

## RESTART ENERGY DEMOCRACY CARBON STANDARD

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## **ABOUT US**

RED Carbon Standard stands for Restart Energy Democracy Carbon Standard and is an independent governance body for the voluntary carbon market, first of this kind, from Romania. Our carbon standard aims at empowering people and giving value to their sustainable work helping to mitigate the impact of climate change. In a world where global players take the lead over national governments, and governments would like to centralize the power in their hands, we promote decentralization by being part of communities, people, and local project developers, and provide them with value capture in the form of tokenized carbon credits.

We certify green projects such as renewables, agriculture, forestry, energy efficiency, hydrogen, enabling them to get tokenized carbon credits and sell these carbon units worldwide on the RED Platform Application, using blockchain technology, thus actively contributing to the attainment of net-zero carbon emissions.

## **CORE VALUES**

At RED, our core beliefs centre on the acknowledgment of God as the Creator of the Universe, Earth, and all life within it. At RED, we believe that God is the Creator of the Universe, the Earth, and its vegetation, and that God is the Source of all Life on Earth and in the Universe. We believe that we are all children of God, no matter what nationality, race, or gender. We also believe that God's Love for His children are so great that He sent His Son, Jesus Christ, to guide and save us.

It is, therefore, our responsibility to take care of the Earth and all living creatures on it, to preserve nature, flora, and fauna, and to act accordingly for mankind's perpetuity as we were empowered to do so: "So God created mankind in His image, in the image of God He created them, male and female....By the seventh day, God had finished the work He had been doing; so on the seventh day, He rested from all his work. Then God blessed the seventh day and made it holy because on it He rested from all the work of Creation that he had done."

It is important to understand our role on Earth and to remember that life is a blessing and a gift from God that we received from the beginning of the Earth. We believe that all scientific evidence and the Universe's order confess to the almightiness of God and His wonderful principles of life. Our values are based on maintaining the principles of life and its continuity: love, patience, humility, compassion, and happiness. We want to preserve these principles of life, protect our Earth, which is our home, and provide solutions for helping our neighbours using our advanced technology and science-based system.

We acknowledge that climate change affects us all, yet the rise of greenhouse gas emissions caused by human activities is not the only cause of it; there are other relevant causes, such as the sun's energy intensity, which is out of humanity's control. We decided to focus on what we have the power to impact within our capabilities. We



use technology to our benefit, and do not let it take control over us. We were endowed in respect of God's principles and values, and we do not consider ourselves gods who can change the well-defined path of the Earth or save the world.

Aligned with the United Nations Sustainable Development Goals (SDGs), we actively pursue these principles, integrating environmental protection with social and economic considerations. While we acknowledge the widespread impact of climate change, we focus on addressing what is within our power to influence, leveraging technology responsibly without succumbing to its control. We humbly accept our limitations, understanding that we cannot alter the Earth's course or single-handedly save the world.

Our aim is to provide future generations with a thriving home by aligning environmental protection with the timeless principles of life and continuity. We view sustainability not merely as a scientific concept but as a holistic approach that integrates ethical, social, and environmental considerations, in line with the objectives outlined in the SDGs.

## HOW DID WE START AND WHERE ARE WE NOW?

We have gathered a group of experts in various fields of activity, from sustainability to finance, forestry, agriculture, and energy efficiency, and started writing this standard. Together, we believe that the concepts of fighting climate change and living sustainably need to happen at an individual level if we want it to work. Hence, our mission is to provide a technology platform to facilitate the efforts of governments, corporations, and communities to incentivize sustainability globally.

We have been evolving into the RED Carbon Standard, which certifies green projects (renewables, agriculture, forestry, energy efficiency, hydrogen, etc.), enabling them to get tokenized carbon credits on the blockchain.

RED will become a global facilitator of green energy and sustainability projects, thus actively contributing to the attainment of net-zero carbon emission, as well as the United Nations Environmental and Social Development Goals:

- SDG 1 No Poverty
- SDG 2 Zero Hunger
- SDG 3 Good Health and Well-being
- SDG 4 Quality Education
- SDG 5 Gender Equality
- SDG 6 Clean Water and Sanitation
- SDG 7 Affordable and Clean Energy
- SDG 8 Decent work and economic growth
- SDG 9 Industry, Innovation and Infrastructure
- SDG 10 Reduced Inequalities
- SDG 11 Sustainable cities and communities
- SDG 12 Responsible Consumption and Production
- SDG 13 Climate Action
- SDG 14 Life below water



- SDG 15 Life on Land
- SDG 16 Peace, Justice, and Strong Institutions
- SDG 17 Partnerships for the Goals

We use Blockchain technology that is fast, transparent, traceable, decentralized, and carbon neutral. We developed our efficient proof of stake (PoS) Blockchain called "Zalmoxis" to provide trust to our ecosystem.

We are now providing an integrated system, which enables companies to find a sustainable solution for calculating and offsetting their carbon footprint. At the same time, project developers can certify and list their sustainable projects on the platform to sell tokenized carbon credits with help from franchisers. This integrated system uses new technologies to advance our sustainability targets to clients and users to help them become carbon neutral. Individuals can also calculate their carbon footprint, offset it, and get rewarded for their sustainable actions.

We are aiming for the RED Carbon Standard to provide a new, more efficient, and fully traceable path compared to existing standards for sustainable projects to become certified thanks to our proprietary technology. The RED Carbon Standard has practical compliance requirements, brings transparency and trust and it is open to more project developers, either small or big companies. Through a more inclusive approach, the RED Carbon Standard has planted its roots intending to help, support and guide project developers through a simpler, straightforward approach that will democratize the adherence to the standard for projects independently of their size.

We provide unprecedented, a cross-platform accountability, efficiency, and liquidity in validating and financing climate-responsible actions.

## **1. DEFINITIONS**

**Adaptation** - in human systems, the process of adjustment to actual or expected climate and its effects, to moderate harm or exploit beneficial opportunities. In natural systems, the process of adjustment to actual climate and its effects; human intervention may facilitate adjustment to expected climate and its effects.<sup>2</sup>

**Afforestation** - conversion to the forest of land that historically has not contained forests.

**Air pollution** - degradation of air quality with negative effects on human health or the natural or built environment due to the introduction, by natural processes or human activity, into the atmosphere of substances (gasses, aerosols) which have a direct (primary pollutants) or indirect (secondary pollutants) harmful effect.<sup>4</sup>

**Red Platform Application** - the website or mobile RED Platform Application allowing access to the RED trading platform of tokenized carbon credits;



Baseline Scenario - the specific situation before the implementation of a Project;

**Baseline Emissions** - the CO<sub>2</sub>e emissions that would have happened in the Baseline Scenario, before the implementation of a Project;

**Blockchain** - a system in which a record of transactions made in bitcoin or another cryptocurrency is maintained across several computers that are linked in a peer-to-peer network.

**Carbon Credits or CC** - a transferable instrument certified by the RED Carbon Standard that represents an emission reduction or removals of one metric tonne of carbon dioxide, or an equivalent amount of other greenhouse gasses (CO<sub>2</sub>e) that can be traded, sold, or retired.

A CC is issued in the Registry of the RED Carbon Standard and includes all Environmental Benefits and SDG Benefits associated with such CCs.

**Carbon removal** - the process of removing  $CO_2$  from the atmosphere through projects that sequester carbon such as reforestation as a result of the certification with RED Carbon Standard.

**Climate change** - refers to a change in the state of the *climate* that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forces such as modulations of the solar cycles, volcanic eruptions, and persistent anthropogenic changes in the composition of the atmosphere or land use.

**Co-benefits** - the positive effects that a policy or measure aimed at one objective might have on other objectives, thereby increasing the total benefits for society or the environment. Co-benefits are often uncertain and depend on local circumstances and implementation practices, among other factors. Co-benefits are also referred to as ancillary benefits.

**Corresponding adjustments** - making a corresponding adjustment means that when Parties/countries transfer a mitigation outcome internationally to be counted toward another Party's mitigation pledge, this mitigation outcome must be 'un-counted' by the Party that agreed to transfer it.

**Crediting Period** - the period during which a Project can obtain tokenized carbon credits.

**Digital Carbon Credit** - a carbon credit minted on the RED Carbon Registry, using blockchain technology.

**Distributed Ledger** - is a consensus of replicated, shared, and synchronized digital data geographically spread across multiple sites, countries, or institutions. Unlike with a centralized database, there is no central administrator. It is also called a shared ledger or distributed ledger technology or DLT.

**ERC-721** - a free, open standard that describes how to build non-fungible or unique tokens on the Ethereum blockchain.



**Environmental Benefits** - all right, title, interest, and benefit arising from or associated with, and which does not significantly harm any of the environmental objectives provided in Article 9 of the EU Taxonomy Regulation, namely:

- climate change mitigation;
- climate change adaptation;
- sustainable use and protection of water and marine resources;
- the transition to a circular economy;
- pollution prevention and control;
- protection and restoration of biodiversity and ecosystems.

