

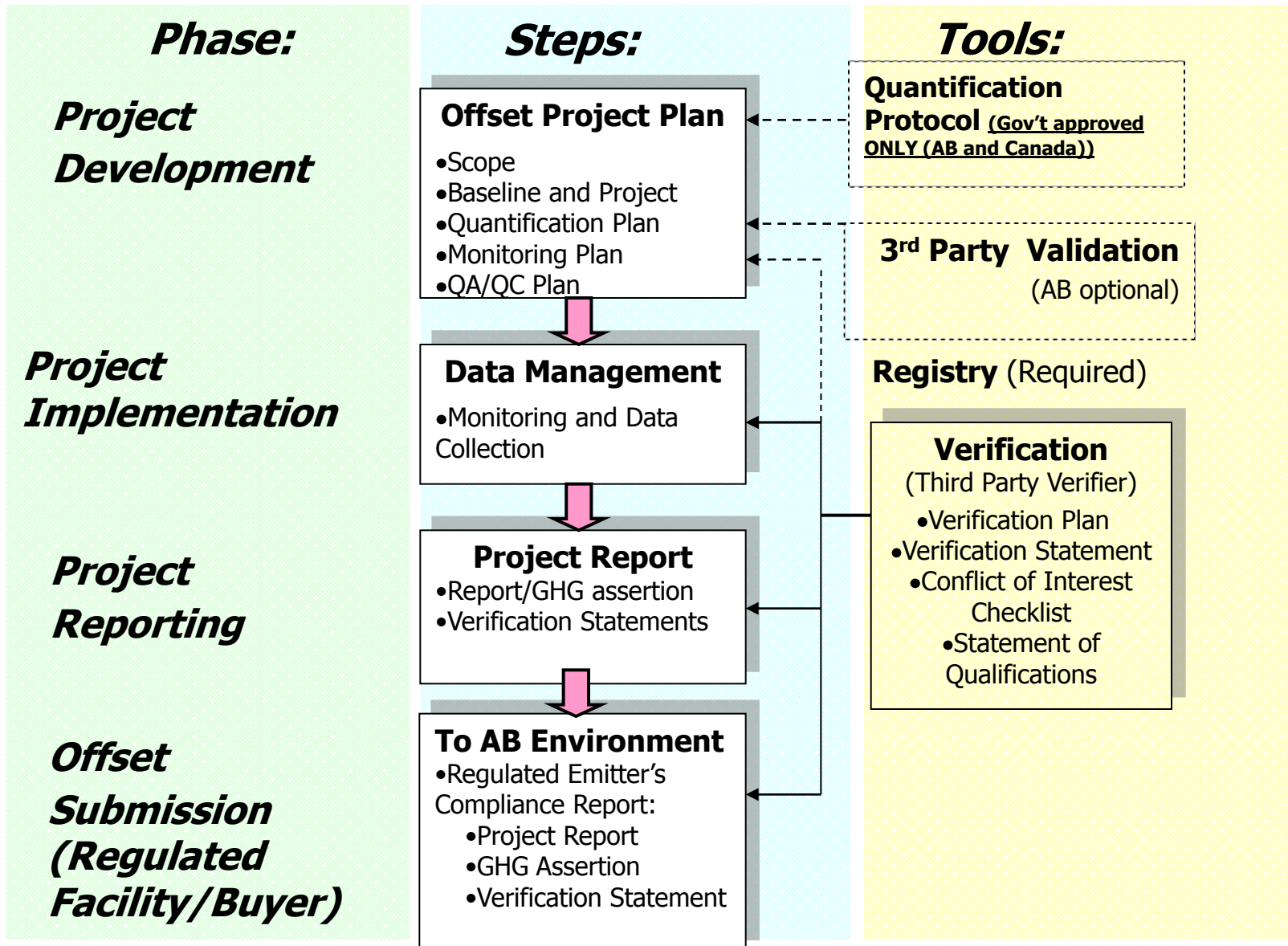
Getting a Credit to Market



Climate Change Central

Albertans taking action

GETTING A CREDIT TO MARKET IN AB



Market Perspective

The Role of the Registry



Climate Change Central

Albertans taking action

Alberta Emissions Offset Registry

- Launched March 2008.
- For Alberta-based offset projects.
- Public forum that provides details on carbon offset projects through accompanying documentation thus ensuring transparency and accountability.
- Registration is a vital component to using offsets to meet compliance requirements.
- Log-in to access the site, public access for searching and review.
- Partnership between Climate Change Central and Canadian Standards Association CleanProjects™ Registry.
- www.carbonoffsetsolutions.ca/aeor

