



Item 03 – GRI Topic Standard Project for Climate Change – Energy Exposure draft

For GSSB approval

Date	2 November 2023
Meeting	16 November 2023
Project	GRI Topic Standard Project for Climate Change
Description	<p>This document sets out the exposure draft of GRI Energy Standard, including the explanatory memorandum summarizing the objectives of the project and the significant proposals contained within the draft. These are submitted for GSSB approval for public exposure.</p> <p>If approved, it is proposed that public exposure commence in late November 2023 and run until the end of February 2024.</p>

This document has been prepared by the GRI Standards Division and is made available to observers at meetings of the Global Sustainability Standards Board (GSSB). It does not represent an official position of the GSSB. Board positions are set out in the GRI Sustainability Reporting Standards. The GSSB is the independent standard setting body of GRI. For more information visit www.globalreporting.org.

Explanatory memorandum

This explanatory memorandum sets out the objectives for the review of [GRI 302: Energy 2016](#), the significant proposals contained in the exposure draft, and a summary of the GSSB's involvement and views on the development of the draft.

Objectives for the project

The primary objective of this project is to review [GRI 302: Energy 2016](#) as part of the climate change project. The project includes the review of [GRI 302: Energy 2016](#), [GRI 305: Emissions 2016 \(Disclosures 305-1 to 305-5\)](#), and [GRI 201: Economic Performance 2016 \(Disclosure 201-2\)](#). As outlined in the GSSB's [Due Process Protocol](#), a multi-stakeholder technical committee was established in May 2023 to contribute to the review of the climate change-related disclosures.

The aim is to align with internationally agreed best practice, latest developments, and relevant authoritative intergovernmental instruments related to energy. Using energy more efficiently and opting for renewable energy sources is essential for combating climate change and reducing an organization's overall environmental footprint.

Specifically, the revised energy-related disclosures will enable an organization to disclose publicly its most significant impacts on energy and how the organization manages these impacts, enhancing the transparency of the organization's impacts and increasing organizational accountability.

For more information on the project, consult the [Project Proposal](#) and the [Technical Committee biographies](#).

Significant proposals

An exposure draft for the revised [GRI 302: Energy 2016](#) has been developed in line with the project objectives as set out above. Notable changes and inclusions in this exposure draft are summarized below.

- **New management disclosure on energy management**

The Energy exposure draft presents a dedicated, additional management disclosure that will help in disclosing the role of energy policies and commitments in the transition to a decarbonized economy. In this context, disclosure on energy target setting has been included in the guidance.

- **Energy consumption and generation within the organization**

The Energy exposure draft contains extended requirements on energy consumption and generation. An important update covers purchased and self-generated electricity consumption and sold electricity, with a requirement to provide a breakdown per energy source and information on whether it is renewable or non-renewable. Organizations are required to report on the fulfilment of relevant quality criteria if contractual instruments are used. Additional requirements have been included to report the activities in which fuel and electricity are consumed, and to report separately on self-generated non-fuel renewable electricity consumption. A template is provided to assist in reporting under this disclosure.

- **Energy consumption upstream and downstream in the value chain**

The Energy exposure draft requires a new breakdown of significant energy consumption in the organization's value chain by upstream and downstream Scope 3 categories. This information will raise awareness on the organization's value chain while enhancing transparency on data disclosed.

- **Reduction of energy consumption**

43 The exposure draft presents an additional requirement on whether the energy reductions occur
44 within the organization or at which stage of the value chain. This integrates content from the
45 Disclosure 302-5 Reductions in energy requirements of products and services of GRI 302: *Energy*
46 *2016* into the revised Reduction of energy consumption Disclosure. This change goes in the
47 direction of raising organizations' awareness and responsibility on energy consumption that
48 occurs in their value chain, while enhancing transparency.

49 **GSSB involvement and views on the development of** 50 **this draft**

51 The GSSB appointed three of its members as sponsors for this project.

52 The GSSB sponsors observed the TC process and attended most of their meetings.

53 The exposure draft is scheduled to be presented for approval to the GSSB at its meeting on 16
54 November 2023.

55 The recording of the meeting can be accessed on the [GSSB website](#).

56 **Note on reading this document**

57 This document includes generic text used in all GRI Standards. This text is highlighted in grey and
58 cannot be changed – please do not comment on this text.

59 Underlined terms in the draft Standard indicate terms for which definitions have been provided. Most
60 of these terms are already defined in the [GRI Standards Glossary 2022](#) – these definitions are
61 highlighted in grey in the Glossary and cannot be changed. The proposed new definition is not
62 highlighted in grey and is open for review.

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63 **GRI EN: Energy 202x**

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80 Introduction

81 *GRI EN: Energy 202X* contains disclosures for organizations to report information about their energy-
82 related impacts, and how they manage these impacts.

