

Special Topics Webinar Series



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Webinar will begin shortly

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The Coal Mine Methane Project Protocol: An Overview



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October 15, 2009

What is the Climate Action Reserve?



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- Non-profit GHG offsets registry
- Develop high-quality projects standards and register/track offset credits in public online system
- Address public concerns about the voluntary carbon market that:
 - Projects aren't additional
 - Credits are being double counted or sold
- Ensure environmental integrity and quality of offset credits
- Intended to be the premier place to register carbon offset projects for North America





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Our Protocols

- Developed with broad public input
- Goal is to create a uniform standard that is widely recognized and builds on best practice
 - We incorporate the best elements of other protocols
 - We do not accept protocols from other programs (i.e. CDM, Gold Standard, VCS, etc.)
- Designed as step-by-step instructions on project development
 - Forestry
 - Landfill gas capture (US & Mexico)
 - Livestock methane capture (US & Mexico)
 - Organic Waste Digestion
 - Urban forestry





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Current Statistics

- Reserve launched: **May 2008**
- Account-holders: **133**
- Total submitted projects: **103**
 - Located in **31** states
- CRTs issued: **~1.65 million**
- Recent average price: **\$6.80/CRT**
 - According to *New Carbon Finance, Voluntary Carbon Index*, July 2009

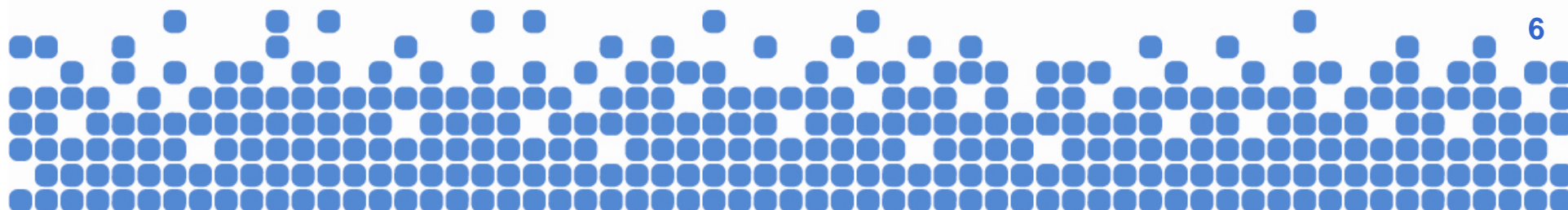


Principles of Reserve Project Accounting



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- **Real:** Reductions have actually occurred, and are quantified using complete, accurate, transparent, and conservative methodologies
- **Additional:** Reductions result from activities that would not happen in the absence of a GHG market
- **Permanent:** Reductions verified ex-post, risk of reversals mitigated
- **Verified:** Emission reports must be free of material misstatements, confirmed by an accredited verification body
- **Owned unambiguously:** Ownership of GHG reductions must be clear
- **Not harmful:** Negative externalities must be avoided
- **Practicality:** Project implementation barriers should be minimized





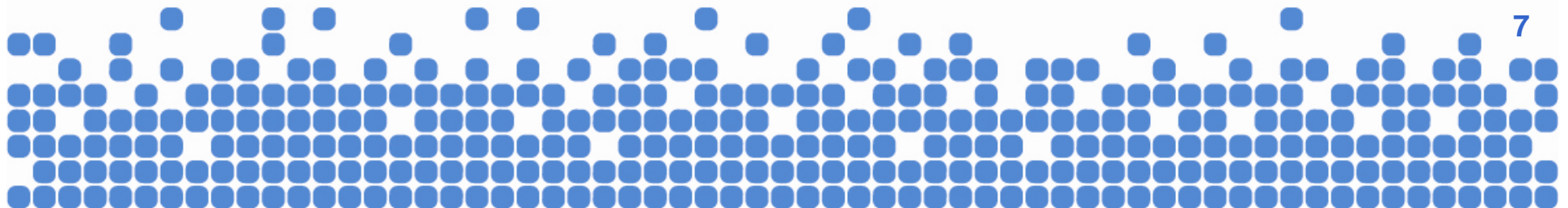
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The Standardized Approach

Benefits to a top-down approach:

