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## Carbon Markets and the US: An 800-pound Gorilla Flexes its Muscles

19 August, 2009



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# ACES aka Waxman-Markey

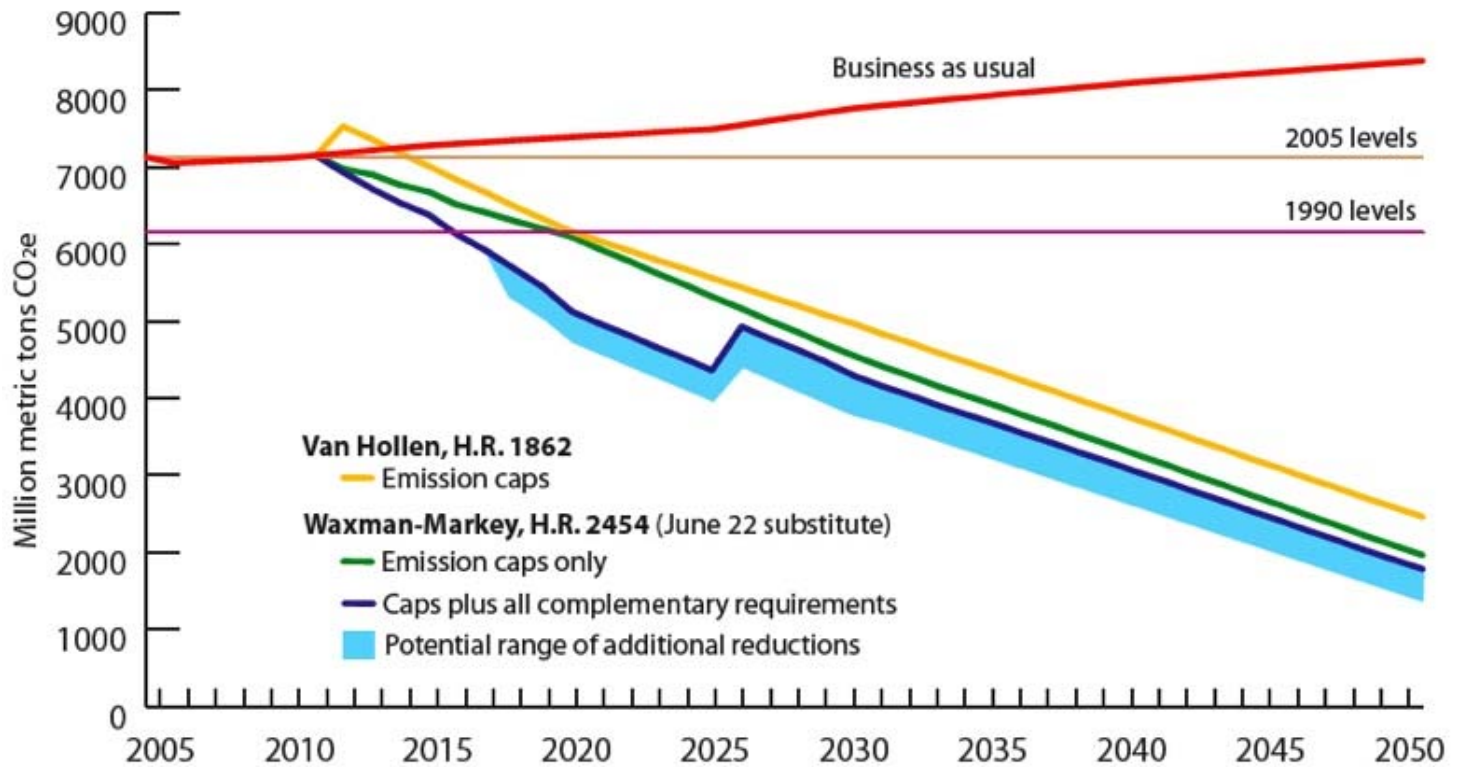
- 17% reduction from 2005 levels by 2020
- up to 83% below 2005 levels by 2050
- Covers the majority of sources (66% going to 85%)
- Agricultural and Forestry sectors are exempt from compliance
- 80% of allowances distributed free in early years
- Free allocation to phase out after 2025
- By 2031, 70% of allowances are auctioned



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# ACES aka Waxman-Markey

Emission Reductions Under Cap-and-Trade Proposals in the 111th Congress, 2005-2050  
June 25, 2009



WORLD RESOURCES INSTITUTE

For a full discussion of underlying methodology, assumptions and references, please see <http://www.wri.org/usclimatetargets>.