83 The Standard is structured as follows:

- 84 • [Section 1](#) contains one disclosure, which provides information about how the organization
85 manages its energy-related impacts.
- 86 • [Section 2](#) contains four disclosures, which provide information about the organization's
87 energy-related impacts.
- 88 • The [Glossary](#) contains defined terms with a specific meaning when used in the GRI
89 Standards. The terms are underlined in the text of the GRI Standards and linked to the
90 definitions.
- 91 • The [Bibliography](#) lists authoritative intergovernmental instruments and additional references
92 used in developing this Standard, as well as resources that the organization can consult.

93 The rest of the Introduction section provides a background on the topic, an overview of the system of
94 GRI Standards and further information on using this Standard.

95 Background on the topic

96 This Standard addresses the topic of energy.

97 According to the Intergovernmental Panel on Climate Change (IPCC), global warming cannot be
98 limited to well below 2°C without rapid and deep reductions in energy system GHG emissions over
99 the next 30 years. This will require significant changes to how organizations generate and consume
100 energy, including transitioning to renewable energy, electrifying end-use sectors, and phasing out
101 fossil fuels.

102 Organizations consume energy in various forms, such as fuel, electricity, heating, cooling, or steam.
103 Energy can be self-generated or purchased from external sources and can come from renewable or
104 non-renewable sources.

105 Energy consumption occurs throughout activities upstream and downstream of an organization's
106 operations. This can include consumers' use of the organization's products and the end-of-life
107 treatment of these goods.

108 Impacts from energy consumption, as well as the transition to renewable energy, can affect the
109 economy, environment, and people, including their human rights. As such, measures are required that
110 also support workers, local communities, and other stakeholders.

111 Impacts on the environment can include GHG emissions exacerbating climate change, loss of soil
112 and other natural resources loss, and waste generation, while impacts on the economy can include a
113 shift in market preferences. Impacts on people can include job losses, an increasing need to reskill
114 workers, and different levels of access to affordable, reliable, and sustainable energy.

115 All energy-related impacts are to be considered when pursuing sustainable development.

116 System of GRI Standards

117 This Standard is part of the GRI Sustainability Reporting Standards (GRI Standards). The GRI
118 Standards enable an organization to report information about its most significant impacts on the
119 economy, environment, and people, including impacts on their human rights, and how it manages
120 these impacts.

121 The GRI Standards are structured as a system of interrelated standards that are organized into three
 122 series: GRI Universal Standards, GRI Sector Standards, and GRI Topic Standards (see [Figure 1](#) in
 123 this Standard).

124 **Universal Standards: GRI 1, GRI 2 and GRI 3**

125 [GRI 1: Foundation 2021](#) specifies the requirements that the organization must comply with to report in
 126 accordance with the GRI Standards. The organization begins using the GRI Standards by consulting
 127 [GRI 1](#).

128 [GRI 2: General Disclosures 2021](#) contains disclosures that the organization uses to provide
 129 information about its reporting practices and other organizational details, such as its activities,
 130 governance, and policies.

131 [GRI 3: Material Topics 2021](#) provides guidance on how to determine material topics. It also contains
 132 disclosures that the organization uses to report information about its process of determining material
 133 topics, its list of material topics, and how it manages each topic.

