**FINNISH TOWARDS SUSTAINABLE MINING (TSM) STANDARD**

**ASSESSMENT PROTOCOL**

**A Tool for Assessing Climate Change Performance**

**Introduction**

This document provides a tool for assisting companies in the corporate and facility-level assessment of their current standard of climate management. The level of climate change performance is monitored using three performance indicators in accordance with this assessment tool. The use of this protocol also enhances the consistency of climate change management performance assessments conducted across companies. In addition, the tool has been designed to enable the external verification of company performance.

In the event of a dispute as to the terms of this document the Finnish version shall prevail.

**Assessing Climate Change Management Implementation**

The purpose of the assessment protocol is to provide guidance – based on performance indicators – to companies in their planning and implementation of climate change management.

The assessment should:

* assist companies in developing their capacity to monitor and improve their performance
* provide a basis for the related auditing.

Professional judgement is required when assessing the management system. Application of the assessment protocol of the Finnish TSM standard requires that the assessor have sufficient expertise in the subject area to be assessed and management systems assessment. When carrying out an assessment, account must be taken of cooperation between the employer and employees. The assessment protocol of the Finnish TSM standard is not in itself a guarantee of the effectiveness of climate change management activities but can be used to measure performance levels. A self-assessment checklist is attached to this document (Appendix 2).

***Climate Change***

*Greenhouse gas emissions from human activities cause climate change. Greenhouse gases include for example:*

* *carbon dioxide (CO2)*
* *methane (CH4)*
* *nitrous oxide (N2O)*
* *hydrofluorocarbons (HFC)*
* *perfluorocarbons (PFC)*
* *sulphur hexafluoride (SF6)*

***National and international goals of climate policy:***

*Finland: The goal is to be carbon neutral in 2035 and carbon negative soon after.*

*EU: Committed to reducing emissions by at least 55% by 2030 compared to 1990 and to be climate neutral by 2050.*

*The Paris Agreement: goal is to limit global warming to well below 2, preferably to 1.5 degrees Celsius, compared to pre-industrial levels.*

# Performance Indicators

Three performance indicators have been established for climate change management:

1. Company/corporate climate change management
2. Facility climate change management
3. Performance targets and reporting

Five levels of performance are identified for each indicator. Assessment criteria are used to further define performance at each level. The assessor must evaluate whether the company or the performance of the site/facility meets the assessment criteria for the performance indicators, by answering the questions presented in the self-assessment checklist. A base assumption is made that all companies are in compliance with all legal and regulatory requirements.

Specific assessment criteria for each performance indicator are provided in subsequent tables on pages 4-12, to enable the assessor to determine an appropriate level of performance (Levels C-AAA). When conducting the assessment, assessors should note that the three indicators complement one another. The performance level is determined by the fulfilment of the requirements of the criteria.

Wherever a performance element or performance indicator is irrelevant, the assessment given should be N/A. For each indicator, only one level can be reached, which is determined by the lowest level that meets the requirements. All criteria at that level and below must be met. The overall level of the Climate Change Management is determined by the lowest level achieved.

**The goal of each company is to achieve an “A” ranking at a minimum and to work towards continuous improvement.**

## Company/corporate- and Facility-level Assessments

Companies are expected to complete an assessment and report on the performance indicator 1 for climate change management for company/corporate level and performance indicators 2 & 3 for each distinct site or facility. When planning the assessment, account must be taken of the organisational structure of mining operators, as companies may categorise their facilities and define their sites in various ways.

Facility-level reporting has been found to be the most reliable, informative and useful approach to performance evaluation.

**Assessment Process**

It is recommended that the assessment include interviews, discussions and document reviews. The assessment must involve the management, as well as production and specialist personnel representing the site or facility. A level of expertise in auditing and management systems assessment and some knowledge and experience of climate change management are required. For each performance indicator, only one level can be reached if all criteria for that level and all preceding levels have been met. No partial levels of performance (e.g. B+) can be reported.

Where an operation is shared between two parties, e.g. a joint venture, the two parties are encouraged to discuss who should complete the assessment, and whether it should be undertaken jointly or divided up so that the results reflect the activities of each company.

**Structure of the Assessment Protocol**

For each performance indicator, the assessment protocol provides:

* a statement of purpose that expresses the spirit and intent of the indicator
* assessment criteria for each level of performance (C-AAA)
* supporting guidelines to help the assessor understand the general scope of each indicator and to act as a framework for reviewing documentation and conducting interviews necessary for the assessment of the company’s/corporate’s and site’s/facility’s performance
* Frequently Asked Questions (FAQs) that provide further information, such as definitions of key terms and answers to more commonly asked questions.

**PERFORMANCE INDICATOR 1**

**Company/Corporate Climate Change Management**

**Purpose:**

To confirm that commitments, governance and processes are in place at the board and management levels to support the consideration of climate change implications in business strategy.

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| **Performance Indicator 1**  **Company/Corporate Climate Change Management**  **ASSESSMENT CRITERIA** | |
| **Level** | **Criteria** |
| **C** | Activities meet the requirements set in legislation. Activities are not systematic, and the company/corporate does not meet all level B criteria. |
| **B** | 1. A company/corporate action plan has been developed to meet all requirements for a Level A. 2. Data on Scope 1 and 2 GHG emissions is maintained. |
| **A** | 1. There is a demonstrated company/corporate climate change strategy which is taken into account in business planning. 2. The organization has defined accountabilities, responsibilities and reporting processes regarding the management of risks and opportunities related to climate change. 3. Material climate-related risks and opportunities and their impact on the company’s businesses, strategy and financial planning are identified, assessed and managed. A plan for risk management is in place. 4. Materials demonstrating the above criteria are publicly reported on an annual basis. |

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| **AA** | 1. There is a demonstrated company/corporate commitment to climate action that is consistent with the Paris Agreement (to limit global warming to well below 2°C), with short- and long-term targets and actions planned to achieve these commitments. 2. Performance is measured against stated targets in Level AA Criterion #1. 3. Company’s/corporate’s strategic investments contribute to societal climate change resiliency and the low carbon economy. 4. Procurement and supply chain management practices demonstrate alignment with the company/corporate climate change strategy. 5. The company/corporate climate change strategy includes at least **two** of the following elements: 6. Planned or actual investments in climate action (e.g., research and development, energy performance improvements, clean energy projects) that will lead to measurable improvements in climate change mitigation or adaptation. 7. Key performance indicators related to the implementation of the climate change strategy are tracked and documented at least on a quarterly basis. 8. If the company is involved in emission trading a range of potential carbon price scenarios are used when developing strategies or evaluating and making decisions on projects. 9. Opportunities for offsets that benefit communities of interest evaluated and, where feasible, prioritized. 10. Materials demonstrating the above criteria (level AA) are publicly reported on an annual basis. |
| **AAA** | 1. If the company/corporate is involved in emission trading, the company/corporate climate change strategy includes all of the elements outlined in Level AA Criterion #5. 2. There are demonstrated company/corporate commitments: 3. The business strategy is corresponding with societal ambitions to achieve net-zero emissions within the agreed timeframe, with short- and long-term targets and actions planned to achieve these commitments. 4. To contribute to Scope 3 GHG emissions reductions. 5. Short- and long-term actions to achieve stated targets in Level AA Criterion #1 and Level AAA Criterion #2(a) have been, or are on track to be, met on the timescale identified, or corrective actions have been identified and are being implemented. 6. Materials demonstrating the above criteria (level AAA) are publicly reported on an annual basis. |

