Offset Program Processes: Methodology Development, Project Review, and Approvals

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EPRI GHG Offsets Workshop #8

June 24, 2010

Washington DC

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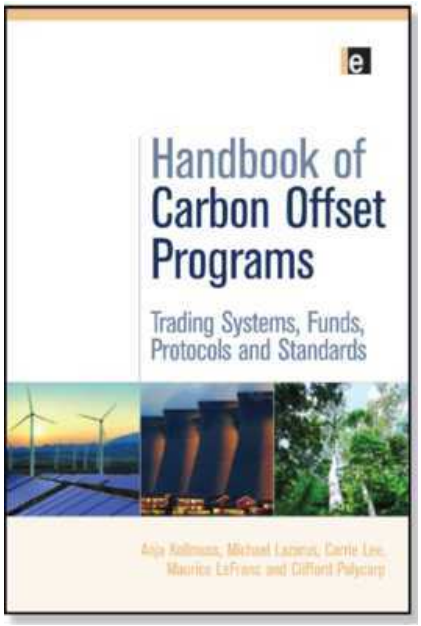
SEI and offsets

International research institute bridging science and policy with offices in

- Sweden, UK, Thailand, Estonia, Tanzania, and US



Climate change:

Policy and economic analysis, modeling and capacity building

- National, state and local climate action plans
- Design of offset markets
- Analysis of offset methodologies and emissions outcomes

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Overview

The offset project / program cycle:

- Writing the rules of the road:
  1 Methodology development
- Getting the permit:
  2 Initial assessment & approval
- Logging the miles:
  3 Ongoing review & credit issuance

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Key Process Steps

1 Methodology development

- Methodology (protocol) development, approval, and revision
- Definition of eligibility/additionality and baselines

2 Initial assessment & approval

- Project Documentation
- Validation
- Registration / Listing

3 Ongoing review & credit issuance

- Monitoring and Reporting
- Verification
- Certification
- Issuance

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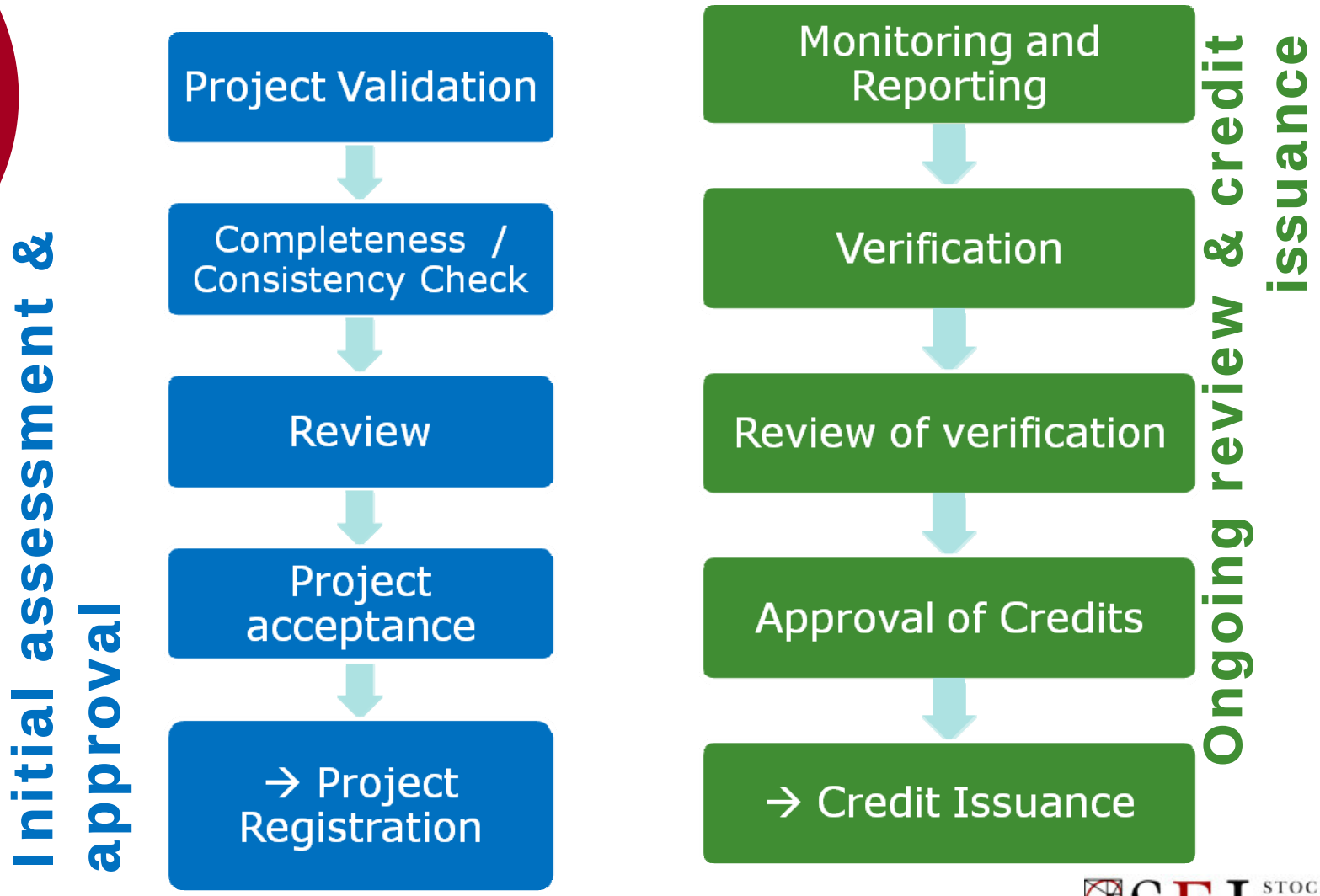
Process Steps