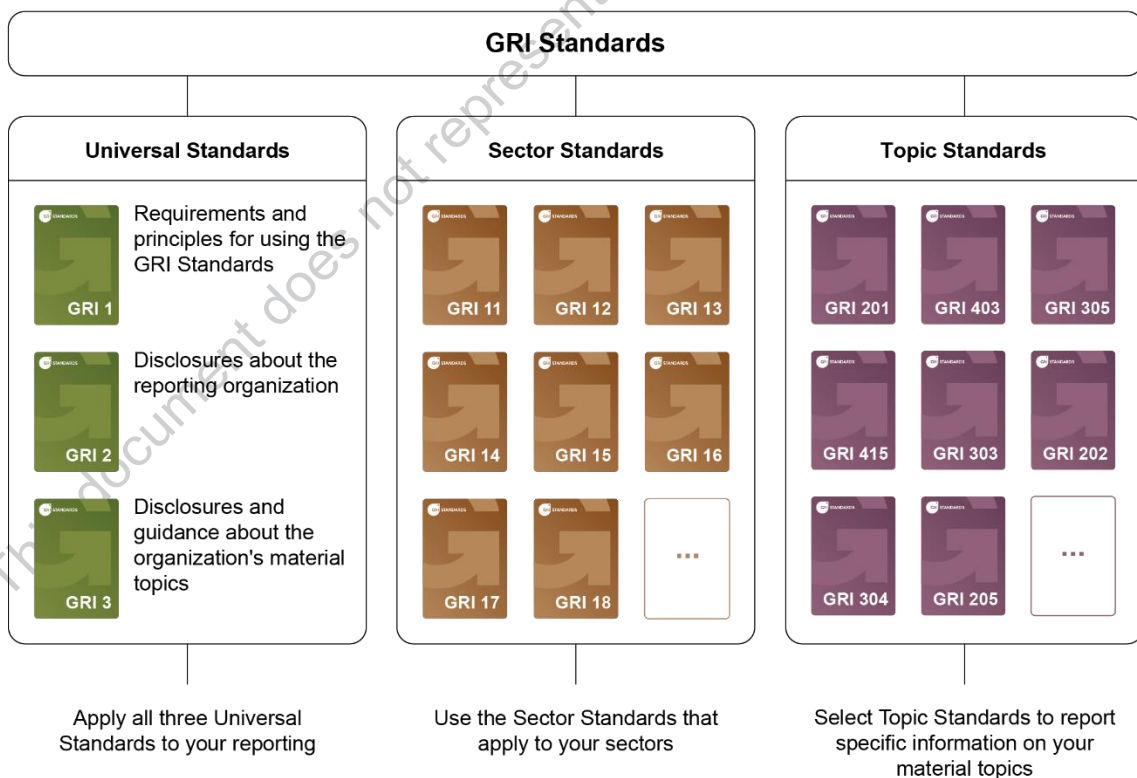
134 **Sector Standards**

135 The Sector Standards provide information for organizations about their likely material topics. The
 136 organization uses the Sector Standards that apply to its sectors when determining its material topics
 137 and when determining what to report for each material topic.

138 **Topic Standards**

139 The Topic Standards contain disclosures that the organization uses to report information about its
 140 impacts in relation to particular topics. The organization uses the Topic Standards according to the list
 141 of material topics it has determined using [GRI 3](#).

142 **Figure 1. GRI Standards: Universal, Sector and Topic Standards**



143

Using this Standard

This Standard can be used by any organization – regardless of size, type, sector, geographic location, or reporting experience – to report information about its Energy-related impacts. This Standard can also be used by organizations that supply energy or organizations that provide energy management services. In addition to this Standard, disclosures that relate to this topic can be found in [GRI CC: Climate Change 202x](#).

An organization reporting in accordance with the GRI Standards is required to report the following disclosures if it has determined Energy to be a material topic:

- [Disclosure 3-3 in GRI 3: Material Topics 2021](#).
- Any disclosures from this Topic Standard that are relevant to the organization's Energy-related impacts (Disclosure EN-1 through Disclosure EN-5).

See [Requirements 4 and 5 in GRI 1: Foundation 2021](#).

Reasons for omission are permitted for these disclosures.

If the organization cannot comply with a disclosure or with a requirement in a disclosure (e.g., because the required information is confidential or subject to legal prohibitions), the organization is required to specify the disclosure or the requirement it cannot comply with, and provide a reason for omission together with an explanation in the GRI content index. See [Requirement 6 in GRI 1](#) for more information on reasons for omission.

If the organization cannot report the required information about an item specified in a disclosure because the item (e.g., committee, policy, practice, process) does not exist, it can comply with the requirement by reporting this to be the case. The organization can explain the reasons for not having this item, or describe any plans to develop it. The disclosure does not require the organization to implement the item (e.g., developing a policy), but to report that the item does not exist.

If the organization intends to publish a standalone sustainability report, it does not need to repeat information that it has already reported publicly elsewhere, such as on web pages or in its annual report. In such a case, the organization can report a required disclosure by providing a reference in the GRI content index as to where this information can be found (e.g., by providing a link to the web page or citing the page in the annual report where the information has been published).

Requirements, guidance and defined terms

The following apply throughout this Standard:

Requirements are presented in **bold font** and indicated by the word 'shall'. An organization must comply with requirements to report in accordance with the GRI Standards.

Requirements may be accompanied by guidance.

Guidance includes background information, explanations, and examples to help the organization better understand the requirements. The organization is not required to comply with guidance.

The Standards may also include recommendations. These are cases where a particular course of action is encouraged but not required.

The word 'should' indicates a recommendation, and the word 'can' indicates a possibility or option. Defined terms are underlined in the text of the GRI Standards and linked to their definitions in the [Glossary](#). The organization is required to apply the definitions in the Glossary.

1. Topic management disclosures

An organization reporting in accordance with the GRI Standards is required to report how it manages each of its material topics.

An organization that has determined energy to be a material topic is required to report how it manages the topic using [Disclosure 3-3 in GRI 3: Material Topics 2021](#). The organization is also required to report any disclosure from this section (Disclosure EN-1) that is relevant to its energy-related impacts.

This section is therefore designed to supplement – and not replace – [Disclosure 3-3 in GRI 3](#).

Disclosure EN-1 Energy policies and commitments

REQUIREMENTS

The organization shall:

- a. report how its energy management policies and commitments contribute to energy efficiency, the deployment of renewable energy, and the transition to a decarbonized economy.

GUIDANCE

The organization reporting on its energy management policies and commitments should explain how these relate to any country, regional, or industry-level energy regulations that apply.

