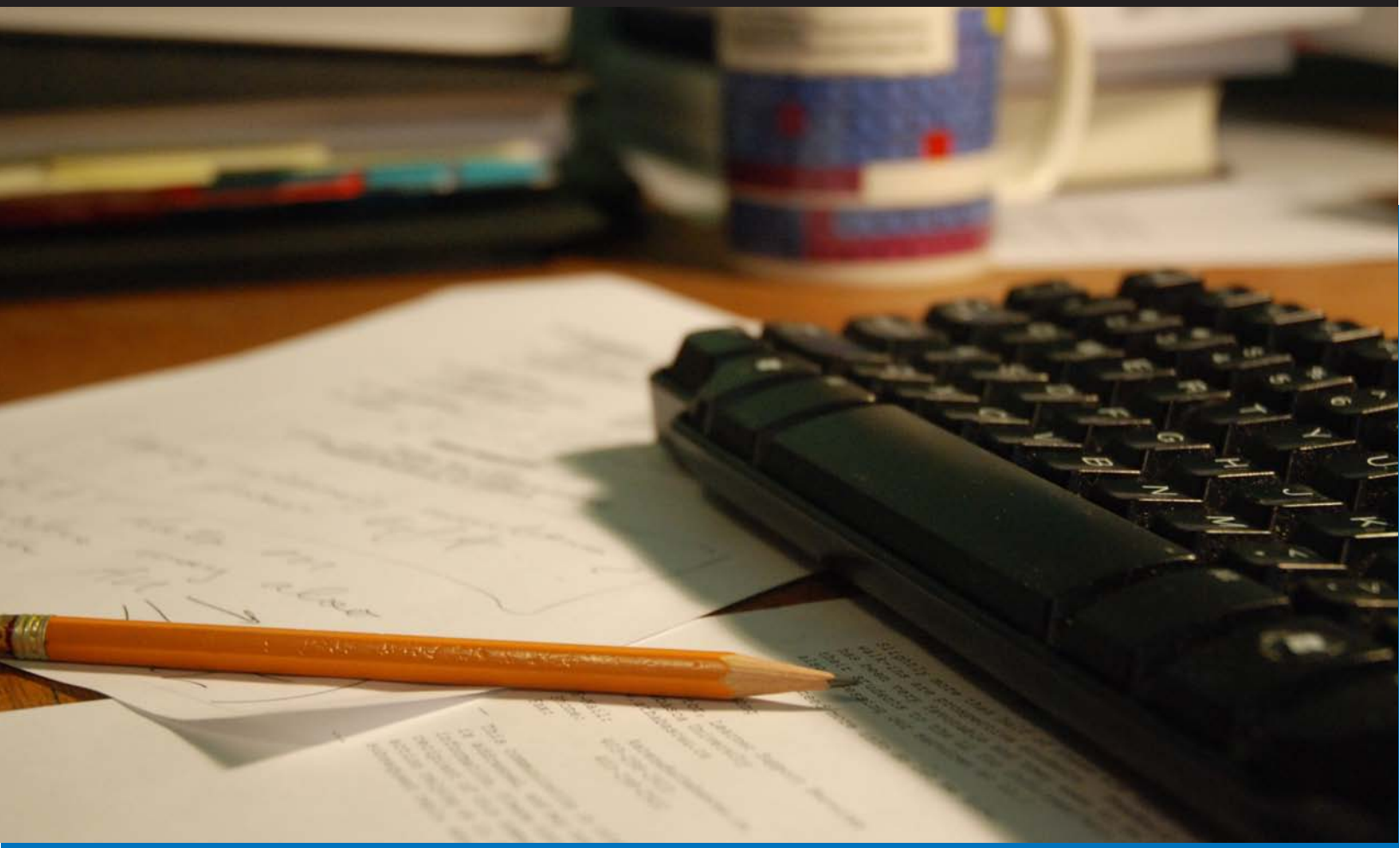
McALLISTER opinion research

The 2010 Global Thought Leader Survey on Sustainability

SUMMARY REPORT



the PEMBINA institute

25 years of Sustainable Energy Solutions

The 2010 Global Thought Leader Survey on Sustainability

Climate Change, Sustainable Energy, Green Economics and Oil Sands

May 2010

Commissioned by

the PEMBINA institute
Sustainable Energy Solutions

Conducted by

MCALLISTER opinion research

The 2010 Global Thought Leader Survey on Sustainability

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About the Pembina Institute

The Pembina Institute is a national non-profit think tank that advances sustainable energy solutions through research, education, consulting and advocacy. It promotes environmental, social and economic sustainability in the public interest by developing practical solutions for communities, individuals, governments and businesses. The Pembina Institute provides policy research leadership and education on climate change, energy issues, green economics, energy efficiency and conservation, renewable energy, and environmental governance. For more information about the Pembina Institute, visit www.pembina.org or contact info@pembina.org. Our engaging monthly newsletter offers insights into the Pembina Institute's projects and activities, and highlights recent news and publications. Subscribe to Pembina eNews: http://www.pembina.org/enews/subscribe.

Overview

While the views of the public on sustainable energy are well-documented, there have been few comprehensive or authoritative attempts made to assess the perspectives of leading government officials, experts and professionals who work in this area. To this end, the Pembina Institute has undertaken the *2010 Global Thought Leader Survey*, one of the largest surveys of sustainability thought leaders ever completed.

More than 5,000 thought leaders holding positions in government, academia, industry, institutions and non-profit organizations completed the survey. While the survey focused primarily on Canada, a limited number of expert respondents were also surveyed in the United States and Europe to allow for comparison.

The survey featured a core set of sustainability-related questions plus four specialized sections (outlined below). Respondents selected which specialized section to undertake based on their primary area of interest.

- Climate Change
- Sustainable Energy
- Green Economics
- Oil Sands

Pembina commissioned McAllister Opinion Research, a professional ESOMAR-approved research firm to help design and field the study.

The 2010 Global Thought Leader Survey on Sustainability

Methodology

The results of this study are based on online survey interviews completed by 5,109 thought leaders holding positions in respected government, academic, industry, institutional and non-profit organizations in Canada, the United States and Europe.

The panel list was compiled from public domain directories of expertise within major institutions in Canada, and supplemented with lists from United States and Europe for the sake of providing context and comparison. Respondents in this survey were selected on the basis of the following criteria: executives, manager, professionals, experts or academics working in a wide range of areas relevant to the issues surveyed, including:

- Economic & Industrial development
- Energy & Natural Resources
- Environment, Health & Safety
- Finance & Investment
- Food, Agriculture & Fisheries
- Municipal Affairs & Planning
- Science, Engineering & Technology
- Transportation & Infrastructure

The study was fielded online over a period of approximately 12 weeks. A preliminary or pre-test wave of email invitations was sent out December 9 to 31, 2009, followed by the main wave of invitations and reminders, sent January 4 through February 28, 2010.