**Environmental, social, and governance criteria or ESG criteria** - a set of universal standards for a company's operations. Environmental criteria encompass the effect that an entity's activities have on the environment directly or indirectly. Social criteria examine how the entity manages relationships with employees, suppliers, customers, and the communities where it operates.

Governance criteria deal with an entity's leadership, executive pay, audits, internal controls, and shareholder rights;

**FIAT** - a type of currency made legal tender by government decree in a specific country.

**Franchiser** - a company, verified user who acquires the RED V-LEC Franchise and the right to access and use certain functionalities of the Application.

**Greenhouse Gas Emissions or GHG Emissions** - gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit radiation at specific wavelengths within the spectrum of terrestrial radiation emitted by the Earth's surface, the atmosphere itself, and by clouds. This property causes the greenhouse effect. Water vapor ( $H_2O$ ), *carbon dioxide* ( $CO_2$ ), *nitrous oxide* ( $N_2O$ ), *methane* ( $CH_4$ ), and *ozone* ( $O_3$ ) are the primary GHGs in the Earth's atmosphere. Moreover, there are several entirely human-made GHGs in the atmosphere, such as the *halocarbons* and other chlorine- and bromine-containing substances, dealt with under the Montreal Protocol. Besides CO<sub>2</sub>,  $N_2O$ , and CH<sub>4</sub>, the *Kyoto Protocol* deals with the GHGs sulphur hexafluoride ( $SF_6$ ), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and nitrogen trifluoride ( $NF_3$ ). The GHG emissions considered by RED Carbon Standard will be those emitted by the industrial plants and human activities, but also those escaped in the atmosphere from the soil of forest biomass degradation.

**Green Sustainability Certificate** - a document that demonstrates the degree of sustainability of a company or individual who supports the financing of a sustainable project through tokenized carbon credits purchases on the Application, showing the amount of  $CO_2$  reduction or removed from the atmosphere.

The Green Sustainability Certificate is an ERC-721 non-fungible token and it is issued at the request of RED or REO-G holders.

**Independent Validation and Verification Body** - an independent auditor who will validate and verify the main elements of the Project, such as the emissions reduction/removals calculation, the SDGs benefits, etc.



**Issuance** - the generation, minting of tokenized carbon credits by the RED Carbon Standard to Project Developers following the successful certification of reduction or removals emissions by the Project.

**Methodology** - a set of approved rules and conditions that a Project shall follow in its implementation to obtain tokenized carbon credits.

Minting - same as Issuance.

**Monitoring Period** - the period for which tokenized carbon credits are claimed and approved.

**Monitoring Report** - the document created by the Project Developer that contains the request for minting tokenized carbon credits (EMO) based on verified reduction or removals emissions.

**MWAT** - an ERC-20 fungible token having utility in the RED Platform Application as a virtual battery for Green Tokens storage and a conventional token for the acquisition of Green Tokens, as well as for other functionalities and rights in the Application.

**Project** - means any project that carries out sustainable and climate-related activities to create CCs and has been approved by RED Carbon Standard and listed on the dedicated page in the Application; green project or sustainable project can be used in the same understanding.

**Project Developer** - Any project owner that is interested to certify with RED Carbon Standard sustainability projects with the purpose of issuing tokenized carbon credits and selling them on the RED Platform.

**Project Design Document or PDD** - the main project document that details all elements of a Project, such as technology, start date, crediting period, methodology, emissions reduction/removals calculation, public consultation, SDG indicators etc.

**Project Emissions** - the GHG emissions that happen as a result of the Project implementation.

**RED** – digital carbon credit named RED Carbon Credit that is issued when the project is certified following the RED Carbon Standard certification process.

**RED Registry** – the digital database in the RED Platform Application where the project is registered, listed, verified and tokenized carbon credits are issued and stored before selling and retired. Each tokenized carbon credits have a unique serial number for each certified CC and other fields including sustainable actions.



**Retirement** – the voluntary cancelation of the tokenized carbon credits requested by the Project Developer/Franchiser/Buyer/Verified User/Trader in support of a Project.

**Smart Contract** - a self-executing contract with the terms of the agreement between buyer and seller being directly written into lines of code.

**Sustainable Development Goals Benefits or SDGs Benefits** - any right, title, interest, and benefit arising from or associated with the Sustainable Development Goals set by the United Nations under Paragraph 54 of United Nations General Assembly Resolution A/RES/70/1 of 25 September 2015.

**Tokenized Carbon Credit** - a digital CC minted on the RED Carbon Registry, using blockchain technology; non-fungible tokens ERC-721 type that encompass sustainable activities criteria, and are minted in the RED Platform Application as a result of the successful certification with RED Carbon Standard (RED)

**Validation documents** - all documents created by the Independent Validation and Verification Body and Franchiser and submitted to RED Carbon Standard to approve and certify the Project and its co-benefits.

**Verification documents** - all documents created by the Independent Validation and Verification Body and Franchiser and submitted to RED Carbon Standard to approve tokenized carbon credits issuance.

**Verified User** - a user of the RED Platform Application who passed the Know Your Client requirements of RED Platform.

**Cryptocurrency / Digital Wallet** - an app that allows cryptocurrency users to store and retrieve their digital assets.

For a deeper understanding of general definitions in connection with climate change, please see the IPCC 2022 glossary.

## 2. ABBREVIATIONS

AFOLU – Afforestation, Forestry, and Other Land-use

CA – Corresponding Adjustments

- CAR Computer Assisted Reporting
- CC Carbon Credits
- CDM Clean Development Mechanism
- CMIA Climate Markets & Investment Association
- CO<sub>2</sub>e Carbon dioxide equivalent
- DLT Distributed ledger technology
- EBRD European Bank for Reconstruction and Development
- ERC-721 Token Ethereum Standard Token



- ER Emissions reduction/removals
- ESG Environmental, social, and governance
- EU European Union

GHG – Greenhouse Gas

- GS Gold Standard
- GTCs General Terms and Conditions
- GWP Global Warming Potential
- IEA International Energy Agency
- IPCC International Panel for Climate Change
- ISO International Organization for Standardization
- KYC Know Your Customer
- MWAT Megawatt Token
- PDD Project Design Document
- RED Restart Energy Democracy
- **RES** Resolution

SAAS – Software as a Service

- SDG Sustainable Development Goals
- TLS Transport Layer Security

UN – United Nations

UNFCCC – United Nations Framework Convention for Climate Change

### 3. RED CARBON STANDARD PRINCIPLES

1. Global Integrated System - It needs a global, safe, trustworthy, scalable, easy-touse system for tracking and rewarding CO<sub>2</sub> carbon credits to companies and individuals. The system is designed to be publicly accessible at any time, to anyone without difficult and discouraging processes.

2. Accountability - Accountability for the green actions performed on the RED platform will be always and foremost transparent and accessible on the blockchain. Using the digital component of the RED Carbon Standard will increase the speed of the certification process. The registered Projects have to be accountable and provide real outcomes. RED Registry is a robust database that registers climate-responsible actions to avoid double-counting and provide a high level of trust to the carbon market.

3. Transparency - The opportunity for companies to choose, select and decide where their offset goes and see the entire process accomplished offers a unique value to the project. Transparency, traceability, and validation of claims.

4. Cost-Effectiveness - RED Carbon Standard shall be accessible to companies and individuals who promote and implement sustainable projects without any discrimination. RED Certification fees can be paid FIAT or tokenized credits.



5. Open Dialogue - Project developers shall follow general rules and principles of the RED Carbon Standard. Yet, to take into account local specific needs and problems of so many distinct projects, we encourage project developers to communicate them to the RED team who will be open to listening, revising, and granting exemptions on a case-by-case analysis. Progress can be only achieved by permanent revisions of the standard according to real changes that affect Projects.

6. Inclusion – We encourage project developers to submit for validation and registration of green projects, which takes into consideration the inclusion of local communities in the Description and implementation of Projects. RED Certified projects will also be submitted for public consultation within the RED community and the general public.

#### 7. Additionality<sup>7</sup>

"The greenhouse gas emission reductions or removals from the mitigation activity shall be additional, i.e., they would not have occurred in the absence of the incentive created by carbon credit revenues."

"An assessment of financial additionality, barrier analysis, performance-based tests and common practice analysis are several ways in which additionality may be addressed. The Assessment Framework will firstly assess the overall likelihood of additionality; and as a second step, the Framework will assess the thoroughness and accuracy of the carbon-crediting program's approach to assessment of additionality".

#### 8. Mitigation activity information

"The carbon-crediting program shall provide comprehensive and transparent information on all credited mitigation activities. The information shall be publicly available in electronic format, and scrutiny of mitigation activities shall be accessible to non-specialised audiences".

"The publicly available information should allow customers to view information such as social and environmental impacts, additionality assessment, and the quantification of emission reductions or removals."

#### 9. No double counting

"The greenhouse gas emission reductions or removals from the mitigation activity shall not be double-counted, i.e., they shall only be counted once towards achieving mitigation targets or goals. Double counting covers double issuance, double claiming, and double use."

