ZERO2NATURE

PROJECT DEVELOPMENT STANDARD

Version 1.3

"Developed from the UNFCCC CDM conception".

May 2020

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Version 1.3

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1. INTRODUCTION

1.1 How do we arrive at ZERO2NATURE?

Nature is the supreme inspiration, motivation and example of this standard. Despite her countless and intense productive cycles, Nature DOES NOT produce WASTE. Everything expended by one organism becomes food for another. Which doesn´t mean that there are no "natural" emissions, much on the contrary!

The oceans carry a natural carbon concentration 1 petaton (one followed by eighteen zeros). Radioactive elements are "natural" and so is the production of the most powerful poisons. Yet, everything in Nature inserts into beautifully balanced cycles. The viper produces a mortal venom, however his predator the mongoose is perfectly immune to its effects. Life on Earth is an infinity of productive cycles with high amounts of naturally neutralized negative emission (diseconomy)s.

The ZERO2NATURE system seeks inspiration from Nature through the observation of her processes and attempts to adequate them to human productive cycles.

In reality, the ZERO2NATURE system aims to contextualize and establish parameters within the evolution of our own engineering. At present, we make violin chords out of spider webs and build more resistant buildings, with much less material, based on observations from the weight distribution of the horse´s limbs. Moreover, we study the silica deposits in algae to apply its principles to nanotechnology.

Upon consideration of a more holistic engineering, where one focuses not on the linearity of productive processes, but on the interrelationships between diverse phases of these processes, one has to contextualize instantly and at all times. Clearly, for this practice to be even possible it was necessary to develop a tool that went beyond the traditional available instruments that assess productive cycles, like Pareto, fishbone, Perth, the block diagram and many others. The ZERO2NATURE platform allows the instantaneous and tridimensional vision of any productive cycle, within a variety of perspectives, which eases, quickens and aggregates transparency to the process of eco-credit generation. Through this system, according to sought after information, interrelationships are discovered and arranged.

The ZERO2NATURE system addresses and removes the three main taboos of the Green Economy: (1) a reduction in emissions leads to a reduction of productivity; (2) green products are unsophisticated (of inferior quality or plain ugly); (3) a reduction in emissions sacrifices profits.

If the productive cycles of a particular processing plant, depending on the region of location, obeys the principle of **entry – process – exit** without causing pollution (where pollution is everything that Nature cannot absorb), then the plant in question is ZERO2NATURE. Therefore, as long as the nature absorption rule is considered, productivity and profitability may increase, keeping the environmental impact neutralized.

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Finally, how we arrive at ZERO2NATURE becomes an easier task. Through research at universities, international energy agencies, IPCC (Inter-governmental Panel on Climate Change) and UNFCCC (United Nations Framework Convention on Climate Change), a database has been created with all the possible emissions from substances which can be found at sea, land, air or other types of water reservoirs. The result of this database has been the establishment of the Environmental Impact Potential (EIP) for each of the emitting agents, relative to their impact on air, land, sea and on fresh water reservoirs. The EIP is equivalent to the environmental impact caused by one totality of the emitting agent. Hence, one removed totality of any of the emitting agents listed on the "Table of Emitting Agents", available at the www.zero2nature.org website, multiplied by the EIP value of that same emitting agent will correspond to the number of ZERO2NATURE ecological credits named Diseconomy Traded Units (DTUs). There are six types of DTUs: B-DTU, resulting from PREBIO type project activities; C-DTU, resulting from PRECARB type project activities; F-DTU, resulting from PREFOR type project activities; H-DTU, resulting from the PREHYDRO project activities; M-DTU, resulting from PREMIN project activities and N-DTU, result of PRONER project activities.

In utilizing the ZERO2NATURE platform for insertion of the system of equations and adequate parameters for the region where an imbalanced productive cycle occurs, we obtain the indexes for all the emissions related to the cycle in scrutiny and compare them to the baseline (what volume of that substance, emitted in that location, will Nature absorb?).

The ZERO2NATURE system has guidelines, methodologies, procedures, tools; rules and requirements where project activities only receive DTUs after validation and verification performed by an authorized certification entity and registration approved by the ZERO2NATURE Executive Committee.

ZERO2NATURE is a standard, a certification, a market place. Above all, ZERO2NATURE is a concept; an embryo of an epiconomy that arises in parallel to a new realization of being.

1.2 ZERO2NATURE concept definition

ZERO2NATURE is an international standard that identifies the profile of any productive cycle and its *negative emission (diseconomy)* equivalence in determined scenarios.

In order to obtain the ZERO2NATURE issuance of DTUs, participants must conform their projects to the ZERO2NATURE Standard. The process initializes with the appraisal of all negative, positive and neutral emissions within the productive cycle of the proposed project. The resulting inventory of emissions will allow the participant to design projects that culminate in DTUs. ZERO2NATURE negative emission (diseconomy) reduction projects do not relate exclusively to greenhouse gases, but considers all polluting agents (that cannot be absorbed by Nature at the place where the productive cycle occurs), with consideration of the regional baseline.

The ZERO2NATURE Standard considers utilization in any type of productive cycle, being that of a

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person or company. The approved methodologies and tools employed by ZERO2NATURE are freely available at the www.zero2nature.org website. The Standard welcomes and encourages the proposition of new methodologies, which once approved, will also become available to the public in general.