The survey panel members are considered representative of the expert populations contacted, although not strictly a random sample. As a point of comparison for estimating survey accuracy, a random sample of 5,109 respondents would have a margin of error of ±1.2 per cent, 19 times out of 20.

The sample size for each region, and the margin of error at a confidence level of 19 times out of 20, were:

Canada	(n=4,282)	±1.3%
USA	(n=601)	±3.9%
Europe	(n=227)	±6.5%

The survey elicited a very high degree of respondent engagement. The Core Section of the survey was completed by 91 per cent (5,109) of 5,682 respondents who clicked the survey invitation link. Another 4,831 (86%) respondents also fully completed one of the four specialized focus sections, selected according to respondents' self-defined main interest areas.

NOTE: Unless otherwise indicated, all numbers in charts are percentages.

1. Profile of Thought Leaders

The 2010 Global Thought Leader Survey on Sustainability was completed by more than 5,000 government officials, experts and professionals holding positions at respected organizations in Canada, the United States and Europe.

The online survey elicited a response from a very large number of thought leaders who hold positions at respected organizations across Canada, the United States, and Europe. The majority of respondents were from Canada (n=4,293), while interviews were also completed in the US (n=601) and Europe (n=215) for purposes of comparison.

Overall 59 per cent (n=2,989) of respondents work with government. Most government respondents worked in federal agencies, although officials from levels of government ranging from regional to local are represented.

Respondent Profile: Country

		%
Canada	n= 4,293	84
USA	n= 601	12
Europe	n= 215	4

Nearly 28 per cent (n=1,410) of respondents are academics with major universities, primarily professors of various rankings, although some graduate students are also included. Respondents in the United States and Europe are most likely to be academic experts, while the majority in Canada are government officials who are experts or professionals.

Six per cent (n=327) of respondents are from the private sector, while four per cent (n=215) are with non-profit groups and three per cent (n=168) are with institutions or other organizations.

Respondent Profile: Sector

	% Canada	% USA	% Europe	% Total
Government	68	7	13	59
Academia	20	78	47	28
Private Sector	7	4	9	6
Non-Profit	3	7	13	4
Institution/Other	2	5	19	3

Approximately one quarter of those surveyed are in leadership positions as heads of organizations, executives or managers. Seven per cent (n=358) are heads of organizations or executives (e.g. Deputy Minister, CEO, ED, Chair, SVP, VP), and 16 per cent (n=837) are managers (e.g. Director, Manager).

Just over three quarters of respondents hold positions related to knowledge and expertise. Forty-eight per cent (n=2436) describe themselves as experts, while 29 per cent (1,478) are knowledge (eg. policy analyst, lawyer) or operational professionals (e.g. engineer).

Current Position

	% Canada	% USA	% Europe	% Total
Head of Organization (e.g., CEO, DM, ED)	4	4	10	4
Executive (e.g., SVP,VP, ADM)	3	3	2	3
Management (e.g., Director, Manager)	18	7	13	16
Expert (e.g., Professor, Scientist, Researcher)	42	81	60	48
Professional/Operations (e.g., Analyst, Lawyer, Engineer)	33	6	15	29

2. Global Leadership

Thought leaders say climate change, renewable energy and water should be the top priorities for decision-makers over the next decade.

Thought leaders were asked to name what they feel should be the top three priorities of world leaders moving forward over the next decade. The top issue across all regions is climate change with 43 per cent of respondents naming the issue unaided as a top priority. Renewable energy ranked second at 36 per cent and water issues ranked third at 25 per cent.

Also mentioned as top priorities for the next decade are environment (20%), economy (16%), food issues (12%), poverty (12%), health (11%), population (11%) and education (7%)[1].

Canadian thought leaders ranked climate change as the top priority for decision-makers (44%), followed by renewable energy (42%) and water issues (26%).

Thought leaders in the US ranked renewable energy as the top priority (48%), followed by climate change (32%) and water issues (23%).

In Europe the top issue was climate change (43%), followed by renewable energy (36%) and poverty (23%).

Top Global Priorities for the Next Decade[2]

Many different issues will impact our world in coming years. In your personal opinion, what should be the TOP 3 PRIORITIES of world leaders moving forward over the next decade? [UNAIDED – Up to three mentions]

[1] Note that totals add up to more than 100 per cent because each respondent can provide three responses each with a potential frequency of 100 per cent.

[2] In the text cloud above, word size represents frequency of occurence.

3. Environmental Performance

Canada receives the poorest grades from its government officials, academics and professionals for national performance on a range of sustainability issues.

Asked to rate their own country's performance at addressing climate change, more than three in four (77%) Canadian thought leaders rate their country as poor or very poor. Canadian thought leaders across all sectors share the same negative assessment of their country's performance. A similar number (76%) of American thought leaders rate their country's efforts at addressing climate change as poor or very poor. Americans however are far less likely than Canadians to rate their own country as doing very poorly (40% versus 29%). Unlike Canada, American thought leaders in industry are at odds with their colleagues in government and academia, with less than half (48%) rating American performance as poor. Just 55 per cent of European thought leaders rate their countries' efforts at addressing climate change as poor or very poor. Europeans are far less critical of their performance on climate change than Canadians and Americans, each of whom rate addressing climate change as the area in which their nation performs the worst.

When it comes to developing a clean, "green" economy, 75 per cent of Canadian thought leaders rate Canada as doing a poor or very poor job, compared to 69 per cent in the US and 68 per cent in Europe. Moreover, Canadians are significantly more likely to rate their country as doing a very poor job (28%), compared to American (16%) and European (18%) thought leaders.

Two in three (68%) Canadian government officials, experts and professionals surveyed rate Canada's performance on expanding renewable energy as poor or very poor. Nearly as many Americans (67%) and fewer Europeans (58%) rate their own countries as doing a poor or very poor job.

Just over half (51%) of Canadians say Canada does a poor or very poor job on protecting natural ecosystems, compared to 43 per cent of Americans and 40 per cent of Europeans. In fact, a narrow majority of Americans and Europeans say that their countries are doing at least an adequate job on this issue.

Exactly 50 per cent of Canadian thought leaders say that their country is doing a poor or very poor job on protecting fresh water, while 39 per cent of Americans share this view of their country. Just over one in three (35%) Europeans rate their country as doing poorly. Again, a majority of Americans and Europeans rate their country as doing at least an adequate job.

