

Climate Change Regulation: **Risks, Opportunities and** **Mitigation Strategies**

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Introduction

- Overview
 - I. House Cap & Trade Bill - ACES
 - II. Senate Bill Direction & Issues
 - III. Compliance Timelines
 - IV. Cost-mitigation Strategies and Timelines

- Key Points
 - CO2 Regulation is Imminent -- Several Drivers (Legis; EPA Rules; State Programs; Litigation)
 - Impacts will be felt in all sectors of economy
 - Market-driven CO2 programs present financial risks *and* opportunities
 - Early Risk Assessment Needed for Cost Mitigation

ACES Act – Cap and Trade

Cap & Trade Mechanism:

- CO₂e levels capped at 2005 levels [2005 = 7.2 BM tons] – a diminishing number of “allowances” are granted or auctioned each year.
- emission allowances can be sold if source has unused allowances.

Cap & Trade Goals:

2012-	emissions 3% below the 2005 baseline
2020-	20% < 2005
2030-	42% < 2005
2050-	83% < 2005

Scope: ACES covers approx. 85% of US economy's GHG emissions.

“Covered Entities” which must obtain allowances equal to annual CO₂e emissions:

- coal, oil, natural gas fired power plants
- liquid fuel importers and producers
- natural gas distribution companies. (to extent their customers not covered)
- large/categorical stationary sources (aluminum; cement; refineries)
- Large manufacturer emissions - if emit > 25KTp/yr.
- other sources > 25KTp/yr.

ACES Obligations

Obligations of Covered Entities:

- Base Oblig.: Deliver to EPA - 1 allowance per MT CO₂e emitted in prior year
 - E.g., Liquid fuel suppliers must deliver to EPA on 4/1/2013 allowances equal to the tons of CO₂e emitted from US-delivered fuels in calendar 2012.
- PHASE-IN of Allowance Obligation - 2012-2016
 - Mfgs to surrender allowances 4/1/2015 equal to CO₂ emitted in 2014
 - Nat Gas LDCs and NGL fractionators – 4/1/2017 for 2016 emissions
- Allowance Banking / Borrowing among past/future years
 - prior and next yr. allowances – 100% usable (2 yr “rolling” compliance goals)
 - future 5 yrs. – 8% “interest” due at delivery
- Non-Compliance Penalty: 2x market value of shortfall
- Reporting/GHG Registry
 - quarterly reporting to calculate annual allowance obligation – data to be publicly available

- **“Free” and Auctioned allowances:**
 - 80% of annual allowances “granted” until 2025
 - After 2031 EPA will auction 70% of allowances
- **Primary Purpose – Subsidy to Customers of Covered Entities**
 - **ELECTRICITY SECTOR:** granted 35% of annual Allowances, phases out 2026-30
 - Allowances allocated viz. 2006 – 2008 CO2e emissions
 - To be rebated to ratepayers through LDCs
 - **NATURAL GAS LDCs:** 9% of Allowances - rebated through LDCs
 - **OIL REFINERS:** 2% of all allowances
- **Secondary Purpose – Subsidy to New Technology**
 - **AUTO COMPANIES** for Electric Vehicles: 3%
 - **STATES** granted allowances
 - For Consumers of Home Heating Oil and Propane: 1.5%
 - For Renewable Energy and Energy Efficiency: 10%
 - **GOVERNMENT Technology Subsidies**
 - Carbon Capture and Sequestration: 2% of all allowances, 2014-2017
 - Clean Energy Innovation Centers: 1%
 - **FOREIGN AID**
 - Preventing Deforestation: 5%, 2012-2025, up to 10% in later years
 - Clean Technology Transfer: 2%, 2012-2021