- Low up-front costs to project developers
- Efficient review and approval of projects
- Transparency and consistency
- Same approach applies across projects
- Prescriptive guidance to eliminate judgment calls

But... high initial resource investment to program





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Protocol Development Process

- Internal protocol scoping
- Form multi-stakeholder workgroup
- Draft protocol
- Send draft through workgroup process
 - Workgroup provides feedback, consensus is built
 - Can be iterative process
- Draft protocol released for public review
- Public comments incorporated
- Protocol submitted to Reserve Board for adoption





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CMM Protocol Development Goals

- Develop a standardized approach for quantifying, monitoring and verifying GHG reductions from CMM projects
 - Active underground coal mines in the US
 - Drainage and ventilation system projects
- Maintain consistency with or improve upon existing methodologies
- Ensure accuracy, credibility and practicality of projects

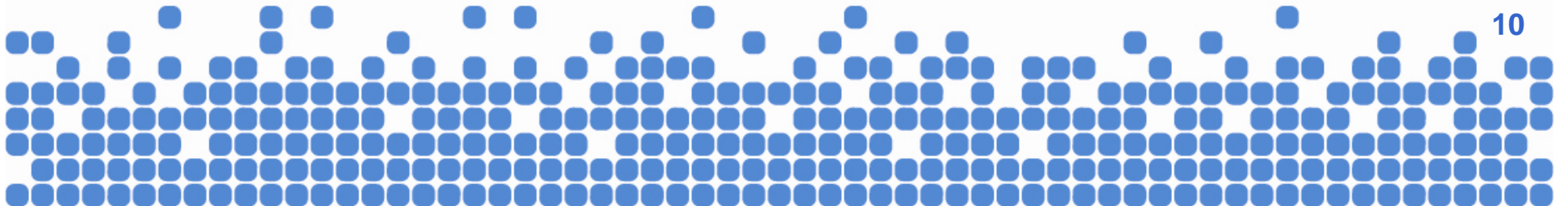


Protocol Timeline



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<i>Public Scoping Meeting</i>	<i>February 10</i>
<i>WG Meeting 1</i>	<i>May 8</i>
<i>Draft protocol to workgroup</i>	<i>June 3</i>
<i>WG Meeting 2</i>	<i>June 17</i>
<i>WG Meeting 3</i>	<i>July 22</i>
<i>Public comment period</i>	<i>August 17 - September 11</i>
<i>Public workshop</i>	<i>August 25</i>
<i>Protocol adoption by Reserve Board</i>	<i>October 7</i>

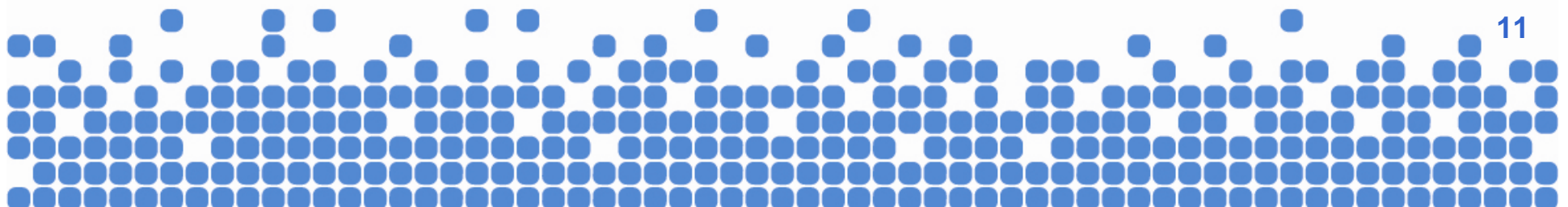


Project Protocol Components



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Define the GHG reduction project	Section 2
Determine eligibility	Section 3
Establish the GHG Assessment Boundary	Section 4
Quantify GHG emission reductions – Baseline emissions – Project emissions	Section 5
Monitoring requirements	Section 6
Reporting requirements	Section 7
Verification guidance	Section 8