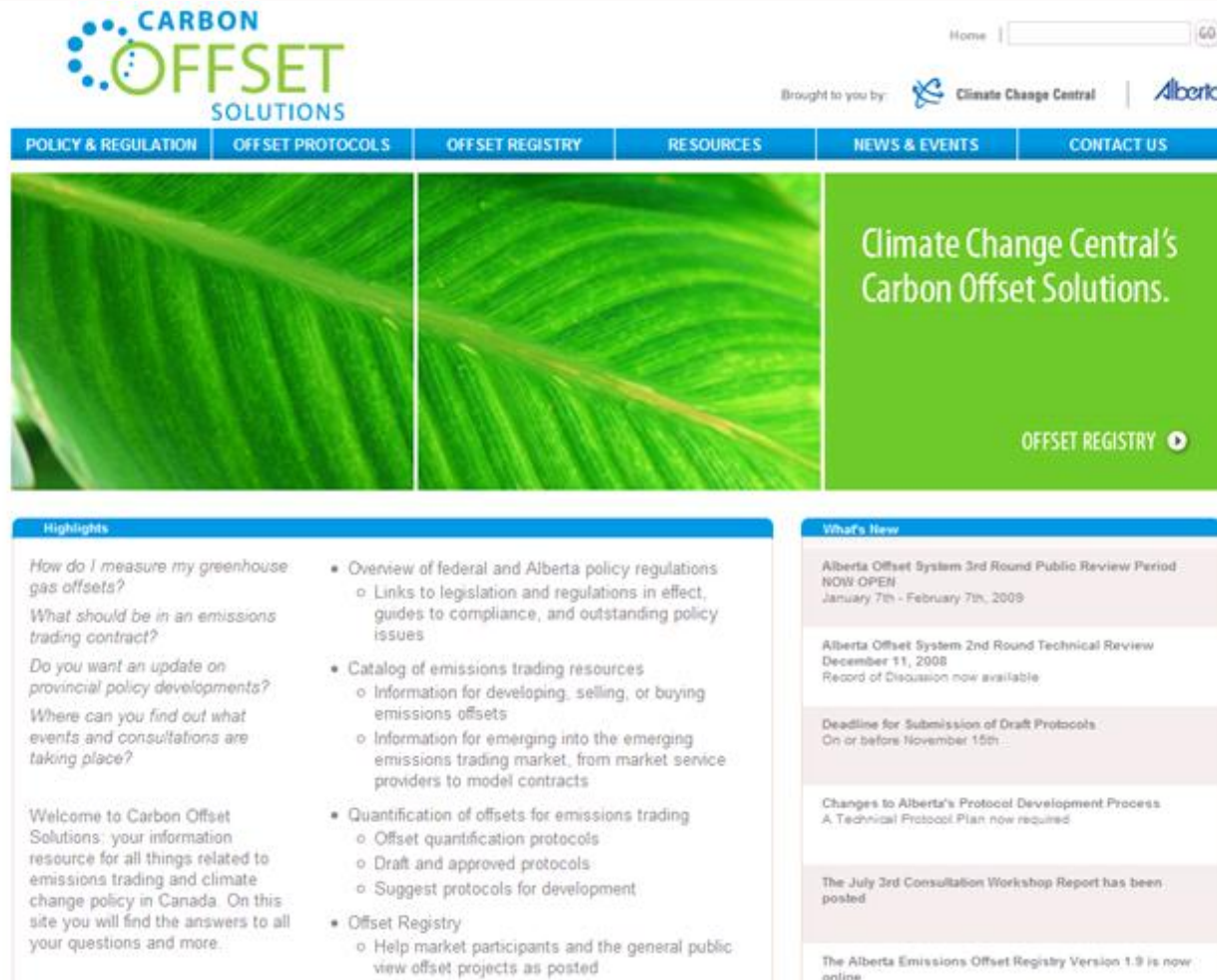


Role of the Credit Registry

- Public 'tracking' of credits
 - Alberta based Offset credits
 - Alberta based Emission Performance Credits
- Posting of Project Data
 - Clear display of rigour and standards implemented
 - Enhances public transparency
 - Identifies ownership issues, potential double registrations
- Posting of Compliance Information
- A 'Meeting Place' for Buyers and Sellers
 - Buyers and sellers meet at the Registry but trading occurs 'offline'
 - Enhances transparency, prevents double counting, provides exposure





www.carbonoffsetsolutions.ca



The screenshot shows the homepage of the Carbon Offset Solutions website. At the top left is the logo, which consists of a cluster of blue dots forming a partial circle around the word "OFFSET" in green, with "CARBON" in blue above it and "SOLUTIONS" in blue below it. To the right of the logo is a search bar with the text "Home" and a "GO" button. Below the search bar, it says "Brought to you by:" followed by the logos for "Climate Change Central" and "Alberta". A horizontal navigation bar contains six links: "POLICY & REGULATION", "OFF SET PROTOCOLS", "OFF SET REGISTRY", "RESOURCES", "NEWS & EVENTS", and "CONTACT US". The main content area features a large green banner with two images of green leaves on the left and the text "Climate Change Central's Carbon Offset Solutions." on the right. Below the text is a button that says "OFFSET REGISTRY" with a right-pointing arrow. Below the banner, there are two columns of content. The left column is titled "Highlights" and contains several questions and answers, as well as a welcome message. The right column is titled "What's New" and lists several updates, including the opening of the Alberta Offset System 3rd Round Public Review Period and the deadline for submission of draft protocols.

