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Governance Options for Carbon Cap and Trade Revenue



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Governance Options

for Carbon Cap and Trade Revenue

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Executive Summary

As requested by the Green Solutions Act of 2008, the Department of Commerce contracted with the University of Minnesota to conduct a study of governance options for determining how to expend potential revenue from the sale of emission credits under a carbon cap and trade program. The legislation required that the study examine:

1) the role of the legislature, citizens,

technical experts, and state agencies in decisions on allocating funds; and 2) innovative decision-making structures and processes in Minnesota and other states and countries that may offer useful models. The Center for Science, Technology and Public Policy, based at the Hubert H. Humphrey Institute of Public Affairs, conducted the research on behalf of the University of Minnesota.

“Good governance is epitomized by predictable, open and enlightened policy-making, a bureaucracy imbued with a professional ethos acting in furtherance of the public good, the rule of law, transparent processes, and a strong civil society participating in public affairs. Poor governance (on the other hand) is characterized by arbitrary policy making, unaccountable bureaucracies, unenforced or unjust legal systems, the abuse of executive power, a civil society unengaged in public life, and widespread corruption.”

- World Bank in Governance: The World Bank's Experience

To meet the study objectives outlined by state law, we reviewed the literature for topics related to governance, including governance models for making resource allocation decisions, and the role of citizen participation in governance. We also interviewed participants involved in existing decision-making structures and processes, with an emphasis on processes that make revenue-allocation decisions. Finally, we hosted four multi-sector stakeholder meetings involving state government, industry representatives, nonprofit organizations, researchers, and policy experts. The goals of these research and outreach efforts were to: 1) survey the broad array of different governance mechanisms, 2) define the characteristics of effective and legitimate governance, and 3) develop an analysis framework to inform the selection of an appropriate governance process for expending cap and trade revenue in the State of Minnesota.

We evaluated decision-making entities with varying goals, budgets, member compositions, and decision-making authority. From this research, we concluded that the design of each entity should be tied to the policy goals it is intended to address and the role it plays in the governance process. We also observed that governance processes fail when: 1) they do not adequately represent the views of the communities and stakeholders affected by policy outcomes, 2) decision-makers do not have the qualifications or experience to fully understand the complexities and tradeoffs involved, 3) there is not a clear delegation of authority among different administrative, advisory, and governing entities, and 4) there is a lack of oversight and accountability for expenditures. We also concluded that successful governance mechanisms are those in which the expenditures and programs selected by the decision-making process achieve the goals and objectives of the policy that created them.

Designing a governance process for making revenue allocation decisions is a complex and challenging task. To address this complexity, we recommend that the legislature implement cap and trade revenue governance as a four-phase process. To assist the legislature in selecting an appropriate governance model, we developed a conceptual framework that divides the governance process into four distinct phases. Within each governance phase, we present a variety of potential decision-making tools and governance structures and highlight key considerations for selecting the most appropriate decision-making tool or structure.

The four phases in cap and trade revenue governance are:

1. Deciding policy goals and expenditure categories
2. Executing program administration
3. Making program-level funding decisions
4. Ensuring oversight and accountability

Governance of cap and trade revenue is a complex, multi-stage process involving both values-based and technical decisions. Breaking the process into phases allows decision makers to consider the nature of the decisions that need to be made at each phase, the proper delegation of authority among different entities, and the appropriate role of the legislature, state agencies, citizens, and technical experts within each phase. Multiple governance structures, ranging from legislative committees and state agency boards, to legislative-citizen commissions and technical task forces, can be employed to address the unique decision-making and administrative challenges present at each stage. Most importantly, each structure should be evaluated in the context of the overall policy goals and the specific problem it is designed to address.

In order to aid selection of the most appropriate decision-making process or structure at each phase, we developed a list of process criteria for effective and legitimate governance.

The process criteria for effective and legitimate governance are:

1. Representation
2. Openness and transparency
3. Deliberation
4. Credibility
5. Timeliness and efficiency
6. Accountability

We evaluated existing governance structures and processes based on their adherence to the process criteria. We also noted that some process criteria are more important at different phases in governance. For example, the criterion of representation is most important at the phase where policy goals and expenditure categories are decided, whereas scientific and technical credibility is most essential in making program-level funding decisions.

Even though the exact goals and objectives of the Minnesota program are still being debated, it is not too early to consider the processes and structures needed to govern cap and trade revenue. We recommend that the legislature weigh the relative importance of the process criteria for effective and legitimate governance in selecting the most appropriate decision-making tool or governance structure at each phase in the governance process. In designing the governance process, we also recommend that the legislature consider the frequency with which policy goals and allocations are revisited. Finally, we concluded that there is no single existing entity in Minnesota that is best equipped to make the complex and wide-reaching policy decisions associated with a cap and trade program. Rather, the legislature should consider utilizing a combination of existing decision-making structures and creative approaches to institutionalizing citizen participation and technical expertise into the governance process. A balance of innovation and expertise, with careful consideration of the unique contributions of citizens, legislators, technical experts, and state agencies, is most likely to yield an effective, widely-accepted, and long-lasting governance solution.

Part I. Introduction

1.1 Introduction

The Green Solutions Act of 2008 established the intent of the State of Minnesota to participate in a regional carbon cap and trade program for reducing greenhouse gas emissions. There are several circumstances unique to cap and trade programs that raise complex governance issues. First, assuming carbon allowances will be sold or auctioned under this program, a cap and trade program will generate significant amounts of new state revenue. The amount of new revenue that is generated will depend on the percent of total state allowances that are auctioned and the price of carbon. In Minnesota, the electricity sector alone emits over 37 million metric tons of carbon dioxide annually (Energy Information Administration 2006). At a price of \$3.38 per ton carbon (the current price of carbon in the only existing U.S. carbon cap and trade program, the Regional Greenhouse Gas Initiative or RGGI), the electricity sector would generate over \$120 million dollars annually in new revenue (RGGI 2009). Estimates for total state revenue from cap and trade range up to a billion dollars or more annually depending on the price of carbon. Second, the legislature has identified broad goals for cap and trade expenditures including emissions reductions, job creation and job growth, assisting consumers with energy costs, and protecting public health and natural resources (see Appendix A). The broad scope of these goals, as well as the potential of the legislation to have a transformative effect on the Minnesota economy, makes the issue of governance especially important. Finally, any cap and trade program will directly affect all Minnesotans through increases in energy costs. Therefore, the decision-making process for revenue allocation must be sensitive to the impact on the general public and their role in the governance of this new revenue.

In examining governance options for determining how to allocate revenue, several key questions deserve consideration: Who should have authority over setting policy goals and spending priorities? What are the appropriate roles for the legislature, citizens, technical experts and state agencies in decisions on allocating funds? What existing decision-making structures and processes may serve as useful models or sites for making cap and trade revenue allocation decisions? Careful consideration of these questions is important as the governance mechanism used to make cap and trade revenue decisions will not only influence the types of policies and programs that are created, but also affect the perceived political and public legitimacy of the entire system.

The governance of any large fund, whether it is governed by a private foundation, nonprofit organization, or state or local government, benefits from thoughtful consideration of the appropriate delegation of authority, composition of decision-making entities, and administration and oversight duties. There are general guidelines for effective governance, but no hard and fast rules apply equally to all situations and circumstances. Each governance mechanism needs to be evaluated in the context of the program or problem it is designed to address. In this report, we do not recommend one governance model for allocating cap and trade revenue. Rather, we present key criteria and considerations that can be used to evaluate different governance processes. Selection of the most appropriate governance mechanism for cap and trade revenue needs to be considered in the context of the specific policy goals for the program, which have yet to be fully defined and agreed upon by the legislature and governor.

1.2 Study Rationale and Objectives

Section 4 of the Green Solutions Act of 2008 (Minnesota Session laws 2008, ch. 340) directed the Minnesota Department of Commerce to request that the Board of Regents of the University of Minnesota prepare a study of the governance options for determining how to expend potential revenue from the sale of greenhouse gas (carbon) emission credits under a cap and trade program. The legislation required that:

“The study must examine:

- (1) the role of the legislature, citizens, technical experts, and state agencies in decisions on allocating funds;

and

- (2) innovative decision-making structures and processes, including the Legislative-Citizen Commission on Minnesota Resources, and other examples in Minnesota and other states and countries that may offer useful models.”

The Center for Science, Technology and Public Policy (the Center), based at the Hubert H. Humphrey Institute of Public Affairs, performed the study on behalf of the University of Minnesota. To meet the objectives outlined by the legislature, the research team conducted an in-depth literature review, hosted four multi-sector stakeholder meetings, and completed numerous interviews with individuals representing governmental and non-governmental organizations.

Part II. Conceptual Framework for Revenue Governance

Governance processes and structures are complex and highly diverse, making it difficult to directly compare them. Furthermore, the suitability of a governance structure is dependent on its regional context, the goals of the policy that created it, and the specific problem it is designed to address. It is understandable why there are few general rules of governance that apply to all situations and jurisdictions. However, we concluded that there was both a need and a lack of an overarching framework with which to consider the complex decisions embedded in governance. To address this gap, we developed a conceptual framework that describes the governance process as a series of four phases, and present evaluative criteria for assessing the appropriateness of different models within each phase. Part II of the report describes the conceptual framework and analysis criteria and Part III and IV apply the framework to existing and proposed governance models.

2.1 Four Action Phases in the Governance of Revenue

Governance processes often include multiple levels of decision-making authority within which participants play varying roles, and cap and trade revenue governance is no exception. In this report, we extended our analysis of governance beyond the initial deliberation of policy goals and formulation of an appropriations bill, to the mechanisms and participants involved in administration, oversight, and spending decisions at the program level. To address this complexity, we have categorized the allocation process into four phases based on the types of decisions that need to be made from policy creation to implementation and oversight.

1. Deciding policy goals and expenditure categories
2. Executing program administration.
3. Making program-level funding decisions
4. Ensuring oversight and accountability

Within each stage in the decision-making process, authority can be granted to a variety of players. As specified in the study objectives, we examined the role of the legislature, state agencies, technical experts, and citizens at each stage in the decision-making process. We also outlined potential decision-making tools and describe the advantages and disadvantages of granting authority to various entities. Finally, we discussed key considerations that must be addressed when designing a governance process. The models and processes described below are not the only options within each stage. Instead, they illustrate a range of decision-making tools and provide some insight into how tool selection can affect the process criteria for effective and legitimate governance described in Part I.

2.2 Evaluative Criteria

An effective and legitimate governance process is more likely to lead to effective and publicly accepted policy outcomes. In this report, we define an effective process as one that achieves the policy goals it was intended to serve. A legitimate process is one that is viewed as credible, just, and lawful. There is no universally appro-

appropriate model for effective governance; rather each decision-making tool should be tailored to the unique goals and circumstances of the problem it is meant to address. There are, however, generalized criteria that should be considered when designing or evaluating a decision-making process (Lynn and Busenberg 1995, Steelman and Ascher 1997, Beierle 2002, Salamon 2002). We generated the following criteria based on the literature and discussions with stakeholders. We then used the criteria to evaluate existing and potential governance mechanisms (see Part III and IV).

The relative importance of each criterion should be considered in the context of each phase in the decision-making process. Additionally, tradeoffs may exist between different criteria. For example, the decision-making mechanism used for formulating broad policy goals might emphasize representation more than the process used to make programmatic level funding decisions on specific proposals. In this case, a process that emphasizes openness and representation may sacrifice timeliness or efficiency. For this reason, decision makers should consider the relative weight of each criterion in the context of the unique problem they are trying to address. The first set of criteria refer to the decision-making process itself, whereas the second set of criteria apply to the policy or program outcomes that result from the process.

2.2.1 Process Criteria for Effective and Legitimate Governance

Representative: The process is representative of the views of the affected community. Consideration is given to the representation of minority and under-represented groups.

Openness and Transparency: The process is open and encourages public involvement. Information is freely available and accessible to those who will be affected by decisions and their enforcement.

Deliberation: The process allows for debate and thoughtful deliberation of key issues and tradeoffs. Information and ideas are freely exchanged, challenged, and discussed.

Credibility: The process is scientifically and technically credible. The process ensures participants have access to non-partisan scientific information and expertise. Participants contribute a high level of expertise and understanding to the process.

Timeliness and Efficiency: The process is a good use of public resources and functions in an efficient and timely manner.

Accountability: The process is understandable and traceable. Decision makers are accountable for their decisions and the general public.

2.2.2 Outcome Criteria

Effectiveness: Policies and programs achieve intended objectives. Allocated funds are used for stated purposes.

Efficiency: The outcome achieves an optimal balance between benefits and costs, including costs to governmental and non-governmental entities.

Equity: The outcome fairly distributes costs and benefits among those affected. The policies recognize and address issues of distributional justice (socio-economic, geographic, environmental, and generational).

Manageability: Policies and programs are efficient and manageable. Wherever possible the simplest and most direct tools are utilized.

2.3 Deciding Policy Goals and Expenditure Categories

The first stage in making revenue allocation decisions is to prioritize spending goals and program objectives. In the case of cap and trade revenue, the revenue stream is potentially large and the policy goals broad and diverse. At this stage in the process, decision-makers need to weigh the relative importance of different spending priorities. This is not a technical decision but rather a prioritization of the public value of broad objectives. After goals are prioritized, revenue may be allocated among different expenditure categories. The question of who is involved in the prioritization of spending goals and establishing expenditure categories is critical. Involved participants may play either an advisory or a decision-making role.

In the majority of state-level policy decisions, the legislature, in consultation with the executive branch, retains authority over the prioritization of policy goals and allocation of funds among broad expenditure categories. However, autonomous control over spending decisions by the legislature is not the only possible model for this first stage in the governance process. Below we describe three potential models that could be applied at this phase in the decision-making process and the advantages and disadvantages of each approach.

2.3.1 Standard Representative Policy Making

In this model, elected and appointed officials make decisions on behalf of their constituents. Legislation is drafted in an appropriations bill and debated in legislative committees. Legislators determine spending priorities in consultation with the governor and state agencies.

Advantages: In this model, elected officials have both complete control and accountability over spending priorities and policies. Deliberation occurs in legislative committees where key experts, state agencies, and interested citizens are invited to provide their input. Citizens are primarily represented through their elected officials. Some stakeholders were supportive of this model, citing that decisions are made by policy makers who are intimately familiar with the complex tradeoffs and budget constraints of various policy alternatives.

Disadvantages: The views of non-voting citizens and those not well-briefed or intimately connected with the legislative process are unlikely to be well-represented. Some stakeholders were specifically concerned about underrepresentation of low-income and rural residents during this phase. Other concerns expressed were that the process is not timely or efficient and funds could be spent for purposes outside the original program goals.

2.3.2 Non-Binding One-Way Citizen Involvement

Similar to the above model, the legislature and governor retain final decision-making authority over allocations and policies. However, in this model, active efforts are made to solicit citizen viewpoints before legislation outlining spending priorities is drafted. Citizens contribute ideas and opinions through surveys, polls, and hearings, but are not actively engaged in deliberation or decision-making dialogue.

Examples: open public hearings, citizen surveys, deliberative polling

Advantages: This model offers legislators flexibility in how they would like to solicit and incorporate citizen viewpoints. The public is provided the opportunity to express their preferences, which can increase public awareness of the issue. Public hearings and surveys can serve an educational purpose and help citizens feel more connected to the legislative process. Legislators benefit by learning more about the policy preferences of affected citizens. Several stakeholders emphasized the need for up-front citizen engagement in the weighing of spending priorities and policy goals. They believe the development of innovative policy solutions depends on bringing new perspectives to the discussion. Several recent studies have identified participatory budgeting exercises as successful models for up-front citizen engagement in revenue allocation decisions (Franklin and Ebdon 2005, Gastil and Levine 2005, Robbins et al. 2008).

Table: Advantages and disadvantages of citizen participation in revenue allocation decisions.