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# ACES aka Waxman-Markey

- Offsets: 2 billion allowed annually, split equally between domestic and international
- Offset use for compliance is limited at a percentage of total covered entity compliance obligation;
- Early action offset projects eligible to receive federally issued offsets for emissions reductions:
  - CAR (likely)
  - RGGI (likely)
  - VCS and/or ACR? (uncertain)
  - CCX? (uncertain)



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# ACES: Timing

- Federal legislative action this year (Waxman-Markey passed by House)
- Senate passage potentially mid-late '10
- Challenges, discussion and rule making over next 2-3 years
- OTC trading begins immediately
- Market in effect 2012-13
- CA and other high quality credits likely to be grandfathered



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# The Importance of Land-use

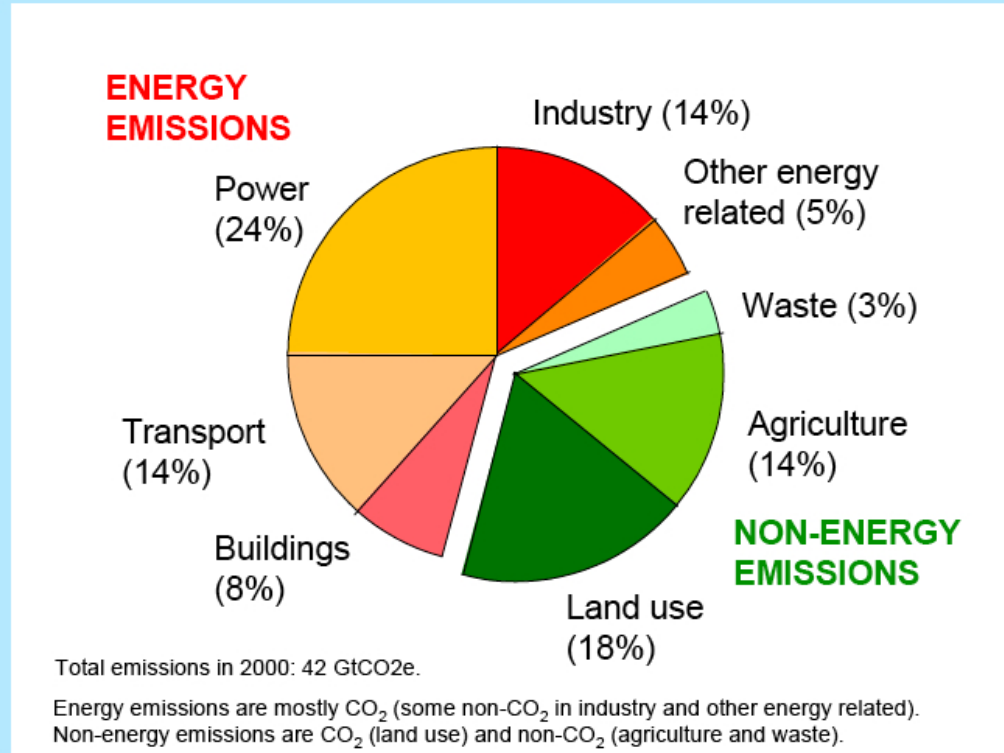
- Forests, agriculture and soil carbon offsets have historically been excluded from the carbon market
- Green carbon is now considered part of the solution:
  - International recognition that forestry and ag carbon make up 25-30% of global GHG problem (around 6-7% in the US)
  - Green carbon a major part of proposed federal carbon market and already a part of California's compliance market
  - Ag states and interests have a powerful voice in US - used it to shape the Waxman-Markey Bill, changing the politics of climate change



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# The Importance of Land-use

**Figure 1 Greenhouse-gas emissions in 2000, by source**



**Source:** Prepared by Stern Review, from data drawn from World Resources Institute Climate Analysis Indicators Tool (CAIT) on-line database version 3.0.



