

# Energy Policy in Response to our Climate/Security Situation

John Schnebly

Capital Region Energy Forum

June 8, 2009

# KEY POINTS OF THE WAXMAN-MARKEY BILL

- Set caps far greater than anything the European Union has done to date with Kyoto
- --17% below 2005 levels by 2020
- --25% below 2005 levels by 2025
- --83% below 2005 levels by 2050

- Intends to use cap-and trade to guide markets to de-link energy use from fossil fuel use
  - by setting a renewable energy standard for distribution utilities of 20% by 2020, starting with 6% in 2012 going to 25% by 2025
  - offers off-sets to renewables by allowing energy efficiency improvements to substitute for the renewable portfolio up to 20%

- Offers to protect the low income by allocating cap-and-trade allowances by 15% to pay their costs for switch-outs
- Provides incentives for other countries to limit their carbon by allowing our government to impose import fees on those not voluntarily in compliance by 2025

- Timing is the key. Nationwide utilities will have a 6% renewable portfolio by 2012 and this rises to 20% by 2020. Pegging this now is impossible due to ongoing debates in Congress as to specifics. By the time this legislation passes, all these numbers might be different.
- Definitions are key. Current compromises project “renewable” as including not only wind and solar but also landfill gas, coal bed methane, and certain waste-to-energy facilities.

- Nuclear is not included since its inclusion would not stimulate renewables. Forsee Europeans doing more nuclear first.
- Offers coal off-sets for carbon capture and sequestration.
- Provides significant incentives for “smart grid” technologies and directs Federal Energy Regulatory Commission to reform the transmission grid planning process

- Program proposes new building standards that would provide incentives for up to 20% of the renewable standards for utilities to be met by efficiency gains.
- Attempts to solve the cap problem by establishing a phase in with
  - 3% by 2012    17% by 2020
  - 42% by 2030    83% by 2050

- Claims that cap-and-trade works. Cites dramatic cuts in Sox from 1990s at 30% below projected costs.
- Starts giving away allowances to companies competing with imports from nations without caps.
- Consumers to get 60% of the value of the allowances. These are tax credits financed with cap and trade proceeds. In short this attempts to direct the flows of money to actual purchases of required switch-out products to create jobs and new industries.

- Promotional analysis by supporters claims consumers would receive ~ \$750 B by 2030 in direct and indirect payments to offset higher energy costs.
- 15% of allowances to be used by cement, steel, and glass industries to offset their competitive position against exporters without caps.

- 5% of allowances to go to preservation of tropical rainforests.
- 2% goes for technology transfer to schools, universities, and community colleges
- 2% goes for technology transfer to developing nations in Africa, Latin America, etc.
- 3% to the auto industry to ramp up plug-in hybrids and batteries

- 7% to states for efficiency programs and to revise building codes, as well as to municipal planning agencies to plan for more mass transit and related land use reform.
- 2% goes as incentives for carbon capture and storage.
- 5% goes for increased university R&D

- Problems.....

---World bank says an acre of rainforest converted to crops is worth about \$150 to \$250. If the value of carbon sequestration by forests is worth say \$10 per ton, then a standing acre is worth \$2000. Who is going to supervise the use of allowance cap money in such situations? This is still “undefined” ....

- Offsets allowing covered entities to increase their emissions over the initial 2 B tons of CO2 equivalents [methane is 25 times CO2 per ton] by both domestic and international offsets. Administration of these regulations could be a nightmare.
- Critics saying that if you liked ENRON, you will love this bill

- Establishes a ‘strategic reserve’ of allowances to cushion against rising prices. Proceeds of auctions to be used to purchase replenishment of such reserves. Specific regulations TBD....
- FERC to regulate and derivatives market to be made transparent and liquid with an ‘interagency working group’.

- If competitive forces place domestic manufacturers at a disadvantage, government would require imports to be priced to cover cost of allowances to 'cover' the cost of carbon contained in US bound products. One can imagine the gaming possible in such a regulatory environment.
- Directs USAID to provide US assistance to most vulnerable developing countries to adapt to climate change. Does not yet specify how this is to be done....

# Some Reference Facts

- US GDP is only 2/3 as dependent on oil now as in the 1970s. This legislation intends to further decouple our GDP from oil, making oil a option of choice rather than addiction.
- Domestic natural gas is now provides for 60% as much energy as oil.
- Only 2% of our NG is LNG and most is from Trinidad.
- LNG is only 7% of global energy, currently. A far greater percentage is envisioned by the current rate of tanker and facility development, globally.

- Proven global NG reserves are about 6000 quads. Methane hydrates just in US Arctic waters are about 220 quads. We currently use about 23 Trillion annually.
- Proven oil reserves of all OECD countries has fallen from 113 B barrels in the 80s to only 80 B barrels today. 2/3 of oil is in the Middle East and 3/4 of all oil is held by OPEC nations. Current global totals for oil are about one trillion barrels.
- Purchasing oil accounts for about 3-4.5% of disposable income, depending on prices. General agreement that market alone will not guide the transition from oil to alternatives, for all the reasons Rich Alben cited earlier.

- Mileage driven by American has risen from 10,500 miles per year in 1980 to 14,800 miles per year today. Only more efficient vehicles seem to have an impact on energy use in this area. Most efficient vehicles will be electric—not NG.
- 1 of 7 gallons consumed globally is burnt on American highways. US heavy trucks alone use more energy than all of Germany.

# CONCLUDING

- CREF has advocated everything this bill addresses.
- A relatively simple across the board gasoline taxation plan does not have the support required in Congress.
- Despite all the problems anyone can envision with the implementation of a cap-and-trade approach to climate change and energy insecurity, the national debate is now engaged.

- In the marketplaces, the massive investments are going to LNG tankers and facilities, battery development, retooling for plug-ins, cellulosic ethanol, a vast variety of new solar options.
- This legislation does have the potential to direct investments into what CREF has advocated.
- The amounts of money to be invested may well off-set the massive paperwork burden of compliance to all the new regulations.

# FINAL WORD

- THE VERY ACT OF ATTEMPTING TO FASHION AND PASS SUCH LEGISLATION SHOULD SIGNAL ALL MARKET PLAYERS THAT THE DIRECTION THE US IS GOING IS TOWARDS:
- A SMARTER, BETTER GRID
- NEW PRICING FOR ELECTRICITY FAVORING OFF-PEAK
- ELECTRIC STORAGE BY BATTERIES LEADING TO AN ELECTRIFICATION OF OUR ENTIRE ENERGY SYSTEMS.
- A FOCUS ON THE POTENTIAL OF RENEWABLES AND EFFICIENCY OVER NUCLEAR POWER.

# Q & A DISCUSSION