Advantages of Citizen Participation	Disadvantages of Citizen Participation
<p>Advantages to citizens</p> <ul style="list-style-type: none"> - Increases level of education about issues and policies - Builds citizen competence and empowerment - Builds community problem-solving capacity - Can affect political behavior and attitudes (builds social capital) - Provides citizens with a voice to challenge existing power structure 	<p>Disadvantages to citizens</p> <ul style="list-style-type: none"> - Process is time consuming - Special interest may dominate participation - Can increase frustration with government if views are not adequately considered
<p>Advantages to government</p> <ul style="list-style-type: none"> - May lead to greater acceptance of the ultimate decision - Improves the information base for decision making - Increases transparency and openness - Builds trust and cultivates mutual understanding between citizens and policy makers - May reduce chance for future litigation 	<p>Disadvantages to government</p> <ul style="list-style-type: none"> - Process can be costly and time consuming - Feedback is not representative of community at-large, just the views of well-educated and well-connected citizens - Can be difficult to recruit participants - Citizens may have a limited understanding of budget constraints and policy tradeoffs - Loss of decision-making control - Can increase conflict and create more hostility to government

*Adapted from the work of: Kathlene and Martin 1991, Thomas 1995, Steelman and Ascher 1997, Simonsen and Robbins 2000, Lawrence and Deagen 2001, Irvin and Sansbury 2004, Franklin and Ebdon 2005, Gastil and Levine 2005, Bayley and French 2008, and Robbins et al. 2008.

Disadvantages: Public engagement efforts can be costly and add time to the decision-making process. If the objective of receiving public feedback is ambiguous, the public is less likely to contribute thoughtful feedback and feel integrated and valued in the process. Decision makers may be unsure how to incorporate public feedback into the decision-making process, and their obligation, if any, to consider public views. Finally, feedback from the general public may not represent the views of key stakeholders or contribute the same level of understanding to the process necessary to make useful and informed decisions about key tradeoffs. Some stakeholders thought the public involvement efforts of the Minnesota Climate Change Advisory Group (MC-CAG) were sufficient and that broad state-wide citizen engagement efforts were both time-consuming and redundant

2.3.3 Non-Binding Two-Way Deliberation: Commission Model

A commission model provides a forum for deliberation outside of legislative committees. Many commissions meet year round and employ full-time support staff. In contrast with the one-way citizen participation models outlined above, citizens and technical experts are active participants in deliberation and engage in two-way dialogue with legislators or other decision-makers. In this model, the commission plays an advisory, not a decision-making role. Recommendations of the commission are sent to the legislature and are non-binding. Final decisions on policy goals and expenditure categories reside with legislators and the governor.

Example: Joint Legislative-Citizen Commission on Minnesota Resources (LCCMR)

Advantages: Many commission participants felt that they contributed positively to the level of deliberation and credibility of the decision-making process. Several LCCMR members commented that the support of dedicated staff and the long-term commitment required by most commissions enhanced the level of discussion and the time that could be devoted to deliberation. Involving citizens in the decision-making process can foster a greater sense of public investment and support. Scientific and technical credibility are enhanced when non-legislative citizens and technical experts contribute unique perspectives that would not otherwise be

considered. Some stakeholders thought that a joint citizen-legislative commission model increased the perceived level of openness and transparency. Others noted that a commission process may add political clout to recommendations and decrease the chance that funds will be diverted to other purposes.

Disadvantages: Commissions can increase the time and cost of governance. The time commitment required by LCCMR members is significant, and therefore inhibits the participation of some citizens. One critique of citizen advisory commissions is that they are rarely representative of the general public (Franklin and Ebdon 2005, Kathlene and Martin 2005). Some stakeholders questioned whether non-legislative citizen representatives were too beholden to special interests and therefore did not adequately represent the perspectives of average citizens. One interviewee suggested that non-legislative citizen members might be more susceptible to lobbying efforts by special interest groups than legislators who are accustomed to dealing with such groups. Finally, non-legislative citizen members are not accountable to the general public to the same degree as elected officials.

2.3.4 Constitutional Amendment

The above models assume that the legislature, with consultation and final approval by the governor, retains full authority for crafting policy goals and creating expenditure categories. The models differ in the degree to which non-legislative citizen perspectives are incorporated into the decision-making process. An alternative to the decision-making models presented above would be to allow the electorate to vote on a constitutional amendment that would allocate cap and trade revenue to specific purposes and funds. The amendment would prioritize policy goals and establish expenditure categories and establish a system that could limit the roles of the legislative and executive branches.

Advantages: An amendment would provide greater protection over the expenditure of cap and trade funds and ensure that they are used only for the purposes outlined in the text of the amendment. The process would be representative in the sense that all voting citizens would have final authority and accountability over revenue allocation. The initial process would rank high in terms of openness and transparency depending on the design of the allocation mechanism itself.

Disadvantages: A constitutional amendment would reduce the flexibility and adaptability of revenue governance. The size of the revenue stream is likely to fluctuate over time and an amendment would make changing the allocation scheme difficult and costly. Deliberation of key policy tradeoffs and the weighing of complex policy goals would be waged in media campaigns and not within established legislative procedures with input from experienced policy makers. Additionally, voters may not be educated on the consequences or complex policy implications of different revenue allocation schemes, reducing the perceived scientific and technical credibility of the program. Most stakeholders were not supportive of a constitutional amendment proposal for cap and trade revenue, largely for the reasons outlined above. In general, stakeholders agreed that elected officials, in consultation with citizens, agencies, and key experts, should assume responsibility for the policy decisions in the first phase of revenue governance.

2.4 Executing Program Administration

After policy priorities are established and an appropriations bill is passed by the legislature and signed by the governor, decision-makers must delegate administration of funds to a specific agency or other entity. Depending on the number of expenditure categories created by legislation, authority could be delegated to one or more specified entities. At this phase in the governance process, the role of administration includes collecting and analyzing program data, monitoring fiscal operations, coordinating programs, and providing feedback to the legislature. The appropriate administrative entity for different expenditure categories would depend on how cap and trade revenue is allocated among different programmatic goals. Below, we examine two alternative governance models for revenue administration.

2.4.1 Administration by Multiple State Agencies

If the legislature passes an appropriations bill that divides the revenue into expenditure categories based on its objectives, then multiple agencies may play a role in administration. For example, if funds are allocated for energy efficiency programs, then the Department of Commerce Office of Energy Security might assume administrative responsibilities for that portion of the revenue stream. Other agencies such as the Department of Natural Resources or the Department of Employment and Economic Development might administer separate funds with unique goals.

Advantages: This model benefits from the use of existing resources and expertise within state agencies that have experience in administering legislative mandates and appropriations. Utilizing multiple agencies places less of an administrative burden on a single agency and allows each agency to draw upon its own unique expertise. Stakeholders from various state agencies were supportive of this model. Participants noted that there are existing programs within agencies that could meet the objectives outlined by the legislature for expenditures. For example, the Office of Energy Security already administers grant programs for energy efficiency and renewable energy technologies. Even when no clear existing structure exists within an agency that would meet programmatic goals outlined in legislation, agencies have experience establishing and administering such programs and could do so in a timely and efficient manner. Most stakeholder participants thought that agency administration would be viewed as credible, open, and transparent.

Disadvantages: Dividing administrative responsibilities among multiple entities may reduce overall accountability, making it difficult to measure performance and track how individual dollars are spent. A few stakeholders were concerned that even with specific criteria for how revenue dollars would be spent, gubernatorial administrations may try to impose their own agendas on the revenue and divert funds for other purposes. Finally, some participants were concerned that delegating administration to existing agencies would reduce innovation and the potential for exploration of new ideas and perspectives.

2.4.2 Administration by a Single Agency or Nonprofit Trust Fund

An alternative to dividing revenue into different expenditure categories, each administered by a separate entity, is to funnel all the revenue into a single fund and grant administration of that fund to one agency or organization. In the state of Massachusetts, revenue from participation in the Regional Greenhouse Gas Initiative (RGGI) is administered by a single existing agency, the Department of Energy Resources (see Table 2 for more information). The majority of funds are allocated to energy efficiency projects and the remainder is used for administration and direct loans to municipalities. Another alternative model to state agency administration is to create a trust fund and grant authority for fund management to a nonprofit organization. This approach is being used in the state of Oregon to manage revenue generated from the sale of carbon offset credits (see section 3.1.2 for more information). In this model, legislation created a Climate Trust Fund to invest funds in carbon offset projects. Administrative authority over the fund was granted to a nonprofit organization governed by a multi-sector board of directors (see further description in Section 3.1.2).

Advantages: Administration by a single entity may increase the efficiency of the revenue distribution process and cut back on administrative costs. Accountability and oversight would be facilitated with a single entity in charge of the entire revenue pool. A few stakeholders were supportive of the trust fund model, noting that it would increase the chance that funds were used for climate-related programs and projects and would place greater decision-making power in the hands of citizens and stakeholders.

Disadvantages: Depending on the size of the revenue stream, the administrative responsibilities placed on the staff and resources of a single agency or nonprofit could be significant. The concentration of decision-making authority in one entity concerned some stakeholder who argued that a distributive model would do a better job addressing the variety of objectives outlined by the legislature. Participants did not see an existing

state agency in Minnesota that was suited to assume full administrative responsibility for the entire revenue stream. Stakeholders also had concerns about the level of credibility and accountability brought to a citizen- and stakeholder-administered trust fund model. Most were uncomfortable vesting that much authority in non-elected stakeholders and citizens who might be subjected to intense lobbying from special interests and outside groups.

2.5 Making Program-Level Funding Decisions

After decision-makers establish the policy goals that create expenditure categories, additional expertise and programmatic support is needed to make funding allocation decisions that are consistent with the guidelines established by the legislature. For example, if 60 percent of cap and trade revenue is allocated to meet energy efficiency goals, additional program management and administrative structures are needed to make decisions about specific programs and write requests for proposals. Authority over program-level funding decisions could be given to legislative entities, state agencies, citizen or technical advisory boards, or a non-governmental entity like a nonprofit organization. Decisions made at this phase in the revenue allocation process are more likely to be technical decisions than the weighing of policy goals and broad expenditure categories made in the first decision-making phase. Most stakeholders agreed that at this phase, scientific and technical credibility was critical to positive outcomes.

2.5.1. Legislature Allocates Funds to Individual Programs in a Single Appropriations Bill

The legislature can retain authority over program-level funding decisions by appropriating funds to individual programs in legislation, rather than outlining broad expenditure categories and delegating administration over those categories to state agencies or other decision-making entities; this process is often called “earmarking”.

Advantages: Legislators retain complete control over the funding of specific projects and programs, increasing the degree of accountability. This model would also be transparent in that the recipients of funding are identified in legislation. The process is representative in the sense that decision-makers are elected officials and all regions of the state are represented.

Disadvantages: Cap and trade revenue may fluctuate year to year, requiring the legislature to constantly revisit program-level funding decisions. Many stakeholders viewed the legislative process as inefficient and were concerned that this level of control over individual funding decisions would decrease the timeliness of the process. Additional concerns were raised about the lack of institutionalized citizen and technical expertise which could decrease the level of deliberation in this model. Finally, funds are subject to diversion to other purposes outside programmatic goals each time the legislature revisits allocation decisions. This process also gives an advantage to senior or other influential legislators.

2.5.2 Program-Level Decision Making by State Agencies

Along with administrative authority, the legislature can put state agencies in charge of coordinating, selecting, and managing individual programs within the guidelines established by the legislature. To perform this function, agencies may establish separate offices, task forces, or advisory boards or use existing entities within each agency. For example, under administration by the Minnesota Public Utilities Commission (PUC), the Minnesota Renewable Development Fund Board has major responsibility for making program-level funding decisions on renewable energy programs and projects subject to review by the PUC (see section 3.2.2 for more information). Depending on the size of the revenue allocated to each agency, agencies may have to hire additional dedicated staff.

Advantages: State agencies have experience with program management and can draw upon existing technical expertise, staff, and resources. Many agencies have existing citizen involvement mechanisms that could be

integrated into decisions on cap and trade-related programs, enhancing the process criteria of representation. Stakeholder representatives from state agencies expressed support for this model, emphasizing the existing expertise embedded in many agencies and their associated boards and councils.

Disadvantages: Most state agencies operate under tight budgetary constraints and additional programs may tax agency resources unless additional funds are dedicated for administrative purposes. Agencies may decide to use funds to support existing programs and avoid more risky or innovative ideas for spending funds. Program-level decision making by agencies is also subject to the political agenda of the executive branch. Some stakeholders were concerned that an agency model did not do enough to institutionalize scientific and technical expertise. Other stakeholders expressed concern that citizen involvement should be emphasized at this phase in revenue governance. They preferred a process that was open to a variety of views and perspectives to encourage creative decision making and innovation.

2.5.3 Program Management by Citizen Boards or Nonprofit Organizations

The legislature could grant the authority to manage individual programs to citizen or technical boards either within or outside existing governmental structures. In Minnesota, the State Arts Board is an example of a citizen-run entity that makes program-level funding decisions. The defining characteristic of this model is the delegation of decision-making power to citizens instead of legislative or executive entities.

Advantages: Different task forces or boards could be assembled around different programmatic areas, capitalizing on the unique expertise of different stakeholders and groups. For example, a citizen task force representing rate payers could serve a decision-making or advisory role in recommending projects to alleviate the negative impacts of higher energy costs. Representatives of low-income consumers could be recruited to ensure that the views of often underrepresented groups are heard. Separate technical task forces could consider issues related to geological carbon sequestration, renewable energy technologies, or green job development. This model capitalizes on the expertise of the broader community and may lead to increased public support for the initiatives that emerge from these citizen-driven entities. This model has the potential to increase deliberation and credibility as different views are incorporated into the decision-making process.

Disadvantages: Citizens and technical experts do not have the same level of accountability as elected officials and may be subject to influence by special interests. Citizens are also less likely to understand the complexities of implementing new programs and how they fit into existing governmental initiatives. Citizen advisory commissions and task forces are not necessarily representative of the broader community (Franklin and Ebdon 2005, Kathlene and Martin 2005). Citizen groups that attempt to incorporate a wide diversity of stakeholder views can become too large for effective deliberation, make it difficult to reach consensus, and decrease the overall timeliness and efficiency of the process.

2.6 Ensuring Oversight and Accountability

Many stakeholders stressed the importance of institutionalizing oversight and accountability roles in cap and trade revenue governance. Stakeholders noted the potentially large size of the revenue stream, the broad objectives for expenditures, and the direct impacts on all citizens as reasons why accountability in revenue governance is an essential criterion for success. Not all stakeholders were in agreement on the appropriate entity to assume the role of oversight and accountability for the entire program. However, most participants agreed that some oversight entity was needed. Here we define oversight as both financial auditing and program evaluation to determine the degree to which funded programs and policies meet programmatic objectives. Accountability increases when both the public and decision-makers receive detailed feedback on how funds are spent and the efficiency of those investments in meeting policy goals. Below, we compare an existing evaluation and auditing entity, the Office of the Legislative Auditor (OLA), with a citizen-legislative commission model.

2.6.1. Oversight and Evaluation by the Office of the Legislative Auditor

The OLA performs financial audits and program evaluation at the request of the bipartisan Legislative Audit Commission. The OLA completes financial audits on an annual basis. Program evaluations are conducted when requested by the Legislative Audit Commission.

Advantages: Several stakeholders recommended granting oversight authority to the OLA because it utilizes an existing entity with experience providing non-partisan objective evaluations. The OLA would not be involved in administering the cap and trade program, and therefore provides the benefits of an outside perspective. OLA reports are publicly available and viewed as credible sources of fiscal and programmatic information.

Disadvantages: Depending on the size of the revenue stream, the OLA may not be able to perform fiscal audits in a timely manner without additional staff resources. Program evaluation has to be requested by the Legislative Audit Commission and may only occur once every several years, making it difficult for the program to conduct annual or more frequent reviews.

2.6.2. Oversight and Evaluation by a Joint Citizen-Legislative Commission

The same hypothetical commission that recommends policy goals and spending priorities to the legislature in the first phase of the decision-making process may also play a role in program evaluation and oversight. The commission could solicit reports from organizations and agencies overseeing different aspects of the program and assemble this information in one place. Commission staff would perform audits and program evaluation. The commission would then report back to the legislature on their findings and use the information to make revisions in program policies and/or expenditures.

Advantages: Both citizens and experts are involved in program evaluation and oversight, completing the feedback loop between policy formation and program evaluation. Commission involvement in oversight facilitates revision or adaptation of allocation policies. Audits and evaluation activities could be completed on a more frequent basis, without having to go through the Legislative Audit Commission. Several stakeholders were supportive of this model because it would provide a consistent, one-stop resource for program information and accountability. Stakeholders also liked the idea of involving citizens, key experts, and trained staff in program evaluation.

Disadvantages: Commission members may not have program evaluation skills, requiring trained staff support and financial resources. This would increase the administrative cost burden with limited ability to share resources, staff, and expertise across agencies. As part of the policy formation and decision-making process, the commission may not be seen by the public as a credible entity to serve this function.

