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# Key Elements of a Successful Market-Based GHG Offset Program

RGGI Offsets Workshop

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## Overview

- Definition of GHG Offset
- Key Elements of a Market-Based Offset Program
- Examples of Existing Offset Programs
- Potential Procedural Framework for Offset
- Conclusions



## Definition of a GHG Offset In RGGI Context

- Offsets are emissions permits created by sources not covered by a cap that can be used by affected sources in lieu of internal abatement measures or purchased allowances\*
- Offsets are thus project-based reductions that are converted into emissions permits through a regulatory process

\*This is very different from a criteria pollutant offset as defined in CAA Sec 173



## Key Elements of GHG Offset Program

- Demand (i.e., cap)
  - Necessary for market function
- Environmental integrity
  - Rules regarding creation and use of offsets safeguard integrity of cap
- Clear rules and process for creating of offsets
  - Offers certainty to investors regarding process and ability to convert investment in reductions into offsets
  - Should ensure that offsets have environmental integrity
- Clear rules regarding use of offsets to meet cap
  - Offers certainty to buyers that offsets can be used for compliance



# Successful Offset Programs Require Certainty

- **Environmental Certainty**
  - **Regulators** need certainty that offsets are real and do not undermine cap
- **Creation Certainty**
  - **Investors/creators** need certainty regarding process and eligibility criteria to convert reductions to offsets
- **Use Certainty**
  - **Buyers** require certainty that purchased offsets can be used towards reduction requirement (no buyer liability)



# Examples of Offset Programs

- ERC (NO<sub>x</sub> , PM, SO<sub>2</sub>, CO, VOCs)
  - Strict eligibility rules for creation of offsets
  - Small potential universe of reductions accepted for use
    - Shut-down/curtailment credit
    - Over control credit (this is most analogous to RGGI offset concept)
  - Limited market activity
- Clean Development Mechanism Under Kyoto Protocol
  - Demand uncertainty (absent Kyoto's entry into force)
  - No ability to convert reductions to offsets
  - Results in lack of investment in projects
  - Illiquid market



