

# Successful Strategies for Companies to Maintain Profit and Minimize Risk in the Face of Greenhouse Gas Regulation

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**Abstract:** As several states rapidly establish greenhouse gas rules across the country, the U.S. Congress debates legislation and financial institutions launch new financial policies, companies need to aggressively manage their risk on a regional, national and international basis. By taking a few early strategic actions, companies can successfully manage their risk with institutional investors, lenders, rating agencies, insurers, the SEC, state and federal regulators, environmental advocacy groups and customers.

## INTRODUCTION

Heightened concern about greenhouse gas emissions is creating new challenges for business and industry. Companies are under increasing pressure from government regulators, shareholders, lenders, insurers, and customers to reduce or offset their greenhouse gas emissions.

## Rapidly Increasing Pressure on Companies to Reduce Their Greenhouse Gas Emissions

### *Increasing Government Regulation*

State governments are aggressively moving to limit greenhouse gas emissions with a proliferation of different laws, rules, and programs that have different emission caps and deadlines beginning as soon as 2008.

Starting in 2008, California's new "Global Warming Solutions Act" establishes a declining statewide limit on all six Kyoto-designated greenhouse gases to meet 1990 emission levels by 2020 -- a 25% reduction. Starting in 2009, nine Northeast states have created the Northeast Regional Greenhouse Gas Initiative (RGGI) that establishes a regional cap and trade program for power plants to reduce CO<sub>2</sub> to 1990 levels by 2019 -- a 10% reduction. It's expected that the RGGI cap will be expanded to other industries. As of April 1, 2007, 12 In February, New Jersey and Illinois governors announced their intention to mandate the reduction of greenhouse gases via legislation similar to California's law. Many other states are planning to follow California's lead on greenhouse gas limits.

As of April 1, 2007, twenty-nine states have taken steps to reduce greenhouse gas (GHG) emissions through regulatory or voluntary programs. Fourteen states have established laws or regulations with mandatory emission reduction targets. At least fifteen other states are establishing voluntary emission reduction plans.

At the same time, state legislation to set mandatory GHG emission reduction targets is currently under consideration in twelve states. Many of the 2007 draft bills are similar to California's AB32, limiting emissions to 1990 levels by 2020. In addition to the twelve new states considering GHG reductions, eleven state legislatures are currently considering legislation to establish legislative climate change commissions or executive branch advisory groups.

In a parallel effort, over 30 states are developing individual greenhouse gas registries for mandatory and voluntary reporting of "regulatory quality" emissions data. The states have also begun negotiations on a "national Climate Registry" that will require participating companies to report their greenhouse gas emissions nationwide.

The federal government may not be far behind the states. Recent changes in the U.S. Congress, as well as inconsistencies in state-level greenhouse gas regulation, have spawned several Congressional bills to cap greenhouse gases. However, federal legislation will not prohibit states from continuing their independent actions to set a wide variety of targets and timetables.

Efforts to establish case law on greenhouse gas control are in full swing. A number of court challenges at the state and federal level, including the Supreme Court, are attempting to force companies to limit greenhouse gas emissions and to hold companies liable for natural resource and economic damages.

On a local government level, over 425 U.S. municipalities across the country have committed to reducing greenhouse gas emissions. Most of those cities have set deadlines of 2010 or 2012 to achieve very ambitious emission reduction targets of up to 30%, and are developing greenhouse gas management plans and emissions inventories.

Internationally, European Union member countries in February approved a 20 percent greenhouse gas reduction target for 2020. The United Kingdom, Germany, France, and Switzerland may independently pursue more stringent cuts of 30 percent if the United States and China commit to a 20 percent reduction by 2020.

### ***Increasing Corporate Accountability***

Greenhouse gas emissions are rapidly becoming a major risk management issue for companies with the emergence of regulations, financial disclosure standards, institutional investor demands, rating agency interest, supply chain accountability, and insurer concerns.

During the 2007 proxy season, US companies received a record number of shareholder resolutions on greenhouse gas management. In a coordinated effort, institutional investors representing \$4 Billion in shareholder funds issued 42 shareholder resolutions. The resolutions asked companies to disclose their strategies for greenhouse gas emission management and emissions rates. In mid-March, dozens of institutional investors representing \$4 Trillion in assets called on the U.S. Congress to establish mandatory GHG reduction targets of 60 to 90 percent below 1990 emission levels by 2050. In addition, the international "Carbon Disclosure Project," representing over \$31 Trillion in assets held by 211 institutional investors have surveyed 1,900 companies on their greenhouse gas emissions and management strategies.

