AEP's Perspective on Forestry Offsets

EPRI GHG Offsets Workshop

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Background

- As a large GHG emitter forestry offsets may provide AEP an opportunity to achieve quantifiable emission reduction at lower costs than internal options – although not as low cost as once perceived
- AEP views forestry offsets as tangible measures to address climate change
  - We have been one of the largest U.S. investors in forestry to date
- Forestry offsets are being used towards AEP's voluntary reduction goals

AEP's Experiences

- Large scale needed in order to be cost-effective relative to other offsets
  - TNC rule of thumb is that it must be scalable up to 10,000 acres
  - In U.S. land increasingly not available due to ethanol and other crop production
- AEP has scaled back new forestry investments in anticipation of design of mandatory rules and inability to find cost-effective domestic projects

AEP's Experiences

- Project developers need to view them as investments not philanthropy
  - Develop management plans
  - Identify and manage risk on an ongoing basis
  - Have resources necessary to monitor, produce reports on a timely basis, etc.
- More service providers will be needed to develop turnkey projects
  - Forestry generally not a core competency of investors
  - Lots of work and hidden costs in measuring, validation, paperwork, registration, etc.

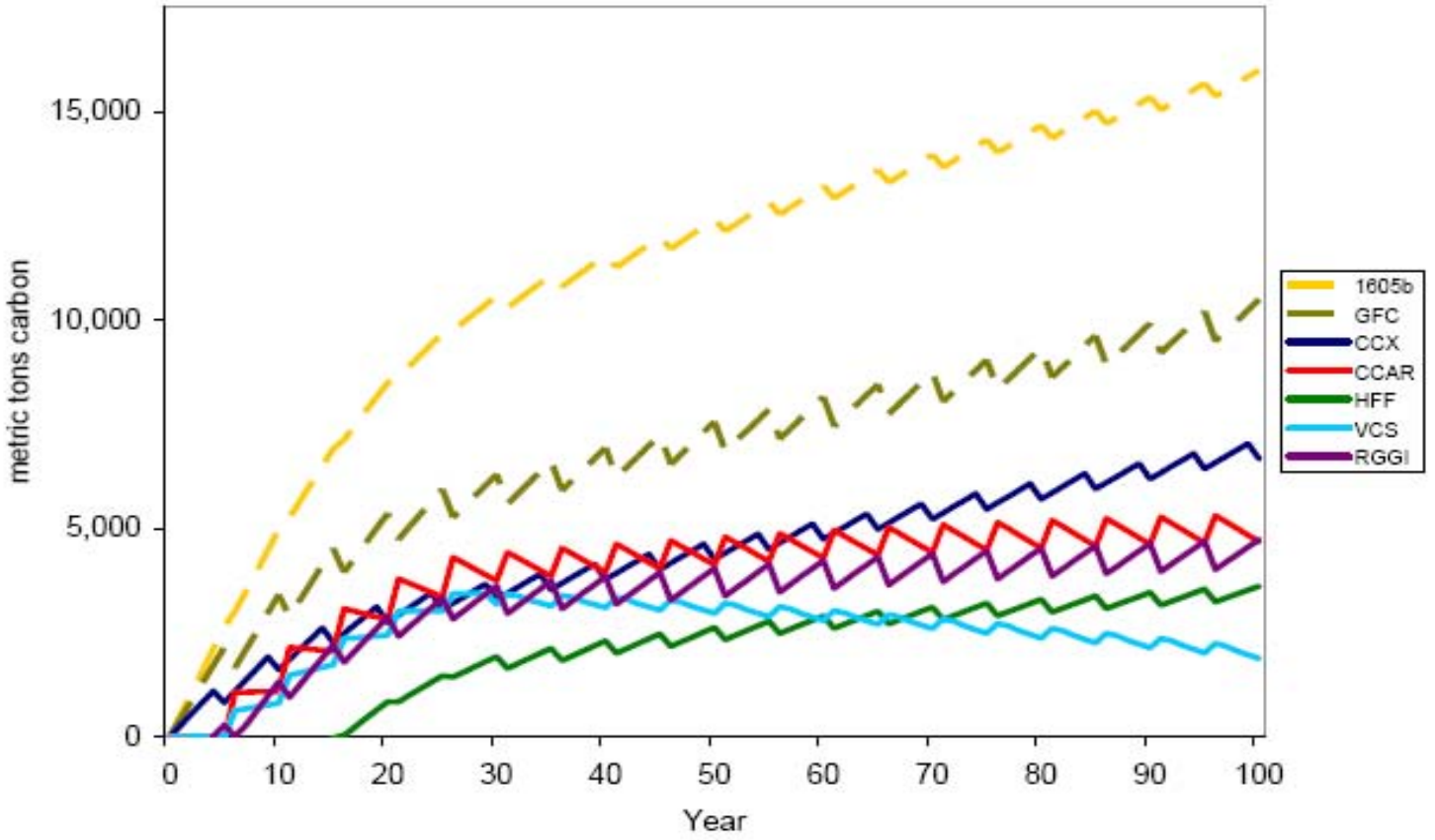
Addressing Permanence

- U.S. projects
  - Become part of National Wildlife Refuges or State Forests
  - Private property owners – binding lease agreements and seek traditional land “stewards”
  - Company lands – 15 year commitment to CCX
  - CCX 20% forest carbon reserve pool for catastrophic loss
- International projects
  - Bolivia – expansion of national park and enforcement of boundaries
  - Brazil – registered as nature preserve / environmental protection area, enforcement of boundaries

