3E Initiative

Economy, Energy, Environment

Launch Workshop Report

Written by Edward A. Parson, based on discussions at the workshop, held I–3 November, 2007, in Merrickville, Ontario

Table of Contents

Workshop Report	
Executive Summary	2
Introduction: The Launch of the 3E Initiative	4
Pre-Meeting Interviews.	4
The Workshop: Opening Discussions.	7
Structural Challenges	8
Key Leverage Points	9
Activities for the 3E Initiative: What Do We Have Energy To Do?	11
1. Defining the Vision and Principles of the Initiative	12
2. A Near-Term Public Statement	16
3. A Project on Tax Shifting	18
4. Building a Strong, Flexible, and Sustainable Core for the 3E Initiative	20
Conclusion.	22
Appendix—Interview Synthesis	24

Acknowledgements

The 3E Initiative gratefully acknowledges the support of the following individuals and organizations:

- The Stephen R. Bronfman Foundation
- The John & Barbara Poole Environmental Research Fund, established at the Edmonton Community Foundation
- John and Deborah Roy and Family
- One anonymous supporter

Project Convener: John Roy

Project and Workshop Facilitation provided by Generon Reos—Adam Kahane, Joseph McCarron, and LeAnne Grillo

For more information, please contact LeAnne Grillo at leanne@reospartners.com

Executive Summary

The 3E (Economy, Energy, Environment) Initiative is a new, non-partisan, multi-stakeholder effort to catalyze the actions necessary for Canada to transition successfully to a high-efficiency, low-carbon economy. Following initial consultations and interviews with a diverse group of forty-two eminent Canadians, a launch workshop was held from 1–3 November, in Merrickville, Ontario. In order to ensure borad and candid participation, the workshop followed the Chatham House Rule: the content of discussions may be freely reported, but who attended and who said what may not.

From pre-workshop interviews and opening discussions at the workshop, participants discovered that there was widespread agreement on the seriousness of climate change, the need for action, the failure of current strategies and processes, and the substantial risks posed to Canada by persistence of the current deadlock or further purely symbolic and ineffective actions. There was also wide agreement that meeting the linked climate-energy challenges would require a multi-decade transformation of the energy system, calling for efforts and changes from all parties. In contrast to the pessimism expressed by many individual interviewees, workshop participants were energized by the discovery of unexpected degrees of agreement, seriousness, and goodwill, particularly given the wide range of sectors, perspectives, and material interests represented.

Participants noted that two aspects of the 3E Initiative position it uniquely to help break the current deadlock: first, it combines an open, inclusive, non-partisan process with a commitment to action; second, it is not being driven by any group or individual pursuing their own advantage. To capitalize on these advantages and realize the Initiative's promised contribution, participants identified five things the Initiative should do. It should highlight opportunities that the required changes may hold, but also honestly face the prospect of costs and the need to mitigate and share these. It should focus on concrete actions that make real contributions, even if the first steps are small ones. It should not demand full agreement, or full resolution of relevant uncertainties, as preconditions for action. Where policy changes are required, the Initiative should build broad coalitions of support for specific initiatives outside the political domain, then present these to all parties as calls for government action. And finally, the Initiative should maintain its commitment to candid, open, respectful dialogue without hidden agendas.

Participants developed a near-term action plan with four linked, parallel projects, each one including a set of concrete actions, with identified people responsible and specific benchmarks and deadlines. While widely agreed to capture the most important near-term activities, this agenda was also seen as initial and provisional: participants recognized that priorities and activities would change over time, as the most urgent priorities and opportunities shift, and as we learn more about what works and what does not.

One sub-group will draft and circulate a statement of the Initiative's vision and principles. The vision statement will describe our vision of Canada in a few decades, on its way to successfully resolving the linked 3E challenges. The statement of principles will include shared understandings and shared commitments of Initiative participants, relating to the 3E challenges and approaches to resolving them and also to how participants undertake to work together, communicate, and contribute to resolving these challenges. Since the Initiative will be a loose and open coalition, its principles will be crucial in defining it, recruiting and sustaining support, building a communications strategy, and gaining influence. This sub-group has undertaken to draft these and circulate them for comment by 15 December.

A second group will draft a public statement on Canadian climate change and energy issues, to be circulated among Initiative participants for their comment and support, then widely publicized as the Initiative's first public announcement. In contrast to the statements of vision and principles that define the 3E Initiative, this will not be a statement *about* the Initiative, but a statement *by* Initiative participants *about* Canada's response to climate change and energy issues. It will note the woeful inadequacy of Canada's response thus far, the need for a new approach including real efforts to limit and reduce emissions, and certain agreed points about the required new approach. This sub-group has undertaken to draft and circulate text for a proposed statement by 7 December, and have revised text ready for sign-on and publication by 15 December.

A third group will collaborate with the "Sustainable Prosperity Initiative" to develop, review, and promote a specific proposal for tax shifting—measures to move some of the existing tax burden from existing sources such as income or payrolls toward greenhouse-gas emissions. Once the proposal is developed and thoroughly critiqued, and an accompanying communication strategy developed, the proposal will be launched with a marketing campaign and approaches to leaders of major political parties. A 3E participant will co-lead this activity with the Sustainable Prosperity Initiative. An initial meeting to develop and critique a proposal is planned in about three months.

Finally, a "core group" will support and loosely coordinate the work of the other three groups, recruit additional participants (with particular emphasis on further increasing Western participation and gender and generational diversity), provide an administrative core for the Initiative, plan subsequent meetings, and pursue additional resources. To move beyond the current primary reliance on one person to lead the Initiative, a key priority of this group will be to recruit one or two co-chairs.

The model of the Initiative that emerged from the Workshop is as a loose coalition of unlikely allies, held together by a broad vision and a set of principles. The Initiative emerged from the workshop with several valuable assets: a work plan of four specific activities, with responsibility for each delegated to parallel groups (subject to the proviso that no one will be presumed to support any particular activity or statement unless they explicitly agree); a core group who have volunteered to share responsibility for leading the Initiative as a whole; a willingness by two of the original funders to continue support and help approach other potential sources; and a group of roughly 20 participants beyond the workshop attendees, who are ready to be re-engaged with the now-clarified plan of action. There is a great deal of work to be done in advancing this agenda, but the workshop made a strong start that leaves the Initiative heavy with promise.

Introduction: the Launch of the 3E Initiative

The 3E Initiative (3E stands for "Economy, Energy, Environment") is a new project that seeks to catalyze the necessary actions to enable Canada to transition successfully to a high-efficiency, low-carbon economy. The goals of sustaining the 3 E's—a prosperous and flexible economy, a dynamic energy sector providing a secure and affordable supply of energy services, and a healthy environment—are linked in multiple ways. But a paramount challenge now facing Canada, like many world economies, is the need to transform the energy system over the next several decades to greatly reduce the greenhouse-gas emissions, principally CO₂, that are causing global climate change.

A collection of knowledgeable, influential, and concerned Canadians, from diverse perspectives, sectors, and regions, have provided initial support for the initiative. 42 people participated in detailed interviews about their perspectives on climate change and energy issues, potential constructive actions, and specific contributions the 3E Initiative might make. Of these, 22 people participated in the launch workshop, which was held from 1–3 November, 2007 in Merrickville Ontario.

The workshop's goals were to assess whether there is sufficient support to proceed with the Initiative; to identify specific, concrete contributions the Initiative might make; and to agree immediate follow-up steps to sustain, expand, and focus the Initiative. The workshop followed the Chatham House Rule: the substance of the discussion may be reported—as it is here—but not who attended or who said what. This report synthesizes the discussions at the workshop and the agenda for next action steps that emerged.

Pre-Meeting Interviews

A report synthesizing the advance interviews was distributed to participants before the meeting, and is appended to this report. Highlights of these pre-meeting interviews included the following.

 Despite differences among speakers in the confidence they put in projections of specific rates or impacts of climate change, all recognized the gravity of the climate change issue and the need for serious action to respond to it. Many speakers at times expressed frustration, pessimism, and helplessness, however, about their—or society's—ability to break current deadlocks and mount an effective response. "Solving climate change is a pre-condition for success. If we don't do this right, the rest—early childhood development, health, education, etc.—doesn't matter."

"The bad consequences could be so total that the only comparison is to nuclear holocaust: there was no wishing the USSR away, and there is no wishing this away. If we don't take action there will be an increasingly wide range of impossible problems in the world. We have to think about this in human terms: the earth is impersonal, our children are not."

"We may be beyond the tipping point with respect to the oceans. If we do in the oceans, then the game is up. This situation leaves me filled with fear and despair. Is there nothing for us to do but "eat, drink, and be merry, for tomorrow we will die?" We can't be sure that we're not too late already, but still our obligation is to try to do something about it."

• While a complete response to climate change must include other components, all speakers recognized that Canada will have to cut emissions sharply, perhaps by as much as 60% to 80% by 2050. Some speakers judged that the pressure for cuts was likely to come from widespread Canadian perception of damage from climate change, while others saw pressure for a strong Canadian response coming principally through international markets and negotiations.

• In achieving these cuts, most speakers saw a central role for innovation and investment in new energy technologies—both to increase efficiency of conversion and end-use, and to develop non-emitting sources of energy supply—and a strong role for markets in motivating and coordinating these actions to yield effective reductions at low costs.

 All speakers recognized that Canada has not yet mounted a serious or credible response to climate change, and that the weakness of Canada's response puts many aspects of Canadian society at risk—whether from direct or indirect impacts of climate change, or from being caught flat-footed as the United States and other nations take aggressive actions. "Are we going to face the implications of what a 50 to 80 percent emissions reduction looks like? At best, policy discussion has paid lip service to the enormity of the requirement, then goes back to incrementalism. Nothing has yet been proposed that can bend the curve as far as it has to, and now we're down to a few decades to get it done."

"Do Canadians really care about this issue enough to bear some costs, because everyone is going to have to? Saskatchewan just rejected a proposal for a carbon-capture project, because the Province was not willing either to contribute or to let the builders pass on the costs. How do we get past that kind of thinking?"

"There is a huge opportunity for "green" equipment. But a green solution has to be a smart solution, not faddish or shallow. It becomes sustainable if the economics are there."

"There is a healthy tension between economy, energy, and environment, and a need to halance them. You need to have a productive and competitive economy in order to address the other two. It's one thing to have environmental policies but without a strong economy there is no incentive for behavior change."

"We have to include all three Es. Nobody gets elected to kill growth."

"In 1999-2000 there were consultations on how to reach Kyoto. Hundreds of measures were suggested. Then the Energy Ministers met and the federal government adopted a few of the weakest. I was naïve about the forces at play."

"It is clear that this generation of leaders has under-performed when it comes to the environment. Responsible people should do more."

'The present course of developing the oil sands is putting Alberta's water at risk, causing acid rain, raising costs for all other sectors and bringing all the problems of unbalanced petroleum economies—as well as a bad reputation. If Albertans continue on this course, they will be boycotted. The Norwegians are showing the alternative course: they are decreasing emissions, slowing down investment and improving the way they use their resources.

Their economy is more balanced, the resources are still there for them to exploit in the future—and they will make more money."

"Whether climate change is going to be serious or not, we need insurance to manage the risk. Canada will face external pressure from US regulations and restrictions on imported energy products."

"The main gap thus far has been between political rhetoric and action."

"Our Kyoto targets are bogus and are unattainable. Nothing has been done because we are wasting our time arguing about how to meet this unattainable target. We have multiple stalemates piled on top of each other, between the Feds and the Provinces and between the corporations and NGOs. We need a step-by-step plan, ignoring the Kyoto targets."

"It's hard to imagine a policy regime as dumb as the one we have now. We subsidize oil sands to the tune of \$1.4 billion per year!"