2.7 Key Considerations Across Governance Phases

In the above section, we divided the governance process into four action phases and evaluated different decision-making models in terms of their adherence to the process criteria for effective and legitimate governance. Selection of the appropriate decision-making tool at each governance phase is important; however there are other considerations that apply to all phases in the governance process. In our conversations and interviews with stakeholders and decision-makers, participants identified several key aspects of designing governance tools that warrant further consideration. Below, we present each of these key considerations and the recommendations that emerged from our research.

2.7.1 What Qualities of Representation Should be Prioritized at Each Phase in the Governance Process?

Legislators, state agencies, citizens, and technical experts have different perceptions of who they represent when participating in a decision-making process. Legislators are elected by the voting public, whereas appointed decision-makers, whether agency staff, citizens, or experts, are selected by the governor or the legislature.

This raises important questions about the communities and interests that decision-makers represent when they are making revenue allocation decisions that affect the entire population. In our interviews, most legislators had a clear sense of representation. Legislators saw themselves as representing their constituents, while also taking into consideration the best interests of the state. Non-elected citizen decision makers were more varied in their views of representation. Citizens saw themselves as representing technical or scientific expertise, a particular special interest group or community, or the public at large. The perception of representation held by non-elected citizens was usually shaped by the criteria and terms of their appointments. For example, non-legislative citizen members on the Legislative-Citizen Commission on Minnesota Resources (LCCMR) were appointed based on their experience in natural resource science and management and therefore considered themselves as representing scientific best practices and “real-world” expertise. Although we were not able to confirm this in interviews, we suspect that citizen appointees selected to represent special interest groups or stakeholders such as the environmental sector, energy producers, or low-income consumers, would see their role as representing the best interests of their associated communities.

Recommendation 1: Geographical equity should be prioritized in deciding broad policy goals and expenditure categories and program-level decisions that affect the entire state.

The governance of cap and trade revenue requires thoughtful consideration of the appropriate type of representation that should be emphasized at each phase in the governance process. As policy goals are considered and broad expenditure categories created, the types of decisions being made affect all Minnesota residents, therefore there is a greater need for regional representation at this phase. If legislators are the decision makers, then some degree of regional representation is assured. If appointed citizens are decision-makers then some effort should be made to recruit representatives from regions outside the Twin Cities metropolitan area. Citizen appointments to the LCCMR are designed to be regionally representative, but the Commission has historically had problems recruiting citizen members from rural regions of the state. Some program-level funding decisions would also benefit from broad regional representation. For example, if funds are allocated to community energy efficiency projects, a model similar to the Minnesota State Arts Board (see Section 3.2.3) could be used to distribute funds to regionally-based decision making entities across the state. In summary, legislators should consider when geographic equity in representation is necessary, and construct statewide decision-making bodies that are in themselves regionally representative, or delegate decision-making authority to regional councils across the state.

Recommendation 2: Expertise and sector affiliation should be prioritized in making technical program-level funding decisions.

Program-level decisions are often more technical and relate to a specific policy objective such as emerging technologies, job development, or renewable energy research and development. If the policies and programs directly affect specific sectors, as opposed to statewide interests, then regional and demographic representation is not as critical at this phase. Rather, representation should emphasize scientific and technical expertise, key stakeholder perspectives, and the views of highly-affected communities. For example, if the programmatic objective is to increase terrestrial and geologic carbon sequestration, decision-makers should include representation of experts with experience in the ecological and engineering complexities of this type of technology. If the goal is to reduce the economic impacts of cap and trade on workers, businesses, and consumers, then representation should address the views of key stakeholders like small businesses, low-income consumers, and trade and labor organizations.

2.7.2 Who Should be in Charge of Making Key Appointments and What Criteria Should Guide Participant Selection?

Our research suggests that the qualities of representation that should be prioritized at each stage in the governance process depend on the nature of the policy questions considered and the effect of the policy outcomes on different groups. It follows that the criteria and process used to appoint participants can have a significant

impact on both the outcomes and the perceived effectiveness of the decision making process. In selecting an appointment procedure, it is important to consider the importance of specific expertise, overall knowledge of the legislative process, and the appropriate qualities of representation that should be emphasized.

Recommendation 3: Appointments should be thoroughly screened to ensure participants possess both the necessary expertise and enhance representation in terms of geographical or stakeholder equity.

In the majority of the decision-making models we evaluated, the authority to make appointments resides with the governor and/or the legislature. Most stakeholders supported this model, although numerous concerns were raised about the thoroughness of the review of applications for appointed positions and the perception that appointments are preferentially given to the well-connected citizen or based on a political agenda. Ideally, a critical review should be made of all appointments so that appointees are screened for qualifications, expertise, and potential conflicts of interest. Appointments should also consider the process criteria of representation. Depending on the responsibilities of each decision-making structure, appointments should emphasize regional representation, stakeholder perspectives, or technical expertise. One stakeholder suggested using a non-partisan or bi-partisan objective review board to screen applicants for key appointments. The review board would make recommendations to the governor and the legislature based on their review of applicants' qualifications and adherence to specific criteria for representation and expertise required for their appointed role.

2.7.3 What is the Appropriate Frequency for Revisiting Decisions on Policy Goals and Program Funding?

Many budget decisions are made on an annual or biannual basis. However, the legislature can elect to “sunset” policy and appropriations recommendations requiring them to be revisited after a set period of time. Extending the time between revisiting funding decisions increases the stability of funds directed towards program-level initiatives. If the legislature changed allocations on an annual or biannual basis, there would be little stability in the funding stream, inhibiting program-level decision makers from investing in longer term projects. The frequency of making allocation decisions, both at the phase of policy goal setting and at program-level funding decision, can also affect the timeliness and efficiency of the process and the cost burden on administrative and oversight entities. For example, members of the LCCMR reported that the transition from a bi-annual to an annual budgeting cycle significantly increased the investment of time required by participants and staff. On the other hand, more frequent review of policy goals allows the legislature to adapt policy objectives and expenditures to address emergencies, changing economic circumstances, or fluctuations in the carbon market.

Recommendation 4: The legislature and governor should make explicit choices about how often program decisions will be changed.

The frequency at which spending decisions and policy goals are revisited should balance funding stability with periodic review. Funding stability and predictability is important for investing in multi-year projects and initiatives. Program-level decision makers benefit from a reliable and relatively stable funding source and consistency in policy goals that allows for long term planning. However, policy goals and expenditures need to be revisited frequently enough to adjust to changing conditions. At the program-level, decision makers should balance the ability to respond quickly to innovative proposals with the additional time and resource costs to shorter allocation cycles. Finally, the design of the oversight and program evaluation mechanism (Section 2.6) should be tied to the frequency at which policy decisions are revisited.

2.7.4 What attributes make some decision-making entities more effective than others?

The above recommendations deal with the design and composition of decision-making entities employed at various phases in the governance process. In our interviews and analysis of various governance models, we

found fairly broad consensus on two attributes that were seen as important to the success of any decision-making entity, regardless of its composition, goals, or role in a particular phase in the governance process.

Recommendation 5: Effective decision-making entities are supported by knowledgeable and well-qualified staff.

Decision makers rely on support staff to enhance the scientific and technical credibility of the decision-making process, ensure that the process complies with legal and legislative procedures, and increase the overall efficiency, openness, and accountability of the process. Staff responsibilities may include the ability to critically review programs and reports, solicit expert testimony and reports from key stakeholders, scientific experts, and state agencies, and respond to the requests of members in a timely manner. Staff should be knowledgeable about the subject areas under consideration without conflicts of interest in the issues under deliberation. Staff should have a reputation for being non-partisan critical thinkers and demonstrate a good understanding of the legislative process and the authority of the decision-making body they support. Stakeholders and members of the LCCMR cited competent and dedicated staff support as key to the effectiveness and legitimacy of the process.

Recommendation 6: Effective decision-making entities encourage consensus among participants.

Once a decision-making entity is established, careful thought needs to be put into how it should be facilitated, the rules of order under which meetings should be held, and the way in which final decisions will be made. A greater diversity of stakeholder interests and perspectives may enhance deliberation, but can also increase conflict and make it more difficult for consensus to be reached. Studies suggest that when group consensus is required for final decisions or recommendations to pass, deliberation and cooperation are enhanced (Guynn and Landry 1997, Steelman and Ascher 1997, Gastil and Levine 2005). The LCCMR requires near consensus on its funding recommendations. An affirmative vote of 12 of its 17 members is required in order to approve its strategic plan and final recommendations to the legislature.

Part III. Explanation and Analysis of Existing Governance Models

We investigated numerous existing governance models, both to understand the current diversity of decision-making models, and to evaluate their relative effectiveness as measured by the process criteria for effective and legitimate governance. We researched existing domestic and international models for allocating cap and trade revenue from the sale or auction of carbon allowances. We also examined other revenue allocation models not associated with cap and trade programs. Appendix G discusses governance structures and processes that do not make revenue allocation decisions, but may serve as interesting decision-making tools.

3.1 Cap and Trade Revenue Allocation Models

3.1.1 Regional Greenhouse Gas Initiative (RGGI)

In the absence of a national greenhouse gas emission reduction standard established by the federal government, the Regional Greenhouse Gas Initiative (RGGI) was created as the first mandatory cap and trade program in the United States. RGGI includes ten Northeastern and Mid-Atlantic states - Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont. Through a Memorandum of Understanding (MOU) signed by the ten governors and some state agency heads, each state agrees to cap carbon emissions only from the electricity power sector to achieve a 10 percent reduction below 2009 emissions levels by 2018 (RGGI MOU 2006). See Table 1 for individual state auction allowances and expected revenue for 2009. Appendix E summarizes other domestic and international cap and trade programs and their governance.

Member states of RGGI independently determine how to allocate allowances (permits to emit carbon) and how to spend proceeds of allowance auctions, although all states agree that at least 25 percent of total allowance value will be used to support “consumer benefit or strategic energy purposes (RGGI 2009).” In all states, the legislature and governor determine policy goals and expenditure categories. Auction revenues are designated to a number of activities that vary among states, but include energy efficiency programs, low-income weatherization, low-income heating assistance, and clean energy research and development. Existing state agencies, or trustees, act as program fund administrators. Within each expenditure category, decisions are made by state agencies, newly-created joint legislative-citizen commissions or advisory groups. Oversight is typically provided through annual reports to the governor, the legislature and state agencies. Table 2 provides individual state governance allocation models and Appendix F provides greater detail on individual state governance allocation systems. Below, we describe and analyze the governance processes of two RGGI states in more detail.

Connecticut

Governance

In Connecticut, the Department of Environmental Protection (DEP) played a major role in deciding policy goals and expenditure categories. In the first phase in the governance process, DEP organized several stakeholder meetings and a public hearing. The DEP then developed regulations for state implementation of the RGGI program and outlined the goals of expenditures (Section 22a-174-31, Control of Carbon Dioxide Emissions). The DEP recommendations were approved by the legislature and signed by the governor. Pursuant to the regulations, auction revenues are distributed to energy efficiency programs administered by the Energy Conservation Management Board (ECMB) and to clean energy programs administered by the Connecticut Clean Energy Fund (CCEF). The legislation also stated that if the price of carbon exceeds \$5 per ton, any proceeds above that amount would be rebated to ratepayers. Program-level funding decisions are made by ECMB and CCEF board members, which include state agency representatives, technical experts and other appointed members (Connecticut 2007). Members of the Department of Public Utility Control (DPUC), which is governed by four governor-appointed commissioners, serve as ex-officio members and observers to ECMB. The ECMB provides oversight of the energy efficiency funds through annual reports to the legislature and DPUC reviews and approves CCEF’s multi-year strategic plan.

Evaluation based on process criteria

Having one state agency develop regulations with funding provisions may increase efficiency and accountability. However, this concentration of power in one entity may limit innovation and skew policy goals towards the mission of that agency over other policy priorities. Public hearing participants, including other state agencies, technical experts, and citizens, were drawn from DEP’s existing network which may not be representative of other sectors including workforce development. However, the initial public hearing that approved policy goals of expenditures (DEP Regulation Section 22a-174-31, Control of Carbon Dioxide Emissions) provided an avenue for citizen input and openness. DEP staff noted the high level of transparency, which can be seen in the information posted on their website, including meeting agendas, all public comments and hearing reports (Personal Communication, Nelson, 2009). In terms of accountability, both ECMB and CCEF provide annual reports to the legislature.

Maryland

Governance

In Maryland, the legislature passed a bill, signed by the governor, which directed the state’s auction funds to the Maryland Strategic Energy Investment Fund (Maryland SB 263, 2009). Four statewide public meetings were held to solicit public input on the initial plan’s development. The fund is administered by the Maryland Energy Administration (MEA). According to state statute, revenue is directed to the Electric Universal Service Program and other electricity assistance programs, offsetting electricity rates of residential consumers on a per

customer basis, energy efficiency and conservation programs, renewable and clean energy programs, and public education and outreach initiatives. The Strategic Energy Investment Advisory Board makes program-level spending recommendations to the MEA, who in turn develops a three-year expenditure plan. The Advisory Board is comprised of legislators, state agencies, technical experts, and citizens appointed by the governor. Additional statewide meetings are planned every three years to inform the public on the plan's progress. Oversight and evaluation regarding the uses and expenditures of funds is conducted by the MEA through annual reports delivered to the governor and the legislature.

Evaluation based on process criteria

Having a single entity, MEA, administer Maryland's Strategic Energy Investment Fund allows for centralization and efficiency of revenue distribution as well as isolating funds from other purposes. The Strategic Energy Investment Advisory Board, which advises MEA on specific fund expenditures, increases representation of agencies, citizens, and technical experts. Broader public representation was enhanced by public meetings held across the state during plan development. Scientific information and expertise is provided to the Advisory Board by MEA staff. Annual reporting to the governor and legislature improves accountability. Public input, solicited every three years, increases transparency and accountability.

3.1.2 Climate Trust

Separate from cap and trade programs, two states (Oregon and Washington) regulate carbon emissions from new power plants through the sale of carbon emission offset credits. In 1997, the Oregon legislature passed the Oregon Standard (House Bill 3283), which requires new power plants built in Oregon to offset part of their carbon emissions. The legislation created a trust fund and delegated administrative authority over the fund to the Climate Trust, a nonprofit organization. As required by law, the Climate Trust solicits, negotiates, and contracts to purchase greenhouse gas offsets with funding provided by regulated power plants, businesses, and individuals (Oregon HB 3283, 1997). To date, the Climate Trust has invested a total of nearly \$9 million into national and international carbon offset projects. In addition to administering the Oregon Trust Fund, the Climate Trust administers the Colorado Carbon Fund as well as other voluntary offset programs (Climate Trust Website 2009).

Governance

In phase one, determining policy goals of expenditure, the legislature passed and the governor signed legislation that required new power plants built in Oregon to offset part of their carbon emissions through internal efforts or payment into the trust fund. The same legislation that created the fund delegated administrative authority over the fund to the nonprofit Climate Trust. The Climate Trust is governed by a seven member Board of Directors (BOD) including three members nominated and selected by the environmental community, three by the Energy Facility Siting Council (a governor-appointed citizen council that regulates energy facilities in Oregon and is housed within the Oregon Department of Energy), and one member elected by the power generators. An Advisory Council, appointed by Climate Trust staff and comprised of national technical experts, advises staff and the BOD. Climate Trust staff provide recommendations, which are nearly always approved by the BOD, for program-level funding decisions (Personal Communication, Burnett, 2009). Oversight is provided by the BOD as well as an annual audit report and presentation to the Energy Facility Siting Council and the legislature.

Evaluation based on process criteria

As a non-governmental organization, the Climate Trust ensures that funds are used solely for greenhouse gas offset projects. The legislation that created the Trust limits the flexibility of how funds could be spent by setting specific expenditure categories. Having a separate nonprofit manage a trust fund may protect revenue from being used for other purposes but relies on an outside organization for administration rather than building internal state capacity and expertise. Although the process includes citizen participation, the Climate Trust

may not be representative of the views of the affected community including underrepresented groups. The Climate Trust funds national and international programs that may have no direct impact on consumers paying increased energy rates. Credibility is provided through knowledgeable staff, the Advisory Council, and the BOD. However, because the BOD approves most, if not all, staff program-level recommendations, deliberation may not be as thorough as expected. Accountability is provided through annual audits and presentations to the legislature and public.

