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Topics

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 - b. Mandatory GHG Reporting Rule
 - c. Executive Order 13514
 - d. EPA Endangerment Finding & enforcement options
 - e. SEC GHG disclosure guidance
- II. Legislation
 - a. Leadership at the state & regional levels
 - b. Recovery Act
 - c. House climate bill (ACES)
 - d. Senate climate bill(s)
- III. Litigation
 - a. Public nuisance cases
 - b. Greenwashing cases
- IV. Disclosure & Certification Systems
 - a. Voluntary GHG disclosure programs
 - b. Voluntary certification programs

I. Agency Action

New Fuel Economy Standards (5/18/09)

- Begins in model year 2012
- Will increase fleet average standards by one-third by 2016 (to 35.5 mpg), saving:
 - 1.8 B barrels of oil
 - − ~1 B metric tons GHGs (equivalent to removing 177 M cars from the road)

EPA Mandatory GHG Reporting Rule (9/29/09)

- Covers "facilities" that emit $\geq 25,000$ Mtons CO2e /yr
 - power plants, petroleum refiners, coal mines, automakers, manufacturers, and large feedlots (85% of all emissions)
 - report emissions by "source category" (Oil Refinery eg: stationary combustion, production process, fugitive emissions, landfill, and wastewater emissions)
- Covers big six GHGs, plus certain fluorinated compounds
- Does not preempt state-level reporting requirements
- First annual report due Mar. 2011 (for 2010 calendar yr)

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EPA Mandatory GHG Reporting Rule (cont.)

GASSES TO BE REPORTED;	
GLOBAL WARMING POTENTIAL	
GHG (1 metric ton)	CO2 eq. (metric tons)
Carbon dioxide	1
Methane	21
N_2O	310
NF_3	17,200
SF_6	23,900
HFCs	12 - 11,700
PFCs & Other Trace GHGs	11 - 17,340

Exec. Order 13514 on Federal Sustainability (10/5/09)

- Required all 35 Federal agencies to evaluate ability to reduce their GHG pollution
- Lead to aggregate goal of 28% reduction by 2020 (vs. 2008 baseline) announced 1/29/10
 - Office of Management and Budget will validate and score each agency's sustainability plan
 - annual progress will be measured and reported online to the public.

EPA Endangerment Finding (12/7/09)

- "The Administrator finds that six greenhouse gases . . . endanger both the public health and the public welfare of current and future generations."
- Precipitated by Supreme Court ruling in *Massachusetts v. EPA*, 549 U.S. 497 (2007)
- Covers new motor vehicles and vehicle engines under CAA § 202(a) (42 U.S.C. § 7521)

Other possible EPA regulation under Clean Air Act:

- Command-and-control regulation over point sources
 - Power plants and other stationary sources. See, e.g., 42
 U.S.C. § 7411 et seq.
 - new source review, best available technology, performance standards
- More costly than new legislation b/c EPA cannot:
 - control price spikes, imports, or int'l competition issues
 - give incentives or rebates
 - promote innovation or clean-tech (eg, CCS for coal plants)
 - regulate commercial / residential
 - allow carbon offsets or allowance trading

SEC Issues GHG Disclosure Guidance (1/27/10)

- Requested by investors managing over \$1 T in assets
- Publicly traded companies should weigh the materiality and consider disclosing the impact of:
 - pending climate legislation and regulation;
 - international accords;
 - indirect consequences of legal, technological, political, and scientific developments regarding climate change (*e.g.*, lower demand for goods that produce greenhouse gases); and
 - physical impacts (e.g., increased insurance claims).
- This guidance creates "the first economy-wide climate risk disclosure requirement in the world." Ceres

II. Legislation

So far, the States have lead:

- 46 states offer tax incentives for renewable energy
- 33 states offer loan financing for RE & EE
- 29 states have Renewable Portfolio Standards
- 24+ states have joined regional Cap & Trade initiatives
- 22 states offer rebates for solar PV & hot water
- 19 states have efficiency standards for energy transmission, generation, and use
- 14 states have adopted CA's vehicle emission standards
- MN Conservation Improvement Programs (1.5% per yr)
- All new MN state-funded buildings zero-energy by 2030

American Recovery & Reinvestment Act (2/17/09)

- "The largest energy bill ever passed" The New York Times
- Over \$70 billion towards
 - tax incentives for wind, biomass, geothermal, solar, etc.
 - clean-energy manufacturing facilities
 - green buildings
 - home weatherization
 - public transit
 - high-speed rail
 - plug-in hybrid cars
 - advanced battery research
 - smart grid technology

American Clean Energy and Security Act (ACES)

- Passed by House of Reps. (6/26/09)
- Four titles:

Title I — Clean Energy

Title II – Energy Efficiency

Title III - Reducing Global Warming Pollution

Title IV – Transitioning to a Clean Energy Economy

- international competitiveness

<u>Title I and Title II – Clean Energy & Energy Efficiency</u>

- National RPS (Renewable Portfolio Standard)
- National RFS (Renewable Fuel Standard)
- Tax breaks
 - solar, bio-fuels, home efficiency, transit, passenger rail
- Govt. research funding
 - advanced batteries, electric vehicles, cellulosic ethanol, CCS, etc.
 - Feb. 2009 stimulus (\$78B for green economy, incl. \$10B+ for smart grid)
- Efficiency standards
 - cars, trucks, appliances, light bulbs, new bldg. construction

<u>Title III – Reducing Global Warming Pollution</u>

- adds two new titles to the Clean Air Act
 - Title VII Global Warming Pollution Reduction Program
 - Cap and Trade

Title VIII – Additional Greenhouse Gas Standards

- Separate cap for HFCs; regulation of Black Carbon
- Regulation of carbon market, new regulation of Energy Commodities market
- Excludes GHGs from most existing CAA provisions
 - but limited regulation for entities not covered by Cap

Cap & Trade System

- Puts a cap (limits) on U.S. emissions
 - -but unlike a carbon tax, does not dictate cost
- Covered entities must have tradable federal permits ("allowances") for each ton of GHG pollution emitted into the atmosphere
 - or purchase approved "offset credits"
 - or pay penalty (2x cost of missing allowances)

• Existing Cap & Trade programs:



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- 1) Entities Covered, Timing
- 2) Reporting Requirements
- 3) Allowance Costs
- 4) Cap Size
- 5) Allowance Distribution
- 6) Trading
- 7) Offset Credits
- 8) Linkage and the International System
- 9) Imports and International Competition

- 1) Entities Covered, Timing
- Electricity Sources (starting in 2012)
- Fuel Producers and Importers (2012)
- Industrial Stationary Sources (2014)
 - Petroleum refining, ammonia manufacturing
 - Food processing, ethanol production $\geq 25,000$ tons CO2e
- Fossil Fuel-Fired Combustion Devices (2014)
 - Boiler devices ≥ 25,000 tons CO2e
- Natural Gas Local Distribution Companies (2016)
- No feedlots or trucking fleets

- 2) Reporting Requirements
- Covered entities, plus others as decided by EPA
 - May include vehicle fleets $\geq 25,000$ Mton CO2e
- Quarterly report of:
 - 1) GHG emissions
 - 2) Volume of fuel produced / imported (ethanol? Not clear)
 - 3) Verification data
- Report must be certified under oath
- EPA will publish on the Internet
- EPA will audit; can substitute high-end estimate

- 3) Allowance Costs (ie, Direct Costs)
- Free if allocated to you
 - otherwise price set by market / auction
- Price will rise over time
 - EPA core-scenario est.: \$13-17 (2015), \$17-22 (2020)
 - Floor price of \$10 in 2012, inflating at CPI + 5%
- Cost-containment mechanisms
 - Banking provisions
 - Borrowing provisions
 - Strategic Reserves (sold if price rises too fast)

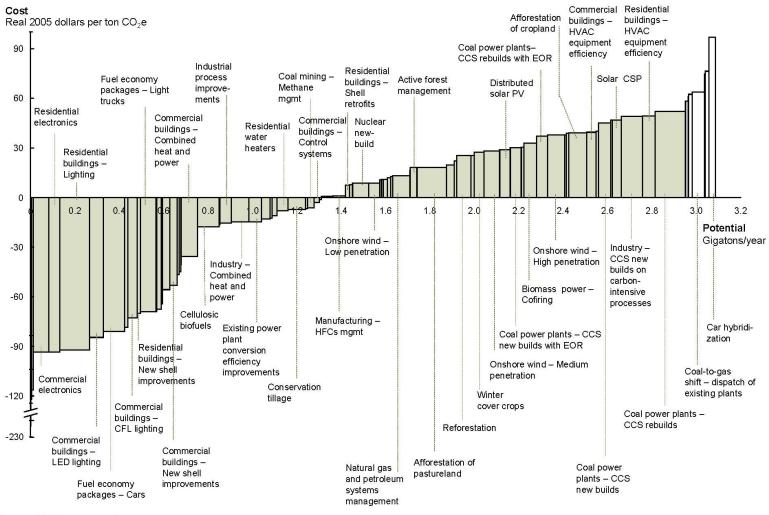
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Exhibit 11

U.S. MID-RANGE ABATEMENT CURVE - 2030





Source: McKinsey analysis

Copenhagen Accord (12/18/09)