- There were several dimensions of tension among speakers, including their judgments of how severe climate change and its impacts on Canada were likely to be, how easily and cheaply new investments and innovations can promote the transition to a low-carbon-emitting energy system, how the current deadlocks obstructing effective action in Canada and globally can best be overcome, and how hard it will be to do so. A sense emerged in the interviews and at the workshop that these differences reflect real uncertainties about the climate and the economy—on which we will learn more in time, and on which people can have legitimate differences of opinion, but on which people need not fully agree to move forward with initial actions.
- Speakers had many different views on how the system could be moved out of its present state of deadlock, and what types of action might most readily shift the system. Individual citizen actions, market-driven investments and innovations, public policies, and lobbying and advocacy were all identified. Many speakers suggested that these are linked, and that the challenge for the 3E Initiative is to identify key high-leverage actions that participants have the energy to undertake. As discussed below, this point was explored extensively at the workshop.

 All speakers recognized that Canadian debate on the issue is deadlocked, and expressed a wish to move away from polarization, partisanship, and blame to identify concrete, feasible actions that will make real near-term contributions to reducing emissions—and that can at the same time represent first steps

toward the large changes needed over 50+ years.

The Workshop: Opening Discussions

After introductions and a quick review of participants' views on the climate-change issue and their reactions to the interviews, discussion moved over the two days of the workshop from describing the system of Canadian energy and climate issues, to diagnosing the underlying structures, patterns, and mental models that sustain the system in its current state, to identifying key points of leverage to influence the system, to identifying specific initiatives that members of the group could commit to undertaking.

In addition, with assistance from the facilitators, participants sought not just to attend to the substance of the issue and the associated system in a new way, but also to attend to how they communicated with each other. Despite views of the issue and material interests at stake that were in some cases strongly at odds, participants sought to break some of the patterns of blame, posturing, craftiness, failure to listen, and presumption of malign motives in others that have often obstructed meaningful progress on climate and energy issues—and instead, to communicate with honesty, mutual respect, recognition of shared interests and values, and direct but non-hostile expression of divergent views.

Relatively quickly in the workshop, participants discovered they had more going for them than they had expected. First, while many reported finding the interviews depressing (one said "the synthesis made me tired"), they also were surprised, even shocked, at the degree of commonality of perspective from the several dozen interviews—whether from western, central, or eastern Canada, and whether from corporate leaders in energy or other industries, current or former politicians and officials, or representatives of environmental and other civil society groups. Among the interviews, and confirmed by initial exploratory discussions and polling exercises at the workshop, there was virtual unanimity on the seriousness of the issue, the need for action, the failure of current strategies and processes, and the risks to Canada if such failure and deadlock persist. Some participants referred to new polls showing majorities in multiple countries willing to make personal sacrifices, including paying more for energy, to address climate change.

Moreover, interviews and early workshop discussion also confirmed that parties on all sides of the 3E issues realized the current situation, and their current approaches to it, could not continue. Interviews were full of statements recognizing that multiple legitimate values needed to be addressed and that no one of the three E's could be advanced to the exclusion or neglect of the others; that a stance of confrontation—between government and industry, industry and environmentalists, energy producers and users, and west and east—could not solve the problem; and that the required transformation would require effort and change from everyone. These expressions of candor and openness tended to build on themselves, as participants became more willing to relax, speak openly, and consider new approaches as they saw others doing so.

"Most of the interviews showed no enthusiasm. There was nothing surprising, nothing inspiring. It made me feel tired."

'Why has progress on this problem been so slow? The first serious scientific report on climate change was in 1965, and got it more or less right. Since then we have discovered and dealt with half a dozen major environmental issues, while making essentially no progress on this one."

"An industry consensus on this would tip things politically. ... We are now beyond awareness-raising and into the means. At the recent meeting of chief executives, one of them asked rhetorically how many people believe that climate change was real, and he was astounded when 80% of the people there raised their hands." Finally, participants noted that two aspects of the 3E Initiative put it in a unique position to make real progress, which has thus far been elusive on climate issues in Canada: first, the combination of a focus on action with a commitment to a broadly inclusive, non-partisan process; and second, the conveners' motivation to solve this problem for Canada and Canadians, with no angle or material advantage of their own to pursue. In contrast to the pessimism expressed by many individuals in interviews, these observations increasingly lent a sense of promise to the workshop discussions.

"I'm optimistic something can be constructed from a group like this. It can get out a message in ways that official bodies cannot. It can speak to the solvability of the problem."

"Honesty and clarity on climate and energy issues are a key piece of the debate that has been lost in Canada."

"It looks like no one here is trying to game the system. A continuing strength of this Initiative could be participants' honesty about the challenges they face, and an absence of hidden agendas."

Structural Challenges

Discussions on Friday morning moved to more specific topics, first a consideration of key structural challenges that obstruct progress on 3E issues in Canada. Small groups organized by sector—politics, energy industries, non-energy industry, environmental activism, and social entrepreneurs—identified key challenges that each group judged to obstruct effective management of the issue in Canada. When subsequently reported out and organized by the entire group, these challenges fell into five clusters.

- Challenges related to management, coordination and alignment: Policies, regulations, and decisions are not coordinated across issue areas, time horizons, or levels of government. Despite high-level policy commitments to reduce emissions, many existing regulations obstruct or delay the decisions needed to do so. Short-term policy and political goals are imposed on a long-lived capital structure that cannot be rapidly reconfigured. Policies and regulations are not well coordinated across agencies or issue areas, or between federal and provincial governments. And many actors in the system—government agencies, firms and industry groups, and environmental groups—lack practice or skill at working together in pursuit of a common goal. The key common characteristics of these obstacles is that they obstruct effective action due to technical, managerial, and procedural factors that are not necessarily aligned with parties' core interests, and so could readily be eased simply by directing attention and resources to doing so.
- Challenges related to capacity to change the system: In the increasingly polarized and politicized climate-change debate, many actors lack access to a credible and trusted analytic capacity to advise them on the implications of alternative choices, including both assessments of climate-change impacts and of the consequences of alternative decisions to limit emissions. Even the federal government increasingly lacks an independent and credible analytic capacity on these issues, due to many years of weakening the capability and independence of the career public service. Participants also identified various challenges related to capacity to take action, including characteristics of the climate-change issue itself such as the need for early, costly effort to achieve future benefits; the sense that citizens are overwhelmed, distracted, and disempowered; and the lack of a central, iconic image to mobilize and motivate action.

"Now we have a disempowered government, risk-averse and with no boldness."

"We need to get the public engaged. Most are unaware of the issue or not engaged."

"People think youth and the public are apathetic. They are not. They are interested in issues and active; they are just not interested in the formal system of politics."

'It is impossible to have real conservation in a democracy! What is needed is a benevolent dictator—globally, and in Canada."

"People don't change when they have to, they change when you make them. Something nasty has to happen to get real progress on this."

- Challenges related to Canada's competitive position in the world economy: Particularly in view of the recent rise of the Canadian dollar, many participants worried about the risk of Canada getting ahead of major trading partners in responding to climate change; identified the need for government to reduce competitiveness risks by supporting technology development and relevant infrastructure; and noted that consideration of export pricing must be part of a coherent climate-change response.
- Finally, several challenges were identified that concern real disagreements and conflicting interests among actors. While many key players may be approaching agreement that Canada's energy system must be transformed, there is substantial disagreement over what the specific nature of that transformation should be. Despite best efforts to minimize costs and equitably share them, the policies needed to promote transformation may impose significant costs on powerful economic interests, who are likely to resist. The political context of a weakening Federal government relative to the Provinces and the prospect of long-term minority government at the federal level both obstruct strong action, as support for any serious issue-based initiative is always vulnerable to short-term shifts in perceived political advantage. Finally, a few powerful myths—e.g., the specter of the National Energy Programme, and the image of the federal government as unresponsive, grasping, and stupid—provide powerful tools to oppose even actions that are necessary, measured, and widely supported.

"Canadian leadership can add something to the wider world. I'm ashamed of my country's disengagement from international leadership. This is at odds with our conception of ourselves as good guys."

"The smarter politicians will realize that there are a lot of no regrets options, and that not all the nations of the world have to act at the same time."

"The basic politics of the Canadian situation is the power of the people who want to deal with the climate change problem against the power of the oil and gas and coal and especially the oil sands interests. And the economic power of these present interests is much larger than the power of dispersed future interests."

Key Leverage Points

Working again first in small groups and then in plenary, participants sought to identify key leverage points that could offer high-payoff opportunities to intervene and change the system, opening up more possibilities to pursue low-carbon futures in Canada. Focusing first on the challenges identified in previous session, and considering what changes might help to surmount or circumvent these, discussion suggested four promising directions to shift the present debate:

• Highlight opportunities, but don't ignore costs: Any big transition holds both opportunities and costs: while the importance of pursuing and highlighting opportunities was noted, so too was the need to face the possibility of costs, and that these costs will fall on someone. Proposed responses and decisions should make clear that costs are to be acknowledge, mitigated, and equitably shared, not ignored and left to fall predominantly onto one region or sector.

"The way to make progress on climate change is not by talking about costs: costs of compliance or costs of government action. The only way to make progress is to talk about and work on the opportunities."

"Does the public understand the implications and costs of action to combat climate change?"

"The interviews show an oddly naïve view of

politics, and of how it works in a democracy.

People are wishing for the Messiah, a benign

dictator who will solve this problem for them.

"Mobilizing to solve a problem need not mean

Build support outside partisan politics: Any proposed path to address
climate change must get outside or above maneuvering for
partisan or sectional advantage, at least initially, by building a
coalition of support for a new approach outside the political
process.

artificially working citizens into a frenzy. This approach can't attend to details and can't be sustained long—and we need to do both of these. It's better to think of mobilization as working across the whole system, capturing points of positive energy, identifying specific places where progress is possible and thinking ahead about how these can fit together."

That's not how it happens."

- Don't demand full agreement as a pre-condition for action: Find ways of proceeding, at least in the near term, that do not require all parties to agree on the specific nature of the required energy transformation.
- *Get new and better myths:* Find ways to overcome, weaken, or transform the prevailing myths that obstruct action.

"The myth the governments can't solve big social problems is just that, a myth. They can, and they sometimes do. Think about the massive industrial mobilization we undertook to fight World War II. There are also recent examples where governments have acted together under pressure, on complex social challenges, with the partners and consultations they needed, and produced quite successful results."

Groups then sought to identify specific, concrete actions and initiatives that offered opportunities to change the system. The following were identified as especially promising possibilities:

 Development and prototyping of key leading-edge climate-safe energy technologies, and mobilizing both private and public finance money to support them. "The market will solve this. Venture capital is already moving in the climate direction."

"The hard truth is that we are going to consume more energy, so we'd better get more efficient about it."

"What I've learned in this meeting is that I should go back to venture capital and make a fortune in clean technology."

• Enacting public policies and regulations to create the required incentives for research, development, and investment in low-carbon energy technologies. Participants identified as potentially influential both comprehensive, economy-wide measures that put

"Doing more on climate change is feasible. It will raise costs, but we can control this and live with it. There just has to be a way to make a profit." a price on emissions (such as the tax shifting proposal discussed below), and targeted sectoral regulations that may be more effective than economy-wide measures in addressing specific sectors or technologies, e.g., buildings, appliances, and vehicles. "People don't know what to do—they are looking to the government to take direction. I am a private sector believer, but the government sets the tone, there needs to be a balance between the free market and the public sector."

- Reforming regulatory process to reflect the long-term character of the climate-change problem and the
 energy system, incorporating principles of adaptive management with sufficient lead-times for revisions,
 in order to provide a sufficiently stable planning environment for long-term investment.
- Recruiting leadership from the top—including leaders within organizations, political leaders, and cultural figures and celebrities—in support of the required transition.
- Drawing a compelling and positive vision of the required transformation and the path to it, coupled with a few specific measures—something that links the magnitude of the climate and energy challenge to real, actionable solutions. Participants suggested that such a vision could be especially influential if widely disseminated with the backing of a prominent group of unlikely allies, such as the 3E Initiative aims to assemble, and that such a vision, if sufficiently compelling, could help to surmount the current myths that obstruct meaningful action and support paralysis and deadlock.

