

Minding the Gap: Achieving Energy Success Via a Neutral Policy Platform

New America Foundation

Washington, DC

December 2, 2009

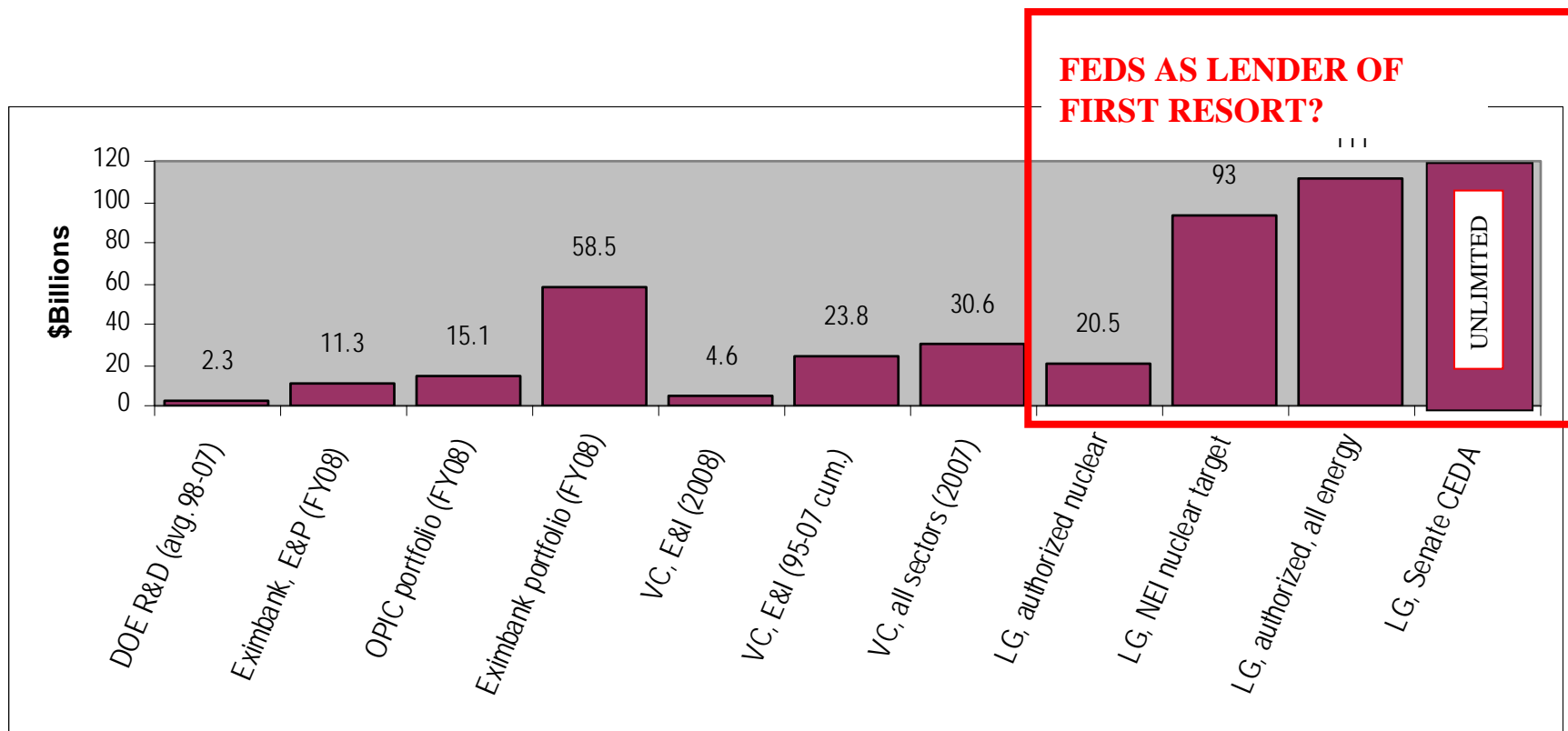
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Some Worrying Policy Trends

- Ever larger scale (mandates, CEDA, GHG allowances).
- Government-led or directed, not market-driven.
 - Rowing rather than steering.
 - Technology-specific carve-outs (RFS, Title XVII).
 - Subsidizing fuel chain deficits rather than pricing them in.
- “Hopes and dreams” without the checks and balances.
- Inadequate attention to failure rates, economic and environmental impacts of scale-up.

New Energy Initiatives: Massive Scale, Poor Incentive Structure



FEDS AS LENDER OF FIRST RESORT?