**Company/corporate Climate Change Management**

**FREQUENTLY ASKED QUESTIONS**

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| **No. in APPX. 1.** | **FAQ** | **PAGE** |
| 1 | What are Scope 1, Scope 2 and Scope 3 GHG emissions? | See page **Virhe. Kirjanmerkkiä ei ole määritetty.** |
| 2 | What does ”accountability” mean? | See page 14 |
| [3](#_bookmark2) | What types of commitments can be made at the company/corporate level with regards to climate change? | See page 14 |
| 4 | What is a “carbon offset”? | See page 14 |
| 5 | What are “net-zero emissions”? | See page 15 |
| 6 | What types of strategic investments could contribute to societal climate change resiliency and the low carbon economy? | See page **Virhe. Kirjanmerkkiä ei ole määritetty.** |
| 7 | What does ”clean energy” mean? | [See page](#_bookmark2) 15 |
| [8](#_bookmark4) | What types of commitments can be made to contribute to Scope-3 emissions reduction? | See page 15 |
| 9 | In companies where procurement is not managed at the company/corporate level, can facility procurement and supply chain practices be used to demonstrate alignment with the company/corporate climate change strategy? | See page 15 |
| 10 | What types of guidance exist for company/corporate climate-related disclosures?**Virhe. Viitteen lähdettä ei löytynyt.** | [See page](#_bookmark8) 16 |
| 11 | How can a company demonstrate an understanding of how the commodities and products in which it invests or that it uses contribute to societal climate change resiliency and the low carbon economy? | See page 16 |
| 12 | How can company/corporate GHG reduction commitments align with the commitment to limit global warming to well below 2°C (above pre-industrial levels)? | See page 16 |
| 13 | How can companies apply carbon price scenarios in strategic development and decision-making processes? | See page 17 |
| 14 | What types of strategic investments could contribute to societal climate change resiliency and the low carbon economy? | See page 17 |

**PERFORMANCE INDICATOR 2**

**Facility Climate Change Management**

**Purpose:**

To confirm that processes are in place at the facility level to manage energy consumption, GHG emissions, physical climate impacts and adaptation. This indicator is supported by MAC’s *Guide on Climate Change Adaptation for the Mining Sector.*

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| **Performance Indicator 2**  **Facility Climate Change Management**  **ASSESSMENT CRITERIA** | |
| **Level** | **Criteria** |
| **C** | Activities meet the requirements set in Finnish legislation and the environmental permit. No system in place, and activities are not systematic. |
| **B** | 1. A climate change management system has been established that includes: 2. A demonstrated senior management commitment to climate change management at facility level. 3. Responsibilities for energy consumption and greenhouse gas emissions have been assigned for responsible persons at the facility level. 4. Energy consumption and the associated GHG emissions are determined at predefined intervals with respect to sources accounting for substantial consumption and/or offering considerable potential for energy performance improvement, by major process activity (e.g. mill, mine, smelter, refinery, etc.) 5. Identification and estimation of significant sources of non-energy GHG emissions. 6. The facility has conducted some analyses related to physical climate impacts and adaptation. 7. The facility has developed an action plan to meet all requirements for a Level A. |
| **A** | 1. A climate change management system is established that includes: 2. A data collection and monitoring process that is appropriate for the energy use and GHG emission sources on site. 3. Clear definition of accountabilities and responsibilities for managing energy consumption and GHG emissions performance. 4. An annual management review. 5. Consideration of energy consumption and GHG emissions in business planning at facility and/or business unit level. 6. Energy consumption data is reviewed regularly and integrated into operator actions for energy intensive processes. 7. Actions and process controls related to energy use and GHG emissions are included in the management of at least material energy uses and emission sources. 8. General energy use and GHG emissions awareness training is provided to personnel, with additional training for key personnel. 9. A process for the management of physical climate impacts and adaptation is established that includes: 10. Assessment and identification of potential physical climate impacts for the business, with a review of this analysis scheduled at predetermined intervals and whenever there are significant changes in operations. 11. Consideration of risks resulting from potential physical climate impacts in relevant facility-level decision-making. 12. Identification, prioritization and implementation through business planning of adaptation measures that respond to the identified physical climate impacts. 13. A process is in place to promote awareness of climate change mitigation and adaptation, including relevant company/corporate commitments and facility-level targets, to employees and contractors. 14. The facility gauges how important the measures aimed at managing and adapting to climate change are seen in the nearby communities and, if necessary, involves stakeholders in the planning of the measures. |

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| **AA** | 1. The facility collaborates with COI interested in climate change as appropriate. 2. The company invests in renewable energy projects and/or energy recovery projects. 3. The climate management system has undergone an internal or external audit. |
| **AAA** | 1. The facility applies at least three of the following practices: 2. The responsibilities of key performance indicators related to the increasing of energy efficiency, reduction of energy use or reduction of GHG emissions are assigned. 3. Offsets are integrated into the management system. 4. The climate change management is taken into account in the full lifecycle of facility activities, including in relation to suppliers, customers and other third parties. 5. Active partnership is pursued with other organizations or COI on physical climate impacts and adaptation management, with roles and responsibilities assigned to support this commitment. 6. Community, cultural or traditional knowledge is considered in climate impact assessments and in the design of adaptation measures. |

**Facility Climate Change Management**

**FREQUENTLY ASKED QUESTIONS**

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| **No. in APPX. 1.** | **FAQ** | **PAGE** |
| 15 | [Can company/corporate documentation be used to demonstrate facility-level commitment?](#_bookmark3) | See page 17 |
| 16 | [What is major process activity?](#_bookmark7) | See page 18 |
| 17 | What is a management review? | See page 18 |
| [18](#_bookmark8) | What is meant by “energy data is reviewed regularly and integrated into operator actions for energy intensive processes”? | [See page](#_bookmark8) 18 |
| 19 | What is meant by “actions and process controls related to energy use and GHG emissions are included in management systems for material sources”? | See page 18 |
| 20 | What is considered a material energy source? | See page 18 |
| 21 | What is the treshold for significant source of non-energy GHG emissions? | See page 19 |
| 22 | What are examples of non-energy GHG emissions? | See page 19 |
| 23 | How can a facility consider the level of risk associated with a potential physical climate impact in the identification of adaptation measures? | See page 19 |
| 24 | What types of climate scenarios should be used in a facility’s assessment of its physical climate vulnerabilities and risks?**Virhe. Viitteen lähdettä ei löytynyt.** | See page 19 |
| 25 | How can facilities engage or collaborate with COI on climate change management? | See page 19 |
| 26 | How can a facility demonstrate efforts to engage with COI on climate change mitigation and adaptation? | See page 19 |
| 27 | Can investments in renewable energy that provide the benefit to offsets for regulatory compliance fulfil the requirements of corporate investments under Performance Indicator 2, level AA? | See page 20 |
| 28 | What is an “internal or external audit” and how long those are valid? | See page 20 |
| 29 | What does ”at predifined intervals” mean? | See page 20 |
| 30 | What is a “system”? | See page 20 |
| 31 | What does “responsibility” mean? | See page 21 |
| 32 | What does “business unit” mean? | See page 21 |
| 33 | Does commitment to Energy Eefficiency Agreement or ETJ+ / ISO 50001 certified Management System fulfil the requirements of Climate Change Management System (Performance Indicator 2)? | See page 21 |

**PERFORMANCE INDICATOR 3**

**Performance Targets and Reporting**

**Purpose:**

To confirm that energy use and GHG emissions tracking and reporting systems are in place for internal use and public reporting. To confirm that energy and GHG emissions performance targets have been established at the facility level and that annual public reporting takes place on energy consumption, GHG emissions, potential physical climate impacts, and adaptation measures.