Policies included in this disclosure can concern benefit-sharing, land rights, employment health and safety, adequate remuneration, and commitments to ensure a clean environment.

The organization should include the following in this disclosure:

- Short-, medium-, and long-term targets aimed at:
 - increasing energy efficiency;
 - increasing the use of renewable energy, including whether and how contractual instruments are taken into account in renewable energy target setting and monitoring;
 - avoiding or reducing the extent of negative impacts associated with the transition to renewable energy. For example, impacts can be related to the procurement of minerals needed for renewable energy and can affect both the environment and local communities;
- Energy consumption reduction targets;
- The investment allocated for energy management improvements, such as investment in energy transition technologies, renewable energy, and energy efficiency initiatives;
- A description of how stakeholders, including workers, local communities, and vulnerable groups, are involved in the development of the organization's energy policies related to the transition and how they are affected.

In addition, the organization should report how its energy-related targets and commitments are in line with the latest scientific evidence to limit global warming to 1.5°C.

221 2. Topic disclosures

222 An organization reporting in accordance with the GRI Standards is required to report any disclosures
223 from this section ([Disclosure EN-2 Energy consumption and generation within the organization](#),
224 [Disclosure EN-3 Upstream and downstream energy consumption](#), [Disclosure EN-4 Energy intensity](#),
225 [Disclosure EN-5 Reduction of energy consumption](#)) that are relevant to its energy-related impacts.

226 Disclosure EN-2 Energy consumption and generation 227 within the organization

228 REQUIREMENTS

229 The organization shall:

- 230 a. report total fuel consumption within the organization in joules, watt-hours, or multiples, and
231 a breakdown of this total by:
 - 232 i. source;
 - 233 ii. renewable and non-renewable sources;
 - 234 iii. activity in which the fuel is consumed;
- 235 b. report total self-generated non-fuel renewable electricity, heating, cooling, and steam
236 consumption within the organization in joules, watt-hours, or multiples, and a breakdown of
237 this total by:
 - 238 i. electricity, heating, cooling, and steam consumption;
 - 239 ii. source;
 - 240 iii. activity in which the energy is consumed;
- 241 c. report total purchased electricity, heating, cooling, and steam consumption within the
242 organization in joules, watt-hours, or multiples, and a breakdown of this total by:
 - 243 i. electricity, heating, cooling, and steam consumption;
 - 244 ii. source;
 - 245 iii. renewable and non-renewable sources;
- 246 d. report total self-generated energy sold in joules, watt-hours, or multiples, and a breakdown of
247 this total by:
 - 248 i. electricity, heating, cooling, and steam sold;
 - 249 ii. source;
 - 250 iii. renewable and non-renewable sources;
- 251 e. report standards, methodologies, assumptions, and calculation tools used, including:
 - 252 i. how contractual instruments used to disclose information on purchased
253 electricity, heating, cooling, and steam fulfill quality criteria to ensure accuracy
254 and consistency;
 - 255 ii. the source of the conversion factors used;

256 257 GUIDANCE

258 Consumption of non-renewable energy usually contributes to Scope 1 GHG emissions, which are
259 reported in *Disclosure GH-1 of GRI CC Climate Change 20xx*. Consumption of purchased electricity,
260 heating, cooling, and steam contributes to the organization's Scope 2 GHG emissions, which are
261 reported in *Disclosure GH-2 of GRI CC Climate Change 20xx*.

262 Throughout this Standard, emissions from the generation of acquired and consumed electricity,
263 heating, cooling or steam, are collectively referred to as "electricity", in alignment with the *GHG*
264 *Protocol Scope 2 Guidance*. In addition, in line with the *GHG Protocol Scope 2 Guidance*, definitions
265 of electricity, heating, cooling and steam can include but are not limited to:

- 266 • Electricity. This energy is used for operating machines, lighting, electric vehicle charging, or
267 heating and cooling systems.
- 268 • Heating. Most commercial or industrial buildings require heat to control interior climates and
269 heat water. Many industrial processes also require heat for specific equipment. That heat
270 may be produced from electricity or through a non-electrical process, such as solar thermal
271 heat or thermal combustion processes (as with a boiler or thermal power plant).
- 272 • Cooling. Similar to heat, cooling may be produced from electricity or through the distribution
273 of cooled air or water.
- 274 • Steam. Formed when water boils, steam is a valuable energy source for industrial
275 processes. It is used for mechanical work, heat, or directly as a process medium.

276 For some organizations, electricity is the only form of energy consumed. For others, energy
277 consumption takes different forms, such as steam or water provided by a district heating or chilled
278 water plant.

279 Energy can be purchased from external sources or produced by the organization (self-generated).

280 Organizations can also store or purchase energy through specific energy carriers (e.g., hydrogen) and
281 energy storage systems (e.g., batteries). When the organization consumes the energy from the
282 energy carrier or energy storage systems, this consumption is reported under EN-2-a, EN-2-b, or EN-
283 2-c. If an organization sells the energy from the energy carrier or energy storage systems, this is
284 reported under EN-2-d. The organization should also report any additional information useful to
285 understand the energy carriers' primary energy source.