Activities for the 3E Initiative: What Do We Have Energy To Do?

In the last day of the workshop, participants turned their focus toward action. After both group and plenary discussions identifying a set of specific, near-term activities that could be undertaken to move the initiative forward and advance shared objectives, small groups were formed to elaborate each proposed activity. In all cases, the proposed activities were to be:

Not visionary initiatives that "someone" should do, but actual
concrete activities, with near-term results, that could be
successfully completed through the capabilities, energy, and
commitment of people and organizations in the initiative.

"Our firm has been through several failed 'executive forum' exercises, from which nothing has happened. In each case, we spent a lot of time and energy for nothing. These initiatives are usually all talk and no action. The movement, in other sectors and in government, has been glacial. Government sends mixed signals, because they're not yet convinced the public cares, so they figure they don't have to do anything about it. But when we do put out a concrete proposal or initiative—it's attack, attack, attack."

 Initial and provisional—not a complete, perfect, or final plan for attacking the climate issue in Canada, but something that represents a real advance and is feasible given what members of this group are willing to do. There was clear recognition that priorities and specific initiatives could and would change—but we need something real and fast, drawing on the analogy of rapidcycle prototyping in product design.

"Why can't we get started? What's holding us back? This problem doesn't have to be overwhelming, and we can make real progress."

• Organized with a sub-group taking lead responsibility, and a specific set of requirements, benchmarks, and objectives: who will do what; what crucial steps must be achieved, by when (within an overall time horizon of 12 months); who else must be on the team to succeed; what resources are needed (people, money, time, knowledge, and skills); and, crucially, how will you know it is working?

By this stage in the workshop, there was substantial enthusiasm and sense of common purpose in the group. Participants expressed their increasing confidence that such a diverse group could not only work together, but in the current situation had a unique opportunity to make a real contribution. There was also a growing sense that the problem might not be as overwhelming and intractable as we had thought, and that some evident near-term steps could make a real contribution: all that is needed is to make a start.

While the specific activities the group settled on were of course informed and influenced by the prior discussions of the state of the system, barriers to progress, and leverage points, they were not in any logical sense necessary or implied by the prior discussion. Rather, these initiatives reflected the group's shared sense of what was important, and what was within their capabilities, commitment, and energy. In an important sense these activities represent a leap, to a new understanding and a program of action that can only be assessed in attempting to refine it and do it.

The workshop showed that there is enthusiasm and energy to continue and expand the initiative, but doing so will require advances on multiple fronts. We will need to broaden the base of buy-in and participation, so the activity does not continue to depend exclusively on one person; define, clearly and compellingly, what the Initiative stands for; identify and implement a manageable agenda of concrete initiatives that can generate early successes; and establish an organizational structure with the resources to sustain it.

These requirements are linked, and require some degree of coordination. The model of the Initiative that emerged from the Workshop is as a loose coalition of unlikely allies, held together by a broad vision and a set of principles. Consistent with this model, workshop participants identified four near-term activities, to be undertaken by sub-groups. Three of these are specific tasks: refining and stating the vision and principles that define the Initiative, plus two specific action-oriented items. The fourth is a set of functions to establish an administrative core of the Initiative. The workshop provided enough clarity to take the initial steps forward on these four activities in parallel—with the proviso that no individual or organization participating in the Initiative will be presumed to support any particular activity or statement unless they explicitly agree.

I. Defining the Vision and Principles of the Initiative

A clear, compelling statement of vision and principles will be crucial in defining the 3E Initiative, stating what it seeks to achieve and how and why it differs from other similar activities (where it does), solidifying people's commitment to it, recruiting additional participants, and gaining influence. Workshop participants made a good start at stating their visions for a 3E future in Canada and articulating principles that might guide the Initiative. But while there was substantial commonality in these as presented at the workshop, they still need more development. A sub-group undertook to draft these and circulate them for comment and approval by 15 December.

"Start with high level principles, then move on to implementation. Get to the synopsis of the solutions then get into the problem and really roll-up your sleeves and get into it. This will take more than one shot! The recent report on climate change from the Canadian Council of CEOs is a good place to start."

"The Initiative needs to build on this early experience with honesty and clarity, but we can't promote ourselves too explicitly on the basis of those virtues: that risks playing to people's cynicism—it would risk reminding them of Fox News calling themselves 'fair and balanced.' Rather, we need to figure out what

we want to say about climate change, about energy, that reveals these virtues rather than boasting about them. What are these things? Something about a long-run goal, something about economic simplicity, something about technology neutrality? Of course, we also need to figure out to whom we are saying these things, and in the name of what."

Discussion at the workshop provided the following elements to contribute to statements of vision and principles of the 3E Initiative.

Potential Slogans and Tag-Lines

A Fresh Start; A "Coalition for Climate Clarity"

Vision Statement

A vision statement for the 3E Initiative will describe the kind of future—for the Canadian economy, energy system, and environment—the Initiative aspires to help bring about. It is a big picture of a hopeful, attainable future to aspire to—that motivates the Initiative, and that can inspire others to join in it. It should provide a context in which to understand the specific activities and proposals the Initiative will undertake. It should provide a clear statement of that degree of common purpose, and shared sense of urgency and possibility, that motivates the participants in the Initiative—without imposing or presuming more specific agreement on the details of what a sustainable 3E future looks like than participants in the initiative actually share.

'I think we need to paint a picture of what a scenario of a seriously low-carbon economy would look like. There will be winners as well as losers in this industrial revolution. We have to give it teeth and color, then to make it happen."

"Getting people motivated to change requires an odd mix of desire and fear. A little fear is healthy and necessary, but too much is not empowering at all. We need to figure out what kind of stories on these issues are effectively motivating, generating just the right amount of fear."

"Lots of folks think climate change cannot be solved in conventional terms, and want to use the issue to re-tool our whole way of living, moving beyond capitalism to some Zen-like, post-industrial society. Climate change is to first order a problem of changing the energy system, of which a lot—maybe not all—can be achieved through technological changes alone. I do not want to tie solving climate change to a revolutionary transformation of industrial society. This is not because I don't sometimes wish for such a social transformation: it's because I really care about solving the climate change problem."

"We need to hang on to, or perhaps re-discover, our capacity to suspend disbelief."

Statement of Principles

A statement of Principles will describe how the Initiative will work toward realizing its vision. It may consequently include some statements of participants' shared understandings of the issues, and some statements of their shared commitments regarding how to work together and how to relate to the outside world. Such a statement will be especially crucial because of the open, inclusive character of the Initiative: if the Initiative is to be open to anyone who subscribes to its core vision and principles, a clear and compelling statement of these is essential in communicating with potential partners.

Potential elements discussed at the Workshop included the following.

• Non-Partisan and Activist: The Initiative is uniquely position to help break the deadlock on Canadian climate and energy policy because it combines a non-partisan, multi-sectoral, open process with an activist and action-focused orientation.

- The Initiative is a loose coalition of unlikely allies, united by their recognition of the gravity of the climate change issue and the urgent need to take real actions to resolve it, and on their agreement on certain broad points of how to move forward. Loose governance means that different sub-groups may advance different projects, so long as these are consistent with the overall objective and principles, and participants will not be presumed to support every activity taken under the Initiative's umbrella.
- The first steps to solving the problem must be *real and immediate*, *but small*: we need a catalyst, in the form of early actions, undertaken with a sense of urgency, that can make a real contribution to solving the problem.
- The urgent need for real first steps must be balanced by a recognition of the long view. The climate-change challenge will require a sustained response over a century or more. Consequently, while early action to make a start is urgently needed, we also recognize that early action will not be perfect or final, and that the scale, pace, and character of our response will have to be adjusted over time—as we proceed, gain experience, and learn more about the character of the problem. Such an "adaptive management" approach is demanded by the magnitude of uncertainties about the issue, on the climate-science side but especially on the energy technology and socio-economic side. Such large uncertainties, including risks of severe impacts, require both effective early action and a commitment to adapt and adjust

"Governments keep changing, and where does it leave us? Why can't being clean become a non-partisan, cross-party truism in Canada? We have to make climate change and environment a real Canadian value."

'The key is to get beyond 'we see something needs to be done' and just get on with it."

"The right place to start is to work with the people who see the win-win. But in order to make change you also need 'zero-sum' people. The project must include people from the oil patch."

"What can I (or my company) commit to do to help solve this problem? Reduce Canada's emissions by one million tons of CO₂ per year by 2012."

"I want to join with others. We have to make this a political movement. People are waiting for leadership. I know how to lead from behind. What I would love to see happen is a broad, political, non-partisan understanding that this is a damn serious problem."

"Done right, this process could create more permissions for governments and the economy to act."

"We have to decide whether, as a first step, we want real small reductions or fake big ones."

"There has to be some sort of multiplier effect—something that self-replicates. There needs to be something viral."

"We need to pace ourselves: we're in for the long haul, and can't keep sprinting. We need to stop looking for immediate response, immediate gratification. We need persistence. This is not WW II, it is more like the 100 Years' War. It will span generations."

our response over time. It means that we are committed to moving forward without presupposing complete agreement. At the individual and group level, this approach requires a balance between reflection and action—an ability to appreciate complexity, difficulty, and uncertainty and work to learn more, while still acting.

- A set of principles related to the kind of activities the Initiative will undertake. For example, these should be simple, clear, specific, and action-focused. To the extent that they include general declarations or calls for others to act, these should be coupled to concrete action commitments by Initiative participants. They should developed and implemented quickly—especially at the start of the Initiative, when many participants felt there is a short, near-term window of opportunity before policies now in development at the Federal and Provincial levels are announced. For these initial projects, participants suggested targeting significant achievements external to the Initiative within the next 30 to 60 days. For subsequent projects, participants proposed they be developed on the analogy of rapid-cycle prototyping: sketch, elaborate, circulate for comment, revise, converge, and implement quickly—thereby learning through doing what works and what does not.
- "Suppose a company—like maybe mine—were to make a large-scale commitment to a major, prototypical, leading-edge project.

 There's a lot of concern about being ahead of government policy. Could we use this group to support that? Would people be willing to support it publicly, to say, 'That's exactly the kind of thing we need'?"
- "A group like this can be myth busters. When someone—government or anyone else—makes a constructive proposal and the predictable howls of protest are coming, mud is being slung, we can calm the waters. For example, we could help kill the myth that making progress on climate change is going to be so expensive that early movers will get killed."
- A set of principles related to communication and process: a commitment to honest dialog; a willingness
 to discuss challenges and uncertainties openly, not frame the issue in competing extremes to promote
 divergent action proposals; a willingness to discuss individual and common risks openly and contribute
 to their management, not seek to push all burdens onto others; a commitment to respect the
 confidentiality of discussions within the Initiative, and not presume others are committed to any
 particular activity, statement, or decision until they explicitly say so.
- A set of principles related to the openness and permeability of the Initiative: others are invited to join or to partner on specific activities, so long as they are willing to contribute to the initiative—in time, effort, expertise, reputation, networks, and/or money, as appropriate—and subscribe to the principles of communication, engagement, and action that define the Initiative. We do not seek to re-invent the wheel, to fight with other similarly targeted initiatives over small differences, or to jockey for leadership to gain personal, professional, or commercial advantage.
- A set of principles related to Canadian leadership on the climate issue internationally: International partners are also welcome to join or partner with the Initiative, on the same terms as Canadian partners. The ambition is not just to help break the current deadlock on meaningful climate-change action in Canada, but also to help spur a revival of Canadian leadership on the climate-change issue internationally.

"Canada could create a brand for itself, as an environmental and energy superstar—making it the preferred provider of energy, resources, and other goods. This would take real vision from the top, a unifying economic idea. Unfortunately, the two major Parties are not well suited to providing this: the Conservatives don't want big ideas, and the Liberals have too many sloppy, ill-considered big ideas. The main impetus in shaping this nationwide idea must come from elsewhere, principally from business."

"This group's policy proposals could be on the international agenda at the highest level within one year—if the group wishes. Alternatively, you could stop at any time."