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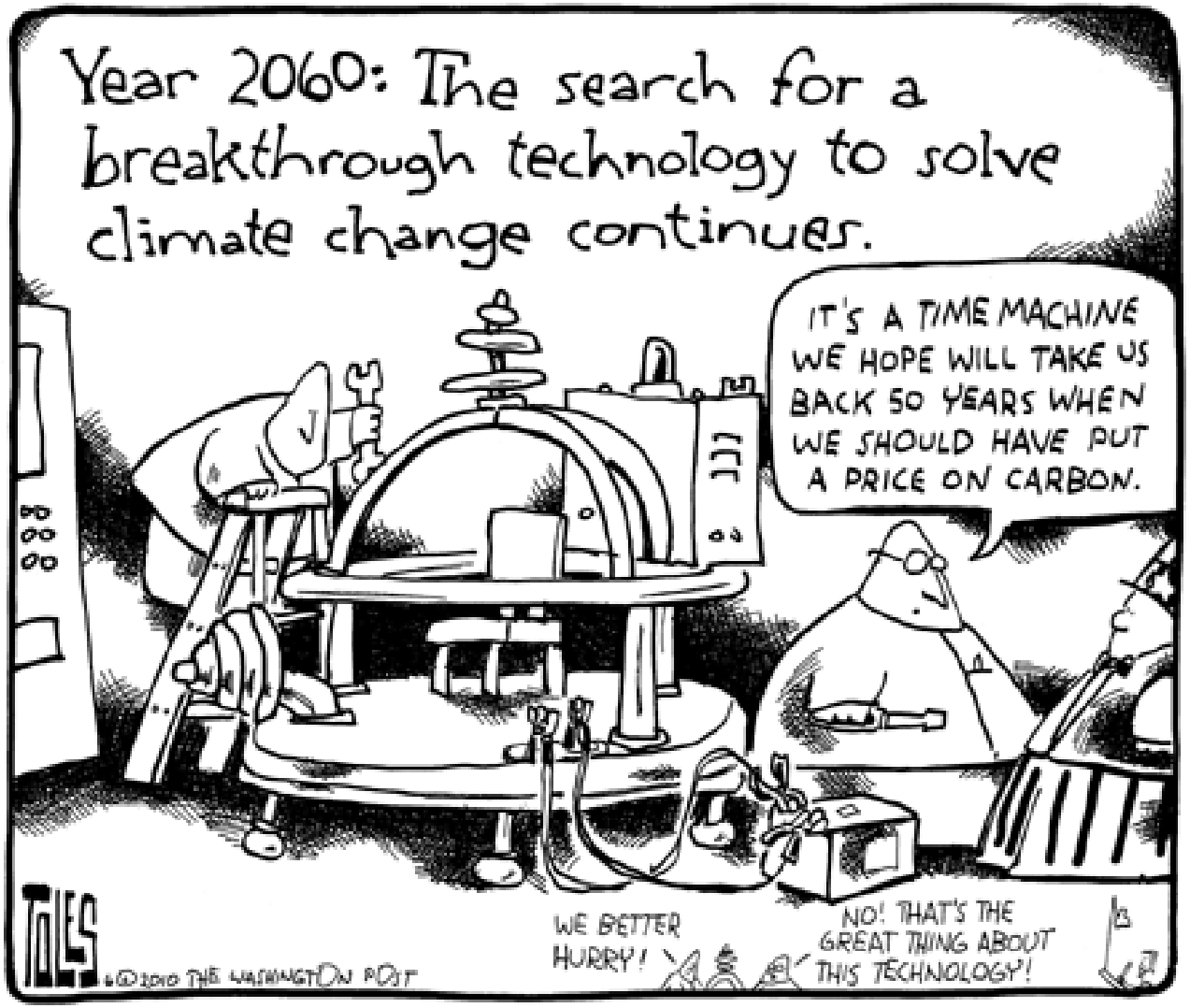
Why bother?



