CO2e per unit of activity)

% of target achieved [auto-calculated]

<Calculated field>

Target status in reporting year

Achieved

Is this a science-based target?

No, and we do not anticipate setting one in the next 2 years

Please explain (including target coverage)

Hydro's ambition was to be carbon-neutral in a life-cycle perspective by 2020 and this was achieved in 2019. Carbon neutrality can be defined in many ways, and our definition is the balance between the direct and indirect emissions from our own operations, and the savings of applying our metal in the use phase. Hydro seeks to reduce total emissions by increasing energy efficiency, recycle more post-consumer aluminium scrap and direct more of our metal production towards markets where benefits in the use phase can be demonstrated. See more in Hydro's Annual Report 2019, page 81-84.

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

Other climate-related target(s)

C4.2b

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

Target reference number

Oth 1

Year target was set

2014

Target coverage

Product level

Target type: absolute or intensity

Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Low-carbon vehicles	Other, please specify (Increase nominal automotive Body-in-White capacity (metric tonnes pr year))
---------------------	--

Target denominator (intensity targets only)

<Not Applicable>

Base year

2014

Figure or percentage in base year

0

Target year

2020

Figure or percentage in target year

200000

Figure or percentage in reporting year**% of target achieved [auto-calculated]**

<Calculated field>

Target status in reporting year

Revised

Is this target part of an emissions target?

Hydro's ambition is to increase the nominal production capacity of Body-in-White by 200,000 tons per year by 2020 to increase our share of aluminium to transportation where light-weighting contributes to reduced energy consumption and thus reduced GHG emissions.

Is this target part of an overarching initiative?

Other, please specify (This is a part of Hydro's climate strategy to become carbon neutral from a life cycle perspective by 2020 (achieved in 2019))

Please explain (including target coverage)

There has been certain operational challenges related to the performance of the production line. However, production volumes are ramping up with qualifications ongoing and ambition included in new improvement program.

Target reference number

Oth 2

Year target was set

2014

Target coverage

Business activity

Target type: absolute or intensity

Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Other, please specify	Other, please specify (Complete ramp-up of used beverage can (UBC) recycling line (metric tonnes pr year))
-----------------------	--

Target denominator (intensity targets only)

<Not Applicable>

Base year

2014

Figure or percentage in base year

0

Target year

2020

Figure or percentage in target year

40000

Figure or percentage in reporting year

40000

% of target achieved [auto-calculated]

100

Target status in reporting year

Achieved

Is this target part of an emissions target?

Is this target part of an overarching initiative?

Other, please specify (This is a part of Hydro's climate strategy to become carbon neutral from a life cycle perspective by 2020)

Please explain (including target coverage)

Ambition to increase the capacity/output at the used beverage can (UBC) facility by 40,000 tons per year by 2020 (recycling of post-consumer scrap from beverage cans). This is a part of Hydro's climate strategy to become carbon neutral from a life cycle perspective by 2020 (achieved in 2019)

Target reference number

Oth 3

Year target was set

2014

Target coverage

Company-wide

Target type: absolute or intensity

Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Other, please specify	Other, please specify (Increase recycling of post consumer scrap (metric tonnes pr year))
-----------------------	---

Target denominator (intensity targets only)

<Not Applicable>

Base year

2014

Figure or percentage in base year

0

Target year

2020

Figure or percentage in target year

250000

Figure or percentage in reporting year

175000

% of target achieved [auto-calculated]

70

Target status in reporting year

Replaced

Is this target part of an emissions target?

Is this target part of an overarching initiative?

Other, please specify (This is a part of Hydro's climate strategy to become carbon neutral from a life cycle perspective by 2020 (achieved in 2019))

Please explain (including target coverage)

Original target by 2020 will not be met. The ambition is included in the new improvement program and subject to positive business cases.

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Please select

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation

Company-wide

Description of product/Group of products

Hydro launched two new low-carbon aluminium brands in 2019, CIRCAL and REDUXA. Hydro CIRCAL is a range of products made with recycled post-consumer scrap, and sales of CIRCAL products were around 10,000 mt in 2019 aiming for 65,000 mt for the years 2020-2021 combined. By using recycled content, we reduce energy use substantially while still being able to offer high-quality products. CIRCAL contains a minimum of 75 percent post-consumer scrap. Hydro REDUXA is our series of certified, low-carbon primary aluminium. REDUXA is produced with renewable energy, and guarantees a maximum carbon footprint of 4.0 kg CO2 per kg aluminium – 25 percent of the global average.

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product and avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Please select

% revenue from low carbon product(s) in the reporting year

% of total portfolio value

<Not Applicable>

Asset classes/ product types

<Not Applicable>

Comment

Level of aggregation

Company-wide

Description of product/Group of products

Hydro seeks to reduce total emissions by increasing energy efficiency in our production, recycle more post-consumer aluminium scrap and direct more of our metal production towards markets where benefits in the use phase can be demonstrated.

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Please select

% revenue from low carbon product(s) in the reporting year

% of total portfolio value

<Not Applicable>

Asset classes/ product types

<Not Applicable>

Comment

A significant part of our products can reduce the customers' emissions during the use-phase. Please see Hydro's Annual Report 2019 page 82-83 and 100-101

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start
January 1 2012

Base year end
December 31 2012

Base year emissions (metric tons CO2e)
9699285

Comment

Scope 2 (location-based)

Base year start
January 1 2012

Base year end
December 31 2012

Base year emissions (metric tons CO2e)
3903035

Comment

Scope 2 (market-based)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

C6. Emissions data

C6.1

(C6.1) What were your organization’s gross global Scope 1 emissions in metric tons CO2e?