CARBON OFFSET SOLUTIONS

Home GO

Brought to you by:  Climate Change Central |  Alberta

[POLICY & REGULATION](#) | [OFF SET PROTOCOLS](#) | [OFF SET REGISTRY](#) | [RESOURCES](#) | [NEWS & EVENTS](#) | [CONTACT US](#)

Climate Change Central's Carbon Offset Solutions.

[OFFSET REGISTRY](#)

Highlights

How do I measure my greenhouse gas offsets?
What should be in an emissions trading contract?
Do you want an update on provincial policy developments?
Where can you find out what events and consultations are taking place?

Welcome to Carbon Offset Solutions: your information resource for all things related to emissions trading and climate change policy in Canada. On this site you will find the answers to all your questions and more.

- Overview of federal and Alberta policy regulations
 - Links to legislation and regulations in effect, guides to compliance, and outstanding policy issues
- Catalog of emissions trading resources
 - Information for developing, selling, or buying emissions offsets
 - Information for emerging into the emerging emissions trading market, from market service providers to model contracts
- Quantification of offsets for emissions trading
 - Offset quantification protocols
 - Draft and approved protocols
 - Suggest protocols for development
- Offset Registry
 - Help market participants and the general public view offset projects as posted

What's New

Alberta Offset System 3rd Round Public Review Period
NOW OPEN
January 7th - February 7th, 2009

Alberta Offset System 2nd Round Technical Review
December 11, 2008
Record of Discussion now available

Deadline for Submission of Draft Protocols:
On or before November 15th

Changes to Alberta's Protocol Development Process
A Technical Protocol Plan now required