International requirements like the EU reduction targets and the Kyoto protocol are driving U.S. companies with overseas operations or clients to evaluate and manage their greenhouse gas emissions.

Environmental organizations are launching sophisticated marketing campaigns targeting corporate customers and consumers to drive companies to reduce greenhouse gas emissions.

### ***Increasing Costs To Manage Greenhouse Gas Emissions***

Financial firms have begun purchasing over \$ 7 Billion in greenhouse gas offset credits for investment and risk management purposes. As the financial industry and greenhouse gas credit brokerage companies begin to develop and purchase the rights to low-cost emission offsets in the U.S. and worldwide, supply will become tighter as demand increases, driving emission credit prices higher and higher.

Establishing a new precedent for product-based greenhouse gas regulations, California recently created new carbon intensity reduction targets for the products of two major industries. This new product-based precedent is expected to expand rapidly to other states and other industries with both direct and indirect impacts.

- **Greenhouse Gas Standards for Electricity Sales:** California has limited sales of electricity from power generators inside and outside of the state that emit more greenhouse gases than a modern natural gas plant. The "greenhouse gas emissions performance standard" is expected to affect energy markets across the West since 20% of the state's power comes from coal plants in the Western US. Northeastern states are also expected to pass similar rules in the near future since they've had long-established "generation performance standards" for criteria air pollutants since the late 1990s. Industry analysts expect electricity prices to climb in those states that establish greenhouse gas electricity performance standards since over half of the United States' energy supply comes from coal. In March, the Washington State Senate unanimously passed a bill very similar to California's GHG emissions performance standard.
- **Greenhouse Gas Standards for fuel:** With new legislation expected to pass in California, petroleum refiners in California will be required by the State to reduce the carbon content of their fuel over the next 13 years to meet a 10 percent cut vehicle greenhouse gas emissions. Other states are expected to adopt similar standards.

## **ELEMENTS OF A SUCCESSFUL GREENHOUSE GAS MANAGEMENT STRATEGY**

As states rapidly establish greenhouse gas rules across the country and financial institutions launch new financial policies affecting industry, companies need to aggressively manage their risk on a regional, national and international basis – *before* regulations are finalized. By taking a few early strategic actions, companies can successfully manage their risk with institutional investors, lenders, rating agencies, insurers, the SEC, state and federal regulators, environmental advocacy groups and customers.

## **Three Key Actions to Successfully Manage Risk in the Face of Uncertainty**

While greenhouse gas regulations and laws are still being developed, now is the time for companies to lay the groundwork to identify their risk, explore opportunities and establish a game plan. Establishing a proactive strategy now will help protect future growth, profits and shareholder value. A few key actions now will avoid costly mistakes and provide companies with the time to thoughtfully explore their options.

### ***Action 1: Conduct a Greenhouse Gas Inventory - Now***

Before regulations on reductions and reporting are finalized, now is the best time for companies to assess their carbon profile through a greenhouse gas inventory. A greenhouse gas inventory enables a company to:

- Assess potential risk and opportunities prior to the start date of state or national regulations and reporting requirements
- Develop and refine a corporate greenhouse gas strategy
- Establish performance targets and measure progress
- Evaluate potential participation in credit trading programs
- Establish a proactive strategy instead of reacting to events and requirements
- Minimize risk and maximize profits & shareholder value
- Develop long-term management strategies by integrating/enhancing existing monitoring and reporting activities

While seemingly a simple action, a greenhouse gas inventory is not as straightforward as it initially appears. As greenhouse gas reduction and reporting requirements take shape in the U.S., it's clear that the most significant and fateful decision companies will need to make is what their carbon profile looks like now, in the future and for "baseline years" as they submit themselves to regulation. The reason for that is simple: what a company first reports to forthcoming regulatory and voluntary registries is what they will be held to for years to come. Once a company commits to a specific carbon profile and reporting methodology, it is almost certainly the future profile they will be held to by regulators and watchdog groups for emission reduction requirements and emission credits.

Hence, the greenhouse gas inventory is a fundamental tool in assessing a company's carbon profile, enabling it to assess risk and opportunities, and develop a comprehensive greenhouse gas management strategy for the future.

