
The Wirth Chair in Environmental and Community Development Policy



UNIVERSITY OF COLORADO AT DENVER & HEALTH SCIENCES CENTER

The Graduate School of Public Affairs

**State Climate Change Initiatives:
Creation of the California Climate Action Registry**

By David Olsen

April 2003

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State Climate Change Initiatives: Creation of the California Climate Action Registry

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April 1, 2003

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Dear Colleague:

I am pleased to provide you with a case study developed by David Olsen, a Senior Wirth Chair Fellow, concerning California's initiation of a statewide registry to record carbon emission reductions. The case study, titled "State Climate Change Initiatives: Creation of the California Climate Action Registry," indicates that California has established the most comprehensive GHG monitoring and reporting systems in the U.S.

As David Olsen describes, the process generating the California Registry was not an easy one. The initial idea was not uniformly supported by business, political and environmental leaders. Through strategic dialogue and compromise, the Registry was enacted by the legislature in 2000. Its structure and ground rules were refined by the legislature in 2001. The Registry is now operational.

Olsen describes the substantive, methodological and political factors influencing the final form and shape of the Registry. He summarizes the lessons learned preceding and during the process leading to the Registry.

We would welcome your comments concerning the case study. The Chair will use its contents, as well as other Wirth Chair analyses, to engage public, nonprofit and private sector leaders throughout the West in long overdue discussions concerning climate change problems and the benefits as well as the possible costs of state registries.

Sincerely,

Marshall Kaplan
Executive Director
Wirth Chair

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Abstract

The California Climate Action Registry, created by legislation in 2000, is a voluntary program to improve energy efficiency and monitor and reduce greenhouse gas (GHG) emissions. It functions as a public-private partnership and is incorporated as an independent nonprofit organization, with a board of directors made up of state officials and representatives of business, city government and public interest non-governmental organizations. It is based on a comprehensive protocol for reporting and independently certifying emissions. It commits the state to use its best efforts to ensure that participating entities receive all appropriate consideration for emissions baselines and reductions reported under the protocol in any future national or international carbon regulatory regime. The history of the establishment of the registry is instructive as to both the opportunities for and limitations of voluntary action to address climate change.

TABLE OF CONTENTS

| | |
|--|----|
| Introduction..... | 1 |
| 1.0 The Policy Context of Voluntary Action to Reduce Emissions | 2 |
| 1.1 State Initiatives..... | 2 |
| 1.2 Corporate Voluntary Action..... | 2 |
| 1.3 Early Action Crediting and the CEO Coalition | 4 |
| 2.0 Formation of the California Climate Action Registry | 5 |
| 2.1 Campaign to Establish a State Emissions Registry..... | 6 |
| 2.2 Business Involvement in Registry Design | 7 |
| 2.3 Business Concerns About Reporting Emissions | 8 |
| 2.4 Limitations of U.S. 1605(b) Reporting Program | 9 |
| 2.5 Business Support for SB 1771 | 10 |
| 2.6 Environmental Opposition and Support..... | 10 |
| 2.7 Passage of SB 1771 | 12 |
| 2.8 Clean-Up Legislation: SB 527 | 13 |
| 3.0 Structure and Operation of the Registry | 15 |
| 3.1 Nonprofit Corporation Structure | 15 |
| 3.2 The Reporting Protocol..... | 16 |
| 3.3 Start Up and Recruitment | 17 |
| 4.0 Lessons Learned..... | 19 |
| 5.0 First Steps Toward Energy Security | 21 |
| References | 23 |
| Appendix A..... | 25 |
| Appendix B..... | 26 |

State Climate Change Initiatives: Creation of the California Climate Action Registry

David Olsen¹

Introduction

In the absence of national leadership on climate change issues, more than 200 cities across the U.S., several hundred major corporations and more than 20 states have adopted policies or programs aimed at reducing greenhouse gas (GHG) emissions. This fact reflects widespread public concern to address climate change. Some of these policies are largely symbolic, and all of the programs are voluntary and have jurisdictional limitations. Because these structural factors make them incapable of constituting an effective national approach to climate change, significant reduction in U.S. emissions will almost certainly require a comprehensive and mandatory national program. But with national politics gridlocked on the issue, state initiatives are accumulating experience that may help to design a more effective national GHG reduction strategy. And with most of the state programs enjoying bipartisan support, they may suggest political solutions capable of reorienting Congress to the economic development and other opportunities that accompany sustained action to improve energy efficiency.

By 2002, 12 states had enacted or were considering establishment of GHG registries.² These states have formed a collaborative, facilitated by the US Environmental Protection Agency (EPA), to share experience and coordinate policy and reporting approaches where possible.³ Such coordination is a major concern of companies having operations in several states. In California and elsewhere, business concern for the development of consistent policy approaches has been a major driver of state action on climate change issues.

The California Climate Action Registry (CCAR), created by legislation in 2000⁴ and modified in 2001⁵, offers the most comprehensive GHG monitoring and reporting program available in the U.S. This paper outlines the structure and operation of the Registry, and

¹ Senior Fellow Wirth Chair in Environmental and Community Development, University of Colorado, Denver. February 2003.

² California, Connecticut, Iowa, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, Texas, Vermont, Wisconsin. New Hampshire was the first state to authorize a registry; Ken Colburn of the NH Department of Environmental Services, was especially helpful in the creation of the California registry. For a recent survey of state GHG programs other than registries, see Rabe, 2002 and Claussen, 2003.

³ In addition to the 12 states and the US EPA, the collaborative includes Northeast States for Coordinated Air Use Management (NESCAUM), the Energy Foundation, and NGOs such as Clean Air-Cool Plant, Climate Neutral Network, Environmental Defense, Natural Resources Defense Council, Public Citizen, Union of Concerned Scientists and World Resources Institute.

⁴ SB 1771 by Senator Byron Sher was passed by the California Legislature and signed into law by Gov. Gray Davis in 2000. The full text of the bill is available on the Legislature website, www.leginfo.ca.gov for the 1999-2000 session. See also Appendix A.

⁵ SB 527 (also by Senator Byron Sher and signed into law by Gov. Davis on September 16, 2001) modified SB 1771 and forms the basis for current Registry practice. See California Health and Safety Code, §§42800 et. seq.

reviews the campaign to create it. This history may be useful to other states considering action to increase energy efficiency and reduce GHG emissions.

1.0 The Policy Context of Voluntary Action to Reduce Emissions

1.1 State Initiatives

In the 1980s, several states initiated programs designed to limit or reduce chlorofluorocarbons (CFCs), reflecting concern about their impact on both ozone depletion and global warming. The success of the Montreal Protocol in phasing out CFCs, although it pre-empted these state programs, helped to put climate change on the agenda of state governments (Rabe, 2002).

In the late 1980s and early 1990s, a few states passed legislation or executive orders aimed at addressing greenhouse gas emissions, chiefly by promoting greater energy efficiency (U.S. Office of Technology Assessment, 1991). New Jersey Governor Thomas Kean's Executive Order 219 of 1989, for example, sought to promote greater energy efficiency in government buildings and vehicles with the express intent of having state government take the lead in reducing CO₂ emissions. Even though many of these measures were largely symbolic and lacked specific targets or enforcement mechanisms, they have come to be viewed as establishing precedent for further state action (Dernbach, 2000).

