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Public Comment Webinar Argentina Livestock Protocol

August 8, 2024

Introduction



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Housekeeping

- All attendees are in listen-only mode
- Please submit your questions in the Zoom question box and we'll try to answer them at the end, time permitting
- We will follow up via email to answer any questions not addressed during the meeting
- The slides and a recording of the presentation will be posted online on the Climate Action Reserve webpage
<https://www.climateactionreserve.org/how/protocols/waste/argentina-livestock-protocol/dev/>

AGENDA

- Climate Action Reserve
- Protocol development process/timeline
 - REMINDER:
 - Submit comments by **August 22, 2024**
- Key considerations of the Argentina Livestock Protocol
 - Project definition
 - Project ownership
 - Additionality
 - Permanence
 - Quantification
 - Monitoring / Reporting / Verification
- Next steps



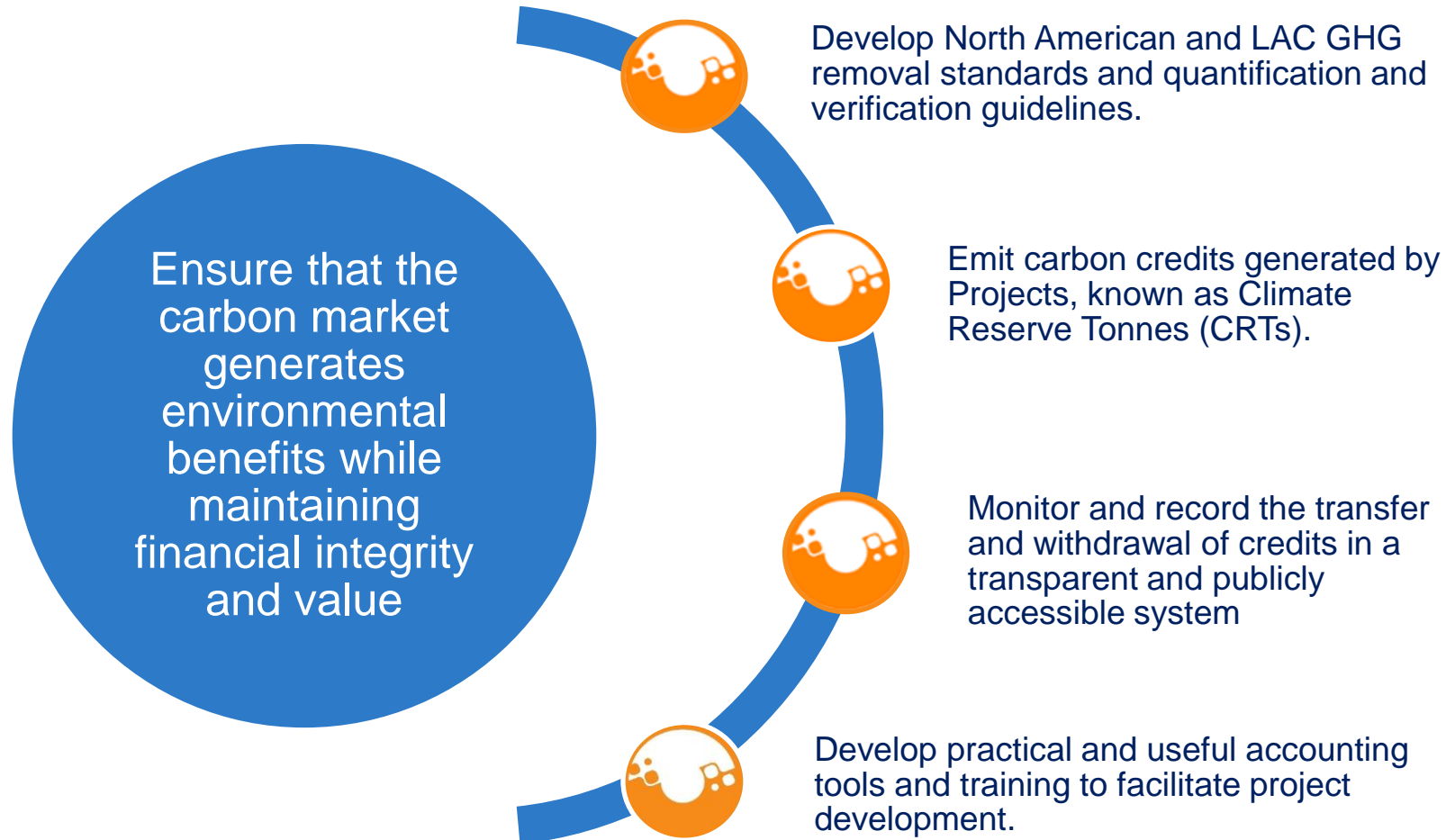
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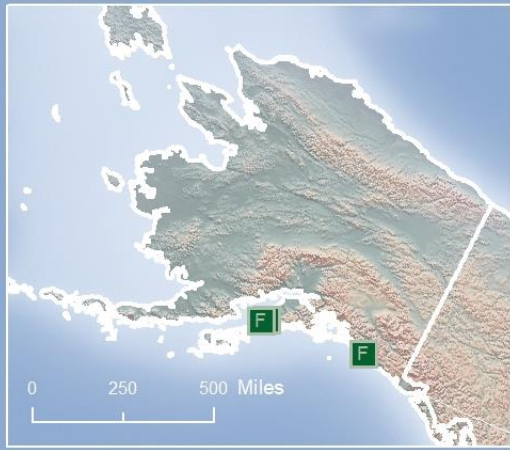
Climate Action Reserve