2. A Near-Term Public Statement

As an immediate initiative, one sub-group will draft a public statement on Canadian climate change and energy issues, to be circulated among Initiative participants for their comment and support. This statement would then be publicized widely, e.g., by full-page newspaper advertisements. It would be the Initiative's first public announcement.

"The Initiative needs something concrete as a short-term deliverable that shows our capabilities, exercises our influence. This should not just be something organizational, although it would speak to the spirit of the organization. This could take a hundred different forms, but it probably can't be the Carbon tax proposal: that's too big to deliver in a month."

Although this statement will have to be consistent with the statements of vision and principles that define the Initiative as discussed above, it is distinct. This will not be a statement *about* the 3E Initiative, but a statement *by* participants in the 3E Initiative *about* the Canadian response to climate change and energy issues. As sketched in preliminary discussions at the workshop, this statement might include the following points: (Note that these are all provisional: this task is in the hands of the responsible group.)

- The response by Canada to the looming challenges of climate change and the need to transform the energy sector has been woefully inadequate. (It might be best *not* to include a statement about responsibility for the deplorable and dangerous state of affairs—but if any is included, it should only note that responsibility is widely shared.)
- A new approach, including real efforts to limit and reduce Canadian greenhouse-gas emissions, is urgently needed. Nearterm actions must be taken urgently, without waiting for resolution of all relevant scientific or technical uncertainties, or for agreement on specific long-term targets, nationally or internationally.

"The group can promote the idea that early action—on an emissions tax, on carbon capture, perhaps others—has benefits. The general international movement to re-frame climate from an environmental to an economic issue means there are likely to be early-mover benefits. There will be advantages to Canada in trying things and figuring out what works—not early action to lock in, but early action to learn."

"Nimble and speedy are good, but we must also be careful not to appear naïve. If we do or call for early action that is not adequately thought through, we risk undermining our longer-term credibility."

• While achieving the required transformation will require efforts and changes from all sectors, an essential requirement will be coordinated nation-wide policies that put a price on emissions, to provide incentives that motivate the required R&D and investments. The policies Canada has deployed on climate and energy issues this far—predominantly voluntary and information-

"One thing these discussions have overlooked is the dynamism of provincial activity. Right now it's BC that has the most ambitious program for emissions reductions and Alberta that has the strongest real-live regulatory presence for large emitters. Governments can approach the issue in the spirit of co-operative federalism: we based programs, plus research and technology subsidies—have not been sufficient to make a serious or effective response to the issue. The required policies may take the form of emissions taxes, tradable emissions permit systems, or some combination of these. They should span the Canadian economy as broadly as possible, not single out specific sources, activities, technologies, sectors, or regions.

- These economy-wide policies should be revenue-neutral: any resultant change in government revenues should be balanced by a reduction in other revenue sources.
- While Canada must resume a position of real leadership in international efforts to manage the climate-energy issue, Canada cannot solve these problems alone. To the extent that Canadian efforts create competitive distortions between Canadian and foreign producers of energy products or other goods, these economy-wide policies should be implemented in conjunction with GATT-compatible adjustments on traded products to reduce these distortions and protect Canada's competitive position.
- These economy-wide policies may need to be augmented by specific sectoral measures and public support for relevant RD&D.
- Greenhouse-gas policies should as much as possible be neutral across alternative non-emitting technologies.

 The burdens and efforts required by policies to limit greenhousegas emissions must be broadly and equitably shared, not predominantly imposed on any region or sector. can park the federal-provincial question at the door, think through what the sensible policies are, then divide responsibilities rationally and in line with constitutional heads of authority. Remember the 1970s, when PEI was a hotbed of innovation for sustainability? We want to encourage that kind of diverse exploration—but it would be nuts to try to create a PEI carbon market."

'I can't believe we can deal with this solely through prices. We need some combination of high prices and strict regulation. And we have to share this across the globe in a way that we have never done!"

"It really isn't a question of markets versus regulations and taxes. We need both. Markets will work for companies, who look for a 10 to 15% return on investment, but won't work for consumers, who make a different calculation and expect a 50 to 100% return. They will need regulations or tax measures to change their behaviour. We will have to push all the levers."

"We may all agree that we need to transform Canada's energy system, but we must not pretend there isn't challenge and disagreement buried within this question. There are very different views of what kind of transformed energy system we want. The Initiative needs to accept these disagreements and find ways to proceed that are robust to them."

"A lot of the blockage is not about what should be done, but about who should pay for it. For example, there is widespread agreement that a CO₂ pipeline in Alberta is a good idea. The proposal is just stalled because it is unclear how the cost will be shared."

"What if there isn't any cost burden, or what if it is so small it's negligible? We shouldn't sit around scared to move because we think costs are going to be high when they might not be. We need to make the transition in any case, but we need a way to proceed that works whether the costs are high, low, or in between."

 To achieve the required reductions in Canadian emissions, new low-emitting and non-emitting technologies must be deployed rapidly. This will require new and more flexible approaches to many aspects of regulation, permitting, and siting.

• The first steps of new policy and new investment will not be the complete or definitive solution of the problem: the transition to a low-carbon energy future will not be achieved in one year, or in ten: it will require sustained efforts from both private and public sector for 50 to 100 years. Consequently, while early action to make a start is urgently needed, so also is an "adaptive management" approach: the scale, pace, and character of Canada's response will have to be adjusted over time, as we proceed, gain experience, and learn more about the character of the problem.

The sub-group has committed to drafting proposed text for such a statement and circulating it among participants with the aim of developing final text by 7 December and circulating it for sign-on and publication by 15 December.

3. A Project on Tax Shifting

A large and diverse sub-group, including a large contingent from business and industry, expressed interest in developing and refining a specific proposal for *Tax Shifting*—moving some of the existing tax burden from current sources such as income or payrolls toward greenhouse-gas emissions.

"What I've learned is that most of the time the real bottlenecks are lack of skills and support mechanisms and templates for action. We face multiple trivial institutional barriers and nobody is tasked with dealing with these. What we need is a multi-pronged institutional, legal, financial, skills development front. The 3E initiative needs to understand the challenge of implementation."

"The danger we face is radical policies that don't work. I am not worried about abrupt climate change, but about abrupt climate policy."

"We're not going to drive this activity to completion no matter what happens; we are willing to drop the statement if we can't get enough agreement on something sensible and significant. In addition, we must swear that we won't pull any trickery in the process of consultation and discussion: people are free to comment with no commitment, then when we're ready to seek commitments we'll ask."

"Until you can make a business out of global warming—until you put a price on things and bring supply and demand into play—then nothing is going to happen."

"We need a carbon tax or equivalent. As long as all significant countries do it at the same time, it could work."

'In the past twenty-five years there have been seven generations of basic change in medical diagnostic equipment. But in energy, there's been essentially no change in technology over that period: we're building the same thermal coal plants today that we were back then. The market for innovation doesn't work right in energy: investors come when prices rise, then when prices drop they go away and don't come back."

A meeting on this topic is already planned for tax, policy, and energy experts plus key stakeholders, in 3-4 months under another initiative, the "Sustainable Prosperity" initiative. In addition, a project of the National Roundtable on fiscal measures is now underway and expected to report by the end of 2007.

Members of the 3E Initiative will communicate and partner with these activities, to pool knowledge about potential tax-shifting proposals, analyses of their potential consequences, and pros and cons of particular proposals. In particular, there is interest on both sides in joining the green tax-shifting activities of the Sustainable Prosperity and 3E Initiatives, with joint leadership. Participants will seek to assess relevant research, scholarship, and experience elsewhere; identify, refine, and critique various specific proposals for a green tax-shifting initiative; and develop a specific proposal to communicate and promote, both in public statements and in public policy advocacy.

The proposal should meet the four basic criteria of successful greenhouse-gas policy: effectiveness at reducing emissions; economic efficiency, in the sense of minimizing costs of attaining any specified environmental objective; administrative efficiency; and equitable distribution of costs and burdens, relative to regions, economic sectors, and income groups.

The initial objectives of this project will be to shift the terms of public debate to make emissions taxes a legitimate proposal to consider; to raise support for the general approach of emissions taxation among key stakeholders, including senior figures from both the business and environmental communities, and among the public at large (as evidenced by polling results); and to promote adoption of an emissions tax proposal in at least one jurisdiction in Canada within 12 months.

The process of developing the proposal will need great care. Because the details of any tax-shifting proposal are crucial for its effectiveness, cost, and feasibility, the specifics of the proposal should initially be developed in a fairly small process. At this stage, there should be intensive input both from first-rank experts, and from technically sophisticated representatives of key stakeholder groups whose support will carry weight in their constituencies. Because the proposal will inevitably attract controversy and criticism, its early development must include vigorous consideration of potential critiques and counter-arguments, so that when it is presented publicly the proposal is as well supported by first-rank research and analysis—and as close to bulletproof—as possible.

"Canada, like all industrialized countries, really has two goals for the next 10 or 15 years: to actually start cutting emissions; and to figure out the better and cheaper ways to make deeper cuts in 2040 or 2050. Current policies in most countries are so hopelessly confused and complicated that nobody has any idea what things cost. For example, there are so many incentives for Danish wind power that it's impossible to tell what it costs. So early policies should be as simple and transparent as possible—so it's easy to tell what they do, at what cost, and also so they're hard to game."

"We need a tax reform package that can bring the environmentalists and the corporates together."

"It looks increasingly inevitable that there will be a carbon tax or something closely resembling one. Canada must get in the debate to shape it as best we can, lest other nations do this to their own advantage."

"The problem is not so overwhelming? The direction of early steps is obvious and we just need to take them? Serious examination of a carbon tax? If this group really is a microcosm of Canada, then Canada is better positioned to tackle the climate issue than any other country. Leaders of a dozen or two major emitting nations need to hear these messages. When such a group met recently at the US State Department, the dominant feeling in the room was collective denial and terror of taking any action. If Canada can slay the carbon tax dragon, other nations will beat a path to your door."

A second step of broader consultation among senior representatives of key stakeholder groups and additional experts—perhaps participants in the full 3E and Sustainable Prosperity Initiatives—should further revise and critique the proposal, and develop the supporting arguments and communication strategy. Once the proposal and a broad base of credible support are in place, they should be taken public, via a broad marketing campaign to develop public support, coupled with parallel approaches to leaders of all major Federal parties. The aim at this point will be to develop unanimous, non-partisan support for the proposal, based both on compelling substantive arguments and broad, cross-sector support.

"The 3E Initiative is to be a loose association, not overly structured, that coheres around a set of principles. The trouble is that when stated in general, these principles approach clichés: we acknowledge the problem, we want to respond to both costs and opportunities, and all sectors have responsibilities though these may differ in detail. OK, sure. The virtue of the Carbon tax idea is that it will test something real against these loose principles. It's easy to state allegiance to these in the abstract, but a real proposal introduces real stakes, and this is when you'll see how committed people are. If commitment to principles means anything, it will continue as the stakes rise."

"There are particular ways that a carbon tax might work, economically and politically. I'm willing to work on building simple arguments for a carbon tax or a price on emissions that would work in a public setting."

Several points in this strategy require further refinement, including the question of whether the proposal as promoted is completely detailed or leaves room for final choice and discussion of design details at the political level. Elaborating this strategy, including a staged sequence of events recruiting successively broader support, could be on the agenda of the next workshop and/or the core group.

The Sustainable Prosperity Initiative is holding a workshop in approximately three months to develop such a tax-shifting proposal. They have invited the 3E Initiative to partner in this project and name a co-leader. Roughly a dozen 3E participants have expressed interest in working on this project, but a co-leader still needs to be identified.

4. Building A Strong, Flexible, and Sustainable Core for the 3E Initiative

Advancing the Initiative, including both implementing the first round of actions already identified and developing and implementing an agenda of subsequent actions, will require putting in place a core of governance, administration, and resources. As initial steps, several things are required.