Reporting year
Gross global Scope 1 emissions (metric tons CO2e)
9267744
Start date
January 1 2019
End date
December 31 2019
Comment
Hydro's aluminium production facility in Qatar, Qatalum, has an associated power plant. Emissions from this power plant is reported as Scope 1 emissions. This differs from Hydro's annual report where we divide emissions in direct and indirect emissions, and the emissions from Qatalum's power plant are categorized as indirect emissions.
Past year 1
Gross global Scope 1 emissions (metric tons CO2e)
8922321
Start date
January 1 2018
End date
December 31 2018
Comment
Past year 2
Gross global Scope 1 emissions (metric tons CO2e)
10322462
Start date
January 1 2017
End date
December 31 2017
Comment
Past year 3
Gross global Scope 1 emissions (metric tons CO2e)
10303873
Start date
January 1 2016
End date
December 31 2016
Comment

C6.2

(C6.2) Describe your organization’s approach to reporting Scope 2 emissions.

Row 1
Scope 2, location-based
We are reporting a Scope 2, location-based figure
Scope 2, market-based
Comment
Although Hydro has operations in regions where green certificates like Guarantees of Origin is traded, we do not report emissions according to the market-based approach. We do not believe that a market based approach gives a correct picture of our emissions, as trading of these certificates has no physical connection to our production. In our opinion, this virtual trading of “green” electricity is thus only an administrative improvement, and does not reflect actual physical improvements. Trading of these certificates is an easy and cheap way of greenwashing a production that in fact is physically connected to fossil energy consumption.

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based

3421425

Scope 2, market-based (if applicable)

<Not Applicable>

Start date

January 1 2019

End date

December 31 2019

Comment

The underlying dataset to calculate emissions from electricity consumption, IEA CO2 emissions from fuel combustion, has been updated in Hydro's Annual Report 2019, and the historical figures are updated accordingly. The result is a decrease in scope 2 emissions compared to previously reported figures.

Past year 1

Scope 2, location-based

3497437

Scope 2, market-based (if applicable)

<Not Applicable>

Start date

January 1 2018

End date

December 31 2018

Comment

The underlying dataset to calculate emissions from electricity consumption, IEA CO2 emissions from fuel combustion, has been updated in Hydro's Annual Report 2019, and the historical figures are updated accordingly. The result is a decrease in scope 2 emissions compared to previously reported figures.

Past year 2

Scope 2, location-based

3474660

Scope 2, market-based (if applicable)

<Not Applicable>

Start date

January 1 2017

End date

December 31 2017

Comment

The underlying dataset to calculate emissions from electricity consumption, IEA CO2 emissions from fuel combustion, has been updated in Hydro's Annual Report 2019, and the historical figures are updated accordingly. The result is a decrease in scope 2 emissions compared to previously reported figures.

Past year 3

Scope 2, location-based

3703738

Scope 2, market-based (if applicable)

<Not Applicable>

Start date

January 1 2016

End date

December 31 2016

Comment

The underlying dataset to calculate emissions from electricity consumption, IEA CO2 emissions from fuel combustion, has been updated in Hydro's Annual Report 2019, and the historical figures are updated accordingly. The result is a decrease in scope 2 emissions compared to previously reported figures.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Relevant, not yet calculated

Metric tonnes CO₂e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

As Hydro is an integrated company, with ownership along the whole aluminium value chain, the majority of Hydro's emissions are covered within scope 1 and 2 emissions. Hydro has a long position in alumina, but due to the production embargo at Alunorte in 2018 and 2019, we have sourced more alumina from external sources. Sourced alumina was 2.8 million metric tons in 2019 and 4.0 million mt in 2018, this compares to 2.5 million tons in 2017. As Alunorte's greenhouse gas emissions performance level is quite close to the global average, we have assumed that purchased alumina during 2018 and 2019 has a similar GHG intensity as Alunorte. Scope 3 emissions cover other greenhouse gas emissions from e.g. external transport, purchasing of cold metal and other input materials. As part of Hydro's new climate strategy we are evaluating the size of our scope 3 emissions in order to establish targets on greener sourcing.

Capital goods

Evaluation status

Not relevant, explanation provided

Metric tonnes CO₂e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Marginal contribution in total picture.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Not relevant, explanation provided

Metric tonnes CO₂e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

All relevant fuel- and energy-related activities included in scope 1 and 2.

Upstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Metric tonnes CO₂e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Marginal contribution in total picture.

Waste generated in operations

Evaluation status

Not relevant, explanation provided

Metric tonnes CO₂e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

E.g. spent potlining is supplied to the cement industry and used as an energy source. The emissions are then part of the cement industry's life cycle accounts.

Business travel

Evaluation status

Not relevant, explanation provided

Metric tonnes CO₂e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Marginal contribution in total picture.

Employee commuting

Evaluation status

Not relevant, explanation provided

Metric tonnes CO₂e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Marginal contribution in total picture.

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Metric tonnes CO₂e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Not applicable

Downstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Metric tonnes CO₂e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

As Hydro is an integrated company, with ownership along the whole aluminium value chain, the large majority of Hydro's emissions are covered within scope 1 and 2 emissions. Scope 3 emissions are mainly relevant for e.g. external transport, contributing with significantly less than 5 percent of Hydro's total greenhouse gas emissions, and thus within our anticipated error margin of less than 5 percent.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Metric tonnes CO₂e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Marginal contribution in total picture.

Use of sold products

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Aluminium products used in transport, buildings and packaging applications can contribute significantly to reduced emissions in the use phase.

End of life treatment of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

Emissions calculation methodology

Recycling of used aluminium saves 95% of energy consumption and emissions compared to primary production.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

Please explain

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Not relevant for Hydro.

Franchises

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Not relevant for Hydro.