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| **Performance Indicator 3**  **Performance Targets and Reporting**  **ASSESSMENT CRITERIA** | |
| **Level** | **Criteria** |
| **C** | Activities meet the requirements set in Finnish legislation and the environmental permit. No energy use or GHG emissions performance targets have been set for the facility and/or business unit. |
| **B** | 1. Facility level energy consumption and GHG emissions performance targets have been set. 2. Public reporting takes place on energy and GHG emissions. 3. Standard factors are used to convert energy and GHG emissions data into comparable units. 4. The facility has developed an action plan to meet all requirements for a Level A. |
| **A** | 1. Performance targets have been set focused on Scope 1 and 2 GHG emissions. 2. A facility-level action plan includes clear short- and long-term steps towards achievement of the performance targets. 3. Progress is demonstrated towards the performance targets. 4. Annual public reporting includes targets and performance indicators used to assess performance focused on Scope 1 and 2 GHG emissions. 5. Where offsets are used by the facility or business unit to meet commitments, public reporting includes the calculations of offsets as a percentage of total emissions generated at facility level and/or at business unit level, and the source and nature of the accreditation of offsets. 6. Information on the facility’s assessment of potential physical climate impacts and plans or actions to manage the associated risks is shared publicly and updated as assessments or plans are updated. |

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| **AA** | 1. Performance targets have been met on the timescale identified, or corrective actions have been identified and are being implemented. 2. Reporting of energy use and Scope 1 and 2 GHG emissions (e.g., source data, conversion factors, energy GHG intensities used, etc.) have been independently assured. 3. The facility collects feedback on public reporting as appropriate. |
| **AAA** | 1. The development of process technology, technologies or other forms of GHG reductions or offsets have significantly reduced the facility's energy consumption and greenhouse gas emissions, in line with a long-term net-zero emissions commitment. 2. Public reporting, including Scope 3 GHG emissions data, is independently assured for accuracy. |

**Performance Targets and Reporting**

**FREQUENTLY ASKED QUESTIONS**

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| **No. in APPX. 1.** | **FAQ** | **PAGE** |
| 1 | What are Scope 1, Scope 2 and Scope 3 GHG emissions? | See page 14**Virhe. Kirjanmerkkiä ei ole määritetty.** |
| 4 | What is a “carbon offset”? | See page 14 |
| 32 | [What does “business unit” mean?](#_bookmark57) | See page 21 |
| 34 | What is meant by standard factors? | See page 21 |
| 35 | Can a facility with distinctly different production processes set separate energy and GHG emissions performance targets? | See page 21 |
| 36 | If a facility uses multiple targets, does the facility have to meet all targets before it achieves a Level A rating? | See page 21 |
| 37 | When underground mines are developing new production zones at much greater depth, the energy intensity increases due to the extra energy required for ventilation, pumping, cooling, hoisting and sustaining the infrastructure at great depth. What methodology can be used to create a practical target in such cases? | See page 22 |
| 38 | [What constitutes an energy use or GHG emissions performance target?](#_bookmark26) | See page 22 |
| 39 | What should be considered when setting a performance target? | See page 22 |
| 40 | Can offsets be used to meet emissions reduction performance targets? | See page 23 |
| 41 | Do targets need to apply to the entire facility? | See page 23 |
| 42 | How can a facility or business unit express energy reduction targets? | See page 23 |
| 43 | If a business unit target is achieved by realising reductions at a single facility, do all facilities in that business unit gain credit for the reduction? | See page 23 |
| 44 | How should progress against a multi-year emission target and energy efficiency plan be assessed? | See page 23 |
| 45 | What is independent assurance? | See page 24 |
| 46 | What type of information on physical climate impacts needs to be publicly reported? | See page 24 |
| 47 | What are material Scope 3 GHG emissions and how can they be calculated? | See page 24 |
| 48 | What types targets can be used to assess performance on energy related to Scope 1 and 2 GHG emissions? | See page 24 |
| 49 | How can a facility that is not in full operation set an appropriate performance target? | See page 25 |
| 50 | How can a facility demonstrate progress towards energy and GHG emissions performance targets? | See page 25 |

**APPENDIX 1:**

**Assessing Climate Change Management Performance**

**FREQUENTLY ASKED QUESTIONS**

## What are Scope 1, Scope 2 and Scope 3 GHG emissions?

Scope 1 emissions: Direct emissions from sources owned or controlled by the reporting company or facility. Emissions are generated on site. Scope 1 emissions are caused by, for example:

* stationary combustion plant
* mobile combustion plant
* process
* vehicles
* explosives and other fugitive emissions

Scope 2 emissions: Indirect GHG emissions that the business unit or facility has caused through its consumption of purchased energy in the form of electricity, heat, cooling or steam.

Scope 3 emissions: Indirect emissions from sources that are owned or controlled by others. The Scope 3 category includes emissions from the procurement of goods and services and the end use of sold products. These include e.g. waste management, water management, logistics, work trips and emissions from materials manufacturing and procurement.

## What does ”accountability” mean?

The management system defines the accountable party. Management is the party that is ultimately answerable for energy efficiency and GHG emissions management, and for the development and implementation of the energy use and GHG emissions management system within the facility. Such accountability cannot be delegated. Resources are available to the accountable party to ensure that the proper systems (training, equipment, communications, etc.) are in place for effectively meeting the energy use and GHG emissions management goals.

## What types of commitments can be made at the company/corporate level with regards to climate change?

There are many types of commitments that can be made at the company/corporate level with regards to climate change. These include, but are not limited to:

* Intensity targets that allow for total emissions to increase with organic growth or acquisitions made by the company. They can be useful for evaluating the efficiency of a company’s operations and processes.
* Absolute emission targets that impose on the company a level of reduction that does not depend on performance.
* Carbon neutrality targets that commit the company to achieving net-zero emissions by implementing internal strategies (e.g., improving operational efficiencies, purchasing renewable energy) or external measures (e.g., investing in carbon offset projects, investing in research & development of carbon reduction technologies).

## What is a “carbon offset”?

A carbon offset is a unit of carbon dioxide equivalent (CO2e) that is reduced, avoided, or sequestered to compensate for emissions occurring elsewhere (e.g., at a mine or smelter). Offsets work in a financial system where, instead of reducing its own carbon use, a company can comply with emissions caps by purchasing an offset from an independent organization that completed and certified an emissions reduction, avoidance or sequestration project. An offset must be: independently verified by an accredited body, fungible and pass a credible additionality test.

## What are “net-zero emissions”?

On a global scale, meeting the ambition to limit global warming to well below 2°C (above pre-industrial levels) by 2050 requires the global community to strike a balance between emission sources and sinks. Net zero emissions (also referred to as carbon neutrality) means that GHG emissions released into the atmosphere are balanced by an equivalent reduction elsewhere.

*WEF. 2020 What’s the difference between carbon negative and carbon neutral?*

https://www.weforum.org/agenda/2020/03/what-s-the-difference-between-carbon-negativeand-carbon-neutral/

*IETA. 2020. IETA Council Guidance on Net Zero Climate Ambition.*

https://www.ieta.org/resources/IETACouncil/Net%20Zero%20Guidance/IETA\_Net\_Zero\_Climate\_Ambition\_1June2020.pdf

## What types of strategic investments could contribute to societal climate change resiliency and the low carbon economy?

A company’s understanding of how its strategic investments contribute to societal climate change resiliency and the low carbon economy can be demonstrated by, for example:

* Decisions around the commodities in which the company invests (e.g., metals used in clean energy technologies for emissions reduction)
* High-impact climate-related initiatives (e.g., investments in technological innovations that achieve significant emissions reductions)

## What does ”clean energy” mean?

Clean energy is obtained from sources that do not release air pollutants, such as greenhouse gases. A large part of clean energy is also renewable, such as wind power, hydropower and solar energy.

## What types of commitments can be made to contribute to Scope-3 emissions reduction?

Commitments to contribute to Scope 3 GHG emissions reductions can be expressed in absolute or intensity terms.

Examples can include:

* Development of products and processes that reduce other parties’ (e.g. further refinement) Scope 1 GHG emissions.
* Commitment to drive the adoption of emissions reduction targets among a company’s suppliers or customers.
* Elimination or reduction of GHG-intensive projects.
* Adoption of a best practice in the sector.
* Increased use of reusable materials.