The July 3rd Consultation Workshop Report has been posted

The Alberta Emissions Offset Registry Version 1.9 is now online



Climate Change Central



Alberta Emissions Offset Registry



REGISTRY INFORMATION

44 Projects Registered

6,707,257 tCO₂e Reductions/Removals

Offsets are an integral compliance option for regulated entities under the Specified Gas Emitters Regulation in Alberta. Voluntary projects that include new technologies and/or practice changes generating greenhouse gas emission reductions or removals may be eligible to generate offsets. The Alberta Offset System has rigorous rules and criteria to ensure eligible project types generate real, measurable, and quantifiable emission reductions. Registration of eligible Alberta-based projects is a vital component to using offsets to meet compliance requirements.

On this site you can browse, register, transfer and retire offsets from eligible Alberta-based projects, and search registry participants. There is no cost to create an account, or to browse projects.

[SIGN IN OR CREATE A NEW ACCOUNT](#)

Alberta Emissions Offset Registry

- For compliance purposes, offsets must be registered, serialized, and retired.
- To use offsets for compliance, a regulated entity must submit appropriate offset reports, including project plans and verification reports to Alberta Environment, and demonstrate retirement of serialized offsets.
- **Registered** = project is posted and serialized offsets identified.
- **Serialized** = with submission of notice of creation and verification report, offsets are given a unique serial number (per tonne CO₂e)
- **Delisted** = a transaction has occurred on serialized offsets, request change of ownership on registry.
- **Retired** = serialized offsets have been used for compliance, are removed from circulation through the retirement of the serial number.



www.carbonoffsetsolutions.ca/aeor

Carbon Offset Solutions A-EOR - Windows Internet Explorer

http://www.carbonoffsetsolutions.ca/aeor/

Carbon Offset Solutions A-EOR

CARBON OFFSET SOLUTIONS

brought to you by: **Alberta** **Climate Change Central**

HOME | CONTACT US

POLICY & REGULATION | OFFSET PROTOCOLS | **OFFSET REGISTRY** | RESOURCES | NEWS & EVENTS

Offset Registry

Welcome to the Alberta Emissions Offset Registry

Offsets are an integral compliance option for regulated entities under the Specified Gas Emitters Regulation in Alberta. Voluntary reductions, from non-regulated entities can reduce their emissions or remove greenhouse gases from the atmosphere and potentially claim an offset. Registration is a vital component to using offsets to meet a compliance requirement.

On this site you can register and retire offsets from projects, browse Alberta offset projects, and search for registry participants.

Sign into your Account

To use this website, you must agree to the terms and conditions listed below this sign in box.

☐ Agree ☐ Disagree

Email:

Password:

Forgot your password? [click here](#)

Sign In

Click **Agree** to enable

Create a new account

Don't have an account yet? Click the create new profile button.

Create New Profile

As a condition precedent to your use of the Emissions Offset Registry website ("EOR"), you agree to the following terms and conditions:

FIRST:

Create a profile

- **No fees to create**
- **Enter basic info**
- **Ability to:**
 - **View all registered projects**
 - **Create a project**



Climate Change Central

[Send message](#)[Search Projects](#)
[Search Participants](#)
[Help](#)
[Contact](#)
[Logout](#)**+ Project Developer:** West Fraser Timber Co. Ltd.