- Mission: to develop, promote and support innovative, credible market-based climate change solutions that benefit economies, ecosystems and society
- Develop high-quality, stakeholder-driven, standardized carbon offset project protocols across North America and Latin America and the Caribbean, and China
- Accredited Offset Project Registry under the California cap-and-trade program, Washington cap-and-invest program, and CORSIA
- Serve compliance and voluntary carbon markets
- Reputation for integrity and experience in providing best-in-class registry services for offset markets

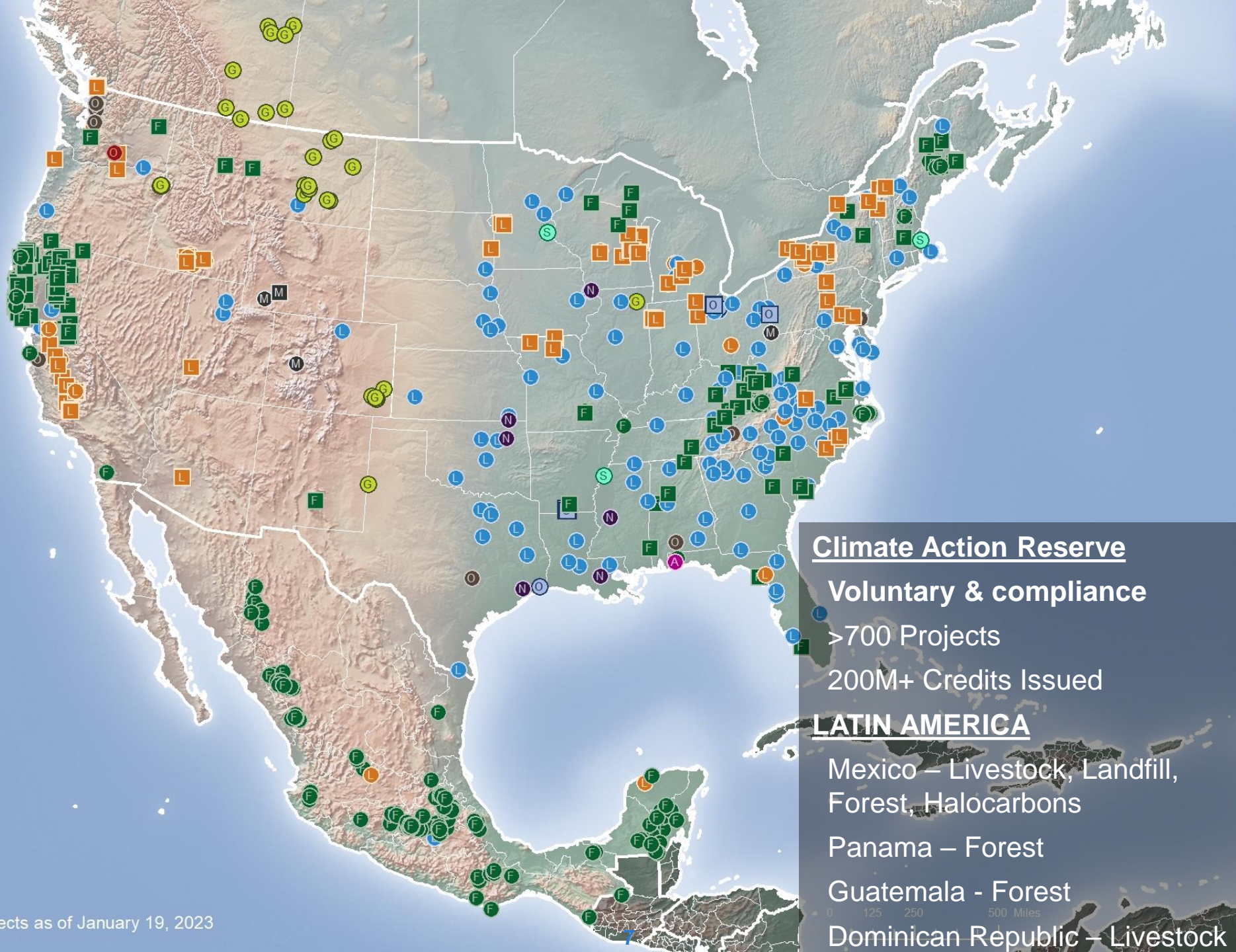
The Climate Action Reserve





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- Adipic Acid