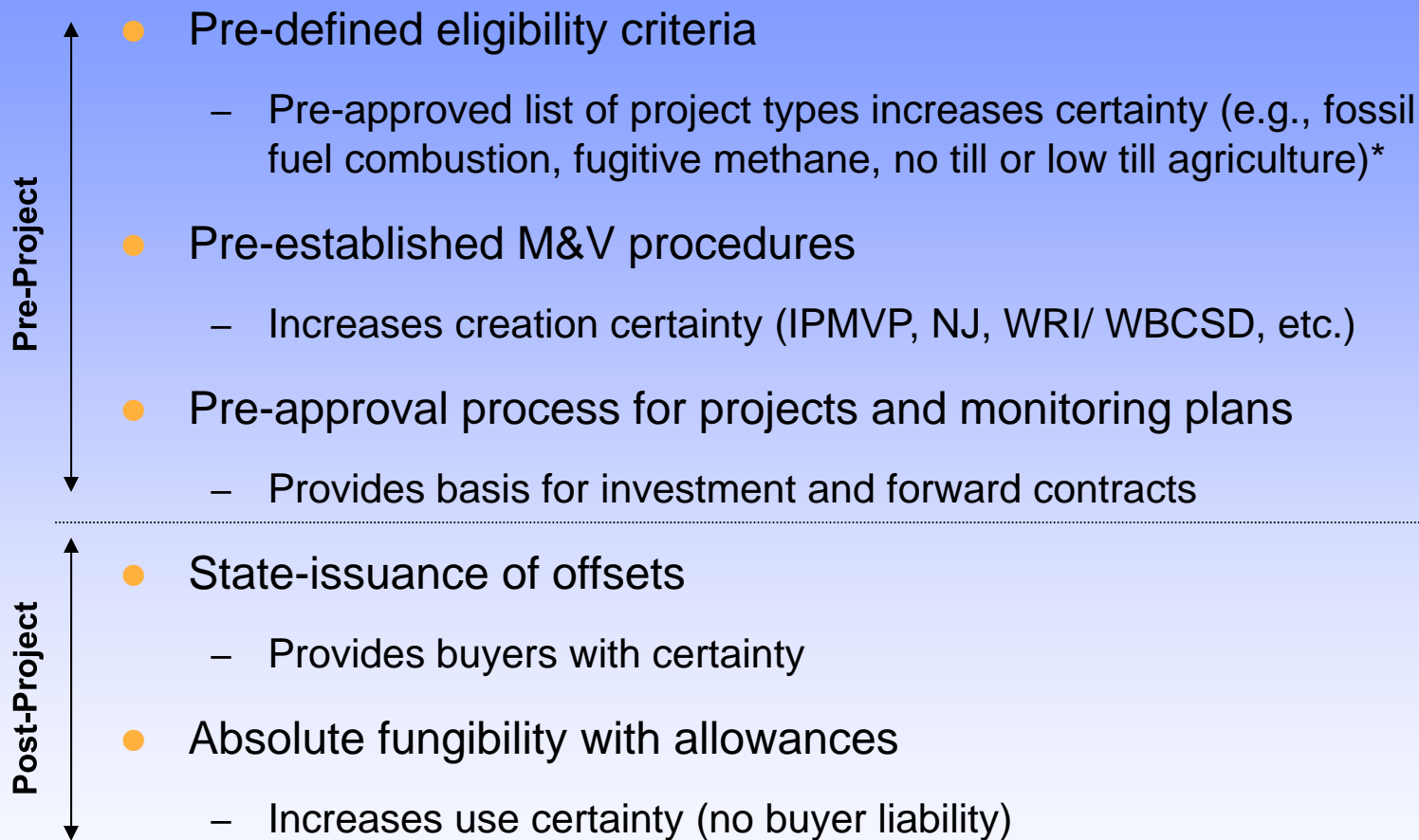
## Comparison of Offset Programs

	ERC Offset Programs	Clean Development Mechanism CO <sub>2</sub> Offset Program With Kyoto Protocol Entry Into Force (KP EIF)
<b>Certainty Regulatory Framework (Demand)</b>	<b>CLEAR</b> <ul style="list-style-type: none"> <li>● Demand in place due to CAA-related regulations</li> </ul>	<b>UNCLEAR</b> <ul style="list-style-type: none"> <li>● Uncertainty regarding entry into force of Kyoto Protocol</li> <li>● Cap not yet binding</li> </ul>
<b>Certainty of Creation of Offsets</b>	<b>CLEAR</b> <ul style="list-style-type: none"> <li>● Certainty with regards to rules for creating offsets</li> <li>● Process for creating offsets ensures integrity</li> </ul>	<b>UNCLEAR</b> <ul style="list-style-type: none"> <li>● No mechanism to convert reductions into offsets (absent KP EIF)</li> <li>● Cap not yet binding</li> </ul>
<b>Certainty of Use of Offsets</b>	<b>CLEAR</b> <ul style="list-style-type: none"> <li>● State recognition of offsets</li> <li>● Buyer assumes no risk</li> </ul>	<b>UNCLEAR</b> <ul style="list-style-type: none"> <li>● No certainty that reductions can become offsets</li> </ul>