Investments

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Not relevant for Hydro.

Other (upstream)

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Marginal contribution in total picture.

Other (downstream)

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Marginal contribution in total picture.

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?
No

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

0.00008473

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

12689168

Metric denominator

unit total revenue

Metric denominator: Unit total

149766000000

Scope 2 figure used

Location-based

% change from previous year

6

Direction of change

Increased

Reason for change

Hydro's emissions and production figures were in 2018 and 2019 impacted by the embargo at Alunorte, and curtailment at Albras and Paragominas. On a general note, Hydro believes combining intensity measurements of financial and environmental data do not give a robust indicator as fluctuations in the economic situation can have larger impact than the actual environmental improvements.

Intensity figure

7.5756

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

12689168

Metric denominator

metric ton of aluminum

Metric denominator: Unit total

1675000

Scope 2 figure used

Location-based

% change from previous year

2

Direction of change

Decreased

Reason for change

Hydro's emissions and production figures were in 2018 and 2019 impacted by the embargo at Alunorte, and curtailment at Albras and Paragominas.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
N2O	83	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	113	IPCC Fifth Assessment Report (AR5 – 100 year)
CO2	8999479	IPCC Fifth Assessment Report (AR5 – 100 year)
PFCs	268069	IPCC Fifth Assessment Report (AR5 – 100 year)

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
Australia	150158
Brazil	3137491
Canada	251923
France	37257
Germany	570390
Luxembourg	19634
Norway	1854362
Slovakia	174091
Spain	22785
United Kingdom of Great Britain and Northern Ireland	29793
United States of America	366251
Netherlands	93995
Qatar	2470105
Other, please specify (Rest of Hydro's ownership equity)	89509

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By facility

C7.3b

(C7.3b) Break down your total gross global Scope 1 emissions by business facility.

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
Alunorte, Brazil	2670551	-1.4	-48.44
Albras, Brazil	366374	-1.4	-48.44
Alouette, Canada	218476	50.16	-66.44
Husnes, Norway	148080	59.87	5.77
Høyanger, Norway	108512	61.22	6.07
Karmøy, Norway	421290	59.31	5.31
Neuss, Germany	433720	51.15	6.78
Qatalum, Qatar	2470105	24.97	51.57
Slovalco, Slovakia	172631	48.58	18.87
Sunddal, Norway	670612	62.67	8.56
Tomago, Australia	150158	-32.82	151.72
Årdal, Norway	472490	61.31	7.82
Rest of Hyro's ownership equity	964745		

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e	Net Scope 1 emissions , metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Electric utility activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	8460957	<Not Applicable>	Scope 1 emissions related to Hydro's ownership equity in metals and mining production activities, i.e. bauxite mining, alumina refining and primary aluminium production.
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
Australia	767761			
Brazil	391062			
Canada	246465			
France	5693			
Germany	1214123			
Luxembourg	1575			
Norway	124431			
Slovakia	232099			
Spain	13219			
United Kingdom of Great Britain and Northern Ireland	13647			
United States of America	184237			
Netherlands	25184			
Qatar	75184			
Other, please specify (Rest of Hydro's ownership equity)	126743			

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By facility

C7.6b

(C7.6b) Break down your total gross global Scope 2 emissions by business facility.

Facility	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Alunorte, Brazil	47841	
Albras, Brazil	302061	
Alouette, Canada	241588	
Husnes, Norway	11632	
Høyanger, Norway	7589	
Karmøy, Norway	28654	
Neuss, Germany	1057983	
Qatalum, Qatar	75184	
Slovalco, Slovakia	230172	
Sunndal, Norway	47903	
Tomago, Australia	767761	
Årdal, Norway	27116	
Rest of Hydro's ownership equity	575941	

C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO2e.

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	2889538		Scope 2 emissions related to Hydro's ownership equity in metals and mining production activities, i.e. bauxite mining, alumina refining and primary aluminium production.
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?
Increased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption		<Not Applicable>		
Other emissions reduction activities		<Not Applicable>		
Divestment		<Not Applicable>		
Acquisitions		<Not Applicable>		
Mergers		<Not Applicable>		
Change in output		<Not Applicable>		
Change in methodology		<Not Applicable>		
Change in boundary		<Not Applicable>		
Change in physical operating conditions		<Not Applicable>		
Unidentified		<Not Applicable>		
Other	396000	Increased	13	Hydro's direct and indirect emissions decreased significantly in 2018 due to the embargo at Alunorte, and curtailment at Albras and Paragominas. This is partly reversed in 2019 due to lifting of the embargo and ramp-up of production. The ramp-up of the Karmøy Technology Pilot has also contributed to an increase in emissions.

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?
Location-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?
Don't know

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)		32609584	32609584
Consumption of purchased or acquired electricity	<Not Applicable>	11809053	6365039	18174092
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	9150000	<Not Applicable>	9150000
Total energy consumption	<Not Applicable>			59933676

C-MM8.2a

(C-MM8.2a) Report your organization's energy consumption totals (excluding feedstocks) for metals and mining production activities in MWh.

	Heating value	Total MWh
Consumption of fuel (excluding feedstocks)	LHV (lower heating value)	26697593
Consumption of purchased or acquired electricity	<Not Applicable>	13850899
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	9150000
Total energy consumption	<Not Applicable>	49698492

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	No
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Fuels (excluding feedstocks)

Coal

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

3378797

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Emission factor

Unit

Please select

Emissions factor source

Comment

Fuels (excluding feedstocks)

Gas Oil

Heating value

Please select

Total fuel MWh consumed by the organization

359675

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Emission factor

Unit

Please select

Emissions factor source

Comment

Fuels (excluding feedstocks)

Crude Oil Heavy

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

4793661

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Emission factor

Unit

Please select

Emissions factor source

Comment

Fuels (excluding feedstocks)

Natural Gas

Heating value

Please select

Total fuel MWh consumed by the organization

17549398

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Emission factor

Unit

Please select

Emissions factor source

Comment

Fuels (excluding feedstocks)

Natural Gas Liquids (NGL)

Heating value

Please select

Total fuel MWh consumed by the organization

512949

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Emission factor

Unit

Please select

Emissions factor source

Comment

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	9150000	9150000	9150000	9150000
Heat				
Steam				
Cooling				

C-MM8.2d

(C-MM8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed for metals and mining production activities.