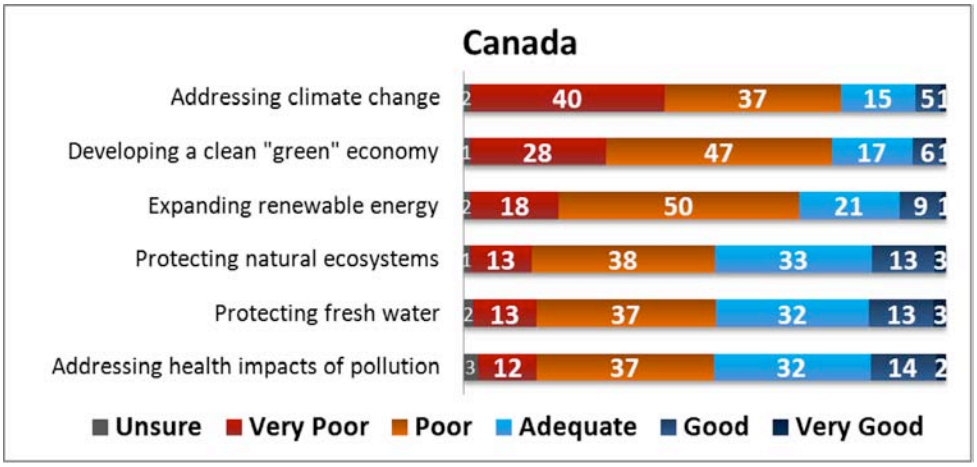
Addressing the health impacts of pollution is the only area in which less than a majority (49%) of Canadians rate their country poorly. Among American thought leaders, the comparable number is 40 per cent, while among Europeans it is 43 per cent.

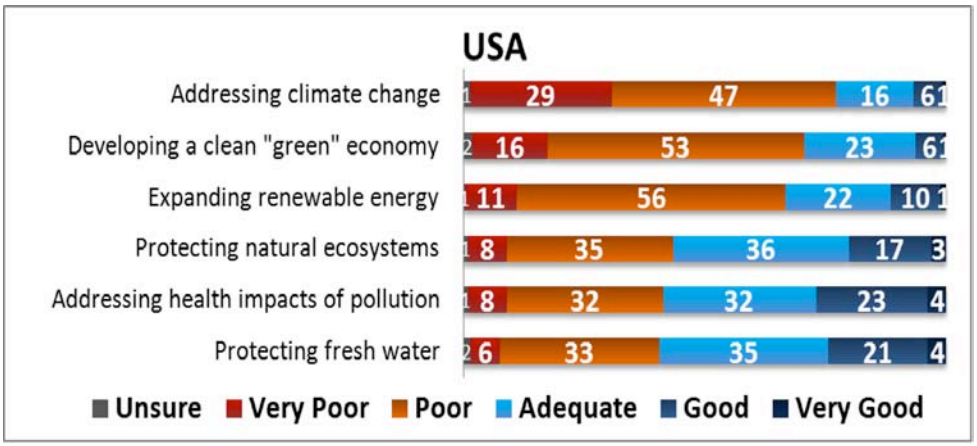
General Conclusion

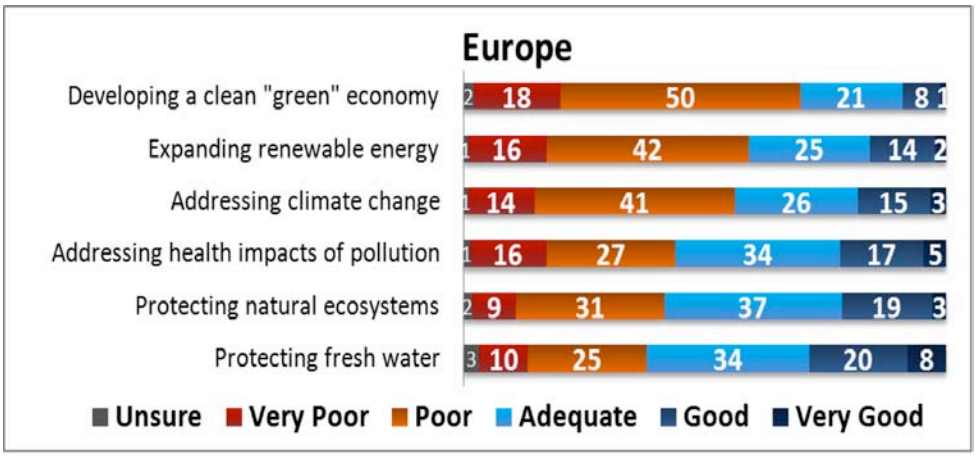
Canadian thought leaders could not give Canada passing marks in any of the categories, while Americans and Europeans gave their countries at least a pass in protecting national ecosystems, addressing the health impacts of pollution and protecting fresh water.

Rating National Environmental Performance

Thinking of the global context, what is your overall IMPRESSION of your country's current performance on the following…







4. Overall Sustainability Ratings

Americans rate themselves as performing poorly on sustainability — a conclusion Canadians and Europeans are more than willing to agree with.

When it comes to achieving energy and environmental sustainability, thought leaders are the most critical of China's performance. Nearly nine in 10 (87%) Canadians and Americans give China a poor or terrible rating, compared to 76 per cent of Europeans.

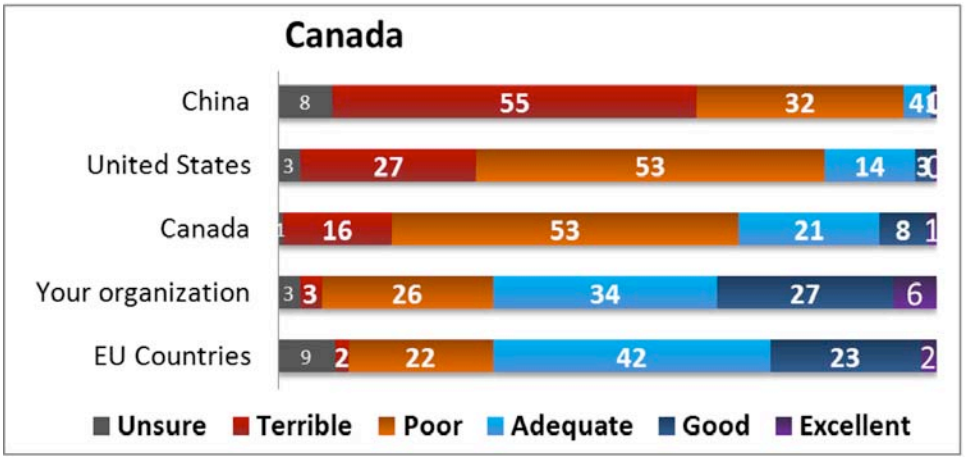
The United States is rated as somewhat better than China by Canadians and Americans, but slightly worse than China by Europeans. Three in four American thought leaders (75%) rate the performance of their own country in achieving sustainability as poor or terrible. Canadian and European thought leaders appear willing to concur. Eight in 10 (80%) Canadians and Europeans (79%) rate the United States performance as poor or terrible, with more of an emphasis on terrible. More than one quarter (27%) per cent of Canadians and 35 per cent of Europeans rate United States performance at achieving sustainability as terrible, compared to just 16 per cent of Americans.