"Examples of double-counting are where the same carbon credit is retired by two companies, or the same emission reduction is credited under two programmes, or if two countries claim the same emissions reduction towards their Nationally Determined Contributions under the Paris Agreement. The ICVCM separately refers to the issue of 'double claiming' which concerns the intersection between the Paris Agreement and the



voluntary carbon markets, and which is subject to ongoing debate and analysis".

#### 10. Permanence

"The greenhouse gas emission reductions or removals from the mitigation activity shall be permanent, or if they have a risk of reversal, any reversals shall be fully compensated."

"The permanence core principle is essential for the reduction of carbon emissions in line with the long-term goals of the Paris Agreement."

#### 11. Programme governance

"The carbon-crediting program shall have effective program governance to ensure transparency, accountability and the overall quality of carbon credits."

"Robust governance requires that all key documentation and information relevant to decision making is publicly available, subject to compelling confidentiality constraints. Key documents include standards, methodologies, procedures, tools, guidelines, supplementary information, and project documentation. Making documents and information available to the public enables transparent decision-making, effective and inclusive participation, and feedback to support continuous improvement."

#### 12. Registry

"The carbon-crediting program shall operate or make use of a registry to uniquely identify, record and track mitigation activities and carbon credits issued to ensure credits can be identified securely and unambiguously."

"Registries perform essential functions related to the integrity of carbon credits, including the application of accounting rules to avoid double counting. The ICVCM expects a registry system to uniquely identify each carbon credit, the associated mitigation activity, and identify any other associated attributes."

13. Robust independent third-party validation and verification

"The carbon-crediting program shall have program-level requirements for robust independent third-party validation and verification of mitigation activities."

"The auditing requirements for the carbon-crediting programs need to include structure, management, resources, and process and information requirements for verification and validation bodies."

14. Robust quantification of emission reduction and removals

"The greenhouse gas emission reductions or removals from the mitigation activity shall be robustly quantified, based on conservative approaches, completeness and sound



#### scientific methods."

"Under carbon crediting, emission reductions and removals from mitigation activities must be robustly quantified, implying that the quantification exercise should lead to reliable, conservative estimates of emissions reductions or removals. Quantification protocols are embedded in quantification methodologies and other provisions for mitigation activities. These include additionality, permanence, and monitoring and reporting plans".

#### 15. Sustainable development impacts and safeguards

"The carbon-crediting program shall have clear guidance, tools and compliance procedures to ensure mitigation activities conform with or go beyond widely established best industry best practices on social and environmental safeguards while delivering on net positive sustainable development impacts."

"Implementing safeguards and delivering net positive sustainable development impacts is critical to ensuring social and environmental integrity in generating carbon credits. Carbon crediting programs play an important role in ensuring that mitigation activities identify, assess, and disclose the potential risk of environmental, economic and social harm and implement actions to avoid or minimize them while delivering net positive impacts beyond its GHG contribution".

#### 16. Transition towards net-zero emissions

"The mitigation activity shall avoid locking in levels of emissions, technologies or carbon intensive practices that are incompatible with achieving net zero emissions by midcentury. "

"A global transition towards net-zero emissions is now an imperative and inscribed as the long-term goal under the Paris Agreement: achieving a balance of greenhouse gas emissions and removals in the second half of this century. For compatibility with the global goal of net-zero, any mitigation activity, even if it leads to short-term emission reductions, should be discouraged if it would result in a locked-in increase in long-term emissions."

## 4. OUR VISION AND MISSION

#### OUR VISION

While global electricity consumption is set to double by 2050, and industrial and agricultural production to grow exponentially as demand increases, it will be impossible to preserve the environment without clear plans, which shall be set especially at the local level, focusing on communities and local specificities.

Changing systems and processes can be a difficult task that is better achieved over



longer periods, but we are committed to acting now, and we acknowledge that to achieve the highest possible impact it is imperative to participate in sustainable projects right now. Our philosophy is "think globally, act locally", without touching the wonderful diversity of people, their ways of thinking and acting in line with the principles of preserving life.

RED Carbon Standard aims to combine technological advancements with highly specialized use to give value to green projects in all aspects (carbon reduction or removals in the form of tokenized carbon credits, social and community benefits, SDGs,).

OUR MISSION

RED Carbon Standard aims at helping project developers of sustainable projects to quickly obtain tokenized carbon credits on the international voluntary CO<sub>2</sub> market.

RED Carbon Standard and Platform shall capture at least 1 billion tons of CO<sub>2</sub> per year using a SAAS model for enabling our users (individuals, enterprises and even governments) to mint their tokenized carbon credits.

## 5. SCOPE OF RESTART ENERGY DEMOCRACY CARBON STANDARD

The Scope of the RED Carbon Standard is to democratize and digitalize the Voluntary Carbon Market. Becoming RED Certified gives sustainable actions and projects our green housekeeping seal of approval, visibility, accounting, marketing, and promotion of their ESG actions.

**Value for all Users** – provided in the form of tokenized carbon credits, REDs, as rewards for sustainable actions taken by project developers and individuals. For companies, our platform and carbon standard will provide a clear path for value creation for shareholders by providing a secure way to validate and account for a Project's ESG impact. We aim to create further incentives for clients to adopt a greener way of life, improve client acquisition and retention and drive up sales on a distributed basis, allowed by our RED platform, as we recognize that the success of our efforts to protect the planet starts with the individual. Individuals will be educated and incentivized to consume more sustainably. By understanding and accounting for variables impacting our climate, our users will become more environmentally conscious, which represents small, but essential steps towards reaching carbon neutrality on a global scale.

**Engagement** - all Franchisers on the RED Platform will be able to offer RED tokenized



carbon credits to their users, automatically. RED Carbon Standard will mint the tokenized carbon credits in the form of RED for green projects based on their  $CO_2$  reduction or removals emissions. We aim for engagement with all types of stakeholders in order to help them to grow and develop new sustainable projects.

**Governance and Decentralization based on proof of stake** - the RED community will be able to vote on the RED-certified carbon projects and  $CO_2$  offset schemes created by users.

**Security and Validation** - transparency, traceability, and validation of tokenized carbon credits claims offer the RED block system a perfect structure for trustworthy transactions.

The RED Standard is based on ISO 14064-1:2018, ISO 14064-2:2019, ISO 14064-3:2019, ISO/IEC 17029:2019, ISO 14065:2020 and ISO 14066:2011. Its structure is international and governed by the requirements of the Integrity Council for the Voluntary Carbon Market. Also, depending on the use or end-use of the carbon credits, regulations set by a particular country or offset mechanism are taken into account.

#### 5.1. EFFECTIVE DATE

The RED Carbon Standard will be effective from the date written on the first page. Further revisions of the standard will be publicly communicated to stakeholders and our community.

#### 5.2. MARKETS

The RED Carbon Standard has been designed for the international voluntary carbon market.

Moreover, it will follow all principles and guidelines of Article 6 of the Paris Agreement, and also the carbon market standards for high-quality carbon credits, as designed by The Integrity Council for the Voluntary Carbon Market. We also support the role of local communities in organizing human, social, cultural, and business activities, protecting forests and nature.

#### 5.3. ELIGIBLE GREENHOUSE GASSES

RED Carbon Standard takes into account all seven GHGs recognized by the International Panel for Climate Change for which the Global Warming Potential (GWP) values are available in the most recent IPCC report:

 $CO_2$  – Carbon dioxide  $CH_4$  - Methane



N<sub>2</sub>O - Nitrous oxide HFCs - Hydrofluorocarbons PFCs - Perfluorocarbons SF<sub>6</sub> - Sulphur hexafluoride NF<sub>3</sub> - Nitrogen trifluoride

The concept of Global Warming Potential (GWP) was formulated to facilitate the comparison of the climate-altering effects of different gasses. Essentially, it quantifies how much energy 1 ton of a particular gas will absorb over a specified timeframe compared to 1 ton of carbon dioxide (CO<sub>2</sub>). The greater the GWP value, the more potent a gas is in terms of contributing to global warming when juxtaposed with CO<sub>2</sub> over that designated time frame, which is typically set at 100 years. GWPs offer a standardized metric, enabling analysts to aggregate emissions estimates for various gasses (e.g., for compiling national greenhouse gas inventories) and assisting policymakers in assessing emission reduction options across sectors and gasses.

CO<sub>2</sub> always has a GWP of 1, irrespective of the chosen time frame, as it serves as the reference gas. CO<sub>2</sub> remains in the Earth's climate system for an extended duration, leading to increases in atmospheric CO<sub>2</sub> concentrations that persist for thousands of years.

Methane (CH<sub>4</sub>) is estimated to have a GWP ranging from 27 to 30 over a 100-year period. CH<sub>4</sub> emissions today have a relatively short average lifetime of approximately a decade, considerably less than CO<sub>2</sub>. However, CH<sub>4</sub> also possesses a higher energy-absorbing capacity than CO<sub>2</sub>. The interplay of its shorter lifespan and increased energy absorption is reflected in its GWP. The CH<sub>4</sub> GWP also considers indirect effects, including CH<sub>4</sub> acting as a precursor to ozone, a greenhouse gas in its own right.