Because greenhouse regulations are expected to "set in stone" a company's carbon profile with the first formal reporting of its greenhouse gas inventory, there are a number of significant decisions a company will need to weigh and then make before finalizing its inventory. Critical decisions include:

- Establishing organizational and operational boundaries for the company's carbon "profile:"
  - Direct greenhouse gas emissions
  - Indirect greenhouse gas emissions
  - "Other" or "optional" greenhouse gas emissions
- Determining greenhouse gas reporting methodologies:<sup>1</sup>

- Equity share
- Management Control
  - Operational
  - Financial
- Determining ownership of carbon emissions, sinks and credits
- Selecting an appropriate baseline year to maximize credit for early reductions
- Identifying and addressing uncertainty

While both the California Climate Action Registry (CCAR) and the national Climate Registry (CR) and other state registries are initially seeking disclosure for carbon dioxide (CO<sub>2</sub>), it is critical for companies to immediately inventory all six greenhouse gases (CO<sub>2</sub>, N<sub>2</sub>O, CH<sub>4</sub>, HFCs, PFCs, and SF<sub>6</sub>). Given the differential “global warming potential” of these greenhouse gases, an inventory will reveal the company’s relative risks and opportunities at an early stage.

The other important advantage of conducting a comprehensive inventory now is identifying if any additional greenhouse gas inventory ‘protocols’ are needed for any specific identified sources. If no protocol exists for inventorying an identified source, it presents the opportunity for companies and industries to propose one to regulators before it is established by government or third parties.

***Action 2: Assess Risk and Opportunities - Now***

A company’s greenhouse gas inventory, like any accounting methodology, allows it to assess opportunities and risk. Once the data gathering is complete, companies need to evaluate what their carbon profile looks like under different “boundary” and reporting methodologies. Combined with the inventory’s identification of carbon sources, sinks and offsets, a company can begin to evaluate its opportunities and risks. Like the greenhouse gas inventory, at first it appears to be a simple process, but it is not. The variability, inconsistency and unpredictability of state greenhouse gas regulations, combined with a wide range of market variables and individual business objectives means that a company’s risk and opportunity assessment will be highly individualized.

While some may assert that the high level of regulatory, business and financial uncertainty justifies a wait-and-see approach, exactly the opposite is true. Companies need to use this time of uncertainty to identify likely risks -- and more importantly, early opportunities to cost-effectively reduce their risk before the die is cast by regulations. For example, with accelerating efforts to secure low-cost, low risk carbon offsets by speculators, companies need to immediately identify whether they will need to create or purchase offsets in the future and secure title, access and options while carbon credit costs are relatively low.

In addition, a fundamental element of identifying greenhouse gas risks and opportunities is evaluating and experimenting with different “organizational boundary” and “operational boundary” configurations. So too are identifying and documenting “regulatory quality” data for early reductions, establishing defensible baselines and assessing carbon ownership for jointly owned assets. All of these actions are part of creating a three dimensional profile of risk and opportunity for companies.

A risk and opportunity assessment will lay the foundation for companies to decide how they will initially report emissions, report and take credit for changes over time and establish a baseline from which to measure progress as state (and possibly federal) programs transition from voluntary to mandatory during the next two years.

It is critical that companies not define their risk solely as their carbon profile. Other important risks and opportunities to evaluate include:

- Short-term and long term growth, profitability and shareholder value
- Direct and indirect costs such as energy
- Material financial risk<sup>2</sup>
- Competitive positioning, branding and public perception
- Insurance costs, access to capital, rating criteria and liability
- Sarbanes-Oxley and SEC compliance
- Mergers, acquisitions and divestitures
- Product and process improvements
- Product lifecycles
- Value chain and sourcing
- Multi-jurisdictional compliance
- Carbon credit/offset longevity, title and stability
- Early reduction credit vs. future reduction credit

Most importantly, a risk/opportunity assessment will lay the foundation for creating a corporate greenhouse gas management strategy that will chart the course for a company's future growth, profitability and -- in some cases -- survival.

***Action 3: Create a Corporate Greenhouse Gas Management Strategy - Now***

While uncertainty reigns during the next few years on the shape of greenhouse gas regulations and markets, companies need to translate their carbon inventories and opportunity/risk assessments into a preliminary strategy that will enable them to anticipate changes and proactively respond in an informed strategic manner. A corporate greenhouse gas strategy does not need to predict the future. It needs only to identify likely regulatory and market scenarios and chart a pathway for achieving business objectives.