ZERO2NATURE project activities need to have their project design documents (PDDs) validated, registered, verified and certified in order to generate DTUs. The Standard's approved certification entities are responsible for performing validation, verification and certification while the ZERO2NATURE Executive Committee is responsible for registration. Issuance of DTUs proceeds upon the Standard's acceptance of the verification and certification reports. Once generated, DTUs enter the O2N Blochchain. At the end of the process and respecting the equivalences between the different types of DTUs, the DTUcoin currency -whose market name is DTX- is generated.

An independent party will annually audit ZERO2NATURE. The resulting auditing report will be public and available at the www.zero2nature.org website.

1.3 ZERO2NATURE Standard objectives

The following are objectives of this Standard:

(a) Increase the consistency and clarity of the applicable requirements to any type of productive cycle proposed as a ZERO2NATURE project activity and promote a clear understanding common to all involved parties in the process;

(b) Improve the quality of the project design documents and monitoring reports prepared by project participants and submitted to the ZERO2NATURE project cycle.

(c) Maintain a high level of efficiency and guarantee the integrity of the ZERO2NATURE system.

1.4 ZERO2NATURE Standard Governance

The ZERO2NATURE Board of Directors is responsible for the development of the ZERO2NATURE Standard. Considering the evolving nature of this process, proposed new methodologies, concepts and proposals will be presented and open for discussion and/or suggestions at the www.zero2nature.org website, for total interaction with the public at large.

The ZERO2NATURE Board of Directors has selected an Executive Committee to guide the Standard's development and guarantee the maintenance of the best ethical practices. The Executive Committee is composed of highly knowledgeable professionals with proven experience in the diverse productive cycles addressed by this Standard. The Board of Directors regularly revises and recycles the members of the Executive Committee and formalizes the adoption of new members.

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Objective of the Executive Committee

Guarantee eco-sustainable integrity and additionality of ZERO2NATURE certified project activities.

1.4.1 Functions of the Executive Committee

a) The application of proven and unbiased knowledge in order to guarantee the technical rigor and full commitment of the ZERO2NATURE Standard and system;

b) The constant search towards the 'state of the art' in order to guarantee the endless development of the ZERO2NATURE Standard and system;

c) The development and introduction of new methodologies;

d) The consideration of suggestions made by project participants, students, professors and others interested in the application of *the* diseconomy concepts within productive cycles, in order to present the Board of Directors with eventual innovations to the ZERO2NATURE Standard and system;

e) The suggestion of potential members to the Executive Committee.

1.4.2 Structure of the Executive Committee

a) The Executive Committee members will utilize the ZERO2NATURE system for the development of their functions;

b) The Executive Committee will meet twice a year for training and recycling with respect to the ZERO2NATURE Standard and system;

c) Periodically, the Secretariat of the Executive Committee will publish the minutes relevant to matters discussed by the Executive Committee as well as decisions concerning ZERO2NATURE project activities;

d) The president of the Executive Committee participates regularly in meetings of the ZERO2NATURE Board of Directors.

2 SCOPE AND APPLICABILITY

2.1 General

This Standard provides participants and coordinating/managing agents with a direction for those interested in developing and implementing a ZERO2NATURE project activity and seeking resulting issuance of verified negative emission (diseconomy) reductions (DTUs). Moreover, the Standard specifies requirements for project participants and coordinating/managing agents to comply with in developing, implementing and monitoring any type of ZERO2NATURE project activity by reducing

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or removing negative emission (diseconomy) from any productive cycle.

2.2 Application

The principles of this Standard apply to any type of ZERO2NATURE project activity. The document information section at the end of this Standard lists all documents related to the "ZERO2NATURE project cycle procedure".

3 NORMATIVE REFERENCES

The following referenced documents are indispensable for the application of this Standard:

(a) Project Design Document - ZERO2NATURE-PDD;

(b) Glossary of ZERO2NATURE terms.

4 TERMS AND DEFINITIONS

In addition to the definitions contained in the "Glossary of ZERO2NATURE terms", the following terms apply in this Standard:

(a) "Shall" is used to indicate requirements to be followed;

(b) "Should", when applied, indicates that among several possibilities, one course of action is particularly suitable;

(c) "May" indicates what is permitted.

5 PRINCIPLES

5.1 General

The following principles guide ZERO2NATURE project design as well as project implementation and monitoring of negative emission (diseconomy) reductions or removals.

5.2 Relevance

Select the adequate sources of negative emission (diseconomy), data and methodologies and all other information appropriate to the needs of the intended project activity.

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5.3 Completeness

Achieve completeness of a project through the inclusion of all relevant negative emission (diseconomy) sources and information that support compliance with all requirements of the ZERO2NATURE Standard.

5.4 Consistency

Enable consistency of a project through related information analysis and meaningful comparisons in project-related data.

5.5 Accuracy and conservativeness

Use conservative assumptions, values and procedures to ensure that negative emission (diseconomy) reductions of ZERO2NATURE project activities are not over-estimated.

5.6 Transparency

Disclosure of sufficient and appropriate ZERO2NATURE project activity-related information in a truthful and open manner to allow intended users to make decisions in a confident and transparent environment.

6 GENERAL REQUIREMENTS

6.1 Use of and compliance with applicable standards

While designing as well as implementing and monitoring a ZERO2NATURE project activity related to greenhouse gases (GHG), in addition to this Standard, project participants may also utilize methodologies, tools and documents adopted by the Executive Board of the Clean Development Mechanism of the United Nations Framework on Climate Change, available at www.unfccc.int.

Project participants shall ensure that the proposed project activity complies with all rules and requisites applicable in this Standard.