The 1992 Rio Declaration on Environment and Development indicates that political participation "at the lowest, most accessible, and policy-relevant" level is likely to provide the most effective avenue for addressing climate change. The Agenda 21 Principles also promulgated at the Rio Summit that year similarly stress the need for a bottom-up approach to developing climate change policy solutions. City, state and provincial governments around the world have adopted both policies and programs to encourage or require cuts in GHG emissions. With the support of the US EPA's Office of State and Local Climate Change Programs, 38 states have compiled inventories of greenhouse gas emissions, and 20 have structured action plans to reduce them. In 1997, Oregon passed the first US law limiting carbon emissions. Since then, the New England states have adopted a plan to reduce their greenhouse gas emissions 10 percent below 1990 levels by 2010. This includes an explicit CO₂ regulatory program for utilities in Massachusetts. New Jersey has an incentive-based program to encourage companies, government agencies and consumers to reduce CO₂ emissions. It has negotiated agreements with its seven utilities, nine major corporations and 56 universities and colleges to make specified reductions. In 2002, California became the first state to limit GHG emissions from motor vehicles by passing AB 1493. Polls conducted throughout 2002 have shown public support for this California law to exceed 80%.

1.2 Corporate Voluntary Action

Public support notwithstanding, U.S. auto companies are suing California to overturn AB 1493, on the grounds that state action pre-empts federal authority to regulate air quality. Such a legal challenge also indicates the potential influence that some state initiatives are perceived to have.

Business community opinion on the costs and risks of addressing or not addressing climate change is distributed unevenly along four general lines:

- Some companies— in almost every industrial sector—see business advantage and other environmental and social benefits in a shift to a cleaner and more energy efficient economy. These and other companies believe that it does make economic sense—for their shareholders and for the economy as a whole—to cap CO₂.
- Many others, especially those in fossil fuel-intensive industries such as oil, coal, trucking and agriculture, see progress to increase energy efficiency as a threat to their businesses that outweighs the threat of climate change. These companies and their trade associations continue to oppose action to address climate change, even though they have largely abandoned public campaigns in favor of behind-the-scenes lobbying.⁶
- The great majority of U.S. firms, meanwhile, remain largely unengaged on the issue.
- A fourth camp, although greatly concerned that organizing to reduce emissions will undercut both the U.S. economy and their individual corporate advantage, believes that climate change is of such over-riding seriousness that we must take action to stabilize and reduce emissions. The more than 40 major U.S. corporations which have made public commitments to reduce their emissions by amounts meeting or exceeding the Kyoto targets include many from this camp. A Business Roundtable report⁷ is only one of many recent statements of "the business community's interest in being part of the solution to concerns about global climate change."⁸

This desire to be "part of the solution" has several drivers: in addition to good corporate citizenship, a concern for possible future carbon liability (also expressed as the need for regulatory certainty), and a strong preference for addressing the challenge with voluntary programs. Many companies view their self-directed efforts to monitor or reduce emissions as forestalling regulation;⁹ and/or as demonstrating that hard caps on carbon are not necessary.

At the same time, companies in many industries testify that participation in voluntary reporting programs has helped them improve their operations. In the 1990s these programs included: the US Department of Energy's Energy Star; Coal bed Methane Outreach Program; Landfill Methane Outreach Program; Commuter Choice; Green Lights; Combined Heat and Power Partnership; SF6 Emission Reduction Partnership; Voluntary Aluminum Industrial Program; and most recently, US EPA's Climate Leaders. At the very least, these programs have helped lay the foundation for corporate awareness both of GHG emissions liability and of approaches for reducing that liability.

The effectiveness of such voluntary reporting programs in reducing emissions, however, remains in dispute (ten Brink, 1999). While others disagree, many business leaders believe the jury is still out on the effectiveness of voluntary emissions reduction, as few such

⁶ Lester R. Brown, "The Rise and Fall of the Global Climate Coalition," Washington, D.C.: Worldwatch Issue Alert 2000-6. July 25, 2000.

⁷ "Unleashing Innovation: The Right Approach to Global Climate Change," April 4, 2001.

⁸ Earnest W. Deavenport, Chairman and CEO of Eastman Chemical Co., and chairman of the Business Roundtable Environmental Task Force, quoted in *Business Week*, April 23, 2001, p. 67.

⁹ See, for example, Bradsher, Keith and Andrew Revkin, "Many Companies Cut Gas Emissions to Head Off Tougher Regulations," *New York Times*, May 15, 2001.

programs have been in operation long enough to produce conclusive results. Canada has perhaps the longest-running effort, with more than 1,000 companies reporting GHG emissions under a national voluntary reporting program since 1995. This program has not yet been able to demonstrate a link between reporting and material emissions reductions (Canada's Climate Change Voluntary Challenge & Registry, 1999). Now having ratified the Kyoto protocol, it appears likely Canada will introduce mandatory regulations to comply with its treaty target of reducing emissions 7% below 1990 levels.

The debate over voluntary vs. mandatory approaches expresses widespread corporate concern for possible future carbon liability. By 2000, many multi-nationals facing Kyoto compliance in other countries had chosen to develop worldwide carbon management and mitigation plans rather than having a unique set of operating practices just for the U.S.¹⁰ Corporate concern for the global equity dimensions of climate change appeared to be growing as well.¹¹ In this context, a group of U.S. companies began to articulate a program of Early Action Crediting as a voluntary means of encouraging corporate action to reduce emissions and limit liability.

1.3 Early Action Crediting and the CEO Coalition

In the phase-in of the U.S. sulfur dioxide cap and trade program in the early 1990s, several companies which had worked to reduce their SO₂ emissions in advance of the deadline did not receive credit for reductions they had made during the 10-year notice period. These companies were intent not to repeat this history with carbon. Some of these companies—and many others who had no experience with the SO₂ program—were coming to see energy and carbon efficiency as a path to competitive advantage for both their firms and the U.S. economy as a whole. Together, these companies championed a program of Early Action Crediting to encourage voluntary action to reduce emissions. A voluntary program, which for political reasons could go into effect sooner than a mandatory one could be put in place, offered material environmental benefits. Because carbon emissions remain in the atmosphere for an average of 100 years, reductions today are more valuable (and less expensive) than future reductions.

In mid-1997, Ralph Peterson, Chairman and CEO of the engineering and project delivery company CH2M Hill, convened a group of CEOs from 50 major companies to explore business responses to climate change issues. This group subsequently formed the CEO Coalition to Advance Sustainable Technology¹² with the development of a national Early

¹⁰ In January 2003 the Chicago Climate Exchange (CCX) launched a voluntary cap-and-trade program under which major companies and the City of Chicago will cut their GHG emissions and buy and sell carbon credits—further indication that a growing number of corporations are taking carbon reduction seriously.

¹¹ At the World Economic Forum in Davos, Switzerland in 2000, the more than 1,000 assembled CEOs voted climate change as the most pressing issue facing the world, for socio-political as well as environmental reasons. See for example Davis (2002); Goldemberg (2000); and Baer et. al. (2000).

¹² www.ceocoalition.org. Members include such companies as Avista Labs, Bechtel, BP, Energy Conversion Devices, Interface, Idaho National Engineering Laboratory, Midwest National Laboratory, NREL, Science Applications International (SAIC), among others.

Action Crediting program as its first agenda item. With assistance from Trexler & Associates, the CEO Coalition spent 1998 and part of 1999 working out the details of a consistent, transparent and verifiable program for monitoring and reporting GHG emissions.