As conditions and scenarios become clearer, the strategy can be refined. Just the exercise of creating a greenhouse gas strategy will provide a company with insights to managing its emissions, creating opportunities and minimizing risks. It will also help identify unknowns and strengths and weaknesses that can be addressed before emission reduction and reporting requirements are finalized. A greenhouse gas strategy will also help guide a company's compliance and reporting strategy for regulatory requirements.

A greenhouse gas management strategy will help guide a company to:

- Identify strategies to reduce greenhouse gas emissions to meet regulatory targets and timetables prior to the start date of state or national regulations/reporting requirements
- Identify strategies to minimize emissions beyond preliminary greenhouse gas targets to further reduce risks

- Help establish performance targets and progress measurement to meet anticipated greenhouse gas reduction requirements.
- Evaluate potential participation in credit trading programs.
- Evaluate and identify: carbon ‘boundaries,’ greenhouse gas reporting methodologies, and data management options.
- Identify cost-effective carbon offsets (if required)
- Develop greenhouse gas management/response strategies for potential regulatory and market scenarios involving:
  - State and federal greenhouse gas regulation and variability
  - Allocation vs. auction regimes for carbon credits
  - Fuel supply and costs
  - greenhouse gas credit costs
- Develop long term data management strategies by integrating/enhancing existing monitoring and reporting activities

In addition, a greenhouse gas management strategy will help companies maintain their focus on achieving their business objectives as markets and government regulation shifts during the next decade:

- Maintain short-term and long term growth, profitability and shareholder value
- Minimize risk and costs
- Improve products, services and processes
- Improve competitiveness, market share and brand reputation
- Improve access to capital and investment ratings
- Increase efficiency and productivity
- Evaluate mergers, acquisitions and divestitures

### **‘Rules of Thumb’ for Successful Greenhouse Gas Management Strategies**

While undertaking an inventory, risk/opportunity assessment and greenhouse gas management strategies, companies need to pay attention to several “rules of thumb.”

#### ***Identify Greenhouse Gas Reduction and Offset Opportunities – Very Carefully***

As regulation and market response increases momentum, there are an increasing number of short cuts and ‘silver bullets’ being promoted. As financial and regulatory pressure on companies increase, the instinct to move quickly to find a fast solution will grow. A thoughtful, strategic approach now will weigh costs and benefits proactively. Especially important is to identify and verify the value, quality, reliability, longevity and unintended consequences of reductions and offsets. Offsets and reductions that are not “regulatory quality” in nature are risky as regulations and protocols evolve. Be wary of a reduction or offset opportunity that is too good to be true – it is. There is a growing amount of speculative activity in greenhouse gas reductions and offsets. Utilize experts and established firms to assess opportunities and risks. Focus on those actions that aggregate opportunity and risk – they will be more reliable and cost-effective in the long run.

#### ***Participate In One or More Greenhouse Gas Initiatives, but Choose Strategically***

Just as greenhouse gas reduction and offset opportunities are proliferating, so too are greenhouse gas initiatives. Look before you leap. Evaluate a variety of initiatives before choosing.

Remember that the greenhouse gas initiative that is voluntary today may well be mandatory tomorrow. Evaluate the costs and benefits of participating in an initiative that may quickly evolve. Talk to other participants before joining to find out what their experiences have been. Make sure there is full disclosure of pros and cons of the initiative by the organizers.

### ***Identify Operational Efficiencies That Reduce Greenhouse Gas And Costs***

Energy management is an effective approach to reduce greenhouse gas emissions. In the U.S., energy-related activities are the primary sources of anthropogenic greenhouse gas emissions, accounting for 86 percent of total emissions in 2004 on a carbon-equivalent basis. Emissions from fossil fuel combustion comprise the vast majority of energy-related emissions, with carbon dioxide being by far the gas emitted in the greatest quantity. However, other significant sources of greenhouse gas emissions (methane, nitrous oxides) are also released from energy-related activities.

### ***Experiment While It's Still Voluntary***

Now is the time to evaluate options for reducing and offsetting greenhouse gas emissions. While regulations and markets are moving quickly, there is still time to try different approaches and learn about managing greenhouse gases. While the period of 'dress rehearsal' will end within the next eighteen months, it's a good time to practice and learn as regulators, markets and companies evolve their understanding of greenhouse gas management.

### ***Establish "Regulatory Quality" Data***

States, industry organizations, the European Union and possibly the federal government are adopting greenhouse gas inventory and reporting protocols based upon the World Business Council for Sustainable Development's (WBCSD) and World Resources Institute's (WRI) *GHG Corporate Protocol Standard*. That protocol establishes very clear data standards upon which states are planning to base their greenhouse gas regulations. By default, it is quickly becoming the industry standard in the United States. It already is in the European Union's 27-country Emissions Trading Scheme.