6.2 Identification of project type and selection of methodology

Project participants shall determine the type of project activity they want to develop and implement:

ZERO2NATURE project activities of the following types:

a. ZERO2NATURE-PREBIO
b. ZERO2NATURE-PRECARB,
c. ZERO2NATURE-PREFOR,

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d. ZERO2NATURE–PREHYDRO,

e. ZERO2NATURE–PREMIN

f. ZERO2NATURE–PRONER.

Project participants shall select a baseline and monitoring methodology applicable to the proposed ZERO2NATURE project activity. ZERO2NATURE methodologies and tools are available at www.zero2nature.org.

In their consideration of baseline and monitoring methodologies applicable to the proposed ZERO2NATURE project activity, project participants may:

a) Submit a request for revision to an approved methodology, in accordance with applicable procedure;

b) Develop and propose a new methodology, in accordance with the applicable procedures.

Project participants wishing to seek clarification on the applicability of a baseline and monitoring methodology or methodological tool may submit a request for clarification, in accordance with applicable procedure.

6.3 Demonstration of prior consideration of the ZERO2NATURE Standard

If the start date of a proposed ZERO2NATURE project activity is prior to the date of publication of the PDD, for the global stakeholder consultation, project participants shall demonstrate that the ZERO2NATURE benefits were considered necessary to the feasibility and undertaking of the proposed project activity.

7 REQUIREMENTS FOR ALL PROJECT TYPES

7.1 Description of the project activity

Project participants shall provide a description of the proposed ZERO2NATURE project activity that provides an understanding of the nature of the project and its implementation.

When describing proposed ZERO2NATURE project activity, Project participants shall:

a) Provide a title for the project activity;

b) Describe the purpose of the project activity, including a summary of the scope of activities/measures that are to be implemented within the proposed project activity;

c) Explain how the ZERO2NATURE project activity will reduce or remove negative emission (diseconomy);

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d) Identify the location of the project activity, including information allowing the exclusive identification of the ZERO2NATURE project activity;

e) Describe the technology to be employed by the ZERO2NATURE project activity to enable the identification of the type of project, demonstration of additionality, application of the selected methodology and calculations of negative emission (diseconomy) reductions or removals:

f) Demonstrate that the ZERO2NATURE project activity does not produce any type of local impact pollution and does not use any forced labor.

g) Indicate the sectoral scope and type of ZERO2NATURE project activity;

h) Explain the contribution of the ZERO2NATURE project activity to eco-sustainable development.

Project participants shall describe the scenario prior to the implementation of the proposed ZERO2NATURE project acitivity, including the employed technology.

Project participants shall identify themselves and establish their relationships with the proposed ZERO2NATURE project activity.

7.2 Application of selected baseline and monitoring methodology

7.2.1 General

Project participants shall use the version of the selected methodology(ies) that is valid at the time of submission of the ZERO2NATURE project activity for registration, taking into account the grace period of the methodology(ies), if it has been revised, or propose a new methodology that reduces or removes negative emission (diseconomy) of the applicable productive cycle. Upon approval, the new methodology becomes part of the set of ZERO2NATURE methodologies, available at www.zero2nature.org.

Project participants shall apply the selected methodology(ies) to the proposed ZERO2NATURE project activities, including any tools, standards or guidelines required by the methodology(ies).

7.2.2 Reference of methodology

Project participants shall specify the reference (number, title and version) of the selected methodology(ies) applied to the proposed ZERO2NATURE project activity, including any other methodologies or tools to which the selected methodology(ies) refers.

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7.2.3 Applicability of methodology

Project participants shall demonstrate why the selected methodology(ies) is applicable to the proposed ZERO2NATURE project activity by showing that all applicability conditions of the methodology(ies) are met.

7.2.4 Project boundary

Project participants shall define the boundary of the proposed ZERO2NATURE project activity in accordance with the selected methodology(ies).

In cases where the selected methodogy(ies) allows project participants to choose whether a source of negative emission (diseconomy) may be included in the proposed ZERO2NATURE project activity, project participants shall explain and justify their choice.

7.2.5 Establishment and description of baseline scenario

Project participants shall establish the baseline scenario for the proposed ZERO2NATURE project activity in accordance with the selected methodology(ies).

Upon establishing the baseline scenario, and where "future negative emission (diseconomy) are projected to rise above current levels due to specific circumstances", project participants should substantiate such specific circumstances with proven evidence.

As a general principle, national and/or sectoral policies and circumstances shall be taken into account in the establishment of a baseline scenario, within the boundaries of ethics and eco-sustainability.

When establishing the baseline scenario, project participants shall take into account the following types of national and/or sectoral policies:

a) Policies or regulations that give comparative advantages to more negative emission (diseconomy)-intensive technologies or energy over less negative emission (diseconomy)-intensive technologies or energy;

b) Policies or regulations that give comparative advantages to less negative emission (diseconomy)-intensive technologies or energy over more negative emission (diseconomy)-intensive technologies or energy.

Project participants shall address the two types of policies described above conservatively and within the boundaries of ethics and eco-sustainability, in order to comply with the consistent reduction or removal of negative emission (diseconomy), according to the principles of this Standard.

Project participants shall describe the established baseline scenario for the proposed ZERO2NATURE project activity, including the technology(ies) that would be employed in the absence of the project activity.

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7.2.6 Demonstration of additionality

Project participants shall demonstrate, in accordance with the selected methodology(ies), that the negative emission (diseconomy) of the ZERO2NATURE project activity are reduced below those that would have occurred in the absence of the proposed ZERO2NATURE project activity.