	Total gross generation (MWh) inside metals and mining sector boundary	Generation that is consumed (MWh) inside metals and mining sector boundary
Electricity	9150000	9150000
Heat		
Steam		
Cooling		

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

Description

Waste

Metric value

692000

Metric numerator

Metric tons excluding tailings and bauxite residue

Metric denominator (intensity metric only)

% change from previous year

16

Direction of change

Increased

Please explain

Waste is reported as specified according to the EU waste directive/waste catalog. All sites in Extruded Solutions report according to the EU waste catalog from 2019.

Description

Land use

Metric value

7955

Metric numerator

Hectares of area affected by mining operations

Metric denominator (intensity metric only)

% change from previous year

1

Direction of change

Increased

Please explain

Hydro's only consolidated mining operation is in Paragominas in Brazil. Areas are measured using the ArcGIS Platform. The rehabilitation data are reported to DNPM (the Brazilian Federal Mining Agency) and SEMAS (the environmental authority of Pará), as part of the clearing permit renewal process. In our mining operation we strive for a year-on-year balance between the area that we mine and make available for rehabilitation every year and the area that we succeed in rehabilitating every year. From 2018 this target will be a rolling average across two hydrological seasons. The 2020 target of closing the historical rehabilitation gap was achieved in 2018.

Description

Waste

Metric value

2871000

Metric numerator

Metric tons of bauxite tailings

Metric denominator (intensity metric only)

% change from previous year

36

Direction of change

Increased

Please explain

Hydro produces tailings in its only mine, the bauxite mine Paragominas in Brazil. Tailings from bauxite extraction consist of mineral rejects from the extraction process mixed with water and flocculants. The tailings at Paragominas are stored in dedicated tailings dams, where the particles settle. Run-off water is collected in a separate water pond and reused in the process. The water pond secures overflow to the river during heavy precipitation. The run-off water is monitored, and the water quality meets the requirements set by the authorities. In Paragominas, a new tailings system was completed in 2017. The new tailings dam is situated on a plateau where mining has been finalized. The old tailings system is constructed in a shallow valley. When tailings dams are closed, they need to settle for minimum five years before being available

for rehabilitation. The significant decrease in 2018 is due to the Alunorte embargo (bauxite residue) and the corresponding Paragominas curtailment (tailings). This is partly reversed in 2019 due to lifting of the embargo and ramp-up of production.

Description

Waste

Metric value

3871000

Metric numerator

Metric tons of bauxite residue (red mud)

Metric denominator (intensity metric only)

% change from previous year

21

Direction of change

Increased

Please explain

Hydro produces bauxite residue at the alumina refinery Alunorte in Brazil. Bauxite residue, also known as red mud, is a by-product of the alumina refining process. Its disposal is challenging due to large volumes and the alkaline nature of the liquid component of the residue. The residue is washed with water to lower the alkalinity and to recover caustic soda for reuse. Hydro uses an enhanced dry stacking technology for disposing of bauxite residue which allows for residue storage at steeper slopes, reducing the disposal area requirements. This reduces the relative environmental footprint. The construction of a new bauxite residue deposit area at Alunorte includes more advanced press filters. These are capable of reducing the residue moisture content to 22 percent, down from 36 percent achieved with the previous drum filters technology. TThe significant decrease in 2018 is due to the Alunorte embargo (bauxite residue) and the corresponding Paragominas curtailment (tailings). This is partly reversed in 2019 due to lifting of the embargo and ramp-up of production.

C-MM9.3a

(C-MM9.3a) Provide details on the commodities relevant to the mining production activities of your organization.

Output product

Bauxite

Capacity, metric tons

12300000

Production, metric tons

7968868

Production, copper-equivalent units (metric tons)

Scope 1 emissions

81890

Scope 2 emissions

34647

Scope 2 emissions approach

Location-based

Pricing methodology for copper-equivalent figure

Comment

C-MM9.3b

(C-MM9.3b) Provide details on the commodities relevant to the metals production activities of your organization.

Output product

Alumina

Capacity (metric tons)

6200000

Production (metric tons)

4083537

Annual production in copper-equivalent units (thousand tons)

Scope 1 emissions (metric tons CO2e)

2670551

Scope 2 emissions (metric tons CO2e)

47841

Scope 2 emissions approach

Location-based

Pricing methodology for-copper equivalent figure

Comment

Output product

Aluminum

Capacity (metric tons)

2228000

Production (metric tons)

1940114

Annual production in copper-equivalent units (thousand tons)

Scope 1 emissions (metric tons CO2e)

5632448

Scope 2 emissions (metric tons CO2e)

2797643

Scope 2 emissions approach

Location-based

Pricing methodology for-copper equivalent figure

Comment

Output metal refers to electrolysis aluminium

C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
Row 1	Yes	

C-MM9.6a

(C-MM9.6a) Provide details of your organization's investments in low-carbon R&D for metals and mining production activities over the last three years.

