



Presentation to EPRI GHG Emissions Offset Policy Dialogue Workshop #3

# Review and Comparison of Design Elements in Existing and Proposed GHG Offset Programs

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Some new thinking from Natsource.  
More growth. Less pollution.



# Overview

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# About Natsource

- Leading private sector greenhouse gas (GHG) asset manager with significant policy and commercial expertise
- Approximately \$1 billion of assets under management for compliance clients and investment clients as of October 2008
- New Energy Finance recognized Natsource as the largest buyer of contracted carbon credits in the world with over 100 million contracted from Clean Development Mechanism (CDM) and Joint Implementation (JI)
- Staff participated in the development of the first GHG offset program and the Kyoto offset mechanisms and arranged some of the first and largest trades in these markets
- Natsource offers integrated services in GHG and environmental markets
  - Asset Management Services
  - Origination and Structuring Services
  - Advisory and Research Services
- Headquartered in New York with global footprint
  - Offices in Calgary, London, Ottawa, Panama City, Tokyo and Washington, D.C.



# Eligible Activities

## CDM

- No restrictions
- Over 100 approved baseline and monitoring methodologies
- Project-by-project approach for approval
  - Methodologies proposed with projects
  - Some effort to consolidate methodologies



## Eligible Activities

	<b>RGGI</b>	<b>WCI</b>	<b>Lieberman-Warner</b>	<b>Dingell - Boucher</b>
<i>Landfill Methane</i>	X	X		X
<i>Coal Mine Methane</i>				X
<i>Wastewater management</i>		X		Maybe
<i>Manure Management</i>	X		X	X
<i>Ag Soil Sequestration</i>		X	X	Maybe
<i>Afforestation</i>	X	X	X	X
<i>Reforestation</i>		X	X	X
<i>Ag Soil Management</i>		X	X	Maybe
<i>Land Use Change</i>				Maybe
<i>Forest Management</i>		X	X	Maybe
<i>Avoided Deforestation</i>		X		Maybe
<i>SF<sub>6</sub> Emission Reductions</i>	X			
<i>End use Efficiency</i>	X			



# Additionality, Baselines and Measurement of Emission Reductions

<b>Clean Development Mechanism (CDM)</b>	<ul style="list-style-type: none"> <li>• Additionality demonstrated through:               <ol style="list-style-type: none"> <li>1a) Financial additionality test; OR</li> <li>1b) Barrier test; AND</li> </ol> </li> <li>2) Common practice test</li> <li>• Additionality and baselines determined on case-by-case, project-specific basis</li> </ul>
<b>Regional Greenhouse Gas Initiative (RGGI)</b>	<ul style="list-style-type: none"> <li>• Additionality addressed in eligibility requirements, which include performance standards</li> <li>• Baselines are project-specific, with detailed calculation guidance</li> </ul>
<b>Lieberman-Warner bill (S. 3036, America's Climate Security Act of 2007)</b>	<ul style="list-style-type: none"> <li>• Additionality determination will include project-specific financial additionality test</li> <li>• Other tests <i>could</i> include standardized approaches (e.g. performance benchmarks)</li> <li>• No indication of position on use of standardized baselines</li> <li>• Requires estimates of GHG fluxes on comparable land or facilities</li> <li>• Sequestration projects must develop a dynamic baseline based on emissions on comparable land</li> </ul>
<b>Dingell-Boucher draft climate change legislation</b>	<ul style="list-style-type: none"> <li>• Calls for EPA to develop standardized methodologies (e.g. performance threshold) for determining additionality</li> <li>• Position on use of standardized baselines unclear</li> </ul>
<b>Western Climate Initiative</b>	<ul style="list-style-type: none"> <li>• Protocols will be “standardized to the extent possible and make use of (or adapt if needed), existing protocols as appropriate”</li> <li>• Protocols to be developed prior to start of program in 2012</li> </ul>