### ***Redefine "Risk"***

As explained above, risk is much more than a company's carbon footprint. Greenhouse gas regulation will require companies to expand and redefine their characterization of risk.

### ***The Law of Supply And Demand Applies To Greenhouse Gas Offset Prices***

With companies beginning to purchase large volumes of low-cost greenhouse gas offsets, prices will eventually climb as low-cost supply begins to decrease. U.S.-based reduction credits will eventually command premium prices because of their relative longevity, stability, reliability and low risk. Because offset prices will climb as they have for criteria air pollutants, companies should assess their need for offsets now to take advantage of relative low cost abundance.

### ***Don't Assume Federal Action Will Trump State Mandates***

Given the history and conventions of federal legislation related to states rights, companies should anticipate that any federal legislation on greenhouse gas emission reductions will allow states to be more stringent than the federal government – just as the Clean Air Act and other major federal

environmental legislation has for the last 37 years. That also applies both to inconsistent targets and timetables between individual states and between the federal government and states.

### ***Actively Advocate / Protect Market-Based Approaches***

With greenhouse gas regulatory reduction targets and deadlines proceeding by decades widespread, cost-effective technology solutions, market-based approaches are the mechanism that could allow progress in reducing greenhouse gases without severe impacts to companies.

Companies need to actively champion these approaches with state legislators and governments as well as with the federal government. Companies also need strongly advocate a proper role for government – not as market operators, but as compliance monitors and enforcers. There is a long history of significant misunderstanding by environmental regulators of how true market-based systems really work. In some cases, government “market-based” programs have done more harm than good in achieving policy objectives and providing companies with flexibility. With greenhouse gas regulations eventually affecting all aspects of economic activity, it is critical for governments to set clear standards, allow companies to find the most efficient and effective means by which to achieve those standards, and maintain a level playing field among market participants. The voluntary development and adoption of the WBCSD/WRI *GHG Corporate Protocol* is a good example of a corporate response to government policies.

### ***Plan for 10 Years of Uncertainty, Inconsistency and Unpredictability***

While regulation at the state level has begun and timing of federal regulations is still uncertain, there will be years of inconsistency, synchronization, refinement, success and failures. As exemplified by the evolution of the Clean Air Act and its amendments, companies should anticipate state and federal-level litigation that will continue to be adjudicated by the U.S. Supreme Court in some cases. Regardless of litigation, states and the federal government will still pursue greenhouse gas controls and it is in a company’s best interest to take action now to minimize the turbulence and risk associated with uncertainty and inconsistency.

### ***Don’t Ride the Rollercoaster***

Over the last 37 years of environmental regulation in the United States, there have been a lot of ups and downs for industry. The rapid evolution of greenhouse gas regulation will be no exception, and in fact the highs and lows will probably be the steepest and most frequent ever experienced by companies. Companies that strategically assess their risk and opportunities now and develop a comprehensive yet flexible greenhouse gas management strategy will be able to effectively achieve their business objectives without over- or under-reacting to changes in the marketplace or regulations.

## **THE BENEFITS OF EARLY GREENHOUSE GAS MANAGEMENT**

As regulations quickly evolve and markets rapidly respond, uncertainty will pervade. As a result, this is a time for action by companies, not inaction. Companies that stand by the sidelines run the risk of missing cost-effective opportunities and significantly increasing their risk. Through early action, companies can achieve some of the following benefits:

- Early identification of opportunities and risk
- Sustained and improved growth and profit margins
- Decreased financial and operational risks
- Increased shareholder value

- Cost savings
- Improved access to capital
- Reduced insurance rates
- Enhanced public communication and corporate reputation
- Improved customer relationships and preference
- Reduced cost of greenhouse gas offset credits
- Recognition of environmental leadership

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<sup>1</sup> World Business Council for Sustainable Development and World Resources Institute; *The GHG Protocol Corporate Standard*. See <http://www.ghgprotocol.org> (accessed 1/31/07).

<sup>2</sup> Van Hoogstraten, D. J. and Rubin, J. W., *U.S. Companies Are Feeling The Heat On Climate Change*. Industry Week [Online] 2006, 43. Available from Industry Week. [www.industryweek.com](http://www.industryweek.com) (accessed 1/25/07).