For demonstration of additionality of the proposed ZERO2NATURE project activity, and if it is required by the selected methodology(ies) and/or tool(s) referenced in the methodology(ies), project participants shall follow:

a) "Guidelines on the assessment of investment analysis";

b) "Guidelines for objective demonstration and assessment of barriers".

In the demonstration of additionality of the proposed ZERO2NATURE project activity, project participants should also consider the following:

a) "Guidelines on additionality of first-of-its-kind project activities";

b) "Guidelines on common practice".

7.2.7 Emissions reductions

Project participants shall provide ex ante calculations of baseline, project and leakage of negative emission (diseconomy) as well as negative emission (diseconomy) reductions of the proposed ZERO2NATURE project activity for each year of the crediting period, in accordance with the selected methodology(ies). Project participants shall describe all steps undertaken for these calculations and provide all results.

If the selected methodology(ies) includes different scenarios, project participants shall justify which ones are applied to and/or chosen for the proposed ZERO2NATURE project activity.

Project participants shall provide the data and parameters that are not monitored throughout the crediting period but are determined only once and remain fixed throughout the crediting period. These data and parameters shall be available at the time of validation of the proposed ZERO2NATURE project activity.

In cases where the selected methodology(ies) allows the use of sampling for the determination of parameter values for calculating negative emission (diseconomy), project participants may use sampling. In such cases, project participants shall develop and describe the sampling plan in accordance with the "Standard for sampling and inspection of ZERO2NATURE project activities".

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7.2.8 Monitoring plan

Project participants shall develop and describe the monitoring plan for the proposed ZERO2NATURE project activity in accordance with the selected methodology(ies) and all other applicable ZERO2NATURE rules and requirements.

The monitoring plan shall include all data, parameters and related information required by the selected methodology(ies).

The monitoring plan shall include the following:

a) The operational and management structure to be put in place to implement the monitoring plan;

b) Provisions to ensure that data monitored and required for verification and issuance be kept and archived electronically for two years after the end of the crediting period or the last issuance of DTUs, whichever occurs later;

c) Definition of responsibilities and institutional arrangements for data collection and archiving;

d) Quality assurance and quality control procedures (QA/QC);

e) Uncertainty levels, methods and the associated accuracy level of measuring instruments to be used for various parameters and variables;

f) Specifications of the calibration frequency for the measuring equipment.

7.3 Duration and crediting period

7.3.1 Duration of project activity

Project participants shall determine the start date of the proposed ZERO2NATURE project activity and provide a description of how this start date has been determined.

Project participants shall define the expected operational lifetime of the proposed ZERO2NATURE project activity.

7.3.2 Crediting period

Providing proven additionality, the crediting period of all ZERO2NATURE project activities is undetermined. Nevertheless, ZERO2NATURE project activities must have their crediting period renewed every 7 years.

Project participants shall determine only one start date of the crediting even when implementation of the proposed ZERO2NATURE project activity occurs in distinct phases.

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Project participants shall state the start date of the crediting period in the format dd/month/yyyy, and shall not use any qualifications to the start date, such as "expected".

7.4 Environmental impacts

Project participants shall carry out an analysis of the environmental impacts of the proposed ZERO2NATURE project activity, including trans-boundary impacts. Project participants shall provide a summary of the analysis and references to all related documentation.

7.5 Local stakeholder consultation

Project participants shall invite local stakeholders to provide comments on the proposed ZERO2NATURE project activity and shall demonstrate how due steps/actions were taken to appropriately engage stakeholders and solicit comments.

Project participants shall invite comments from local stakeholders in an open and transparent manner, in a way that facilitates the reception of comments from local stakeholders and allows for a reasonable time for submittal of comments. Project participants shall describe the proposed ZERO2NATURE project activity in a manner that allows local stakeholders to understand the project activity.

Project participants shall prepare a summary of the comments provided by local stakeholders.

Project participants shall demonstrate that they considered all comments received for the proposed ZERO2NATURE project activity.

Project participants shall complete the local stakeholder consultation process before submitting the proposed ZERO2NATURE project activity for validation.

7.6 Approval and authorization

Participation in the proposed ZERO2NATURE project activity must be voluntary. In the case of a legal person, public agent or other entity subject to hierarchy, official authorization to participate in the proposed ZERO2NATURE project activity is required.

7.7 Modalities of communication

Project participants shall define for the proposed ZERO2NATURE project activity their modalities of communication with ZERO2NATURE and present them in the form of Modalities of communications statement (MoC statement), with the following content:

a) The title of the proposed ZERO2NATURE project activity;

b) The date of submission of the MoC statement;

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c) The designation of a focal point for each scope of authority, contact details and specimen signatures of their authorized signatories;

d) A list of all project participants, contact details and specimen signatures of their authorized signatures;

e) The signature of an authorized signatory (electronic if available) of all project participants confirming their agreement with the MoC statement.

7.8 Validation

Project participants wishing to submit a ZERO2NATURE project activity for validation shall prepare a PDD using the latest version of the ZERO2NATURE-PDD form applicable to the project activity, taking into account the grace period of the form if revised.

When completing the PDD, project participants shall provide all necessary information and documentation to demonstrate compliance of the proposed ZERO2NATURE project activity with all applicable requirements in this Standard.

When completing the PDD, project participants should follow the applicable guidelines for ZERO2NATURE-PDD form completion.

Participants shall select a certification organization for the validation of the proposed ZERO2NATURE project activity, accredited for the validation function and sectoral scope(s) of the ZERO2NATURE project activity. Project participants shall have a contractual arrangement with the chosen certification organization for validation.