*Science Based Targets. 2020. Science-Based Target Setting Manual. Version 4.1.*

<https://sciencebasedtargets.org/wp-content/uploads/2017/04/SBTi-manual.pdf>

## In companies where procurement is not managed at the company/corporate level, can facility procurement and supply chain practices be used to demonstrate alignment with the company/corporate climate change strategy?

Yes. In cases where the company/corporate level does not manage most aspects of procurement and supply chain, facility-level practices can be used to demonstrate alignment with the company/corporate change strategy.

## What types of guidance exist for company/corporate climate-related disclosures?

The Task Force on Climate-related Financial Disclosures (TCFD) and Carbon Disclosure Project (CDP) provide detailed guidance on the implementation of their respective disclosure criteria. More information can be found at the links below.

*TCFD. 2021. Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures.* https://www.fsb-tcfd.org/publications/

*CDP. 2020. Guidance for Companies.* https://www.cdp.net/en/guidance/guidance-for-companies

‘Are You Climate Ready?’ (AYCR) is a systems approach embedded with useful tools that can provide companies with feedback to self-assess their environmental management systems against the recommendations of the TCFD. The AYCR’s four core elements include:

1. a personal assessment to support employees in understanding the importance of climate readiness;
2. support for leveraging the value of an environmental management system to address the TCFD thematic areas of governance, strategy, risk management, and metrics and targets;
3. connection between the business and environmental objectives from their environmental management system to the UN Sustainable Development Goals and Project Drawdown; and
4. feedback on patterns and trends to identify strengths and weaknesses with insight on opportunities.

For more information, see: AreYouClimateReady.com

## How can a company demonstrate an understanding of how the commodities and products in which it invests or that it uses contribute to societal climate change resiliency and the low carbon economy?

To meet this criterion, a company’s reporting should describe how it contributes to societal climate change resiliency and the low carbon economy through the commodities and products that it produces or uses. For example, a company could explain how its investments in certain battery metals support the transition to a low carbon economy by meeting demand for electric vehicles.

## How can company/corporate GHG reduction commitments align with the commitment to limit global warming to well below 2°C (above pre-industrial levels)?

The *Paris Agreement*, which entered into force in November 2016, aims to strengthen the global response to the threat of climate change by keeping a global temperature rise this century to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5°C. The Intergovernmental Panel on Climate Change (IPCC) is a leading authority on emissions scenarios and may serve as a valuable resource for companies to use in assessing their emissions reductions targets. Other resources are outlined below. As this is an evolving field, members seeking additional guidance should reach out to MAC for further support.

Note that the *Paris Agreement* does not specify what period in history should be considered ‘pre-industrial’. The IPCC *Special Report on Global Warming of 1.5°C* uses the reference period 1850–1900 to represent pre-industrial temperature.

*United Nations Climate Change. 2020. The Paris Agreement.* https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement

*Science Based Targets. 2020. What is a Science Based Target?* <https://sciencebasedtargets.org/what-is-a-science-based-target/>

*Science Based Targets. 2020. SBTi Criteria and Recommendations.* <https://sciencebasedtargets.org/wp-content/uploads/2019/03/SBTi-criteria.pdf>

*IPCC. 2019. Special Report on Global Warming of 1.5°C.* https://www.ipcc.ch/sr15/

## How can companies apply carbon price scenarios in strategic development and decision-making processes?

For guidance on applying carbon price scenarios, see the following resources:

*CDP. 2017. Putting a price on carbon: Integrating climate risk into business planning.*

https://www.cdp.net/en/research/global-reports/putting-a-price-on-carbon

*Ecofys, The Generation Foundation, and CDP. 2017 How-to guide to corporate internal carbon pricing – Four dimensions to best practice approaches.*

https://cdn.cdp.net/cdp-production/cms/reports/documents/000/002/740/original/cpu-2017-how-to-guide-to-internal-carbon-pricing.pdf?1521554897

*United Nations Global Compact. 2015. Executive Guide to Carbon Pricing Leadership: A Caring for Climate Report.* https://www.wri.org/research/executive-guide-carbon-pricing-leadership

*Center for Climate and Energy Solutions. 2017. ‘The Business of Princing Carbon’.*

https://www.c2es.org/site/assets/uploads/2017/09/business-pricing-carbon.pdf

## What types of strategic investments could contribute to societal climate change resiliency and the low carbon economy?

A company’s understanding of how its strategic investments contribute to societal climate change resiliency and the low carbon economy can be demonstrated by, for example:

* Decisions around the commodities in which the company invests (e.g., metals used in clean energy technologies for emissions reduction)
* High-impact climate-related initiatives (e.g., investments in technological innovations that achieve significant emissions reductions)

## [Can company/corporate documentation be used to demonstrate facility-level commitment?](#_bookmark3)

A written senior management commitment at corporate level can only be accepted as evidence during a facility-level self-assessment or verification of the Finnish TSM standard, if accompanied by evidence that the corporate commitment is being applied and adhered to at facility level. There must be evidence of a link between corporate documentation and facility-level practices. If such a linkage is established, corporate documentation can be accepted as evidence of facility-level commitment.

## What is major process activity?

A major process activity can be defined as a significant component of the production process that can be easily bounded and whose energy use and GHG emissions can be accurately measured.

## What is a management review?

Annual management reviews are intended to ensure continual improvement by evaluating the status of actions from the previous management review and the effectiveness of the energy and GHG emissions management systems in place. The management review process should identify opportunities for improvement and describe associated action plans.

It should identify and evaluate the potential significance of changes since the previous management review that are relevant to energy and GHG emission, including:

* Changes to legal requirements, standards and guidance, industry best practice, and commitments to COI.
* Changes in mine operating conditions (e.g., production rate) or site environmental conditions.
* Changes outside the mine property that may influence the nature and significance of potential impacts resulting from the facility on the external environment or vice versa.

The management review should also provide a summary of significant issues related to the overall performance of the facility and its energy and GHG emissions management system, including compliance with legal requirements, conformance with standards, policies and commitments and the status of corrective actions.

## What is meant by “energy data is reviewed regularly and integrated into operator actions for energy intensive processes”?

The key energy management principle applied in the case of this indicator is that floor level operators are managing energy consumption as a consumable of (or input to) the production process. This means that energy use for energy intensive processes must be metered and controlled by technologies and operators that run the energy intensive process. Information on energy use must therefore be available to the operator frequently enough to enable the operator to optimise energy consumption. Examples include maintaining a temperature range and optimising the speed of a variable speed pump.

## What is meant by “actions and process controls related to energy use and GHG emissions are included in management systems for material sources”?

Operator actions related to energy use and GHG emissions must be included in the operator’s job procedures. In a situation where GHG emissions are directly related to energy use, energy related job procedures act as a proxy for GHG control procedures. Examples include procedures for identifying and repairing compressed air leaks as part of the operating manual for air compressors, and energy saving steps as part of the start-up procedures of a large item of equipment.

Where GHG emissions are a direct result of energy use (e.g. stand-by generators or diesel engines forming part of mobile mining equipment), the control of energy use can serve as a proxy for the control of GHG emissions. With the application of the appropriate conversion factors or quantification protocols, controlled energy performance can be expressed as GHG emissions performance.

## What is considered a material energy source?

Companies must define the criteria used to determine whether an energy source is material in their management system. One such example of a material threshold for energy sources is that anything above 10% of total energy consumption must be considered material. This 10% threshold would apply to miscellaneous energy use at the mine site, which does not have a direct or indirect impact on its ability to create, preserve or erode economic, environmental and social value for itself and its stakeholders.

All energy sources can be considered significant if this is desired or if significance cannot be defined.

## What is the treshold for significant source of non-energy GHG emissions?

Facilities or business units must identify and estimate significant sources of non-energy GHG emissions over 100 tonnes. With respect to transportation, emission sources of less than 100 tonnes are also taken into account in practice.