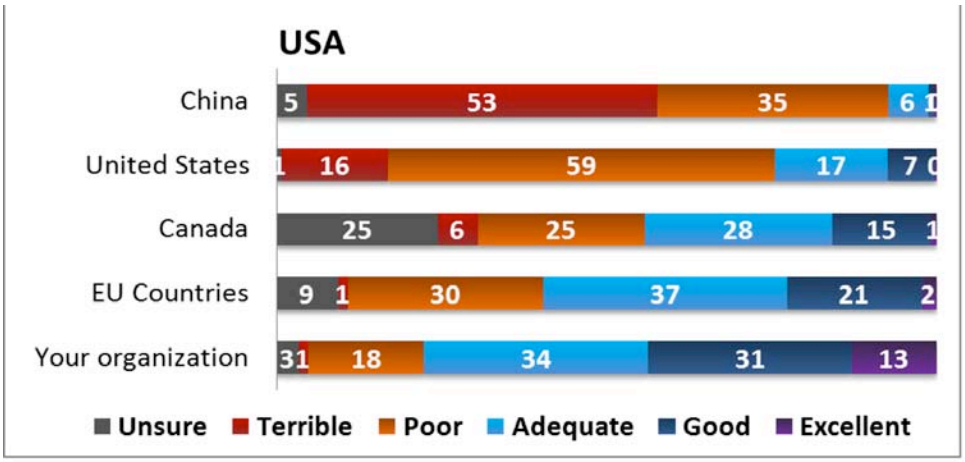
In contrast to the United States, Canada and China, EU countries are rated by majorities in all regions as performing at least adequately in achieving sustainability. Two in three (67%) Canadians and nearly as many European thought leaders (63%) rate EU countries as performing at least adequately, while slightly fewer (59%) Americans concur. Less than a quarter (24%) of Canadians rate EU countries as poor or terrible, while this view is shared by three in 10 Europeans (32%) and Americans (31%).

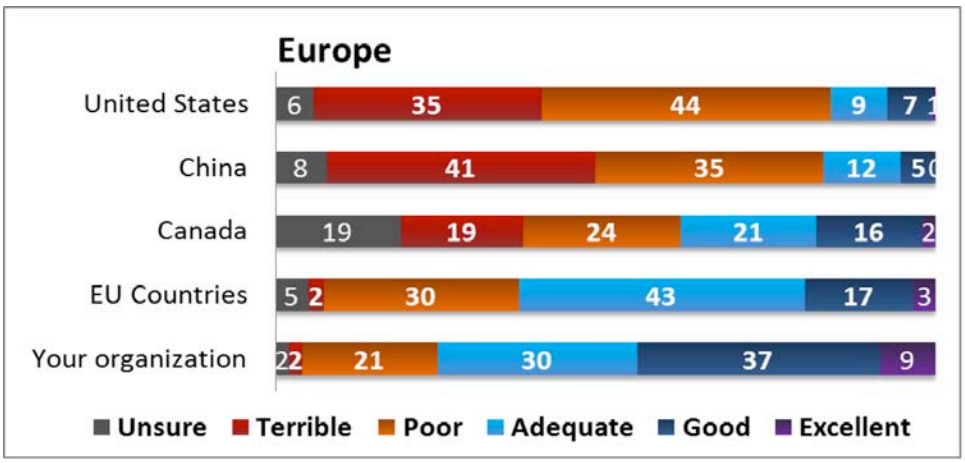
Thought leaders are the most likely to rate the organizations in which they work in positive terms. Two in three (67%) Canadian thought leaders view their own organizations as doing at least an adequate job on sustainability, while this sentiment is shared by 78 per cent of Americans and 76 per cent of Europeans. Twenty-nine per cent of Canadians, 23 per cent of Europeans and 19 per cent of Americans rate the organization in which they hold a position as terrible or poor.

Performance in Achieving Sustainability

Sustainability has been defined as "…development that meets the needs of the present without compromising the ability of future generations to meet their own." Generally speaking, how would you rate the performance of the following towards achieving energy and environmental "sustainability".







5. Sustainable Energy Solutions[3]

Asked about clean energy solutions, thought leaders everywhere rate energy efficiency as the top solution, while carbon capture and storage (CCS) and nuclear power are at the bottom of the list.

Increased energy efficiency is ranked as having the highest potential to achieve a sustainable future in all regions, according to results from Canada (60%), the United States (68%) and Europe (72%).

In Canada, majorities also give high potential ratings to sustainable community design (57%), education and communication (55%) and renewable energy (55%). Just under half give a high potential rating to standards and regulations (49%) and fiscal incentives (42%). Thirty-eight per cent rate price signals (such as a carbon tax) as having high potential. Meanwhile just 17 per cent see high potential in nuclear power, and seven per cent say the same of coal-powered electricity generation using carbon capture and sequestration (also known as carbon capture and storage, or CCS).

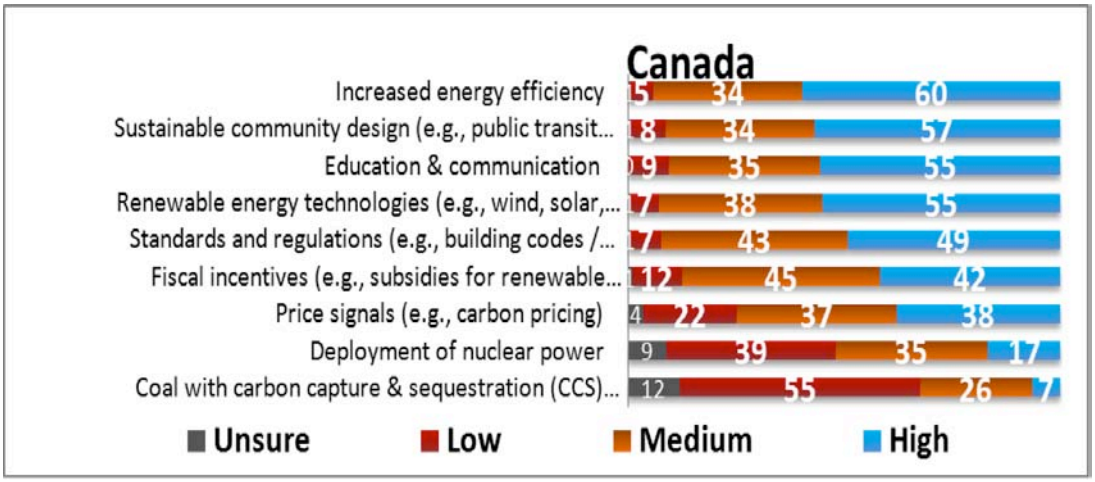
In the United States, a majority (63%) also sees education and communications as having highest potential, followed by renewable technologies (61%) and sustainable community design (51%). Somewhat less than one in two rate stardards and regulations (63%), fiscal incentives (44%), and price signals (40%) as having high potential. Deployment of nuclear power (22%) and coal with carbon capture and storage (11%) are rated lowest.