• Constitute a small core leadership group of influential individuals, with appropriate diversity, committed to the vision and principles of the Initiative. This group will include a few people who attended the workshop, plus others to be approached. The core group will assume overall executive responsibility for the direction of the project—pushing and supporting the early initiatives discussed above; recruiting additional participants; raising resources; developing a business plan; and making decisions about specific projects and priorities as the Initiative moves forward.

"Many industry players are prepared to move off the status quo, if they are protected from some of the downside—e.g., if they can pass through some of the costs or get some compensation from governments. It's a matter of how much of this they need, and from what point they'll count on the market to take care of the rest. Calgary needs its own pied piper. We don't need a lot of finger wagging environmentalists."

• Recruit additional participants in the Initiative, with a strong priority on increasing the breadth and diversity of participation. The Initiative needs expanded participation from business and industry leaders, both from energy and other sectors, with particular priority on sustaining our early progress in building participation in Western Canada. We also need expanded gender and generational diversity. Finally, a decision must be made about participation by politicians and government officials currently in office. To the extent politicians are included, whether retired or currently active, it is imperative to balance representation from the major parties.

- Make the transition from staff support being provided by consultants from Generon Reos to being provided by a dedicated full-time team. The Initiative may wish to keep using external process advisers and facilitators, but should develop its own, continuing capacity for administrative and other staff work.
- Raise resources. Workshop discussion suggested that the Initiative's ambitions might require a continuing staff of about five people (combining administrative, technical, and communications skills), with an annual budget of roughly \$1.2 million.
- Refine and support the agenda of specific activities and projects. In addition to the three near-term activities discussed above, the Initiative must identify, develop, and implement subsequent projects. These could take many forms—additional coordinated actions by participants, further public statements, working out and promoting additional policy proposals—the Initiative is about helping to solve the problem by whatever means, or combination of means, will work—not committing to any particular approach. All projects will have to be developed, refined and specified, and circulated for criticism, revision, and support. In the interests of making Initiative projects substantively stronger, sellable, and resistant to foreseeable external criticism, they should be subjected to vigorous criticism within the Initiative.

"There's more basic disagreement on this issue in the Parliamentary caucus of any one party than I've seen at this meeting. I consequently propose that we establish the 'Canada 3E' Party.'"

"I know we still need to get a lot broader participation. But I'm already finding it really interesting to be at a forum like this that's not controlled by people from central Canada."

'I'm preoccupied with how we get young people involved in this issue, how we communicate with them where they are, on their networks or wherever. Maybe the hope on this issue lies in a generational turnover among both business people and environmentalists: the young ones won't be so caught up in defending old practices and business lines, or fighting old battles."

"This Initiative sounds great. Who's going to pay for it?"

"A Canadian 'Climate Czar' could put forward codes and standards without being politically tied down. The process of making decisions would not be political, and the operation would be independent, like the Bank of Canada."

"We need a Royal Commission, to figure out a revenue-neutral carbon tax on a personal, provincial, and corporate level."

"Royal Commissions can be extremely useful. Perhaps the best example is the McDonald Commission, which digested a complex issue and presented simple, powerful recommendations that got adopted. It really provided the impetus for the negotiation of the US-Canada FTA."

• Organize future meetings, to expand and stabilize participants and the core group and to elaborate and advance subsequent rounds of specific projects. The next two meetings of the entire Initiative were proposed for February 2008, and May or June 2008. Since the launch workshop was held in central Canada, and in view of the paramount priority of further strengthening Western participation, the second meeting should be held in the West. A proposal has been made to hold this meeting in Banff. Through these meetings, meeting design, facilitation, and organization will continue to be by Generon Reos.

Several core group participants were provisionally identified at the workshop. This group must follow up immediately with the specific tasks, with the first priority being recruiting expanded participation. The most acute need is for one or two individuals as counterparts to John Roy to co-chair the Initiative. There was preliminary discussion of several names, and the sense that ideal candidates might include a highly respected retired energy CEO and a similarly highly respected retired Minister or Deputy Minister.

Conclusion

The launch workshop of the 3E Initiative was a resounding success. The mere fact of being able to mobilize more than forty overcommitted people to sit for lengthy interviews, and to have twenty-two come to an intensive two-day workshop on short notice, provide a measure of the level of concern on the issue and the widespread sense of an urgent need for a new approach.

Beyond the mere fact of getting people to attend the workshop, the discussion at the workshop moved from the sense of pessimism and helplessness expressed in many interviews to a strong sense of optimism, shared commitment, and possibility. In this sense, the workshop achieved substantially more than even its most energetic and optimistic promoters had hoped for.

The agreement to move forward on four specific activities represented a substantial achievement. Perhaps the most striking aspect of this work plan was the fact that four groups were able to work separately on pieces of the problem of launching the Initiative, and produce the beginnings of a smoothly linked, seemingly coordinated initiative—with no explicit coordination among their work. This success appears to indicate substantial depth of commonality among participants in their visions of the nature of Canada's problem and what has to happen to resolve it.

In sum, the Initiative now has a coherent set of initiatives, which were widely identified by workshop participants as the most important near-term actions, with a clear plan for taking them forward. In addition, the Initiative exits its launch workshop with several other valuable assets that could not have been predicted at the start of the workshop: a core group of several members who have volunteered to share responsibility for leading the Initiative as a whole; three additional action teams, each with a specific set of tasks and leadership; and a willingness by two of the original funders

"This issue is not as complicated as I thought. We've made it seem complicated, and we don't need to."

'There's a remarkable level of agreement from seemingly disparate groups on fairly specific actions. The differences appear to be around implementation and details. What this tells me is that we all need to become internal champions within our organizations."

'The Initiative should catalyze things, get them to happen faster than they would otherwise. It can identify potential solutions and get them started: they don't have to be perfect, and we shouldn't expect them to be. The emphasis is on getting going. At the same time, the adaptive management piece is crucial. This is what can give business confidence that it's not going to be a runaway train, that we can adjust the pace and learn as we go."

"We need to recognize that Canada has a very narrow window to avoid foolish policies, perhaps as little as a year or two. This is why the Initiative has to be nimble: it has to get traction for good ideas, quickly."

"The Initiative needs to convey a sense of urgency without panic. It's like your house is on fire. You need to move fast, but without doing stupid things that make matters worse."

'What I've seen here astonishes me. The group has picked up the carbon tax idea, which has been disparaged by virtually all parties in the argument, and has been willing to see its merits and think through how it might work. This suggests an impressive ability to set aside to continue their support and help approach other potential sources. Finally, as a result of the pre-workshop interviews, the Initiative has a group of roughly 20 participants beyond those attending the workshop, who are ready to be re-engaged with the now-clarified plan of action. There is a great deal to be done in advancing this agenda, but this workshop has represented a huge start.

prejudices and re-think the issue. If Canada can pull this off, quite remarkable leverage is possible. Canada can change the future trajectory of the world on the climate issue."

"We just have to start building. We've been arguing about carbon taxes for years, and it hasn't gotten us anywhere. Now we just need to give it our best shot, and try it."

'These conversations are invitations to the dance, but the dance is still to come. Right now people are hearing the music, and are intrigued. There are many ways we can put people off and drive them away. We need to hold onto both the commonality and the respect for differences."

"Most activities like this never get to the point we're now at, of being pregnant with the possibility of moving to action. But we still have to do it, and there is a lot that needs to be done. For example, we need at least four or five people to step up and play in the core group. The pieces are in the room. Can we deliver?"

3E Initiative

Economy, Energy, Environment

Synthesis of Participant Interviews

29 October, 2007

Written by Edward A. Parson, based on interviews conducted by John Griffin, LeAnne Grillo, Adam Kahane, Joseph McCarron, and John Roy This note [which was written prior to the Launch Workshop of the 3E Initiative] synthesizes a set of interviews of participants in the Initiative, conducted in preparation for the Initiative's first meeting. Participants came from business, government, and NGOs as well as throughout Canada. The note highlights themes found in the proposals, arguments, and concerns expressed by the interviewees, juxtaposed with selected quotes that vividly illustrate points expressed. On a few topics, the note also summarizes relevant information drawn from sources outside the interviews. The note's purpose is not to prematurely reduce the richness and diversity of interviews to any single consensus. Rather, it seeks to give an overview of the issues raised, and to provide a sense of both points of convergence among multiple speakers, and the range of views on points of diversity or disagreement.

The note is organized in five sections, addressing the following points:

- 1. Speakers' concerns about climate change and potential responses to it;
- 2. The concrete changes or actions that managing climate change will require;
- 3. Strategies for bringing about these changes or actions;
- 4. Key dilemmas or points of tension in identifying paths forward;
- 5. What this initiative, and this initial meeting, can most usefully accomplish.

1. The gravity of the climate change issue demands Canadian action—for prudential reasons, as a moral imperative, and as a legacy of this generation of leaders.

All speakers recognize the reality and potential gravity of climate change, although with some differences of degree. A large majority believe climate change is a grave environmental threat, and is well enough established scientifically that it is time to identify actions to address it. Many speakers referred to the new IPCC assessments, but also to continuing events—such as the extreme loss of Arctic sea ice this summer, and growing indications of risks of large carbon-cycle feedbacks or potential abrupt changes—suggesting the IPCC projections may under-state the risks we face. At the same time, a few speakers continue to worry about scientific uncertainties and suspect that environmentalists may be exaggerating the risks. None of these denies the risk, however, and even these speakers share the sense of a need for action. Some judge that the most immediate pressure for Canadian climate-change action may be economic rather than environmental: other nations may take aggressive actions and impose penalties on trading partners who do not match their efforts. For example, low-carbon fuel standards such as proposed in California would foreclose a large market to the oil sands—and could threaten broader loss of markets for Alberta energy products—unless their emissions were reduced through carbon sequestration or offsets. Such foreign compulsion would surely un-stick Canadian debate over climate change, although relying on such compulsion would not say much for Canadian leadership. Differences in degree and in specific reasoning aside, there is strong consensus among speakers on the need for Canada to act on climate change. Speakers see this as a prudential issue, a moral and spiritual imperative, and an issue that may predominantly define the legacy of today's generation of leaders.

'The bad consequences could be so total that the only comparison is to nuclear holocaust: there was no wishing the USSR away, and there is no wishing this away. If we don't take action there will be an increasingly wide range of impossible problems in the world. We have to think about this in human terms: the earth is impersonal, our children are not."

"It is clear that this generation of leaders has under-performed when it comes to the environment. Responsible people should do more."

"The present course of developing the oil sands is putting Alberta's water at risk, causing acid rain, raising costs for all other sectors and bringing all the problems of unbalanced petroleum economies—as well as a bad reputation. If Albertans continue on this course, they will be boycotted. The Norwegians are showing the alternative course: they are decreasing emissions, slowing down investment and improving the way they use their resources. Their economy is more balanced, the resources are still there for them to exploit in the future—and they will make more money."

"Whether climate change is going to be serious or not, we need to buy an insurance policy to manage the risk. Canada is going to be under external pressure from US regulations and restrictions on imported energy products."

"There is urgency in finding new possibilities. Environmental laggards now will become economic laggards soon."

At the same time, many speakers expressed a pessimism bordering on despair, about the extreme harms that climate change could bring—as real risks, even if not likely ones—and about the profound difficulties of addressing it effectively. Difficulties identified included uncertainty about specific climate impacts, which obstructs agreement on what to do about it; the slow responses of

"Climate change is so difficult because it is a global commons issue, and because the time-lags are so huge, 50 to 100 years."

the system, which mean that efforts must be made today to reduce risks decades in the future; and the fact that the issue is a global commons, making Canada—or any country—a small part of the problem and so at best a small contributor to the solution. Worst of all, we may already be too late to stave off catastrophic harms and not even know it.

"We may be beyond the tipping point with respect to the oceans. If we do in the oceans, we do in the oceans, then the game is up. This situation leaves me filled with fear and despair. Is there nothing for us to do but "eat, drink, and be merry, for tomorrow we will die?" We can't be sure that we're not too late already, but still our obligation is to try to do something about it."