- Forest
- Forest (ARB)
- Grassland
- Landfill
- Livestock
- Livestock (ARB)
- M Mine Methane
- M Mine Methane (ARB)
- N Nitric Acid Production
- N Nitrogen Management
- O Organic Waste Composting
- O Organic Waste Digestion
- O Ozone Depleting Substances
- O Ozone Depleting Substances (ARB)
- S Soil Enrichment



Climate Action Reserve

Voluntary & compliance

>700 Projects

200M+ Credits Issued

LATIN AMERICA

Mexico – Livestock, Landfill, Forest, Halocarbons

Panama – Forest

Guatemala - Forest

Dominican Republic – Livestock

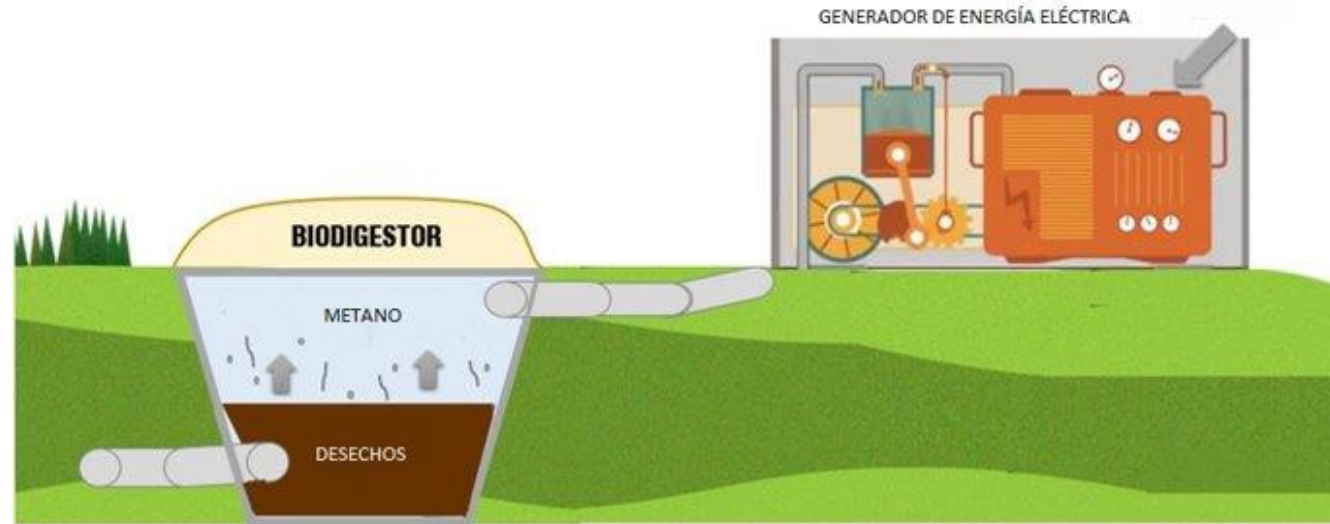


Listed, Registered, Transitioned, & Completed Projects as of January 19, 2023

What is an Offset Credit Project?