Technology area	Stage of development in the reporting year	Average % of total R&D investment over the last 3 years	R&D investment figure in the reporting year (optional)	Comment
Green metals	Pilot demonstration	Please select		The 75,000-mt technology pilot with the aim of full-scale industrial testing of our proprietary HAL4e technology, started production at Karmøy, Norway, in January 2018. The technology pilot consists of 48 cells with HAL4e technology (operated with energy consumption of 12.3 kWh/kg) and 12 cells with HAL4e Ultra technology (11.5-11.8 kWh/kg). At these levels, energy utilization will be 12-to-18 percent better than the industry average. Total direct and indirect emissions are expected to be 1.4 kg CO2 equivalents/kg aluminium, or more than 30 percent lower than the world average of 2.1. The total cost of the project was NOK 4.3 billion. Enova, a Norwegian public enterprise supporting new energy and climate-related technology, contributed NOK 1.6 billion of the total cost. In addition to benefiting possible new plants, technology elements may be implemented in existing plants to improve energy efficiency and operational stability.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	No emissions data provided

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

2019 Hydro CDP letter.pdf

Annual report 2019.pdf

Page/ section reference

See Viability Performance Statements on pages 221-265 of Hydro's Annual Report 2019, specifically also limited assurance letter by KPMG on page 264. Also refer to the attached letter from KPMG, page 1-2.

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

2019 Hydro CDP letter.pdf

Annual report 2019.pdf

Page/ section reference

See Viability Performance Statements on pages 221-265 of Hydro's Annual Report 2019, specifically also limited assurance letter by KPMG on page 264. Also refer to the attached letter from KPMG, page 1-2.

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

100

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C0. Introduction	Other, please specify (All relevant)	ISAE 3000	All high Level information as included in Hydro's Annual Report 2019
C1. Governance	Other, please specify (All relevant)	ISAE 3000	All high Level information as included in Hydro's Annual Report 2019
C2. Risks and opportunities	Other, please specify (Information related to risks and opportunitites is found in Hydro's Annual report)	ISAE 3000	All high Level information as included in Hydro's Annual Report 2019
C3. Business strategy	Other, please specify (Information related to risks and opportunities is found in Hydro's Annual report)	ISAE 3000	All high Level information as included in Hydro's Annual Report 2019
C4. Targets and performance	Other, please specify (Overall targets)	ISAE 3000	All high Level information as included in Hydro's Annual Report 2019
C5. Emissions performance	Other, please specify (Emissions methodology)	ISAE 3000	All included
C6. Emissions data	Year on year change in emissions (Scope 1 and 2)	ISAE 3000	All data included
C7. Emissions breakdown	Year on year change in emissions (Scope 1 and 2)	ISAE 3000	All data included
C8. Energy	Other, please specify (Energy consumption and methodology)	ISAE 3000	All data included
C9. Additional metrics	Other, please specify (All data included)	ISAE 3000	All data included
C12. Engagement	Other, please specify (High level information)	ISAE 3000	High level information as included in Hydro's Annual Report 2019, pages 60-103 and 220-265. The Limited assurance statement by KPMG is found on pages 264-265. Also refer to Hydros' GRI index for 2019
Please select	Please select		

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

EU ETS
Québec CaT - ETS

C11.1b

(C11.1b) Complete the following table for each of the emissions trading schemes you are regulated by.

EU ETS

% of Scope 1 emissions covered by the ETS

% of Scope 2 emissions covered by the ETS

Period start date

Period end date

Allowances allocated

Allowances purchased

Verified Scope 1 emissions in metric tons CO2e

Verified Scope 2 emissions in metric tons CO2e

Details of ownership

Please select

Comment

Québec CaT

% of Scope 1 emissions covered by the ETS

% of Scope 2 emissions covered by the ETS

Period start date

Period end date

Allowances allocated

Allowances purchased

Verified Scope 1 emissions in metric tons CO2e

Verified Scope 2 emissions in metric tons CO2e

Details of ownership

Please select

Comment

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

To reduce the emissions to comply with the requirements and to purchase credits and allowances for the residual.

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?
No

C11.3

(C11.3) Does your organization use an internal price on carbon?
Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Objective for implementing an internal carbon price

Navigate GHG regulations
Change internal behavior
Drive energy efficiency
Drive low-carbon investment
Stress test investments
Identify and seize low-carbon opportunities

GHG Scope

Scope 1
Scope 2

Application

Hydro uses the European cost of carbon for internal calculations as some of our smelters and rolling mills are part of the EU ETS directive. The cost of carbon is integrated in all financial and operational decisions. By including a carbon cost in our analysis, costs related to CO2 emissions become a variable operational cost at plant level and CO2 price expectations influence future investment decisions. The internal CO2 price forecast runs through 2035 and is based on expectations for the supply and demand balance and policy and regulations. The great challenge related to CO2 price forecasts are future and unexpected changes in policies and regulation that directly and indirectly influence the demand and supply balance.

Actual price(s) used (Currency /metric ton)

Variance of price(s) used

Type of internal carbon price

Please select

Impact & implication

The impact and implication varies between countries and business activities

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers
Yes, our customers
Yes, other partners in the value chain

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Please select

Details of engagement

<Not Applicable>

% of suppliers by number

% total procurement spend (direct and indirect)

% of supplier-related Scope 3 emissions as reported in C6.5

Rationale for the coverage of your engagement

Impact of engagement, including measures of success

Comment

For Hydro's engagement with partnerships please see <https://www.hydro.com/en-NO/sustainability/our-performance/partnerships/> and the sections "Partnerships" and "Stakeholder Dialogue" in Hydro's Annual Report.

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

C12.1d

(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.

For Hydro's engagement with partners please see <https://www.hydro.com/en-NO/sustainability/our-performance/partnerships/> and the sections "Partnerships" and "Stakeholder Dialogue" in Hydro's Annual Report.