## What are examples of non-energy GHG emissions?

## 

Some examples of non-energy GHG emission include fugitive methane, the acidification of carbonate ore and emissions from the use of explosives. It is also possible that a facility has no significant sources of non-energy GHG emissions. Facilities should include in their reporting a description of how the significance of their non-energy GHG emissions was assessed.

## How can a facility consider the level of risk associated with a potential physical climate impact in the identification of adaptation measures?

The facility must conduct physical impacts climate modelling that includes, at a minimum, rainfall, extreme weather and temperature events at the facility and at other sites relevant to operations (e.g., ports, heat production, etc.). Risks and opportunities resulting from these physical impacts should be assessed and, where possible, estimates should be assessed for both the costs of implementation and non-implementation of these mitigation measures.

## What types of climate scenarios should be used in a facility’s assessment of its physical climate vulnerabilities and risks?

Refer to MAC’s *Guide on Climate Change Adaptation for the Mining Sector* for detailed guidance on characterizing future climate, selecting future climate projections, and assessing physical climate vulnerabilities and risks.

## How can facilities engage or collaborate with COI on climate change management?

## 

Some examples of ways in which a facility can involve COI in climate change management include:

* Engagement of COI in the development of a facility’s physical climate impact assessment and in the identification and prioritization of adaptation measures
* Effective communication of a facility’s approach to managing physical climate impacts and adaptation
* Sharing of information and analysis on local physical climate impacts
* Support for local or regional COI to respond to potential climate impacts (e.g., infrastructure to address future water scarcity, natural disaster planning)

## How can a facility demonstrate efforts to engage with COI on climate change mitigation and adaptation?

At Level A, a facility is tasked with gauging the level of importance of climate change mitigation and adaptation for COI and then engaging as appropriate. If COI prove interested in engaging on climate change, then facilities can provide evidence of this engagement (e.g., meeting records). In other cases, the facility may find that climate change is not a priority issue for COI. However, the facility will still need to demonstrate that it has made efforts guage the level of importance of the issue with COI. Some examples include:

* Evidence that COI were informed about opportunities to engage on climate change during the course of other regular engagement activities (e.g., meeting agenda, meeting minutes)
* Evidence that the interests and attributes of COI have been recorded that climate change has not been identified as a key issue for any COI
* Evidence that the facility has conducted proactive outreach to COI that they think might have an interest in climate change (e.g., environmental groups, local authorities)

## Can investments in renewable energy that provide the benefit to offsets for regulatory compliance fulfil the requirements of corporate investments under Performance Indicator 2, level AA?

Yes.

## What is an “internal or external audit” and how long those are valid?

An audit is a systematic and documented independent assessment to determine whether the requirements of audited entity are met. The audit findings and conclusions are based only on the evidence.

Internal audits can be conducted by employees of the company who are independent, impartial and objective with respect to the matter being evaluated. External audits are conducted by an independent and objective person or group, such an independent consultant. The audits are valid for three (3) years.

Audits should not be confused with the verification system, which is – largely a desk-top exercise in which the TSM rating self-assigned by a facility or company against a given indicator is verified. The TSM verification is not equivalent to an audit, as outlined in the preceding paragraph, which is more detailed than verification.

## What does ”at predifined intervals” mean?

This is as defined for each material energy source in the energy use and GHG emissions management system.

## What is a “system”?

A “system”, or “management system”, represents processes that collectively provide a systematic framework for ensuring that tasks are performed correctly, consistently and effectively in order to achieve specified objectives and to drive continual improvement in performance. A systems approach requires an assessment of what needs to be done, planning in order to achieve the set objectives, the implementation of the plan and a review of performance in meeting the objectives. A management system also considers any personnel and resource requirements and how the documentation required for the system’s implementation will be created. The documentation covers all types of documentation (paper documents, intranet documents, electronic documents, etc.). Not all practices need to be documented.

Within any system, processes and activities are usually given a certain status through clear and precise requirements that are documented as a written procedure, for example. This means that the company can clearly and easily demonstrate that the process or system in question is in place. This would also typically require documented processes or an “audit trail”.

Other definitions associated with systems are:

* Commitment: The management’s public commitment to energy efficiency/conservation and the reduction of GHG emissions.
* Practice: Informal, undocumented approaches to carrying out a task.
* Procedure: A formalised, documented description of how a task is to be carried out.

## What does “responsibility” mean?

Responsibility: Within the energy use and GHG emissions management system, specific energy use and GHG emissions management related requirements and tasks are identified and assigned to specific positions within the facility. It is important that responsibilities are clearly communicated so that the person in each position understands what is expected of him or her.

## What does “business unit” mean?

Business Unit: The energy use and GHG emissions management system allows a company to set targets at both facility and business unit level. For the purpose of this protocol, a business unit is defined as a [logical element](http://www.businessdictionary.com/definition/element.html) or [segment](http://www.businessdictionary.com/definition/segment.html) of a [company](http://www.businessdictionary.com/definition/company.html) representing a specific [business function](http://www.businessdictionary.com/definition/business-function.html) or a [definite](http://www.businessdictionary.com/definition/definite.html) place on the organisational chart, under the [domain of a](http://www.businessdictionary.com/definition/domain.html) [manager,](http://www.businessdictionary.com/definition/manager.html) or a [functional geographic area.](http://www.businessdictionary.com/definition/functional-area.html) This may include but is not limited to a series of mines located in a defined physical area, a series of mines producing a specific product, or a combination of a mine and smelter. For the purpose of this protocol, a business unit is defined by the company but requires a documented rationale for why two or more facilities have been grouped together in the business unit.

## [Does](#_bookmark5) commitment to Energy Eefficiency Agreement or ETJ+ / ISO 50001 certified Management System fulfil the requirements of Climate Change Management System (Performance Indicator 2)?

A management system according to the Energy Efficiency Agreement or ETJ+ / ISO 50001 standards can partially cover the requirements presented in this Protocol. At level AA (Performance Indicator 2), an audit according to the ETJ+ or ISO 50001 standard is suitable for the required internal or external audit, only if at the same time the aspects related to climate change presented in the Indicator 2 have been reviewed.

## What is meant by standard factors?

Greenhouse gas emissions are calculated according to the GHG Protocol accounting standards. Spreadsheets and factors can be found at:

<https://ghgprotocol.org/>

<https://www.stat.fi/tup/khkinv/khkaasut_polttoaineluokitus.html>

## Can a facility with distinctly different production processes set separate energy and GHG emissions performance targets?

Yes. A facility can set different performance targets for each production process, particularly when a facility uses intensity-based targets. For example, a single indicator may not be sufficient in the case of an open pit facility that is comprised of the pit and a concentrator, or where smelters are processing an increasing amount of recycled material. It may be necessary to have multiple targets at a single facility where the dynamics of the production processes are so different that one common target is not adequately representative nor a consumption driver for each production process.

## If a facility uses multiple targets, does the facility have to meet all targets before it achieves a Level A rating?

Yes. The intent of the performance indicators is that they reflect the performance of the overall facility. Therefore, all targets or progress in achieving goals must be met in order to achieve a Level A rating.

## When underground mines are developing new production zones at much greater depth, the energy intensity increases due to the extra energy required for ventilation, pumping, cooling, hoisting and sustaining the infrastructure at great depth. What methodology can be used to create a practical target in such cases?

The energy consumption of new equipment and activities is estimated. Operations typically monitor total monthly consumption versus the estimated consumption budget. However, total estimated monthly consumption can be divided by forecast production in order to determine monthly energy consumption targets. When purchasing new items of machinery and equipment, their energy efficiency is assessed and the related criteria and performance targets are set.

