

Corporate, Government, and Nonprofit Sector Incentives for Participation or Development of Voluntary Environmental Agreements

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Abstract

Voluntary Environmental Agreements (VEAs) are agreements among the corporate, government, and/or nonprofit sectors not required by legislation that aim to improve environmental quality or natural resource utilization. VEAs represent a new environmental policy approach and have experienced recent growth in many countries and regions, such as the United States and the European Union. These agreements are diversified and incorporate various kinds of objectives, incentives, and procedures. This paper explores the incentives that induce the corporate, government, and nonprofit sectors to participate in or develop VEAs. The analysis of corporate incentives is based on empirical evidence from participants in the Climate Challenge Program, while the examination of the other incentives is based on existing literature. This research provides the opportunity to initiators of VEAs to motivate potential participants by providing the appropriate incentives, which in turn can lead to more effective institutions and sustainable governance. Also the analysis clarifies the forces that shape the behavior of VEA participants and allows non-participants to identify potential incentives that they have not captured yet.

1. Introduction

Voluntary Environmental Agreements (VEAs) are agreements among the corporate, government, and/or nonprofit sectors not required by legislation that aim to improve environmental quality or natural resource utilization.¹ VEAs represent a recent environmental policy approach that is growing in importance in many areas, such as the United States and the European Union. In 1996, approximately 300 agreements existed in Europe (Commission of the European Communities 1996b), while a variety of VEAs have developed in the United States, mostly by the Environmental Protection Agency (EPA) but also by the Department of Energy (DOE).² Green Lights increases energy efficiency through lighting improvements, while 33/50 targets the reduction of the emissions of 17 chemicals by 33 percent in 1992 and 50 percent in 1995 (EPA 1998). Other countries have also developed VEAs, such as Japan where more than 2000 agreements were formed in 1992-1993 between local governments and the business sector (Storey 1996).

This paper examines the incentives that induce the corporate, government, and nonprofit sectors to participate in VEAs.³ Given that several VEAs include the corporate sector the analysis of corporate incentives includes empirical evidence from interviews with representatives from ten electric utilities that participate in the Climate Challenge Program; a VEA with a goal of reducing the impact of greenhouse gas emissions [U.S. DOE, 1996a]. The analysis of government and nonprofit sector emissions is mainly based on existing literature.

This study provides the opportunity to initiators of VEAs to motivate potential participants by providing the appropriate incentives, which in turn can lead to more effective institutions and sustainable governance. The analysis clarifies the forces that shape the behavior of VEA participants and allows non-participants to identify potential incentives that they have not captured yet. Finally, the empirical study of electric utility behavior is particularly relevant, due to the potential role of the utility industry in meeting policy objectives for the reduction of greenhouse gas emissions.

2. Why does the corporate sector participate in VEAs?

Although some research explores the incentives for participation in VEAs, such as the 33/50 program (Arora and Cason 1996, 1995; Khanna and Damon 1999), a number of studies have suggested the

need for more research on the characteristics and incentives that induce environmentally responsible actions, including participation in VEAs (Lyon and Maxwell 1999; Cohen 1998; Labatt and Maclaren 1998; Konar and Cohen 1997; Hansen 1996). This section examines the incentives that induce company participation in VEAs and is related to the works of Lyon and Maxwell (1999) and Davies and Mazurek (1996). For the purposes of this study, incentives are defined as: "underlying, unobservable factors that induce, or influence, the VEA participation decision." The classification of incentives is based on the benefits that companies obtain from their commitment to VEAs.

Direct incentives are related to information provision, technical assistance, and financial assistance that facilitate the adoption of environmental projects. Economic savings refer to short- and long-term economic benefits from reductions of operation costs, regulations, liability-related costs (e.g., lower accident risks, lower payments), future compliance costs (e.g., reduction credits), and administration costs (e.g., accelerated permitting). Strategic marketing encompasses benefits from projects that are appealing to consumers, business partners and investors. Organizational culture is related to incentives that are consistent with the organization's values (i.e., the right thing to do). Public recognition refers to improvements of the company's image and benefits from closer cooperation with groups, such as environmental and community groups. Finally, incentives can be classified as external (E) or internal (I) depending on the main source of the benefits. For example, technical assistance is an external incentive, since it is usually provided by the government sector.

