



founders and co-founders:



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Introduction

The global scientific community has now agreed that the warming of the climate is 'unequivocal' and that this observed change is linked to anthropogenic greenhouse gas emissions (IPCC 2007). Currently, the only viable systems to curb human-induced climate change are to reduce the quantity of GHG emissions and to remove existing GHG from the atmosphere. Current climate models predict that humans must reduce their current GHG emissions by 50-80% within the first half of the 21st century. This goal can be reached by achieving a rapid transition from high to low emitting technologies as well as altering land use practices.

In September 2009, Chinese President Hu Jintao declared in his opening remarks at the UN General Assembly, that China will further incorporate climate change into its economic society's development principles by strengthening energy saving and efficiency, pushing for the development of alternative energy, and increasing the carbon stocks of forests. These commitments to developing a low carbon economy in China were reiterated in November 2009, ahead of the UNFCCC COP15 conference in Copenhagen, with the China's State Council announcing China's pledge to voluntarily reduce its carbon intensity 40-45 per cent by 2020 against 2005 levels as "a major effort in tackling climate change".

While only in the early stages of this low carbon society, some Chinese businesses and individuals are already willing to take actions to voluntarily reduce their carbon footprint by offsetting their activities with carbon credits from emission reduction and/or removal projects. Therefore, a market for "Verified Emission Reductions" (VERs) does exist and is likely to greatly increase throughout China, especially over the 12th Five-Year Plan.

However, as of now, there has not been any robust national market infrastructure for project proponents to develop their projects, and for consumers to have assurance they are buying high quality VER credits. The Panda Standard therefore aims to establish a domestic voluntary carbon standard that fits China's national conditions and that is compatible with international practices. The Panda Standard aspires to provide a framework for hosting low carbon technology development, and to contribute to national capacity building towards a robust domestic carbon market and low carbon economy.



Founders and Co-Founders



China Beijing Environment Exchange

China Beijing Environment Exchange (CBEEEX) is founded on Aug 5th, 2008, it's an entity established with the approval of the Beijing municipal government. It is a professional market platform for trading various environment equities. CBEEEX is an operational organization for open and centralized transaction of environment equity, which is launched by China Beijing Equity Exchange (CBEEEX), The New Energy Investment Ltd. of China National Offshore Oil Corporation, China Guodian Corporation, and China Everbright Investment Management Corp. Through its advanced transaction system and extensive network of membership and partnership, CBEEEX tends to realize optimization of resource allocation, minimization of pollution abatement cost and transaction cost, cost-effectiveness of environmental governance. Therefore, CBEEEX takes the development of resource-saving and environment-friendly society as its own responsibility, and contributes to the realization of sustainable development through financial innovation.



BlueNext

Bluenext is the leading Environmental Trading Exchange established by NYSE Euronext and Caisse des Depots in the winter of 2007.

It has always seen the climate task as a global problem and has continually sought to establish partnerships with like-minded exchanges around the world. Bluenext's first partnership with CBEEEX was established in June 2009, when the two exchanges decided to establish a joint-marketing partnership to increase awareness of CDM projects within China to the rest of the world. Shortly after in September, they held the first US China Low Carbon Economy conference in New York for Climate Week where they announced the intention to establish the Panda Standard. It is with great pride that Bluenext launches this Guideline document here with CBEEEX at COP 15.



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CHINA FORESTRY EXCHANGE

China Forestry Exchange

China Forestry Exchange (CFEX) is a state-owned company established in 2009 with the approval of the State Council, the State Forestry Administration and Beijing Municipal Government. CFEX is a comprehensive nationwide trading exchange for forestry rights and assets established to maximize the value of domestic forestland by attracting domestic and international capital. CFEX is committed to helping the reform of the forestry system in China and its transition towards sustainability.