An offset credit project is an activity or set of activities that:

- Reduce GHG emissions (i.e. methane)
- Increase the sequestration or storage of carbon removed from the atmosphere.



Principles of the Reserve Program

All registered projects and credits issued by the Reserve must be:

ADDITIONAL	VERIFIED	REAL	PERMANENT	ENFORCEABLE
<ul style="list-style-type: none">• Beyond common practices• Beyond regulatory requirements	<ul style="list-style-type: none">• Standardized eligibility criteria and quantification methodologies• Independent third-party review.	<ul style="list-style-type: none">• Conservative emissions accounting• Prescriptive models and equations• Uncertainty reduction	<ul style="list-style-type: none">• Monitoring and reporting processes• Any leakage or loss is quantified and compensated	<ul style="list-style-type: none">• Processes to ensure program compliance• Accountability mechanisms

- The Reserve seeks to be practical and ensures that projects do not have negative impacts
- The standards include social and environmental safeguards to ensure the participation and benefit of the participants

GHG Accounting Standardization

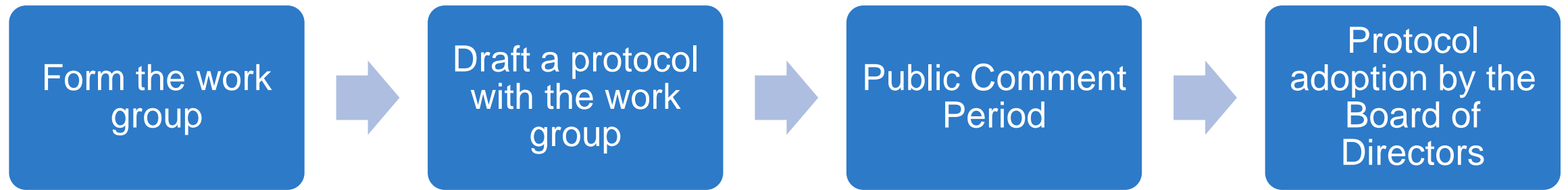
Two elements:

- Determination of project eligibility and additionality using standardized criteria rather than project-specific assessments.
- Quantification of GHG reductions/removals through a baseline established under certain assumptions, emission factors and monitoring methods.

Objectives:

- Minimize personal judgment in project assessment
- Reduce transaction costs for the project developer, minimize uncertainties for investors, and increase the transparency of the project when it is approved and verified

Rigorous, Inclusive and Transparent Process for the Protocol Development



Inclusive Process: A balanced multi-stakeholder working group is formed with experts of the sector (livestock) and jurisdiction (Argentina), state and federal agencies, environmental organizations, and other stakeholders.

- Stakeholders that are not part of the working group can still participate in the process as “observers”.

Transparent Process: All working group meetings and webinars for the public comment period are recorded and posted on the website along with the drafts



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PROTOCOL DEVELOPMENT PROCESS & TIMELINE

Protocol Development Timeline

1. Kick-off meeting (*March 7, 2024*)
2. Workgroup process
 - Formation (*March 2024*)
 - Meeting 1 (*April 11, 2024*)
 - Meeting 2 (*May 7, 2024*)
 - Meeting 3 (*June 4, 2024*) - In person at the Argentina Carbon Forum
3. 30-day public comment period (*July 22 – August 22, 2024*)
4. Revisions based on public comments (*September 2024*)
5. Propose to Board adoption (*October 4, 2024*)



~7 months



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KEY CONSIDERATIONS FOR PROTOCOL DEVELOPMENT

Adapting the Livestock Protocol to Argentina

- Use the Mexico and Dominican Republic Livestock Protocol as a base
 - Facilitate protocol development
 - Mexico Livestock is a comprehensive protocol with over 10 years since its publication
 - Worked with MexiCO2 and the Province of Córdoba to facilitate the partial financing and technical support of the initial adaptation
- The main changes are indicated in **red**, which include:
 - Review with Argentina stakeholders
 - Incorporating Argentina's laws, regulations, and common practice
 - Incorporating applicable social and environmental safeguards
 - Allowing for site-specific maximum methane potential ($B_{0,L}$) for dairy cattle
 - Incorporating flexibility in monitoring requirements