3.2 Other Revenue Allocation Models

In this section, we describe and evaluate governance processes that are involved in making expenditure decisions not affiliated with existing carbon or cap and trade programs. We gathered information on these processes through web and literature research and through in-depth interviews with staff and participants involved with each process. Appendix G describes other non-revenue decision-making structures utilized in Minnesota that may serve as useful models for program-level decision making in cap and trade governance.

3.2.1 Joint Legislative-Citizen Commission on Minnesota Resources

The joint Legislative-Citizen Commission on Minnesota Resources (LCCMR) is an example of a non-binding two-way deliberation model that makes funding recommendations to the legislature. The Commission has undergone multiple transitions since its creation in 1963, the most recent being the addition of non-legislative citizen members in 2006.

Governance

In today's configuration, the LCCMR has 17 members (five senators, five representatives, five citizens appointed by the governor, and one citizen appointed by each of the senate and house). The joint commission is supported by five full-time staff members. The LCCMR issues a request for proposals (RFP) each year based on a six-year strategic plan outlining the goals and funding objectives of the Commission. Staff members review the proposals and present their analysis to the Commission. Commission members review and deliberate a sub-set of the proposals based on staff recommendations and may request additional review or testimony on specific proposals. The Commission then votes on a funding package that is sent to the legislature for consideration by the house and senate and approval by the governor.

In addition to direct participation of the seven rotating citizen members, the LCCMR has created several other avenues to support increased citizen involvement. All hearings are open to the public and meeting materials and information can be downloaded from the Commission's website. Commission members tour the state conducting site visits and meeting with local interest groups and community leaders. In 2008, the LCCMR conducted a poll through their website to solicit citizen concerns and feedback on the types of projects that they would like to see funded.

Evaluation based on process criteria

We interviewed current and former staff, legislative and non-legislative citizen members of the LCCMR to evaluate the effectiveness of the LCCMR as a decision-making model. Overall, participants and staff had a high degree of satisfaction with the LCCMR as a governance process. Interviewees saw the Commission as a legitimate, thoughtful, and effective process that made sound technical decisions while being considerate of the views of citizens and stakeholders across the state. One of the most often cited advantages of the LCCMR model was the added level of deliberation that occurred in a commission model as opposed to a legislative committee. The LCCMR meets year round, even when the legislature is not in session, and therefore has more time for deliberation, research, and thoughtful consideration of different programs and proposals. The LCCMR is also known for its dedicated and knowledgeable staff that assists in researching and reviewing funding proposals. This added level of deliberation and emphasis on peer-review, expert testimony, and extensive staff support add to the perceived technical and scientific credibility of the LCCMR process.

Most LCCMR participants saw the process as effective, efficient, transparent, and credible. However, there were differences in how staff and commission members viewed the recent addition of non-legislative citizens to the LCCMR. Most citizens interviewed felt that they contributed positively to both the level of deliberation and discussion and enhanced the scientific and technical credibility of the decision-making process. Citizens saw themselves as representing scientific expertise and “real-world” field experience that was lacking from legislative members. Citizens viewed themselves, not as representing particular constituents, regions, or special interests, but rather representing a non-biased objective technical view of what constituted sound science and research. Legislators were more likely to view themselves as representing their constituents and the best interests of the state. This difference in perceived representation is an important consideration in adding non-elected citizens to decision-making bodies. Both legislators and non-legislative citizens saw the process as slightly metropolitan-centric and agreed that more could be done to ensure a broader regional representation on the commission.

Staff and legislative members felt that the commission was effective and maintained a high level of deliberation and scientific and technical credibility before non-legislative citizens were added to the commission. These interviewees respected the expertise and contributions of citizens, however most did not see their presence on the commission as essential for effective and thoughtful decision-making. Importantly, neither legislators, citizens, nor staff believed citizen members detracted from the efficiency of the process.

3.2.2 The Minnesota Renewable Development Fund

In the 2003 Legislative Session, the Minnesota Renewable Development Fund (RDF) statute was amended, creating the RDF in its current form (Minn. Stat. 116C.779). The fund is financed by Xcel Energy ratepayers to stimulate research and development of renewable energy technologies, support and increase the amount of renewable energy projects and companies, and encourage the penetration of renewable energy sources at a reasonable cost within the Xcel Energy service area (RDF 2009).

Governance

The RDF represents a statutorily defined annual investment (\$19.5 million), with the state legislature reviewing the program balance statement at least on a biennium basis in conjunction with the state budget and appropriation process. Annually, a significant portion of the fund (\$10.9 million) is statutorily dedicated for the purpose of making renewable production incentive payments, with the remaining balance allocated at the discretion of the RDF Board (Personal Communication, RDF, January 2009).

The RDF is administered by an independent staff at Xcel Energy and governed by a seven member Advisory Board. Membership, as established by the Minnesota Public Utilities Commission (PUC), includes two representatives of environmental organizations, one representative of the Prairie Island Indian Community, one representative of industrial/commercial ratepayers, one representative of residential ratepayers, and two representatives from Xcel Energy (RDF, Selection Report 2009). The individual representative for each stakeholder group is determined autonomously by that specific group, with no Advisory Board approval required. After the RDF program was established, Xcel Energy and environmental stakeholders entered into a letter of agreement establishing operating procedures, project eligibility criteria, and the grant approval process. The procedures and processes were subsequently reviewed and accepted by the PUC.

The non-statutorily dedicated portion of the RDF balance is used for grants to research universities, nonprofits, businesses, and governmental agencies. The Board selects proposals for grant funding, identifies funding priorities, and assures that the RDF goals are met. A consulting firm with technical experts is retained in the evaluation and scoring process, providing project-specific numerical scoring in a variety of metrics. The Board reviews the findings of the consultant and, using the findings as an important resource, makes project funding recommendations, which are submitted to the PUC for ultimate final approval for each grant award. Project

funding recommendations of the Board are generally agreed to by the PUC, although not always upon first hearing.

Prior to approving a RDF grant award, the PUC will conduct a formal hearing open to public participation. The PUC has regulatory oversight for the RDF program, and the Minnesota Office of Energy Security (OES) reviews all RDF grant award contracts for compliance purposes and reports findings to the PUC. Proposed RDF grant awards are reviewed by the Minnesota Office of the Attorney General and the Minnesota Office of Energy Security, providing comments for the PUC's consideration before final approval.

Evaluation based on process criteria

Program-level funding decisions by the Board are informed by an independent, third-party analysis using a consistent ranking system informed by the opinions and overview of technical experts. This process provides a high level of credibility in the selection procedures. However, since the members of the Board and PUC are not elected, they hold little accountability to the general public. Though meetings of the Board are open to the public, citizen participation has been minimal, perhaps diminishing the level of credibility. With the RDF program accessed through Xcel Energy's website, in addition to being administered by Xcel Energy, the perception to unknowing parties is that this is an Xcel Energy program, not an independent fund directed by multiple stakeholders and parties. A variety of stakeholder positions are represented on the Board, but with few opinions for currently excluded groups to be included in the process. Finally, funding decisions for each round are made on a multiple-year, variable cycle, which allows for thorough review of complex and long timeframe projects. However, immediate or highly responsive action would not be plausible under this structure. Stakeholder meetings created differing views on this topic; some argued the need to show quick action for particular projects, while others highlighted that large, complex projects require greater quantities of funding and longer technical deliberation.

3.2.3 Minnesota State Art's Board

The Minnesota State Arts Board (Arts Board) was formally established in 1975 by amended legislation as a derivative of the earlier State Arts Society and Minnesota State Arts Council. The mission of the Arts Board is to create a healthy environment for the arts with the support and participation of the public, to protect the state's cultural heritage and encourage artistic excellence through support of organizations and artists, to serve as a steward of the public trust, and to work with the state's arts networks to guarantee accessibility to the arts for all (SAB 2009).

Governance

The Arts Board consists of a two-tiered governance structure divided into a centralized State Arts Board and 11 localized Regional Arts Councils. Primary funding for the Arts Board is appropriated by the state legislature, (\$10,215,000 in FY2008), with an additional amount (\$2,957,000 in FY2008) appropriated to the Arts Board to be regranting directly to the Regional Arts Councils as block grants.

The Arts Board is governed by eleven citizens, who are appointed by the governor and require senate confirmation. One representative is chosen from each of the state's eight congressional districts and three other representatives are members-at-large (Minn. Stat. 129D.03). Eleven Regional Arts Councils across the state provide a decentralized means to distribute funds from the Arts Board and legislature to regional and local projects.

The legislature authorized the Arts Board to make rules governing the criteria and procedures used to distribute grants and other forms of assistance at both the state and local levels. The Arts Board determines and provides final authorization for funding of state and local art projects. To aid in the selection and funding process, the Arts Board appoints Advisory Panels, consisting of groups of qualified, nominated citizens appointed by

Board vote. Advisory Panels make policy and project-funding recommendations, which are given considerable weight in the Arts Board's final decisions (Personal Communication, SAB, January 2009).

A Regional Arts Advisory Committee advises the Arts Board on matters affecting the Regional Arts Councils. This committee is constituted of six members: two from the Arts Board (appointed by the Board), two appointed by the Regional Arts Council Forum (may or may not be Forum member), one at-large member appointed by Board (not a current Board member), and one at-large member appointed by Forum (not a current Forum member). Regional Arts Councils are officially recognized by the state and the Arts Board, with a formal means laid out for a particular council to be challenged by another organization requesting official designation instead. Regular financial auditing is performed by the Office of the Legislative Auditor, while program auditing is performed on an ad hoc basis as requested by the Legislative Audit Commission.

Evaluation based on process criteria

The State Arts Board provides a high level of citizen involvement in both state-wide and local program funding decisions. Stakeholders commented that citizen control over decision-making increases public credibility. The innovative two-tiered system allows for regionally diverse funding and access to under-represented and minority groups. Arts Board members do not hold elected office and are thus not accountable directly to the public. To counter this, the heavy reliance of citizen arts experts on Advisory Panels provides a venue for accessibility and credibility. Project decisions are very transparent through public meetings and local councils. The effectiveness of deliberation is difficult to assess, given the reliance on subjective opinions and the difficulty in applying a ranking system to a large and difficult to define sector such as the arts. The requisite of "artists judging art" partially legitimizes project selection, though skepticism about the objectivity of the process is understandable.

3.2.4 Iowa Values Fund

The Iowa Values Fund (IVF) was created as to spur economic growth and job creation in the state over a ten year period through business development and expansion. Through a multitude of different programs and incentives, the IVF aims to assist Iowa companies in expansion and to attract new businesses from outside the state (IVF 2009).

Governance

The Iowa Department of Economic Development (IDED) receives an annual IVF appropriation (\$50 million in FY2007) from the state legislature with \$30 million directed by statute to encourage business development and marketing, with specific funding amounts allocated to different initiatives.

The Iowa Economic Development Board governs the IVF and oversees fund allocation and administration; with final funding decisions at their discretion. The 22 member board consists of 15 voting members appointed by the governor and seven ex-officio nonvoting members. Of the 15 voting members, at least nine must be actively employed in the private, for-profit sector. Additionally, board membership must represent each of the following: (1) Finance, insurance, or investment banking, (2) Advanced manufacturing, (3) Statewide agriculture, (4) Life sciences, (5) Small business development, (6) Information technology, (7) Economics or renewable energy, (8) Labor, (9) Marketing, and (10) Entrepreneurship. Additionally, no more than eight members may be from the same political party and at least one member must be under 30 years old at the time of appointment. Seven ex-officio nonvoting members serve in a mostly advisory capacity by expressing opinions and making recommendations to the Board's voting members (IACC 2009).

Three, statutorily-required Economic Development Board Committees (Due Diligence, Loan and Credit Guarantee, Technology and Commercialization) oversee the many individual funding programs available to businesses and provide a level of self-reporting and accountability. All committees are constituted of IDED Board membership, except the Technology and Commercialization Committee, which need only have one

IDED Board member. The committees meet monthly in most cases, generally oversee application review, and subsequently make funding recommendations to the full Board, which requires a majority vote for project funding approval (Personal Communication, IDED, February 2009). The IVF is periodically reviewed by the Iowa Auditor of State (AOS). The AOS's report includes recommendations for the program to increase effectiveness, transparency, and statutory compliance.

Evaluation based on process criteria

The Board is representative of many interests, with an effort to provide numerous differing viewpoints. Utilization of an existing state agency for administration in this case was an often cited benefit by stakeholders, lowering administrative costs and reusing tried processes by not “reinventing the wheel.” Transparency of the process is difficult to assess, as general citizen involvement occurs after decisions are made, though Committee and IDED Board meetings are open to the public. Substantial amounts of information are included in an annual report and on the website, the result of an AOS recommendation. Deliberations by committee and the full Board include many diverse viewpoints and incorporates the IDED's own technical experts. This ten-year targeted program offers the opportunity for the fund to be reevaluated in 2015, when it is set to expire. If deemed a credible program at that time, consensus may dictate its reestablishment. Efficiency of the program may be hindered by predetermined program allotments in the governing statute that are not easy to change. Altering situations may require a different fund distribution, which is not at the Board's discretion. The annual report and website offer information on projected and actual job creation for each individual project, allowing citizens to hold the board accountable for the effectiveness of each project and grant. However, overall accountability lacks since members are appointed, not elected.

Part IV. Potential Carbon Cap and Trade Governance Models

4.1 Model #1: Legislative Control Using Existing Structures

This model follows the traditional process featuring legislative control of appropriations and broad goals of the fund with state agencies implementing their existing procedures and practices.

Governance

Overall discretionary allocation of revenue is determined by the state legislature with input from the governor. Prioritization of overall goals and departmental distribution is set within the law-making course. Bills follow the traditional legislative process from sub-committee and committee to House and Senate votes, culminating in executive signing. Authority over program administration is granted to state agencies based on the goals of individual expenditure categories outlined by the legislature. State agencies and departments may receive specified funding to support fund administration. Program-level funding decisions are made within the existing governance structure of each agency. Task forces and subgroups consisting of technical experts may be specifically assigned to oversee and distribute funding from the cap and trade revenue fund. The Office of the Legislative Auditor (OLA) provides oversight to the distribution of the funds by state agencies. Regular financial auditing is performed by the OLA with program auditing performed on an ad hoc basis as requested by the Legislative Audit Commission. In addition to state department accounting responsibilities, the Budget Division of the Minnesota Management and Budget Department (MMB) performs financial and program analysis. Reports and findings of the OLA and MMB inform future legislation and are available to the public for review.

Table: Governance According to the Model “Legislative Control Using Existing Structures”

Governance Phase	Authority
Deciding policy goals and expenditure categories	Legislature in consultation with the governor Deliberation occurs in legislative committees
Executing program administration	State agencies and departments
Making program-level funding decisions	State agencies in consultation with task forces or agency-appointed subgroups
Ensuring oversight and accountability	Office of the Legislative Auditor, by request of the Legislative Audit Commission, and Minnesota Management and Budget

Evaluation based on process criteria

With the state legislature making overall funding priorities and decisions, the overall goals of the fund will be mostly representative of the public. Accountability will largely rest upon these elected members and key authors of any connected legislation. Deliberations will be public for the most part as they are conducted within the state’s most visible, deliberative bodies. Policies that are found in retrospect to be ineffective or inefficient will have to be addressed by their proponents through public debate and as likely reelection issues. By largely incorporating existing decision-making structures and agencies, administrative costs and hurdles should be minimized, but leave little room for innovative policy approaches. Additionally, fast-acting changes to overall fund priorities will be limited largely to legislative sessions, making fast action to deal with unforeseen circumstances more difficult. Ultimately, fund priorities will be set by the legislature, which is highly accountable to the general public but lacks scientific and technical expertise. Without any official channels or recognition, minority and under-represented groups will likely have difficulty with process involvement unless under the umbrella of larger interest groups.

Agency accountability is critical to the success of the program, including a large amount of transparency and reporting. Deliberations within the agency are much less public, though they can incorporate open meetings and listening sessions. Specific program determinations are made by more concentrated teams of scientific and technical experts who can, to a greater degree, determine the effectiveness, efficiency, and equity of lower-level decisions. With the fund being divided among a multitude of agencies, it will likely be difficult to show overall accountability of all programs combined. The OLA will play a large part in auditing agency financial operations, but may have difficulty providing a cohesive assessment of the fund’s operations as a whole. Additionally, individual project funding decisions are made by non-elected state employees, who lack the same accountability as legislators, though likely will be better versed in the scientific and technical details of specific programs.