Nitrous Oxide ( $N_2O$ ) boasts a GWP 273 times greater than that of CO2 when considering a 100-year timescale.  $N_2O$  emissions persist in the atmosphere for more than a century, on average.

Chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), hydrochlorofluorocarbons (HCFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF<sub>6</sub>) are often referred to as high-GWP gasses because, for a given mass, they trap substantially more heat than CO<sub>2</sub>. The GWPs for these gasses can range from thousands to tens of thousands.

#### 5.4. PROJECT TYPES

The Projects registered under the RED Carbon Standard shall meet the International Panel for Climate Change emission categories, as follows:



- 1. Energy (renewables, non-renewable)
- 2. Energy distribution
- 3. Energy demand
- 4. Manufacturing industries
- 5. Chemical industries
- 6. Construction
- 7. Transport
- 8. Mining/mineral production
- 9. Metal production
- 10. Fugitive emissions from fuels (solid, oil and gas)
- 11. Fugitive emissions from production and consumption of halocarbons and sulphur hexafluoride
- 12. Solvent use
- 13. Waste handling and disposal
- 14. Afforestation and reforestation
- 15. Agriculture

#### 5.5. TRANSITION FROM OTHER CARBON STANDARDS

Project Transition from other international carbon standards, such as CDM, Verra, CAR, etc. are allowed and project developers shall send an email to certification@redstandard.org attaching the project that needs to be transitioned for this purpose. (The document attached shall have the following name: "Transition\_Nameofcarbonstandard\_Nameproject\_Data").

The transitioned Project shall follow all principles and conditions of the RED Carbon Standard to claim tokenized carbon credits (REDs).

#### 5.6. REQUESTS FOR REVISIONS AND EXEMPTIONS

Red Carbon Standard Team encourages franchisers to submit proposals for revisions, changes, or deviations/exemptions for their project developer's projects to the following e-mail address certification@redstandard.org (The document attached shall have the following name: RequestforExemptions\_Nameproject\_Data) or via the RED Platform Application.

The RED Team will analyse such requests and grant exemptions on a case-by-case basis. We must stress, however, that this procedure is introduced to provide the necessary flexibility to our standard but aims to be the exemption and not the rule.



## 6. TOKENIZED CARBON CREDITS

RED is an ERC-20 fungible token (Ethereum token), having utility in the RED Platform that certifies on the blockchain the quantity of  $CO_2$  reduction or removals from the atmosphere by eco-friendly actions within a Project (such as the energy production from renewable sources) and certified by the RED Carbon Standard. Owning 1 RED means 1 ton of  $CO_2$  has been reduced or removed from the environment.

The tokenized carbon credits are minted in the project wallet after the successful certification of sustainable projects with RED Carbon Standard or after transitioning projects from other international carbon standards to RED Carbon Standard.

These tokenized carbon credits can be acquired on the RED platform by users/contributors interested in offsetting their  $CO_2$  footprint or investing in sustainable projects.

The implementation of the tokenized carbon credits use case is primarily aimed at supporting the democratization and digitalization of our sustainability path.

# 7. RED CARBON STANDARD AND RED PLATFORM APPLICATION

#### 7.1. USE OF THE RED PLATFORM APPLICATION

Restart Energy Democracy Platform is the online place that connects the final consumers and renewable energy producers, project developers and carbon credits buyers facilitating the trading of renewable energy, and climate-responsible attributes and/or carbon credits. It also allows project developers to certify green projects and obtain tokenized carbon credits.

The RED Platform Application is easy to use, it can be accessed in the web version or in the Application. The franchisers can upload and publish the already certified projects from project developers on the platform or projects, which are not certified by international standard organizations but have the carbon offset calculations already approved by a third-party verifier and become RED certified projects after RED analysis and validation following a set of mandatory steps which are provided and explained in the platform.

The Platform offers 24/7 accessibility. The users will receive and use a username and a password to securely access the Platform from the mobile phone or another similar electronic device and will thus have an active personal user account for the Platform. The development of the RED Platform was managed to reach a full range of users due to its multifunctionality and accessibility. Among the multi functionalities the platform offers, our users can trade, exchange, withdraw, obtain a report on their carbon



footprint and have the possibility of staking tokenized carbon credits or accessing a reward system.

#### 7.2. RED PLATFORM SECURITY

At the request of Restart Energy, a 3rd party specialized company, Bit Sentinel, evaluated the security of the defined Web Penetration Testing service against the RED Platform Application and all its Features scope via Black Box audit.

The current security status exceeds "Industry Best Practice" standards. The overall security posture was found by the following methodologies to be excellent with only a few low-risk findings identified.

Methodology used: Penetration Testing Execution Standard; The National Institute of Standards and Technology – NIST; Open-Source Security Testing Methodology – OSSTM; OWASP Testing Guide; Penetration Testing Framework; SANS: Conducting a Penetration Test on an Organization. Security categories that were considered:

- Information Gathering
- Configuration and Deploy Management Testing
- Identity Management Testing
- Authentication Testing
- Authorization Testing
- Session Management Testing
- Data Validation Testing
- Error Handling
- Cryptography
- Business logic Testing
- Client-Side Testing

Secured TLS is used for all client connectivity and does not fall back to insecure or unencrypted protocols.

Malicious Code policy was implemented to be sure that the RED Platform Application must not load or execute code from untrusted sources: modules, plugins, code, or libraries from untrusted sources or the Internet. All third-party apps are stored outside with limited permissions, scanned by antivirus scanners.

File Download/Upload policy respects the procedures that direct requests to uploaded files will never be executed as HTML/JavaScript content. Validation is applied to uploaded files preventing storage fill up or denial-of-service attack.

All sensitive private data created and processed by the RED Platform Application has been identified and very clear legal procedures are in place on how to deal with sensitive data.



The RED Platform Application sets sufficient anti-caching headers so that sensitive data is not cached in modern browsers, authenticated data is cleared from client storage after the client or session is terminated.

All inputs are validated or sanitized using positive validation (whitelisting of protocols, domains, paths, ports): untrusted data, HTML form fields, REST requests, URL parameters, HTTP headers, HTTP file metadata, cookies, batch files, RSS feeds; user input before passing to mail systems to protect against SMTP or IMAP injection.

All cryptographic modules fail securely, and errors are handled in a way that does not enable Padding Oracle attacks.

Authentication system is built to support single or multi-factor authentication to prevent unauthorized use; tokens are only usable once, and only for the original authentication request.

Credential Recovery policy was implemented in the manner that generated initial activation or recovery secret is not sent in clear text to the user.

Password Security requirements are implemented for initial and change the password too, together with a support for user to set a stronger password: at least 12 characters in length, password 64 characters or longer, "paste" functionality, browser password helpers and external password managers.

#### 7.3. DECENTRALIZED ZALMOXIS SECURITY

Security is achieved using a validator layer that works through Staking Smart Contract on Ethereum to enable this mechanism on Zalmoxis, which is our proprietary blockchain.

Integrity is done by a Zalmoxis oracle that:

- Validates all the blocks since the last checkpoint
- Creates a Merkle tree of the block hashes
- Publishes the Merkle root number of transactions and the block number to the Ethereum Chain
- Maintains an equal balance of MWAT inside the MWAT Ethereum pool and the Zalmoxis Blockchain Interoperability is achieved via an oracle that:
  - $\circ\,$  Allows actors to transfer MWAT in and out of the Zalmoxis blockchain
  - $\circ$  Allows claiming of the block producer actors for the transaction fees.

Security Level Parameters

- Staked tokens (The tokens that the user has staked)
- Block Height (The Zalmoxis Blockchain Blocks produced)



- Number of Transactions (The number of transactions since the last checkpoint)
- Staking Period

The Zalmoxis approach, rooted directly to Ethereum network through smart contracts, will have multiple benefits in terms of operability and security, the root chain ensures full security with the summed proofs of all child blockchains. This structure is able to isolate bad actors' impact or unwanted behaviour.

Zalmoxis is a carbon neutral blockchain since it is powered by 100% renewable energy from Restart Energy solar energy plant.

#### 7.4. REGISTRATION OF VERIFIED USERS, PROJECT DEVELOPERS/FRANCHISERS

A verified user, a Project developer and a Franchisee of the RED Platform Application shall pass the Know Your Customer requirements of the RED Platform. The legal ownership of the Project shall be carefully verified and tokenized carbon credits shall be issued to the franchisee empowered by the legal owners of the Project to manage his project to be certified and to manage the tokenized carbon credits.

A verified user, or a Franchisee shall register in the RED Platform Application information related to the name, address, e-mail, details about the authorized contact person, sector of activity, and will receive a RED ID and wallet after the approval of its KYC.