Project participants shall submit the completed PDD of the proposed ZERO2NATURE project activity, together with supporting documentation, to the selected certification organization chosen for validation.

Information used to demonstrate additionality, describe the application of the selected methodology, and support an environmental impact assessment shall not be considered proprietary or confidential.

8 SPECIFIC REQUIREMENTS FOR PREBIO, PRECARB, PREFOR, PREHYDRO, PREMIN AND PRONER PROJECT ACTIVITIES

8.1 Project activity description

In describing the proposed ZERO2NATURE PREBIO, PRECARB, PREFOR, PREHYDRO, PREMIN and PRONER project activity, project participants shall:

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a) Describe the present environmental conditions of the area planned for the project activity, including climate, hydrology, soils and ecosystems;

b) Describe the presence, if any, of rare and endangered species and their habitats;

c) Describe the species and varieties selected for the project activity and in case of minerals, describe their characteristics of the mineral reserve(s) for the project activity;

d) Describe the technologies and methods that will be used in the project activity;

e) Demonstrate legal ownership of the project activity area of implementation (property) or possession and rights through certifiable documents that allow DTU issuance to project participants in the event of a registered project activity.

8.2 Project boundary

Project participants shall define the Project boundary that geographically delineates the proposed ZERO2NATURE project activity under control of the project participants, including information allowing the unique identification(s) of the project activity. If the proposed ZERO2NATURE project activity contains more than one discrete area of project activity implementation, each discrete area of project activity implementation shall have a unique identification.

Project participants shall demonstrate their unique rights to execute the proposed ZERO2NATURE project activity, in a way that is acceptable under the legal system of the host Country.

When submitting the PDD for validation, project participants shall demonstrate that all areas of the proposed ZERO2NATURE project activity implementation comply with all requirements of this Standard.

Project participants shall present the estimated baseline and negative emission (diseconomy) removal on a per hectare basis, for proposed ZERO2NATURE-PREFOR project activities.

Project participants shall present the estimated baseline and negative emission (diseconomy) removal in tons (t), relative to proven reserves, for proposed ZERO2NATURE-PREMIN project activities.

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Project participants shall present the estimated baseline and negative emission (diseconomy) removal in tons in oil equivalency (toe), relative to proven reserves, for proposed ZERO2NATURE-PRECARB project activities.

Project participants shall present the estimated baseline and negative emission (diseconomy) removal in terms of threatened species, or species in extinction, through an objective evidence system, for proposed ZERO2NATURE PREBIO project activities. When dealing with project activities related to biodiversity preservation, the Standard does not allow any method that involves direct contact with the animal(s) for evidence purposes. In these cases, "camera trap" systems are advisable.

Project participants shall present the estimated baseline and negative emission (diseconomy) removal in cubic meters (m^3), relative to proven reserves of fresh water, for proposed ZERO2NATURE PREHYDRO project activities,

8.3 Elegibility of land

Project participants shall demonstrate that each discrete area of land to be included in the Project boundary is eligible for the proposed ZERO2NATURE project activity, in accordance with the selected methodology and the "Procedure to demonstrate the eligibility of lands for ZERO2NATURE project activities".

8.4 Application of selected baseline and monitoring methodology

8.4.1 General

Project participants shall select the potential negative emission (diseconomy) pools to account for the proposed ZERO2NATURE project activity, in accordance with the selected methodology.

If the selected methodology allows the exclusion of certain negative emission (diseconomy) pools and project participants do so, the exclusion must be justified.

Project participants shall ensure that the application of default data in estimation of the net removals of negative emission (diseconomy) by sinks for the proposed ZERO2NATURE project activity results in conservative estimates. In this estimation, project participants should follow the "Guidelines on conservative choice and application of default data in estimation of the net removal of negative emission (diseconomy)".

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In establishing a baseline scenario, project participants shall take into consideration national and/or sectoral land-use policies or regulations, such as historical land use and/or the exploration of mineral, hydrocarbon and fresh water reserves, as well as those practices related to the preservation of threatened species or species in extinction, guaranteeing ethical behavior, transparency and eco-sustainability.

Project participants shall establish the baseline scenario separately for each stratum of the proposed ZERO2NATURE project activity, in accordance with the selected methodology.

Project participants shall describe the baseline scenario for each stratum of the proposed ZERO2NATURE project activity, including the site-use that would occur in the absence of the project activity.

Project participants shall calculate and provide an estimate for the ex-ante baseline net negative emission (diseconomy) removals of the present situation and for the proposed ZERO2NATURE project activity for each year of the crediting period, in accordance with the selected methodology.

8.4.2 Demonstration of additionality

Project participants shall demonstrate, in accordance with the selected methodology, that the actual net negative emission (diseconomy) removals of the proposed ZERO2NATURE project activity are increased above the sum of the changes in all possible negative emission (diseconomy) removals, within the project boundary, that would have occurred in the absence of the proposed ZERO2NATURE project activity.

8.4.3 Monitoring

Project participants shall describe how the geographic coordinates of the project boundary, including boundaries of strata if any, are determined and recorded.

Project participants shall describe, or provide reference to, standard operating procedures (SOPs) and quality control (QC) and quality assurance (QA) procedures implemented for data monitoring, as required by the selected methodology.

Project participants shall specify the procedures to minimize potential leakage and describe how these will be implemented.

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8.5 Duration and crediting period

Revalidation should occur after each crediting period of 7 years for ZERO2NATURE project activities, considering that renewal may occur indefinitely when taking into account additionality and baseline scenarios.