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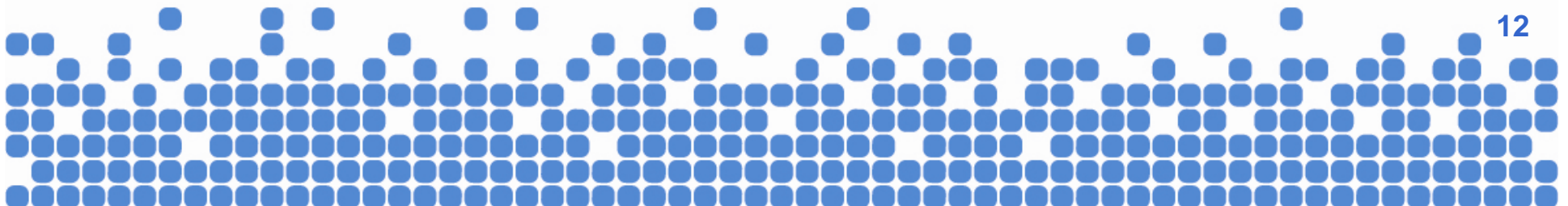
Project Definition

The installation and operation of any device, or set of devices, that result in the destruction of methane gas that would otherwise have been emitted to the atmosphere from an active underground mine.

- Coal mines and MSHA Category III trona mines are eligible
- Two defined project types: drainage projects and VAM projects

Excludes:

- Surface mines
- Abandoned mines
- Coal bed methane
- Mines that use fluid/gas to enhance CMM drainage



Eligibility Rules



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1. Location	U.S. and its territories
2. Project Start Date	Within 6 months prior to project submission (back to October 7, 2007 for initial 12 month grace period)
3. Additionality	Exceed legal requirements
	Meet performance standard
4. Regulatory Compliance	Compliance with all applicable laws
Crediting Period	10 years, renewable one time





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Legal Requirement Test

- Regulatory analysis identified no regulations that obligate coal mines to destroy methane
- Project developers required to submit signed Regulatory Attestation for each verification
- If regulation is passed during crediting period, emission reductions can be reported up until date methane is legally required to be destroyed
 - Similar treatment if source is subject to cap-and-trade

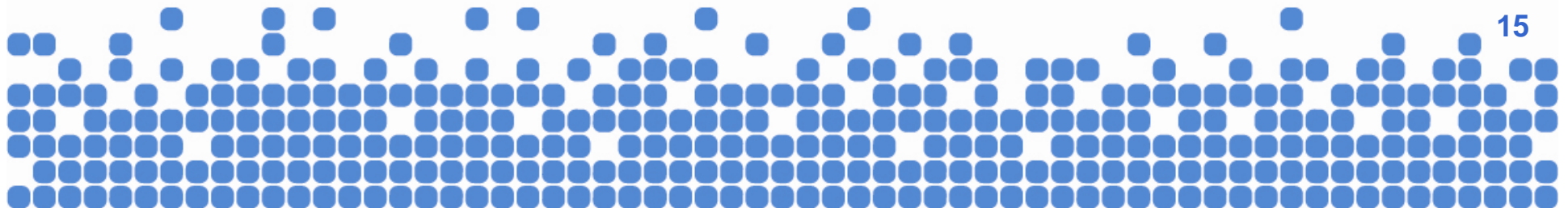




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Performance Standard Test

- Performance standard based on end use destruction device
 - Drainage projects: any end use destruction other than injection into a natural gas pipeline for off-site consumption
 - All VAM projects are eligible
- Performance Standard Test is applied once at the beginning of each crediting period





Version 2.0

- Based Version 1.0 performance standard analysis on available data (end use and methane drainage rates)
- Working with industry to collect data on gas quality to refine analysis
- Add to performance standard to allow for pipeline projects