Winrock International

Winrock International is a non-profit organization that works with people in the United States and around the world to empower the disadvantaged, increase economic opportunity, and sustain natural resources. As a critical part of meeting this mission, Winrock is committed to building capacity for actions that address climate change and prepare for adaptation. Winrock is a leader in developing science-based carbon measurement and monitoring standards and protocols. Winrock also runs the American Carbon Registry, a voluntary offset program in the United States with strong standards for environmental integrity and over a decade of operational experience in high quality carbon offset issuance, serialization and transparent on-line transaction reporting. ACR has issued over 30 million project based carbon offsets, and in 2008 was the most widely used voluntary carbon market registry in the world.

www.winrock.org



Acknowledgments

The Panda Standard is a Chinese domestic standard for project activities reducing GHG emissions that bases its core structure on the international standard for GHG (GHG) management activities developed by the International Organisation for Standardization, -specifically: ISO14064-2 Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements, and ISO14064-3 Specification with guidance for the validation and verification of greenhouse gas assertions.

The Panda Standard Association (PSA) acknowledges and will rely on some existing mandatory and voluntary carbon project standards that have already been developed for the international carbon market place. However, the PSA's foremost aim is to foster methodological innovation and technologies that specifically suit the environmental, legal, economic and social situation unique to the People's Republic of China (PRC).

The PSA wishes to thank the following Panda Standard Advisory Committee members who offered their time to comment on the Panda Standard version 1.0 Guidelines:

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I. Panda Standard Principles

The Panda Standard is a domestic voluntary GHG offset standard that aims to provide transparency and credibility in the nascent Chinese voluntary carbon market by establishing the first standard for domestic carbon projects.

To be eligible, emissions reduction/removal projects must comply with the following 7 core principles of the Panda Standard:

1. **Real**
2. **Additional**
3. **Measurable, reportable and verifiable**
4. **Unique**
5. **Permanent**
6. **Demonstrate Ancillary Benefits**
7. **Unambiguously Owned**

Real

Project activities must lead to quantifiable and verifiable GHG emissions reductions or removals. These shall only generate credits after they have occurred (ex-post as opposed to ex-ante).

Additional

Project-based reductions or removals must be additional to any that would have occurred in the business-as-usual scenario and without carbon market incentives. There are two ways a project can demonstrate additionality: (1) passing a three-prong test to show that the activity exceeds regulatory requirements, goes beyond common practice, and faces investment, technological or prevailing practice barriers; or (2) demonstrating that the project exceeds regulatory requirements and exceeds a pre-defined performance standard.

Measurable, reportable and verifiable

GHG emissions reduced at a source or removed by sequestration must be quantifiable against an identifiable baseline, and reported and verified by an independent third-party.

Unique

The emissions reduced or removed by the project activities must not be double-counted. To prevent double-counting, serialized Panda Standard Credits will be issued by the Panda Standard Registry. In addition, if the project is enrolled in another GHG program, emissions reductions/removals verified under the Panda Standard must not be used to generate other types of carbon credits.

Permanent

The project must create permanent credits from the emissions reduced at source or removed by sequestration. Reversal risks inherent to certain project activities shall be identified and assessed using risk assessment tools approved by the Panda Standard Association. Permanence shall be guaranteed by a buffer pool mechanism through which a percentage of credits shall be set aside at issuance and retired in the event of a project reversal.

Demonstrate ancillary benefits

The project shall generate net positive impacts on the environment as well as on the social and economic wellbeing of communities and shall mitigate potential on-site and off-site negative effects caused by the project activity.

Unambiguously owned

Emission reductions shall be the full legal property of the clearly identified project owner(s).



II. Panda Standard Association Pillars

The Panda Standard Association will be the administrative and management organization of the Panda Standard, consisting of a Board, Secretariat, Technical Committee, and Registry. The Panda Standard Association will be established as a non-profit and independent legal entity after approval and registration to the relevant Chinese Government Department under the laws of the People's Republic of China.

The quality and integrity of Panda Standard projects is ensured by the following administrative bodies, external experts, and market infrastructures that constitute the Panda Standard Pillars:

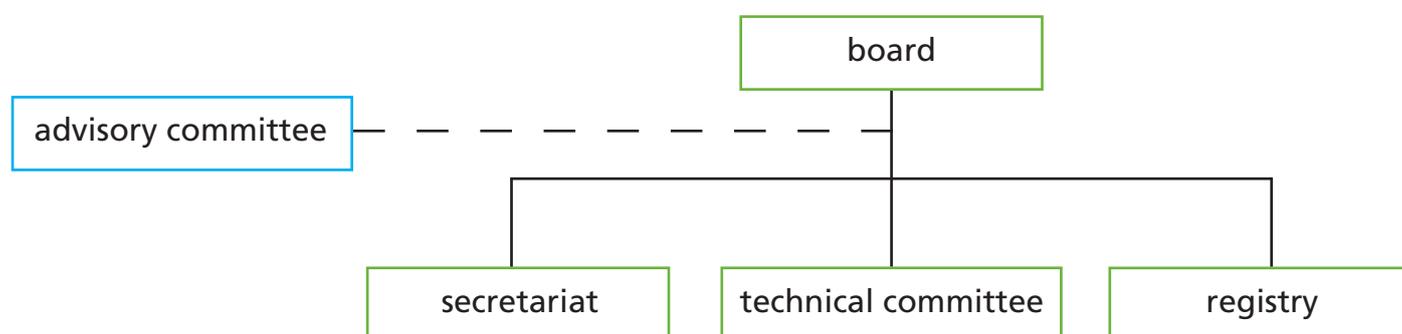


Figure 1. The Panda Standard Association Pillars

The Panda Standard Board

The Panda Standard Board (hereafter “the Board”) is the executive body of the Panda Standard Association that is responsible for making and driving its strategy. It is composed of the founders and co-founders of the Panda Standard as well as external representatives (national authorities, international organizations, non governmental organizations, research institutions etc).

The Panda Standard Secretariat

The Panda Standard Secretariat (hereafter “the Secretariat”) is the administrative body of the Panda Standard Association. It is responsible for the various administrative tasks required along the project lifecycle and is, as such, the link between the Board, the Technical Committee, the Registry, and the project proponents.

The Panda Standard Technical Committee

The Panda Standard Technical Committee (hereafter “the Technical Committee”) is the expert body of the Panda Standard Association. It is a pool of internal and external experts, both international and domestic, that are responsible for approving project registration as well as any new methodology, tool or procedure that project proponents may submit to the Secretariat.

Panda Standard Advisory Committee

The Panda Standard Advisory Committee (hereafter “the Advisory Committee”) is the consultative body of the Panda Standard Association. It is a pool of external experts, both international and domestic, from various organizations involved in the carbon markets. It is responsible for reviewing the periodic revisions to the present document, Panda Standard Sectoral Specifications and any publications of the Panda Standard Association that will be issued to project proponents. The Board may also consult the Advisory Committee prior to making strategic decisions. Members of the Advisory Committee are named by the Secretariat after submitting the relevant application.

Panda Standard Registry

The Panda Standard Registry (hereafter “the Registry”) is responsible for the issuance, transfer and retirement of Panda Standard Credits. The Registry shall also maintain the Panda Buffer Pool to ensure the permanence of credits generated from registered Panda Standard projects that maybe subject to the risk of reversal.

Fees charged to account holders by the Registry for the various operations (issuance, transfer, retirement) made on their accounts are displayed in the latest version of the Panda Standard Fee Schedule available on the Panda Standard website at www.pandastandard.org.



III. Panda Standard Project Design

This section sets out the requirements for project proponents to develop project activities in accordance with the Panda Standard Principles. The Panda Standard Project Form (hereafter the “Project Form”), is the key support document for submission in the validation and registration of the project activity. Project proponents shall use the Project Form template available on the Panda Standard website.

Project eligibility

Location

The Panda Standard is a Chinese domestic voluntary GHG offset program. All project activities eligible under the Panda Standard must therefore be located within the boundaries of the People’s Republic of China (PRC).

Sectoral scope

The Panda Standard aims to allow project activities to first develop across sectors where new technologies that reduce emissions at sources or enhance removal by sequestration are necessary within the PRC. The scope of project activities allowed under the Panda Standard will therefore be enlarged over time to first concentrate efforts on addressing real domestic needs.

The sectoral scope of the Panda Standard can only be enlarged by The Secretariat. Project sectors not included within the existing “Panda Standard Sectoral Specifications” will therefore not be considered.

Prior to publication of new Panda Standard Sectoral Specifications, the Secretariat shall submit the document to the Advisory Committee for 20 working days, followed by 20 working days for public comments on the Panda Standard website. Scope enlargement only takes effect at Publication of the Panda Standard Specification onto the Panda Standard website.