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# Role of Forests, Soil, Ag

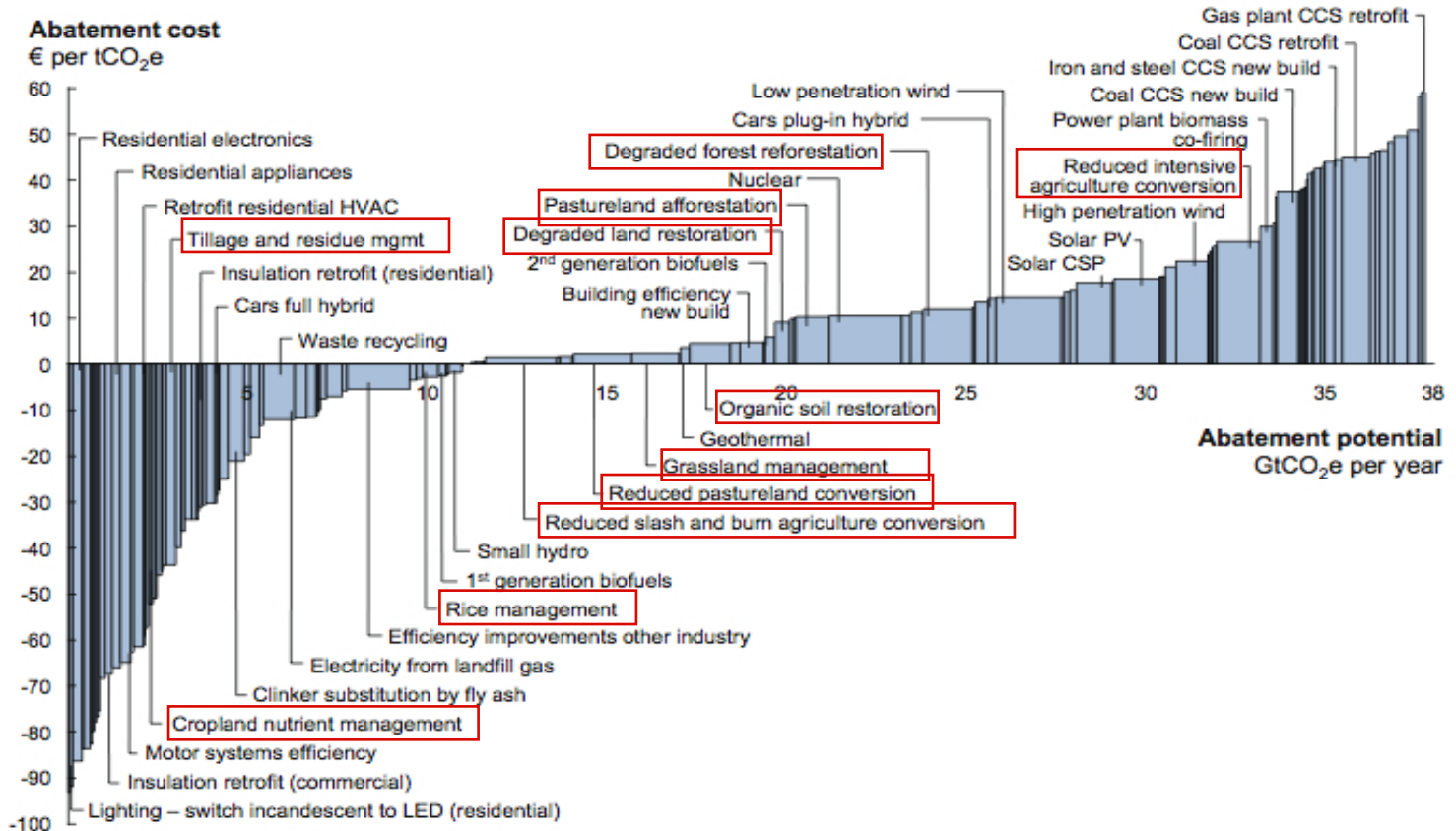
- Play a crucial role both as source of emissions and sinks (sequester emissions)
- Landowners and farmers are critical stakeholders in the political process
- As a sink, have a tremendous role to play in balancing carbon flows: Reducing emissions is not enough
- Need to reduce atmospheric concentrations of CO<sub>2</sub>
- Sinks are a key part of the solution to reverse build up of GHG's
- As part of a market based solution to climate change, green carbon tons are under-utilized