EXISTING FEDERAL EXPERIENCE

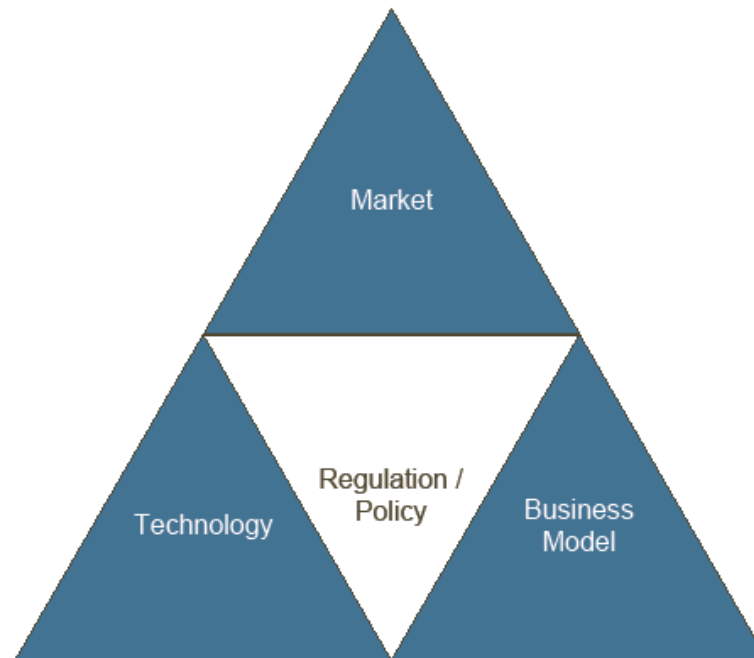
PRIVATE SECTOR FUNDING

NEW PUBLIC INITIATIVES

KEY: E&P = Energy and Power sector; E&I = Energy and industry sector; LG = loan guarantee; CEDA = Clean Energy Deployment Administration

Innosight LLC: Transformation is Much More than Technology Alone

Framework for transformation



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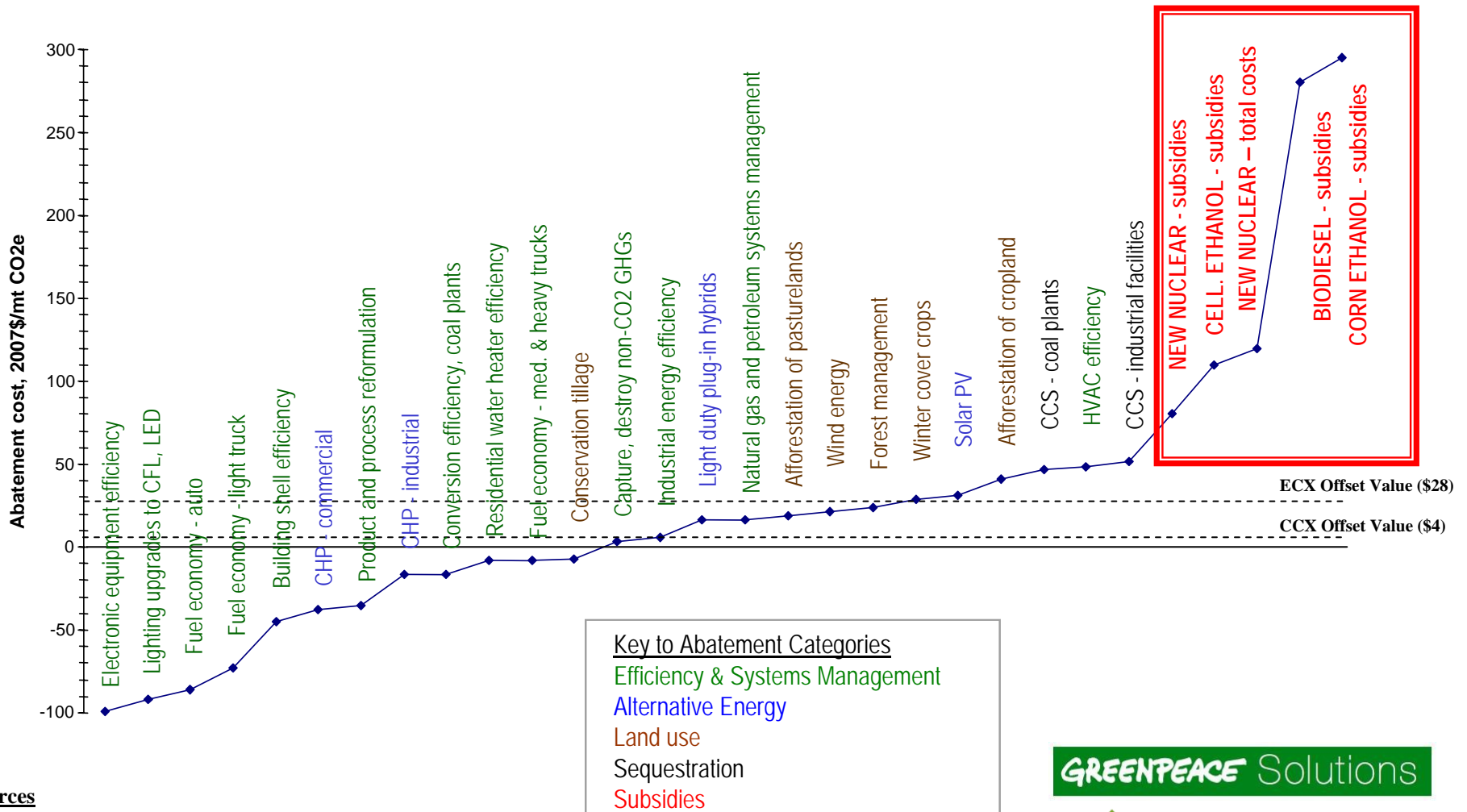
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Included courtesy of Mark Johnson, Innosight, LLC, www.innosight.com.