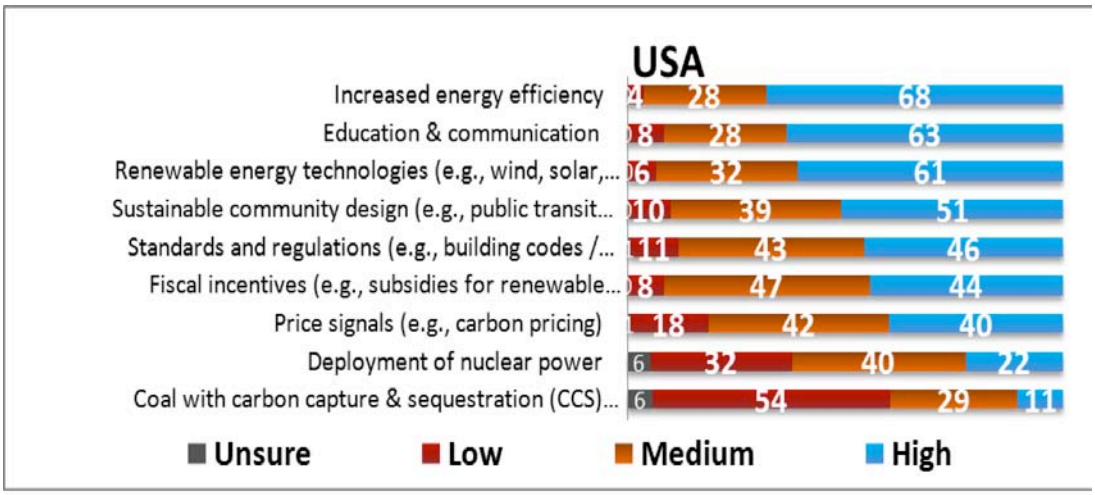
In Europe, renewable energy (64%) is seen by a majority to have the next highest potential after energy efficiency, followed by sustainable community design (58%), standards and regulations (58%), education and communication (56%) and fiscal incentives (52%). Slighter fewer than half see price signals (45%) as having high potential. As with Canada and the United States, few Europeans see coal with carbon capture and sequestration (11%) or deployment of nuclear power (9%) as having high potential to help achieve a sustainable energy future.

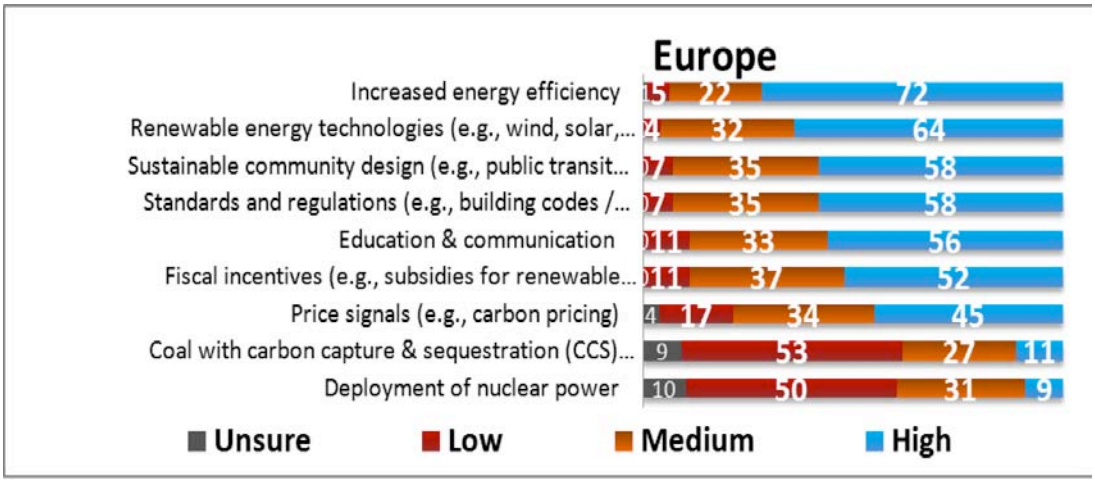
[3] Sections 5-7 are based on data from the sustainable energy section of the survey with a subsample of n=2,101

Rating the Potential of Sustainable Energy Solutions

There are many proposed solutions to achieving a sustainable energy future, each with pros and cons. Please rate the POTENTIAL of each of the following…







6. Achieving Sustainable Energy

Thought leaders give poor ratings to their own countries for dependence on fossil fuels and carbon pricing.

Majorities in all regions give poor or terrible ratings to nearly all aspects of their own efforts to achieve sustainable energy. Canadian (84%), American (86%) and European (73%) thought leaders are most likely to give poor or terrible ratings to their countries' national performance in reducing dependence on fossil fuels.

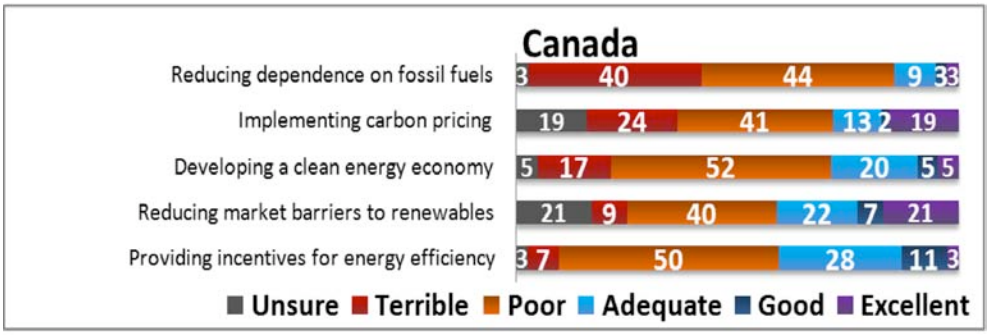
Americans are less impressed with their country's performance at implementing carbon pricing (71% poor or terrible) than Canadians (65% poor or terrible) and Europeans (63% poor or terrible). Canadians are more likely (69%) to give poor or terrible marks to their country on developing a clean energy economy than are Europeans (65%) and Americans (60%).