8.6 Environmental impacts

Project participants shall carry out an analysis of the environmental impacts of the proposed ZERO2NATURE project activities, and provide a summary of the analysis and reference to all related documentation; including impacts to the biodiversity, ecosystem and environment that may occur outside of the project boundary.

If the environmental impacts of the proposed ZERO2NATURE project activities are considered significant, project participants shall provide a description of the planned monitoring and remedial measures to address the significant impacts.

8.7 Socio-enconomic impacts

Project participants shall carry out an analysis of the major socio-economic impacts of the proposed ZERO2NATURE project activity, including impacts outside the project boundary. Project participants shall provide a summary of the analysis and references to all related documentation.

If the socio-economic impacts of the proposed ZERO2NATURE project activities are considered significant, project participants shall provide a description of the planned monitoring and remedial measures to address the significant impacts.

9 IMPLEMENTATION AND MONITORING REQUIREMENTS FOR ALL PROJECT TYPES

9.1 General requirements

Project participants shall implement the registered ZERO2NATURE project activity in accordance with the description in the registered ZERO2NATURE-PDD including all physical features.

Project participants shall operate the registered ZERO2NATURE project activity in accordance with the description in the registered ZERO2NATURE-PDD.

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Project participants shall monitor the registered ZERO2NATURE project activity and its negative emission (diseconomy) reductions or removals in accordance with the monitoring plan as described in the registered ZERO2NATURE-PDD.

9.2 General description

Project participants shall provide the following information regarding the implemented registered ZERO2NATURE project activity.

a) Title and number;

b) Project participants involved;

c) Location;

d) Reference of methodology(ies) and applied tool(s);

e) Type, duration and start date of the crediting period;

9.3 Description of implemented registered project activity

Project participants shall provide a description of the implemented registered ZERO2NATURE project activity as follows:

a) Description of the installed technology, technical processes and equipment;

b) Information of the implementation and actual operation of the project activity, including relevant data (e.g. construction, commissioning, continued operation, logbook, periods, etc.). For project activities that consist of more than one site, project participants shall describe the status of implementation and start date of operation for each site. For project activities with phased implementation, project participants shall indicate the progress of the project activity achieved in each phase;

c) Project participants shall describe the events and situations occurred during the monitoring period that may have impacted the applicability of the applied methodology, and how the issues resulting from these events or situations have been addressed.

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9.4 Description of monitoring system

Project participants shall describe the monitoring system and provide line diagrams (graphical schemes) showing all relevant monitoring points. This description may include data collection procedures, organizational structure, roles and responsibilities of personnel, and emergency procedures for the monitoring system.

9.5 Data and parameters

Project participants shall provide all parameters used to calculate baseline, project and leakage of negative emission (diseconomy) as well as other relevant parameters required by the applied methodology and the registered monitoring plan for the crediting period. Project participants shall provide information on how data and parameters have been monitored.

For each parameter, project participants shall:

a) Provide the values of the monitored parameter employed for calculating negative emission (diseconomy) reduction or removals. Where data are measured continuously, they shall be presented using an appropriate time interval. For default values confirmed ex-post, the most recent value shall be applied.

b) Describe the equipment used to monitor each parameter, including details on accuracy class, and calibration information (frequency, date of calibration and validity), if applicable as per monitoring plan;

c) Describe how the parameters are measured/calculated and the recording frequency of these measurements;

d) Provide and/or identify the source of data;

e) Provide the calculation method of the parameter, where relevant;

f) Describe the procedures for guarantee and control of quality and quality assurance (QA/QC), where relevant;

g) Provide information about appropriate emission factors used in the calculation of negative emission (diseconomy) reduction and removal.

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Project participants shall indicate whether there are any submitted requests for temporary deviations or permanent changes from the registered monitoring plan or applied methodology, in accordance with the project cycle procedure and, if applicable, include the date of approval.

9.6 Calculation of negative emission (diseconomy) reductions or removals

Project participants shall identify the formulae used and provide the calculations of the following for the monitoring period of the registered ZERO2NATURE project activity:

a) Baseline scenario of negative emission (diseconomy);

b) Negative emission (diseconomy) of the project activity;

c) Leakage of negative emission (diseconomy) of the project activity;

d) Negative emission (diseconomy) reduction of the project activity;

Project participants shall provide a comparison of actual negative emission (diseconomy) reductions of the registered ZERO2NATURE project activity with estimates in the registered ZERO2NATURE-PDD.

For any registered ZERO2NATURE project activity, project participants shall explain the cause of any increase in the actual negative emission (diseconomy) achieved during the current monitoring period, including all information that is different from the stated in the registered ZERO2NATURE-PDD.

9.7 Verification of implemented registered project activity and monitored emission reductions or net removals

Project participants wishing to report, for verification and certification, on the negative emission (diseconomy) reductions of the registered ZERO2NATURE project activity shall prepare a monitoring report for the relevant monitoring period using the latest version of the monitoring report form applicable to the project activity, taking into account the grace period of the form if revised.

When completing a monitoring report form, project participants shall present all information and documentation necessary and relevant to the compliance of the registered ZERO2NATURE project

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activity and monitored reduction or removal of negative emission (diseconomy), in accordance with the rules and requirements of this Standard.

Project participants shall select a certification organization for the verification of the implemented registered ZERO2NATURE project activity and monitored negative emission (diseconomy) reductions or removals for the relevant monitoring period that is accredited for the verification function and sectoral scope(s) of the project activity. Project participants shall have a contractual arrangement with the certification organization for verification.