To examine the incentives that induce companies to participate in VEAs, this study focuses on the participation of major investor- and publicly-owned electric utilities in the U.S. Climate Challenge Program.⁴ The term "major" is defined by the Energy Information Administration (EIA) based on specific criteria (e.g., sales levels). The two types of utilities represent the large majority of electricity sales to ultimate consumers (EIA 1996, 1997). The Climate Challenge Program is a VEA between DOE and the electric utility sector with an objective of lowering greenhouse gas emissions [U.S. DOE, 1996a]. It was officially initiated on April 20, 1994 and provides the opportunity to companies to reduce the impact of emissions in a number of ways (e.g., direct emission reductions, plant trees, participate in other voluntary programs).

Results about incentives are based on interviews with ten representatives from companies that had made commitments to the program. The sample was selected purposefully based on the size of the utility, location, and other criteria. The main question related to participation incentives was: “Can you provide me with a few reasons why did your utility decide to participate in the Climate Challenge Program?” The results of the interviews are summarized in Table 1.

Table 1: Corporate Incentives for Participation in VEAs

Categories of Incentives	Type of Incentive⁵	No. of Yes Responses from 10 Electric Utility Representatives
1. Direct Incentives		2
a. Information & Technical Assistance	External	2
b. Financial Assistance	External	-
2. Economic Savings		7
a. Direct Economic Savings	Internal	2
b. Reduction of Liability-Related Costs	External	-
c. Reduction of Regulatory Costs	External	3
d. Reduction of Future Compliance Costs	External	2
e. Reduction of Administration Costs	External	-
3. Strategic Marketing		-
a. Improved Competitive Position	External	-
b. Improved Investment Position	External	-
4. Organizational Culture	Internal	4
5. Public Recognition	External	9

Note: Representatives could provide multiple responses. Bold numbers represent the sum of the subcategories.

Two respondents argued that assistance affected their decision to participate in the Climate Challenge Program. For example, one respondent suggested that one of the main reasons for participating was his utility's interest in measuring their level of emissions. The Climate Challenge Program provided the utility with the support, incentives, and methodology to achieve that goal.

Two respondents indicated that direct economic savings affected their decision. For example, one respondent suggested that the main factor that induced participation was that in the “long-run it would be less costly.”⁶

Three utility representatives stated that the avoidance of regulations induced their utilities to participate in the program. One respondent specifically referred to the avoidance of a carbon tax that would have been very burdensome and costly.

Two representatives stated that taking credit for early action in case regulations were introduced played a role in their utility's decision to participate in the CCP.

Four representatives provided explanations, which indicated that participation in the Climate Challenge Program was consistent with the utility's corporate culture. For example, two respondents suggested that participation is "the right thing to do."

Finally, nine utility representatives indicated that some form of public recognition induced their utilities to participate in the Climate Challenge Program. For instance, one respondent stated that his utility was interested in establishing a public record of their environmental contribution, while two respondents indicated that improvement of government relations and policies induced their utilities to participate in the Climate Challenge Program.

In conclusion, companies face a large number of incentives to participate in VEAs. It is unlikely that any of these incentives independently induces participation. It is more probable that a combination of incentives encourage commitments to these agreements. Further, several of the incentives are interrelated and as a result, the boundaries of the incentive categories may overlap. In the Climate Challenge Program public recognition and economic savings were the major factors that induced utility participation, while direct incentives and organizational culture played a secondary role in the participation decision. Given the importance of public recognition, it may be appropriate for future initiators of VEAs to provide this type of incentive to maximize corporate participation.