286 Unused feedstocks and fuels for energy generation are excluded when compiling the information
287 specified in EN-2-a, EN-2-b, and EN-2-c.

288 In addition to disclosing information in EN-2, the organization can report the total energy consumption
289 within the organization as the sum of EN-2-a, EN-2-b, and EN-2-c. The organization can also report
290 the total net energy consumption by subtracting the energy sold (EN-2-d) from the total energy
291 consumption within the organization.

292 The organization's energy consumption activities can include manufacturing processes, operating
293 office equipment, operating a car fleet, heating buildings, and conducting research and development
294 activities.

295 In this disclosure, purchased electricity, heating, cooling, and steam also refers to circumstances
296 where an organization may indirectly acquire and use electricity (e.g., as a tenant of a property).

297 See Table 1 for an example of how to present information on EN-2-a, EN-2-b, and EN-2.

298 The organization can provide additional breakdowns of energy consumption data when it supports
299 transparency or comparability over time, for example, by:

- 300 • business unit or facility;
- 301 • country.

302 **Guidance to EN-2-a**

303 This requirement covers fuel consumption, including fuels purchased by the organization and fuel
304 generated by the organization's activities (such as coal mined, or oil and gas extracted by the
305 organization).

306 Non-renewable sources include all fuel used for transport, warehousing, and distribution (e.g., fuel
307 for combustion in boilers, furnaces, heaters, turbines, flares, incinerators, generators, and vehicles
308 owned or controlled by the organization, like gasoline and LPG).

309 Renewable sources can include biofuels purchased for direct use and biomass from sources owned
310 or controlled by the organization (also comprising industrial and municipal waste of biological origin).

311 **Guidance to EN-2-b**

312 This requirement covers self-generated electricity, heating, cooling, and steam consumption from
313 non-fuel renewable energy sources (e.g., wind and solar).

314 This requirement excludes self-generated electricity, heating, cooling, and steam consumption if it is
315 generated from fuel consumption. When the organization generates electricity from a non-
316 renewable or renewable fuel source and then consumes the generated electricity, heating, cooling,
317 or steam, the energy consumption is counted once under EN-2-a.

318 **Guidance to EN-2-c**

319 The organization may find it difficult to consistently report the breakdown between purchased
320 electricity non-renewable and renewable sources across multiple countries due to variations in
321 accounting methods. In this case, contractual instruments (i.e., energy attribute certificates, power
322 purchase agreements, and green electricity products) can provide information on the required
323 breakdown.

324 Organizations can use contractual instruments to report on EN-2-c if they are available in the markets
325 where they operate. However, these contractual instruments are expected to be assessed against
326 specific quality criteria to ensure consistency and credibility (see EN-2-e for further information).

327 **Guidance to EN-2-e**

328 This requirement covers EN-2-a to EN-2-d.

329 The organization should:

- 330 • apply conversion factors consistently for all data disclosed;
- 331 • use conversion factors that best represent the specific energy content of the fuel to convert
332 to joules, watt-hours, or multiples (for example, when reporting on energy consumption from
333 bituminous coal, the organization should use conversion factors for bituminous coal instead
334 of generic coal);
- 335 • describe the reasons why the standards, methodologies, assumptions, and calculation
336 tools used were chosen.

337 When the organization reports information specified in EN-2-c using data from contractual
338 instruments (market-based method), the following quality criteria apply, which are built on the
339 *GHG Protocol Scope 2 Guidance*:

- 340 • Contractual instruments must convey the GHG emission rate attribute associated with
341 the MWh produced. Attributes are defined as descriptive or performance characteristics
342 of a particular generation resource. Each contractual instrument must be the only
343 source of an GHG emission rate attribute claim associated with its quantity of energy
344 generation.
- 345 • A contractual instrument must be tracked and redeemed, retired, or canceled by or on
346 behalf of the reporting organization.
- 347 • Contractual instruments must have temporal and physical connections to their
348 associated energy consumption by demonstrating that they are:

- 349 ○ sourced from a region reasonably linked to where it is applied, preferably from
- 350 the same grid market;
- 351 ○ issued and redeemed as close as possible to the energy consumption period to
- 352 which the contractual instrument is applied; or based on certifications that
- 353 demonstrate energy users may have benefitted from zero emissions electricity
- 354 during the same hour to match all of their consumption on a 24-hours a day,
- 355 seven days a week basis.

356 See the *GHG Protocol Scope 2 Guidance* for further information on the quality criteria for gross
 357 Scope 2 GHG emissions accounting following the market-based method and how to support
 358 accurate accounting if the organization cannot meet the Scope 2 quality criteria.