Project Description: The Thermally Heated Fluid Burner is an fuel substitution project at the Blue Ridge Lumber, dimensioned lumber manufacturing facility, located near Whitecourt, Alberta. The opportunity for generating carbon offsets with this project arises from direct GHG emission reductions as a result of a

**+ Project Location:** Central, South and North West**Project Type:** Biomass Energy (Supply)**Aggregated Project?:** No**Start Date:** Jan 01, 2007**End Date:** Jan 01, 2015**Estimated Potential Lifetime
Emissions Reductions-Removals:** 121600 tCO₂e**Estimated Potential Annual
Emissions Reductions-Removals:** 15200 tCO₂e**Validator:** None defined**Verifier:** Keystone Environmental Ltd.**▼ Project Files**

Alberta - GHG Report (2007-2008) - english	Download
Alberta - Notice of Creation (2007-2008)	Download
Alberta - Verification Statement (2007-2008) - english	Download

▶ Issued Offsets**▼ Transferred Offsets**

Registry Terms

- Serialized – registered, verified tonnes available for purchase
- Delisted- change of ownership
- Retired – permanently taken out of circulation and can not be used for any future emission reduction efforts.
- Pending – submitted for AENV for compliance
- Removed – removed credits as a result of errors identified by the project developer
- Revoked – Removed as a result of errors identified by a government audit



The FORMS

- **PROJECT APPLICATION FORM**

- * Preliminary project information; project developer information

- **SCHEDULE A – Acknowledgement Registry Mandate**

- **SCHEDULE B – Registry Services Agreement**

- **SCHEDULE C – Designation of Authorized Project Contact**

- If authorizing another party as Project Contact

- **SCHEDULE D – Notice of Registry Account Instructions**

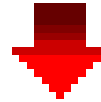
- **EXCEPTIONS:**

- Aggregated Tillage projects – Spatial Location Template



THE REGISTRY PROCESS

CREATE THE PROJECT – SUBMIT DOCUMENTATION



RECEIVE CONFIRMATION LETTER FROM AEOR ✓



PROJECT PROCESSING AND SERIALIZATION

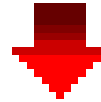


REGISTRATION LETTER FROM AEOR ✓



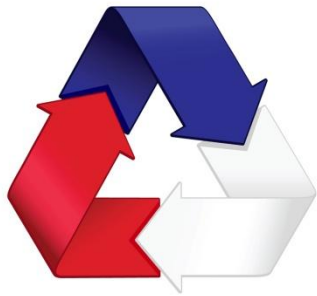
THE DELISTING PROCESS

BILATERAL TRANSACTION(S) OUTSIDE REGISTRY



DELIST / CHANGE OF OWNERSHIP REQUEST

- Initiated by seller of offsets
- Schedule D Delisting submission



DELISTING REQUEST PROCESSING

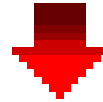


CONFIRMATION LETTER FROM AEOR



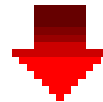
THE RETIREMENT PROCESS

BILATERAL TRANSACTIONS OUTSIDE REGISTRY

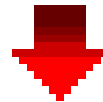


RETIREMENT REQUEST

- Initiated by OWNER using offsets for compliance
- Schedule D Retirement submission



RETIREMENT REQUEST ACKNOWLEDGEMENT



INITIATION OF RETIREMENT LETTER FROM AEOR ✓



What does it all mean to me?