3. Why government agencies participate in VEAs?

A number of reasons may explain the interest of the government sector in participating in VEAs (Table 2). This section discusses six of these incentives (i.e., highlighted incentives).⁷

First, government agencies may develop VEAs to save resources and reduce regulatory costs (Incentives 1 and 2). The growth of environmental problems and legislation during the last two decades requires more financial, human, and technical resources to effectively administer the various programs. As these resources become scarcer, government agencies may try to find alternative ways to achieve their objectives, such as VEAs. Voluntary initiatives are attractive to governments that want to reduce spending (Jenkins 1995). For example, the interest in VEAs in Denmark is partially attributed to the lack of government resources (Georg 1995). VEAs can lead to government savings through reductions in policy

design, implementation, monitoring, and enforcement costs (which in some cases are shifted to the participating companies), and in general transaction costs.⁸

Government agencies devote capital to design and implement regulations and monitor compliance. In the U.S., regulation and monitoring costs for air, water, solid waste and other types of pollution increased from almost 1 billion dollars in 1972 to approximately 1.7 billion dollars in 1993 (Rutledge and Vogan 1995, 42-4; 1994, 45⁹). On the other hand, EPA outlays (e.g., water infrastructure, Superfund expenditures, research and development, salaries) have stabilized at around 6 billions dollars, after a dramatic reduction between 1980 and 1984. Based on projections until 2003 the stabilization will continue (Executive Office of the President of the U.S. 1998). Given the increase in the number and complexity of environmental problems it is likely that these funds will not meet the needs for a clean environment. Overall, the lack of human, financial, and technical resources of government agencies, and the increased number and complexity of environmental problems have induced agencies to develop VEAs.

Table 2: Government Agency Incentives for Participation in VEAs

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| <ol style="list-style-type: none">1. Reduction of the agency's administration and enforcement costs of regulations.2. Reduction of the agency's human resources needs.3. Increase of freedom and flexibility regarding the design of environmental policies.4. Acceleration of the implementation of environmental policies.5. Experimentation with a new environmental policy approach.6. Exchange of information with the corporate sector regarding policy design.7. Protection of the international competitiveness of U.S. companies.8. Forewarn the corporate sector about forthcoming regulations.9. Provision to the corporate sector with the opportunity to go beyond regulatory requirements.10. Creation of a more flexible regulatory environment for companies (e.g., lower costs, freedom in selecting method for pollution reduction, adoption of a multimedia approach). |
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Second, government agencies may develop VEAs to increase their flexibility in the design of environmental programs (Incentive 3). Currently, in the U.S., environmental legislation is prescriptive; thus, government agencies have limited freedom on how to handle environmental issues (Fiorino 1995). VEAs provide agencies with the opportunity to design, implement, and change their own programs in a flexible manner. The involvement of legislature in VEAs is limited (Hansen 1996), while it is relatively easy to change VEA structure compared to laws (Gaines and Mfodwo 1996; Baggott 1986).¹⁰

Third, VEAs may be developed faster than the formal regulatory process, which may lead to faster improvements of environmental conditions (Incentive 4). The development of VEAs requires less time than the creation of laws (International Energy Agency-IEA 1997; Gaines and Mfodwo 1996; Potier 1994; Schmidheiny 1992; Baggott 1986),¹¹ while one of the reasons for the development of the Climate Challenge Program was that the creation of legislation with similar objectives would be time-consuming (Kinsman et al. 1996).

Fourth, government agencies may develop VEAs to improve communication with the corporate sector and design more effective environmental policies (Incentive 6). In many cases the government lacks information about business operations or environmental problems that is essential for the development of environmental policies. VEAs encourage information exchange (EEA 1997; Goodin 1986) and promote coordination between the various parties that can lead to improved environmental solutions (Long and Arnold 1995).¹² The negotiation phase of VEAs can encourage the development of better policies based on a shared understanding of environmental issues between government and companies (Commission of the European Communities 1996a). One of the major benefits of EPA's Common Sense Initiative (i.e., a multiparty VEA for the development of comprehensive environmental solutions in six industries) is the closer collaboration between people that were not used to working together (Davies and Mazurek 1996).

Finally, government agencies may develop VEAs to protect the competitiveness of home-based companies (Incentive 7). Because of economic globalization governments are less willing to enact new regulations. Instead, they prefer a more flexible, innovative, and cost-effective approach (IEA 1997).

Additional explanations for the interest of the government sector may include experimentation with a new environmental policy approach, interest in forewarning the corporate sector about forthcoming regulations, and the opportunity provision to the corporate sector to go beyond regulatory requirements.