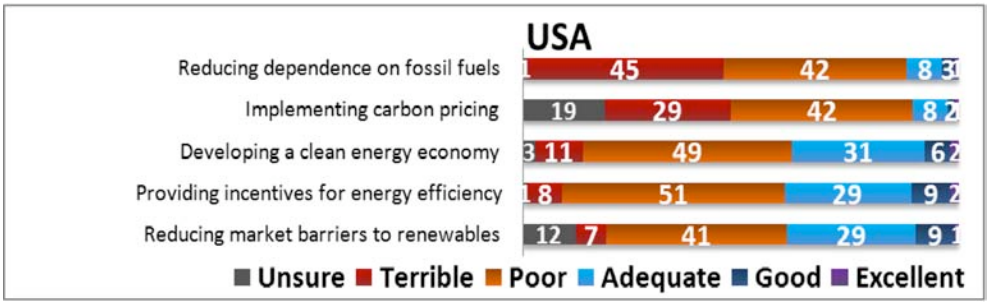
Europeans are most likely to say their countries are doing a poor or terrible job (63%) at providing market incentives for energy efficiency, compared to Americans (59%) and Canadians (57%).

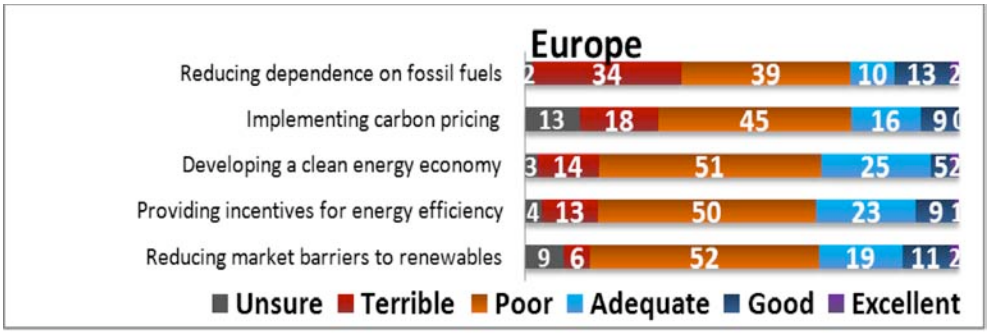
While a majority of Europeans give poor or terrible ratings to their countries (58%) on reducing market barriers to renewables, just under half of Canadians (49%) and Americans (48%) share this view.

Achieving Sustainable Energy

Thinking of the international context, please RATE your overall impression of your country's performance as a nation on the following aspects of achieving sustainable energy…







7. Implementing Sustainable Energy Solutions

Federal government leadership is seen as the key factor affecting implementation of sustainable energy solutions by a majority of thought leaders in all regions.

Asked to identify the most important factor affecting implementation of sustainable energy solutions, respondents in each of Canada (69%), Europe (66%) and the US (65%) pointed to federal leadership as most important. In Canada, provincial leadership is rated second most important (46%), however in Europe (31%) and the United States (25%) it is ranked lower, respectively in fourth and fifth place.

The support of the general public in Europe (44%) and the United States (49%) is deemed to be second most important, whereas in Canada public support (40%) is fourth most important. In the United States, the cost of sustainable energy technologies (49%) is tied in second place (with public support), whereas in Europe (40%) and Canada (42%) cost ranks third.

Overall readiness of technologies seen as most important by 40 per cent of Americans and just 30 per cent of Canadians and 20 per cent of Europeans. Community resources, municipal leadership, confidence of investors and "not in my backyard" (NIMBY) concerns are seen as key factors by one in four or fewer respondents.

Key Factors Affecting Implementation of Sustainable Energy Solutions

Here is a list of factors affecting the implementation of sustainable energy solutions. In your opinion, what are the most important? [AIDED – Up to three mentions]

	% Canada	% USA	% Europe	% Total
Federal leadership	69	65	66	68
Provincial/State/Regional leadership	46	25	31	43
Costs of sustainable energy technologies	42	49	40	43
Support of the general public	40	49	44	42
Readiness of technologies	30	40	20	31
Community resources (e.g., knowledge & money)	18	23	25	18
Municipal leadership	15	8	14	15
Confidence of investors	13	19	25	14
"Not in my backyard" (NIMBY) concerns	10	11	13	11

8. Rating Climate Change Solutions[4]

Thought leaders rate energy efficiency and renewable energy as having the most potential to address climate change, while carbon capture and storage (CCS) is deemed to have the least potential.

When asked to rate the solutions with the highest potential to address climate change, a majority of Canadian thought leaders first point to energy efficiency (62%), followed by renewable energy (56%).

About one third of Canadian respondents point to absolute greenhouse gas (GHG) emissions reduction (35%) and binding international agreements (30%) as the climate change solutions with the most potential, while just over one quarter point to establishing large-scale protected areas as refugia and carbon reserves (28%), economy-wide cabon pricing (26%), financial support for climate action in developing countries (24%), and financial support for low-carbon technologies (24%).