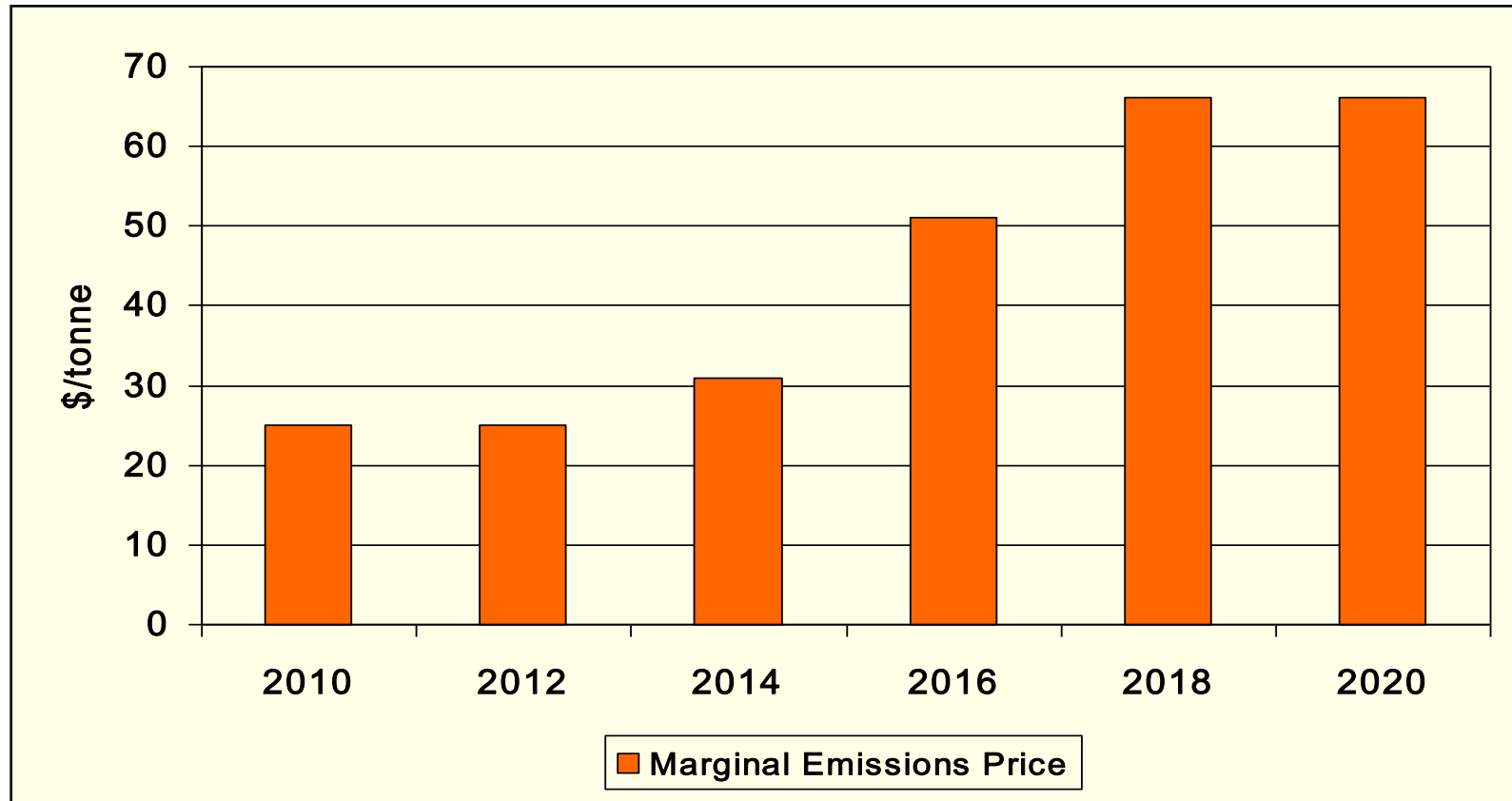
Climate Change Central

There are costs...

- Protocol Development (if needed)
- Development of Offset Project Plan (time and resources)
- Validation (optional)
- Data management – monitoring and collecting necessary data
- Verification costs
- Registry costs
 - \$200 to register a project
 - \$250 to display information on the registry
 - \$0.05 per tonne to serialize
 - Delisting and retiring are free



The price of credits on Canada's carbon market is expected to hit \$65/tonne by 2018



-Mike Beale, Environment Canada April 2008

4 Registered Biomass Projects in Alberta

West Fraser #1	30,477.00
Blue Source	48,525.00
West Fraser #2	14,696.00
Verdant Energy	328,198.00
	421,896.00
Hypothetical Value	\$ 5,062,752.00

Challenges...