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Challenges for offset processes

Intangible counterfactual → **Fungible commodity**

Solid guardrails are needed to balance:

- rigor and integrity
- transaction costs and lead times
- stability and predictability
- need for learning, innovation, and correction
- intellectual property and transparency
- conflicts of interest
- credibility and public perception

Lessons from program experience?

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Landscape of Offset Programs

CLIMATE
ACTION
RESERVE

Western Climate Initiative

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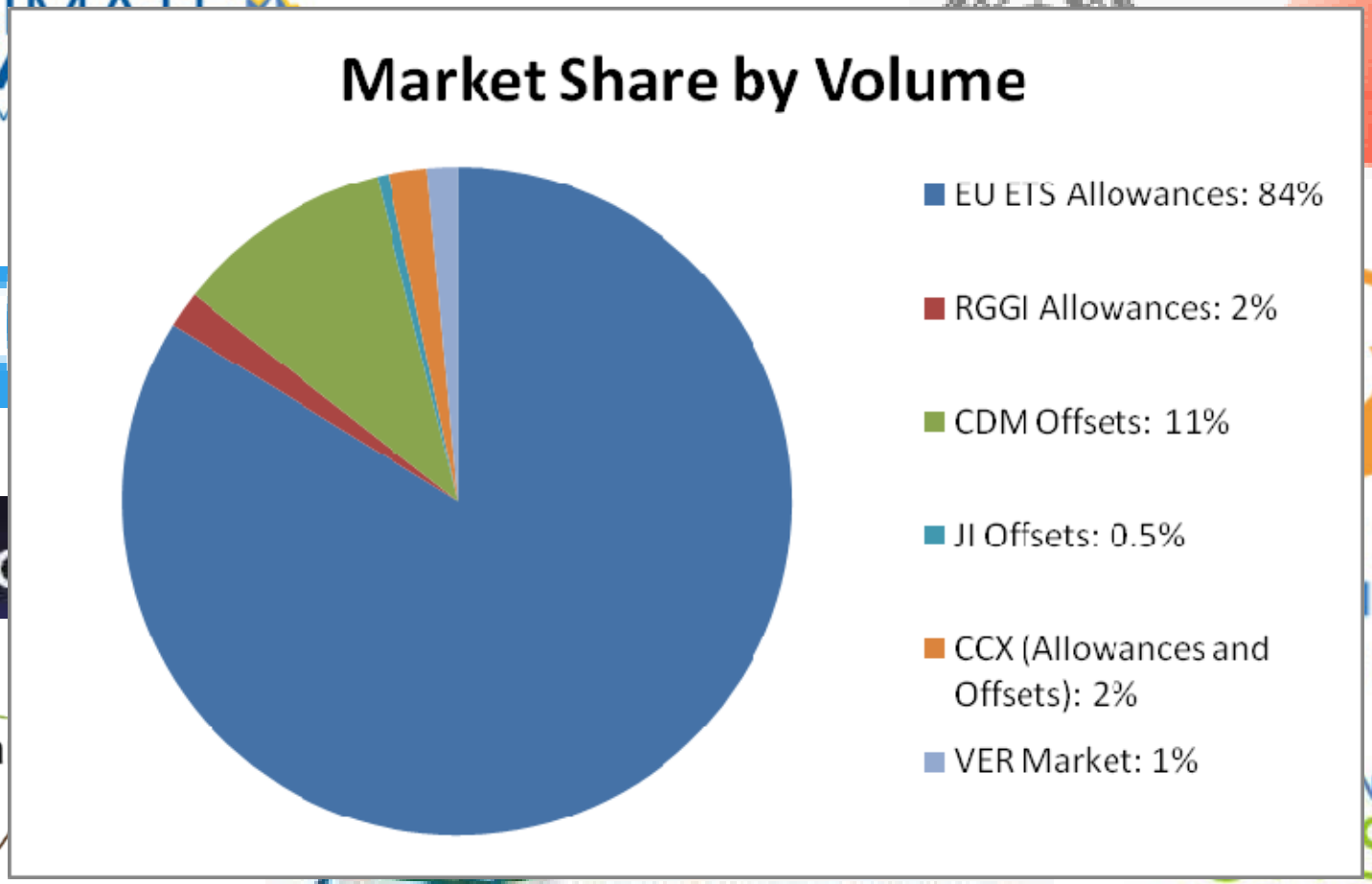
Landscape of Offset Programs