This model provides representation equivalent to traditional law-making processes of state government. Representation is regionally diverse with legislators from across the state serving on behalf of diverse groups of citizens, communities, and interests. Program-level funding decisions are at the discretion of state agencies, concentrated in the metropolitan area with a high regard for expertise. Since this model uses existing structures to a large extent, no special appointments are made to oversee or administer the fund, other than the existing processes for state agency appointments. Ultimate decision making authority lies with the legislature and governor, who are responsible to the general public through elections. Citizens influence the process by communicating with legislators, attending agency or program-level public meetings and listening sessions, and becoming informed through OLA reports. State agencies bring together the expert community to craft implementation and oversee the administration of their funding component. Key stakeholders outside of state government are largely involved through lobbying activities and serve as consultants to state agencies when appropriate.

4.2 Model #2: Citizen-Driven Decision Making

In this governance model, citizen involvement in the decision-making process is institutionalized at multiple stages. Citizen engagement tools are used to inform decision-makers about the viewpoints of the affected public. Citizens on a citizen-legislative commission play a role in the weighting of policy goals and make recommendations on funding priorities and programs to the legislature. Citizen task forces and advisory boards provide input on program-level funding decisions. Finally, citizen members play an oversight role and provide feedback to the legislature on how to modify the revenue allocation process. The emphasis of this model is on the institutionalization of citizen participation and technical expertise. However, the model also relies on existing entities such as state agencies for administration and program management.

Governance

As in the above model, the legislature, in consultation with the governor, decides on policy goals and expenditure categories. In this model, citizen participation tools are used in the first phase of governance to increase awareness and inform decision-makers about public concerns and policy preferences. Potential citizen engagement tools include statewide public information hearings, deliberative polling, and web-based surveys (for a summary of different citizen participation tools see Table 3). A joint legislative-citizen commission both coordinates the public outreach efforts and reviews the results. The joint commission then makes recommendations to the legislature on policy goals and the size and objectives of different potential expenditure categories. In making their recommendations, the commission considers public opinion, testimony by experts and stakeholders, and research by commission staff.

Similar to model #1, the resulting legislation grants authority to administer expenditure categories to state agencies and departments. Within each agency, citizen task forces and technical advisory groups are created around specific programmatic goals. Citizens are appointed to these decision-making groups by the administering agencies in consultation with the joint legislative-citizen commission and the legislature. Some groups, such as technical advisory councils would serve an advisory function to an existing decision-making entity within an agency. In situations where a suitable state agency decision-making group did not already exist, a new citizen task force would assume decision-making authority over program-level funding decisions. In this model, the joint legislative-citizen commission assumes responsibility for program oversight and evaluation.

Table: Governance According to the Model “Citizen-Driven Decision Making”

Governance Phase	Authority
Deciding policy goals and expenditure categories	A legislative-citizen commission advises the legislature on policy goals and allocations, however the legislature retains final decision-making authority
Executing program administration	State agencies and departments
Making program-level funding decisions	Citizen task forces and agency-created technical advisory groups
Ensuring oversight and accountability	Legislative-citizen commission

Evaluation based on process criteria

Any process that utilizes citizen or expert appointees to make policy decisions needs to carefully consider both the qualifications of appointees and the groups or interests they represent. Citizens on the citizen-legislative commission are in charge of making broad values-based decisions as well as carefully considering key policy tradeoffs. These appointees should therefore be recruited to represent the views of impacted sectors and the general public, with the intention of incorporating perspectives that would not be as well-represented by an all-legislative commission. In contrast to the weighing of different policy objectives, the decisions made at the program level are likely to be more technical in nature. Therefore, within existing agencies, citizen advisory boards and task forces should be assembled with the intention of bringing expertise to technical and

program-level decisions. The composition of each citizen board or task force should reflect the programmatic goals and nature of the decisions and policy tradeoffs under consideration.

A process that incorporates non-legislative citizens at multiple levels in the decision-making process may be viewed by the public as more open and representative than a process that utilizes only legislators and existing executive branch expertise. However, as non-elected decision-makers, citizen participants in the process may not be held accountable for their decisions to the same degree as elected officials. Citizen engagement tools and multiple citizen-based deliberatory bodies will add both time and cost to the decision-making process. A key question is whether or not this cost to efficiency will be outweighed by an increased level of representation and deliberation. Finally, it is difficult to assess whether or not scientific and technical credibility increase as citizen participation is increasingly incorporated into governance. Based on our stakeholder interviews, perceived scientific and technical credibility by the public does appear to be linked to citizen and technical expert participation. However, there is insufficient scientific evaluation of this question to make a conclusion on the relationship between citizen participation and scientific and technical rigor.

4.3 Model #3: Nonprofit Administered Trust Fund

In this model, cap and trade revenue is allocated to a trust fund, administered by non-governmental entity.

Governance

The legislature and governor debate policy goals and expenditure categories. The resulting legislation creates a trust fund for auction proceeds with specific guidelines from the legislature on how the funds should be spent. Administration of the fund is granted to a nonprofit organization. The nonprofit may use trust fund dollars to hire staff support and defer administrative costs. A board of directors, appointed by the governor and the legislature, is responsible for making program-level funding decisions. Technical advisory councils are created to advise the board on funding decisions. The majority of funds are allocated based on requests for proposals administered by board staff based on programmatic goals established by the legislature and refined by the board. Expenditures are tracked by board staff and approved by a separate auditing company that measures the efficiency and effectiveness of trust fund in meeting its programmatic goals. Program evaluation information is presented to the legislature, governor, and the public in an annual report and public hearings.

Table: Governance According to the Model “Nonprofit Administered Trust Fund”

Governance Phase	Authority
Deciding policy goals and expenditure categories	The legislature in consultation with the governor decides on policy goals and allocates revenue to a trust fund
Executing program administration	Nonprofit organization
Making program-level funding decisions	Appointed board of directors makes decisions about what programs to fund and how to spend trust fund dollars
Ensuring oversight and accountability	The board of directors reports back to the legislature on fund allocation and program evaluation

Evaluation based on process criteria

A trust fund mitigates individual decision makers’ influence, bypasses state procurement rules, and provides fund stability when state budgets fluctuate. However, stakeholders voiced concerns that given the size of the potential revenue, program-level decision making and administration should remain in the hands of the legislature. Although an appointed board of directors and associated advisory groups would provide some technical expertise, they may not be most representative of the public, raising issues of equity and representation. Additionally, turning to a new or existing nonprofit does not acknowledge existing state resources that may be utilized. An open request for proposals process allows for innovative ideas to be presented. Projects will be

judged based on their own merit and effectiveness, rather than policy goals determined from above that may be influenced by a changing political climate. Open meetings allow for greater public involvement and transparency in the process. The public nature of annual reporting allows for accountability in addition to freely available and accessible information available on the fund administrator’s website

4.4 Model #4: Legislative Sunset and Regional Councils

In the previous models, the assumption is that the legislature can revisit allocation decisions and policy priorities on an annual basis. In this model, the legislature and governor decide on policy goals and expenditure categories, but the resulting legislation sunsets after six years. This model also addresses the issue of equitable geographic representation. Program-level funding decisions within some expenditure categories are made by regional councils distributed across the state.

Governance

Policy goals and expenditure categories are decided by the legislature in consultation with the governor. The legislation establishing expenditures is set to sunset after six years, which balances the goals of funding stability with periodic review. The appropriate administrative authority is based on the goal of each expenditure category. For example, if a percentage of total revenue is allocated to direct consumer energy rebates, then the Department of Revenue would execute program administration. In this case, a separate decision-making entity is not needed to make program-level funding decisions. If funds are allocated to public infrastructure projects that affect the entire state, then a statewide agency or commission would be an appropriate entity to make program-level funding decisions. In contrast, the goals of some expenditure categories require consideration of local needs and circumstances. If funds are allocated to residential and small business energy efficiency programs, regional councils would assume program-level decision-making authority, under the administration of a statewide oversight board. Similar to the Minnesota State Arts Board model, the regional councils would decide which county or city projects get funding. The statewide oversight board distributes funds to the regional councils and serves as the evaluative agency for fund oversight and program evaluation. Oversight and program evaluation of the other expenditure categories administered by state agencies would be completed by the Office of the Legislative Auditor with periodic fiscal analysis by Minnesota Management and Budget.

Table: Governance According to the Model “Legislative Sunset and Regional Councils”

Governance Phase	Authority
Deciding policy goals and expenditure categories	Legislature in consultation with the governor. Legislation is “sunsetting” every six years
Executing program administration	State agencies and statewide oversight board
Making program-level funding decisions	Depending on the expenditure category, state agencies or Regional Councils make program-level funding decisions
Ensuring oversight and accountability	Office of the Legislative Auditor and Minnesota Management and Budget, with additional oversight from the statewide oversight board

Evaluation based on process criteria

This model retains a major role for the legislature and governor in setting spending priorities and expenditure categories, but attempts to limit their involvement to once every six years. The advantage of this approach is that it provides predictable funding to programs and administrators over a six-year timeframe. This allows decision makers at the program level to invest in multi-year projects without the concern of the legislature reducing or eliminating their funding. There are potential disadvantages to revisiting broad policy goals and spending priorities less frequently. Allocations on an annual or biannual basis enable the legislature to respond to emergencies, market changes, or advancements in technology and adjust policy priorities and the size and objectives of expenditure categories accordingly.

This model also illustrates the importance of considering policy goals and funding priorities in determining the nature of representation that should be emphasized at different levels. Decisions that affect the entire state, such as infrastructure improvements and consumer rebates, should be made by decision makers that represent statewide interests. State agencies, legislators, and statewide commissions are entities that emphasize statewide representation. Decisions that affect local communities, and are subject to unique local circumstances at different regions across the state, are best made by decision makers at the local or regional level. Geographic equity and representation are enhanced by delegating program-level decision-making authority to regional councils that are closely tied to the communities they serve. Deliberation, openness, and efficiency are also enhanced when regional decision-making entities control funding decisions that directly affect their communities. Finally, locally-based governance has the added benefit of increasing public awareness and education about the goals of carbon cap and trade policy. In this way, regional councils may help to institutionalize the transformation to greater energy efficiency on a community level.

Part V: Conclusion

The expenditure of cap and trade revenue requires a high level of coordination, planning, and delegation of authority among different administrative and decision-making entities making it a unique and challenging governance problem. Our research was informative, in that we were able to examine and evaluate the diversity of existing governance tools for making revenue allocation decisions. We also developed a conceptual framework which organized the governance process into key phases and described process criteria for effective and legitimate governance.

We concluded that the design and selection of a governance process for cap and trade revenue must start with clarification of the program's policy goals and objectives. Once overall goals are established, the legislature should consider the objective of each expenditure category when selecting appropriate governance structures to make program-level decisions. In the delegation of administration and oversight responsibilities the legislature should weigh the advantages and disadvantages of using existing state agencies and oversight entities. In situations where an existing entity is not appropriate, we recommend considering the appropriate appointment scheme and characteristics of representation that should be brought to the governance process.

Guiding the selection of governance structures and processes at all phases in the governance process should be the process criteria for effective and legitimate governance. Criteria should be prioritized at each phase and tied to the mission of each decision-making structure. Finally, it is important to note that there are tradeoffs involved in the selection of any governance model. Adaptability and flexibility in changing policy goals must be balanced with consistency in funding. The use of new or innovative decision-making structures should be weighed against the benefits of existing entities that promote continuity and constancy in governance. Open and broad public representation may increase program awareness and enhance deliberation, but may increase costs and decrease efficiency.

Careful consideration of these tradeoffs and the appropriate governance mechanisms for expending cap and trade revenue is a wise use of time and resources. The governance process employed in the state of Minnesota will not only shape the policies that govern cap and trade revenue distribution, but also impact the perceived effectiveness and legitimacy of the cap and trade system. The participants and stakeholders we interviewed over the course of our research reinforced the importance of governance in affecting the overall success of cap and trade in Minnesota. We advise the legislature to carefully consider the unique circumstances of cap and trade governance, the policy goals associated with the program, and the importance of the process criteria in making final decisions about governance.

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Table 1: 2009 RGGI State Allocations and September 25th, 2008 Auction Supply

State	2009 Allocation (short tons)	Share of RGGI Cap (%)	December 17 Supply (short tons)	Potential Revenue	
				at \$3.07/ton	at \$3.38/ton
Connecticut	10,695,036	5.70%	1,372,530	\$4,213,667	\$4,639,151
Delaware	7,559,787	4.00%	755,979	\$2,320,856	\$2,555,209
Maine	5,984,902	3.20%	872,506	\$2,678,593	\$2,949,070
Maryland	37,503,983	19.90%	5,331,781	\$16,368,568	\$18,021,420
Massachusetts	26,660,204	14.20%	4,387,534	\$13,469,729	\$14,829,865
New Hampshire	8,620,460	4.60%	1,189,610	\$3,652,103	\$4,020,882
New Jersey	22,892,730	12.20%	4,532,761	\$13,915,576	\$15,320,732
New York	64,310,805	34.20%	12,422,161	\$38,136,034	\$41,986,904
Rhode Island	2,659,239	1.40%	438,774	\$1,347,036	\$1,483,056
Vermont	1,225,830	0.70%	202,262	\$620,944	\$683,646
Total	188,112,976	100.00%	31,505,898	\$96,723,107	\$106,489,935

Table 2 (1 of 3): RGGI State Governance Models

Policy Goals / Expenditure Categories	Program Administration	Program-level Funding	Oversight and Accountability
<p>Department of Environmental Protections (DEP) developed funding regulations, with input from citizens and technical experts in a public hearing. Legislature approved final DEP regulations.</p>	<p>Energy Conservation Management Board (ECMB) & Connecticut Innovations (CI) administers funds. ECMB members are appointed by Department of Public Utilities Commission (DPUC); CI appointments are by legislature and governor. All appointments include technical experts, citizens, and state agency representatives.</p>	<p>Load serving entities - Connecticut Light and Power (CL&P), United Illuminating (UI), and Connecticut Municipal Electric Energy Cooperative (CMEEC) receive funding for energy efficiency (ECMB administrators). Connecticut Clean Energy Fund (CI administrators) provides funding to support renewable energy.</p>	<p>ECMB provides oversight of the energy efficiency funds through annual reports to the legislature and DPUC reviews and approves CCEF's multi-year strategic plan.</p>
<p>Department of Natural Resources and Environmental Control (DNREC) convened workgroup consisting of legislators, technical experts, citizens, and state agency representatives to advise legislature on revenue categories, which resulted in legislation passed into law.</p>	<p>DNREC administers funding.</p>	<p>Sustainable Energy Utility (SEU) Taskforce consisting of legislators, technical experts, citizens, and state agency representatives receive portion. State administered Weatherization Assistance Program and fuel assistance programs receive portion. DNREC, with advice from electric sector, legislators, and technical experts fund Greenhouse Gas Reduction Projects.</p>	
<p>Through law passed by legislature and signed by governor, the Public Utilities Commission (PUC) is granted authority to appoint three trustees (technical experts) to govern "Energy and Carbon Trust Fund". The legislature determined policy goals of fund.</p>	<p>Efficiency Maine (a PUC program that funds electrical energy efficiency projects) administers Trust Fund.</p>	<p>Maine Energy Conservation Board consisting of technical experts, citizens and state agency representatives serve as advisors to Trustees and to Efficiency Maine.</p>	<p>Department of Environmental Protection and Trustees submit annual report to legislature.</p>
<p>Governor signed and legislature passed law that determined policy goals of "Maryland's Strategic Energy Investment Fund". To solicit public input on initial plan's development, 4 statewide public meetings were held.</p>	<p>Maryland Energy Administration (MEA) administers Fund.</p>	<p>Strategic Energy Investment Advisory Board (consisting of legislators, technical experts, citizens, and state agency representatives) advises MEA on fund expenditures.</p>	<p>Statewide meetings are planned every 3 years to inform the public on plan's progress. Oversight and evaluation regarding the uses and expenditures of funds is conducted by the MEA through annual reports delivered to the governor and legislature.</p>

Table 2 (2 of 3): RGGI State Governance Models

Table 2 (2 of 3): RGGI State Governance Models				
	Policy Goals / Expenditure Categories	Program Administration	Program-level Funding	Oversight and Accountability
Massachusetts	Governor signed and legislature passed law that determined policy goals of "RGGI Auction Trust Fund".	Department of Energy Resources Council (DERC) administers Fund.	Newly established Energy Efficiency Program Design and Oversight Council, convened by DERC and comprised of technical experts, citizens, and state agency representatives, approves energy efficiency plans and budgets. Winter Energy Taskforce, comprised of cabinet secretaries and legislators, may advise Council. Portion goes to municipalities to fund green community programs.	The Council provides annual report to DERC and the legislature which includes descriptions of the programs, expenditures, and cost-effectiveness.
New Hampshire	Governor signed and legislature passed law that determined policy goals of "Greenhouse Gas Emissions Reduction Fund". PUC can also propose distribution of funds through a PUC adjudicative process. For instance, PUC can decide to increase the funds to the existing statewide energy efficiency programs funded by a systems benefit charge.	Public Utilities Commission (PUC) administers Fund.	PUC grants fund through semi-annual to quarterly RFP process open to private and public sector, with portion reserved for low-income consumers. PUC advised by newly established Energy Efficiency & Sustainable Energy (EESE) Board, comprised of legislators, technical experts, citizens, and state agency representatives.	EESE Board provides annual recommendations to the PUC on the administration and allocation of energy efficiency programs.
New Jersey	Governor signed and legislature passed law that determines policy goals of "Global Warming Solutions Fund".	State Treasurer administers Fund.	New Jersey Economic Development Authority (NJEDA), in consultation with Board of Public Utilities and Department of Environmental Protection (DEP), provides grants. Board of Public Utilities grants a portion of funds to low-income consumers and DEP provides funds to support local governments and enhance stewardship of the state's forests and tidal marshes.	The State Comptroller conducts or supervises independent audit and fiscal oversight functions of the fund and its uses.