- 110 countries on board (80% of world's emissions)
- Sets goal to limit warming to 2 C (3.6 F)
- Mitigation by 2020:
 - Developed countries pledged 5.0 GTs: Russia 15%, Japan 25%, EU 30% reduction in pollution (1990 base); US and Canada 17% (2005 base)
 - Developing countries pledged 9.2 GTs: China 40% and India 20% reduction in carbon intensity 2020 from 2005
 - Gap of 5 GTs to reach target (on track for 3 C, vs. 4.8 by 2100 (BAU))
- Adaptation by 2020:
 - developed countries to ramp up contributions to \$100 B per yr., starting with \$30 B by 2012
- Criticism

- What about the Senate?
- Clean Energy Jobs and American Power Act (CEJAPA)
- Cantwell-Collins CLEAR Act
- Kerry-Graham-Lieberman bill
- Others

III. Litigation

Harm from GHG Pollution

- Connecticut v. Am. Elec. Power Co. (2nd Cir., Sept. 21, 2009)
 - Held: States and private plaintiffs may sue utility operators under the federal common law of nuisance to abate GHG emissions that contribute to global warming
- Comer v. Murphy Oil USA (5th Cir., Oct. 16, 2009)
 - Held: Pls have standing to claim public nuisance, private nuisance, trespass, and negligence
 - Circuit has agreed to review en banc
- Kivalina v. Exxon Mobil Corp. (N.D. Cal. Sept. 30, 2009)
 - Held: public nuisance claim a non-justiciable political question, so dismissed for lack of jurisdiction

III. Litigation (cont.)

Greenwashing cases

- FTC brought seven cases in 2009, incl. against:
 - Kmart, Tender Corp., and Dyna-E for "biodegradable" paper products
 - several sellers of "eco-friendly bamboo" clothing made from rayon
- Private class-action claims against:
 - S.C. Johnson & Son's "Greenlist" TM (e.g., Windex)
 - Procter & Gamble Co. re green cleaning claims
 - Fiji water re: green water drop on packaging
 - American Honda Motor Co. re fuel efficiency

IV. Disclosure & Certification

Voluntary GHG Disclosure Programs

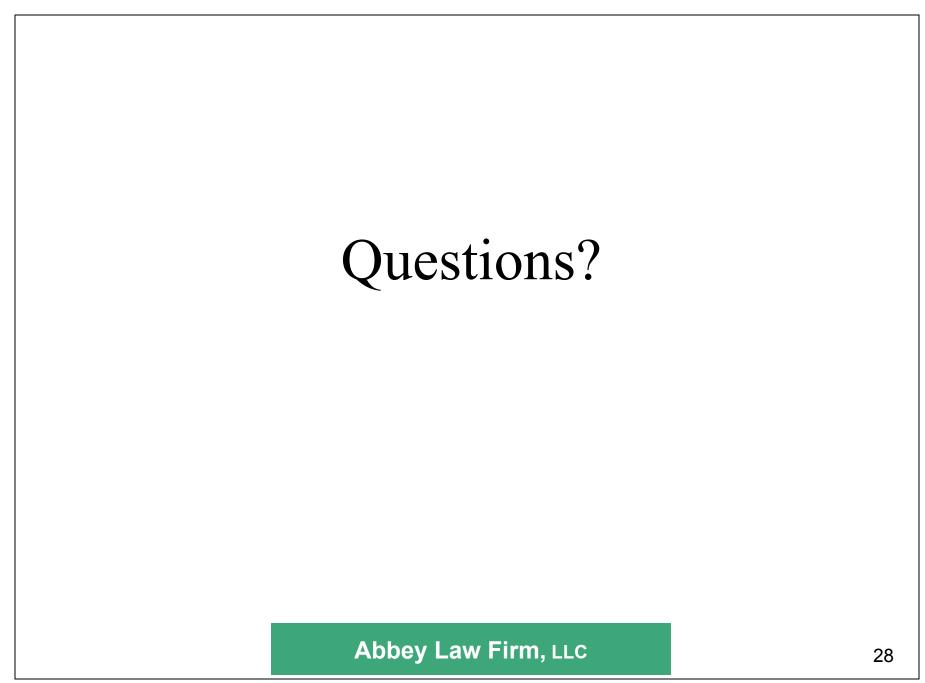
- The Carbon Disclosure Project
- The Climate Registry
- 27% of the Russell 1,000 disclose GHG pollution
 - 16% have corporate policies re climate change
- Wal-Mart Sustainability Index
 - 1) Supplier survey & assessment
 - 2) Sustainability Consortium
 - 3) Product labeling
- Carbon neutrality announcements:
 - Swiss RE (2005), HSBC (2005), ING Group (2007), PepsiCo (2007), Google (2007), Dell (2008)

IV. Disclosure & Certification (cont.)

Voluntary Certification Programs



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