#### 7.5. PROJECT DOCUMENTATION

The authorized person to represent the Project Developer, such as the Franchiser will upload in the RED Platform Application the following fields and documents necessary in the certification process:

(i) Information about the Project, in the Project Design Document, will include the title of the project, location, the benefits, the technology used, , the start date of the project, the estimated number of CCs, the estimated emission reduction calculation, methodology used, the additionality etc. You can use the RED Carbon Standard template of the PDD, first section "Initial Assessment" and the Franchiser complete the details of the project in the RED Platform Application in the name of Project Developer; (ii) Proof of the information provided, such as uploading Project documentation, photos, and videos of the project;

(iii) Information about the environment and sustainability impact of the Project. You will have to describe the project's positive impact on sustainability and the environment, list and describe at least three Sustainable Development Goals that apply to the Project; The RED Carbon Standard template "SDG Tool" from the website.

(iv) Information about the legal representative of the Project Developer, such as the name, ID card, company fiscal certificate, and standing certificate;



(v) Information about the authorized representative/designated person of the Project Developer, such as name, ID card, power of attorney stating the appointment and the limits of the mandate for the Application;

(vi) Information about the public consultation, estimated emissions, estimated indicators. You can use the RED Carbon Standard template of the PDD, second section "Validation".

(vii) Information about the monitoring indicators. This information will be written in the Monitoring Indicators document, will include the calculation of the actual CO<sub>2</sub> reduction or removals emissions and all monitored SDGs to which the project contributes positively. You can use the Section from RED Carbon Standard template of the PDD for the "First Monitoring Indicators" and the Franchiser insert the details of the project in the RED Platform Application in the name of Project Developer; For annual monitoring indicators will be use the RED Carbon Standard template for "Project Monitoring Report".

(viii) The RED Carbon Standard template of the Validation Reports and the Verification Reports must be completed and signed by an Independent Validation and Verification Body after the audit.

The franchise shall upload the documents in the RED Platform Application after successfully checking all documents of the project, including all monitored SDG parameters/indicators, and the project location is visited at least once for validation and yearly for verification by the Independent Validation and Verification Body:

(i) The validation report – it is the document that confirms that the project is designed according to the methodology.

(ii) The verification report – it is the document that confirms the real outcomes/benefits of the project, including but not limited to  $CO_2$  reduction or removals emissions, monitored parameters from methodology and monitored SDG indicators, etc.

The final reports from the Independent Validation and Verification Body will be uploaded by the franchiser on the RED Platform Application after the Independent Validation and Verification Body sent it at the Franchisee and certification@redstandard.org.

(The document attached shall have the following name: ValidationReport\_Nameproject\_Data or VerificationReport\_Nameproject\_Data).

The language of the documents uploaded on the RED Platform Application and approved by the RED Carbon Standard is English. If documentation is provided in another language than English, the project developers are required to provide authorized translations. Local auditors can check documents in local languages provided they are from the same region as the project developer. Validation and Verification reports provided by the Independent Validation and Verification Body shall be uploaded in English.



#### 7.6. PROJECT CERTIFICATION PROCESS

7.6.1. START DATE OF THE PROJECT: RETROACTIVE PROJECTS AND REGULAR PROJECTS

The start date of the Project shall be proved by the official signed commissioning document of the Project. RED Carbon Standard will accept regular projects and retroactive projects to be certified on RED Platform Application.

Regular projects are those projects which have the start date after the project first submission date to the RED Platform Application or via email certification@redstandard.org.

Retroactive projects are those with a start date no more than one year prior to the date of project announcement for RED Standard Certification. The project start date is evidenced by the official signed project commissioning document. In the case of retroactive projects, which are more than one year from the commissioning date of the installation, the "Request for Exemptions" must be completed, explaining the reasons for requesting exemptions.

The first project submission for certification with the RED Carbon Standard must be sent to certification@redstandard.org and represents an announcement from the Franchisee or project developer with the intention of certifying the project. If this notice is not received by the Standard, the first submission will be considered as registration of the project in the RED Platform application.

#### 7.6.2. CREDITING PERIOD

The crediting period is the period during which a Project can obtain tokenized carbon credits in the form of RED if all the requirements of the Standard and methodology used for the calculation of emission reduction/removals are achieved.

The crediting period for energy, waste, and other product use projects is 15 years but the requirement is to have an independent validation every five years during the previous accreditation period. This validation requires a new validation statement for the next crediting period, in which it is analysed if the project continues to be additional and continues to meet the principles and the requirements of this standard.

The crediting period for AFOLU projects (agriculture, forestry, and other land use) is 50 years but the requirement from the standard is to have a new validation for the next credit period and to give back the stock buffer, explained in chapter 8.6, for the permanence of the project. This new validation, at 10 years, includes a reassessment of the baseline scenario and the approach used to calculate the baseline emissions. In addition, the validation includes a review of the conditions and barriers that were overcome using carbon credits revenues, identifying whether the barriers remain, and whether carbon credits revenues are still required to overcome them.



To register a new crediting period, complete the template "New crediting period" with the information required after the project has been completed the Validation Report by an Independent Validation and Verification Body and uploaded in the Red Platform Application or send via email to certification@redstandard.org (The document attached shall have the following name: Newcreditingperiod\_nameof project\_data).

#### 7.6.3. INITIAL ASSESSMENT

Once the project details from section 7.5 points (i) to (v) have been written in the RED Carbon Standard template of the PDD and submitted to RED Carbon Standard via RED Platform Application or by email at: certification@redstandard.org (The document attached shall have the following name: "InitialAssessmentPDD\_Nameproject\_data"), the project will starts a initial assessment by the RED Carbon Standard Team.

The Franchiser empowered by the Project developer shall provide on the digital platform all the elements of the projects (i.e. documentation, location, technology, how it contributes to SDGs, emissions reduction/removals documents, etc.) and the project will be assessed by the RED Carbon Standard Team.

Legal responsibility: all legal framework of sharing/selling or trading in the obtained tokenized carbon credits will be the sole responsibility of the franchiser and RED will be indemnified appropriately.

The franchiser will open a new sustainability project in the RED Registry, complete all the information and upload the documents requested for each step described in the Certification Guide of RED Carbon Standard.

The Project Developer will pass a "Know Your Customer" to identify the real owner of the CCs, which will be issued in the RED Platform Application in the form of and tokenized carbon credits, REDs.

If the project passes this stage, it will be listed on the RED Registry and RED Platform Application with the Status "Listed". The Project Developer and the Franchisee will receive an automatic notification with the status of the project.

The project will receive the ID from the registry after it passes this stage of the certification.

The RED Carbon Standard Team would only accept projects that have a positive impact on the environment, which will be detailed in the PDD of the Project. The project needs to have a minimum of 3 SDGs identified in the activity and which can be monitored and verified for the entire period of carbon issuance. The RED Carbon Standard Team will notify the Project Developer if the Project submission has been passed and the Initial Assessment approved.

When the information related to a Project already listed on the dedicated page of the RED Platform Application needs to be updated, the Franchiser has the right to do so at any time. However, when an update is made, the Project will have to be reconfirmed



and approved by the RED Carbon Standard Team. Until the updated Project is confirmed, the details and information that appear on the dedicated page where the Project is listed will be the previously approved ones.

#### 7.6.4. VALIDATION

#### 7.6.4.1 PUBLIC CONSULTATION AND THE STAKEHOLDERS MEETING

From the date of listing the project on the RED Platform Registry starts the public consultation. On the project page from the RED Platform Registry the stakeholders have the possibility to give their feedback for 30-days. Any feedback shall be submitted through the project's page to the Project Developers email, Franchisee email and certification@redstandard.org (The document attached shall have the following name: Publicconsultationfeedback\_Nameofstakeholder\_Nameproject\_Data). The Project Developer must answer at the feedback received and complete all the information in the PDD at this Section "Public Consultation".

The Project Developer must organize a physical or online meeting with the local stakeholders. The objective of the stakeholder meeting and engagement process is:

- a) to identify, engage, and consult stakeholders in a meaningful manner to improve project design and its outcomes;
- b) to inform stakeholders about projects and discuss their likely impacts (both positive and negative) during the design, planning, and implementation stages and relevance to stakeholders;
- c) to establish an ongoing engagement process for stakeholders to provide input, feedback, and raise concerns throughout the project's lifespan.

For the regular project the meeting must be done before the validation process from the Independent Validation body starts and for the retroactive projects before the verification from the Independent Validation and Verification Body starts.

The project developer shall identify and invite all relevant stakeholders (local, affected, and interested) for consultations and comments, including, but not limited to, those mentioned below:

- a) Local individuals, communities, and/or representatives who are expected to be directly or indirectly affected (adversely affected or beneficiaries) by the project or who may have an interest in the project;
- b) Stakeholders with land-tenure rights within or adjacent to the project and marginalized individuals and groups;
- c) Local policymakers and representatives of local authorities;
- d) Representative of the RED Carbon Standard.

The invitation will be sent to the stakeholders within 15 days before the meeting and



will contain the agenda of the meeting and the PDD with Initial Assessment approved and the points 2.2, 2.3, 2.4, 2.5 (this point is type-based specific for non-AFOLU/ AFOLU projects, therefore the PDD must be chosen based on the type of the project) and 2.6 completed.