Table 2 (3 of 3): RGGI State Governance Models

	Policy Goals / Expenditure Categories	Program Administration	Program-level Funding	Oversight and Accountability
New York	New York State Energy Research & Development Authority's (NYSERDA) developed "express term" rules, which outlined policy goals of auction proceeds.	NYSERDA administers Fund.	NYSERDA is convening an advisory group of stakeholders including technical experts to advise it on Operating Plan. Meetings are open to the public. The final version of the Operating Plan will be presented to NYSERDA's Board for review and approval in Spring 2009.	The Advisory Group will meet at least annually, with meetings open to the public, to review and provide input on the Operating Plan.
Rhode Island	Governor signed and legislature passed law that determines policy goals of fund.	Office of Energy Resources administers fund.	Proceeds are determined annually by Office of Energy Resources in consultation with the Energy Efficiency and Resources Management (EERM) Council (comprised of technical experts, citizens, and state agency representatives) and the Department of Environmental Management and informed by public hearings.	The Office of Energy Resources prepares, in consultation with the Department of Environmental Management and the EERM Council, a publicly available report annually to the legislature.
Vermont	Governor signed and legislature passed law that determined policy goals of "Fuel Efficiency Fund".	Public Service Board is a quasi-judicial board, comprised of consumer trustees, that administers contract with Vermont Efficiency.	Vermont Efficiency (an independent nonprofit energy services organization under contract to the Vermont Public Service Board, administered by Vermont Energy Investment Corporation) grants fund through RFP process.	3 Trustees, with technical expertise, appointed by the Public Service Board, oversee Fund.

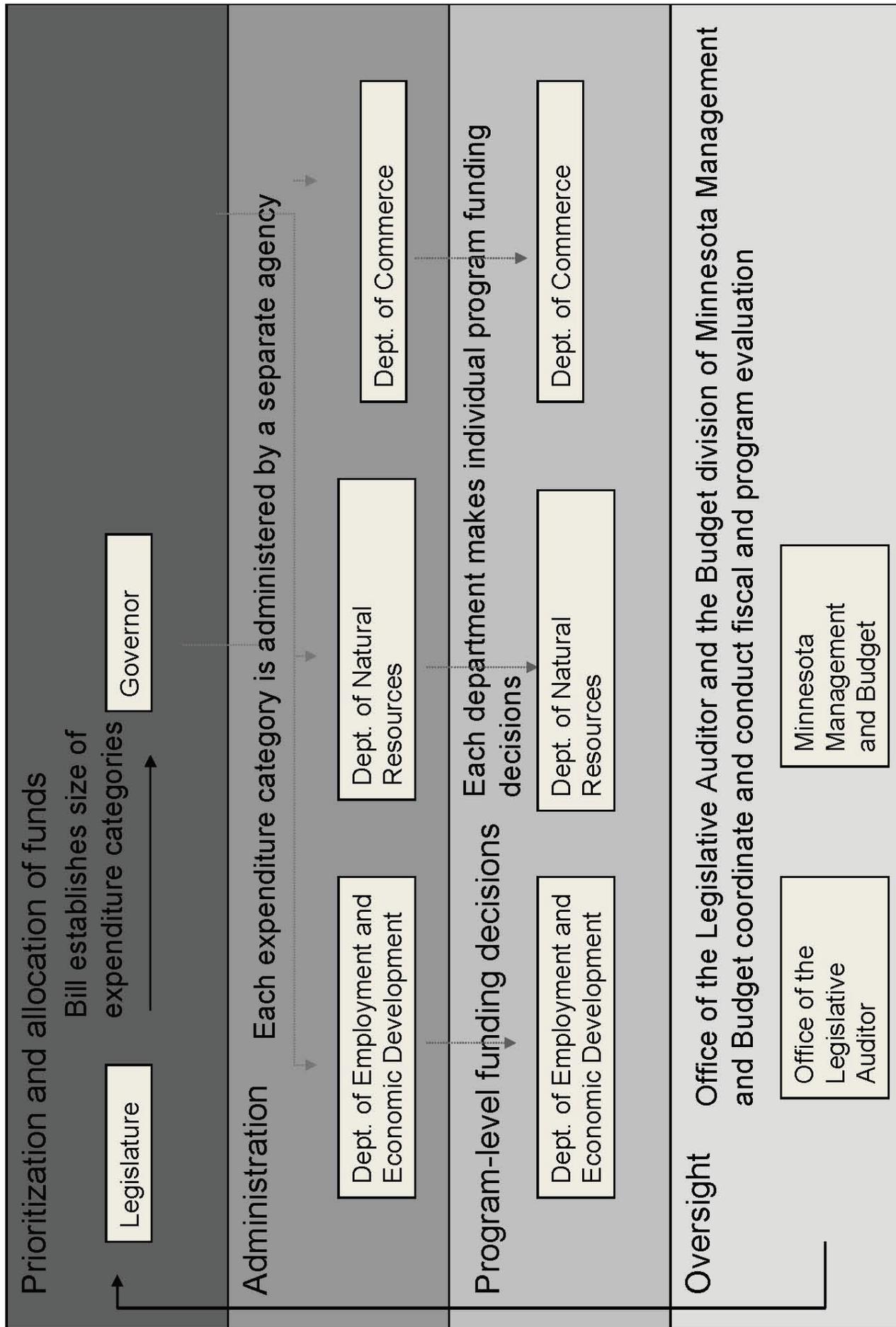
Table 3: State Agency Decision-Making Models

	Purpose	Responsibilities	Membership	Appointment Authority	Decision-Making Authority	Staffing & Administration
Next Generation Energy Board (NexGen Board)	Provide recommendations to governor and legislature on ways MN can sustainably achieve energy independence through its agricultural and natural resources.	Examine the future of bio-fuels and develop grant programs to assist renewable energy facilities through a \$3 million fund.	20 members; 8 appointed by governor and 12 by statute consisting of commissioners, representatives, senators, and an executive director.	Governor appointments with the advice and consent of senate.	Mostly advisory; \$3 million fund for grants by NexGen Board.	Administered & chaired by the Department of Agriculture.
Public Utilities Commission (PUC)	Create and maintain a regulatory environment that ensures safe, reliable, and efficient utility services at fair and reasonable rates.	Regulate 3 cornerstone service industries in Minnesota's economy (electricity, natural gas, and telephone).	5 commissioners with no more than 3 from the same political party and at least 1 must reside outside the metropolitan area.	Governor appointments with the advice and consent of senate.	Significant degree of independent decision-making autonomy as a legislative and quasi-judicial body. Code of Conduct strengthens the Commission's objectivity and independence.	50 full-time staff members, commissioners, and staff work at the Commission's office.
Environmental Quality Board (EQB)	Lead Minnesota's environmental policy through serving as a public forum, providing review and coordination resources, and responding to important issues.	Develop policy, create long-range plans, and review proposed projects that would significantly influence Minnesota's environment.	15 Members; 1 governor's representative (by law the board chair), 9 state agency heads and 5 citizen members.	Governor appoints 5 citizen members, subject to the advice and consent of senate. At least 2 of the 5 must have knowledge of and be conversant in water management issues.	Advisory.	Staff and consultant support are provided by the Office of Strategic and Long-Range Planning.
Green Jobs Task Force	Advise and assist the governor and legislature regarding activities to advance the state's economy and develop a statewide action plan.	Develop and present to the legislature and governor a statewide action plan to optimize the growth of the green economy.	24 members; 3 house representatives, 3 senators, 7 state agency representatives, and 11 citizen members.	Speaker, Senate Subcom. appoint elected officials; Governor appoints agency reps; 3 of 11 citizen appointees are appointed by governor, 4 by Speaker, and 4 by Senate Subcom.	Advisory.	The Commissioner of Commerce, in cooperation with the Commissioner of Employment and Economic Development, provides staff support to the task force.

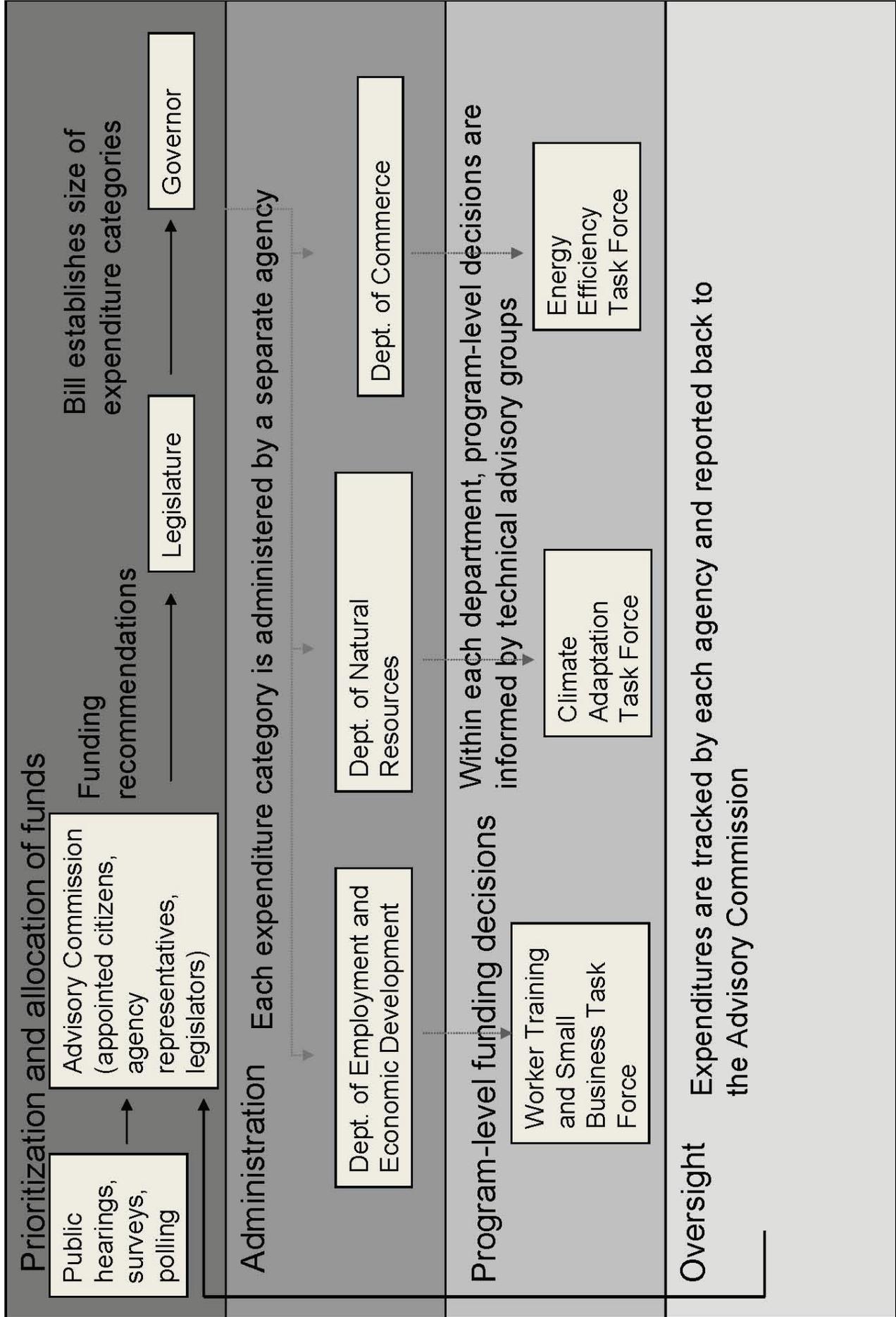
Table 4: Citizen Engagement Tools

	Participant Selection and Representation	Process	Outcome / Authority
Citizens Jury	Random representative sample. Small size (less than 20).	Jurors listen to expert testimony and review background materials before reaching a verdict on a key policy question.	Usually non-binding. Results of the jury process are summarized and reported to decision-makers.
Deliberative Polling	Random scientific sample (usually around 280).	Participants are polled before and after the process. Citizens are informed through structured small group conversations and Q&A sessions with experts.	Final poll reveals how citizen perceptions changed with increased information. Poll results are summarized and presented to policy makers.
Participatory Budgeting	The general public is invited. Participants may be self-selected, or in some instances, special recruiting is done for low-income or minority groups.	Citizens debate, analyze, prioritize, and propose public expenditures.	Report on budget recommendations is presented to decision-makers. May include follow-up activities that monitor expenditures and delivery of public services.
Open Public Hearings	Participants are self-selected; can attract large attendance, but hearings are typically non-representative.	Citizens have the opportunity to share their views. Limited opportunity for two-way dialogue.	Public comments are summarized in meeting notes and presented to decision-makers. Decision-makers may or may not be present at hearings.
Citizen Advisory Councils	Usually a small number of participants (less than 20). Tend to favor participation of "key contacts" over lay citizens.	Council members receive testimony and information from staff, experts, and outside groups. Members deliberate with the goal of reaching consensus on a set of policy recommendations.	Council recommendations are typically non-binding. May be political pressure on decision-makers to incorporate council recommendations.
Citizen Information Panel	Statistically representative sample. Relatively large sample size (100-200).	Combination of surveys, phone interviews, and in-depth in-home interviews. Background information is provided with each survey. Participants receive feedback after each survey.	Survey and interview results are summarized and presented before policy makers. Recommendations are non-binding.
Community-wide Information Campaigns	All citizens with a current mailing address.	One-way dissemination of information to public. Goal is to educate the public and build policy support.	No direct impact on the decision-making process, but does increase overall public awareness.