Project participants shall submit the completed monitoring report of the implemented registered ZERO2NATURE project activity for the relevant monitoring period, together with supporting documentation to the selected certification organization for verification.

9.8 Post registration changes

9.8.1 General requirements

Project participants shall identify and document any actual or proposed changes to the operation, implementation and/or monitoring of the registered ZERO2NATURE project activity that do not require prior approval.

Project participants shall ensure that the selected certification organization is accredited for the validation function and sectoral scope(s) of the registered ZERO2NATURE project activity.

9.8.2 Temporary deviations from the registered monitoring plan or applied methodology

If project participants are temporarily unable to monitor the registered ZERO2NATURE project activity in accordance with the registered monitoring plan or the applied methodology, project participants shall describe the nature, extent and duration of the non-conforming monitoring and the proposed alternative monitoring of the project activity in the monitoring report.

In such cases, project participants shall inform the selected certification organization the period during which they were unable to monitor the registered ZERO2NATURE project activity in accordance with the registered monitoring plan or applied methodology.

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Project participants shall apply conservative assumptions or discount factors to the calculations to the extent required to ensure that negative emission (diseconomy) reductions will not be over-estimated as a result of deviation.

9.8.3 Permanent changes

9.8.3.1 Corrections

If project participants make any corrections to project information or parameters fixed at validation as described in the registered ZERO2NATURE-PDD, project participants shall document these corrections in a revised ZERO2NATURE-PDD.

In such cases, project participants shall inform the selected certification organization to perform verification regarding such corrections.

9.8.3.2 Changes to the start date of the crediting period

Project participants of a registered ZERO2NATURE project activity are not required to request prior approval by the ZERO2NATURE Board of Directors for the following changes of the start date of the crediting period, but shall notify the ZERO2NATURE Board of Directors of the changes in accordance with the project cycle procedure:

a) Bringing forward the start date up to one year earlier than the one indicated in the registered ZERO2NATURE-PDD, taking into account that the start date shall not be earlier than the effective date of registration of the project activity;

b) Postponing the start date up too one year later than the one indicated in the registered ZERO2NATURE-PDD.

When the proposed change to the start date of the crediting period of a registered ZERO2NATURE project activity constitutes a difference of more than one year but less than two years, project participants shall:

a) Demonstrate that no changes have occurred to the project activity that would result in a less conservative baseline, and that substantive progress has been made by the project participants to start the project activity;

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b) Submit this demonstration for approval from the ZERO2NATURE Board of Directors.

9.8.3.3 Permanent changes from the registered monitoring plan or applied methodology

If project participants are unable to implement the registered monitoring plan and therefore unable to monitor the registered ZERO2NATURE project, in accordance with a monitoring plan that would comply with the applied methodology and any applicable tools, project participants shall describe the nature and extent of the non-conforming monitoring in a revised ZERO2NATURE-PDD, together with a proposed alternative monitoring of the project activity, for submittal of the ZERO2NATURE Board of Directors.

Project participants shall apply conservative assumptions or discount factors to the calculations to the extent required to ensure that negative emission (diseconomy) reductions will not be over-estimated as a result of that change.

9.8.3.4 Changes to the project design of a registered ZERO2NATURE project activity

Where there are changes to the project design of a registered ZERO2NATURE project activity, project participants shall prepare a revised ZERO2NATURE-PDD which describes the nature and extent of the proposed or actual changes, including:

a) Changes in the effective output capacity due to increased installed capacity or increased number of units, or installation of units with lower capacity or units with a technology which is less advanced than that described in the ZERO2NATURE-PDD;

b) Addition of component or extension of technology;

c) Removal or addition of one site (or more) of a ZERO2NATURE project activity registered with multiple-sites;

d) Actual operational parameters which are within the control of project participants differing from the expected parameters;

e) Any meaningful changes to the baseline methodology that are more appropriate as a result of the proposed changes to the registered ZERO2NATURE project activity.

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Project participants shall report in the revised ZERO2NATURE-PDD the impacts of the proposed or actual changes to the registered ZERO2NATURE project activity on the following:

a) The applicability and application of the methodology under which the project activity has been registered;

b) Compliance of the monitoring plan with the applied methodology;

c) The level of accuracy and completeness in the monitoring of the ZERO2NATURE project activity;

d) The additionality of the ZERO2NATURE project activity.

In cases where the proposed or actual changes affect the additionality of the registered ZERO2NATURE project activity, the demonstration of the impacts of changes shall be based on all original input data. In addition:

a) In the case of investment analysis, project participants shall only modify the key parameters in the original spreadsheet calculations affected by the proposed or actual modifications to the ZERO2NATURE project activity;

b) In cases where only barriers have been claimed to demonstrate additionality, project participants shall demonstrate that the barriers are still valid under the new circumstances.

When project participants cannot demonstrate compliance with the requirements of the applied methodology under which the ZERO2NATURE project activity was registered, project participants shall revise the ZERO2NATURE –PDD applying the latest version of the methodology or another methodology that is applicable to the project activity and shall demonstrate compliance with the requirements of the selected methodology. In such cases, project participants shall submit the revised ZERO2NATURE-PDD to the ZERO2NATURE Board of Directors.

9.9 Renewal of the crediting period

Project participants wishing to renew the crediting period of a registered ZERO2NATURE project activity shall notify the ZERO2NATURE Board of Directors of their intention in accordance with the project cycle procedure.