Protocol Development Overview

➤ 3 Workgroup Meetings

- Project definition
- Project ownership
- Additionality
- Quantification
- Monitoring
- Reporting & Verification
- Calculation Tool (in development)

Project Definition

- Installation of a biogas control system (or “digester”) that captures and destroys methane gas from anaerobic manure treatment and/or storage facilities on livestock operations
 - Dairy cattle, beef cattle, and swine operations
- Captured biogas must be destroyed, either through:
 - on-site destruction device (e.g., flare, engine)
 - transported for off-site use (e.g., gas distribution or transmission pipeline), or
 - used to power vehicles
- Allows for centralized digesters that integrate waste from multiple livestock operations
- Greenfield Livestock operations: projects that are implemented at new livestock facilities that have no prior manure management system

Assessment of Common Practice

Swine

- 63% of pork production is concentrated in Central Argentina (Buenos Aires, Cordoba, and Santa Fe)
- Predominant waste management systems used by Buenos Aires Province was anaerobic lagoons (93.3%)

Beef and Dairy Cattle

- The Central region (Buenos Aires, Córdoba, Entre Ríos, and Santa Fe) concentrates approximately 65% of the national bovine population
- 70% of beef production is consumed domestically, the highest per capita consumption in the world
- Expert technical workgroup reported anaerobic digestion is common practice for beef

Biodigester Use

- Identified 105 digesters. However, only 1% of livestock operations in the Argentina use biodigesters.
- Lack of incentives for installing biodigesters beyond carbon credits

Project Ownership

- Project developer is an entity with an active account on the Reserve and is responsible for all project monitoring and verification. Project developers can be
 - Livestock facility owners and operators
 - GHG Project financiers,
 - Or other entities
- Must have clear ownership of the reductions and established through explicit title and must sign the Attestation of Title
- Livestock facilities operating as *hotelerías* must have contracts in place between facility owner, project developer, investors, and *hotelerías* to clarify the GHG emission reduction rights
 - A sample of the contracts must be verified during each verification period
 - *Hotelería*: Livestock operations common in Argentina that raise third-party livestock for a payment.

Eligibility Rules



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Eligibility Rule I: Location

Eligibility Rule II: Project Start Date

Eligibility Rule III: Project Crediting Period

Eligibility Rule IV: Anaerobic Baseline

Eligibility Rule V: Additionality

Eligibility Rule VI: Regulatory Compliance

Location



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- Argentina only



Encyclopedia Britannica, Inc

Project Start Date

- Start date is defined as the date the project's BCS becomes operational
- BCS is operational on the date at which the system begins producing and destroying methane gas upon completion of an initial 9-month start-up period
- Projects must be submitted to the Reserve within 12 months after the project start date

Project Crediting Period

- Crediting period is defined as 10 years following the project's start date
- Eligible up until a regulatory body legally requires the livestock operation to install a BCS
- May apply for a second crediting period
 - Project lifespan: 2, 10-year crediting periods for 20 years total
 - Must apply within 6 months of the end of the final reporting period
 - Must meet the requirements of the newest version of the protocol

Anaerobic Baseline

- Must demonstrate depth of lagoons pre-project are 1 meter in depth
 - Sufficient to prevent algal oxygen production and create oxygen-free bottom layer
- Designed and maintained with sufficient volume to properly treat volatile solids and prevent solids from accumulating
- Greenfield projects must demonstrate that uncontrolled anaerobic storage and/or treatment of manure is common practice in the industry and geographic region where the project is located

- Must be above and beyond business-as-usual scenarios
- Must pass two additionality eligibility rules
 1. Performance Standard Test
 - Standard of performance applicable to all manure management projects
 - Better than business-as-usual
 - Practice-based threshold, installing a BCS passes this test
 2. Legal Requirements Test
 - Passes when there are no laws, statutes, regulations, court orders, environmental mitigation agreements, permitting conditions, or other legally binding mandates requiring project activities
 - No longer eligible on the date destruction becomes legally required