359 In addition, and if applicable, the organization should disclose which types of market-based
 360 contractual instruments it uses (e.g., power purchase agreements, utility green tariffs,
 361 unbundled certificates) and the percentage of purchased electricity covered by each instrument.

362 The organization can report additional information on its contractual instruments, for example:

- 363 • The date that the renewable generation facility was commissioned or repowered.
- 364 • Whether the renewable generation facility receives government subsidies or other
- 365 support.
- 366 • The length of the contract for the contractual instruments.
- 367 • Whether the contract was signed prior to the investment decision to build the renewable
- 368 generation facility.

370 **Table 1. Example template for presenting information for EN-2-a, EN-2-b and EN-2-c**

371 Table 1 provides examples of how the organization can present information on energy consumption.
 372 Examples of activities are manufacturing processes and operating office equipment. Examples of
 373 sources include biofuel (renewable fuel source), natural gas (non-renewable fuel source), wind and
 374 solar (self-generated renewable electricity source). 'N.A.' means 'not applicable'. The organization
 375 can amend the table according to its practices and report additional information, such as additional
 376 activities or additional sources.

		From renewable sources		From non-renewable sources		Total
		Source 1	...	Source 1	...	
Fuel consumption	Activity 1					
	Activity ...					
Total						
Self-generated renewable electricity consumption	Electricity	Activity 1			N.A.	
		Activity ...				
	Heating	Activity 1				
		Activity ...				
	Cooling	Activity 1				
		Activity ...				
	Steam	Activity 1				
		Activity ...				

Total							
Purchased electricity consumption	<i>Electricity</i>						
	<i>Heating</i>						
	<i>Cooling</i>						
	<i>Steam</i>						
Total							

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378 **Disclosure EN-3 Upstream and downstream energy**
379 **consumption**

380 **REQUIREMENTS**

381 **The organization shall:**

- 382 a. **report significant energy consumption upstream and downstream of its value chain in**
383 **joules, watt-hours, or multiples, and a breakdown by each upstream and downstream**
384 **category;**
385 b. **report standards, methodologies, and assumptions, including the source of conversion**
386 **factors and calculation tools used.**

387 **GUIDANCE**

388 This disclosure covers energy consumption from activities outside the organization, upstream and
389 downstream of its value chain.

390 Quantifying energy consumption from non-renewable sources upstream and downstream in the
391 organization's value chain can provide a basis for calculating Scope 3 GHG emissions in [Disclosure](#)
392 [GH-3 of GRI CC Climate Change 20xx](#).

393 **Guidance to EN-3-a**

394 The organization can identify significant energy consumption upstream and downstream in the value
395 chain by assessing whether an activity's energy consumption:

- 396 • contributes substantially to the organization's total anticipated energy consumption
397 upstream and downstream in the value chain;
398 • offers potential for reductions the organization can undertake or influence;
399 • contributes substantially to climate change as high-emitting activities;
400 • is deemed relevant by stakeholders, such as customers, suppliers, investors, or civil society
401 organizations;
402 • results from outsourced activities previously performed in-house or that are typically
403 performed in-house by other organizations in the same sector;
404 • has been identified as substantial for the organization's sector;
405 • meets any additional criteria for determining relevance developed by the organization or
406 organizations in its sector.

407 When reporting the breakdown by upstream or downstream category in the organization's value
408 chain the organization can refer to the *GHG Protocol Corporate Value Chain (Scope 3)*
409 *Accounting and Reporting Standard* for the following categories:

410 **Upstream categories**

- 411 1. Purchased goods and services
412 2. Capital goods
413 3. Fuel- and energy-related activities (not included in [Disclosure EN-2](#))
414 4. Upstream transportation and distribution
415 5. Waste generated in operations
416 6. Business travel
417 7. Employee commuting
418 8. Upstream leased assets

419

420 **Downstream categories**

- 421 9. Downstream transportation and distribution
422 10. Processing of sold products
423 11. Use of sold products

- 424 12. End-of-life treatment of sold products
- 425 13. Downstream leased assets
- 426 14. Franchises
- 427 15. Investments

428 Organizations should report for which of the 15 categories estimations are used, if estimations are
429 used to report upstream and downstream energy consumption under EN-3-a. In that case,
430 organizations should report also the percentage of data estimated for each category.

431 If the organization does not report the energy consumption assessed as significant for a particular
432 category, it is required to provide a reason for omission. Where data cannot be reported because it is
433 unavailable or incomplete the organization is required to specify which information is unavailable or
434 incomplete and why, and describe the steps being taken and the expected time frame to obtain the
435 information. See [Requirement 6 in GRI 1 \(2021\)](#).