Start date

Eligible projects will generally have a start date no earlier than January 1, 2005. However, Agriculture, Forestry and Other Land Use (AFOLU) projects will be evaluated on a case-by-case basis and may be accepted with an earlier start date provided project proponents can demonstrate that GHG mitigation was an objective of the activity from its inception. If the eligible start date is ever changed, those projects whose registration request was submitted to the Secretariat before the enforcement of the new start date will not be subject to this eligibility rule.

Crediting period

In general, project activities that reduce GHG emissions at sources or remove emissions through sequestration shall be eligible to earn Panda Standard Credits over a period of 7 years, renewable twice. For AFOLU projects, the crediting period for each type of activity will be detailed in the relevant Panda Standard Sectoral Specifications.

Additionality

Proof of additionality must be based on a project-specific assessment that demonstrates the project faces one or several barriers to implementation --investment, technological or prevailing practice impediments-- which can be addressed through the generation of Panda Standard credits. In addition to passing at least one of these implementation barriers tests, projects must demonstrably exceed regulatory/legal requirements and go beyond common practice for the industry sector and/or geographic region in which the project takes place. Project activities that have been ceased and that are considered for re-starting due to the benefits of the Panda Standard credits must provide the causes and evidence of the activity cessation.

When relevant, the Secretariat also allows for performance standard approach to additionality, through which projects that exceed pre-defined sectoral or sub-sectoral benchmarks automatically qualify as additional. Projects using the performance standard approach to additionality must also exceed regulatory/legal requirements.

Existing independent assessment tools for additionality, or performance standards, under other mandatory or voluntary programs which are approved under the Panda Standard, will be defined separately in each Panda Standard Sectoral Specifications. Project proponents are encouraged to develop new assessment tools for additionality or performance standards, and their approval shall be subject to the New Methodology Approval Process.

Leakage

Leakage is an increase in GHG emissions which occurs outside the project boundary, and which is measurable and attributable to the Panda Standard project activity. The Panda Standard requires project proponents to assess, account for, and mitigate leakage. Project proponents must deduct all leakage that reduces the GHG emissions reduction and/or removal benefit of the project.



Quantification of GHG emissions reductions or removals

Quantification protocols

Quantification of GHG emission reduced at source or removed through sequestration shall be measured against a baseline scenario or performance standard when relevant. The baseline definition and the quantification of GHG emission reduced or removed shall take any eventual leakage into account. A monitoring plan shall provide for conservative monitoring of relevant baseline GHG emissions or removal indicators; it shall also address all other factors that should be monitored through the life of the project.

The GHG changes resulting from the project must be accounted for using a baseline and monitoring methodology that has been approved by the Secretariat. Existing baseline and monitoring methodologies, under other mandatory or voluntary programs which are approved under the Panda Standard, are defined separately in Panda Standard Sectoral Specifications. Project proponents are encouraged to develop new baseline and monitoring methodologies or performance standards; their approval being subject to the New Methodology Approval Process.

New Methodology Approval Process

Proposed new baselines and monitoring methodologies or performance standards, as well as any specific tools or procedures (eg. Additionality tests, reversal risk analysis etc...), must be submitted by the project proponent to the Secretariat for approval through the New Methodology Approval Process.

This process consists of:

1. Pre-Approval by the Technical Committee

The Technical Committee members shall appraise the validity of the submission and forward their pre-approval and/or recommendations to the Secretariat no later than 20 working days after reception of the submitted documents. Following the Technical Committee's pre-approval review and simultaneous with the public comment period, the new methodology, tool or procedure shall be reviewed by one lead and two secondary peer reviewers who are recognized experts in the relevant field. The Technical Committee may at its discretion decide that a particular methodology, tool or procedure does not require external peer review, in which case public comment and Technical Committee approval shall suffice.

2. Submission to public comments

The Secretariat shall publish the submitted documents pre-approved by the Technical Committee on the Panda Standard website and open it to public comments for 20 working days.

3. Approval by the Technical Committee

The Technical Committee shall deliver approval or request clarifications of the new baseline and monitoring methodology, tools or procedures, to the Secretariat no later than 10 working days after the end of the public comments period. Once any clarification requests have been adequately addressed by the project proponent proposing the new methodology, tool or procedure, and the Technical Committee approves, the new methodology, tool or procedure shall be considered as officially approved by the Panda Standard.