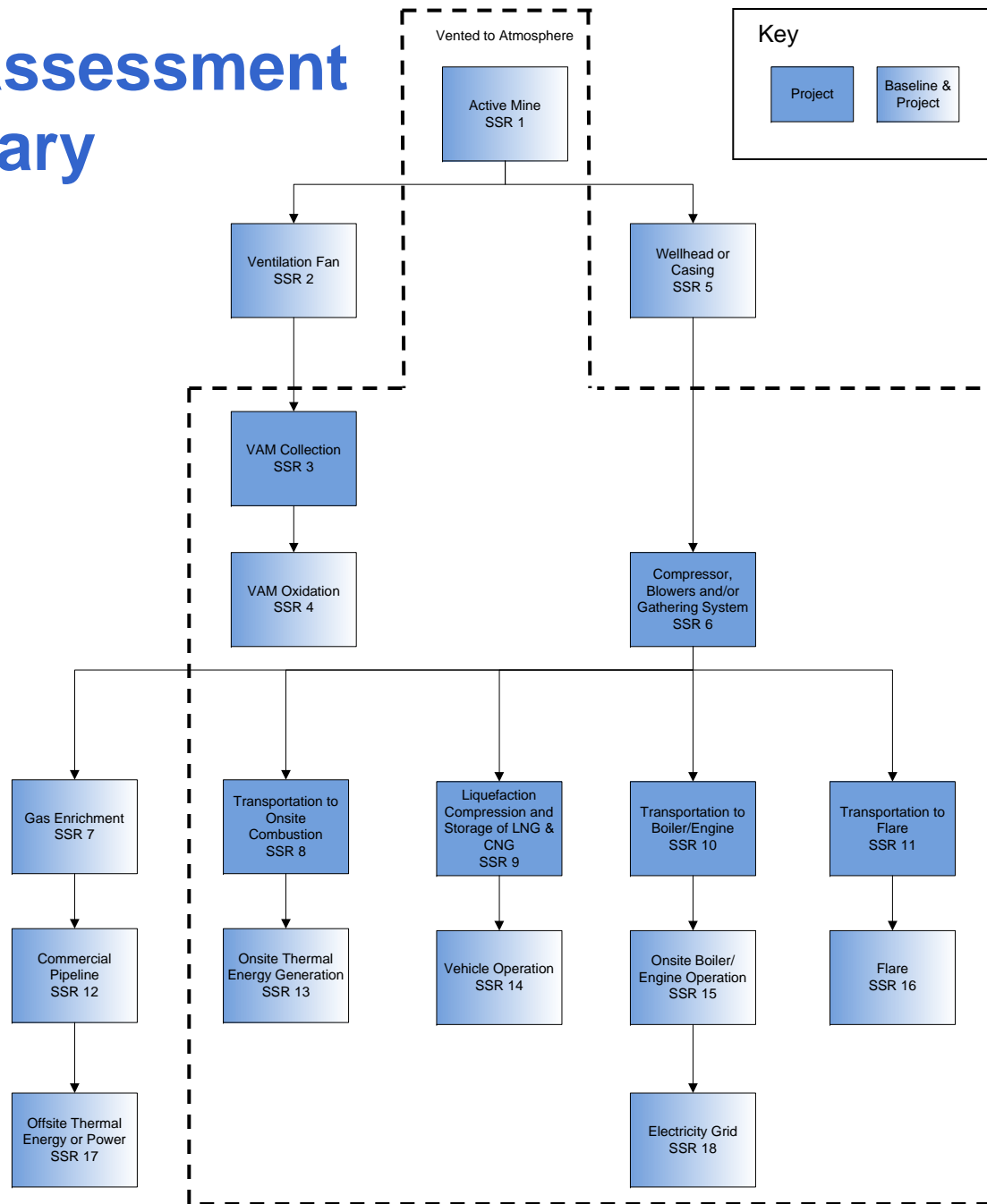
Staff and workgroup develop Version 2.0	August – November 2009
Protocol released for public comment	December 2009
Public workshop	December 2009
Adoption by Reserve Board	February 2010



GHG Assessment Boundary



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Project Emission Reductions



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$$ER = BE - PE$$

Where,

ER = Emission reductions of the project activity during the reporting period

BE = Baseline emissions during the reporting period

PE = Project emissions during the reporting period





Quantifying Emission Reductions

Baseline emissions = an estimate of emissions within GHG Assessment Boundary that would have happened in the absence of the project

- CO₂ from methane destruction of non-qualifying devices (if any)
- Methane released into atmosphere

Project emissions = actual emissions that occur within the GHG Assessment Boundary

- CO₂ from additional fossil fuel and grid electricity consumption
- CO₂ from destruction of captured methane
- CH₄ emissions from uncombusted methane