Oil & Gas Industry under ACES

- **Upstream:** E&P emissions not capped
 - BUT: EPA is directed to adopt NSPS standards for uncapped sources within 3 years of ACES enactment.
- **Midstream:**
 - Nat gas liquids – producers covered at fractionation – 2016
 - Processing Plants - if boilers/compressors emit >25k tpy of CO2.
 - Pipelines covered if compressors combust fossil fuel >25tpy .
NOTE: combustor phase-in = 2014
NOTE: multiple combustor units' CO2 aggregated if units "Contiguous" and under "Common Control"
- **Refiners:** Phase-in 2016
 - Refiners must hold/surrender allowances for CO2 value of liquid fuels produced/imported (not include non-emissive feed stocks).
- **Nat Gas - Local Distribution Companies**
 - if deliver >460MM cu. ft./year
 - Surrender allowances equal to CO2 value of "gas delivered"
 - But - LDC emissions include "fugitives" [see sec. 722(b)(10)]
 - But See – EPA Reporting Rule deferral & Kerry-Boxer **exclusion** of LDC fugitives obligation and deferral of NSPS for offset projects

ACES - *International Competitiveness*

- “Leakage” Rebates and Tariffs - a major C&T problem is the potential movement of jobs/emissions to non-Capped countries due to price/cost advantage.
- ACES grants rebates (i.e., extra allowances) to Energy Intensive and Trade Exposed (EITE) “vulnerable” industries to offset a portion of compliance costs.
 - “Vulnerable” industry rebates issued per ratio of energy-intensivity and import exposure.
 - e.g., cement/steel – but NOT U.S. Refining
- Rebates Phase-out - 10%/year after 2020 - reduced as other countries adopt Cap & Trade or equivalent controls.
- Tariffs: ACES requires President to enforce tariffs after 2020 on imports from countries lacking enforceable CO2 limits.

Alternatives to CO2 Emission Reductions:

Carbon Credit Markets

Purchase Excess & Govt.-Auctioned Allowances

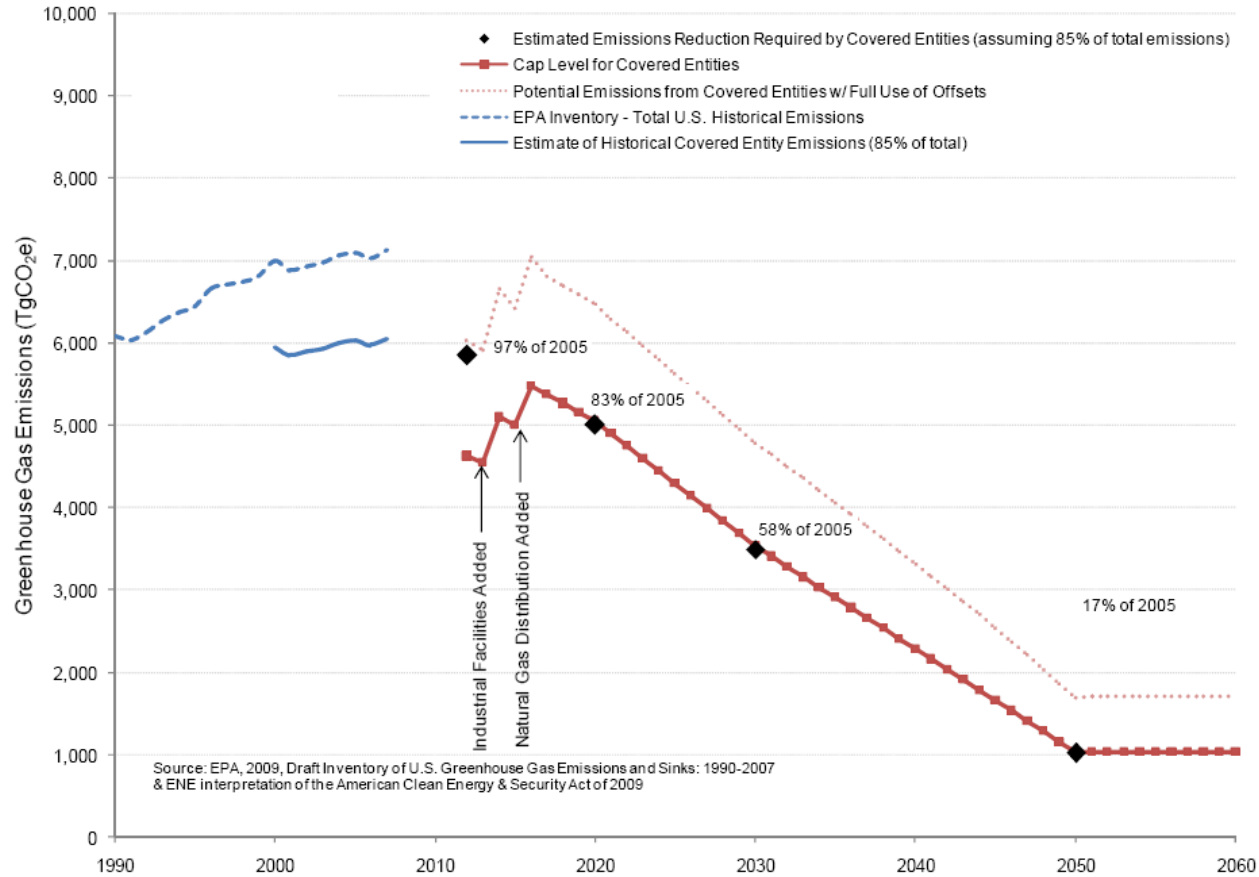
- Purchase excess US Allowances: 2012 price estimate: \$14/ton; \$28 @ 2025
- Purchase *International Allowances* – if issued from US-approved CO2 cap program
- Strategic Reserve: Covered Entity may purchase 10% of emissions at US auction