Western Climate Initiative

Chicago Climate Exchange

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Program characteristics

Purpose:

- Compliance or voluntary? Pre-compliance or CSR?

Administration:

- Government, NGO, private, or intergovernmental?

Project locations:

- North America or global?

Predominant project types

- “Uncapped” sectors or full economy?

… influence how methodologies are developed, baselines are set, projects are MRVed and approved.

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For example…

Voluntary market	CDM
>50% US origination	Developing countries
>>half CH4, ag and forestry; “uncapped” sectors, mostly “directs”	>2/3 and increasing: energy including indirects
Many small programs with diverse approaches (e.g. bottom up, top-down)	Large organizational infrastructure
Most programs flexible to implement significant structural changes	Significant changes need COP approval

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1 Methodology development

What's at stake?

- Eligibility/additionality, baselines, leakage, and monitoring
- Requires technical knowledge and judgment (art and science)
- Determines:
  - Who plays in the market
  - Environmental outcome

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Methodology development

Who develops, reviews, and approves them?

Who pays and who plays?

How and when can they be revised?

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Meth development processes

- **Bottom-up** (CDM, VCS)
  - Develop: proponents
  - Review/approve: Board/Panel or auditors (VCS)
- **Top-down** (CAR, RGGI, CCX, ACR, CL...)
  - Develop: Administrator (plus advisory group)
  - Review/approve: Admin (plus stakeholders?)
  - More amenable to standardization

- Which delivers broadest & most rigorous meths?
- Best balances learning/correction & market certainty?
- Spreads risk, cost, and benefits?

... within the context and constraints of a given program

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Examples

- CDM HFC23 Methodology (AM0001)
  - Very specific industrial process; proprietary data; continuous controversy
- CDM Renewable Electricity (ACM0002)
  - Built from peer-reviewed literature; generally public data; numerous revisions
- CAR Forestry Protocol
  - Top-down development; many stakeholders, iterations, compromises

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Where is methodology work most needed?

	Alberta Offset System	American Carbon Registry (ACR)	Chicago Climate Exchange (CCX)	Clean Development Mechanism (CDM)[i]	Climate Action Reserve (CAR)	GE Energy Financial Services & AES (GE-AES)	New South Wales (NSW)	Regional Greenhouse Gas Initiative (RGGI)	U.S. DOE 1605 (b)	U.S. EPA Climate Leaders	Voluntary Carbon Standard (VCS)[ii]
Agriculture											
Soil sequestration	●[iii]		●[iv]		○[v]				●[vi]		●[vii]
Manure management (including anaerobic digestion)	●[viii]	⦿[ix]	●[x]	●[xi]	●[xii]	●[xiii]		●[xiv]		●[xv]	
Rangeland management	○[xvi]	○[ix]	●[iv]		○[v]				●[vi]		●[vii]
Forestry											
Afforestation / Reforestation	⦿[xvii]	●[xviii]	●[xix]	●[xx]	●[xxi]	○[xxii]	●[xxiii]	●[xiv]	●[vi]	●[xxiv]	●[vii]
Forest management		●[xviii]	●[xix]		●[xxi]				●[vi]	⦿[xxv]	●[vii]
Forest pres. /conservation		●[xviii]	●[xix]		●[xxi]	○[xxii]			●[vi]		●[vii]
Forest products		●[xxvi]	●[xix]		●[xxvi]				●[vi]		●[xxvi]
Urban forestry	⦿[xvii]		●[xix]		●[xxvii]				●[vi]		
Waste Management											
Landfill gas	●[xxviii]	⦿[ix]	●[x]	●[xxix]	●[xxx]	●[xxxi]		●[xiv]		●[xxxii]	
Waste and wastewater treatment	●[xxxiii]			●[xxxiv]		●[xxxv]					