## What constitutes an energy use or GHG emissions performance target?

A facility or business unit may designate one or both of the following types of energy use or GHG emissions performance targets:

* Volume targets: volume targets define a specified amount of carbon dioxide equivalent (CO2 equivalent) or energy consumption that will be consumed or emitted by the facility. Such targets are independent of the amount of product produced by the facility and/or business unit, and are calculated relative to current or historical data.
* Intensity targets: intensity targets define a specific amount of CO2 equivalent or energy consumption per unit of production, where production for a mine/mill is “head tonnes” and for smelters/refineries it is “refined metal or metal in matte”. “Head tonnes” is the term used for tonnes of ore delivered to a concentrator. It is the denominator that is commonly used to determine intensity. Head tonne volume is the most appropriate driver of energy consumption and GHG emissions production in production processes and is independent of changing ore grades.

For more information, please see question no 48.

## What should be considered when setting a performance target?

When selecting targets, environmental, economic, and social issues should be taken into consideration. A facility may want to consider:

* Relevant corporate commitments
* Financial criteria and priorities
* Safety and health issues
* Available human and technical resources
* Energy management system, including areas of significant use and drivers
* Life of mine
* The use of renewable energy and the ecological nature of energy production, which can be evaluated, for example, based on the EKOenergy criteria
* Alternative energy sources
* Maintenance and infrastructure needs
* Operational requirements and constraints
* Quality and appropriateness of energy resources
* Environmental impacts
* Previous energy performance
* Alignment with stated goals and objectives
* Energy and GHG emissions reductions

Targets should be:

* Ambitious, to commit the organization to continual improvement
* Realistic, so that they can be achieved within specific time limits
* Specific and measurable

## Can offsets be used to meet emissions reduction performance targets?

Yes. Emissions reduction performance targets can be met by a combination of on-site reductions and offsets, including performance credits. However, if offsets have been used to meet targets, the percentage and source of offsets used must be clearly documented and their use should not exceed any regulatory caps that may be in place for a facility.

## Do targets need to apply to the entire facility?

Targets do not need to apply to the entire facility. Some targets may apply to equipment, while others may address the energy consumption of certain departments, training or additional measuring and monitoring.

## How can a facility or business unit express energy reduction targets?

Energy use and GHG emissions reduction targets can be expressed either as absolute energy savings attributable to a given initiative, or through performance improvement metrics.

## If a business unit target is achieved by realising reductions at a single facility, do all facilities in that business unit gain credit for the reduction?

Yes, if an energy use and GHG emissions management system designates a business unit level target that calls for a defined emission reduction and the specified reduction target for the entire business unit is achieved by reducing emissions at a single facility, then all facilities listed in that business unit must receive credit for achieving the target. With respect to the climate, it makes no difference where a tonne of GHGs comes from and, as such, this protocol encourages the most cost-effective form of reduction, rather than reductions across all facilities. This principle is consistent with the principles underlying carbon pricing policies, such as emissions trading and cap-and-trade, in that the intent is to establish a price for carbon that should encourage companies to implement the lowest cost opportunities.

## How should progress against a multi-year emission target and energy efficiency plan be assessed?

Energy efficiency plans must be made on a cycle of no more than three years. A multi-year target as referred to in this question is, for example, a 20% reduction in energy use or GHG emissions over a three year period. Such a target may make sense for a facility or business unit if it is implementing a multi-year capital plan or infrastructure upgrade that will result in emissions reductions and/or energy savings after its completion. In such a case, an action plan outlining the specific steps that will be implemented each year until the plan is complete should be used to assess progress. Such actions may include, but are not limited to, new operating procedures to be implemented, new equipment to be purchased and installed, or new processes to be commissioned. Actions in the plan should be specific and measurable and should clearly contribute to achieving the reduction specified in the multi-year plan. For a facility or business unit to achieve a Level A under Performance Indicator 3, it must be able to demonstrate that previously declared annual milestones for the current year of a multi-year target have been achieved in the reporting year.

## What is independent assurance?

Independent assurance can be demonstrated either through an external audit or other form of third party verification.

* An audit is systematic and documented independent examination of conformance to determine whether the requirements of audited entity are met. The audit findings and conclusions are based only on the evidence. Audits are conducted by an independent and objective person or group, such an independent professional consultant.
* Third party certification is an independent process to ensure that the information being assured is accurate and adheres to a specific set of criteria (esim. ISO 14064-3: Specification with guidance for the verification and validation of greenhouse gas statements).

## What type of information on physical climate impacts needs to be publicly reported?

At a minimum, the facility should publish

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* a summary of its projections of future climate conditions
* assessment of potential physical climate impacts that could have direct or indirect impacts off site
* any plans or actions taken to manage these identified risks

Particular attention should be paid to providing information of relevance to local COI.

## What are material Scope 3 GHG emissions and how can they be calculated?

For the purpose of this protocol, facilities must define criteria to determine whether a particular source of Scope 3 GHG emissions is material to their management system. Where this definition is made at the company/corporate level, facilities can use company/corporate definitions and information to respond to this criteria. Guidance on calculating Scope 3 GHG emissions and determining materiality can be found in the following reference material:

*Greenhouse Gas Protocol. 2013. Technical Guidance for Calculating Scope 3 Emissions.*

<https://ghgprotocol.org/sites/default/files/standards/Scope3_Calculation_Guidance_0.pdf>

*Chartered Professional Accountants Canada. 2019. Disclosing the impact of climate change: A process for assessing materiality.* https://www.cpacanada.ca/en/business-and-accounting-resources/financial-and-non-financial-reporting/sustainability-environmental-and-social-reporting/publications/assessing-materiality-of-climate-change

*Task Force on Climate-related Financial Disclosures. 2021.* <https://www.fsb-tcfd.org/publications/>

## What types targets can be used to assess performance on energy related to Scope 1 and 2 GHG emissions?

Informed by any relevant company/corporate commitments, a facility should evaluate opportunities to set performance targets related to Scope 1 and 2 GHG emissions. A facility may choose to set one or more of the following types of performance targets:

* *A volume target* refers to an absolute amount of energy consumed or carbon dioxide equivalent (CO2e) emitted by the facility. Such targets are independent of production. Typically, volume targets are defined relative to current or historical data (e.g. 5% reduction from 2015 baseline) but may also be set against business-as-usual projections
* *An intensity target* refers to the ratio of consumption or emissions relative to production. Examples include emissions or energy use per tonne of copper cathode produced or per tonne of ore processed.
* *An activity-based target* is an established target where future energy consumption or GHG emissions will be reduced or avoided due to a specific activity. Such targets could include initiatives or projects that lead to energy not being consumed that would otherwise have been consumed if the project had not been implemented.
* *A control target* establishes a level or measure of effectiveness of a control over an activity that is linked to either the consumption of energy or the release of GHGs. A control may include operational limits on production equipment or administrative requirements on various mining activities. Examples include:
  + Conformance with operational limits for unit operations that are key consumers of energy or emitters of GHG emissions (e.g. 100% conformance with operating within the upper and lower temperature limits in a dryer)
  + Compliance with an administrative control (e.g. 95% compliance with a no-idle policy)

As Scope 2 emissions are associated with third-party electricity generation, facilities are deemed to have addressed these emissions through management of their electricity use.

## How can a facility that is not in full operation set an appropriate performance target?

It is not mandatory for facilities to implement TSM prior to entering full operation. Should facilities wish to implement TSM prior to reaching full operation, one approach is to set an activity-based target. For example, by 2025, the facility will have implemented energy and GHG performance improvement projects that provide 1,500 GWh/year of energy savings or 250 CO2e/year of GHG reductions. Or, that 30% of vehicles or 50% of lighting fixtures will have been swapped for more energy efficient models.