In the meeting the project developer shall explain to the stakeholders:

- The project activity and why it is an eligible project to be certified

- What is the baseline and the project's emission used for the emission reduction or removals calculation.

- The benefits and the risk because the project is implemented
- The Do No-Harm Assessment
- The SDGs indicators that will me monitoring in the entire period of crediting

The project developer should ensure that information is presented in a way that is understood by all and is best suited for the targeted audience. In cases where stakeholders come from different cultural and/or socioeconomic backgrounds, information in a single language and/or presentation style might not be understood by everyone.

The project developer shall develop a grievance mechanism and present it in the meeting with the stakeholders to make it easy for them to address disputes that may arise during the project planning and implementation, including with regard to benefit sharing.

The Public consultation section from the PDD shall include:

- A. Date of the physical or online meeting
- B. How was identified the local stakeholders likely impact by the project
- C. A list with the stakeholder invited
- D. The proof that they were invited (emails, newspaper notice, online ads etc)
- E. A description of the social, economic and cultural diversity of the stakeholders.
- F. The list with stakeholders presents at the meeting (use the RED template: List of participants\_Stakeholders Meeting form)
- G. Pictures from the meeting or prove that the online meeting took place
- H. A summary how the meeting went
- I. The feedback received from the public consultation and stakeholder meeting and how the comments were resolved.
- J. The Do No-Harm Assessment was presented on the meeting
- K. The proof that the SDGs indicators was presented
- L. The proof with the grievance mechanism
- M. Evaluation form received from the stakeholder (use the template from the website "Evaluation form\_Stakeholders meeting").

Feedback from the stakeholder will be collected within 30 days from the meeting or submission of documents.



The PDD and the Monitoring Reports shall be sent to stakeholders after the Validation and each Verification. The Project Developer shall demonstrate that they send the above documents to the stakeholders, and they shall include stakeholders' feedback into the next Monitoring Report.

For projects activities that use technologies that are included in the "Positive List of Technologies" (CDM TOOL 32) and for which the Additionality Methodology Tool for small-scale projects (< 20 000 tCO<sub>2</sub>/year) applies, public consultation starts as soon as the project is listed in the RED Platform registry. On the project page of the RED Platform registry, stakeholders have the opportunity to express their views for 30 days, and the project developer must provide proof that it has notified stakeholders of this certification through at least two of, but not limited to, the following options: a notice placed at the project site, emails, newspaper ads, online ads, a dedicated page on the website). The notice should include the title of the project, the period during which the project is in public consultation, the reason for the public consultation and details of the grievance mechanism.

The Project Developer shall include stakeholders' feedback into the next Monitoring Report.

7.6.4.2 BASELINE SCENARIO AND THE ESTIMATED EMISSION REDUCTION/REMOVALS

The project developer must explain the baseline scenario used, the project emission, leakage used in the calculation of the estimated emission reduction/removals according to the applicable methodology and create the list of the indicators from SDGs that will be monitoring in the project activity and explain it.

All Project details shall be validated by the Independent Validation and Verification Body accredited by RED Carbon Standard. The baseline scenario, the boundary of the project, project emissions, leakage, and emissions reduction/removals (ER) shall be validated according to the applicable methodologies by an accredited auditor specialized in the sector of the project activity.

RED Carbon Standard accepts UN-accredited CDM auditors by project type, and encourages local auditors to apply for RED approval. RED Carbon Standard defines and publishes on its website the criteria and procedure for approved independent validators/verification bodies.

RED network of local and external validators will provide an extra layer of security for the rigorous process of the carbon credits approval.

At this stage, all validated documents of the project (PDD with the Validation section completed, Estimated emissions reduction/removals calculation, SDG Tool, etc.) will be uploaded on the RED Platform together with the Validation Report of the independent validation body or sent via email certification@redstandard.org (The document attached shall have the following name: ValidationPDD\_Nameproject\_Data and



ValidationReport\_Nameproject\_Data). All documents will be publicly available and auditable at any time on the blockchain based RED Carbon Registry.

The RED Carbon Standard Team will analyse all documentation provided and will ask for further clarifications or actions to review if necessary. If the Project meets all principles and requirements of the RED Carbon Standard, it will be approved and the Project developer and Franchisee will receive an automatic notification.

After successfully passing this certification stage, the project will be considered validated, the status of the project will be "Validated" and the new updated documents (PDD, Validation report, SDG Tool, Estimated emission calculation) will become publicly viewed.

The RED Carbon Standard Team would only register/certify projects that have a positive impact on the environment, which will be detailed in the PDD of the Project and the SDG indicators document.

#### 7.6.5. MONITORING AND VERIFICATION

The Monitoring Period is the timeframe for which the tokenized carbon credits in the form of RED are claimed and issued by the RED Carbon Standard Team after approval. The Project Developer must complete de information in the PDD, in Section "First Monitoring Indicators". In this section, the parameters required by the methodology used to calculate the emission reduction/removals will be monitored for the entire period of crediting. In the same section will be monitoring the indicators from the SDG's.

The RED Carbon Standard requires at least one monitoring period in three years and only ex-post carbon credits will be issued based on the verification of the Independent Validation and Verification Body.

The monitoring report, the emission reduction/removals calculation, SDG Tool shall be verified by an Independent Validation and Verification Body accredited by RED Carbon Standard for the type of the project, who will check the actual emission reduction/removals (verification review), the monitored parameters required by the methodology and SDG indicators of the project. The auditors will write and send to the Franchisee and at certification@redstandard.org the Verification Report (The document attached shall have the following name: VerificationReport\_Nameproject\_Data).

The Franchisee will upload the:

- final version of the PDD (The document attached shall have the following name: MonitoringPDD\_Nameproject\_Data);
- Emission reduction/removals calculation document (The document attached shall have the following name: ER\_Projectname\_Data);
- SDG Tool (The document attached shall have the following name: SDG\_Nameproject\_Data);



 Verification Report (The document attached shall have the following name: VerificationReport\_Nameproject\_Data) in the RED Platform Application and the necessary information to finalize the project certification process.

The RED Carbon Standard Team will, then, verify the final documents of the project. After passing this review, RED Carbon Standard will issue the tokenized carbon credits in the form of RED tokens, according to the emissions reduction/removals calculated and verified period.

After the first issuance of tokenized carbon credits, if Project Developers do not submit further monitoring reports and verification reports, there will be no further issuance. For each annual monitoring and verification process the Franchisee must update the information of the project in the RED Platform Application (new pictures, videos) and upload the Monitoring Report and Verification Report from the Independent Validation and Verification Body or send them by email certification@redstandard.org (The attached have the document shall following name: AnnualMonitoringReport Nameproject Data, and VerificationReport Nameproject Data).

The Project Developer shall allow the Franchisee, RED Carbon Standard and accredited auditors to visit and check the Project throughout the entire period of certification, issuance of RED, and listing on the RED Platform Application if required.

RED Carbon Standard allows Validation and Verification at once for both types of the project, the regular and retroactive projects. This means that if the PDD is based on actual data, and not on estimated data, the Independent Validation and Verification Body can make a single validation and verification report based on the actual data. The RED certification process shall be smoother and quicker if project developers choose to have for the first years of project activity only one integrated validation and verification phase.

The verification must include a physical visit at the project location and try choosing the nearest Independent Validation and Verification Body from the list published on the website.

At the same time, we acknowledge that digital verification can be a more rapid, accurate, and useful tool for verification of projects. RED Carbon Standard encourages participants in the RED carbon community to apply for the recognition of technologies as digital instruments for verification. Such applications shall be sent to certification@redstandard.org (The document attached shall have the following name: "Technologymeasure CO<sub>2</sub>\_typeofprojects\_Data").

#### 7.6.6. ISSUANCE OR MINTING TOKENIZED CARBON CREDITS

The RED Carbon Standard verifies the project documents submitted to ensure that:



- a) Each section of the project documents has been completed with appropriate data.
- b) Each project document is signed by the relevant responsible parties.
- c) Validation has been completed in accordance with the timeframe of the public consultation and stakeholders meeting.
- d) GHG emission reduction or removals have not been issued by another GHG program or recognized under a program that creates GHG-related environmental credits (such as renewable energy certificates).
- e) The project baseline and additionality applied methodology.
- f) The documents are updated after a request from the RED Carbon Standard

After the successful approval of the Project by the RED Carbon Standard Team, the project is considered certified and the status on the RED Carbon Registry will change in "Certified", and the Project developer will receive the tokenized carbon credits in the form of REDs claimed in project wallet in the RED Platform Application, according to the quantity of CCs certified by RED Carbon Standard.

The RED Carbon Standard Team will notify the Project Developer and the Franchisee if the Project certification has been approved. After the approval, Project developers will receive in the project wallet the tokenized carbon credits in the form of RED in an amount equal to the emissions reduction/removals from the atmosphere (1 RED = 1 ton of reduction  $CO_2$ ) that was calculate in the Emission reduction/removals calculation document. The project listed on the RED Platform Application has now available the amount of digital carbon credit available to sell them to buyers/contributors.