In 1999-2000, the Coalition circulated a list of "Principles for Early Action Crediting" to trade associations and other business organizations in an effort to develop broad business support for legislation that would encourage and protect companies making voluntary GHG reductions. The Coalition also worked with Congressional sponsors to incorporate its comprehensive Early Action Crediting program into legislation creating a national voluntary GHG registry.¹³ It proved difficult to interest most members of the Senate and the House in the issue, and many in Congress expressed outright hostility to programs that could be seen as taking climate change seriously.¹⁴ At the same time, with the impending 2000 presidential election promising to become a referendum on climate change, business groups became increasingly unwilling to take public positions on the issue. The combination of the business lobby's wait-and-see posture toward the election and anti-Kyoto sentiment in Congress prevented the registry/Early Action Creating proposal from receiving serious or sustained consideration.

2.0 Formation of the California Climate Action Registry

Stymied in Congress, the CEO Coalition looked to establish state-level programs to encourage voluntary action to reduce emissions—and to secure credit for doing so. Independently, the Energy Foundation was looking in late 1999 for a program to encourage corporations to act to reduce emissions.¹⁵ The Energy Foundation took up the CEO Coalition's proposal to establish a state GHG registry in California, and convened a group of environmental and public interest NGOs to work with the CEO Coalition in this effort. The Center for Energy Efficiency and Renewable Technology (CEERT) played a central role in managing the stakeholder process that brought companies and environmental groups together to design the content of the emissions reporting program.¹⁶ Adding business and environmental interest to that of the 15 California cities that had passed resolutions by 1999 favoring immediate action to reduce emissions appeared to provide sufficient support for a statewide initiative.

¹³ Sens. Chafee, Lieberman and Mack introduced S. 2617, the "Credit for Voluntary Early Action Act" in October, 1998 and, with nine other co-sponsors, S. 547, the "Credit for Voluntary Reductions Act" in March, 1999. Congressman Rick Lazio introduced H.R. 2520, the "Credit for Voluntary Action Act" in July, 1999. S. 547 and H.R. 2520 incorporated portions of the conceptual approach underlying the CEO Coalition Early Action Crediting program.

¹⁴ The Knollenberg Amendment (to the 1999 Departments of Veterans Affairs and Housing and Urban Development, and Independent Agencies Appropriations Act), for example, sought to bar any regulation intended to reduce greenhouse gases. Rep. Joseph Knollenberg (R-MI), attached similar riders to legislation in every session of Congress from 1997-2001. His rider to the Agriculture Appropriations Bill (H.R. 4461) in 2001 sought to prohibit export of clean technology to developing countries, and to stop efforts to measure and verify the potential of energy efficiency and renewable energy to achieve emissions reductions.

¹⁵ www.energyfoundation.org.

¹⁶ CEERT (www.cleanpower.org), a 12-year old collaborative of major environmental organizations (NRDC, Sierra Club, UCS, Environmental Defense, California League of Conservation Voters) and renewable energy and distributed generation companies, provides a forum for building business-environmental consensus approaches to energy policy issues.

2.1 Campaign to Establish a State Emissions Registry

California State Senator Byron Sher (D-Palo Alto), a senior and widely respected member of the California legislature, agreed to sponsor and help develop legislation creating such a registry. The previous year (1999), Senator Sher had introduced legislation requiring California to develop and update its inventory of total statewide emissions of greenhouse gases as a step toward understanding the scope of the problem and identifying the most effective avenues for addressing it. The legislature passed this bill, but Gov. Davis vetoed it, characterizing it as unnecessary and of questionable effectiveness. Capitol insiders, however, reported the Governor's veto was driven by purely political jockeying with the legislature. Given the breadth of popular concern about climate change in the state, analysts believed that the Governor could ill afford to veto climate change legislation a second time.

Kip Lipper, Senator Sher's long-time Chief of Staff, and V. John White, Executive Director of the Clean Power Campaign and a widely respected environmental lobbyist, orchestrated the campaign to move the registry proposal through the legislature. The campaign strategy was to build support for the bill among businesses, environmental and public interest organizations and city officials, with representatives of these constituencies then lobbying legislators directly at key committee and floor votes. The campaign staff included only one full-time organizer, devoted almost solely to business outreach, and relied on volunteer time commitments from Senator Sher's staff and the staffs of CEERT, the Clean Power Campaign, several state agencies (the California Energy Commission, Air Resources Board, Resources Agency and California Department of Forestry), and environmental groups.

Early support from California's Secretaries of Resources and of Environmental Protection, Mary Nichols and Winston Hickox, helped advance the campaign for the registry. Senator Sher's draft legislation proposed a major role for the California Energy Commission (CEC) in working out the technical operations of the registry, so the support of the CEC, which reports to Secretary Nichols, was important. Alan Lloyd, Chair of the California Air Resources Board, was especially supportive. CARB is a unit of the California Environmental Protection Agency. This support signaled to the legislature that the administration of Gov. Gray Davis was willing at least to consider a GHG reductions program.

In promoting a GHG registry to legislators, the campaign built on California's history of investment in making the state more energy efficient. California spends \$250 million/year on energy efficiency programs—more than all other states combined.¹⁷ Yet despite this effort, as the 12th largest emitter of greenhouse gases in the world, the state wastes tens of millions of dollars each year on inefficient lighting, heating, cooling, motors, piping, transportation and many other processes in every sector of the economy. Making California as energy efficient as most of its European and Japanese trading partners would greatly reduce CO₂ emissions and would free up the money now wasted in lost efficiency for investment in new technology, new infrastructure, expanded education and enhanced quality of life.

Some (mainly Republican) legislators who supported efficiency improvement were nevertheless opposed to any state involvement with climate change, and others (both

¹⁷ California Energy Commission, www.energy.ca.gov.

Democrat and Republican) were skeptical that any state action on emissions could be effective in addressing what they perceived to be clearly a national and international problem. While the public sector has a role to play, state government functions make up only roughly 10% of California GDP. It was clear to all that any real movement on efficiency improvement and emissions reductions would depend on private sector activities. The legislature eventually agreed that it was in the interest of the state to support such action, and, particularly, by seeking to ensure that companies making voluntary reductions were not penalized for doing so. The language of SB 1771 states the proposition this way:

“Mandatory greenhouse gas emissions reductions may be imposed on California sources at some future point, and in view of this, the state has a responsibility to use its best efforts to ensure that organizations that voluntarily reduce their emissions receive appropriate consideration for emissions reductions made prior to the implementation of any mandatory program.

Past initiatives in the state that took early and responsible action to reduce air pollution and ozone smog have demonstrated political, economic and technological leadership, and have proven to benefit the state.

The state’s tradition of environmental leadership should be recognized through the establishment of a registry to provide documentation of those greenhouses gas emissions reductions that are voluntarily achieved by sources in the state.

The state hereby commits to use its best efforts to ensure that organizations that establish greenhouse gas emissions baselines and register emissions results that are verified in accordance with this chapter receive appropriate consideration under any future international, federal or state regulatory scheme relating to greenhouse gas emissions. The state cannot guarantee that any regulatory regime relating to greenhouse gas emissions will recognize the baselines or reductions recorded in the registry.”

2.2 Business Involvement in Registry Design

To build business support, the CEO Coalition invited more than 100 major California companies to consider, first, whether a state registry was worth creating and if so, what services it should offer and how such a program should be structured and governed. In its outreach to businesses across the state, the campaign offered the CEO Coalition Early Action Crediting Proposal as both an emissions reporting protocol and a model of how a registry might work.