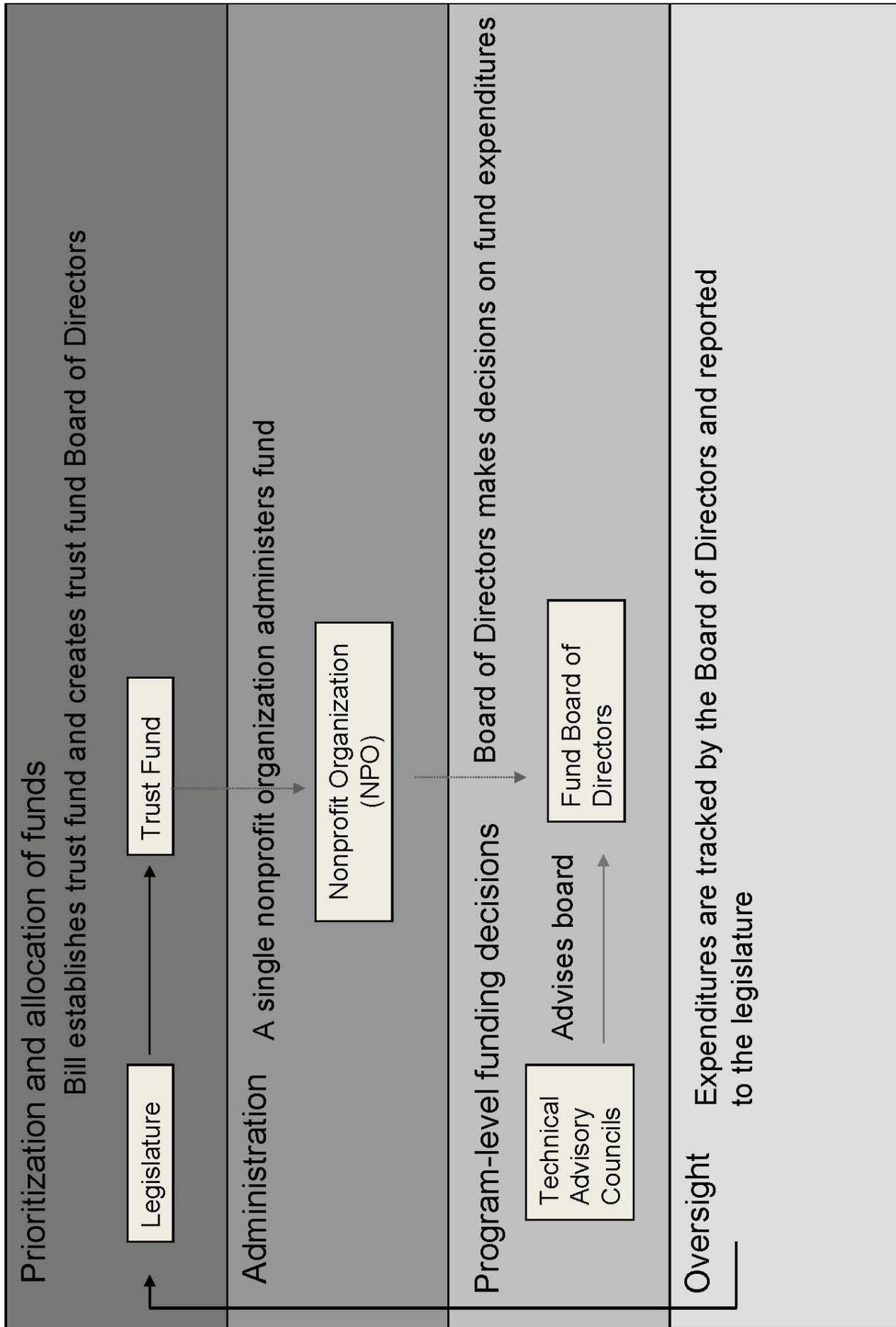
Model #1: Legislative control using existing structures



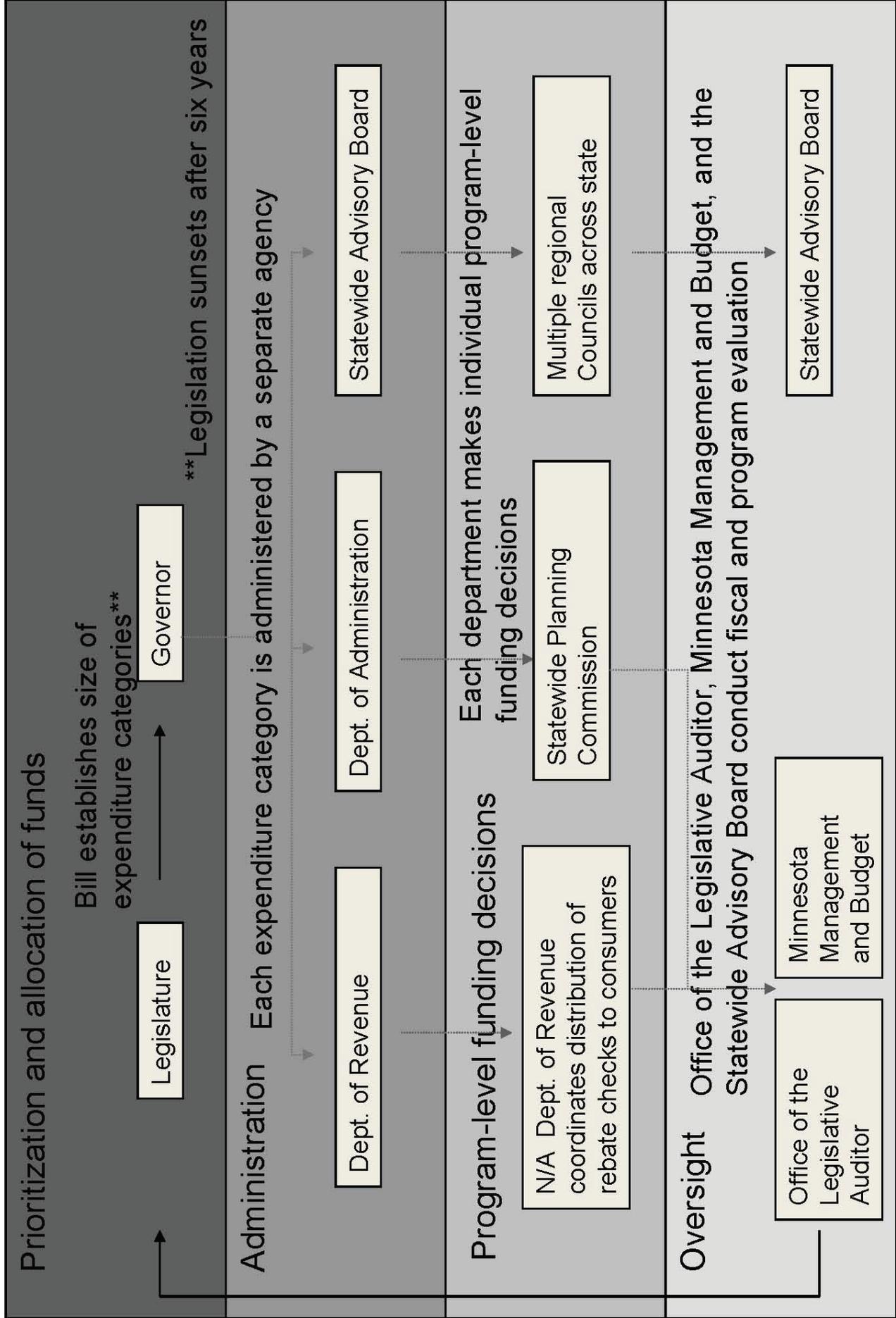
Model #2: Citizen-driven decision making



Model #3: Non-profit administered trust fund



Model #4: Legislative sunset and regional councils



Appendix A: Green Solutions Act of 2008: Expenditure goals and types of expenditures under consideration

From the Green Solutions Act of 2008 (Minnesota session laws 2008, ch. 340, section 4):

Cap and trade revenue expenditures should meet the following goals:

- (1) produce cost-effective emission reductions;
- (2) increase sustainable economic development, job creation, and job growth;
- (3) reduce greenhouse gas emissions in sectors that do not participate in a cap and trade program;
- (4) reduce disruptive economic impacts of the transition on workers, businesses, and consumers;
- (5) equitably distribute the costs and benefits among state residents, communities, and economic sectors;
- (6) assist low-income and other consumers to reduce the costs associated with greenhouse gas emissions; and
- (7) protect and enhance public health, environmental quality, wildlife habitat, and the state's natural resources.

Subd. 4. Types of expenditures under consideration

- (1) direct per capita rebates to Minnesotans;
- (2) grants and incentives to consumers to invest in energy efficiency and utilize renewable energy sources or in other technologies, products, or practices that help Minnesotans reduce energy costs, energy consumption, and greenhouse gas emissions, including incentives for telecommuting;
- (3) financial assistance to businesses that install technologies that reduce greenhouse gas emissions, targeting energy-intensive industries facing competitors not subject to comparable regulation, including, but not limited to, mining, pulp and paper, refining, chemicals, and steel;
- (4) investments in public infrastructure that reduce greenhouse gas emissions;
- (5) investments in worker training and retraining programs;
- (6) incentives for terrestrial and geologic carbon sequestration.

Appendix B. Study scope and objectives

Section 4 of the Green Solutions Act of 2008 (Minnesota Session laws 2008, ch. 340) directed the Minnesota Department of Commerce to request that the Board of Regents of the University of Minnesota prepare a study of the governance options for determining how to expend potential revenue from the sale of emission credits under a cap and trade program.

The legislation required that:

“The study must examine:

- (1) the role of the legislature, citizens, technical experts, and state agencies in decisions on allocating funds; and
- (2) innovative decision-making structures and processes, including the Legislative-Citizen Commission on Minnesota Resources, and other examples in Minnesota and other states and countries that may offer useful models.”

The Center for Science, Technology and Public Policy (the Center), based at the Hubert H. Humphrey Institute of Public Affairs performed the study on behalf of the University of Minnesota. To meet the objectives outlined by the legislature, the research team conducted an in-depth literature review, hosted four multi-sector stakeholder meetings, and completed numerous interviews with governmental and non-governmental organizations.

The objectives of the literature review were to:

- Identify and evaluate examples of alternative revenue allocation models
- Identify and evaluate the revenue allocation procedures of existing and proposed cap and trade programs
- Research the role of citizens in making revenue allocation decisions
- Identify criteria for effective and successful governance
- Develop a framework for selecting the most appropriate governance models

The Center hosted four stakeholder meetings including over 30 different participants from government, nonprofit organizations, industry representatives, and researchers. The objectives of the stakeholder meetings were to:

- Identify characteristics of effective governance
- Discuss the appropriate role of the legislature, state agencies, citizens, and technical experts in making revenue allocation decisions
- Evaluate existing and proposed governance models

In addition to stakeholder meetings, we also completed dozens of phone interviews with decision makers and stakeholders involved in different revenue allocation processes. We interviewed former and current members and staff of the Legislative-Citizen Commission on Minnesota Resources (LCCMR), as well as participants in other innovative decision-making structures. The objectives of the interviews were to:

- Evaluate existing models based on criteria for effective governance
- Assess the level of citizen participation and the costs and benefits of incorporating citizens in the decision-making process
- Determine the roles of the legislature, state agencies, and technical experts in each governance model

Appendix C: List of staff and study participants

Principal Investigator:

Steve Kelley, Center for Science, Technology, and Public Policy, University of Minnesota

Project Advisory Committee:

Melissa Stone, Public and Nonprofit Leadership Center, University of Minnesota

Dennis Donovan, Center for Democracy and Citizenship, University of Minnesota

Jay Kiedrowski, Public and Nonprofit Leadership Center, University of Minnesota

Elizabeth Wilson, Center for Science, Technology, and Public Policy, University of Minnesota

Emily Saunoi-Sandgren, Public and Nonprofit Leadership Center, University of Minnesota

Research Staff:

Bonnie Keeler

Luke Hollenkamp

Linda Nguy

Center for Science, Technology, and Public Policy Staff:

Leah Wilkes, Assistant Director

Monica Saralampi, Administrative Assistant

Design and photography:

Sophia Ginis, Outreach Manager

State of Minnesota Meeting Participants:

Vincent Chavez, Office of Energy Security

Calder Hibbard, Minnesota Forest Resources Council

Greg Hubinger, Legislative Coordinating Commission

Dan Jordan, Iron Range Resources

Greg Larson, Minnesota Board of Water and Soil Resources

Mark Lundquist, Minnesota Department of Natural Resources

Scott Peterson, Minnesota Department of Transportation

David Thornton, Minnesota Pollution Control Agency

Clarence Turner, Minnesota Forest Resources Council

John Wells, Environmental Quality Board

Non-Governmental Stakeholder Meeting Participants:

Laura Bloomberg, Center for School Change

J. Drake Hamilton, Fresh Energy

Diana McKeown, Green Institute

Barbara Freese, Union of Concerned Scientists

Stacey S. Fujii, Great River Energy

Timothy Edman, Minnesota Renewable Development Fund

Lyndsey Howard, American Council of Engineering Companies

Brian Whiting, American Council of Engineering Companies

Sheldon Strom, Center for Energy and the Environment

Chris Duffrin, Neighborhood Energy Connection

Michelle Rosier, Sierra Club

Sarah Risser, Sierra Club

Doug Peterson, Centerpoint Energy
Staci Bohlen, MN Farm Bureau
Jessica Webster, MN Legal Aid
Rolf Nordstrom, Great Plains Institute
Lisa Daniels, Windustry
Jeff Muffat, 3M
Ruth Johnson, Former State Representative
Jim Turnure, Xcel Energy
Mike Robertson, MN Chamber of Commerce
Christine Wessel, MN Council for Nonprofits

Interviews:

Joel Alter, Minnesota Office of the Legislative Auditor, 1/30/2009.
James Brooks, Maine Department of Environmental Protection, 2/2/2009.
Mike Burnett, The Climate Trust, 1/15/2009.
Phil Cherry, Delaware Department of Natural Resources and Environmental Control, 12/12/2008.
Timothy Edman, Minnesota Renewable Development Fund, 1/12/2009.
Diane Franks, Maryland Department of the Environment, 12/22/2008.
Sue Gens, Minnesota State Arts Board, 1/12/2009.
Bill Grant, Izaak Walton League, 12/22/2008.
Melanie Johnson, Iowa Department of Economic Development, 2/5/2009.
Brendan Jordan, Great Plains Institute, 1/20/2009.
Kate Knuth, State Representative, 12/8/08.
Joanne Morin, New Hampshire Department of Environmental Services, 2/3/2009.
Chris Nelson, Connecticut Department of Environmental Protection, 12/12/2008 and 2/3/2008.
Lane Palmer, Iowa Department of Economic Development, 2/13/2009.
Dick Valentinetti, Vermont Agency of Natural Resources, Air Pollution Control Division, 12/22/2008.
Peter Weisberg, The Climate Trust, 1/5/2009.

Past and current staff and members of the Legislative Citizen Commission on Minnesota Resources (LCCMR)

Rep. Lyndon Carlson (current LCCMR commissioner)
Nancy Gibson (current LCCMR citizen commissioner)
John Herman (current LCCMR citizen commissioner)
Susan Thornton (LCCMR executive director)
Kathy Tingelstad (former LCCMR commissioner)
John Velin (former LCCMR executive director)

Appendix D: List of interview questions

Part I. Questions related to governance of existing revenue allocation processes.

For cap and trade programs:

1) Does the [proposed or existing] cap and trade program generate revenue from the sale or auction of carbon allowances?

For all other revenue allocation processes:

2) If so, how is the revenue allocated? Is the revenue divided into expenditure categories or allocated to a single fund?

3) What decision-making process is used to determine how the revenue is spent? Is the revenue allocated based on specific criteria outlined by the legislature?

4) What role, if any, do the following groups play in informing decisions about expenditures of cap and trade revenue?

- a) legislature
- b) state agencies (which state agencies are involved?)
- c) technical experts
- d) citizens

5) What criteria were used in designing the governance mechanism for revenue allocation? OR What do you see as components or indicators of a successful decision-making process?

6) If public participation is encouraged, how are participants selected? Do they submit applications? Are participants appointed by the legislature or governor? What criteria, if any, are used to guide participant selection?

Part II. Questions used in the assessment of different governance mechanisms.

1) Has the decision-making mechanism been successful at achieving its goals? Why or why not?

2) What do you see as the advantages and disadvantages of the current decision-making process?

3) Are any mechanisms in place to ensure that the revenue generated under this program is used only for programs and expenses related to initial objectives of the policy?

4) Are non-legislative participants (citizens or technical experts) needed to provide information to make a high quality decision?

5) Is public acceptance of the decision critical to effective implementation of policy? Have there been problems getting key stakeholders to accept the final decisions of the process?

6) Were any web-based or interactive tools used to facilitate public involvement? If so, how would you evaluate their success?

Part III. Questions that specifically address public participation in governance.

- 1) What was the goal of involving citizens and/or technical experts in the decision-making process?
- 2) Did involving citizens contribute positively to the goals you outlined for a successful decision making process and a successful policy?
- 3) Do you think involving citizens/technical experts/state agencies in the process led to a:
 - a) more technically sound decision?
 - b) decision with broader public support?
 - c) discussion of unique alternatives that might not have been brought up by the legislature alone?
- 5) Did involving citizens increase the cost or decrease the efficiency of the program?
- 6) Do you have any data on the representativeness of the involved public? Were any key groups or stakeholders left out?