Purchase or generate Carbon “Offsets” to substitute for Allowances:

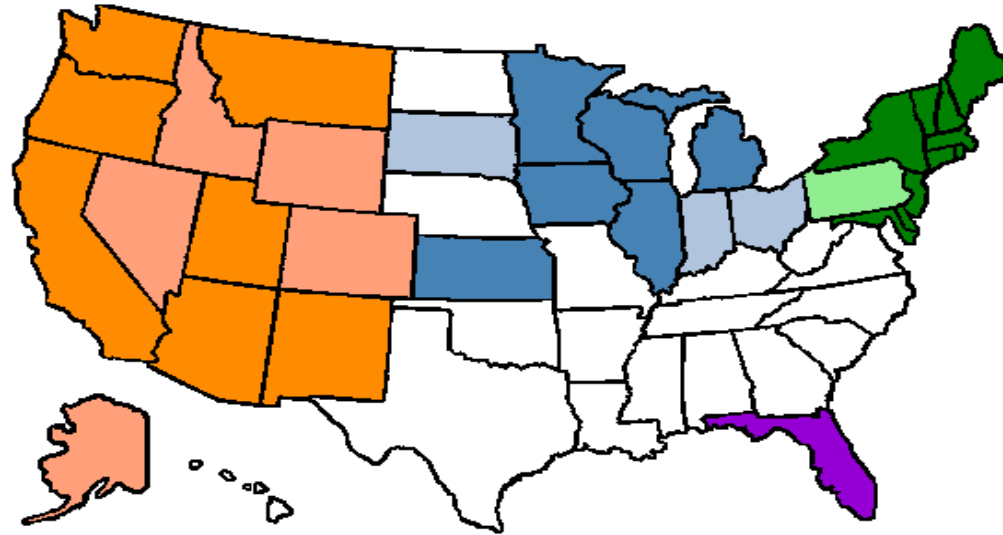
- Approx. 30% of 2012 obligations (2BB tpy) may be satisfied by offsets
 - % of allowed offsets will increase as cap limits decrease
 - Equal volume of Domestic/Int'l offsets allowed
 - 1.25/1 tonnage premium for both Domestic and International offsets
- **Offsets Projects** (CO2 reductions) must be: real, enforceable, additional and permanent.
- **Domestic Offset Projects** – Reduce Non-capped CO2e sources (e.g., Ag/Forestry, landfill gas, bio-methane, un-capped fugitives)
- **Non-US Offsets** – offset approval program must be equivalent to U.S. programs
- **International v. Domestic Project Risk Tradeoffs:** Supply, Cost & Transparency
 - Accreditation: including delays in UN, host country approvals
 - Performance: especially “permanence”
 - Political Risk: repatriation; loss of additionality
 - Contract/Counter-party risks