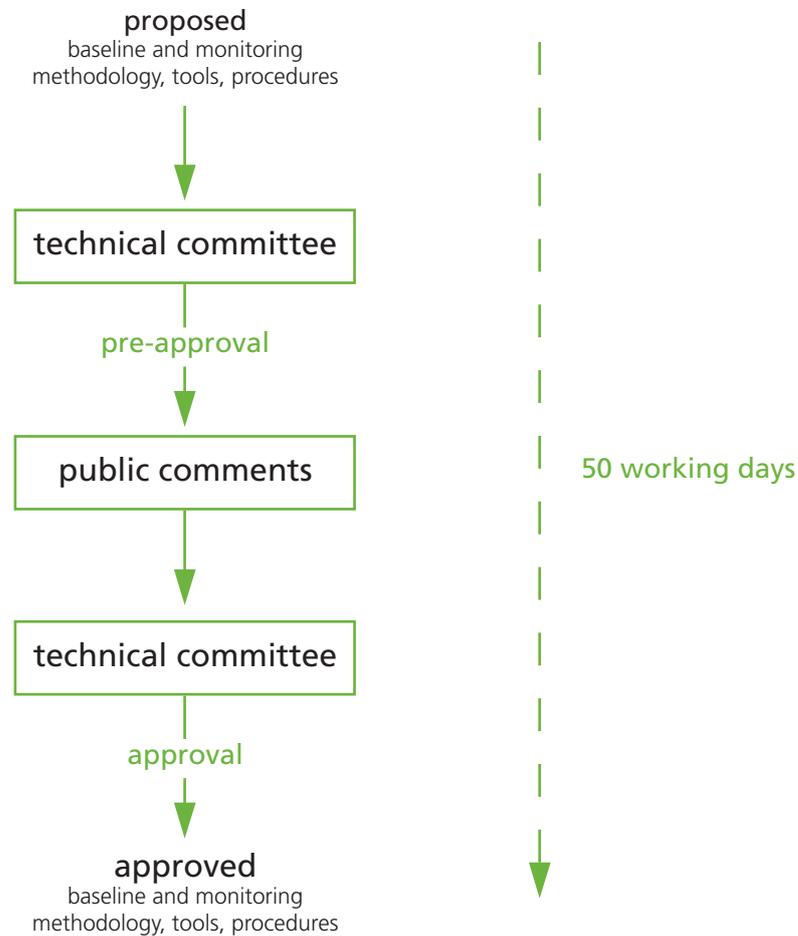


Figure 2. New Methodology Approval Process

Ancillary benefits

Impacts on the environment and local communities, both on-site and offsite, must be assessed, mitigated and monitored in accordance with the PRC's domestic laws. In addition, the ancillary benefits for the environment and local communities delivered by the project activities shall be assessed, monitored, reported and verified using the independent third party auditors charged with validation and period verifications.

Overall, eligible project activities must deliver net-positive quantifiable and qualifiable socio-economic and environmental benefits.

Guidelines for assessing and monitoring relevant environmental and social ancillary benefits shall be provided within the Panda Standard Sectoral Specifications.



IV. Validation and Verification of Panda Projects

Principles

Validation and verification operations ascertain the credibility of project activities, their eligibility under the Panda Standard, and the subsequent quantification of GHG emissions reduced at sources or removed through sequestration. At least one on-site visit by a Third Party Auditor is required at validation and for each verification.

Validation is the process that assesses if, and provides the assurance that, the project meets the Panda Standard requirements. It must be performed by an independent Third Party Auditor that subsequently requests registration of the project to the Secretariat.

Verification is the periodic quantitative assessment once the project is completed, of the GHG emissions reduced or removed, as well as the socio-economic and environmental ancillary benefits that have occurred as a result of the Panda Standard project activities. It must be performed by an independent Third Party Auditor that subsequently requests issuance of credits by the Secretariat, based on the verified GHG emissions reduced or removed by the project activity. Verification of registered Panda Standard projects must be performed at least every five years, as well as at any application for renewal of a project's crediting period, as well as at any application for renewal of a project's crediting period.