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Government-Led Solutions: Politics Often Directs Money in Highly Inefficient Directions



Sources

Abatement technologies: McKinsey & Company, mid-range case.

Offset prices: Average of contract values from CCX (2008-10) and ECX (2008-12).

Subsidy data: Earth Track, Inc.

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Program Design Elements Matter in Program Success or Failure (1)

<i>Allocation of resources</i>		
Higher Chance of Success	CEDA	Lower Chance of Success
Highlight price differentiation across energy solutions	Artificially low default premium driven by political objectives not actual risk. High adverse selection risk.	Masking price differentiation to support particular technologies
Many small investments	Bulk of funding will support small number of multi-billion dollar investments.	A few very large bets
Lower expected cost per unit impact	High technology risks make performance very uncertain.	Higher or very uncertain cost per unit impact
Larger share of risk borne by private sector	Up to 100% of debt cost (80% of total project) guaranteed by taxpayers. Attempts to accept in-kind (often self-valued) contributions as equity.	Financial risks borne by government
Public subsidies allocated competitively	Earmarked funding by technology under Title XVII; no forced diversification under some CEDA proposals. Allocation decisions opaque and non-public, made by government officials with no financial stake in project success.	Public subsidies earmarked to each potential solution
Subsidies earned based on enterprise performance	Public bears investment risk with limited upside. Subsidies contingent on project dollars spent, not project success.	Subsidies earned based on enterprise investment

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Program Design Elements Matter in Program Success or Failure (2)

Technology selection and oversight

Higher Chance of Success	CEDA	Lower Chance of Success
Apply incremental changes to existing systems	Technologies supported must be considered technically viable, and therefore more likely to be incremental changes.	Require multiple, large, structural transformations
Shorter, more certain time until deployment; rapid, decentralized scaleability	May be mixed, though larger scale technologies such as nuclear and coal with CCS are likely to face delays and long deployment times.	Longer, less certain time until deployment; slow scaleability
Solutions integrate better management, retrofits to existing capital base	CEDA supports only new capital. Impact on scrappage unclear, though defaults could create supply overhang in electricity markets once bankrupt plants enter production without capital recovery requirements.	Solutions require mostly new capital, accelerated scrappage
Solutions congruent with related big problems (e.g., climate change)	Some conflicts. Coal with CCS may have lower GHG emissions than prior coal plants, but still higher than renewables. Nuclear may reduce GHG concerns, though increase energy security worries in the proliferation area.	Solutions conflict with related big problems (e.g., coal-to-liquids)
Required skills can be procured, compensated in a flexible manner	CEDA governance structure, compensation system, and incentive alignment do not support obtaining the needed skills to properly oversee this venture.	Managing party (e.g., government) requires new skills at compensation rates not normally available

Program Design Elements Matter in Program Success or Failure (3)

<i>Performance measurement and mid-course corrections</i>		
Higher Chance of Success	CEDA	Lower Chance of Success
Metrics, management structure allow frequent comparisons, options to defund	Funding decisions are not reversible. No recourse to boost collections from borrowers either if initial assessments of credit default premiums prove to be inadequate.	Performance not (well) tracked; long intervals without ability to defund and redeploy resources
Potential negative effects of solution scaling properly vetted	Unclear at this stage. Some of the allowable technologies do generate significant ancillary problems as they scale.	Negative effects ignored or finessed (e.g., indirect land use in biofuels)

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