If a Project Developer wishes to remove any listed or registered Project from the dedicated page in the Application, then the Project Developer may request the RED team to do so. The Project Developer undertakes any liability, including to hold RED harmless against any prejudice, as a result of the Project being withdrawn from the RED Platform Application at the Project Developer's request as it is understood that no minting can be done if such project removal takes place.

RED Platform may remove at any time any listed Projects if such Projects are found averse to the principles and requirements of the RED Carbon Standard or the Application. Moreover, RED Platform will make public any attempt of fraud and/or scam, so every participant in the RED community will know about such an attempt.

## 7.6.7. LEGAL STATUS OF THE INFORMATION PROVIDED BY THE PROJECT DEVELOPER THROUGH FRANCHISEE

Even if RED will not be obliged to independently verify any of the information provided by a Project Developer through Franchisee and undertakes no liability in connection with any such verification if pursued, the Project Developer shall authorize and mandate RED and/or any of its authorized representatives to:

(i) obtain information about the Projects submitted for approval, as such



information may be available from public sources (registry, database, trading platform and/or exchange);

(ii) carry out additional verification of the documentation of the Project to ensure the information provided is true and correct.

The Project Developer shall declare and warrant that its Content will not contain thirdparty copyrighted material or material that is subject to other third-party proprietary rights unless you have permission from the rightful owner of the Content, or you are otherwise legally entitled to post the Content (and to grant RED all the rights outlined herein).

For the reduction of any doubt, the approval by the RED Carbon Standard Team of a Project in the RED Platform Application and any verification of information regarding a project by RED is made exclusively from the perspective of the extent to which a Project generally follows the principles promoted by RED Carbon Standard and does not amount to any form of warranty or guarantee by RED in connection with the Project including the feasibility or lawfulness thereof.

## 8. REQUIREMENTS AND PROCEDURES

#### 8.1. PUBLIC CONSULTATION

For the integrity of RED Carbon Standard and to meet the principle of transparency that we believe in, the following consultations will be opened to local and international stakeholders:

- RED Carbon Standard Principles & Requirements
- Validation and Verification of Projects to comply with the applicable methodology, the RED Carbon Standard, and the Net harm principle.

The following information shall be published:

- RED Carbon Standard and its related documents
- Governance structures
- Methodologies development and approvals
- Listed projects (under validation), registered projects certified by RED Carbon Standard, delisted projects from the Standard (if they fail to meet requirements after their registration, during the monitoring process, and end of life projects)
- Project Design Document
- Request for Exemptions
- Double Counting/Corresponding Adjustments
- Validation Report of the Independent Validation and Verification Body
- Monitoring Reports (submitted to verification)
- Verification Reports of the Independent Validation and Verification Body



All issued and retired RED CCs of projects

#### 8.2. NO HARM ASSESSMENT

Project Developers must demonstrate in the Project Design Document at the Validation Section that the project activity results in a net-positive impact on social, economic, and environmental factors true the authorisations and documents required by current legislation (such as an environmental impact assessment in line with the No Net Harm Principles).

The sustainable indicators shall be explicitly pointed out in the PDD and carefully checked by an Independent Validation and Verification Body.

#### 8.3. CORRESPONDING ADJUSTMENTS

At RED, we acknowledge the importance of the carbon market principle related to reduction of double counting and claiming of emissions and CCs. That is why corresponding adjustments shall be analysed on a case-by-case basis, taking into consideration the degree of the implementation of carbon certification mechanisms and schemes at the regional, national and local levels. Each project shall fill in and submit the checklist document regarding the CAs. The RED Carbon Standard Team reserves the right to ask for further documentation and evidence related to CAs of each project and will not issue REDs if there has been found a previous claim of REDs for the same emissions reduction or removals or other forms of environmental credit such as renewable energy certificates.

The following document, "Corresponding Adjustments" declaration shall be required to check the safeguard of CAs, including the checklist regarding the national or regional CO<sub>2</sub> commitments targets and their status of implementation and the following:

- Proof of ownership of project emission reduction or removals upon listing the project on the RED Platform Application
- Declaration by the owner to confirm the above;
- Declaration regarding registration to other Carbon Standards.

The document is required to be signed and uploaded in the RED Platform Application in the same time with the "Initial Assessment" of the PDD or sent via email certification@redstandard.org (The document attached shall have the following name: "CA\_nameoftheproject\_data").

RED may remove at any time any listed projects if such projects are averse to the interests of RED Platform Application, or if the Project Developer breached any of the provisions of the GTCs or of the RED Carbon Standard. RED undertakes no liability for any damages or losses caused by such removal.



#### 8.4. PERMANENCE OF NON-AFOLU PROJECTS

The non-AFOLU projects (energy, waste etc.) which are called carbon reduction projects must have a minimum lifetime of 15 years to meet the permanence principle. The project will go through the entire verification process every 5 years until the end of the crediting period.

#### 8.5. PERMANENCE OF AFOLU PROJECTS

The AFOLU projects (afforestation, forestry and land use), which are also called carbon removal projects include non-permanence risks due to natural disasters, such as fire or floods or even human activities related risks.

Project developers of AFOLU projects will be required to set aside 10% of their minted CCs in a buffer, which will be managed by RED Carbon Standard. The buffer requirement intends to minimize the risk of the leakage of GHG emissions from such projects, and if any risky event occurs during the project timeframe, RED Carbon Standard will burn from the buffer the equivalent amount of CCs exposed to that risk.

Each period of verification will assess the permanence component of AFOLU projects. If in ten years of verification, there have not been found any non-permanence risks, the project developer will receive back the 10% CCs from the stock buffer. RED Carbon Standard will continue after this period to retain the same percentage from the next issuances until the end time life of the project, which is 50 years, maintaining the same principle to give back to the project developer CCs from the buffer from 10 to 10 years if no risks happen.

8.6. GROUP PROJECT

A group project combines multiple project activity with the same type of the project into a single, combined project that adds new projects activity over time in the same geographic boundary sets from the beginning in the PDD.

The grouped project is similar to the UN-CDM Program of Activity (PoA) but RED Carbon Standard requires the following:

- The project developer sets the project boundary from the beginning in the P
- The validation of the project is made to assess the grouped project based on the initial project and to verify if the eligibility criteria are appropriate for the rest of the future projects with the same type of activity.
- For the new commissioning projects, the verification is made to verify the monitored emission reduction/removals that have been validated as a group project.
- The location coordinates will be mentioned in the Verification Report for each location that will have the same type of the project.



#### 8.7. INDEPENDENT VALIDATION/VERIFICATION BODY

The validation/verification shall be made by a third-party organization accredited by the RED Carbon Standard for the relevant type of project and shall have signed the agreement with the project developer. On the website will be found the list of Independent Validation/Verification bodies accredited.

For the accreditation the following documents completed need to be send at certification@redstandard.org with the subject "Independentverificationbody\_Name\_Data":

- KYC for auditors
- The certification proof of the Validation and Verification body (ISO 14064-3, ISO 14065:2020, ISO/IEC 17029:2019, ISO 14066:2011 or others) or other relevant certification for the verification of a specific type of project.
- The bodies must achieve the General Principles and Requirements for bodies validating and verifying environmental information (ISO 14065:2020, ISO 14066:2011 or others)
- Other documents required in the Criteria for Independent Validation and Verification Body by RED Carbon Standard.

After the validation and the verification project the Independent Validation and Verification Body must complete the Validation Report template or the Verification Report template depending on the stage of the project and send them to the Project Developer, Franchisee and RED Carbon Standard by email certification@redstandard.org ("ValidationReport\_Nameproject\_Data" and "VerificationReport\_Nameproject\_Data")

The RED Carbon Standard verifies that the data in the Validation/Verification report was issued by an accredited verification body prior to the date of the report and that it was accredited for the relevant type of the project.

Renewable energy projects in the EU that are registered with the National Energy Authority as renewable energy producers can be certified through a simplified audit procedure as they are already licensed and verified by a state institution and the monthly energy injected into the grid is verified by the grid operators.

### **9. METHODOLOGIES**

9.1. TYPES OF METHODOLOGIES

RED Carbon Standard accepts Projects that will follow one of the UN-approved CDM methodologies, which can be found here. It will also accept public methodologies from other renowned standards and organizations, such as ISO, Gold Standard, World Bank, EBRD, IEA etc.



If Project developers would like to propose new methodologies as the technology and carbon removal process quickly evolves, they shall contact the RED team via email: certification@redstandard.org.

RED Carbon Standard will maintain the right to update and expand its methodologies.

The type of the project in terms of UN-approved CDM methodologies are:

- Small -scale (0 60.000 t CO<sub>2</sub>)
- Large- scale (>  $60.000 \text{ t } \text{CO}_2$ )

The Project Developer shall identify project methodology and complete it in the Initial Assessment from the PDD.

#### 9.2. TYPES OF RED CERTIFICATIONS

#### **Regular Certification**

Regular certification is applicable to the regular projects which have the start date after the initial submission date of the project to the RED Platform Application or via email certification@redstandard.org. We encourage Franchisee/Project Developers to submit to the RED Platform Application or via email their project ideas at their project inception time to prove the need for carbon credits from the early stage of a project.