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?
Other

C12.3e

(C12.3e) Provide details of the other engagement activities that you undertake.

For Hydro's engagement with partners please see <https://www.hydro.com/en-NO/sustainability/our-performance/partnerships/> and the sections "Partnerships" and "Stakeholder Dialogue" in Hydro's Annual Report.

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

For Hydro's engagement with partners please see <https://www.hydro.com/en-NO/sustainability/our-performance/partnerships/> and the sections "Partnerships" and "Stakeholder Dialogue" in Hydro's Annual Report.

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

C15. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C15.1

(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	VP and Head of Extra-Financial Reporting	Other, please specify (Head of ESG reporting)

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	149766000000

SC0.2

(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?

Yes

SC0.2a

(SC0.2a) Please use the table below to share your ISIN.

	ISIN country code (2 letters)	ISIN numeric identifier and single check digit (10 numbers overall)
Row 1	NO	00050526

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

Requesting member

BMW AG

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

66601

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 1 emissions, the emissions for each process step is - Bauxite – 0,01 t CO2e/t bauxite - Alumina – 0,6 t CO2e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 1,6 t co2e/t primary aluminium - Semi-fabricated products – 0,3 t co2e/t semi-fabrication Combined for the whole aluminium value chain, scope 1 emissions are 3.3 t co2e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG, the customer allocation is not.

Requesting member

Daimler AG

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

6812

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 1 emissions, the emissions for each process step is - Bauxite – 0,01 t CO₂e/t bauxite - Alumina – 0,6 t CO₂e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 1,6 t co₂e/t primary aluminium - Semi-fabricated products – 0,3 t co₂e/t semi-fabrication Combined for the whole aluminium value chain, scope 1 emissions are 3.3 t co₂e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG, the customer allocation is not.

Requesting member

Fiat Chrysler Automobiles NV

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

0

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 1 emissions, the emissions for each process step is - Bauxite – 0,01 t CO₂e/t bauxite - Alumina – 0,6 t CO₂e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 1,6 t co₂e/t primary aluminium - Semi-fabricated products – 0,3 t co₂e/t semi-fabrication Combined for the whole aluminium value chain, scope 1 emissions are 3.3 t co₂e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG, the customer allocation is not.

Requesting member

Honda North America, Inc.

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

90

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 1 emissions, the emissions for each process step is - Bauxite – 0,01 t CO₂e/t bauxite - Alumina – 0,6 t CO₂e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 1,6 t co₂e/t primary aluminium - Semi-fabricated products – 0,3 t co₂e/t semi-fabrication Combined for the whole aluminium value chain, scope 1 emissions are 3.3 t co₂e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG, the customer allocation is not.

Requesting member

lochpe-Maxion SA

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

113538

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 1 emissions, the emissions for each process step is - Bauxite – 0,01 t CO₂e/t bauxite - Alumina – 0,6 t CO₂e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 1,6 t co₂e/t primary aluminium - Semi-fabricated products – 0,3 t co₂e/t semi-fabrication Combined for the whole aluminium value chain, scope 1 emissions are 3.3 t co₂e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG, the customer allocation is not.

Requesting member

Jaguar Land Rover Ltd

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

4709

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the

customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 1 emissions, the emissions for each process step is - Bauxite – 0,01 t CO₂e/t bauxite - Alumina – 0,6 t CO₂e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 1,6 t co₂e/t primary aluminium - Semi-fabricated products – 0,3 t co₂e/t semi-fabrication Combined for the whole aluminium value chain, scope 1 emissions are 3.3 t co₂e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG, the customer allocation is not.

Requesting member

Nissan Motor Co., Ltd.

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

3693

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 1 emissions, the emissions for each process step is - Bauxite – 0,01 t CO₂e/t bauxite - Alumina – 0,6 t CO₂e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 1,6 t co₂e/t primary aluminium - Semi-fabricated products – 0,3 t co₂e/t semi-fabrication Combined for the whole aluminium value chain, scope 1 emissions are 3.3 t co₂e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG, the customer allocation is not.

Requesting member

Nokia Group

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

475

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 1 emissions, the emissions for each process step is - Bauxite – 0,01 t CO₂e/t bauxite - Alumina – 0,6 t CO₂e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 1,6 t co₂e/t primary aluminium - Semi-fabricated products – 0,3 t co₂e/t semi-fabrication Combined for the whole aluminium value chain, scope 1 emissions are 3.3 t co₂e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG, the customer

allocation is not.

Requesting member

Prysmian SpA

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

64438

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 1 emissions, the emissions for each process step is - Bauxite – 0,01 t CO₂e/t bauxite - Alumina – 0,6 t CO₂e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 1,6 t co₂e/t primary aluminium - Semi-fabricated products – 0,3 t co₂e/t semi-fabrication Combined for the whole aluminium value chain, scope 1 emissions are 3.3 t co₂e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG, the customer allocation is not.

Requesting member

Signify NV

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

1802

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 1 emissions, the emissions for each process step is - Bauxite – 0,01 t CO₂e/t bauxite - Alumina – 0,6 t CO₂e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 1,6 t co₂e/t primary aluminium - Semi-fabricated products – 0,3 t co₂e/t semi-fabrication Combined for the whole aluminium value chain, scope 1 emissions are 3.3 t co₂e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG, the customer allocation is not

Requesting member

The Coca-Cola Company

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

0

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 1 emissions, the emissions for each process step is - Bauxite – 0,01 t CO₂e/t bauxite - Alumina – 0,6 t CO₂e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 1,6 t co₂e/t primary aluminium - Semi-fabricated products – 0,3 t co₂e/t semi-fabrication Combined for the whole aluminium value chain, scope 1 emissions are 3.3 t co₂e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG, the customer allocation is not.