Regulatory Compliance

- Must attest that the project is in compliance with all laws applicable to the project activity
- Required to disclose any instances of legal violations – material or otherwise – caused by the project or project activities
 - “caused” by Project activities if it can be reasonably argued that a violation would not have occurred in the absence of the project activities
- If a violation is caused by project activities, credits will not be issued for the period of the violation
 - Administrative or violations due to “acts of nature” will not impact crediting
 - Re-occurring violations due to intent or negligence may impact crediting
- For projects with multiple discrete source facilities (from BCS Project in both location and management), it may be possible to demonstrate a violation occurring at one source facility does not impact the eligibility of the entire project

Social Safeguards

1. Free, Prior, and Informed Consent (FPIC)

- Reserve added “Livestock Operator” term in the protocol to clarify its role in carbon projects: Livestock “operators” refers to the entity that owns/operates the livestock facility.

2. Ongoing Notification, Participation, and Documentation – no changes needed

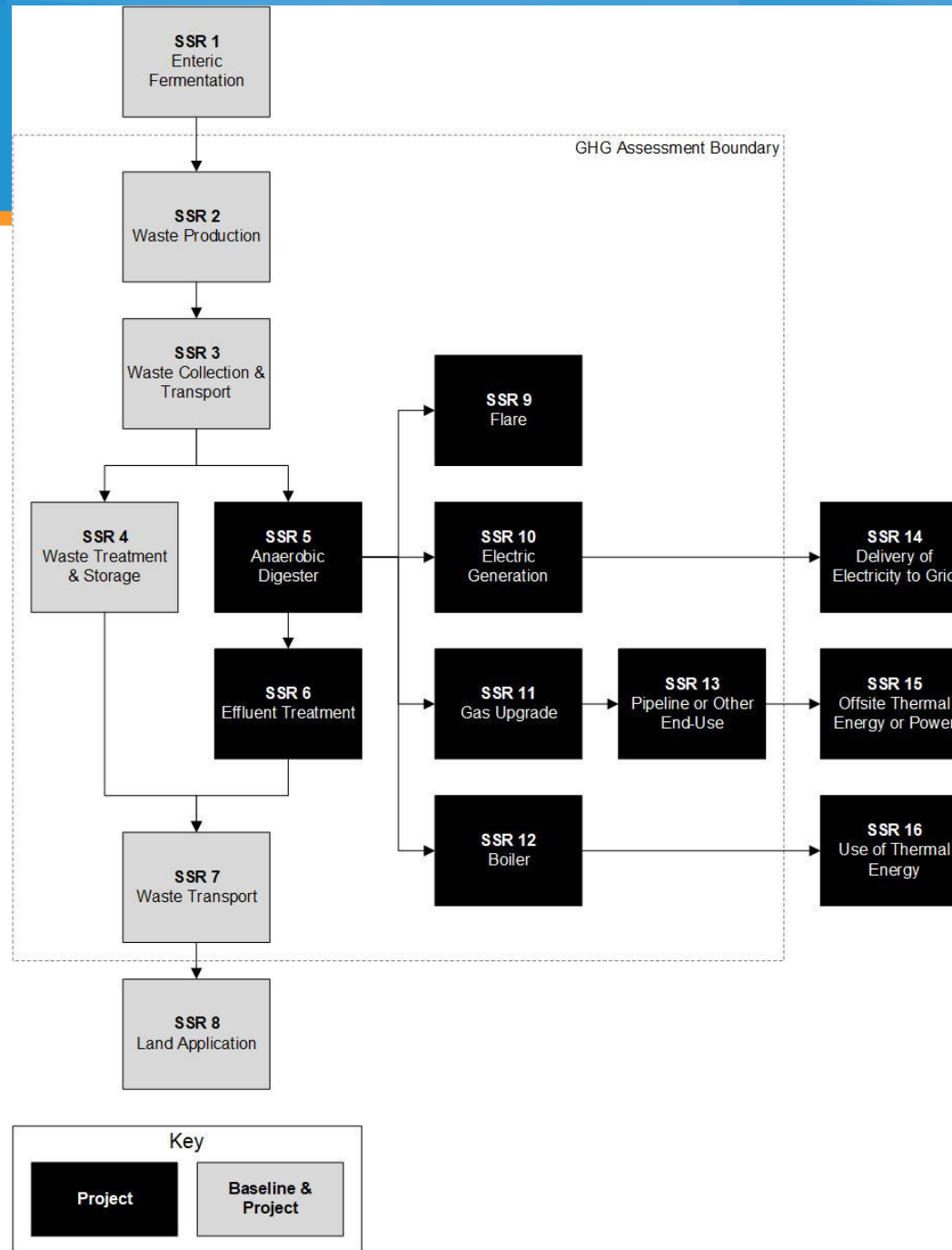
3. Labor and Safety

- Reserve added language in Appendix A.2 that references labor laws in Argentina

4. Dispute Resolution – no changes needed

Environmental Safeguards

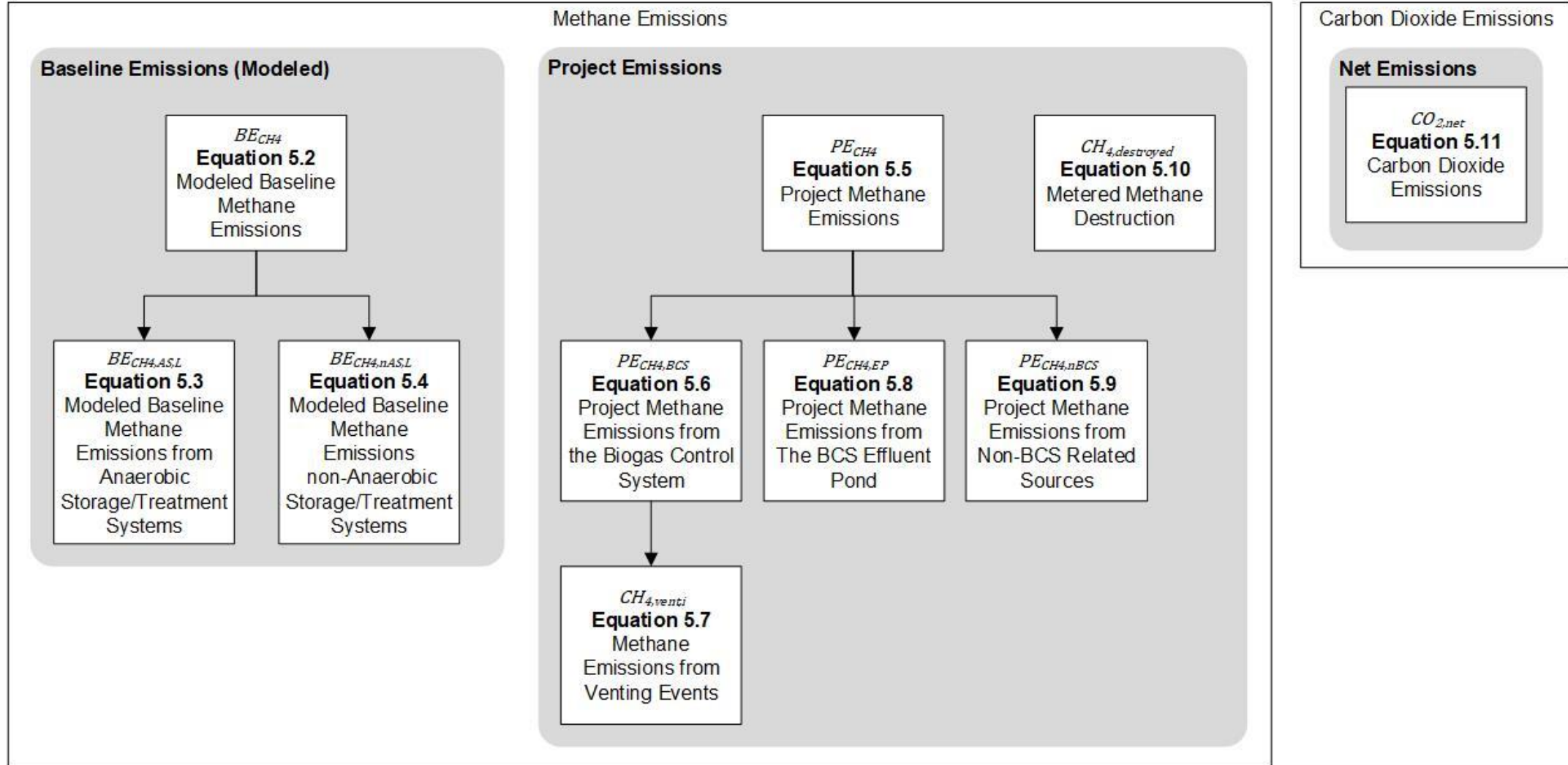
1. Air and Water Quality
 2. Mitigation of Pollutants
 3. Animal Welfare
- Environmental regulations are enforced by provincial government agencies
 - The Reserve will require verifiers to reach out to the appropriate provincial agency to confirm regulatory compliance
 - Reserve added the language in Appendix A.1 related to national and provincial environmental regulations