## How can a facility demonstrate progress towards energy and GHG emissions performance targets?

There are a variety of ways in which a facility can demonstrate progress towards its performance targets. One option is through multi-year targets. A multi-year target is an energy or GHG emissions target that specifies certain performance over a defined number of years (e.g., a 20% reduction over a three-year period). The target may make sense for a facility that is implementing a multi-year capital plan or infrastructure upgrade that will result in emissions reductions or energy savings only when the final plan is complete. In such a case, it is difficult to determine if a facility is meeting expectations toward the target if progress is not linear. Instead, an action plan outlining the specific steps that will be implemented each year until the plan is complete should be used to assess progress.

Such actions may include, but are not limited to, new operating procedures to be implemented, new equipment to be purchased and installed, or new processes to be commissioned. Actions in the plan should be specific and measurable and should clearly contribute to achieving the reduction specified in the multi-year plan. For a facility to achieve a Level A under Indicator 3, it must be able to demonstrate that previously declared annual milestones for the current year of a multi-year target have been achieved in the reporting year. Energy performance improvement plans must be made on a cycle of no more than three years.

Other examples of how a facility can demonstrate progress towards an energy and GHG emissions performance target include:

* Demonstration of the implementation, or process of implementation, of emissions reduction projects or plans to change energy sources
* Capital allocation towards emissions reduction projects
* Actions implemented as part of a broader plan to achieve the performance targets
* Measured and verified energy or GHG reductions resulting from a specific performance improvement initiative
* Percentage of previous year’s energy or GHG performance target achieved
* Improvements in the energy and GHG management system
* A study commissioned to investigate potential improvement opportunities
* Active participation in energy efficiency collaborative processes (e.g. Coalition for Energy Efficient Comminution)

# APPENDIX 2: SELF-ASSESSMENT CHECKLIST

**Climate Change Management**

|  |  |  |  |
| --- | --- | --- | --- |
| **Facility/**  **Site:** |  | **Company:** |  |
| **Assessed by:** |  | **Date Submitted:** |  |

|  |  |
| --- | --- |
| **SUPPORTING DOCUMENTATION / EVIDENCE:** | |
| **NAME OF DOCUMENT** | **LOCATION** |
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| --- | --- | --- | --- | --- |
| **Interviewees:** | | | | |
| **NAME** | **POSITION** | **NAME** | **POSITION** | |
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| --- | --- | --- | --- | --- | --- |
|  | **Question** | **Y** | **N** | **NA** | **Description & Evidence** |
| **INDICATOR 1: Company/corporate Climate Change Management** | | | | | |
| **Indicator 1  Level B** | 1. Has a company/corporate action plan been developed to meet all requirements for a Level A? |  |  |  |  |
| 1. Is data on Scope 1 and 2 GHG emissions maintained? (e.g. FAQ1) |  |  |  |  |
|  | *If you have answered “Yes” to all of the Level B questions, continue to the Level A questions. If you have not answered “Yes” to all of the Level B questions, the facility is a Level C facility.* | | | | |
| **Indicator 1  Level A** | 1. Is there a demonstrated company/corporate climate change strategy which is taken into account in business planning? |  |  |  |  |
| 1. Has the organization defined accountabilities, responsibilities and reporting processes regarding the management of risks and opportunities related to climate change? (e.g. FAQ2) |  |  |  |  |
| 1. Are material climate-related risks and opportunities and their impact on the company’s businesses, strategy and financial planning identified, assessed and managed? (e.g. FAQ10) |  |  |  |  |
| Is a plan for risk management in place? |  |  |  |  |
| 1. Are materials demonstrating the above criteria publicly reported on an annual basis? |  |  |  |  |
| *If you have answered “Yes” to all of the Level A questions, continue to the Level AA questions. If you have not answered “Yes” to all of the Level A questions, the facility is a Level B facility.* | | | | |

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| --- | --- | --- | --- | --- | --- |
|  | **Question** | **Y** | **N** | **NA** | **Description & Evidence** |
| **Indicator 1  Level AA** | 1. Is there a demonstrated company/corporate commitment to climate action that is consistent with the Paris Agreement (to limit global warming well below 2 °C), with long and short targets and actions planned to achieve these commitments? (e.g. FAQ3 and FAQ12) |  |  |  |  |
| 1. Is performance measured against stated targets in Level AA Criterion #1? |  |  |  |  |
| 1. Does the company’s strategic investments contribute to societal climate change resiliency and the low carbon economy? (e.g. FAQ14) |  |  |  |  |
| 1. Do procurement and supply chain management practices demonstrate alignment with the company/corporate climate change strategy?   (e.g. FAQ9) |  |  |  |  |
| 1. Does the company/corporate climate change strategy includes at least at least **two** of the following elements (e.g. FAQ7 & FAQ13): 2. Planned or actual investments in climate actions (e.g., research and development, energy performance improvements, clean energy projects), that will lead to measurable improvements in climate change mitigation and adaptation. 3. Key performance indicators related to the implementation of the climate change strategy are tracked and documented at least a quarterly basis. 4. If the company is involved in emission trading a range of potential carbon price scenarios are used when developing strategies or evaluating and making decisions on projects. 5. Opportunities for offsets that benefit communities of interests evaluated and, where feasible, prioritized. |  |  |  |  |
| 1. Are materials demonstrating the above criteria (level AA) publicly reported on an annual basis? |  |  |  |  |
|  | *If you have answered “Yes” to all of the Level AA questions, continue to the Level AAA questions. If you have not answered “Yes” to all of the Level AA questions, the facility is a Level A facility.* | | | | |

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| --- | --- | --- | --- | --- | --- | --- |
|  | **Question** | **Y** | | **N** | **NA** | **Description & Evidence** |
| **Indicator 1  Level AAA** | 1. If the company is involved in emission trading, does the company/corporate climate change strategy includes all of the elements outlined in Level AA Criterion #5? |  | |  |  |  |
| 2a. Is the company/corporate business strategy corresponding with societal ambitions to achieve net-zero emissions within agreed timeframe, with short- and long-term targets and actions planned to achieve these commitments? (e.g. FAQ5 ja FAQ12) |  | |  |  |  |
| 2b. Is the company/corporate committed to contribute to Scope 3 emissions reductions? (e.g. FAQ8) |  | |  |  |  |
| 3. Have short- and long-term actions to achieve stated targets in Level AA Criterion #1 and Level AAA Criterion #2a been, or are they on track to to be, met on the timescale identified, or have corrective actions been identified and are these corrective actions being implemented? |  | |  |  |  |
| 4. Are materials demonstrating the above criteria (Level AAA) publicly reported on an annual basis? |  | |  |  |  |
| *If you have answered “Yes” to all of the Level AAA questions, the facility is a Level AAA facility. If you have not answered “Yes” to all of the Level AAA questions, the facility is a Level AA facility.* | | | | | |
|  | **ASSESSED LEVEL OF THE COMPANY’S PERFORMANCE FOR INDICATOR 1** | | **Level:** | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Question** | **Y** | **N** | **NA** | **Description & Evidence** |
| **INDICATOR 2: Facility Climate Change Management** | | | | | |
| **Indicator 2  Level B** | * + 1. Is a climate management system been established that includes:  1. A demonstrated senior management commitment on climate change management at facility level (e.g. FAQ 15 and FAQ30) |  |  |  |  |
| 1. Responsibilities for energy consumption and greenhouse gas emissions have been assigned for responsible persons at the facility level (e.g. FAQ31) |  |  |  |  |
| 1. Energy consumption and the associated GHG emissions are determined at predefined intervals with respect to sources accounting for substantial consumption and/or offering considerable potential for energy performance improvement, by major process activity (e.g. mill, mine, smelter, refinery, etc.) (e.g. FAQ16 & FAQ29) |  |  |  |  |
| 1. Identification and estimation of significant sources of non-energy GHG emissions   (e.g. FAQ21 & FAQ22) |  |  |  |  |
| * + 1. Has the facility conducted some analysis related to physical climate impacts and adaptation? |  |  |  |  |
|  | * + 1. Has the facility developed an action plan to meet all requirements for al level A? |  |  |  |  |
|  | *If you have answered “Yes” to all of the Level B questions, continue to the Level A questions. If you have not answered “Yes” to all of the Level B questions, the facility is a Level C facility.* | | | | |