The initial effort to involve businesses extended from January through July of 1999. This proved to be too short a period to build effective business awareness of or support for the creation of a registry. Of the 100 companies that CEO Coalition members and other campaign organizers met with, only about 20% were prepared to give serious consideration to the difficult and complex issues of potential carbon liability or an emissions reporting

protocol. Most companies were preoccupied with competitive pressures. This was especially the case with California's many computer/electronics/internet companies in 2000, none of which were willing even to consider the issue. The drafting of the Kyoto Protocol in December 1997 had made climate a priority issue for many companies in 1998. But with no sense of national policy direction coming from the Congress and Clinton Administration and both seemingly grid locked on the issue, by 2000 some companies had downgraded climate change as a priority environmental concern. Many other California companies lacked even the basic information about GHG emissions necessary to consider the issue at all. Senior executives of several of the state's largest corporations, for example, dismissed the idea of a registry with the comment, "We have no emissions in California."

As a result, business involvement in creating the registry program outlined in SB 1771 was limited to a relatively small number of companies who were actively interested in energy efficiency and climate change. After SB 1771 was enacted and signed into law in September 2000, it took another full year and clean-up legislation to build the attention and involvement of a broad section of California business in the registry.

2.3 Business Concerns About Reporting Emissions

The CEO Coalition elicited feedback on and support for the registry proposed in SB 1771 from the senior managers of many well-known companies. Without exception, these executives expressed privately their belief that the scope and potential seriousness of climate change made some kind of carbon regulation a virtual certainty; the only questions were what forms it might take and how many years in the future it would be imposed. Their public and corporate positions often did not reflect this private evaluation.

Several major entertainment and media companies declined to support the registry out of concern that doing so would invite more attention to the scope of their emissions than to their efforts to reduce them. Some of these companies had internal energy efficiency programs already in place, and all were keen to be seen as environmental leaders. But they were wary about the registry because they believed that local environmental groups, rather than praising the companies for taking leadership to reduce its emissions, would stir up negative publicity about the companies as polluters.

The confidentiality of emissions data was an important issue for a majority of companies, for both public relations and competitive reasons (emissions being highly correlated with energy use and output in many industries). At company insistence, the registry legislation allows participants to keep confidential any data or reports they deem sensitive or proprietary. Even this broad protection was not enough for some companies to overcome concerns about the possible compromise of strategic information.

Three other issues led some companies to oppose the creation of a state registry: concern that it would duplicate the federal 1605(b) emissions reporting program; concern that registries would have conflicting requirements from state to state, making participation costly and complicated; and, concern that the state could not effectively guarantee participants would receive credit for emissions baselines or reductions established under its protocol.

2.4 Limitations of U.S. 1605(b) Reporting Program

The Energy Policy Act of 1992, which restructured electricity delivery with an eye toward reducing U.S. dependence on imported oil, included a provision, Section 1605(b), that encourages electric utilities and other energy intensive companies to report their GHG emissions (U.S. Department of Energy, 1994). The 1605(b) program was intended mainly to gather information about industrial GHG emissions and not as an emissions registry. In 1998, a General Accounting Office review of the program concluded that, because it does not provide consistent reporting requirements, data transparency or independent verification, data reported under 1605(b) could not be relied on to produce an accurate indication of participant emissions (U.S. General Accounting Office, 1998). Independent analysis by the Natural Resources Defense Council and other NGOs pointed out that the reductions claimed by reporting electric utilities in the 1990s were impossibly large, given actual measured and estimated emissions from that sector (Lashof and Hawkins, 1999).

Many corporations recognize today that data integrity, transparency and verifiability will be prerequisites for the receipt of credit for historical emissions reductions under any future regulatory regime. The Energy Information Administration of the U.S. Department of Energy, which administers the 1605(b) program, undertook in 2002 to tighten its reporting requirements, chiefly by adding “performance tracks”¹⁸ similar to Canada's Voluntary Challenge and Registry that offer progressively stricter standards. These improvements fall far short of making it into a functioning registry, and few companies who are serious about receiving credit for emissions reductions rely on the 1605(b) program to protect their position. In addition, the 1605(b) program lacks a modern information infrastructure that can reasonably automate the reporting, transfer, and administration of data in an efficient, scalable manner. The California registry legislation contains several provisions intended to simplify and reduce the reporting burden on participants. The provisions are directed at minimizing reporting duplicative of the 1605(b) program.

To minimize conflicting requirements between the California Climate Action Registry (CCAR) and other state or federal programs, the legislation also commits the state “to review future international or federal programs related to greenhouse gas emissions and to make reasonable efforts to promote consistency between the state program and these programs.” Some of the major corporate participants in the California registry (BP, for example) believe that the only effective solution to this potential problem of conflicting registry requirements is the establishment of a federal GHG registry. Many also believe that it will take the example of effective, functioning registries in at least a few influential states to convince Congress that it is safe to act on the issue.

It was, and remains, difficult to answer the concern that participation in the registry may prove ineffective, given the state's inability to guarantee recognition of reported emissions results in unknown future circumstances. Registry proponents point out that the “best efforts” commitment by a state that constitutes the world's fifth-largest economy, while no

¹⁸ At the “Gold” level, for example, companies will likely be required to report all emissions, while the “Bronze” track may allow them to report emissions from selected plants or individual emissions reductions projects.

guarantee, still provides the best protection currently available to U.S. entities. The legislature, for its part, took this responsibility to vouch for the accuracy of reported emissions very seriously. Senator Sher, the bill's author, required that the law include provisions for independent certification of reported emissions and other mechanisms to ensure both data accuracy and the integrity of the reporting process.

2.5 Business Support for SB 1771

Business support for creation of a California registry, limited as it was during the 2000 legislative session, reflected a range of interests and concerns similar to those of businesses nationally, as discussed in Section 1.1 above. Some companies agreed to monitor their emissions out of a sense of corporate responsibility and good corporate citizenship. Some felt that being seen as an environmental leader would strengthen their brand or corporate image. Others believed that voluntary action to reduce carbon emissions was the most effective way to forestall regulation, with some saying bluntly that business failure to take the lead in reducing emissions was tantamount to accepting future regulation. Many, like most of the members of the CEO Coalition, believed that the challenges of sustainable development, including becoming more energy- and resource-efficient, presented enormous business opportunities for the development of new products, new technologies and real competitive advantage. Many continue to believe that the strongest path for the U.S. economy is to accelerate the development of cleaner, more efficient technologies and to promote the expectation that business should deliver constantly improving environmental performance. Some registry supporters were motivated by all or combinations of these calculations.

Throughout the legislative campaign in 2000, a handful of companies actively supported creation of the registry, writing letters, calling legislators and occasionally lobbying in person. They represented many sectors of the California economy: BF Goodrich Aerospace; BP; Calpine; CH2M Hill; Dole Foods; Fetzer; Gap, Inc.; Kinko's; Los Angeles Department of Water and Power; Patagonia; Science Applications International (SAIC); SeaWest Windpower; Shaklee; Silicon Energy. This active support—even though it came from only a small number of companies—helped convince the legislature that businesses would in fact participate in and report their emissions to the registry.

2.6 Environmental Opposition and Support

The Washington, D.C. offices of the Natural Resources Defense Council (NRDC), the Sierra Club, the Union of Concerned Scientists (UCS) and the League of Conservation Voters all initially had significant reservations about the idea of a state GHG registry, based in part on their experience with the inadequacies of the 1605(b) program. The national office of Environmental Defense (ED) also was unreceptive. It was developing its own proprietary national registry. The California offices of these same organizations, however, were more inclined to view a state registry as a useful tool for promoting energy efficiency, and were more confident that an effective one could actually be created. Their views ultimately prevailed over skeptics in their national offices.

The environmental groups, generally, had several concerns. They noted that because climate change is a global and transnational issue, reporting emissions on a state level represents misplaced emphasis that threatens to waste time, effort and resources—and worse. State registries could create entitlements to credits for reductions, perhaps based on inconsistent or inadequate criteria from state to state. These entitlements would likely be uncoordinated with national and international crediting programs and so hamper the establishment of effective national registries. Given lack of agreement about how emissions boundaries (responsibility for emissions) should be defined, differing state programs would likely misallocate reduction credits, rewarding some companies/industries at the expense of others, again hampering establishment of a consistent national reporting program.