Equation 5.1 GHG Reductions from Installing a Biogas Control System

$$\text{Total GHG Reductions} = (\text{Modeled baseline emissions}_{\text{CH}_4} - \text{Project emissions}_{\text{CH}_4}) + (\text{Baseline emissions}_{\text{CO}_2} - \text{Project emissions}_{\text{CO}_2})$$



Site-Specific Determination of B_0 Value

- B_0 Value: Maximum Methane Potential
- Optional for dairy cattle facilities. Swine facilities must use default values.
- First developed under the U.S. Livestock Protocol: Methodology remains unchanged in ARG.
- **Criteria includes:**
 - Sampling Schedule: taken during the months where milk production is average- or below-average
 - ✓ Reserve has received the milk production dataset from the Secretariat of Livestock of Córdoba to determine the appropriate sampling schedule (see Appendix E)
 - ✓ Sampling must occur between February and June (inclusive)
 - Laboratory Analysis - 3rd party laboratory following Biochemical Methane Potential (BMP) Assay procedure
 - ✓ WG confirmed that the Cordoba Province has an "Official Registry of Environmental Laboratories (ROLA)" that operates in the Ministry of Environment and Circular Economy. The labs take samples, perform analysis, and/or measurements in the environmental field within the province.

Project Monitoring

- Must monitor:
 - Total flow of biogas prior to delivery to destruction device(s)
 - Flow of biogas delivered to each destruction device
 - Fraction of methane in the biogas
 - Operational status of the destruction device(s)
 - Or presence of safety shut off valve
- Flow data must be corrected for temperature (0°C) and pressure (1atm) either internally or calculated

Instrument QA/QC

- All gas flow meters and continuous analyzers must be:
 - Cleaned and inspected on a quarterly basis, with as found/as left condition documented
 - Field checked for calibration accuracy with percent drift documented at the end of but no more than 2 months prior to the end of the reporting period
 - Calibrated by the manufacturer or a certified calibration service per manufacturer's guidance or every 5 years

Reporting Period and Verification Cycle

- Reporting period is a period of time which the project developer quantifies and reports reductions to the reserve
 - Cannot exceed 12 months
- Verification period is a period of time over which reductions are verified
- Initial verification can only be one reporting period
- There are 3 verification cycle options:
 - 12-month maximum
 - 12-month maximum with desk audit
 - 24-month maximum

Supplemental Documentation

- The Reserve will provide supplemental documentation for project developers
 1. Calculation Tool
 2. Monitoring Report
- Both documents will be required to be submitted to the verifier and Reserve during each verification
- The project developer may develop their own versions or use the one developed by the Reserve

Protocol Development Process & Timeline

Milestone	Date
Public kick-off meeting	March 7, 2024
Statements of Interest Form (Workgroup)	March 15, 2024
Formation of workgroup	March 2024
Staff drafts protocol	January - March 2024
Workgroup meetings and review	March - June 2024
Public comment period	July 22 – August 22, 2024
Protocol presented to Reserve Board for approval	October 4, 2024



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NEXT STEPS

Next steps

- ***For interested stakeholders:***
 - Submit comments (Spanish or English) by August 22, 2024 to cjurado@climateactionreserve.org
- ***For the Reserve:***
 - Review and respond to comments
 - Finalize protocol based on comments
 - Publish the protocol being presented to the board
 - Present the final protocol to the board for adoption (October 2024)

Key contacts

- ***Climate Action Reserve:***

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QUESTIONS OR COMMENTS?



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THANK YOU!