Requesting member

Velux A/S

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

14837

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 1 emissions, the emissions for each process step is - Bauxite – 0,01 t CO₂e/t bauxite - Alumina – 0,6 t CO₂e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 1,6 t co₂e/t primary aluminium - Semi-fabricated products – 0,3 t co₂e/t semi-fabrication Combined for the whole aluminium value chain, scope 1 emissions are 3.3 t co₂e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG, the customer allocation is not.

Requesting member

Volkswagen AG

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

32140

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 1 emissions, the emissions for each process step is - Bauxite – 0,01 t CO₂e/t bauxite - Alumina – 0,6 t CO₂e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 1,6 t co₂e/t primary aluminium - Semi-fabricated products – 0,3 t co₂e/t semi-fabrication Combined for the whole aluminium value chain, scope 1 emissions are 3.3 t co₂e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG, the customer allocation is not.

Requesting member

CANPACK Group

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

0

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 1 emissions, the emissions for each process step is - Bauxite – 0,01 t CO₂e/t bauxite - Alumina – 0,6 t CO₂e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 1,6 t co₂e/t primary aluminium - Semi-fabricated products – 0,3 t co₂e/t semi-fabrication Combined for the whole aluminium value chain, scope 1 emissions are 3.3 t co₂e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG, the customer allocation is not.

Requesting member

CNH Industrial NV

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

221

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

Please select

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 1 emissions, the emissions for each process step is - Bauxite – 0,01 t CO₂e/t bauxite - Alumina – 0,6 t CO₂e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 1,6 t co₂e/t primary aluminium - Semi-fabricated products – 0,3 t co₂e/t semi-fabrication Combined for the whole aluminium value chain, scope 1 emissions are 3.3 t co₂e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG, the customer allocation is not.

Requesting member

Eaton Corporation

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

16725

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 1 emissions, the emissions for each process step is - Bauxite – 0,01 t CO₂e/t bauxite - Alumina – 0,6 t CO₂e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 1,6 t co₂e/t primary aluminium - Semi-fabricated products – 0,3 t co₂e/t semi-fabrication Combined for the whole aluminium value chain, scope 1 emissions are 3.3 t co₂e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG, the customer allocation is not.

Requesting member

BMW AG

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

46461

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the

customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 2 emissions, the emissions for each process step is - Bauxite – 0,01 t CO2e/t bauxite - Alumina – 0,02 t CO2e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 2,0t CO2e/t primary aluminium - Semi-fabricated products - 0,3 t CO2e/t semi fabrication Combined for the whole aluminium value chain, scope 2 emissions are 2.3 t co2e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG, the customer allocation is not.

Requesting member

CANPACK Group

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

0

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 2 emissions, the emissions for each process step is - Bauxite – 0,01 t CO2e/t bauxite - Alumina – 0,02 t CO2e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 2,0t CO2e/t primary aluminium - Semi-fabricated products - 0,3 t CO2e/t semi fabrication Combined for the whole aluminium value chain, scope 2 emissions are 2.3 t co2e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG, the customer allocation is not.

Requesting member

CNH Industrial NV

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

154

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 2 emissions, the emissions for each process step is - Bauxite – 0,01 t CO2e/t bauxite - Alumina – 0,02 t CO2e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 2,0t CO2e/t primary aluminium - Semi-fabricated products - 0,3 t CO2e/t semi fabrication Combined for the whole aluminium value chain, scope 2 emissions are 2.3 t co2e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG,

the customer allocation is not.

Requesting member

Daimler AG

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

4752

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 2 emissions, the emissions for each process step is - Bauxite – 0,01 t CO₂e/t bauxite - Alumina – 0,02 t CO₂e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 2,0t CO₂e/t primary aluminium - Semi-fabricated products - 0,3 t CO₂e/t semi fabrication Combined for the whole aluminium value chain, scope 2 emissions are 2.3 t co₂e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG, the customer allocation is not.

Requesting member

Eaton Corporation

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

11667

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 2 emissions, the emissions for each process step is - Bauxite – 0,01 t CO₂e/t bauxite - Alumina – 0,02 t CO₂e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 2,0t CO₂e/t primary aluminium - Semi-fabricated products - 0,3 t CO₂e/t semi fabrication Combined for the whole aluminium value chain, scope 2 emissions are 2.3 t co₂e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG, the customer allocation is not.

Requesting member

Fiat Chrysler Automobiles NV

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

0

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 2 emissions, the emissions for each process step is - Bauxite – 0,01 t CO₂e/t bauxite - Alumina – 0,02 t CO₂e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 2,0t CO₂e/t primary aluminium - Semi-fabricated products - 0,3 t CO₂e/t semi fabrication Combined for the whole aluminium value chain, scope 2 emissions are 2.3 t co₂e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG, the customer allocation is not.

Requesting member

Honda North America, Inc.

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

63

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 2 emissions, the emissions for each process step is - Bauxite – 0,01 t CO₂e/t bauxite - Alumina – 0,02 t CO₂e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 2,0t CO₂e/t primary aluminium - Semi-fabricated products - 0,3 t CO₂e/t semi fabrication Combined for the whole aluminium value chain, scope 2 emissions are 2.3 t co₂e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG, the customer allocation is not.

Requesting member

Iochpe-Maxion SA

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

79204

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 2 emissions, the emissions for each process step is - Bauxite – 0,01 t CO₂e/t bauxite - Alumina – 0,02 t CO₂e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 2,0t CO₂e/t primary aluminium - Semi-fabricated products - 0,3 t CO₂e/t semi fabrication Combined for the whole aluminium value chain, scope 2 emissions are 2.3 t co₂e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG, the customer allocation is not.