Most speakers identified specific changes or actions that could contribute to an effective response to climate change. The speakers are a highly well-informed group, and the actions they identified corresponded closely to what is known about the climate issue, scientifically, technically, and economically.

Effective action on climate change must include two components—"mitigation" actions to reduce greenhouse-gas emissions by raising the efficiency of the energy system and shifting it toward non-emitting energy sources, and "adaptation" actions to reduce the harmful impacts of the substantial climate change we will not be able to avoid, including what is already occurring—plus a third component, geoengineering, to be studied, assessed, and held in reserve against the risk that we fail to limit emissions or are unlucky in how fast and how bad climate change turns out to be.

Of these three components, slowing climate change by reducing emissions is the key near-term requirement, because of the long lags in the climate system. Holding climate change to a further 2 or 3 degrees (Celsius) of global warming—a change that will very likely still bring substantial harmful impacts—requires limiting atmospheric concentrations of all greenhouse gases to the equivalent of 450 to 550 parts per million (ppm) of CO₂. For comparison, human emissions have already increased this concentration from about 280 to 380 ppm over the past 150 years, and are presently increasing it by 2 ppm per year. Achieving this limit will require global emissions to fall more than 50% by midcentury, and to keep falling thereafter. Since this drop in global emissions is required against the backdrop of continued development in lower-income countries, the emission cuts required of rich industrialized countries like Canada to meet this limit will be even larger, perhaps 60 to 80%. This is a huge task which will require intelligent, well implemented, sustained efforts over many decades.

"We've got to reduce greenhouse gas emissions 80 to 90% to stop a real catastrophe. If we think distributionally, this implies astounding changes to the political economy of Europe and North America. I can't see how to get there from here."

"We need to pace ourselves: we're in for the long haul, and can't keep sprinting. We need to stop looking for immediate response, immediate gratification. We need persistence. This is not WW II, it is more like the 100 Years' War: it spans generations."

Moreover, with a challenge so huge, there is a chance that we will fail. Even as we pursue these reductions, we must anticipate the risk that we achieve little or nothing for a few decades. This means assessing and preparing more extreme interventions that may be required a few decades hence: an extreme—because belated—program of mitigation, together with an intense campaign of adaptation investments and, possibly, deploying geoengineering solutions.

There are only a few ways to achieve such emissions reductions. The first is to develop and deploy technologies to use energy more efficiently and shift toward non-emitting sources, such as renewable energy, nuclear, or fossil fuels used with carbon capture and sequestration. The only alternatives to cutting emissions through technological innovation are to change people's lifestyles, behaviour, and aspirations so they consume less emissions-producing stuff; or to have fewer people on the Earth. Speakers identified all these ways, but differed—in some cases strongly—in their relative priorities. Many emphasized the primary importance of technology and innovation in energy production and use. Others emphasized the primary importance of lifestyle and consumption changes, and of processes of education and influence to make such changes appealing, or at least acceptable, to people. Speakers stated several reasons for emphasizing consumption, including scepticism about whether technological innovation could deliver enough change in time without introducing other, perhaps equally severe problems, and concern about other environmental and social harms from present patterns of consumption in addition to climate change. This is a point on which there are real tensions among speakers.

Many speakers emphasized, however, that we must meet multiple societal and economic needs. We cannot focus exclusively on climate change, or on the need to reduce greenhouse-gas emissions, in isolation from other priorities such as health, education, development, security (including energy security), employment and incomes, and the management of other environmental risks—nor must we seek to manage the risk of climate change in a way that puts these other values at risk. Some speakers expressed this as a substantive need to address multiple societal priorities, while others

"We will not do enough mitigation, so we will be forced into rapid response mode ten years from now. We will see a significant release of methane and a significant sea level rise, neither of which have mitigation solutions. We will need geo-engineering solutions such as engineering the albedo or carbon uptake or aerosols into the atmosphere. I've never been confident we could get down to the level of emissions needed for climate stabilization."

"Environmentalists tend to low-ball the cost and difficulty of mitigation. They need to recognize that considering adaptation is not being 'defeatist' about mitigation: it is a necessary response to a grave societal risk."

"There is a huge opportunity for 'green' equipment. But a green solution has to be a smart solution, not faddish or shallow. It becomes sustainable if the economics are there."

"We have trained people to think that environment is about recycling and planting trees, and neither of these will help us with climate change."

"There is a healthy tension between economy, energy, and environment, and a need to balance them. You need to have a productive and competitive economy in order to address the other two. It's one thing to have environmental policies but without a strong economy there is no incentive for behaviour change."

expressed it as a constraint on the political feasibility of climatechange responses, although the practical significance of these two views appears to be the same. In addition, there is tension among speakers over how tightly these other societal priorities constrain our response to climate change, which mirrors the tension above over whether our response should predominantly pursue technological innovation (and gamble on its ability to solve the problem), or should also seek (somehow) to change consumption and lifestyles. "Climate change is always the bridesmaid and never the bride: other issues need to be put in the forefront. Nobody is solely interested in climate change and its impacts. For example, people in the Arctic have much bigger problems—for example health and violence and lack of skilled staff—than climate change."

"We have to include all three Es. Nobody gets elected to kill growth."

"Solving climate change is a pre-condition for success. If we don't do this right, the rest—early childhood development, health, education, etc.—doesn't matter."

3. How can these changes be achieved? Strategies and theories of change.

Speakers expressed many views about strategies for realizing the required changes, showing more diversity than there was among the required actions identified. Different strategy proposals appear to imply different theories of how societal change happens, or of where the highest-leverage points are to intervene—points on which people hold strongly divergent views in part because there is so little well established knowledge. Speakers' different strategies and theories of change might be viewed as opposing alternatives, or as different partial views of a complex totality—the blind men and the elephant. Perhaps in certain domains some of these are right and others wrong; perhaps in some domains they are subject to some form of higher-order integration. Four strategies and theories were prominently expressed.

Strategy I. Stimulate direct, voluntary action by citizens and businesses to solve the problem, through education, exhortation, and manipulation.

Many speakers refer to this strategy, and a fair number identify it as a necessary component of action on climate change. But a frequently expressed view is that this approach has been tried, with much energy and commitment, for a long time—by leading firms, by activist groups, and by governments when they want to avoid stronger measures—and has been clearly shown insufficient to stimulate the required scale of changes.

Some people are more influential than others, however. Some speakers stressed education and persuasion not of the citizenry at large, but of executives, politicians, and other opinion leaders. These people are powerful, but they are also human and care about their children, their nation, and the world. Several speakers pointed out

"CEOs have the same DNA as everyone else, and much of what feeds into corporate behaviour is the personal instincts of the leadership."

important instances of change that came about because some powerful person was thinking about their children, or getting pressured by them.

Strategy 2: Promote technological innovation, driven by leading firms and new entrepreneurs operating through markets.

Speakers identified many specific instances of technologies and other innovations that could play key roles in a response to climate change. Moreover, they identified many instances of how such innovations could be profitable—profitable now in some cases, profitable soon or under slightly changed conditions in other cases.

A few speakers connected the power of innovation to help solve climate change to the broader theme of re-defining Canada's competitive position in the world economy, branding Canada as an "energy and environment superpower" that would be both a source of environmentally beneficial innovations and the provider of choice for a wide range of energy and natural resource products (water was also mentioned), in part because of its excellent environmental performance.

"The market will solve this. Venture capital is already moving in the climate direction."

"It's dangerous for government to mess around and tinker with subsidies, as they did with corn and ethanol. It's better not to play with it, and leave it to the market."

"The belief that green construction costs more is a real problem and needs to be debunked. It is possible to make a greater return on green buildings. To build greener you need a rethink the network of suppliers and designers and deal with the silos and exist in the traditional industry. Currently there is little motivation to change the existing industry model."

"The economic impacts of climate-related adjustments is a small percentage of the overall economy. In a typical office building, there might be \$100 million capital invested in the building; the payroll of people working in it might be \$70-80 million per year, while the energy cost is \$2 million per year."

"Canada could create a brand for itself, as an environmental and energy superstar—making it the preferred provider of energy, resources, and other goods. This would take real vision from the top, a unifying economic idea. Unfortunately, the two major Parties are not well suited to providing this: the Conservatives don't want big ideas, and the Liberals have too many sloppy, ill-considered big ideas. The main impetus in shaping this nationwide idea must come from business."

"Doing more on climate change is feasible. It will raise costs, but we can control this and live with it. There just has to be a way to make a profit."

"The hard truth is that we are going to consume more energy, so we'd better get more efficient about it."

Strategy 3: Enact policies and regulations, to motivate, expand, and coordinate actions subsumed under the first two theories of change.

Many speakers said that counting on education, voluntarism, or innovation and entrepreneurship alone will not solve the problem. Further force is required to motivate change, and that force must come from public policy. Policy is needed to provide consistent, predictable incentives—to motivate and reward innovators and entrepreneurs, and to provide a stable planning environment for long-term investments.

All speakers stress the importance of consistent, economy-wide policies that put a price on emissions—and thereby a reward for reducing them. These could take the form of an emissions tax—best, crafted as a comprehensive and revenue-neutral tax reform—or a system of tradable emissions permits under an emissions cap. For some speakers, these economy-wide measures are all that is needed, or almost all. Others identify additional regulations, specific government decisions, or public investments in support for R&D as essential parts of an effective policy response—some explicitly stating that policies to price emission alone cannot be sufficient.

"People don't know what to do—they are looking to the government to take direction. I am a private sector believer, but the government sets the tone, there needs to be a balance between the free market and the public sector."

"Business or industry isn't guilty: government must take the lead. Voluntary action driven by self-interest is not enough. Government policy needs to change. We need to make a business case for companies to do more than they are doing."

"I don't see any possibility of persuading large businesses to change their policy. The only way to do it is to create public pressure on government."

"What we need here is serious industrial policy. We need to transform the Canadian economy. We need policy development, and we need a political-cultural movement. Guys like me can pack snowballs for political leaders."

"Until you can make a business out of global warming—until you put a price on things and bring supply and demand into play—then nothing is going to happen."

"We need a carbon tax or equivalent. As long as all significant countries do it at the same time, it could work."

"Carbon trading is better than carbon tax, but the government needs to set the framework."

"What we need is a tax reform package that can bring the environmentalists and the corporates together."

"The industry would be more likely to support a carbon tax than a serious cap and trade system. Nationwide trading would be a big wealth transfer out of Alberta. Trading within a small market like Alberta will create a high and volatile price, and serious local fiscal problems."

"The increase in the price of oil from \$20-\$60 per barrel is equivalent to a tax of \$200 per ton of CO2 and that hasn't been enough! Markets alone can't deliver the changes we need."

"I can't believe we can deal with this solely through prices. We need some combination of high prices and strict regulation. And we have to share this across the globe in a way that we have never done!"

'Taxes are part of the solution, but I'm concerned about relying too much on taxes. One problem is that, as with sin taxes, you tax something you want to discourage but the government gets addicted to the revenue. And earmarking the revenue for climate change is also a problem, because you might have a lot of revenue and you don't want it all locked into just climate-related activities."

'It really isn't a question of markets versus regulations and taxes. We need both. Markets will work for companies, who look for a 10 to 15% return on investment, but won't work for consumers, who make a different calculation and expect a 50 to 100% return. They will need regulations or tax measures to change their behaviour. We will have to push all the levers."