Most environmental groups believed voluntary reporting programs do not constitute an effective response to the scope and seriousness of the climate change problem. While voluntary programs may encourage a few exemplary companies to cut emissions, only an enforceable mandate would produce materially significant cuts. This judgment led some groups to oppose voluntary programs and others to offer limited support for them. Those opposing voluntary programs argue that they undermined support for concerted national action by encouraging the vain hope that carbon regulation will not be needed, diverting policy-maker attention from the need for a national solution. Further, it bought time for the great majority of companies to simply maintain their energy use/emissions status quo.

Carbon emissions trading under a voluntarily imposed cap (or under a national cap for countries observing the Kyoto reduction targets) holds out the promise of finding least-cost ways to reduce emissions.¹⁹ Such trading depends on defining emissions quantities in consistent, transparent and verifiable ways—exactly the work of GHG registries—and many supporters of emissions trading welcome the development of registries. Most environmental groups, which generally mistrust market-based approaches to problems, are skeptical of emissions trading.²⁰ Many groups believe trading is at best a sideshow to the core work of increasing efficiency and cutting emissions. The Sierra Club and others go further, holding that it is fundamentally unethical: trading the "right to pollute" implies that there is in fact a right to pollute, which they strongly dispute.

In the debate over the California registry, however, state and local environmental groups argued that voluntary approaches are the only ones achievable in the current political climate in the U.S., given a Congress in gridlock on the issue. Supporting voluntary programs could help create a bandwagon effect. If several leading companies could show it was possible to make significant reductions at low cost, and these companies were to be rewarded for doing so by their shareholders and customers, regulators and the public, more companies would be encouraged to act and eventually Congress would find mandatory restrictions politically and economically acceptable. Voluntary initiatives, especially if they have robust monitoring and

¹⁹ U.S. Senators Joseph Lieberman and John McCain introduced legislation (S. 139) to institute a carbon cap and trade program in the U.S. in January 2003. The bill calls for the electricity, transportation, industrial and commercial sectors to reduce annual GHG emissions to year-2000 levels by 2010, and to year-1990 levels by 2016.

²⁰ Environmental NGOs oppose emissions trading of criteria pollutants on the grounds that it concentrates emissions in particular neighborhoods, in violation of basic environmental justice. Trading GHG emissions does not create this kind of local concern.

reporting requirements, could also help prepare companies to respond more effectively to future mandatory limits.

In addition, SB 1771 contained a separate provision requiring the California Energy Commission to update its inventory of emissions of greenhouse gases from all sources in the state every five years. Many environmental groups saw this requirement as essential to the ability to gauge progress toward reducing emissions. It added to their interest in the bill. After six months of active debate of these issues, much of it facilitated by CEERT, the major environmental groups variously offered their conditional support or at least agreed not to oppose the registry. The California offices of these groups, meanwhile, actively worked to secure passage of a bill that would meet international standards for data integrity, transparency and independent verification of reported emissions.

2.7 Passage of SB 1771

To preserve a place in the legislative calendar for the 2000 session, Senator Sher introduced the registry in early February 2000 as a "spot bill," i.e., a bill without specific content. Language outlining the concept of the registry, much of it based on the CEO Coalition Early Action Crediting program, as modified with the suggestions and requests of both businesses and environmental/public interest NGOs, was added later in the spring. Because any bill addressing climate change was sure to be seen primarily as an environmental measure, Senator Sher made it clear to all parties that he would not advance the bill until it had the consensus support of the major environmental organizations. Continued reservations about the registry from the national offices of the major environmental groups delayed agreement on a final program until July. At that time the Senator amended SB 1771. He provided operational details for a comprehensive registry program. This delay in getting such a complex program in front of the legislature and into public debate alienated a few of the major business lobbies in the state and greatly affected subsequent efforts to shape the registry.

The California legislature considers several thousand bills each session and typically passes and sends more than 1,000 of them to the Governor to be signed into law. In the summer of 2000, the legislative schedule for SB 1771 did not give the registry concept much visibility as the bill moved—largely without controversy—from committee to committee. But the amendment of the bill with a large amount of complex technical detail late in the session did not provide much time for evaluation. The California Council for Environmental and Economic Balance (CCEEB) and the California Manufacturers and Technology Association (CMTA) in particular complained, with some justification, that the registry concept had not been given adequate public debate and that their members had not had adequate time to consider the measure. They threatened to oppose it.

Despite concern that the program had not received sufficient public debate, SB 1771 passed the California Assembly on a vote of 46-30 and the Senate on a vote of 23-13 on August 31, the last day of the 2000 legislative session. The vote was largely along party lines, reflecting the Democratic majorities in both houses of the legislature. Efficiency and climate change never became priority concerns in the 2000 legislative session, and passage of the bill likely

had less to do with its merits than with the legislature's respect for Senator Sher. Skillful positioning of the bill by V. John White and Kip Lipper, Senator Sher's Chief of Staff, also played a crucial role.

After the vote, CCEEB, CMTA and a few other business organizations lobbied the Governor to veto the bill. Much of the opposition—to the completely voluntary program—was seen as coming from one major oil company. Loretta Lynch, at that time President of the California Public Utilities Commission, intervened forcefully against a veto, with support from NRDC as well. Governor Davis signed the bill into law on September 30, 2000, the last day for action on bills under the California constitution. He responded to the concerns that companies had not had adequate involvement in development of the registry program by directing, in his signing message, that Senator Sher sponsor clean-up legislation in the next session devoted to modifying the bill to ensure business participation in the registry. This enabled the Governor to appear responsive to industry critics of the bill while also allowing him to take credit for a pro-environment measure.

2.8 Clean-Up Legislation: SB 527

In response to the Governor's signing message, Senator Sher convened a Registry Working Group of key stakeholders in the winter of 2001. He welcomed the participation of all organizations willing to engage in good faith to improve the workability of the registry. The goals of the Working Group were to expand business involvement in and support for the registry; to develop a consensus plan for amending the technical guidelines and reporting requirements of SB 1771 necessary to secure such support; and, to help support the start-up of the registry as required by SB 1771, including timely appointment of a Board of Directors, staff and budget. Active participants included the California Council for Environmental and Economic Balance (CCEEB); California Manufacturers and Technology Association (CMTA); California Chamber of Commerce; BP Amoco; Edison Mission Energy; PG&E; Union of Concerned Scientists; Pacific Forest Trust; Natural Resources Defense Council; Environmental Defense; Clean Power Campaign; Los Angeles Department of Water and Power; Sacramento Municipal Utilities District; and the California Air Resources Board. Resources Secretary Mary Nichols helped build business participation in the Working Group and encouraged the active participation of the California Energy Commission and the California Department of Forestry as well.