ACES – Reductions & Offsets

Figure 1: ACES Act GHG Cap and Offsets in Relation to Historic Emissions



Regional & State Cap & Trade Programs



- Regional Greenhouse Gas Initiative RGGI
- RGGI Observer
- Midwest GHG Reduction Accord
- MGGRA Observer
- Western Climate Initiative
- Western Climate Initiative Observer
- Individual State Cap-and-Trade Program

Source: http://www.pewclimate.org/what_s_being_done/in_the_states/regional_initiatives.cfm

State & Regional Cap & Trade Programs

- 20 states have or are developing C&T programs
- 3 Regional Programs
 - RGGI (CT, DE, ME, MD, MA, VH, NJ, NY, RI)
 - WCI (AZ, CA, NM, OR, WA. Manitoba/BC) –
 - MGGRA (IL, IA, KS, MI, MN, WI. Manitoba)
- Key Issue - Integration and coordination with federal program
 - GHG Reporting Triggers – some at 10K TPY, others at 100k TPY
 - Reporting Frequency – ACES 1/4ly, GHGRR 1/yr
 - Covered Entities/Sectors – RGGI = utilities, CA = “100% of economy”
 - Offset/Allowance Trading – ACES to exchange for pre-ACES allowances
- Federal Preemption – State Cap & Trade Preempted by ACES from 2012-2017
 - “Cap” means programs enforcing a CO₂e tonnage limit
 - No preemption of state inventory or reporting obligations

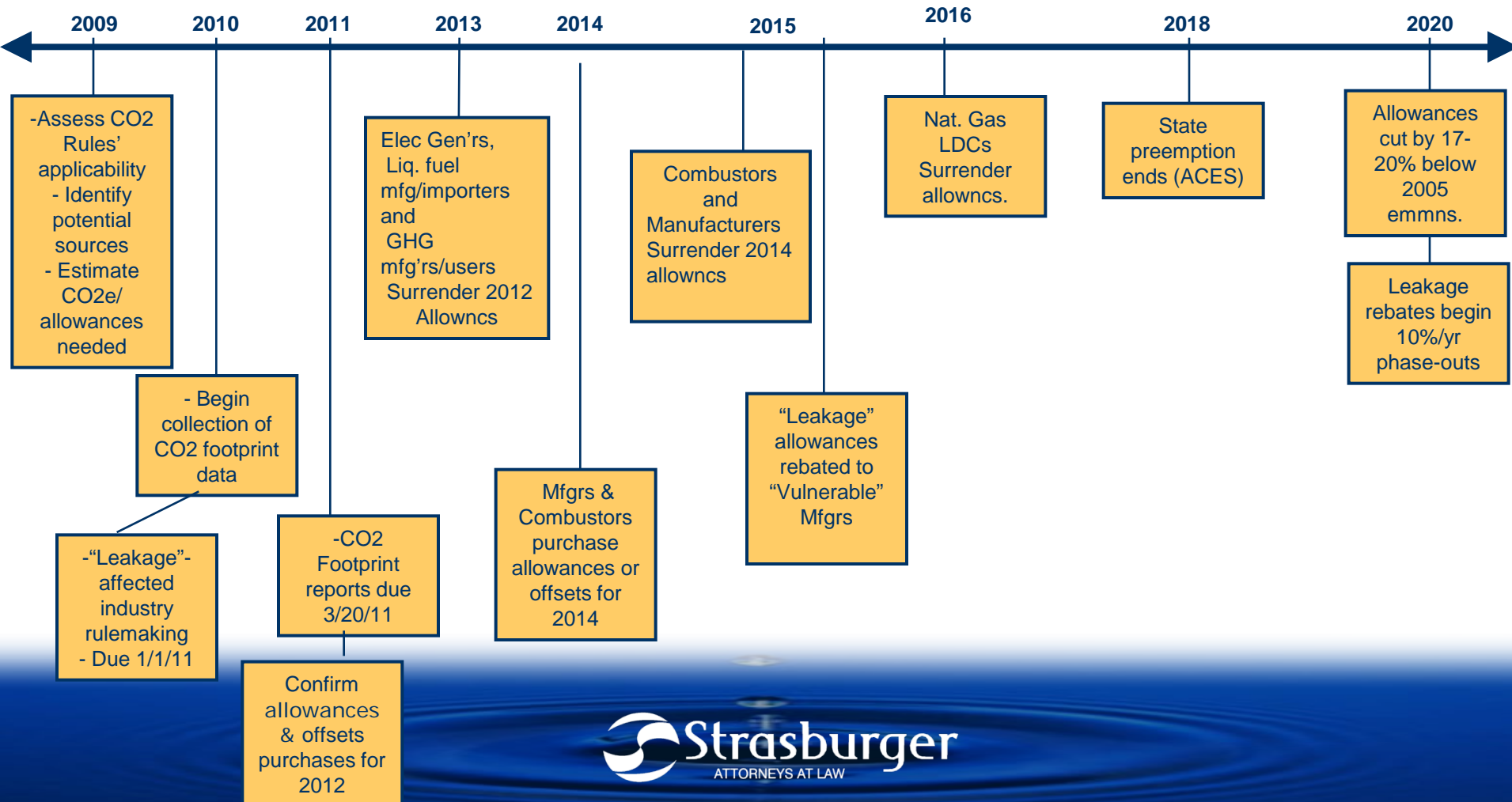
Senate Climate Bill - Issues & Prospects