4. Why nonprofits participate in VEAs?

A number of incentives may induce nonprofits to participate in VEAs (Table 3). They are interested because these agreements can increase public interest for environmental issues, employee satisfaction, interactions with other groups, access to resources of other organizations, and effectiveness of environmental

programs (Long and Arnold 1995). In particular, the lack of human and financial resources (Caudron 1995; Milliman et al. 1994) and technical resources (Milliman et al. 1994) of environmental organizations encourage them to collaborate with companies. In other cases development of VEAs may lead to image promotion for the nonprofit.

Table 3: Nonprofit Incentives for Participation in VEAs

<ol style="list-style-type: none">1. Increase of public interest for environmental issues.2. Increase of employee satisfaction.3. Increase of interactions with other groups.4. Access to resources of other organizations (e.g., financial, human).5. Increase of effectiveness of environmental programs.6. Image promotion.

Pollution Probe, a Canadian environmental group, endorsed some "environmentally friendly" products sold by Loblaws Inc., a Canadian grocery chain, to promote environmental awareness and to (a lesser degree) increase the group's income (Westley and Vredenburg 1991, 66, 78). The Wildlife Habitat Enhancement Council improved wildlife protection through cooperation with companies and other groups (Cothran 1993). EDF developed the Paper Task Force to learn more about the environmental problems from paper, to contribute to a solution to this problem, and to increase the group's "visibility" and "prestige" (Lober 1997, 14). Overall, VEAs are becoming an attractive tool for nonprofits to protect the environment and improve their organizational operations.

5. Conclusion

The recent growth of VEAs indicates the increasing interest of the corporate, government, and nonprofit sectors in this approach. These sectors face a number of incentives that may induce their participation in VEAs, such as resource reductions, increase of environmental effectiveness, and improvement of policy design. The convergence of interests from these actors facilitates the development of this policy approach, which in turn can contribute to sustainable governance. Future research should provide additional theoretical and empirical support on the participation incentives of the three sectors.

6. Bibliography

Arora, Seema, and Timothy Cason. 1996. Why Do Firms Volunteer to Exceed Environmental Regulations? Understanding Participation in EPA's 33/50 Program. *Land Economics* 72, no. 4 (November): 413-32.

Arora, Seema, and Timothy Cason. 1995. An Experiment in Voluntary Environmental Regulation: Participation in EPA's 33/50 Program. *Journal of Environmental Economics and Management* 28: 271-86.

Baggott, Rob. 1986. By Voluntary Agreement: The Politics of Instrument Selection. *Public Administration* 64 (spring): 51-67.

Caudron, Shari. 1995. The Green Handshake, Partnerships Usher in a New Era of Market-Based Environmentalism. *Industry Week*, 3 April, 33-5.

Climate Challenge Options Workbook. 1994. N.p. - [cited 10 November 1999]. Retrieved from: <http://es.inel.gov/new/business/sba/options.html>, [92 pages].

Cohen, Mark. 1998. Monitoring and Enforcement of Environmental Policy. Unpublished paper. Owen Graduate School of Management, Vanderbilt University, Nashville, Tennessee, August.

Commission of the European Communities. 1996a. *Communication from the Commission to the Council and the European Parliament on Environmental Agreements*. COM (96) 561 Final, 11 November. Luxemburg, Luxemburg: Office for Official Publications for the European Communities.

Commission of the European Communities. 1996b. *Study on Voluntary Agreements Concluded Between Industry and the Public Authorities in the Field of the Environment*. Draft Final, August, Enviroplan. Cited in European Environment Agency, *Environmental Agreements, Environmental Effectiveness* (Copenhagen, Denmark: European Environment Agency, 1997), 22 (Figure 2.1).

Cothran, Marie Christel. 1993. Pro-Active Environmental Activity Eases Permitting Process. *Journal of Environmental Permitting* (summer): 293-300.

Davies, Terry, and Jan Mazurek. 1996. *Industry Incentives for Environmental Improvement: Evaluation of U.S. Federal Initiatives, A Report to the Global Environmental Management Initiative*. With assistance from Kieran McCarthy and Nicole Darnall. [Washington, D.C.]: Center for Risk Management, Resources for the Future.