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# A Less Expensive Solution

## Global GHG abatement cost curve beyond business-as-usual – 2030



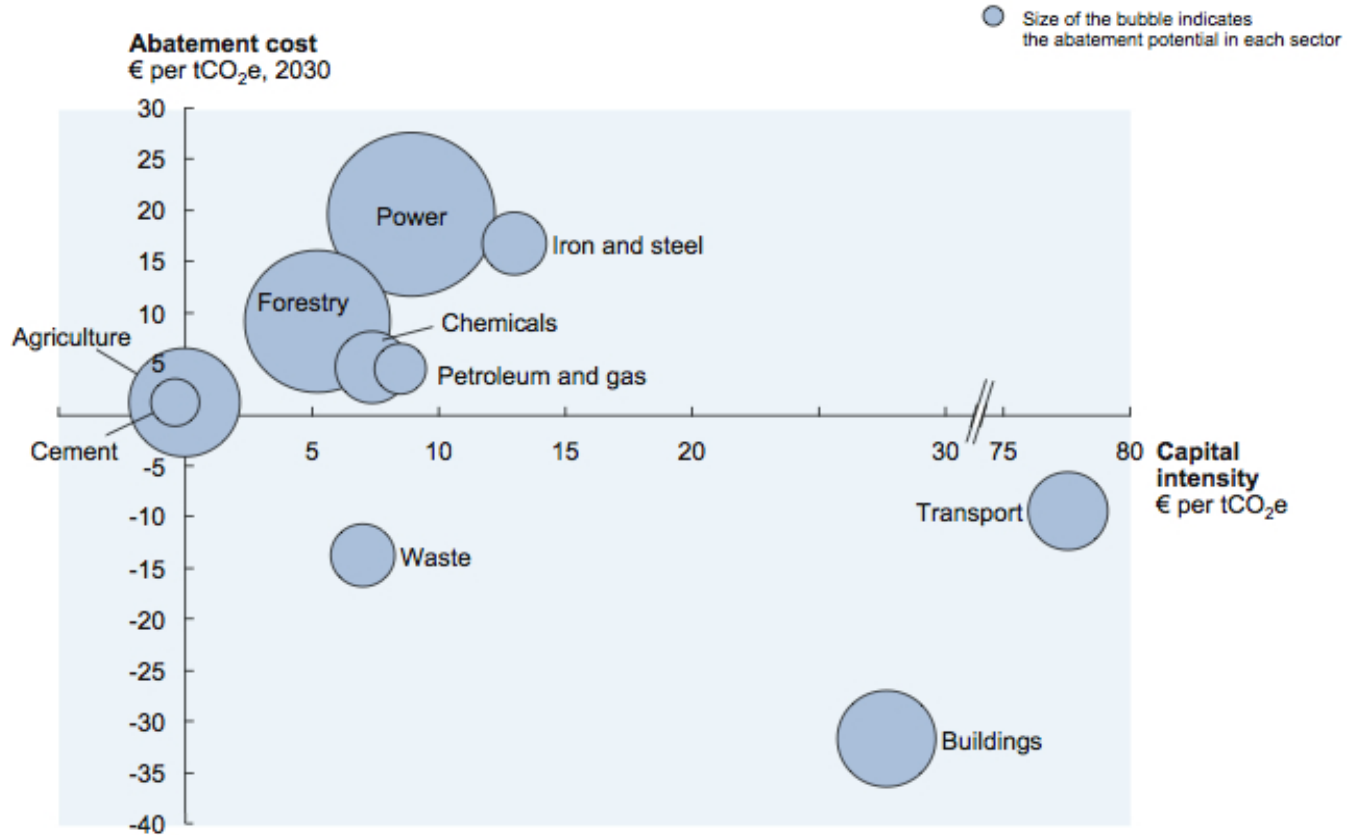
Note: The curve presents an estimate of the maximum potential of all technical GHG abatement measures below €60 per tCO<sub>2</sub>e if each lever was pursued aggressively. It is not a forecast of what role different abatement measures and technologies will play.  
Source: Global GHG Abatement Cost Curve v2.0



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# ... and less capital-intensive

## Capital intensity and abatement cost



Source: Global GHG Abatement Cost Curve v2.0



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# EU vs. US: very different markets

- US approach incorporates a domestic offset market, focused primarily on land;
- The only supply of offsets for the EU was CDM
- Project developers and offsets aggregators in the US need specific skills – reach to land owners, understanding of land-based mitigation and sequestration
- But project level Cost of Abatement will still drive profitability over long-term, as in EU