●= Approved protocol or methodology
⦿ = protocol or methodology under development
○ = protocol or methodology considered for future

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Reflections on methodologies

- Minimize inefficiencies in bottom-up processes
- Involve impartial sectoral experts early and often
- Make judgment calls explicit
- Allow for corrections
- Focus resources on the cutting edge
  - i.e. newer project types with large potentials (REDD, ag N2O)
  - Compare (road test), consolidate, converge for others
  - Sectoral benchmarks / sectoral crediting baselines
  - Discounting
  - Accounting for other financial flows (fast start finance, CIFs), NAMAs, stacking of payments for ecosystem services

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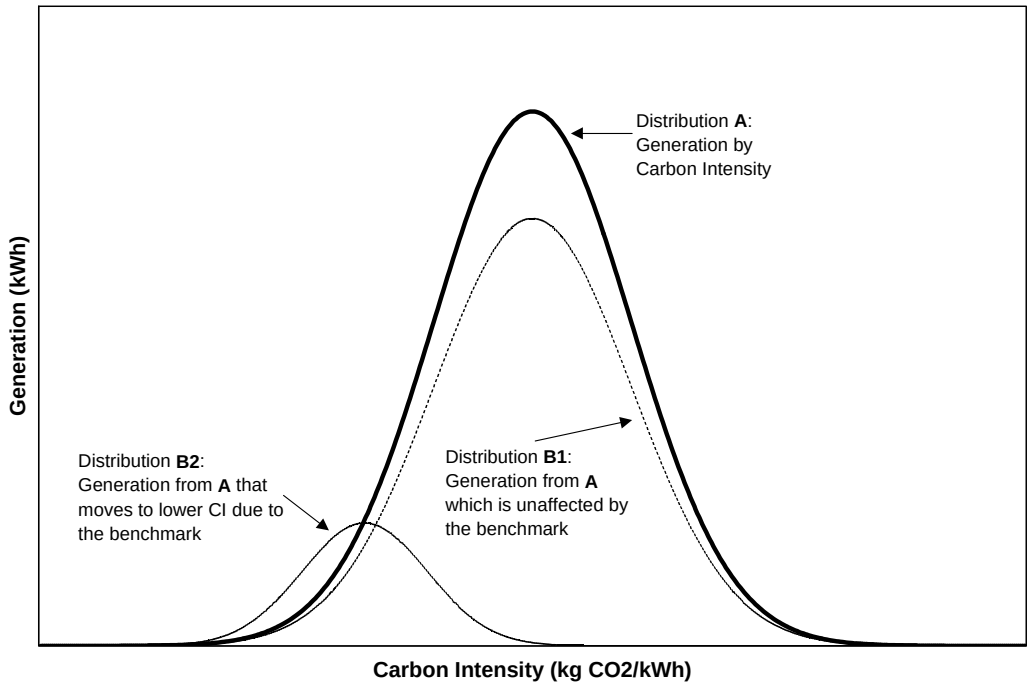
And on additionality

- What are the limitations of standardized additionality (and baseline) approaches?
- How do you account for them?