- More Stringent than ACES:
 - 2020 goal is 20% reduction, from 17% in ACES
 - 25% of allowances assigned to fund deficit reduction – may reduce “free” allowances
 - But – EPA air rules deferred to increase scope of domestic offsets.
- CAA Preemption – States preempted through 2017
 - 10 year preemption of EPA rules for non-capped CO2 sources to “preserve” domestic offsets.
 - But State rules for non-capped sources not preempted!
 - EPA existing authority not preempted, as in ACES (SIP, NAAQS, PSD)
- “Price Collar” – 28\$/ton price-ceiling triggers auction of reserve allowances:
 - Reduces “real” reductions - paper allowances dilute market price.
- International offsets limited to .5 B tpy of the 2B tpy allowed (.75 can be added if US shortage)
- “Border Adjustment” – tariff program NOT mandated – “Sense of the Senate” that a WTO compliant border measure will be included.

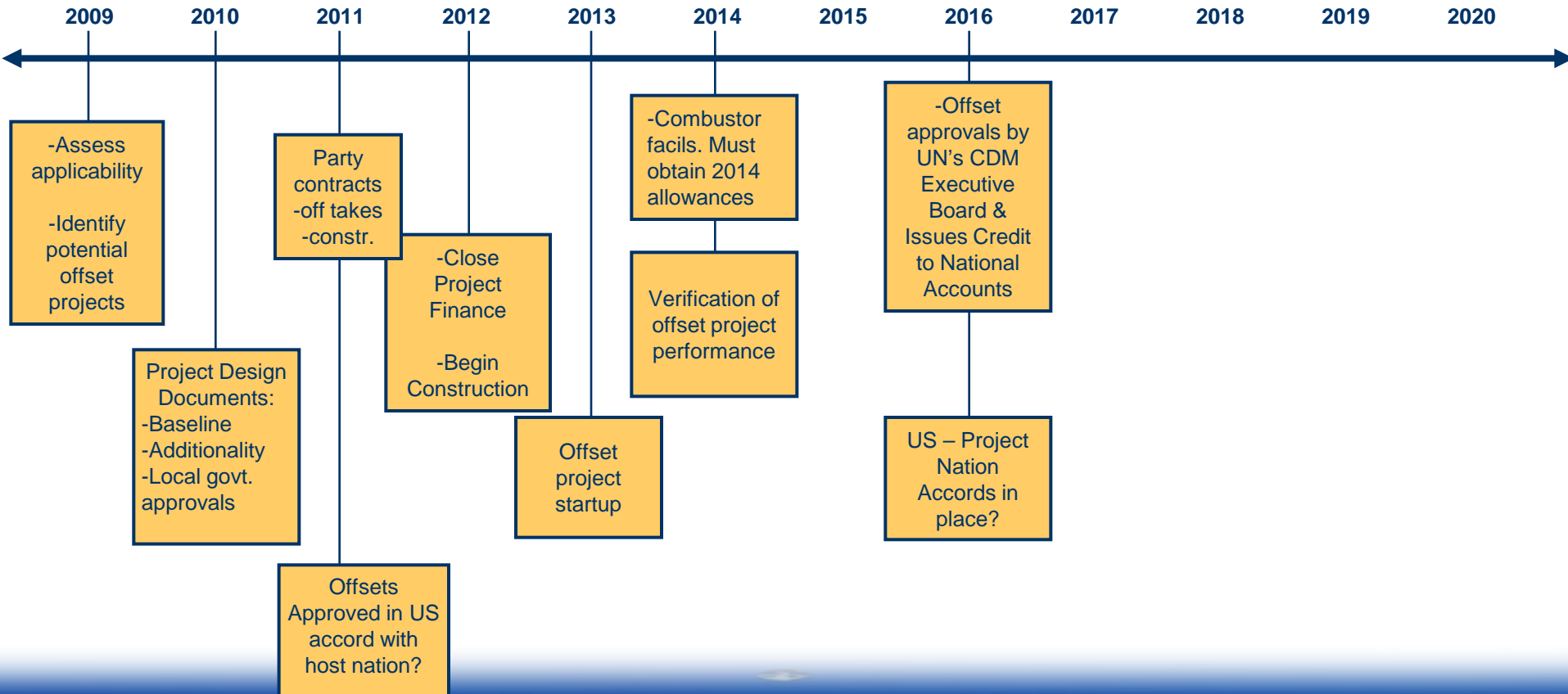
Senate Climate Bill - Issues & Prospects