Speakers noted, however, that policies must meet multiple conditions of being be intelligently designed, effective, fair, and well implemented. They must actually solve the problem. They must treat all emissions sources and reduction opportunities evenhandedly. They must seek to minimize compliance costs and administrative burdens. And they must promote, not obstruct, the pursuit of other priority social goals. In addition, effective climatechange policies must meet several conditions that are specific to Canada. They must protect and enhance Canada's competitive position in the world economy. They must fit the legal and political context of Canadian federalism, while avoiding a patchwork response that would be ineffective and excessively costly. (This nut has never been cracked, and could well obstruct any national capand-trade system because it would collide with Provincial authority over facility permitting.) And even as they pursue opportunities for innovation-driven growth, policies must also take account of losers—the businesses, communities, and people who bear the costs of measures to cut emissions. The need to consult and tend to losers is especially acute in Alberta and Saskatchewan, where most of the burden of any simple emission-cutting program will fall. This has both substantive and symbolic elements. The fear in the oil patch about climate-change policy, the hostility toward casual talk about policies that could be another Federal revenue and power

"The government doesn't understand business realities. We need to drive new technologies, but this requires major capital investment. There needs to be a national agenda, so policy is consistent across Provinces and sectors. If we don't have this, it's too small a market and regulation won't help. And we need a long-term game plan. The government needs to recognize the importance of lead times and not change things constantly. Regulation is fine. I'm not afraid of regulation. But it has to be consistent across jurisdictions, and of long enough duration."

"In Canada, there is sensitivity to national political agendas being imposed on the regions, especially in Western Canada. People see the national government as interventionist and unwise. The NEP is an important part of this backdrop, an example of policies being imposed on the West. People see Kyoto as another NEP -- "carbon tax" is very tricky language. One way to create some room for movement is to have ideas not proposed by the Eastern government."

grab, and the rawness of wounds left from the fight over the NEP and the early 1980s recession, cannot be over-stated.

More broadly, many speakers—not just in the West—expressed grave scepticism about whether governments and politicians could be trusted to deliver fair, effective, and competently implemented policies—even when they acknowledged that public policy was a necessary part of the solution. Speakers noted how profoundly flawed all proposed Canadian climate-change policies have been so far, and worried about future policies being marked by incompetence, revenue and power grabs under the guise of green virtue, and arrogant disregard for the burdens of policy and those suffered from them.

"This place is rich, but bad climate-change policy—or even good policy applied climsily or too fast—could turn it around very quickly. Investment money would flow out very fast and put many Calgarians out of a job."

"Stop looking at the oil sands as the bogey man."

"Look at other industries, not just automobiles."

"There is much less consensus in Canada than the US, and a lot of it hinges here in Alberta. Alberta is a third of Canada's emissions and could be half in 50 years. Western alienation is deep, and has long historical roots. The issue is polarized along east-west lines. Some people here even think the science is wrong."

"It's important not to underestimate the regular people who are involved in the extraction industry -- they work hard and believe that this kind of thing could threaten their ability to work and therefore send their kids to school. The Calgary community is pretty threatened."

"The main gap thus far has been between political rhetoric and action."

"Our Kyoto targets are bogus and are unattainable. Nothing has been done because we are wasting our time arguing about how to meet this unattainable target. We have had multiple stalemates piled on top of each other, between the Feds and the Provinces and between the corporations and NGOs. We need a step-by-step plan, ignoring the Kyoto targets."

"It's hard to imagine a policy regime as dumb as the one we have now. We subsidize oil sands to the tune of \$1.4 billion per year!"

'The EU Emissions Trading System has made a ton of money for those who got generous allocations, and did nothing to change investment or behaviour. Politicians talk a good game, then they start bringing in the exemptions."

"In 1999-2000 there were consultations on how to reach Kyoto. Hundreds of measures were suggested. Then the Energy Ministers met and the federal government adopted a few of the weakest. I was naïve about the forces at play."

"People don't know what the Government is really going to do on this issue, and they expect the bloody worst from Government."

Strategy 4: Mobilize public concern—to make policy possible, or force politicians to act.

While some speakers said that we need public policies and left it there, others argued that we can't get policies without support—both some measure of support or consent from key players who bear the burdens of policy, based on their getting confident enough that the proposed policies won't kill them and are being developed with their interests in mind; and some degree of large-scale public concern and mobilization.

Note that there are complex pathways of influence that loop around among these four theories and strategies. This one loops back to the first, with the difference that here you would appeal to the public not just to persuade people and business to change their own behaviour, but to gain their support for policies and laws that coordinate separate individual efforts and provide incentives.

This strategy says that government needs to act, but government can't act without enough public support, so mobilizing this support must precede advocating government action. Among all speakers, however, the inability of government to get ahead of public opinion is stated most strongly by those in government—just as the constraints and limits on what the private sector can do are stated most strongly by those in the private sector. While it would be too strong to say that everyone feels powerless, almost every speaker feels that the primary locus of power to solve this problem lies somewhere else, usually outside their domain. Perhaps this widespread view says something about the political complexity of the climate-change issue, on which so many groups are needed to get a coalition strong enough to support effective action.

Another theme expressed by several speakers provides a caution about public mobilization. There is concern that mass mobilization of public concern is a volatile, short-term force, which cannot address the details of specific policies or decisions. Consequently, policies driven or enabled by mass mobilization may be most at risk of being radical, excessively burdensome, or ineffective.

"Now we have a disempowered government, risk-averse, and with no boldness."

"People say that they don't want choices made by governments, but I would rather have 300 specialists making these often largely technical choices than 300 million non-specialists. The desire to be green has launched a lot of expenditure, and most of it is wasted, for example on hybrids. The necessary knowledge is not there. The policies we have are not addressing the issues."

"People think youth and the public are apathetic. They are not. They are interested in issues and active; they are just not interested in the formal system of politics."

"We need to get the public engaged. Most are unaware of the issue or not engaged."

"The danger we face is radical policies that don't work. I am not worried about abrupt climate change, but about abrupt climate policy."

4. Shaping the way forward: a few tensions and challenges

How do we get from here to there? Throughout the conversations, a few points emerge—tensions between different views of how we need to proceed, or challenges to resolve and integrate these views. In this note, we highlight six of these.

I. Aspirational targets versus feasible, effective actions that can be implemented.

Many speakers pointed out that Canada has had many grand targets and declarations about what we will do on climate change—some no doubt opportunistic and less than fully honest, some sincere and naïve. At the same time, Canada has had little or no concrete actions that make real contributions and smooth the path toward these large and distant goals. At the same time, those who are trying to make progress are encountering millions of trivial institutional bottlenecks.

It's easy to resolve this dilemma in theory, by saying we need moderate actions and goals immediately, leading to more ambitious goals in the long term—but this doesn't answer the key practical question, which is how to connect these so the near-term actions take us where we need to go. Many speakers address one side or the other of this problem, but we still need to put it together. Some find a moral imperative in acting rapidly, others note all the factors that make rapid changes costly and destructive—if even possible. Many speakers express discouragement about the ability of present action to solve the problem, and refer to "youth"—either a next generation of citizens who, if appropriately educated, will see solutions or be able to take actions that today's decision-makers cannot; or a new generation of innovators, kids in garages somewhere, who will find the technological solutions that make hard choices less necessary. Others find this an abdication of our responsibilities today. They note that we can't be confident that if we fail to make progress on the problem, we would leave the next generation of citizens anything other than worse off, facing the same or harder problems in 20, 30, or 50 years. And no one knows who those future kids in garages are, or what they will be doing: if we choose to gamble on leaving the problem to them—and it is a gamble—the best we can do now is try to create conditions that will motivate and facilitate their success.

2. Wishful thinking versus despair in the face of a hard problem.

Many comments suggest a dichotomy in speakers between despair and wishful thinking. Many speakers express despair at the gravity "There is optimism that we will find a way, but there is no reason for optimism at the moment. Technologies may be a false hope."

"We have to decide whether, as a first step, we want real small reductions or fake big ones."

"What I've learned is that most of the time the real bottlenecks are lack of skills and support mechanisms and templates for action. We face multiple trivial institutional barriers and nobody is tasked with dealing with these. What we need is a multi-pronged institutional, legal, financial, skills development front. The 3E Initiative needs to understand the challenge of implementation."

"So the second inconvenient truth is that we are presently not capable of implementing the necessary transition."

"Does the public understand the implications and costs of action to combat climate change?"

and difficulty of the climate-change issue and the scale of consequences at stake. But many also make comments suggesting either a belief or a hope that the problem could actually turn out to be easy—for example, if we experience strong technological progress, or if the public could be made to understand the gravity of the issue, or if people were willing to embrace sacrifice (or alternative, to revise their perception of changes in consumption so they do are not perceived as sacrifice, but as something desirable). Some of the most extreme of these comments suggest a belief that there are solutions to the issue in which everyone wins—either that such solutions are already before us, or that we could readily find them if we were just smart enough and public-spirited enough. Other comments suggest a recognition of the wide uncertainties technical and social, even more than scientific—that characterize the issue: a recognition that technological innovation and sensible policy might make managing the issue turn out to be cheap and

"The way to make progress on climate change is not by talking about costs: costs of compliance or costs of government action. The only way to make progress is to talk about and work on the opportunities."

"The way forward is not to scare people, but to help them see that the life can be better with greater relatedness and competency and autonomy. We have to find a way to talk about changes in lifestyle without triggering a "sacrifice frame." We have to switch from focusing on what people have to give up to focusing on how we can get something we want"

3. Get beyond partisanship, or exploit it?

Nearly all speakers say that addressing the climate-change issue requires getting beyond partisanship, but a few express potentially conflicting views. They note that there is a strongly adversarial character in the line-up of interests at stake in the climate-change issue, and that divisiveness increases the likelihood of effective action by keeping the issue in the public eye and bringing pressure on governments to act: if it were otherwise, the issue would fall off public agendas, no matter how important its resolution is for the future of Canada.

"Governments keep changing, and where does it leave us? Why can't being clean become a non-partisan, cross-party truism in Canada? We have to make climate change and environment a real Canadian value."

"We need to have people contributing their personal rather than institutional perspectives. Ideally the process should be multi-partisan: it will release a lot of energy. Partisan framings hamper altruism. If it is partisan I will not attend."

"This issue is very divisive. This is good, because it keeps it visible. If we lose the divisiveness, it loses its newsworthiness."

4. Leadership within Canada: authority versus consultation and consensus-building

Many speakers perceive themselves and their peers as highly constrained to act in solving the problem. Business perceives they can't do much without public policy, but does not trust politicians to make sensible policy. Government perceives they can't do much without an aroused citizenry, and at least passive acquiescence to changes from business and industry. In this context, many speakers express a longing for an authoritative decision process that somehow takes the issue out of the political arena. Some express this as the need for a "benign dictator;" others express a more

"We get nowhere by trying to impose solutions; it didn't work with prohibition and it didn't work with cigarettes. We won't get anywhere on climate change until people see it as in their own economic interest."

"We will not get enough clarity or consensus in public opinion. We need policies to be imposed. I am more comfortable having the detailed policy choices, many of them primarily technical, made by 300 experts than by 300 million non-experts."

limited vision, as the need to place key policy choices for climate change in the hands of a "central bank." Unfortunately, no speaker trusts any real politician or official they know to be that dictator (and to truly be, and remain, benign and competent). Nor does anyone proposing a central bank model identify the specific, technical policy decisions—analogous to the monetary policy levers that are delegated to central banks—that would have the breadth and power to solve the problem, yet be sufficiently well-defined, circumscribed, and technical that they could be delegated to a technical body without giving that body effective control over all public policy. One intriguing possibility might be that once a nationwide system of emission taxes or tradable permits is established, the subsequent decisions regarding changes to the tax rate (with appropriate lead time and in-built provisions for maintaining overall revenue neutrality), or adjustments to the number of permits, could be delegated to such a technical body.

5. Canadian leadership in the world: everyone wants it, but what does it mean?

Everyone who spoke explicitly about Canada's position in world affairs said they wanted Canada to re-establish a position of international environmental leadership. There were, however, wideranging views about what "Canadian leadership" means: simply participating in and advocating international solutions, or serving as a neutral convener for international processes? If leadership just means these, then it is cheap and easy—but does not necessarily contribute much to solving the problem. Alternatively, does Canadian leadership mean spending real resources to generate good ideas, or accepting real costs in taking action, even moving ahead of others?

"It's better to consult with people and then do otherwise than to do what people want without consulting them."

'The basic politics of the Canadian situation is the power of the people who want to deal with the climate change problem against the power of the oil and gas and coal and especially the oil sands interests. And the economic power of these present interests is much larger than the power of dispersed future interests."