In early 2001, Senator Sher introduced a legislative vehicle (SB 532, later renumbered SB 527) to carry amendments to SB 1771. The Registry Working Group met for nine months, from December 2000 through the passage of SB 527 in August 2001. It energetically debated the content of amendments. Having been unable to convince the Governor to veto SB 1771, CCEEB initially seemed intent on killing the registry altogether, and actively lobbied state agencies to withdraw their support for the program. CCEEB saw the Working Group as an opportunity to eliminate many of the key provisions of a comprehensive GHG reporting protocol. Wendy James and Molly Tirpak, Working Group staff representing the Center for Energy Efficiency and Renewable Technologies, played a critical role in rebuilding business support for the registry. Environmental NGOs viewed many of the amendments proposed principally by CCEEB as weakening the integrity of the registry as a

GHG reporting program. CCEEB, for example, proposed that companies should be allowed to report emissions from individual plants, while the NGOs insisted that companies should report all their emissions, as required in SB 1771. Statewide vs. national reporting of emissions, and reporting CO₂ vs. all six greenhouse gases were other key points of contention. CCEEB argued in each case for the most limited course of action. Environmental groups viewed CCEEB primarily as a representative of Chevron, the CCEEB member most widely seen as intent on discouraging any action to address climate change.

Working Group members representing state agencies and cities joined the environmental NGOs in pointing out that, as an entirely voluntary program, no company was required to participate in the registry. Some of the individual corporate participants in the Working Group also argued that efforts to relax the provisions of SB 1771 did not serve the interests of companies intent on receiving future credit for their baselines and annual emissions results. Meanwhile, the fact that SB 1771 was already on the books led CCEEB to compromise on major points. Without a clean-up bill Senator Sher was willing to support, CCEEB would be left to choose between living with the provisions of SB 1771 and seeking its repeal—a prospect politically difficult and a likely public relations disaster.

In the hope of widening business participation in the registry, the Working Group eventually reached consensus on significant changes to SB 1771:

- Statewide vs. national reporting: SB 527 encourages rather than requires participants (as in SB 1771) to register emissions from all sources in the U.S. after three years.
- Direct and indirect emissions: clarifies that direct and indirect emissions are to be reported separately.
- Gases to be reported: SB 1771 encouraged (but did not require) participants to report emissions of greenhouse gases other than CO₂ when they first join the registry. SB 527 directs that they do so after participating for three years.
- De Minimus levels/materiality: SB 527 added a provision that emissions below a certain threshold did not have to be reported.
- Reporting Metrics: SB 1771 directed that participants report emissions per dollar of revenue (except electric utilities, which report emissions per kilowatt-hour of electricity generated). This provision was important to national business groups working for passage of a national voluntary reporting program; for electric generation, it also eliminated the potential problem of double-counting direct emissions from generators and indirect emissions reported by users of electricity. SB 527 directs that participants report only emissions quantities.
- Certification: SB 527 gives the registry flexibility in adopting certification programs appropriate for different types of emitters. This was a useful improvement over SB 1771.
- Public Process: SB 527 directs the registry to use public processes in the development of registry policies, including conducting its affairs in open, scheduled public meetings. This was also a useful improvement, and the only new provision on which there was no disagreement.

With these changes, SB 527 passed the legislature without opposition. It was signed into law by Gov. Davis in September 2001. The Registry Working Group staff drafted by-laws and prepared a business plan and recruitment database to support the registry's timely start-up, smoothing the transition to the permanent registry staff.

3.0 Structure and Operation of the Registry

3.1 Nonprofit Corporation Structure

The registry is a public-private partnership, organized as a nonprofit, public benefit corporation. This structure makes it clear that, because it is not part of or associated with any state government agency, the registry is a voluntary rather than a regulatory program. During the two-year campaign to establish the registry, many companies said that it would be easier for them to agree to participate if the program were to be housed in an independent corporation. This structure—a state-incorporated nonprofit corporation with a stakeholder board of directors required to report regularly to the governor and state legislature—also appropriately reflects the legislature's intent to establish a partnership with the private sector to address climate change concerns. The parties mutually agree on the content and boundaries of the program. Registry participants (primarily companies) establish internal efforts to monitor and reduce emissions and have these results independently certified. The governor appoints the Board of Directors, and the state (primarily through the California Energy Commission) provides technical support and vouches for the accuracy of emissions reported in accordance with the requirements of the legislatively mandated program. The public-private partnership structure helped win support from some Republican legislators.

While there were precedents for the state establishing an independent nonprofit corporation, Senator Sher and other legislators and government officials felt that the registry would be more appropriately organized as a unit of the California Air Resources Board (CARB), the California Environmental Protection Agency or the California Energy Commission. Both the CARB and Cal EPA have regulatory authority and were unacceptable to the registry's business supporters. Environmental and business support for organizing the registry as a nonprofit corporation eventually carried the day.

Senator Sher, a professor of constitutional law at Stanford University, remained concerned that the state could not guarantee the accuracy of registered emissions, to the people of the State of California, if it did not directly oversee the data collection and verification process. He insisted that the independent, third-party certification of reported emissions required in the bill be supplemented by having California Energy Commission (or other state agency) personnel accompany certifiers on occasional random visits to registrant facilities in order to help ensure the integrity of registry data collection, measurement and reporting processes and results. This limited state oversight was accepted by all parties as the minimum necessary to ensure the integrity of the program. It reinforced the state's commitment to use its best efforts to ensure registrants receive all appropriate consideration in any future regulatory regime.

3.2 The Reporting Protocol

The registry's approach to reporting emissions derives largely from the CEO Coalition Early Action Crediting proposal, as modified into legislation by the stakeholder process described above. The legislation was translated into programmatic guidelines by the California Energy Commission. Although the registry protocol was developed independently by California sources, it was informed by and is completely consistent with the Greenhouse Gas Protocol Corporate Accounting and Reporting Standards developed by the World Resources Institute/World Business Council for Sustainable Development (World Resources Institute, 2001). Development of the registry's technical reporting requirements benefited greatly from regular communication with WRI staff. SB 1771/527 anticipates that the registry will adopt industry-specific reporting requirements as these are accepted by international stakeholders and added to the WRI protocol over the next several years.

Consistency with the WRI/WBCSD Greenhouse Gas Protocol standards is significant for two reasons. First, these standards have broad credibility with business, NGOs and governments—they were developed by more than 350 participants from those sectors. Second, the Greenhouse Gas Protocol has been adopted or informed many other climate initiatives in the US and internationally, including the UK Emissions Trading Scheme, Chicago Climate Exchange, EPA's Climate Leaders Program, and the World Economic Forum Global GHG registry. This move towards harmonizing emissions monitoring and reporting standards will reduce the transaction costs of businesses wishing to participate and allay concerns about the development of incompatible jurisdictional rules.

Registry participants report direct emissions and indirect emissions. Direct emissions are defined as those under management control of a participating entity, including emissions from on-site combustion, fugitive non-combustion emissions and vehicles owned and operated by the participant. Indirect emissions are those embodied primarily in purchased electricity (net electricity and steam imports, including offsite steam generation and district heating and cooling). Participants are encouraged, but not required, to report other indirect emissions, e.g., from outsourced transportation services such as shipping of materials and products, employee commuting and contract manufacturing. SB 527 provides that the registry board may revise the scope of indirect emissions that it may require to be reported after January 1, 2004.

For the first three years of participation, registrants are required to report only emissions of CO₂. Thereafter, they must also report emissions of the other major greenhouse gases.²¹ Participants are not required to report emissions of any greenhouse gas that is de minimis in quantity in relation to their total emissions.

Participants report their actual emissions results each year in tons. They may establish their emissions baseline in any year after 1990, provided they have adequate energy and fuel use data to support accurate emissions calculations for that year. To simplify both the calculation and the reporting of emissions, the registry hired CH2M Hill to develop a web-based

²¹ Hydrofluorocarbons (HFCs), Methane (CH₄), Oxides of Nitrogen (N₂O), Perfluorocarbons (PFCs), and Sulfur Hexafluoride (SF₆).

emissions database and application suite. This state-of-the-art technology is known as CARROT: Climate Action Registry Reporting Online Tool.