Climate Change Central

Risks – Two Categories

Project Risk

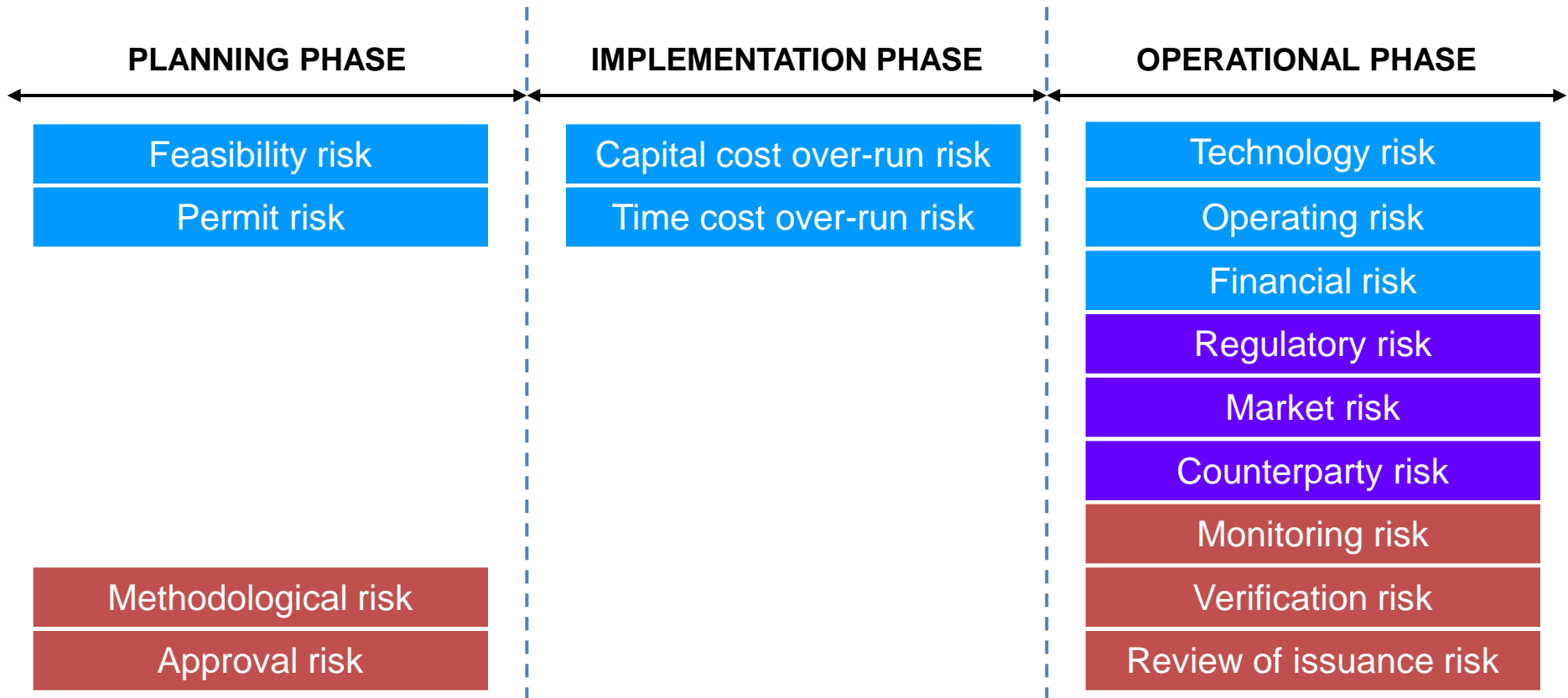
- Ownership
- Quantification
- Creditworthiness
- Data and Record Management
- Intangible Commodity
- Default on delivery

Contract Risk

- Liability
- Reserve Holdbacks
- Transaction Cost Sharing
- Pricing



Risks and project finance over cycle



Impact of risk on price

RISK

Risk free price per offset credit

Conventional project risks

Regulatory risk

Market risk

Counterparty risk

Monitoring risk

Verification risk

Review of issuance risk

Methodological risk

Approval risk

Risk-adjusted price per offset credit

Price adjustment for review of issuance risk

Total Risk Discount