Energy Information Administration. Office of Coal, Nuclear, Electric and Alternate Fuels. 1997. *Financial Statistics of Major U.S. Publicly Owned Electric Utilities 1995*. DOE/EIA-0437(95)/2. Washington, D.C.: U.S. Department of Energy.

Energy Information Administration. Office of Coal, Nuclear, Electric and Alternate Fuels. 1996. *Financial Statistics of Major U.S. Investor-Owned Electric Utilities 1995*. DOE/EIA-0437(95)/1. Washington, D.C.: U.S. Department of Energy.

European Environment Agency. 1997. *Environmental Agreements, Environmental Effectiveness*. Environmental Issues Series, no. 3, vol. 1. Copenhagen, Denmark: European Environment Agency.

Executive Office of the President of the United States. Office of Management and Budget. 1998. *Historical Tables, Budget of the United States Government, Fiscal Year 1999*. Washington, D.C.: Government Printing Office.

Fiorino, Daniel. 1995. *Making Environmental Policy*. Berkeley, California: University of California Press.

Gaines, Simon, and Kwame Mfodwo. 1996. Voluntary Agreements in Environmental Regulation with Particular Reference to New Zealand (Voluntary Agreements I). *The Australasian Journal of Natural Resources Law and Policy* 3, no. 2: 271: 338.

Georg, Susse. 1995. Regulating the Environment: Changing from Constraint to Gentle Coercion. *Business Strategy and the Environment* 3, no. 2: 11-20.

Goodin, Robert. 1986. The Principle of Voluntary Agreement. *Public Administration* 64 (winter): 435-44.

Hansen, Lars. 1996. Environmental Regulation Through Voluntary Agreements. Paper prepared for the Workshop on The Economics and Law of Voluntary Approaches in Environmental Policies, 18-19 November, Venice, Italy.

International Energy Agency. 1997. *Voluntary Actions for Energy-Related CO₂ Abatement*. Paris, France: Organisation for Economic Cooperation and Development, International Energy Agency.

Jenkins, Tim. [1995?]. Shifting into Neutral: Implications of the Formal Use of the Voluntary Approach in Environmental Policy. Paper in the proceedings of the Business Strategy and the Environment Conference?

Khanna, M., and L. Damon. 1999. EPA's Voluntary 33/50 Program: Impact on Toxic Releases and Economic Performance of Firms, *Journal of Environmental Economics and Management* 37: 1-25.

Kinsman, John, Michael McGrath, Richard McMahon, Michael Rucker, Ronald Shiflett, and Richard Tempchin. [1996?]. A Status Report on Climate Challenge Program's Voluntary Initiatives to Manage U.S. Electric Utility Greenhouse Gases. Edison Electric Institute, Washington, D.C. Paper prepared for the 89th Annual Meeting and Exhibition, Air and Waste Management Association, June, Nashville, Tennessee - [cited 10 November 1996]. Retrieved from: <http://www.eei.org/Industry/manus.htm#Introduction>, [12 pages].

Konar, Shameek, and Mark Cohen. 1997. Information as Regulation: The Effect of Community Right to Know Laws on Toxic Emissions. *Journal of Environmental Economics and Management* 32: 109-24.

Labatt, S., and V. Maclaren. 1998. Voluntary Corporate Environmental Initiatives: A Typology and Preliminary Investigation. *Environment and Planning C: Government and Policy* 16, no. 2: 191-209.

Lober, Douglas. 1997. Explaining the Formation of Business-Environmentalist Collaborations: Collaborative Windows and the Paper Task Force. *Policy Sciences* 30: 1-24.

Long, Frederick, and Matthew Arnold. 1995. *The Power of Environmental Partnerships*. Fort Worth, Texas: Harcourt Brace College Publishers, The Dryden Press.