#### Retroactive Certification

Retroactive certification is applicable to the retroactive projects which have the project start date no more than one year prior to the date of the project initial submission to RED Platform application via email at certification@redstandard.org. Projects that have more than one year could submit Requests for Exemptions explaining the reasons they ask for exemptions.

Project initial submission for certification with RED Carbon Standard shall be sent to: certification@redstandard.org (the subject of the email must contain: InitialSubmission\_Nameproject\_Data) or via the RED Platform Application.

#### Ex. Post Crediting

This means that projects will receive CCs in the form of RED only after the implementation of their sustainable activities.

#### 9.3. BASELINE SCENARIO AND BASELINE EMISSIONS

The Baseline Scenario is the specific situation before the implementation of the Project and each Project shall determine the Baseline scenario, and the Baseline data needed to calculate the Baseline Emissions.



Baseline Emissions are the  $CO_2$  e emissions that would have happened in the Baseline Scenario if the project was not implemented. The Baseline Scenario and Baseline Emissions are determined according to the applicable Methodology used by the Project.

A detailed description of the baseline scenario and the geographic boundary of the Project shall be provided in the Project Design Document. A Project may contain more than one location or area of land, but each location/premise or land area must have a unique geographical identification.

For Forestry and Agriculture Projects, Project Developers shall provide maps, GPS identification or satellite files, and other relevant information to define the project boundary.

The Independent Validation and Verification Body shall assess and check on the physical audit all the assumptions of the baseline scenario and its boundary too, during the Validation process.

#### 9.4. PROJECT EMISSIONS

Project emissions are the GHG emissions that happen as a result of the Project implementation.

The calculation of the Project emissions shall be done according to the applicable Methodology of the Project and will be assessed during the validation process by an Independent Validation and Verification Body. The difference between Baseline Emissions and Project Emissions is the net Emission reduction or Removals (in the case of forestry projects) achieved by the Project.

For these emission reductions or removals, Project developers will receive tokenized carbon credits in the form of RED tokens in the project wallet

#### 9.5. LEAKAGE

The potential sources of emission leakage shall be described and calculated according to the applicable Methodology. The Independent Validation and Verification Body will also check the leakage sources and their calculation, if applicable.

#### 9.6. ADDITIONALITY

The additionality of a project, which means that the Project reduces emissions beyond the "business as usual" scenario, is assessed and it is a requirement of the RED Carbon Standard.

The additionality is described by the Project Developers in the Project Design Document



and will be checked and validated by the Independent Validation and Verification Body.

Projects can prove the additionality by applying the "Additionality Tool for project activity" from RED Carbon Standard or approved CDM Additionality Methodologies Tool for micro-scale projects, small-scale projects and large-scale projects or by meeting the requirements of new proposed methodologies of the RED Carbon Standard.

The types of the project in terms of UN-approved CDM Methodology for Additionality are:

- Micro-scale (< 20.000 tCO<sub>2</sub>)
- Small -scale (20.000 60.000 tCO<sub>2</sub>)
- Large- scale (> 60.000 tCO<sub>2</sub>)

According to the CDM Methodology Tool for demonstration and assessment of additionality, if the project activity is not using technology from the last version of "Positive list of technologies" (CDM TOOL32) to be automatically additional, the Project Developer shall pass the following steps:

- 1. First-of-its-kind if the project activity is "first-of-this kind" the additionality is demonstrated, otherwise, proceed to Step 2
- 2. Investments analysis

Project developers are guided to apply the following investment analysis techniques: a simple cost analysis if the alternatives identified in Step 2 generate no new financial or economic benefits or generate identical benefits.

- 3. An investment comparison analysis or
- Benchmark analysis
- Barrier analysis

Such barriers may include:

- Investment barriers such a lack of available funding
- Technological barriers such a lack of infrastructure and/or skilled labour to operate and maintain new technologies
- Other barriers specific to the region and country
- 4. Common practice analysis

Additionality requires projects to demonstrate that the GHG emissions after the implementation of the project are lower than those that would have occurred in the baseline scenarios. If activities similar to the proposed project are identified, Project Developers must explain how their project is distinct from common practice exhibited by similar activities in the region. Also, the Project Developers must explain why similar activities were financially attractive while their project activity is not.



## **10. RED CARBON STANDARD REGISTRY**

Projects certified with the RED Carbon Standard will be listed in our RED Carbon Standard Registry. The registry will be built using blockchain technology that will benefit both project developers and buyers thanks to the transparency and non-permutability of data.

The registry system will be based on NFT Smart Contracts on the Zalmoxis blockchain having full interoperability with the public Ethereum blockchain. All tokenized carbon credits transactions will have a unique and public tracking ID (TXID) without any downtime, fraud, control, or interference from a third party. Transactions via tracking ID (TXID) are verified and recorded, transparently showing all past transactions.

The NFT applied to tokenized carbon credits and RED validated projects are secured on the blockchain and can have only one owner at a time. Each NFT is unique, and they are compatible with other systems built on Ethereum blockchain platforms. NFTs can be sold anywhere, and the owners have access to the global market.

Data such as project ID and name, status of the project, SDGs, number of tokenized carbon credits issued, burnt and remaining will be accessible through the RED Registry explorer that will automatically present a project's information or tokenized carbon credit status based on registered information on the blockchain.

Through the RED Carbon Standard and the RED Registry, RED Platform is also pioneering the way for other blockchain and standard sustainability-related companies to have access to the tokenized carbon credits issued under the RED Carbon Standard. The carbon credits management system will allow access to and from other blockchains, as well as allowing other platforms to sell carbon credits on their websites even without blockchain technology.

## **11. ACKNOWLEDGMENTS**

As stated at the beginning, we want to preserve the principles of life, to thank God for everything He gave us, and to ask Him to help us to protect our home, the Earth, and to give us solutions for helping our neighbours and brothers.

We are grateful for the contribution to the writing, design, consultation feedback, and implementation of the RED Carbon Standard and Platform to the following persons from our community:

Alexandra Mirea, Andreea Petrica, Ariana Stevanovic, Armand Doru Domuta, Camelia Craznic, Casiana Fometescu, Ciprian Andreica-Ghiran, Cristian Bogdan, Florin Cania, James Barlow, Jorge Marcos, Jozsef Szamosfalvi, Kinga Kusztora, Motanz Development



Team, Rebeca Dragomir, Valentin Bargau, Valentin-Mihai Aconi, Vlad Trifa.

We would like to introduce Valentin Bargau, the Head of Ventures and Investors Relations, Jozsef Szamosfalvi, the Head of Corporate Finance, and James Barlow, the Head of Agriculture Department with an experience of more than 40 years in the agricultural field, including no-till agriculture.

## **12. RED CARBON STANDARD TEAM**

We are a group of specialists in renewable energy, carbon emissions, forestry and agriculture, finance and technology from different countries (such as Romania, the USA, Spain, the UK, Columbia, Uganda, Malawi, India (among others) on all continents, who gathered together in the creation of this standard, having the same views and principles of life.

**Restart Energy Democracy Platform** (RED) was created in 2020 and was one of the first blockchain-based CO<sub>2</sub> offset and sustainability systems that allowed any company or individual to compensate for their carbon footprint whilst providing a new and reliable marketplace for renewable energy producers in the form of tokenized guarantees of origin. We created one of the fastest blockchain technologies, we currently have a test-net and main-net that can support a continuous load of 1,100 transactions per second with very good stability and which is capable of peaking at 2,200 transactions per second.

**Casiana Irina Fometescu** is the founder of **Carbon Expert** and consultant on the carbon and energy markets on issues related to greenhouse gas emissions energy efficiency projects with an experience of more than twelve years on the international carbon markets. She has been part of the United Nations Framework Convention on Climate Change (UNFCCC) consultant, participating during her career in various meetings and working groups at international levels, such as International Emissions Trading Association (IETA), Climate Markets & Investment Association (CMIA), Copa Cogeca European Agri Cooperatives, the European Commission, the Romanian Coalition for Circular Economy, and President of the Romanian Carbon Association. She gathered a group of s and started writing this standard.

**Armand Domuta** is a highly experienced energy professional, with an experience of more than 17 years in Strategic Business Planning, Energy Trading and Supply, EU Grants, Business Development, Project Management and Renewable Energy Development. In present, he is the owner of Restart Energy One, executive manager of Restart Energy Democracy, Chairman of the Board for Restart Energy Innovative Technologies, as well as Founder and President of the Romanian Blockchain Association. Armand is also a Professor at Universitatea de Vest, Timișoara, where he teaches a Blockchain course.



## **13. DOCUMENT UPDATE**

Version	Date	Comments or additional information
1	11.08.2022	Initial version of the standard. (In Public consultation between 11 <sup>th</sup> August 2022 and 11 <sup>th</sup> October 2022)
2	30.01.2023	Updated version of the standard.
3	15.07.2024	Updated version of the standard.