# Quantitative Limits on Offset Use

	Domestic Offsets	International Offsets	International Allowances
<b>CDM</b>	“Supplemental” to domestic action, no firm limits. Often interpreted as 50% of Kyoto obligation.		
<b>RGGI</b>	3.3% of emissions 5% if rolling average 12-month CO2 allowance price reaches \$7 10% if rolling average price reaches \$10		
<b>WCI</b>	49% of total emission reductions in 2012-20		
<b>Lieberman-Warner</b>	15% of emissions cap	15% of emissions cap – 5% project-based – 10% forestry	Unused portion of limits on domestic and international offsets
<b>Dingell –Boucher</b>			Unlimited
2013-2017:	5% of emissions		
2018-2020:	15% of emissions		
2021-2024:	15% of emissions	15% of emissions	
From 2025:	20% of emissions	15% of emissions	



# Qualitative Limits on Offset Use

<b>Clean Development Mechanism</b>	<ul style="list-style-type: none"> <li>• No nuclear</li> <li>• EU ETS - sustainability criteria for large hydro (&gt;20MW capacity), excludes LULUCF</li> </ul>
<b>Regional Greenhouse Gas Initiative (RGGI)</b>	<ul style="list-style-type: none"> <li>• At \$10/tonne, EU Allowances and CDM and JI credits become eligible</li> <li>• Projects must be initiated after December 20, 2005</li> <li>• MOU must be in place for non-RGGI states</li> </ul>
<b>Lieberman-Warner bill (S. 3036)</b>	<ul style="list-style-type: none"> <li>• Projects must commence operations after offset regulations are promulgated</li> <li>• International offsets must meet requirements comparable to domestic offsets</li> <li>• Disallows projects at facilities that compete directly with a U.S. facility</li> <li>• Countries hosting international forestry activities must meet requirements (baseline data, institutional and technical capacity, emission reductions for forestry sector)</li> </ul>
<b>Dingell-Boucher draft climate change legislation</b>	<ul style="list-style-type: none"> <li>• Offset credits for reductions occurring after regulations are promulgated, from projects starting: 1) before 2006; or 2) after 2008 but before promulgation of regulations</li> <li>• Projects starting after 2001 but before bill enactment may be eligible for early action allowances</li> <li>• International allowances from programs of comparable stringency</li> <li>• International offsets must meet comparable stringency requirements</li> <li>• International offsets from HFC destruction projects not eligible</li> <li>• Requirements for countries hosting international forestry activities</li> </ul>
<b>Western Climate Initiative</b>	<ul style="list-style-type: none"> <li>• Offsets projects anywhere in U.S., Canada and Mexico; must have comparably rigorous oversight, validation, verification, and enforcement</li> <li>• International offsets and allowances must meet rigorous criteria to be developed on additionality and ability of WCI to enforce and verify reductions</li> <li>• No offsets from developed country projects involving sources that within WCI would be covered under cap-and-trade</li> </ul>



## Other Key Provisions

<b>Clean Development Mechanism (CDM)</b>	<ul style="list-style-type: none"> <li>• Review process involves multiple approvals at different stages</li> <li>• Precedents in regulatory decision-making not binding</li> <li>• Decision-making often not transparent</li> <li>• Crediting period - option to choose renewable 7-year period or non-renewable 10-year period</li> </ul>
<b>Regional Greenhouse Gas Initiative</b>	<ul style="list-style-type: none"> <li>• Reversal risk - standardized 10% discount on offset credits or replacement insurance</li> <li>• Crediting period is ten years (20 for afforestation) and may be renewed.</li> </ul>
<b>Lieberman-Warner bill (S. 3036)</b>	<ul style="list-style-type: none"> <li>• Reversal risk – methodologies to be developed, could involve a reserve pool</li> <li>• “Exaggerated proportional discount that increases relative to uncertainty” (re: monitoring, quantification, additionality, leakage) in sequestration projects</li> <li>• Crediting period to be determined by EPA Administrator.</li> <li>• Methodologies to be tested by 3 expert teams, rejected if estimates differ by &gt;10%</li> </ul>
<b>Dingell-Boucher draft climate change legislation</b>	<ul style="list-style-type: none"> <li>• Conservative discount factors for sequestration projects to account for uncertainty in measurement, additionality, leakage and permanence</li> <li>• Crediting period between 5 and 10 years, renewable; forestry period is 20 years.</li> </ul>
<b>WCI</b>	NA



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