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9.9.1 Renewal of the crediting period of project activities

To support a request for renewal of the crediting period of a registered ZERO2NATURE project activity, project participants shall update the sections of the ZERO2NATURE –PDD of the project activity relating to the baseline, estimated negative emission (diseconomy) reductions and the monitoring plan using a baseline and monitoring methodology as follows:

a) Project participants shall use the latest approved version of the methodology applied in the original ZERO2NATURE PDD;

b) If the methodology applied in the original ZERO2NATURE –PDD was withdrawn after the registration of the project activity and replaced by a consolidated methodology, project participants shall use the latest approved version of the respective consolidated methodology; or

c) If the registered project activity does not meet with the applicability criteria of the options provided for in subparagraphs (a) and (b) above, due to their revision or due to the update of the baseline, project participants shall request the ZERO2NATURE Board of Directors for a deviation from a methodology for the purpose of renewal of the crediting period.

To demonstrate the validity of the original baseline or its update, project participants are not required to re-assess the baseline scenario, instead they shall assess the negative emission (diseconomy) reductions that would have resulted from that scenario.

Project participants shall assess and incorporate the impact of national and/or sectoral policies and circumstances existing at the time of requesting renewal of the crediting period on the current baseline negative emission (diseconomy), without reassessing the baseline scenario.

Project participants shall engage an accredited certification organization to undertake validation of the updated ZERO2NATURE-PDD of the registered ZERO2NATURE project activity, for renewal of the crediting period.

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APPENDIX 1 – CHANGES THAT DO NOT REQUIRE PRIOR APPROVAL BY THE ZERO2NATURE BOARD OF DIRECTORS

1. CORRECTIONS

Any corrections to project information of a registered ZERO2NATURE project activity that do not affect the design of the project activity do not require prior approval by the ZERO2NATURE Board of Directors.

2. TEMPORARY DEVIATIONS FROM THE REGISTERED MONITORING PLAN OR APPLIED METHODOLOGY

If project participants have temporarily not monitored parameters related to baseline negative emission (diseconomy) or are unable to produce evidence related to such monitoring, prior approval by the ZERO2NATURE Board of Directors is not required if project participants report these parameters as zero.

If project participants have temporarily not monitored parameters related to project negative emission (diseconomy) or are unable to produce evidence related to such monitoring, prior approval by the ZERO2NATURE Board of Directors is not required if project participants estimate these parameters assuming that the source of negative emission (diseconomy) operated at maximum capacity for the full period of the missing data. In the case of project negative emission (diseconomy) related to the consumption of electricity, the estimate shall include an addition of 10% to account for transmission and distribution losses.

3. PERMANENT CHANGES FROM THE REGISTERED MONITORING PLAN OR APPLIED METHODOLOGY

If the monitoring equipment actually installed has a lower accuracy level than the one stipulated in the applied methodology and/or in the registered monitoring plan, and the monitoring equipment is under the control of the project participants, prior approval by the ZERO2NATURE Board of Directors is not required if the project participants adjust the value measured with the equipment as follows:

a) If the parameter is used for calculating baseline emissions, the difference between the accuracy level of the installed monitoring equipment and the accuracy prescribed by the applied methodology and/or the registered monitoring plan is deducted from the measured value;

b) If the parameter is used for calculating project negative emission (diseconomy), the difference between the accuracy level of the installed monitoring equipment and the accuracy prescribed by the applied methodology and/or registered monitoring plan is added to the measured value.

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Changes to the calibration frequency or practice for monitoring equipment not within the control of project participants do not require prior approval by the ZERO2NATURE Board of Directors.

4. CHANGES TO THE PROJECT DESIGN OF A REGISTERED ZERO2NATURE PROJECT ACTIVITY

Proposed or actual changes to the project design of a registered ZERO2NATURE project activity that do not adversely impact any of the following do not require prior approval by the ZERO2NATURE Board of Directors:

a) The applicability and application of the applied methodology under which the ZERO2NATURE project activity has been registered;

b) The additionality of the registered ZERO2NATURE project activity;

c) The scale of the registered ZERO2NATURE project activity;

5. TYPES OF CHANGES SPECIFIC TO ZERO2NATURE PREFOR, PREMIN, PRECARB, PREBIO OR PREHYDRO PROJECT ACTIVITIES

Types of changes listed in the "Guidelines on accounting of specified types of changes in ZERO2NATURE project activities" from the description in the registered ZERO2NATURE – PDD do not require prior approval by the ZERO2NATURE Board of Directors.

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ZERO2NATURE PROJECT DEVELOPMENT STANDARD

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ANNEX A – LIST OF SECTORAL SCOPES

1. Energy industries (renewable-/non-renewable sources)
2. Energy distribution
3. Energy demand
4. Manufacturing industries
5. Chemical industry
6. Construction
7. Transport
8. Mining/Mineral production
9. Metal production
10. Fugitive emissions from production and consumption of fuel (solids, natural gas, oil and oil derivatives)
11. Fugitive emissions from production and consumption of halocarbons and sulphur hexafluoride
12. Solvents use
13. Waste handling and disposal
14. Afforestation and reforestation
15. Agriculture
16. Carbon capture and storage
17. Monitored preservation of forests, hydrocarbon reserves, mineral reserves, threatened species, species in extinction, aquifers and surface waters
18. Health & Wellness

In accordance with the procedural guidelines, this is the list of sectoral scopes adopted by the ZERO2NATURE Standard.

This list may be further modified in accordance with the evolution of the ZERO2NATURE Standard. An applicant, person or company, may propose a new scope in accordance with the procedural guidelines of this ZERO2NATURE Standard.

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ZERO2NATURE PROJECT DEVELOPMENT STANDARD

Version 1.3

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