Lazarus, Kartha, Bernow, Ruth, 1999

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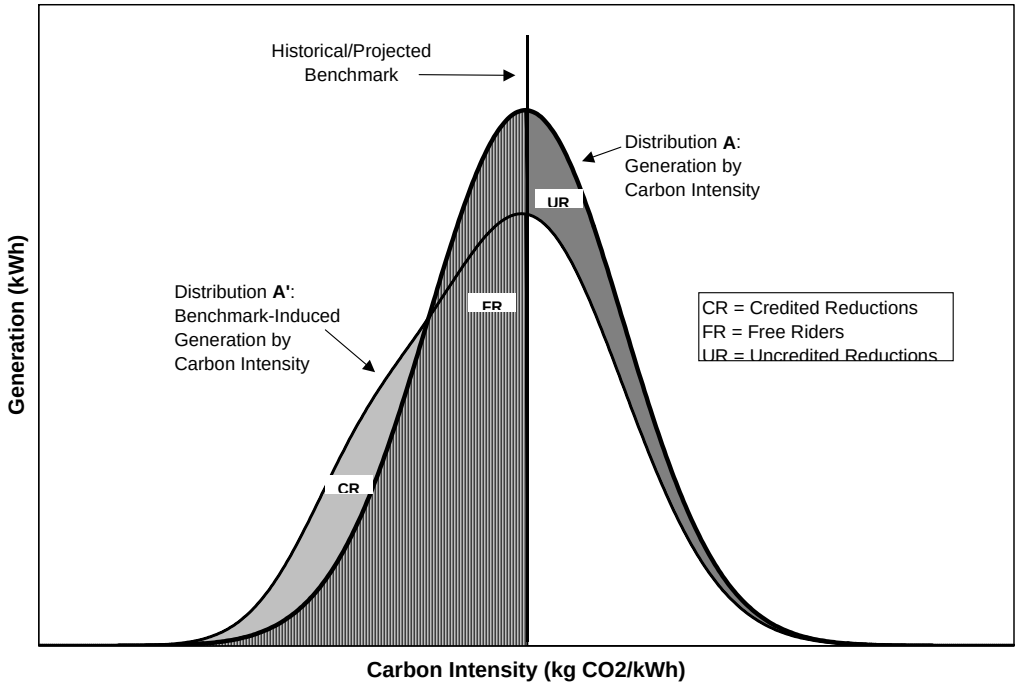

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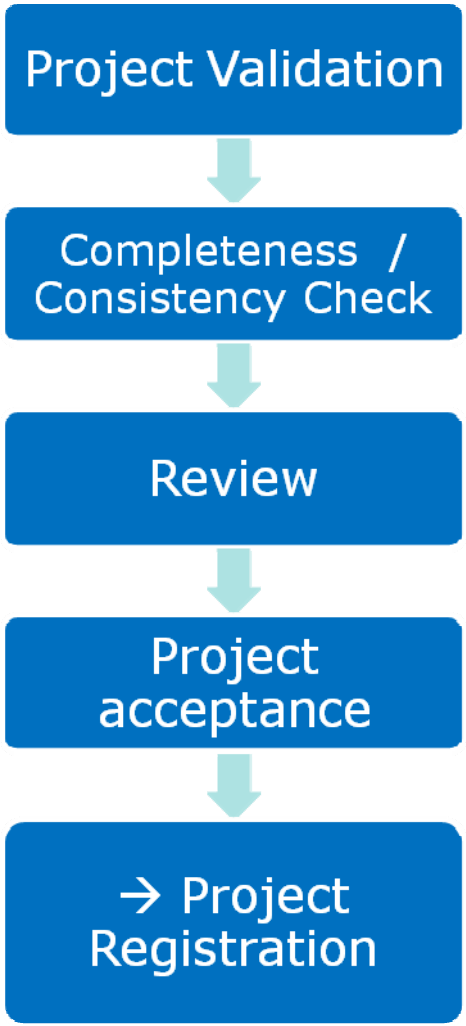
2 Initial assessment & approval



Determination of consistency with program rules and methodology -- typically by accredited 3rd party auditor