Eligible Third Party Auditors

Third Party Auditors are domestic or international legal entities approved by the Secretariat. They must perform audits of carbon benefits, financial statements, socioeconomic and environmental ancillary benefits.

Third Party Auditors accredited and selected as "Designated Operational Entities" by the Clean Development Mechanism Executive Board are granted a de-facto approval by the Secretariat to perform both validation and verification operations, which they are allowed to do both at the same time.

Third Party Auditors accredited and designated as "Local Verifiers" by the Secretariat are only allowed to perform verification operations. The accreditation process and training requirement for recruitment of Local Verifiers is available on the Panda Standard website. The Panda Standard Association reserves the right to suspend Third Party Auditors for any violation of the code of conduct posted on the Panda Standard website.

Sectoral scopes

Third Party Auditors must only perform validation and verification operations within the sectoral scopes for which they are accredited. Sectoral scopes are defined in Panda Standard Sectoral Specifications. The list of accredited Third Party Auditors and their respective sectoral scopes, including de-facto accredited DOEs, is available on the Panda Standard website.

Material

Third Party Auditors must submit validation and verification reports to the Secretariat using the respective templates available on the Panda Standard website.

V. Registration

Project proponents who submit a project for Panda Standard registration will have a project account opened in the Registry for the Secretariat to register the projects.

Once the Project Form and the Validation Report from the DOE has been received it moves to the registration request phase. The Secretariat shall immediately submit the registration request to the Technical Committee for registration approval. The Technical Committee shall deliver approval or ask for clarifications no later than 10 working days after transfer of the registration request by the Secretariat.

Upon reception of a positive Verification Report attesting that the project meets all Panda Standard requirements, GHG emission reductions or removals are accurately stated, and socio-economic and environmental ancillary benefits are positive, the Secretariat shall immediately request the Registry to issue the amount of Panda Standard Credits corresponding to the quantity of GHG emissions reduced or removed onto the account of the project in the Registry.