Requesting member

Jaguar Land Rover Ltd

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

3285

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 2 emissions, the emissions for each process step is - Bauxite – 0,01 t CO₂e/t bauxite - Alumina – 0,02 t CO₂e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 2,0t CO₂e/t primary aluminium - Semi-fabricated products - 0,3 t CO₂e/t semi fabrication Combined for the whole aluminium value chain, scope 2 emissions are 2.3 t co₂e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG, the customer allocation is not.

Requesting member

Nissan Motor Co., Ltd.

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

2576

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 2 emissions, the emissions for each process step is - Bauxite – 0,01 t CO₂e/t bauxite - Alumina – 0,02 t CO₂e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 2,0t CO₂e/t primary aluminium - Semi-fabricated products - 0,3 t CO₂e/t semi fabrication Combined for the whole aluminium value chain, scope 2 emissions are 2.3 t co₂e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG, the customer allocation is not.

Requesting member

Nokia Group

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

331

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 2 emissions, the emissions for each process step is - Bauxite – 0,01 t CO₂e/t bauxite - Alumina – 0,02 t CO₂e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 2,0t CO₂e/t primary aluminium - Semi-fabricated products - 0,3 t CO₂e/t semi fabrication Combined for the whole aluminium value chain, scope 2 emissions are 2.3 t co₂e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG, the customer allocation is not.

Requesting member

Prysmian SpA

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

44952

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the

customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 2 emissions, the emissions for each process step is - Bauxite – 0,01 t CO2e/t bauxite - Alumina – 0,02 t CO2e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 2,0t CO2e/t primary aluminium - Semi-fabricated products - 0,3 t CO2e/t semi fabrication Combined for the whole aluminium value chain, scope 2 emissions are 2.3 t co2e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG, the customer allocation is not.

Requesting member

Signify NV

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

1257

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 2 emissions, the emissions for each process step is - Bauxite – 0,01 t CO2e/t bauxite - Alumina – 0,02 t CO2e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 2,0t CO2e/t primary aluminium - Semi-fabricated products - 0,3 t CO2e/t semi fabrication Combined for the whole aluminium value chain, scope 2 emissions are 2.3 t co2e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG, the customer allocation is not.

Requesting member

The Coca-Cola Company

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

0

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 2 emissions, the emissions for each process step is - Bauxite – 0,01 t CO2e/t bauxite - Alumina – 0,02 t CO2e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 2,0t CO2e/t primary aluminium - Semi-fabricated products - 0,3 t CO2e/t semi fabrication Combined for the whole aluminium value chain, scope 2 emissions are 2.3 t co2e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG,

the customer allocation is not.

Requesting member

Velux A/S

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

10350

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 2 emissions, the emissions for each process step is - Bauxite – 0,01 t CO₂e/t bauxite - Alumina – 0,02 t CO₂e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 2,0t CO₂e/t primary aluminium - Semi-fabricated products - 0,3 t CO₂e/t semi fabrication Combined for the whole aluminium value chain, scope 2 emissions are 2.3 t co₂e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG, the customer allocation is not.

Requesting member

Volkswagen AG

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO₂e

22421

Uncertainty (±%)

5

Major sources of emissions

Alumina refining and electrolysis

Verified

No

Allocation method

Allocation based on the volume of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Hydro's emissions are calculated using the WBCSD GHG Protocol. It should be noted that the GHG Protocol is well suited for corporate emission inventories but not for product related emissions. The uncertainty for a semi-finished product is slightly higher compared to the primary metal due to the diversity of product specifications. Hydro has control over the large majority of its value chain, which reduces the uncertainty of the reported figures. To allocate emissions to Hydro's customer we assume that the customer only receives products from Hydro's value chain. The calculation is based on the emissions from each delivered metric ton of product to each customer, i.e. excluding emissions related to Hydro's surplus production of alumina sold to third parties. The calculations are based on scope 1 and 2 emissions from Hydro's ownership equity, while emissions from scope 3 (e.g. cold metal, post-consumer scrap metal and transport) are not included in the calculations. Aluminium is produced by extracting aluminium oxide (alumina) from bauxite in a refinery. Alumina is then used to produce primary aluminium. 4-7 metric tons of bauxite, yields 2 metric tons of alumina, which is needed to produce one metric ton of aluminium. For scope 2 emissions, the emissions for each process step is - Bauxite – 0,01 t CO₂e/t bauxite - Alumina – 0,02 t CO₂e/t alumina - Primary aluminium (electrolysis, casting, carbon, etc) – 2,0t CO₂e/t primary aluminium - Semi-fabricated products - 0,3 t CO₂e/t semi fabrication Combined for the whole aluminium value chain, scope 2 emissions are 2.3 t co₂e/t aluminium sold. While the total emissions are verified by Hydro's external auditor KPMG, the customer allocation is not.

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
Diversity of product lines makes accurately accounting for each product/product line cost ineffective	More exact allocations would require significantly increased work resources. This would, however, not significantly improve the end result.

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

No

SC1.4b

(SC1.4b) Explain why you do not plan to develop capabilities to allocate emissions to your customers.

More exact allocations would require significantly increased work resources. This would, however, not significantly improve the end result.

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

Please select

SC3.1

(SC3.1) Do you want to enroll in the 2020-2021 CDP Action Exchange initiative?

Please select

SC3.2

(SC3.2) Is your company a participating supplier in CDP's 2019-2020 Action Exchange initiative?

Please select

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

Please select

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission	Are you ready to submit the additional Supply Chain Questions?
I am submitting my response	Investors Customers	Public	Yes, submit Supply Chain Questions now

Please confirm below

I have read and accept the applicable Terms