Typically by project administrator

By project administrator; Intensiveness varies

Typically by project administrator

In an established registry

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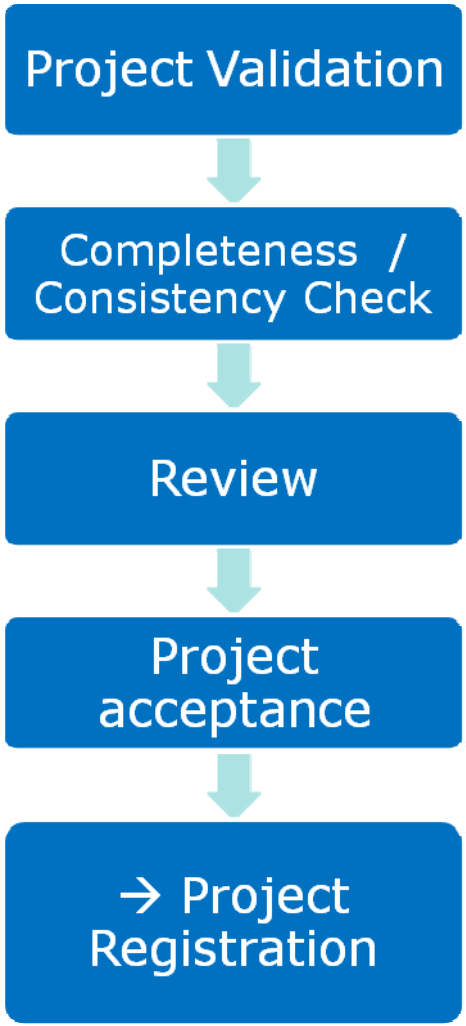
Initial assessment & approval



- Is full validation process required?
  - Increased certainty vs. transaction cost
  - Less important with standardized additionality?
- Registration can occur at verification (CAR, VCS)
  - Can be a simple eligibility determination and “listing” (CAR)
- How to ensure auditor impartiality?

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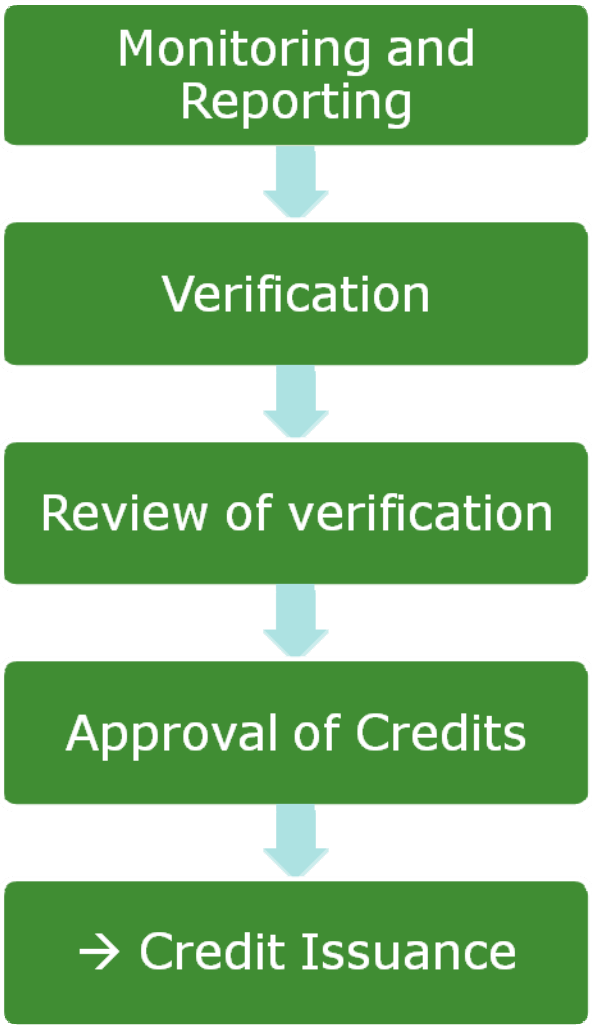
3 Ongoing review & credit issuance



typically by project developer

typically by accredited auditor

typically by program administration/decision makers (not VCS)

by program administration/decision makers (or registries under VCS)

to appropriate registry accounts

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Role of Public Review

Requirement for early offset recognition in Congressional C&T bills

- What information should be public?
- Who's the public?
- Who has the resources to review?
- How are comments accounted for?

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Other issues

- Permanence features
  - Temporary credits, buffers, insurance, pro-rating
- Accounting for leakage
  - Tools, models, discounts
- Capacity to implement
  - Staffing levels and expertise at administrators and third parties
- Auditor accreditation…. etc.

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Reducing transaction costs

- Standardized procedures within and across programs
- Materiality thresholds
- Flexibility in frequency of credit issuance
- Aggregation of projects
- Guidance tools
- Consistency of evaluations
- Maximum transparency

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Moving forward…

- Compare, contrast, consolidate, converge on best practices
  - … to the extent possible given different program contexts
- Focus new efforts on cutting edge approaches and mechanisms