- Likely Passage? – Many Drivers Supporting Passage:
 - Federal Tort Litigation – “CO2 Public Nuisance” claims now recognized by 2d. and 5th Fed. Cir. Ct. Appeals (cf. Cal. Dist. Ct.)
 - EPA CAA-based Rules Stepping In - Until Congress Preempts
 - “CO2 Reporting Rule” now in effect for emitters > 25k TPY
 - CO2 “Endangerment” Finding & Auto Engine Rule triggers automatic CO2 regulation under PSD, Title V; eventual NAAQS programs
 - EPA proposal focuses CO2 PSD/NSR on emitters >25k TPY
 - State CO2 Programs are Progressing: 4 Cap & Trade Programs?
- Obstacles to Cap & Trade Bill:
 - “hot” legislation puts Democrat “Majority” at risk in November
 - All legislation slows as campaigning begins in late Spring
 - S.B. 1462 could “calve off” Renewables & Energy Reform (like Australia)
 - “Rifle Shot” preemption of CO2 from CAA rules? Near-Certain Veto
 - preemption could ADD pressure to legislate.
- Cap and Trade likely “dead” for 2010 if not passed by June 1.
 - CAA-based PSD/NSR reg. still follows Vehicle Emission Sldrds.
 - State Cap & Trade programs likely by 2011

Compliance Deliverables and Milestones



Timelines for *Offset Projects* - Potential Mitigation Strategies



US Climate Legislation – Key Points

- GHG Regulation is HERE, some Federal Program is Imminent
- Covered Entities include fuel combusters, fuel producers and CO2 gas users.
- Covered Entities will face decreasing CO2 emission allowances.
- Covered Entities will have to invest to decrease emissions, purchase allowances or invest in offset projects.
- Non-covered Entities must plan for cost impacts from covered suppliers.
- Domestic and International Offset Projects will be extremely important – a valuable and marketable commodity.
- Owners of non-capped CO2 sources may generate and market offset credits.
- Companies with International operations may have valuable offset assets.
- Significant federal \$\$ will be available to subsidize energy efficiency/GHG capture research.

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Pat Larkin practices exclusively in environmental law, including compliance counseling, litigation, administrative law, and due diligence in business transactions.

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Pat was a Multimedia Enforcement Attorney with the U.S. EPA. He has prosecuted and defended administrative and judicial enforcement actions brought under the Resource Conservation and Recovery Act, the Clean Air Act, the Clean Water Act, and the Toxic Substances Control Act.

His 20 years of experience includes practice as in-house, federal agency and private counsel. He was in-house environmental counsel for a Fortune 100 company with over 300 U.S. and international operating sites and subsidiaries.