Lyon, Thomas, and John Maxwell. 1999. 'Voluntary' Approaches to Environmental Regulation: A Survey. Forthcoming in *Environmental Economics: Past, Present, and Future*, edited by Maurizio Franzini, and Antonio Nicita. Aldershot, Hampshire: Ashgate Publishing Ltd. - [cited 30 April 1999]. Retrieved from the Social Science Research Network Electronic Library at: <http://papers.ssrn.com/sol3/search.taf>, [30 pages].

Milliman, John, Judith Clair, and Ian Mitroff. 1994. Environmental Groups and Business Organizations: Conflict or Cooperation? *SAM Advanced Management Journal* 59, no. 2: 41-6.

Potier, Michel. 1994. Agreement on the Environment. *The OECD Observer* 189 (August-September): 8-11.

Rutledge, Gary, and Christine Vogan. 1995. Pollution Abatement and Control Expenditures, 1993. *Survey of Current Business* 75 (May): 36-45.

Rutledge, Gary, and Christine Vogan. 1994. Pollution Abatement and Control Expenditures, 1972-1992. *Survey of Current Business* 74 (May): 36-49.

Schmidheiny, Stephan. 1992. *Changing Course, A Global Business Perspective on Development and the Environment*. Cambridge, Massachusetts: The MIT Press.

Segerson, Kathleen, and Thomas Miceli. 1998. Voluntary Environmental Agreements: Good or Bad News for Environmental Protection? *Journal of Environmental Economics and Management* 36: 109-130.

Storey, Mark. 1996. Demand Side Efficiency: Voluntary Agreements with Industry. Policies and Measures for Common Action Working Paper 8, with contributions from Jeff Dowd, Gale Boyd, Richard Baron, Ton van Dril, and Stefan Ramesohl. Annex I Expert Group on the United Nations Framework Convention on Climate Change, Organisation for Economic Cooperation and Development, and International Energy Agency, December, N.p.

U.S. Department of Energy. Office of Energy Efficiency and Renewable Energy. Office of Utility Technologies. 1996a. *Climate Challenge Program Report*. DOE/FE-0355. Washington, D.C.: U.S. Department of Energy.

U.S. Department of Energy. N.d. *The Climate Challenge and Your Utility*. N.p. Fact Sheet - [cited 27 September 1998]. Retrieved from <http://www.eren.doe.gov/climatechallenge/factsheet.htm>, [4 pages].

U.S. Environmental Protection Agency. 1998. *Partners for the Environment, A Catalogue of the Agency's Partnership Programs*. EPA 100-B-97-003. Washington, D.C.: U.S. Environmental Protection Agency.

Westley, Frances, and Harrie Vredenburg. 1991. Strategic Bridging: The Collaboration Between Environmentalists and Business in the Marketing of Green Products. *Journal of Applied Behavioral Science* 27, no. 1: 65-90.

7. Endnotes

¹ Definition adapted from Long and Arnold (1995, 6). To provide some consistency I use the term "VEA" for agreements that fit the above definition, even when other authors have used different terms.

² CEC (1996b) is cited in European Environment Agency (EEA 1997, 22).

³ Several of the incentives apply to the decision to develop VEAs as well.

⁴ The information about the various aspects of the Climate Challenge Program mentioned below is based extensively on U.S. DOE [1996a]. Additional information is provided by the Climate Challenge Options Workbook [1994], Kinsman et al. [1996?], U.S. DOE [n.d], the Climate Challenge homepage at: <http://www.eren.doe.gov/climatechallenge>, and direct contacts with DOE.

⁵ The type of incentive indicates whether the incentives are mainly external or internal.

⁶ The response from this representative was relatively generic. Therefore, although it seems that it fits well in this category, it may also be related to other categories within the "economic savings" section.

⁷ In the next few weeks I am planning to interview government agency representatives to determine the types of incentives that encourage them to participate in VEAs.

⁸ For a discussion of cost savings and transfers from VEAs or general voluntary agreements see Segerson and Miceli (1998), IEA (1997), Gaines and Mfodwo (1996), Georg (1995), Potier, (1994), Baggott (1986), Goodin (1986).

⁹ Numbers for 1993 were preliminary at the time of publication.

¹⁰ Baggott refers to general voluntary agreements.

¹¹ Baggott refers to general voluntary agreements.

¹² Goodin refers to general voluntary agreements.