Appendix E: Summary of domestic and international cap and trade systems

The Western Climate Initiative

The Western Climate Initiative (WCI) is a collaboration of seven western American States and four Canadian Provinces working to establish a regional cap and trade system to reduce emissions of global warming pollution 15 percent below 2005 levels by 2020. The Initiative began in February 2007 with the governors of Arizona, California, New Mexico, Oregon, and Washington, who have since been joined by the premiers of British Columbia, Manitoba, Ontario, and Quebec, and the governors of Montana and Utah. The WCI cap and trade program is the most comprehensive program designed to date, including electricity generators, industrial facilities, fossil fuel combustion, and, beginning in 2015, transportation. It covers more sectors than RGGI, which covers the electricity sector only, or the European Union's Emissions Trading Scheme (EU ETS), which does not cover transportation or residential and commercial fuel use.

The WCI is progressing through the design phase, with a target effective date of January 1, 2012. In September 2008, it released its "design recommendations". In developing the "design recommendation", stakeholder input was sought through five regional stakeholder workshops, stakeholder conference calls with more than 100 participants each, information sharing that included opportunities for review and comment in writing with 245 organizations' and individuals' submissions, and the WCI website served as a repository for information on the design effort.

Midwest Governors Association (MGA)

The states and province of Illinois, Iowa, Kansas, Manitoba, Michigan, Minnesota, and Wisconsin have committed to the Midwestern Greenhouse Gas Reduction Accord (the Accord) effective November 15, 2007. As the governors and premier committed to in the Accord, a regional carbon cap and trade system is being studied and designed through the work of a designated Advisory Group. Convened in early 2008, the Advisory Group has issued preliminary recommendations on the general structure, governance, and components of a regional cap and trade system. Work from now through Summer 2009 will focus on the specific components of how the cap and trade system would operate, known as the Model Rule. The Model Rule as well as other supporting initiatives are slated to be unveiled at the Governors Summit on Energy Security and Climate Stewardship in September 2009.

European Union Emissions Trading System

The European Union Emissions Trading System (EU ETS) is currently in Phase II (2008-2012) with 21 countries, including some non-EU members, participating. In Phase I, Denmark, Hungary, Ireland, and Lithuania made provisions for allowance auctions or sales, but only Hungary, Ireland, and Lithuania actually proceeded to auction. Revenue from these auctions was very limited and used only to offset the administrative costs of the ETS within each country.

In Phase II, most countries still do not intend to raise revenue from allowances, with notable exceptions being Germany and the United Kingdom. The UK plans to auction 7 percent of total allowances according to its National Allowance Plan (NAP) during Phase II. Revenue from the UK's national auction is not specifically dedicated for particular programs or funds. According to one government official, "The money goes into the Government's consolidated fund for general spending purposes. It is not UK Government policy to hypothecate [earmark] revenues to fund specific projects or areas."

In 2008-2009, Germany will sell allowances representing 10 percent of the national allotment at a predetermined and fixed price through a German bank, KfW Group. Beginning in 2010, auctions will be used to seek an appropriate market price. The German government has invested some proceeds from the sale of allowances into the country's Climate Protection Initiative. The Initiative, administered by the Federal Environment Ministry, makes available funding for national and international measures, with the intention of assisting affected parties and lowering the emissions of GHGs. The Initiative is not tied explicitly to revenue from allowance auctions and sales, though its funding does in some part stem from allowance auction revenue.

Australia Cap and Trade Revenue Model

An Australian cap and trade system, coined the Carbon Pollution Reduction Scheme (the Scheme), is currently in the development stage. The intended start date of the Scheme is July 1, 2010, provided laws are passed in a timely manner during 2009. With revenue from phased-in auctioning, the government has publicly stated that "every cent of this will be used to help households and businesses adjust to the Scheme. The net impact on budget, taking into account assistance provided, will be neutral over the forward estimates." The exact relationship between the Scheme's revenue and the proposed Climate Change Action Fund (CCAF) has yet to be determined. Revenue is proposed to be used to offset increases in fuel cost by reducing fuel taxes one-to-one. Households and trade-exposed businesses will see assistance through tax programs funded by revenue collection. The CCAF is designed to address the negative economic impacts associated with the Scheme. The stated goal of the CCAF is to "smooth the transition for businesses, community sector organizations, workers, regions and communities to an operating environment that includes a price on carbon." Though the governance structure and exact logistics of the CCAF have not been resolved, the government has determined that "a stakeholder Consultative Committee comprising business, environmental and community stakeholders will be established to provide their advice to Ministers about the detailed design and implementation of activities under the Climate Change Action Fund."

Appendix F: Description of RGGI governance by state

Connecticut

In Connecticut, the Department of Environmental Protection (DEP) developed RGGI regulations, which the legislature approved in July 2008 after DEP held several stakeholder meetings and a public hearing. In those final regulations, auction revenues are distributed to energy efficiency, with programs administered by the Energy Conservation Management Board (ECMB) and to clean energy, with programs administered by the Connecticut Clean Energy Fund (CCEF). If the price of carbon exceeds \$5.00 per ton any proceeds above that amount are rebated to ratepayers. ECMB and CCEF execute program administration and make program-level funding decisions. ECMB and CCEF board members include state agency representatives, technical experts and other appointed members. Members of the Department of Public Utility Control (DPUC), which is governed by four governor-appointed commissioners, serve as ex-officio members and observers to ECMB. The ECMB provides oversight of the energy efficiency funds through annual reports to while DPUC reviews and approves CCEF's multi-year strategic plan.

Delaware

The Department of Natural Resources and Environmental Control (DNREC) convened a workgroup in 2007 consisting of legislators, technical experts, citizens, and state agency representatives to advise the legislature on expenditure categories. Recommendations influenced a 2008 law (Senate Bill 263) which established expenditure categories that included energy conservation, efficiency and renewable energy, support to income consumers, and greenhouse gas reduction projects. DNREC administers funding. The Sustainable Energy Utility (SEU) Taskforce consisting of legislators, technical experts, citizens, and state agency representatives determined energy conservation, efficiency and renewable energy funding. Support for low-income residents included state administered Weatherization Assistance Program (WAP) and fuel assistance (LIHEAP) programs while DNREC, with advice from the electric sector, legislators, and technical experts, determined funding for Greenhouse Gas Reduction Projects.

Maine

In 2007, the Maine legislature passed and the governor signed LD 1851, which grants the Public Utilities Commission (PUC) the authority to appoint three trustees (technical experts) to govern the Energy and Carbon Trust Fund. The legislature determined the policy goals and expenditure categories with the majority of funds directed toward investments and arrangements that reduce electricity consumption and investment and arrangement for fossil fuel conservation measures. Maine Energy Conservation Board (MECB) was designed to provide advice to trustees and to Efficiency Maine (a PUC program that funds electrical energy efficiency projects through disbursement of Funds derived from electric bill system benefit charge). Each program (the Trust and Efficiency Maine) is designed for different applications; and in many ways the MECB ensures that the programmatic benefits of each program is maximized and coordinated. MECB consist of seven voting members including consumer representatives, environmental advocates, business interests, and state agencies and three nonvoting members. The Department of Environmental Protection and Trustees submit annual reports to the legislature.

Maryland

In 2008, the legislature passed and the governor signed Senate Bill 268, which directed RGGI auction funds to the Maryland's Strategic Energy Investment Fund to be administered by Maryland Energy Administration (MEA). All funds are protected, by state statute, and only to be used for the following purposes: the Electric Universal Service Program and other electricity assistance programs, offsetting electricity rates of residential consumers on a per customer basis, energy efficiency and conservation programs, and renewable and clean energy programs and initiatives including public education and outreach. The Strategic Energy Investment

Advisory Board (comprised of legislators, technical experts, citizens, and state agency representatives) advises MEA on specific fund expenditures. Through four statewide public meetings, public input was sought on the initial plan's development. The MEA reports to the governor and legislature annually regarding uses and expenditures of the fund.

Massachusetts

The legislature passed and the governor signed Chapter 169 in 2008 that established the RGGI Auction Trust Fund where auction proceeds are deposited. The legislature also determined expenditure categories. The Department of Energy Resources Council (DERC) administers RGGI Auction Trust Fund. Newly established Energy Efficiency Program Design and Oversight Council (Council), convened by DERC and comprised of technical experts, citizens, and state agency representatives, approves energy efficiency plans and budgets put forth collectively by energy providers. The Winter Energy Taskforce, comprised of cabinet secretaries and legislators, may advise the Council. A portion of funds goes to municipalities to fund green community programs. The Council provides an annual report to DERC and the legislature which includes descriptions of the programs, expenditures, and cost-effectiveness.

New Hampshire

In 2008, the legislature passed and the governor signed Chapter 182, which establishes the Greenhouse Gas Emissions Reduction Fund to be administered by the Public Utilities Commission (PUC) and advised by the newly established Energy Efficiency and Sustainable Energy (EESE) board. The Board is comprised of legislators, technical experts, citizens, and state agency representatives. The PUC can also propose distribution of funds through a PUC adjudicative process. For instance, PUC can decide to increase the funds to the existing statewide energy efficiency programs funded by a systems benefit charge. PUC grants funds through a semi-annual to quarterly RFP process open to the private and public sector, with a portion reserved for low-income consumers. The Board provides annual recommendations to the PUC on the administration and allocation of energy efficiency programs.

New Jersey

In 2007, the legislature passed and the governor signed Chapter 340 which authorized auction of greenhouse gas allowances and established in the Department of the Treasury the Global Warming Solutions Fund. Proceeds from the auctions are administered by the state Treasurer. Funds are allocated to the New Jersey Economic Development Authority (NJEDA), in consultation with Board of Public Utilities and Department of Environmental Protection (DEP), to provide grants and other forms of financial assistance to commercial, institutional, and industrial entities to support end-use energy efficiency projects and new efficient electric generation facilities. NJEDA is an independent self-supporting state entity. Additionally, the Board of Public Utilities grants a portion of funds to low-income consumers and DEP provides funds to support local governments and enhance stewardship of the state's forests and tidal marshes. The State Comptroller conducts or supervises independent audit and fiscal oversight functions of the fund and its uses. If the price of allowances at two consecutive regional auctions exceeds \$7 per allowance, DEP and the Board of Public Utilities will develop an action plan for immediate ratepayer relief and hold a joint public hearing or hearings regarding the allowance price.

New York

New York administers RGGI according to two different regulations: Part 242 CO2 Budget Trading Program (which governs RGGI auction process) and New York State Energy Research & Development Authority's (NYSERDA) complementary "express term" rules (which outlined policy goals of auction proceeds including programs that promote energy efficiency, renewable or non-carbon emitting technologies, and carbon emissions abatement technologies). NYSERDA is a public benefit corporation created in 1975 through the reconstitution

of the New York State Atomic and Space Development Authority and is governed by state agency representatives, technical experts, and citizens. To implement these expenditure policy goals, NYSERDA is developing an Operating Plan, advised by an advisory group, with public meetings, of stakeholders including technical experts. The final version of the Operating Plan will be presented to NYSERDA's Board for review and approval in Spring 2009. The Advisory Group will meet at least annually, with meetings open to the public, to review and provide input on the Operating Plan.

Rhode Island

In 2007, the legislature passed and the governor signed Chapter 206, which directed auction proceeds to be used for investments in cost-effective projects that reduce long-term consumer energy demands and administrative costs to the Office of Energy Resources. Proceeds are determined annually by Office of Energy Resources in consultation with the Energy Efficiency and Resources Management (EERM) Council (comprised of technical experts, citizens, and state agency representatives) and the Department of Environmental Management and informed by public hearings. The EERM Council was created in 2006 (Chapter 140) to provide consistent, comprehensive, informed and publicly accountable stakeholder involvement in energy efficiency, energy conservation, and energy resource management. The Office of Energy Resources prepares, in consultation with the Department of Environmental Management and the EERM Council, a publicly available report annually to the legislature.

Vermont

In 2008, the legislature passed Public Act 92, which established a process to allocate 100 percent of Vermont statewide carbon credits from RGGI. Proceeds from the sale of carbon credits are deposited into the Fuel Efficiency Fund, which is administered by Vermont Efficiency (an independent nonprofit energy services organization under contract to the Vermont Public Service Board, administered by Vermont Energy Investment Corporation) to grant funds through an RFP process. The Public Service Board is a quasi-judicial board, comprised of consumer trustees, who supervise the rates, quality of service, and overall financial management of Vermont's public utilities and administers the contract with Vermont Efficiency. Three trustees, with technical expertise, appointed by the Public Service Board oversee the fund.

Appendix G: Non-revenue allocation decision-making structures

State board, commission, and task force models present a variety of ways in which stakeholders can be aligned, chosen, and integrated in decision-making structures. Criteria for at-large appointments are frequently set by statute with some positions being specifically designated as a particular elected official from the state's executive or legislative branch. Other positions require expertise regarding a predetermined subject matter which is used to better inform the deliberative body. Limitations are often placed upon the share of seats held by parties and who makes what appointments to limit and balance the influence of political ideology in decision-making. All these factors aim to produce an efficient, representative, politically balanced, and informed governance body.

Public Utilities Commission

The Minnesota Public Utilities Commission (PUC) is statutorily established (Minn. Stat. 216A.03) and charged with the maintenance and oversight of the state's regulatory environment including electricity, natural gas, and telephone services. The mission of the PUC is to guarantee safe, dependable, and efficient services at just and reasonable rates. The PUC is structured to allow a great degree of operational independence through autonomy. The objectivity of the commission is furthered by a Code of Conduct explicitly meant to strengthen independence from outside elements. The functions of the Commission are legislative and quasi-judicial in nature (PUC 2009).

The PUC is controlled by five commissioners appointed to six-year terms by the governor with the advice and consent of the senate. The governor is to give consideration to individuals with experience in relevant professions and as representatives of the general public. Restrictions are placed upon appointments so that no more than three members from the same political party can serve at any given time. Additionally, at least one commissioner must live outside the seven-county metropolitan area during service. In all acts and deliberations, a quorum must be present and a majority of the commissioners are required for approval. The five commissioners have an exclusive, full-time staff of fifty working at the Commission's office.

The Commission may establish sub-committees, either ad-hoc or standing, and designate individuals to said sub-committees. Any of the administrative, legislative, and quasi-judicial powers of the Commission may be delegated to the authority of a sub-committee.

Next Generation Energy Board

The Next Generation Energy Board (NexGen Board) was created by statute (Minn. Stat. 41A.105) to provide recommendations to the governor and legislature regarding ways the state can sustainably achieve energy independence through agricultural and natural resources. To achieve this goal, the Board's primary responsibilities include the examination of the future of biofuels and the development of grant programs to assist renewable energy facilities through a \$3 million fund (NexGen Board 2009).

The NexGen Board consists of 20 members; eight of which are appointed by the governor under certain requirements but with no legislative confirmation. The 12 other members consist of commissioners, representatives, senators, and an executive director.

Minnesota Environmental Quality Board

The Environmental Quality Board (EQB) is statutorily established (Minn. Stat. 116C.03) to lead Minnesota's environmental policy by serving as a public forum, providing review and coordination resources, and responding to important issues. The EQB's three main activities are to develop state environmental policy, determine long-range plans, and assess projects which significantly improve and preserve Minnesota's environment. At

the Board's discretion, an annual congress may be called to receive reports and exchange information on state progress and activities related to environmental improvement with attendees including state representatives, federal and regional agencies, citizen groups and associations, industries, higher education, and private companies (EQB 2009).

The Board consists of fifteen members; one governor's representative acting as board chair, the heads of nine state agencies, and five citizen members appointed by the governor subject to the advice and consent of the senate. Two of the five members appointed by the governor must have knowledge in the state's water management issues. The EQB serves in a mostly advisory capacity and is provided with staff and consultant support for board activities by the Office of Strategic and Long-Range Planning.

Green Jobs Task Force

The Green Jobs Task Force was created to provide advice and assistance to the legislature and governor on activities intended to advance the state's economy. The primary action is the submission of a statewide action plan laying out means to optimize the growth of the green economy. The ad hoc task force will expire on June 30, 2009 after completing its duties (GJTF 2009).

The task force consists of 24 members; three house representatives, three senators, seven state agency representatives, and eleven citizens. Individuals are chosen according to the following framework: House Representatives chosen by the Speaker, Senators appointed by Senate Sub-committee, representatives from state agencies chosen by the governor, three citizens chosen by the governor, four citizens chosen by the House Speaker, and four citizens chosen by Senate Sub-committee. To assist with the Task Force's advisory work, the Commissioner of Commerce, in cooperation with the Commissioner of Employment and Economic Development, provides staff and administrative support. The Task Force may also accept outside resources to help support its duties.

Appendix H: Acknowledgements

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