"It is impossible to have real conservation in a democracy! What is needed is a benevolent dictator—globally, and in Canada."

"People don't change when they have to, they change when you make them. Something nasty has to happen to get real progress on this."

"A Canadian 'Climate Czar' could put forward codes and standards without being politically tied down. The process of making decisions would not be political, and the operation would be independent, like the Bank of Canada."

"We need a Royal Commission, to figure out a revenue-neutral carbon tax on a personal, provincial, and corporate level."

"Canadian leadership can add something to the wider world. I'm ashamed of my country's disengagement from international leadership. This is at odds with our conception of ourselves as good guys. There is a story here that can work. What could we do in Canada? We could join with California and others in the CAFE standards. We could radically improve the energy efficiency of the oil sands. We could get away from coal for electricity, using hydro and nuclear. We could develop alternative low-carbon fuels."

"The smarter politicians will realize that there are a lot of no regrets options, and that not all the nations of the world have to act at the same time."

There is a stark tension between those who advocate strong, substantive Canadian leadership and those who worry about aggressive policies impairing Canada's competitive position, especially vis-à-vis the United States. At its simplest level, this tension can be uninformative, a collision of the competing debating points "Canada must lead," and "Canada cannot lead if it impoverishes us." Perhaps a more promising re-framing of this tension is to characterize it in terms of a willingness to accept risks: Canadian leadership in climate change policy clearly does carry risks, but the actual consequences of these are uncertain, depending on how bets on specific innovations turn out, how market conditions develop, and—crucially—what emissions policies are taken by Canada's major trading partners. Under some of these conditions, the risks of international leadership can be small or can turn to significant advantages: under others, early leadership gets punished. Moreover, there are also risks of international non-leadership, particularly when living beside as large and volatile a trading partner as the US: the risks to Canada of being caught flat-footed by a rapid pivot of US climate-change policy in two or three years, designed to pass much of the burden through to America's trading partners, could well be larger than any risks associated with getting out in front. Here, as on other aspects of the issue, Canadian policy and decisions need to consider uncertainty.

6. Climate change and social transformation: the possibility of conscious social choice.

For many speakers, how Canada responds to the climate-change issue is a choice that touches many other aspects of society, a fork in the road where we choose between fundamentally different visions of society. Some speakers welcome this, in part because they see the choices leading to effective management of climate change as also promoting a better and more just society—for some speakers, a society that re-affirms old social values they feel have been lost; others reject this vast framing of the choices about climate change, in part because they fear that coupling the climate-change issue to the revolutionary transformation of society would ensure that no progress could be made on the climate-change issue.

"Right now, early actions are so far ahead of the game, they are going to be punished. We've already addressed the low-hanging fruit. Our baseline is lower to start. If I have a Prius and the other guy has an SUV, are we going to have to make equal reductions? If I pay five cents, will the world be better off, or will the other guy just ride my coat-tails?"

"China and other countries could quickly offset all the gains that Canada achieves."

'It's a tragedy of the commons, so Canada must work on getting others engaged."

"What Canada does on its own is pretty irrelevant in terms of global reductions— Canada's total emissions are less than China's increases each year—but Canadian action can be significant in terms of innovation."

"Canadians want everything—they just want their neighbours to pay for it. Everyone is self interested; everyone wants more for less. I think we are getting worse: good old Canadian values are disappearing."

'Lots of folks think climate change cannot be solved in conventional terms, and want to use the issue to re-tool our whole way of living, moving beyond capitalism to some Zen-like, post-industrial society. Climate change is to first order a problem of changing the energy system, of which a lot—maybe not all—can be achieved through technological changes alone. I do not want to tie solving climate change to a revolutionary transformation of industrial society. This is not because I don't sometimes wish for such a social transformation: it's because I really care about solving the climate change problem."

How have we as a Canadian society achieved what we wanted to so far? It didn't happen by accident, it happened by design. There was a deliberateness of creating a Canadian culture. There was a conscious moment when we said, "what kind of place do we want to live in?"

Environmentalists don't have an interest in solving environmental problems. They worry about the environment, of course, but they also want complete social re-engineering. Solving environmental problems would obstruct their larger mission, and moreover put them out of a job.

5. But what can this group accomplish? Objectives for the 3E Initiative.

Facing such rich diversity of insights and views as provided by the speakers, it is not obvious how to take the next step and identify what concrete initiatives such a group might undertake to contribute to solving the problem. One tempting response is to seek a grand synthesis of speakers' theories and proposals, of the form "these ideas all seem partly true, it's probably some combination of them", or "these actions all sound helpful, so let's do everything." For an action-oriented project such as this one, such a grand, theoretical synthesis might not be especially useful. As an early step, participants in this project need to decide what they can do that is likely to be most useful. One way to harness the richness of ideas presented in service of this objective might be to ask how do we identify key points of leverage? In view of these, are there ways forward that appear to be especially promising ways to deploy the limited time and energy that the people involved in the project can deploy?

Speakers engaged this question in some detail, proposing several alternative models of what the 3E Initiative could aspire to achieve and what the associated requirements and agenda would be. In this note, we gather the multiple proposals into four closely related clusters. These are not intended to be mutually exclusive alternative choices: hybrids or blends of them are possible, of course.

I. Agree principles

Seek agreement on a set of principles that should guide a Canadian climate-change strategy. Adopt, or modify as needed, the principles articulated in the recent Chief Executives' statement. But don't let statements of principle get unmoored from obligations for real action: if you stay at the level of principle, there is lots of room for hypocrisy.

'The 3E Initiative can be like the CCCE report or the Roundtable. It can be another place to forge common ground. It can support agendas that are already put forward. It should be familiar with the work of these groups and support them. It doesn't need to come up with another agenda. We already got businesspeople and put together a plan for building a winning economy that would be good for Canada. 3E should build on that platform."

"Start with high level principles, then move on to implementation. Get to the synopsis of the solutions then get into the problem and really roll-up your sleeves and get into it. This will take more than one shot! The recent report on climate change from the Canadian Council of CEOs is a good place to start. "

"The CCCE report was not widely admired. It wasn't the statement that was bad, it was the inconsistency of some of the companies involved—with their behaviour, and with what they were saying as recently as one month earlier. There's a lot of pious hypocrisy in that report."

"My concern is that this will be the same people having the same old conversation. The conversation has been restricted to policy wonks. We NGO people are wired for arrogance and rigidity. We say, "I'm right and everyone else is wrong.""

"There is a real danger of us being simply another lobby group. This is not useful."

"An industry consensus on this would tip things politically. The obstacle is the Suzukis, who are ideologically unwilling to deal with the means because they are so focused on the ends. We are now beyond awareness-raising and into the means. At the recent CCCE meeting, one of the CEOs asked rhetorically how many people believe that climate change was real, and he was astounded when 80% of the people there raised their hands."

'I want to join with others. We have to make this a political movement. People are waiting for leadership. I know how to lead from behind. What I would love to see happen is a broad, political, nonpartisan understanding that this is a damn serious problem. I think we need to paint a picture of what a scenario of a seriously low-carbon economy would look like. There will be winners as well as losers in this industrial revolution. We have to give it teeth and color, then to make it happen."

"Done right, this process could create more permissions for governments and the economy to act."

2. Elite consensus on strategy

Start the process of building a consensus, principally among relevant elites, on the broad strategy Canada should follow in addressing this issue. This should not consider every detail of policy or action, but rather should develop a strategic framework that would provide a chance of effectively addressing the problem. This consensus-building should take place outside the political process, and should aim to having the consensus so widely and strongly held among the groups that matter that politicians have to act on it. Speakers find real promise for developing such a consensus, because all sides on the issue now realize they area going to have to change what they have been doing. Environmental groups know that they cannot win

on this issue by protesting from outside; corporates know that they cannot just wish, or stonewall, this one away.

"The role of 3E is to say individually and collectively to the government to get things in place. We should offer recommendations to the government and support the uptake of these ideas in different industry sectors."

"When I started working on environment and climate change it was seen in this company strictly as a damage control exercise. But it is moving closer to the center of the business."

"This is no longer about the politics of protest. We environmentalists have to be a bit more sophisticated."

"Always being in opposition, just talking about bad things you are against, wears you down and is not a viable long-term strategy. Companies are not all bad guys, it is not black and white. There is a maturation process that comes with the need to accomplish things, not just saying "I did my best and failed nobly." The free market is very powerful, creative and motivational force. People no longer just think you can regulate the bad guy and get what you want. People want environment and economy. They are tired of rhetoric, and are willing to make some sacrifice—if they are confident it will work, and they're not the only ones making the sacrifice."

"We've been through several failed "executive forum" exercises, from which nothing has happened. In each case, we spent a lot of time and energy for nothing. These initiatives are usually all talk and no action. The movement, in other sectors and in government, has been glacial. Government sends mixed signals, because they're not yet convinced the public cares, so they figure they don't have to do anything about it. But when we do put out a concrete proposal or initiative—it's attack, attack, attack."

"My environmental activism has focused on getting business to understand what needs to be done, and giving them a pat on the back when they do it. But this goes against the old-school environmental activism approach."

"Climate change is now one of the two critical national debates. This presents us with lots of opportunities. The issue is moving into the mainstream, and so environmental organizations no longer own or can control this issue. For me, this is both liberating and terrifying: it's like being a parent and watching your kids leave home."

"We need to hang on to, or perhaps re-discover, our capacity to suspend disbelief."

"We need to build a big surfboard, and wait for the wave."

3. Strategic Planning, Contingency Planning, and Policy Analysis

The capacity for strategic thinking, contingency planning, and policy analysis on this issue in Canada has been greatly weakened over the past ten years. The project should conduct exercises that seek to expand the set of options under consideration, clarify the requirements for an effective Canadian climate-change strategy, and assess the associated costs and benefits, risks, and potential pitfalls. For example, the project might conduct exercises in developing scenarios of Canadian emissions that consider uncertainties, or exercises that assume a stringent mitigation goal and work through the requirements, challenges, and pitfalls of getting there.

"Why don't we assume that we have an agreement on a mitigation goal. Then we can talk about what it would take implement this goal. If we could agree on an aspiration, then how would we do it? What will the step be to achieving these goals? That's where the benefits will be found."

"There is a problem with the current government. There is no practice thinking through large changes and how they affect all government levels -- both political and bureaucratic. The public service used to have good procedures for exploring impacts of large policy changes, but now the bureaucrats are very afraid. The elected government is very controlling. No minister can make a speech without the Prime Minister's office approving. There is also not much preplanning, it is getting more and more centrally driven—any process to change policy would have to get the green light from the Privy Council. All three sectors energy, environment, economy, are all suspicious of government interference. There has not been good public policy leadership in these areas. If something is going to happen. It is going to come from a process like this."

4. Identify initial action steps—build toward a capability to cut a deal

Identify specific, near-term actions that can help lead to a solution. Put the emphasis particularly on actions and decisions that are within the capability of the participants in the project. More

"The key is to get beyond "we see something needs to be done" and just get on with it."

"The right place to start is to work with the people who see the win-win. But in order to make change you need "zero-sum" people. The project must include people from the oil patch."

ambitiously, aim to expand participation of key players until the group is able to cut a deal.

"There has to be some sort of multiplier effect—something that self-replicates. There needs to be something viral."

"Maybe we would make more progress if the environmentalists were not in the room."

"Many industry players are prepared to move off the status quo, if they are protected from some of the downside—if they can pass through some of the costs or get some compensation from governments. It's a matter of how much of this they need, and from what point they'll count on the market to take care of the rest. Calgary needs its own pied piper. We don't need a lot of finger wagging environmentalists."

"The broad outlines of a deal that could work in Canada are pretty clear. You can only expect the West to suffer higher carbon prices if you give them something back. One obvious tool to do this is to work with the transfer payments."

This synthesis of the interviews of the participants in the 3E Initiative sets the stage for the first meeting of the Initiative.