|  | **Question** | **Y** | | **N** | **NA** | **Description & Evidence** |
| --- | --- | --- | --- | --- | --- | --- |
| **Indicator 2  Level A** | * + 1. Is a climate change management system established that includes:  1. A data collection and monitoring process that is appropriate for energy use and GHG emission sources on site? |  | |  |  |  |
| 1. Clear definition of accountabilities and responsibilities for managing energy consumption and GHG emissions performance? |  | |  |  |  |
| 1. An annual management review?   (e.g. FAQ17) |  | |  |  |  |
| * + 1. Are energy consumption and GHG emissions considered in business planning at facility and/or business unit level? |  | |  |  |  |
| * + 1. Is energy consumption data reviewed regularly and integrated into operator actions for energy intensive processes? (e.g. FAQ18) |  | |  |  |  |
| * + 1. Are the actions and process controls related to energy use and GHG emissions included in management systems for material sources?   (e.g. FAQ19 & FAQ20) |  | |  |  |  |
| * + 1. Is general energy use and GHG emissions awareness training provided to personnel? |  | |  |  |  |
| Does key personnel have additional training? |  | |  |  |  |
| * + 1. Is a process for the managent of physical climate impacts and adaptation established that includes (e.g. FAQ23 & FAQ24):  1. Assessment and identification of potential physical climate impacts for the business, with a review of this analysis scheduled at predetermined intervals and whenever there are significant changes in operations. |  | |  |  |  |
| 1. Consideration of risks resulting from potential physical climate impacts in relevant facility-level decision-making. |  | |  |  |  |
| 1. Identification, priorization and implementation through business planning and adaptation measures that respond to the identified physical climate impacts. |  | |  |  |  |
| * + 1. Is there a process in place to promote awareness of climate change mitigation and adaptation, including relevant company/corporate commitments and facility-level targets, to employees and contractors? |  | |  |  |  |
| * + 1. Have the facility gauges how important the measures aimed at managing and adapting to climate change are seen in the nearby communities and, if necessary, involves stakeholders in the planning of the measures? |  | |  |  |  |
| *If you have answered “Yes” to all of the Level A questions, continue to the Level AA questions. If you have not answered “Yes” to all of the Level A questions, the facility is a Level B facility.* | | | | | |
| **Indicator 2 Level AA** | 1. Does the facility collaborate with COI interested in climate change as appropriate? (e.g. FAQ25 & FAQ26) |  | |  |  |  |
| 1. Does the company invest in renewable energy projects and/or energy recovery projects?   (e.g. FAQ27) |  | |  |  |  |
| 1. Has the climate change management system undergone an internal or external audit?   (e.g. FAQ28) |  | |  |  |  |
|  | *If you have answered “Yes” to all of the Level AA questions, continue to the Level AAA questions. If you have not answered “Yes” to all of the Level AA questions, the facility is a Level A facility.* | | | | | |
| **Indicator 2  Level AAA** | 1. Does the facility apply three or more of the following practices: 2. The responsibilities of key performance indicators related to the increasing of energy efficiency, reduction of energy use or reduction of GHG emissions are assigned. 3. Offsets are integrated into the management system. 4. The climate change management is taken into account to the full lifecycle of facility activities, including in relation to suppliers, customers and other third parties. 5. Active partnership is pursued with other organizations or COI on physical climate impacts and adaptation management, with roles and responsibilities assigned to support this commitment.   (e.g. FAQ26)   1. Community, cultural or traditional knowledge is considered in climate impact assessments and in the design of adaptation measures. |  | |  |  |  |
| *If you have answered “Yes” to all of the Level AAA questions, the facility is a Level AAA facility. If you have not answered “Yes” to all of the Level AAA questions, the facility is a Level AA facility.* | | | | | |
|  | **ASSESSED LEVEL OF THE COMPANY’S PERFORMANCE FOR INDICATOR 2** | | **Level:** | | | |

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| --- | --- | --- | --- | --- | --- |
|  | **Question** | **Y** | **N** | **NA** | **Description & Evidence** |
| **TULOSKRITEERI 3: PERFORMANCE TARGETS & REPORTING** | | | | | |
| **Indicator 3  Level B** | 1. Have energy consumption and GHG emissions performance targets been set? (e.g. FAQ35, FAQ37, FAQ38, FAQ39, FAQ40, FAQ48 and FAQ49) |  |  |  |  |
| 1. Does public reporting take place on energy and GHG emissions? |  |  |  |  |
| 1. Are standard factors used to convert energy and GHG emissions data into comparable units?   (e.g. FAQ34) |  |  |  |  |
| 1. Has the facility developed an action plan to meet all requirements for a level A? |  |  |  |  |
| *If you have answered “Yes” to all of the Level B questions, continue to the Level A questions. If you have not answered “Yes” to all of the Level B questions, the facility is a Level C facility.* | | | | |
| **Indicator 3 Level A** | 1. Have performance targets been set focused on Scope 1and 2 GHG emissions?   (e.g. FAQ1, FAQ37, FAQ38, FAQ39, FAQ40, FAQ41, FAQ42, FAQ48 and FAQ49) |  |  |  |  |
| 1. Does the facility-level action plan include short- and long-term steps towards achievement of the performance targets? |  |  |  |  |
| 1. Is progress demonstrated towards the performance targets?   (e.g. FAQ36, FAQ40, FAQ43, FAQ44 & FAQ50) |  |  |  |  |
| 1. Does annual public reporting include targets and performance indicators used to assess performance focused on Scopen 1 & 2 GHG emissions? |  |  |  |  |
| 1. If offsets are used by the facility or business unit to meet targets, does the public reporting includes (e.g. FAQ4 and FAQ40)  * the amount of offsets as a percentage of total emissions generated at facility level and/or business unit level? * the source and nature of the accreditation of offsets? |  |  |  |  |
| 1. Is information on the facility’s assessment of potential physical climate impacts and plans or actions to manage the associated risks shared publicly and updated as assessments or plans are updated? (FAQ46) |  |  |  |  |
| *If you have answered “Yes” to all of the Level A questions, continue to the Level AA questions. If you have not answered “Yes” to all of the Level A questions, the facility is a Level B facility.* | | | | |

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|  | **Question** | **Y** | | **N** | **NA** | | **Description & Evidence** |
| **Indicator 3  Level AA** | 1. Have performance targets been met on timescale identified, or have corrective actions been identified and are the corrective actions being implemented? |  | |  |  | |  |
| 1. Have energy use and Scope 1 and 2 GHG emissions (e.g., source data, conversion factors, energy GHG intensities used, etc.) reporting been independently assured? (e.g. FAQ45) |  | |  |  | |  |
| 1. Does the facility seek feedback on public reporting as appropriate? |  | |  |  | |  |
| *If you have answered “Yes” to all of the Level AA questions, continue to the Level AAA questions. If you have not answered “Yes” to all of the Level AA questions, the facility is a Level A facility.* | | | | | | |
| **Indicator 3  Level AAA** | 1. Have the development of process technology, technologies or other forms of GHG reductions or offsets significantly reduced the facility’s energy consumption and greenhouse gas emissions, in line with a long-term net-zero emissions commitment? |  |  | |  | |  |
| 1. Is public reporting, including Scope 3 GHG emissions data, independently assured for accuracy? (e.g. FAQ45 and FAQ47) |  |  | |  | |  |
| *If you have answered “Yes” to all of the Level AAA questions, the facility is a Level AAA facility. If you have not answered “Yes” to all of the Level AAA questions, the facility is a Level AA facility.* | | | | | | |
|  | **ASSESSED LEVEL OF THE COMPANY’S PERFORMANCE FOR INDICATOR 3** | | | | | **Level:** | |

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