436 The organization should report energy consumption separately for non-renewable sources and
437 renewable sources.

438 **Guidance to EN-3-b**

439 The organization should describe the reasons why the standards, methodologies, assumptions, and
440 calculation tools used were chosen.
441

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Disclosure EN-4 Energy intensity

REQUIREMENTS

The organization shall:

- a. report energy intensity ratio(s), including the specific metrics (the denominators) chosen to calculate the ratio(s);
- b. report whether the energy intensity ratio(s) include energy consumption:
 - i. within the organization;
 - ii. upstream and downstream in the organization's value chain;
 - iii. within the organization and upstream and downstream in the organization's value chain;
- c. report types of energy consumption included in the intensity ratio(s), whether fuel, electricity, heating, cooling, steam, or all.

GUIDANCE

Energy intensity ratios define energy consumption in the context of an organization-specific metric and are obtained by dividing the energy consumption (the numerator) by organization-specific metrics (the denominator).

These ratios express the energy required per unit of activity, output, or any other organization-specific metric.

The organization should report this disclosure with absolute data on energy consumption reported in [EN-2](#) and [EN-3](#). Disclosing energy intensity ratios can help stakeholders understand the organization's efficiency in relation to its sector while supporting energy reduction and efficiency investments.

See additional references [1] and [3] in the [Bibliography](#).

Table 2. Example template for presenting information on energy intensity ratio(s)

Energy intensity ratios	Energy consumption within/in the value chain	Types of energy consumption	Specific metric	Reporting period (1)	Reporting period (2)	Reporting period (3)
1						
2						
3						

Guidance to EN-4-a

Where it aids transparency or comparability over time, the organization can provide a breakdown of energy intensity ratio(s) by:

- business unit or facility;
- country;
- type of source (see definitions for the listing of non-renewable sources and renewable sources);
- type of activity;
- each upstream and downstream category.

476 Organization-specific metrics (denominators) can include, but are not limited to:

- 477 • units of product;
- 478 • production volume (such as metric tons, liters, or MWh);
- 479 • size (such as m² floor space);
- 480 • number of full-time employees;
- 481 • monetary units (such as revenue or sales).

482 Relevant denominators will differ between industries or even among business units within an
483 organization. Therefore, the organization should choose a denominator relevant to its industry and
484 aligned with current industry standards.

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Disclosure EN-5 Reduction of energy consumption

REQUIREMENTS

The organization shall:

- a. report the reduction of energy consumption achieved as a result of conservation and efficiency initiatives, in joules, watt-hours, or multiples, excluding reductions resulting from other factors;
- b. report types of energy included in the reduction, whether fuel, electricity, heating, cooling, steam, or all;
- c. report whether the energy reduction occurs within the organization or in which one of upstream and downstream categories of its value chain;
- d. report whether energy reduction is estimated, modeled, or sourced from direct measurements and, if estimations or modeling is used, disclose the methods;
- e. report the base year or baseline for calculating reductions in energy consumption, including the rationale for choosing it;
- f. report standards, methodologies, assumptions, and calculation tools used.

GUIDANCE

When reporting how it manages this topic, the organization is required to include energy-related targets, as per [Disclosures 3-3 in GRI 3: Material Topics 2021](#) and [EN-1](#).

Guidance to EN-5-a

The organization should prioritize disclosing energy reductions achieved as a result of conservation and efficiency initiatives implemented in the reporting period.

Energy conservation and efficiency initiatives can include:

- process redesign;
- conversion and retrofitting of equipment;
- changes in behavior;
- operational changes.

The organization can also provide a breakdown of energy consumption reductions by individual or group initiatives.

Examples of other factors include reduced production capacity or outsourcing, changes in organizational boundaries, and weather fluctuations.

The organization should report reductions of energy consumption in percentage compared to the base year or baseline, in addition to reporting reductions as required in EN-5-a.

Guidance to EN-5-b

The organization can report reductions in energy consumption by combining energy types or separately for fuel, electricity, heating, cooling, and steam.

Guidance to EN-5-c

The organization can refer to the *GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard* for the following categories:

Upstream categories

1. Purchased goods and services
2. Capital goods

526 3. Fuel- and energy-related activities (not included in [Disclosure EN-2](#))

527 4. Upstream transportation and distribution

528 5. Waste generated in operations

529 6. Business travel

530 7. Employee commuting

531 8. Upstream leased assets

532

533 ***Downstream categories***

534 9. Downstream transportation and distribution

535 10. Processing of sold products

536 11. Use of sold products

537 12. End-of-life treatment of sold products

538 13. Downstream leased assets

539 14. Franchises

540 15. Investments

541 Organizations should consider the whole life cycle of the products they manufacture and release on
542 the market. This is particularly important for products and services with high energy consumption
543 during their use phase due to their potential to affect energy demand, such as electronic equipment
544 and vehicles.

545 Where applicable, the organization should include, under this requirement, the reporting of reductions
546 in energy requirements during the use phase of sold products and services achieved during the
547 reporting period.

548 **Guidance to EN-5-f**

549 This requirement covers EN-5-a to EN-5-e.

550 The organization should describe the reasons why the standards, methodologies, assumptions, and
551 calculation tools used were chosen.