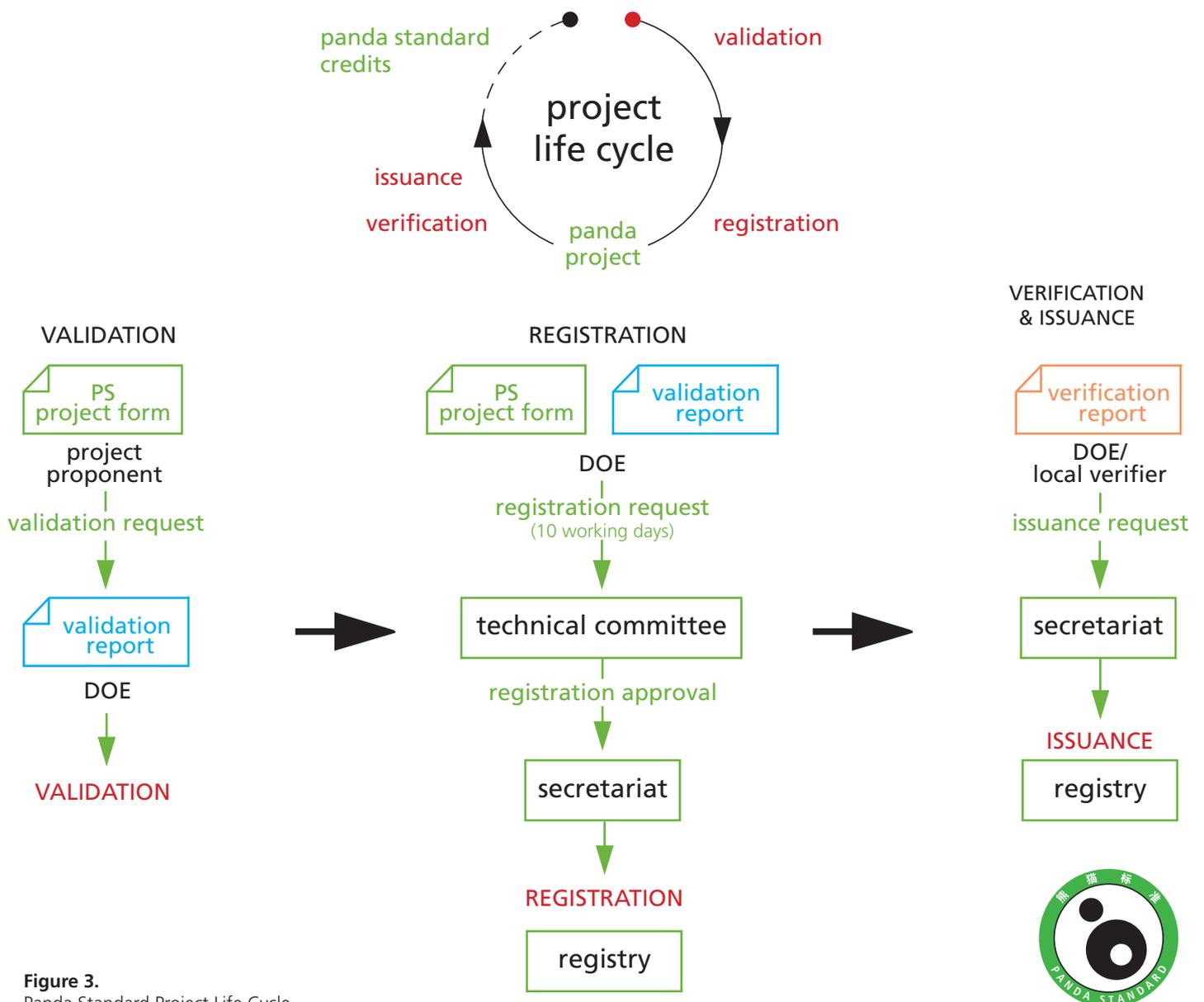


Figure 3. Panda Standard Project Life Cycle



Glossary

Baseline

The baseline is the scenario that reasonably represents GHG emissions that would occur in the absence of the proposed project activity (Source: UNFCCC).

Reduction

A verified decrease in GHG emissions caused by a project, as measured against an appropriate forward looking estimate of baseline emissions for the project. (Source: Climate Action Reserve).

Removal

A verified increase in carbon stocks caused by agricultural and forestry project activities, as measured against an appropriate forward looking estimate of baseline carbon stocks for the project. (Source: adapted from Climate Action Reserve).

Panda Standard Sectoral Specifications

Document developed by the Panda Standard Secretariat, in accordance of the Panda Standard Advisory Committee, that shall provide project proponents with the necessary guidance to develop and/or audit projects in a specific sector against the requirements of the Panda Standard (e.g. Panda Standard Specifications for Agriculture and Forestry).

Leakage

Leakage is defined as the net change in anthropogenic emissions by sources of GHG which occurs outside the project boundary, and which is measurable and attributable to the Panda Standard project activity (source: adapted from UNFCCC).

Panda Standard Credit

Carbon credit generated by a project over the period of time it is registered under the Panda Standard. One Panda Standard Credit represents one metric tonne of CO₂e.

Panda Buffer Pool

Insurance mechanism allowing for the issuance of permanent credits from projects subject to the risk of reversal. It consists of a reserve of credits set aside after a risk assessment, which shall be retired in case of reversal in order to ensure the permanence of the credits generated by projects.

Crediting period

The crediting period for a Panda Standard project activity is the period for which reductions at sources or net anthropogenic GHG removals by sinks are verified and certified by an independent third party for the purpose of issuance of Panda Standard Credits. A crediting period shall not extend beyond the operational lifetime of the Panda Standard project activity. (Source: adapted from UNFCCC).

Registration

Registration is the formal acceptance by the Panda Standard Secretariat of a validated project activity as a Panda Standard project activity. Registration is the prerequisite for the verification, certification and issuance of Panda Standard Credits related to that project activity. (Source: adapted from UNFCCC).

Validation

Validation is the process of independent evaluation of a project activity by a UNFCCC Designated Operational Entity against the requirements of the Panda Standard. (Source: adapted from UNFCCC).

Verification

Verification is the periodic independent review and ex post determination by a UNFCCC Designated Operational Entity or Local Verifier of GHG anthropogenic emissions reductions or removals that have occurred as a result of a registered Panda Standard project activity during the verification period. (Source: adapted from UNFCCC).