# Potential Procedural Framework For Offset Creation

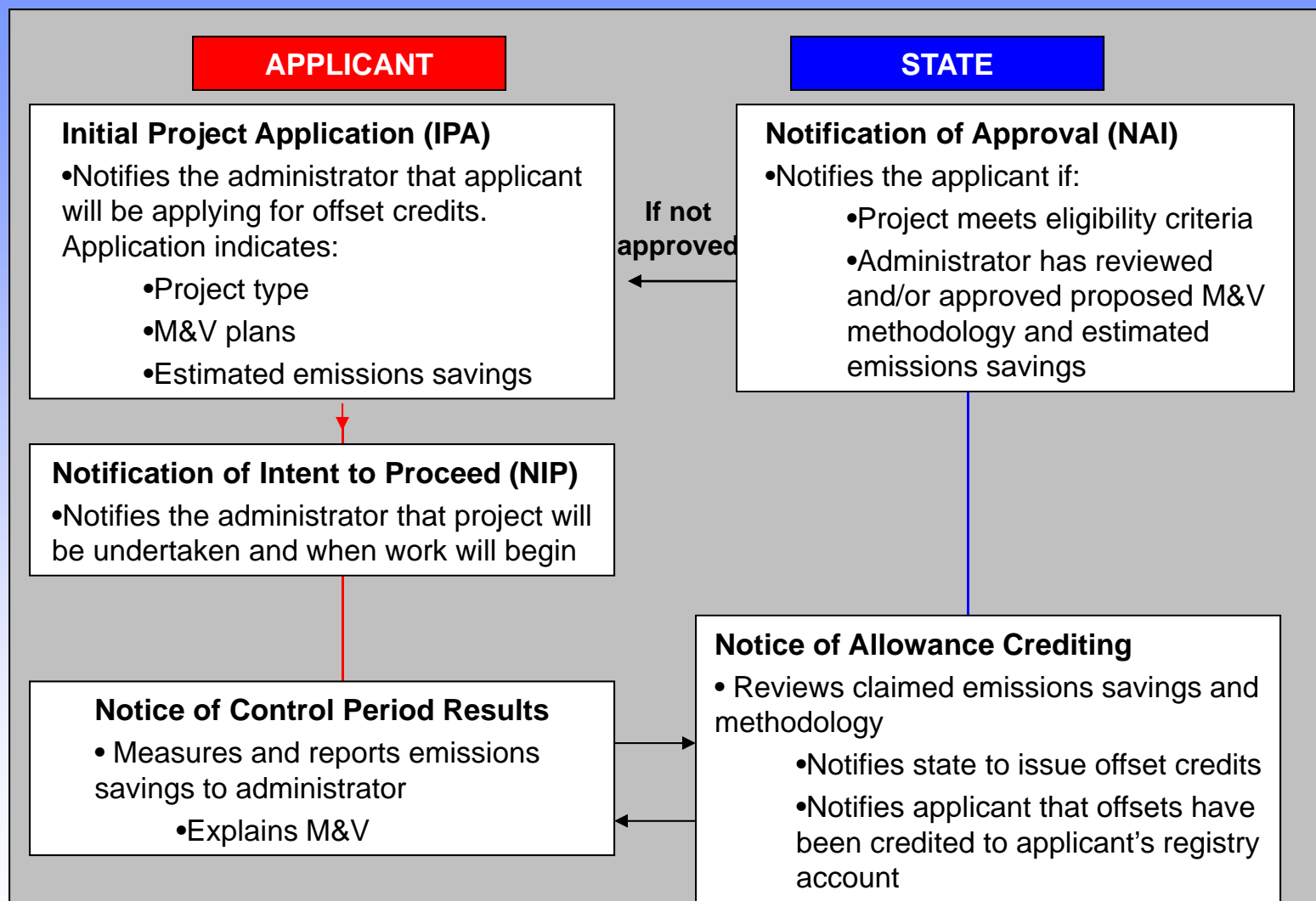


\*Note: Also important to have process for new project types

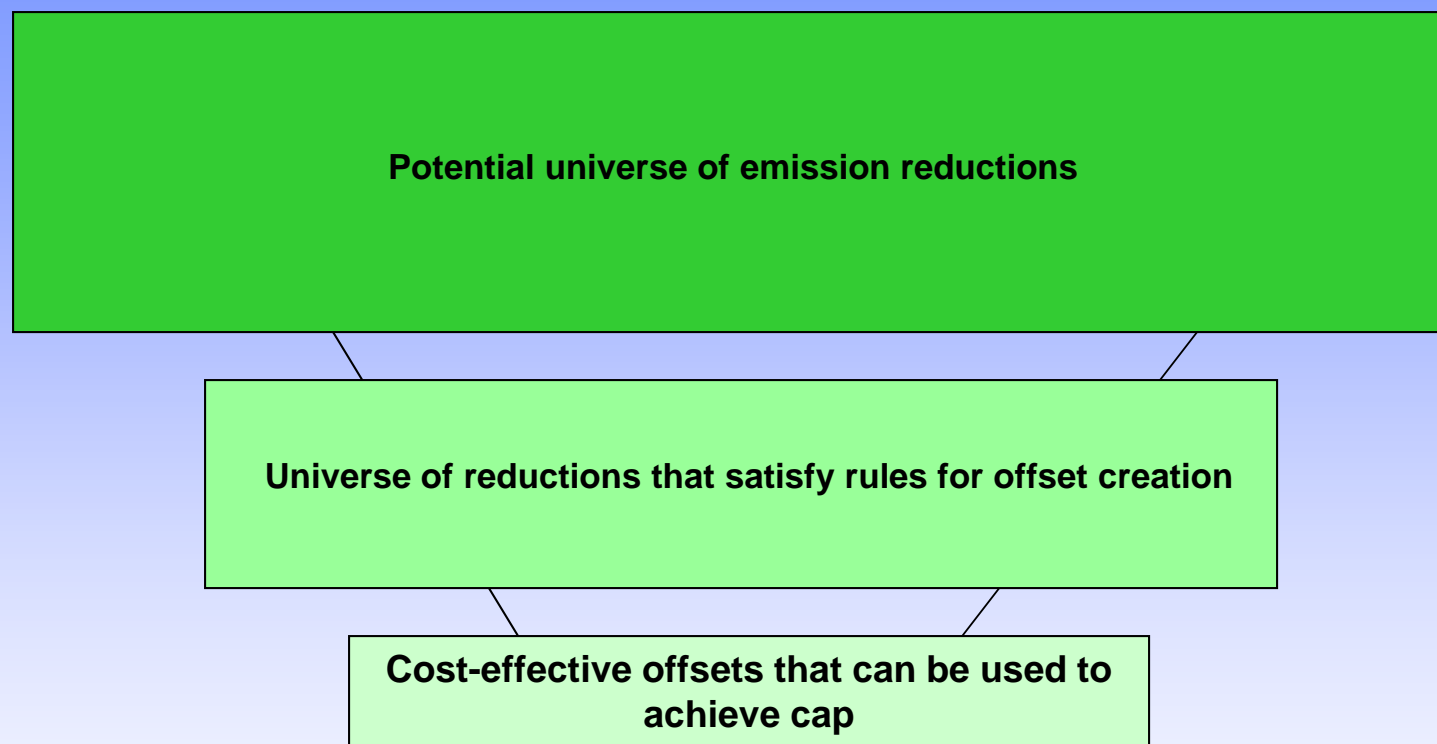




## Process Schematic



## Universe of Offsets in Market is Dependent on Rules for Creation



- Over time, universe of offsets eligible to meet cap may expand as new M&V methods, etc. are developed



## Conclusions

- Programs that provide certainty of creation and use while maintaining environmental integrity can deliver economic benefits
- Necessary conditions for such programs include:
  - Systematic demand from binding emissions cap
  - Clear processes for offset creation (pre-established baselines, M&V protocols, certification)
  - Buyer faces no risk when using offsets
- However, because programs balance multiple risks, they cannot deliver all potential benefits of trade



## For More Information

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