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552 Glossary

553 This glossary provides definitions for terms used in this Standard. The organization is required to
554 apply these definitions when using the GRI Standards.

555 The definitions included in this glossary may contain terms that are further defined in the complete
556 [GRI Standards Glossary](#). All defined terms are underlined. If a term is not defined in this glossary or in
557 the complete *GRI Standards Glossary*, definitions that are commonly used and understood apply.

558 **base year**

559 historical datum (a specific year or an average over multiple years) against which a measurement is
560 tracked over time

561 Source: World Resources Institute (WRI) and World Business Council for Sustainable Development
562 (WBCSD), *GHG Protocol Corporate Accounting and Reporting Standard, Revised Edition*, 2004; modified.

563

564 **baseline**

565 starting point used for comparisons

566 Note: In the context of energy reporting, the baseline is the projected energy consumption in the
567 absence of any reduction activity

568

569 **conservation and efficiency initiative**

570 organizational or technological modification that allows a defined process or task to be carried out
571 using less energy

572 Examples: conversion and retrofitting of equipment such as energy-efficient lighting, elimination of
573 unnecessary energy use due to changes in behavior, process redesign

574

575 **energy reduction**

576 amount of energy no longer used or needed to carry out the same processes or tasks

577 Note: Energy reduction does not include overall reduction in energy consumption from reducing
578 production capacity or outsourcing organizational activities.

579

580 **human rights**

581 rights inherent to all human beings, which include, at a minimum, the rights set out in the *United*
582 *Nations (UN) International Bill of Human Rights* and the principles concerning fundamental rights set
583 out in the *International Labour Organization (ILO) Declaration on Fundamental Principles and Rights*
584 *at Work*

585 Note: See [Guidance to 2-23-b-i in GRI 2: General Disclosures 2021](#) for more information on 'human
586 rights'.

587 Source: United Nations (UN), *Guiding Principles on Business and Human Rights: Implementing the*
588 *United Nations "Protect, Respect and Remedy" Framework*, 2011; modified

589

590 **impact**

591 effect the organization has or could have on the economy, environment, and people, including on their
592 human rights, which in turn can indicate its contribution (negative or positive) to sustainable
593 development

594 Note 1: Impacts can be actual or potential, negative or positive, short-term or long-term, intended or
595 unintended, and reversible or irreversible.

596 Note 2: See [Section 2.1 in GRI 1: Foundation 2021](#) for more information on 'impact'.

597

598 **material topics**

599 topics that represent the organization's most significant impacts on the economy, environment, and
600 people, including impacts on their human rights

601 Note: See [Section 2.2 in GRI 1: Foundation 2021](#) and [Section 1 in GRI 3: Material Topics 2021](#) for
602 more information on 'material topics'.

603

604 **non-renewable energy source**

605 energy source that cannot be replenished, reproduced, grown or generated in a short time period
606 through ecological cycles or agricultural processes

607 Examples: coal; fuels distilled from petroleum or crude oil, such as gasoline, diesel fuel, jet fuel, and
608 heating oil; fuels extracted from natural gas processing and petroleum refining, such as butane,
609 propane, and liquefied petroleum gas (LPG); natural gas, such as compressed natural gas (CNG),
610 and liquefied natural gas (LNG); nuclear power

611

612 **renewable energy source**

613 energy source that is capable of being replenished in a short time through ecological cycles or
614 agricultural processes

615 Examples: biomass, geothermal, hydro, solar, wind

616

617 **sustainable development / sustainability**

618 development that meets the needs of the present without compromising the ability of future
619 generations to meet their own needs

620 Note: The terms 'sustainability' and 'sustainable development' are used interchangeably in the GRI
621 Standards.

622 Source: World Commission on Environment and Development, Our Common Future, 1987

623

624 **Bibliography**

625 **Authoritative instruments**

- 626 1. Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2022: Mitigation of Climate*
627 *Change. Contribution of Working Group III to the Sixth Assessment Report of the*
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- 629 2. United Nations Framework Convention on Climate Change (UNFCCC), *Paris Agreement*, 2016

630

631 **Additional references**

632

- 633 1 World Resources Institute (WRI) and World Business Council for Sustainable Development
634 (WBCSD), *GHG Protocol Corporate Accounting and Reporting Standard, Revised Edition*,
635 2004.
- 636 2 World Resources Institute (WRI) and World Business Council for Sustainable Development
637 (WBCSD), *GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting*
638 *Standard*, 2011.
- 639 3 World Resources Institute (WRI) and World Business Council for Sustainable Development
640 (WBCSD), *GHG Protocol Scope 2 Guidance. An amendment to the GHG Protocol Corporate*
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643 (WBCSD), *'Greenhouse Gas Protocol Accounting Notes, No. 1, Accounting and Reporting*
644 *Standard Amendment'*, 2012.

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