All GHG emissions data are entered and managed via CARROT, which provides tools, information and many levels of reporting and tracking to meet the needs of registry participants, certifiers, and the public. CARROT produces facility-level and entity-level emissions reports, industry summary reports, and registry administration reports. Multiple user levels enable the different divisions or subsidiaries of an entity, for example, to collaborate in drafting their emissions reports and to request certification on line before the entity formally submits its final results. The registry's reporting requirements are built into CARROT, along with data security and revision management provisions. CARROT enables the registry to support a potentially huge volume of participants and detailed emissions data with a very lean staff.

In contrast to the U.S. 1605(b) program, the basic unit of participation in the California registry is an entity in its entirety: a corporation, a city or county, and each state government agency. The registry does not acknowledge emissions results for individual facilities or projects. Instead, facility-level reporting is rolled up and summarized internally by CARROT and only the summarized entity-level report is made available to the public.

At a minimum, participants must report all of their California emissions. They are also encouraged to report their total U.S. emissions (and their total worldwide emissions), in order to receive equal consideration for their emissions records in future national or international regulatory regimes. SB 527 directs the registry to recommend to the legislature by 2004 whether or not the registry should require, rather than encourage, participants to report all their U.S. greenhouse gas emissions rather than just those from California sources.

Also in contrast to most other emissions reporting programs (but consistent with the WRI/WBCSD GHG Protocol corporate reporting standards), the registry requires participants that outsource production or services (i.e., subcontract them to other companies) to report the emissions associated with the outsourced activity and to remove such emissions from their emissions baseline. This is essential to ensure that reported emissions reflect actual emissions. Participants must also adjust their baselines to reflect mergers, acquisitions, divestitures or other changes in their corporate structure.

These provisions clearly define each participant's emissions "footprint," the emissions each is responsible for reporting. This is prerequisite to the state's ability to vouch for the accuracy of emissions reported under the registry. Together, these provisions constitute the most comprehensive reporting program now operational in the U.S.

3.3 Start Up and Recruitment

California Secretary of Resources Mary Nichols directed that the registry be incorporated as a nonprofit, public benefit corporation in May, 2001 and appointed Diane Wittenberg, a long-time executive of Southern California Edison respected by both corporations and environmentalists, as president. Gov. Davis appointed a distinguished Board of Directors in

September 2001, all from organizations willing to address climate change concerns and representing corporations, the public, academic and NGO sectors, as directed by the legislation:

Dr. Charles F. Kennel, Vice Chancellor, Dean and Professor of Marine Sciences at the University of California, San Diego Scripps Institution of Oceanography;

Robert A. Malone, Regional President, BP;

Peter M. Miller, Senior Scientist, Natural Resources Defense Council;

Jan E. Schori, General Manager, Sacramento Municipal Utilities District.

By statute, the Resources Secretary and the Secretary of Environmental Protection are also ex-officio members of the registry board of directors; Resources Secretary Mary Nichols currently serves as chair of the board; she is joined by Cal EPA Secretary Winston Hickox.

The California Energy Commission (CEC) retained Arthur D. Little, Inc. to develop the detailed GHG reporting protocol called for in SB 527 (California Energy Commission, 2002). The CEC also retained qualified organizations to provide technical assistance in the design and implementation of energy efficiency and emissions monitoring programs and third party certifiers. The registry formally adopted both a General Reporting Protocol and a Certification Protocol in October 2002 (California Climate Action Registry, 2002). With this foundation in place, the registry began recruiting organizations to register their emissions.

Concurrent with the registry's authorizing legislation, the state legislature authorized two years of start-up funding from the state general fund; thereafter the registry must rely on membership fees and payment for services provided. To expand the initial recruitment campaign and get it off to an early start, the Energy Foundation supported the registry with a grant earmarked for encouraging companies to join the registry. This support was crucial in enabling the registry staff to develop outreach activities until state funding was secured.

The registry announced its first 23 charter members in October 2002.²² These include 11 corporations (BP, New United Motor Manufacturing (GM-Toyota), PG&E, Qualcomm et. al.); the cities of Los Angeles, Sacramento, San Diego and Santa Monica; two state agencies (California Environmental Protection Agency, California Energy Commission); two municipal utilities (Los Angeles Department of Water and Power, Sacramento Municipal Utilities District); three NGOs and the University of California-San Diego. As the EPA did so successfully with its Climate Wise program,²³ the registry's growth plan includes having members recruit other participants from among their peers.

The opportunity to help formulate GHG emissions policy appears to be a major motivation for membership. The registry has emerged as a neutral forum for learning about, testing and

²² For additional information, see www.climateregistry.org.

²³ By 2000, 535 companies had made greenhouse gas monitoring or reduction commitments under the EPA ClimateWise program. A large majority of these companies reported cost savings and competitive and other business advantages as resulting from their attention to emissions.

perhaps shaping the accounting principles and industry metrics by which emissions performance will be measured in the future. Companies, especially, want to have something to say about how these standards are developed and applied. While there are several other GHG reporting and standards-development initiatives, the CCAR uniquely provides the context of an operating registry for elaboration of crucial accounting issues.

SB 1771 envisioned the registry becoming self-supporting on a fee for service basis within the two years of start-up funding provided by the state. This ambitious target was necessitated by the likelihood that the legislature would not have approved a longer period of state funding. It now appears that it will take five-seven years to amass a membership large enough to make the registry self-supporting. For participants, the major cost of membership is paying for third-party certification of reported emissions. This makes it essential that membership dues be kept low enough so that the combined cost of dues and certification does not constitute a barrier to participation. But low revenue from dues delays the achievement of self-support.

The registry has secured foundation grants to enable it to continue operating when its initial two years of state funding end in 2003. The registry is also developing a package of services to sell to its members, non-members and other states. With a large enough pool of members, the registry expects to be able to become self-sustaining, while also keeping dues low enough to enable broad participation. The impact of the registry in reducing statewide emissions will depend heavily on the success of the recruitment campaign.

4.0 Lessons Learned

In the meantime, the organizers of the registry offer these reflections on establishing state-level emissions-monitoring programs:

- One legislative session is too short a period to introduce and circulate a proposal for comment, build stakeholder interest, develop the mechanics of a monitoring program, foster debate on key issues and build sufficient political support. Given the partisan dynamics of climate change issues and the unavoidable complexity of emissions mechanics, this work is better approached as a two-three year campaign, regardless of the size of campaign staff. A larger staff may allow outreach to more potential supporters and more time for discussion with skeptics and opponents. But it is unlikely to significantly shorten the time required to coalesce political support for the program.
- More time invested in fostering buy-in to the program prior to enacting the legislation may facilitate the subsequent recruitment of participants. But there is no data from the California experience to support this assumption, and, in fact, many of the companies most active in the stakeholder discussions (those represented by CCEEB, for example) have yet to join the registry. Companies generally have been slower to sign up than anticipated (although more cities and state agencies have committed to participate than expected). Macroeconomic concerns appear influential, if not determining. An expanding economy supports consideration of issues, such as sustainability or carbon liability, perceived to be of potential long-term significance; a contracting economy

narrows corporate focus to immediate profit and loss concerns. Political momentum also influences corporate attention. Companies are more likely to engage on issues that they see being actively treated in national legislation. Even the best stakeholder involvement process is unlikely to outweigh these larger economic and political dynamics.