Addressing Leakage

- U.S. projects
  - Leakage not calculated
- International projects
  - Bolivia – leakage was calculated for logging (country-wide) and other land uses (within 15 km. buffer zone)
  - Brazil – will likely subtract 25% per the CCX protocol where no leakage calculation performed

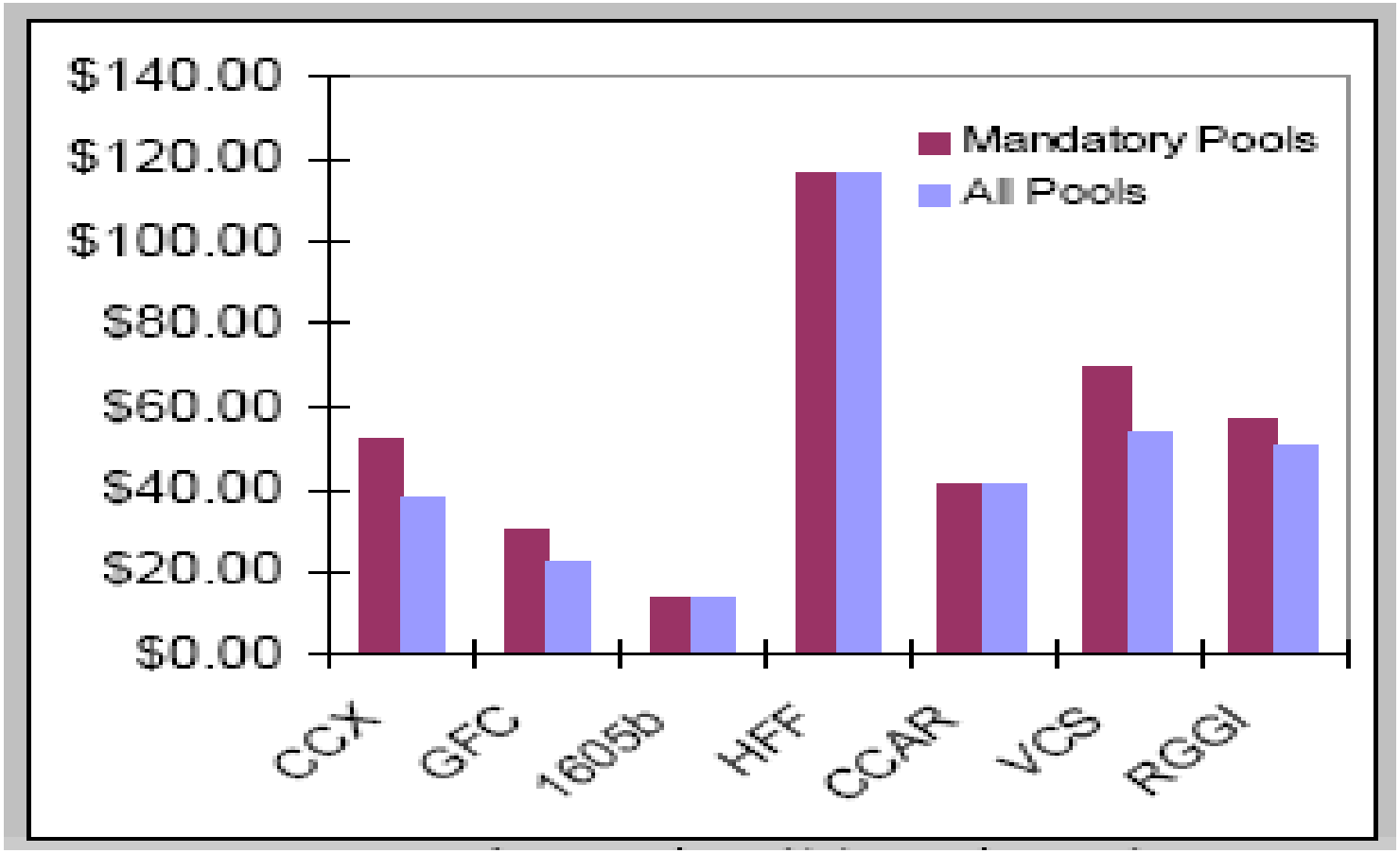
Sequestration Rates by Protocol



(b) All Pools

- Source: "A Critical Comparison and Virtual Field Test of Forest Management Carbon Offset Protocols, Duke Univ. Sept. 2008

Carbon Price Necessary to Match NPV of BAU



- Source: "A Critical Comparison and Virtual Field Test of Forest Management Carbon Offset Protocols, Duke Univ. Sept. 2008

Price of Carbon to Break Even

Lower Mississippi Valley Project Costs

No Standard	$28.50 / (tCO2e)
CCAR	$42.99
VCS	$45.26
RGGI	$48.15
CCX	$52.23
TNC	$71.66

Source: TNC

Closing Thoughts

- Need public policy that recognizes forestry in order to minimize impacts on energy costs
- Cost-effectiveness relative to other offsets will drive AEP's future decision-making on forestry investments
- Eliminating quantitative and geographic limitations will provide greater cost savings to our customers and to the U.S.
- Standards need to be credible but we need to find the balance between credibility and practicality – "The perfect is the enemy of the good."