Monitoring, Reporting & Verification



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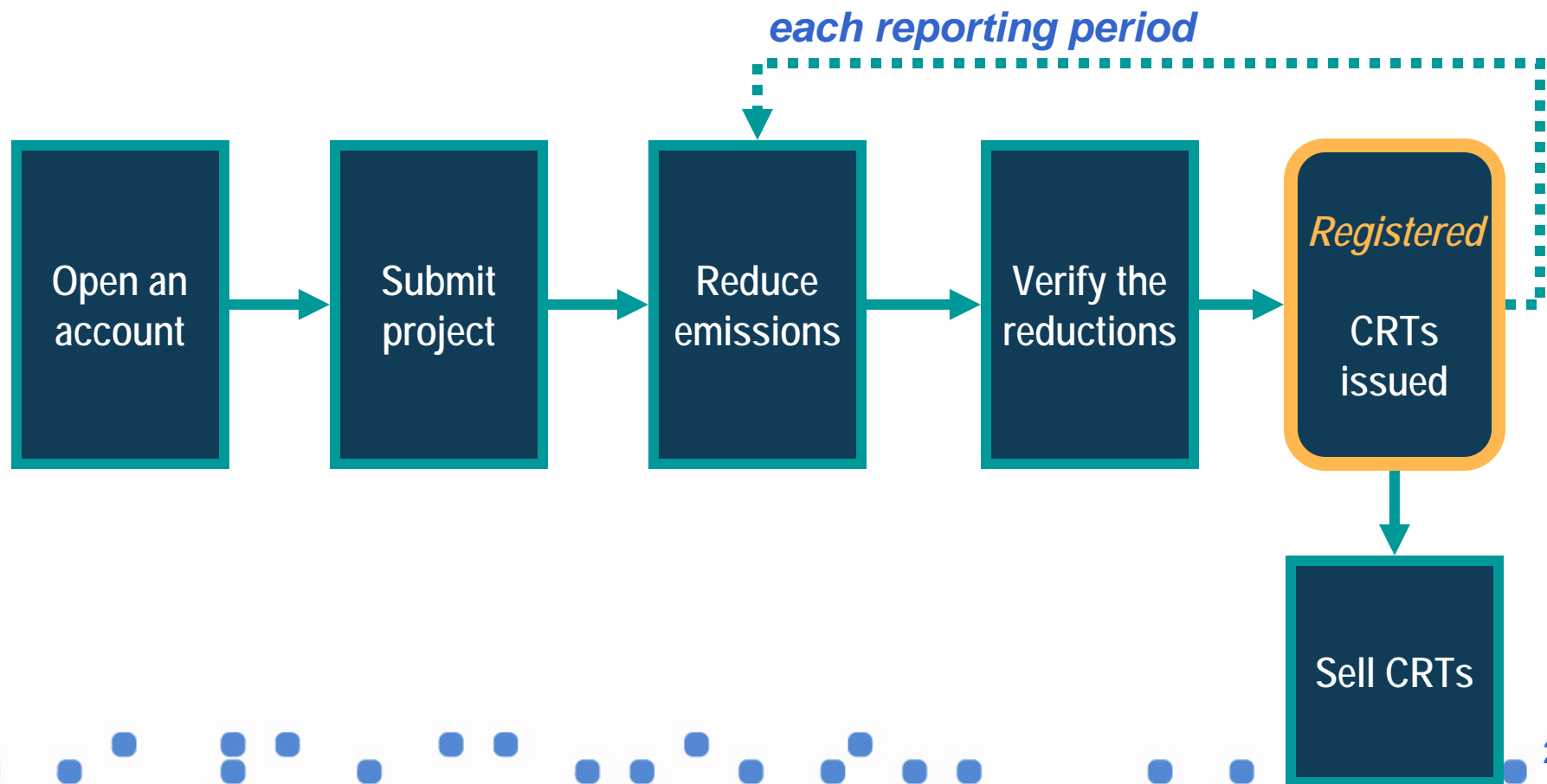
- Detailed requirements on monitoring frequency and instrumentation QA/QC, including:
 - Cleaning, inspection, field checks and calibration schedule
 - Procedure for failed calibration
 - Procedure for missing data
- Record-keeping requirements
- Reporting period/verification cycle = maximum of 12 months; can choose to verify more frequently
- Verify each reporting period with ISO-accredited and Reserve-trained verification body





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Steps to Register a Project



Contact



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