- Despite delays and the complexity of the subject matter, the California registry was developed, passed by the legislature and signed into law in less than a year; this at a time when the economy was beginning to contract (but was not yet in recession), and when there was little sense of national leadership on climate change issues. Handicapping legislative prospects is in this respect like trying to predict the stock market. The odds favor a campaign robust enough to eventually prevail, regardless of the short-term economic and political context.
- The level of detail and directive in the legislation is a key strategic decision for the organizers of programs like registries which do not enjoy consensus support. Enabling legislation, which directs only that a program be established, is often easier to pass than bills containing detailed provisions. This then entrusts implementation details to non-legislative agencies or stakeholder processes, where there is a risk that the ultimate program will not fully reflect the intent of the legislation or its sponsors. The alternative is to write detailed program guidance into the legislation. This may in some cases better preserve program integrity, but at the risk of making it more difficult to pass.²⁴ New Hampshire and Wisconsin have chosen the former approach, passing legislation authorizing the creation of greenhouse gas registries, with the details of participation, reporting standards and verification left to be worked out mainly by industry-dominated stakeholder groups. The result in New Hampshire's case (Wisconsin does not yet have an operational program) is a registry which has many of the same limitations as the 1605(b) program, to the disappointment of both its organizers and the New Hampshire companies that had argued for higher reporting and verification standards. California's registry laws include extensive technical detail on registry organization and operation. In California's case, passage of SB 1771 without adequate public debate effectively required a legislative clean-up process as a vehicle for vetting this detailed and complex program with a wider set of stakeholders.
- A complex and potentially controversial program like a GHG registry needs strong legislative sponsors and skillful legislative handling. Key activities must include: orchestration of co-sponsors and securing extra-legislative support before the measure is introduced; analysis of and outreach to swing legislators, both in committee and floor votes; ensuring that legislators hear from key constituencies; coordination of lobbyists; and a strategy to ensure that the governor will, in fact, sign the bill. It is difficult to overstate the importance of having respected, experienced, resourceful and tenacious political operatives leading this effort. There is little chance the CCAR could have succeeded without excellent legislative leadership.

²⁴ There are of course other options. New Jersey, for example, has a number of progressive emissions reduction programs established by executive order and department head initiative.

- Given strong legislative leadership, it is possible to wage a successful campaign with a small number of active supporters. Broader support is always preferable. It can facilitate legislative approval, and it will likely speed program implementation. But constituencies willing to passively sign on to a measure count for less than those willing to write letters, call or visit legislators and pay for or provide professional lobbyists. In the case of the California registry, the active support of 16 companies, six environmental groups and four state agencies was enough to get the bill enacted into law.
- It is likely to take the CCAR five-seven years to become financially self-supporting, given the pace of membership recruitment and the need to keep dues low enough to avoid impeding participation. The authorizing legislation, however, calls for only two years of state funding. The reality is that the legislature would have been highly unlikely to pass a bill requiring a longer period of state funding. This gap underlines the importance of foundation support for public-private partnerships like the registry.

The most important learning, of course, will be whether or not the registry will be effective in reducing statewide emissions and/or in influencing Congress to develop a national program for encouraging emissions reductions. Participants in the CCAR would argue that other states do not have the luxury of waiting to see the outcome in California before launching their own registry programs.

5.0 First Steps Toward Energy Security

The energy crisis that skyrocketed prices in California and the entire western U.S. from the fall of 2000 through 2001 brought energy efficiency more forcefully than ever to the attention of state policy-makers. The Governors of the 14 western states, for example, adopted a suite of policies to promote energy efficiency (Western Governors Association, 2001), and consumers in California cut their consumption of electricity 20% in 2001 in response to high electric prices and incentives to conserve. In the midst of the chaos of electric market restructuring, many states are paying renewed attention to ways of meeting energy needs through demand-side management (both efficiency and conservation measures) instead of relying primarily on new resource supply. Rate certainty and affordability are important dimensions of energy security. Energy efficiency programs and public concern to migrate toward a cleaner, more sustainable and lower emission future appear to be mutually supportive, and to reflect growing popular pressure for action to stabilize and reduce emissions.

By the end of 2002, 100 countries had ratified the Kyoto Protocol and that treaty appeared poised to become effective in 2003, without the participation of the U.S. There are indications that the Bush Administration policy of isolating the U.S. from international action to address climate change may be fueling state-level programs, as governors and legislatures respond to popular concern about the issue. In January 2003, New York Governor Pataki, for example, issued an executive order requiring the state to obtain 25% of its electricity from renewable sources by 2010. Fifteen states have similar minimum purchase requirements for renewable energy. Several New England states begin regulation of CO₂ from power plants in 2003, and New York appears poised to follow California's lead in moving to regulate CO₂ from vehicles.

State programs promoting efficiency, renewable energy and carbon management express widespread popular concern not yet reflected in national debate or policy. Some argue that states can do little to address energy insecurity, compounded as it is with economic and ecological vulnerabilities as well as a growing national dependence on imported energy. A growing number of governors, legislators and citizens groups resolutely disagree. They point out that states can derive immediate economic and quality of life benefits from encouraging energy efficiency and reducing emissions²⁵—and that state GHG reductions achieved by even a minority of states constitute at the very least a positive step toward stabilizing the concentration of atmospheric carbon.

State programs will strengthen the call for congressional action to address energy insecurity, environmental unsustainability and increasing concentrations of atmospheric carbon. State emissions programs, while inadequate in themselves to achieve large emissions reductions, will help shape both the content and the timetable of any comprehensive national program.

²⁵ Former New Hampshire Governor Jean Shaheen, for example, concluded that, "In fact, states, cities and counties are not only setting the pace in reducing climate-altering emissions, they are discovering solutions that provide their communities with extraordinary collateral benefits at the same time, including saving money, improving quality of life and enhancing economic development and competitiveness." (Shaheen, 2001).

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Appendix A

SB 1771

Appendix B

SB 527



University of Colorado at Denver

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Dear Colleague:

I am pleased to provide you with a case study developed by David Olsen, a Senior Wirth Chair Fellow, concerning California's initiation of a statewide registry to record carbon emission reductions. The case study, titled "State Climate Change Initiatives: Creation of the California Climate Action Registry," indicates that California has established the most comprehensive GHG monitoring and reporting systems in the U.S.

As David Olsen describes, the process generating the California Registry was not an easy one. The initial idea was not uniformly supported by business, political and environmental leaders. Through strategic dialogue and compromise, the Registry was enacted by the legislature in 2000. Its structure and ground rules were refined by the legislature in 2001. The Registry is now operational.

Olsen describes the substantive, methodological and political factors influencing the final form and shape of the Registry. He summarizes the lessons learned preceding and during the process leading to the Registry.

We would welcome your comments concerning the case study. The Chair will use its contents, as well as other Wirth Chair analyses, to engage public, nonprofit and private sector leaders throughout the West in long overdue discussions concerning climate change problems and the benefits as well as the possible costs of state registries.

Sincerely,

Marshall Kaplan
Executive Director
Wirth Chair

State Climate Change Initiatives: Creation of the California Climate Action Registry

By

David Olsen

Senior Fellow, Wirth Chair

April 1, 2003

Abstract

The California Climate Action Registry, created by legislation in 2000, is a voluntary program to improve energy efficiency and monitor and reduce greenhouse gas (GHG) emissions. It functions as a public-private partnership and is incorporated as an independent nonprofit organization, with a board of directors made up of state officials and representatives of business, city government and public interest non-governmental organizations. It is based on a comprehensive protocol for reporting and independently certifying emissions. It commits the state to use its best efforts to ensure that participating entities receive all appropriate consideration for emissions baselines and reductions reported under the protocol in any future national or international carbon regulatory regime. The history of the establishment of the registry is instructive as to both the opportunities for and limitations of voluntary action to address climate change.