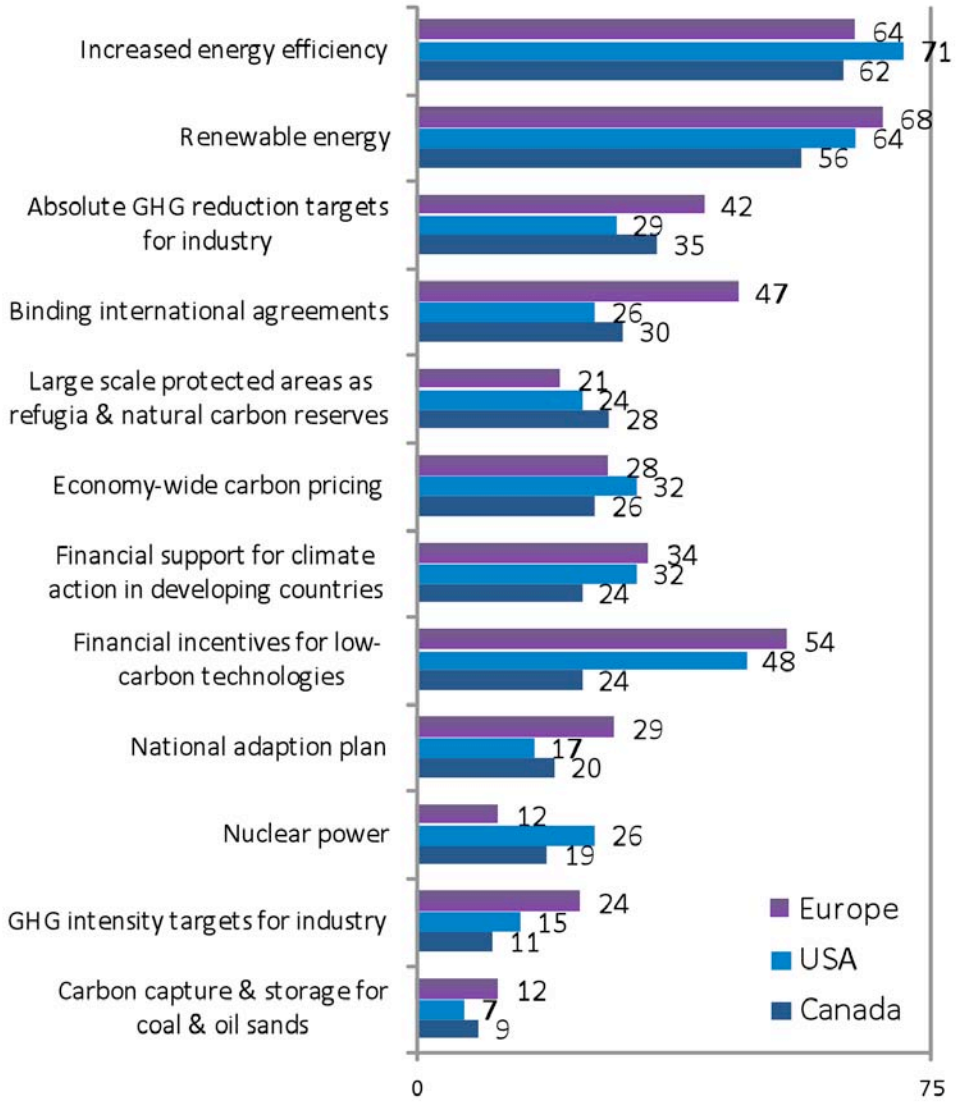
One fifth or fewer point to a national adaptation plan (20%), nuclear power (19%), GHG intensity targets for industry (11%), and carbon capture and storage for coal and the oil sands (9%).

Rankings by American and European thought leaders are largely similar to those in Canada, with the exeception that both American (54%) and European (48%) thought leaders are far more likely than Canadians (24%) to say that financial incentives for low-carbon technologies have high potential. Moreover, European thought leaders are far more likely to say that binding international agreements have high potential (47%), and they're also significantly more likely (42%) than Canadian (35%) and American (29%) thought leaders to say that absolute GHG targets have high potential.

[4] Sections 8-11 are based on data from the climate section of the survey with subsample of n=2,315

Rating Solutions for Climate Change "High Potential"

There are many proposed approaches to addressing climate change, each with pros & cons. Please rate your overall impression of the POTENTIAL of each of the following:



9. Rating National Climate Initiatives

Europeans rate their climate leadership, climate commitments and efforts at creating natural protected areas as adequate or better, while they appear split or undecided in their assessment of other initiatives. In contrast, Canadians and Americans generally rate their countries' climate initiatives as terrible or poor, except when it comes to the creation of natural protected areas.

The one climate measure which on balance elicits a positive assessment from Canadian thought leaders is the creation of natural protected areas,where 48 per cent say that implementation is adequate or better, and just 44 per cent say poor or terrible.

While slightly over half of Canadian thought leaders rate Canada as poor or terrible at providing incentives for energy efficiency (54%), a significant number also rate efforts as adequate or better (39%). One in two say that Canada has done a poor or terrible job of reducing market barriers to the deployment of renewable energy technologies (50%) and providing financial support for climate action in developing countries (49%).

The majority of Canadian thought leaders give poor or terrible marks to Canada when it comes to international climate commitments (83%), leadership on climate issues (82%), reducing GHG emissions (77%), science-based emissions reduction targets (73%) and incentives for low carbon technologies (60%). A majority also rate efforts at pricing carbon (58%) as poor or terrible.

A majority of American thought leaders rate US efforts to create natural protected areas as adequate or better (66%). Respondents tend towards the negative when it comes to rating efforts at reducing market barriers to renewable energy generation (48% poor or terrible), incentives for energy efficiency (52% poor or terrible), and incentives for low-carbon technologies (54% poor or terrible). However, in each of these cases, a segment of at least one third see efforts as adequate or better.

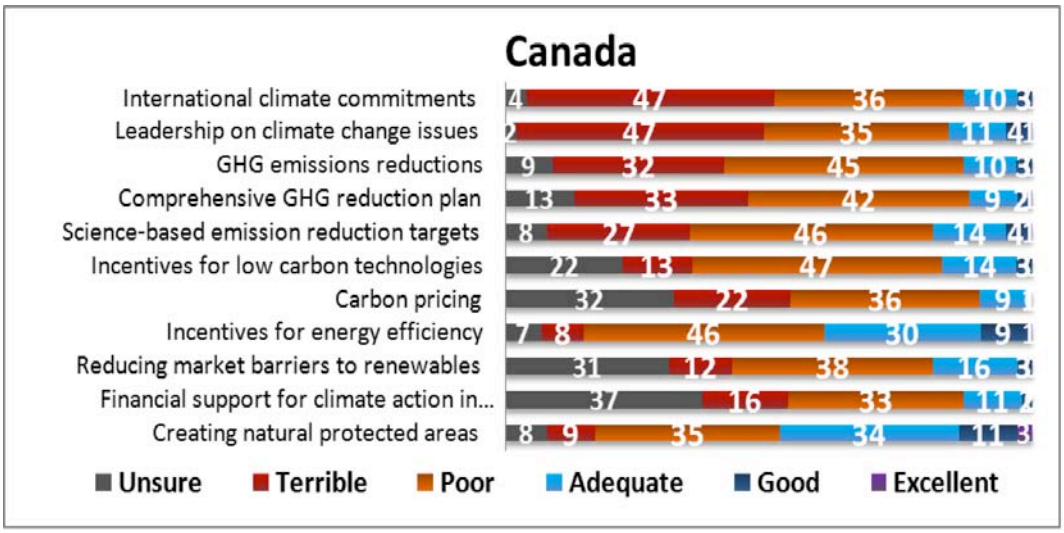
On all other US climate initiatives, the negative ratings outweigh the positive by more than two to one. A strong majority of American thought leaders give poor or terrible ratings to their country on financial support for climate action in developing countries (56%), carbon pricing (62%), science-based emissions reduction targets (69%), leadership on climate issues (70%), GHG emissions reductions (73%), a comprehensive GHG reduction plan (75%), and international climate commitments (81%).

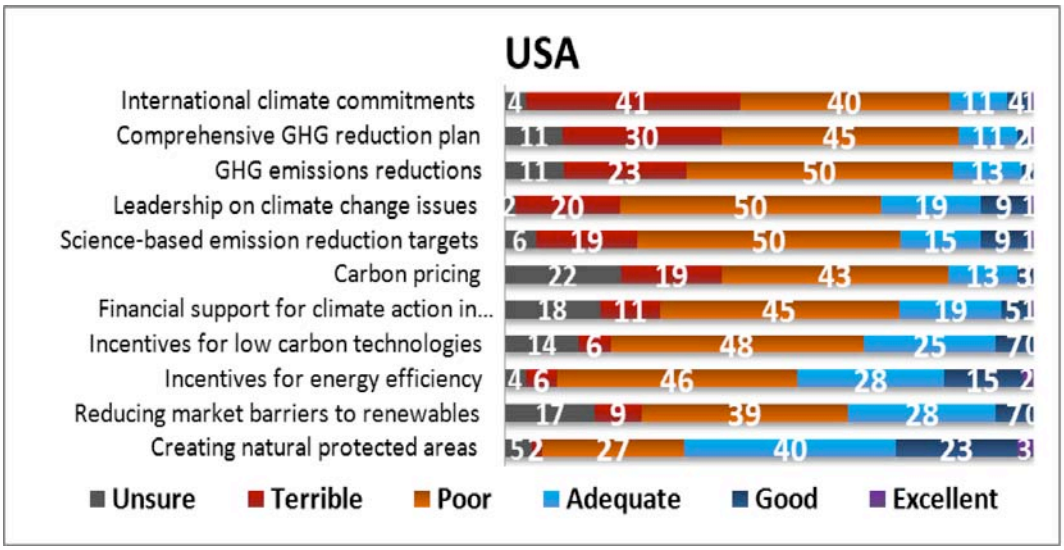
The majority of European thought leaders rate European performance as adequate or better when it comes to international climate commitments (64%), leadership on climate (58%) and creating protected areas (55%). Many give a rating of adequate or better to efforts such as financial support for climate action in developing countries (41%), science-based emission reduction targets (40%), comprehensive GHG reduction plans (39%), and GHG emissions reductions (39%); however these positive assessments are offset by an equivalent number of poor or terrible

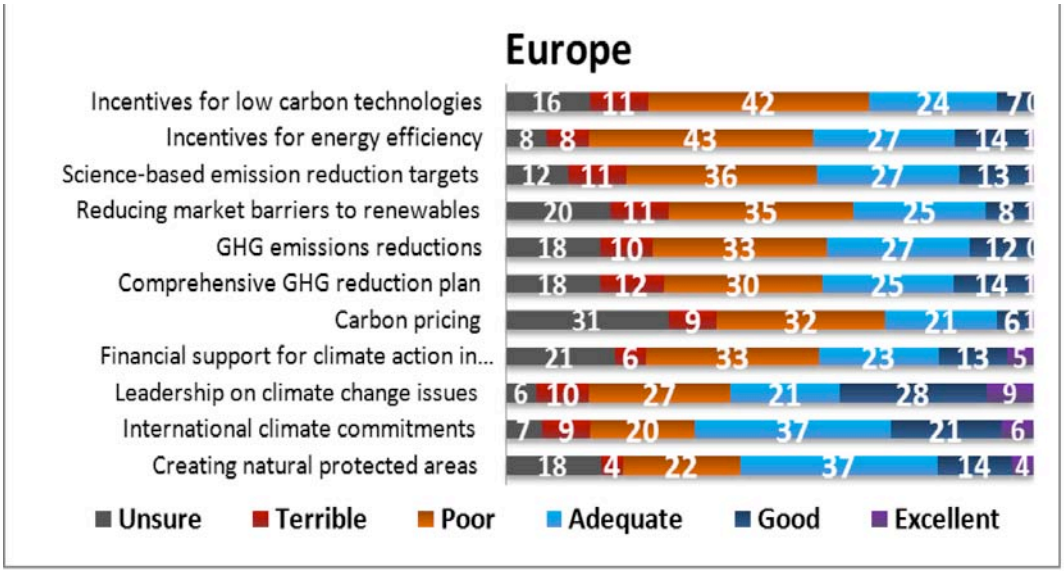
ratings. On European carbon pricing efforts, poor and terrible ratings (41%) outweigh adequate or better ratings (27%). A majority of European thought leaders rate European efforts as poor or terrible when it comes to providing incentives for energy efficiency (51%) and low carbon technologies (53%).

Rating National Climate Initiatives

Thinking of the international context, please RATE your overall impression of your country's performance as a nation on implementing the following measures to combat climate change…






Europe
Incentives for low carbon technologies
Incentives for energy efficiency
Science-based emission reduction targets
Reducing market barriers to renewables
GHG emissions reductions
Comprehensive GHG reduction plan
Carbon pricing
Financial support for climate action in...
Leadership on climate change issues
International climate commitments
Creating natural protected areas
16 11 42 24 7
8 8 43 27 14 1
12 11 36 27 13 1
20 11 35 25 8 1
18 10 33 27 12
18 12 30 25 14 1
31 9 32 21 6
21 6 33 23 13 5
6 10 27 21 28 9
7 9 20 37 21 6
18 4 22 37 14 4
Unsure
Terrible
Poor
Adequate
Good
Excellent

10. Outcome of Copenhagen Climate Conference

The terms used most frequently to describe the outcome of the Copenhagen Climate Conference in December 2009 are "disappointing" and "failure".

Asked to share their view of the outcome of the Copenhagen Climate Conference in December 2009, 42 per cent of thought leaders offered negative assessments. The most common negative terms used were "disappointing" (14%), "failure"(7%) and "waste" (5%).

Positive assessments were far less evident, amounting to just under 12 per cent. The most common positive assessments were "hopeful" (5%) and "promising" (2%).

Other themes evident in the comments were less evidently positive or negative, tending towards an assessment of the challenges to success, the need to move forward or technicalities in the process.

Thought Leader Assessment of Copenhagen[5]

From December 7 to 18, 2009, the nations of the world were at the UN Climate Conference (COP15) in Copenhagen, negotiating a new global treaty to tackle climate change. In a sentence or two, what is your assessment of the outcome of this meeting? UNAIDED.

[5] In the text cloud above, word size represents frequency of occurence.

11. Achieving Climate Progress

Thought leaders in all regions surveyed view national leadership, international leadership, and public pressure for action as the three most important factors affecting progress on climate change.

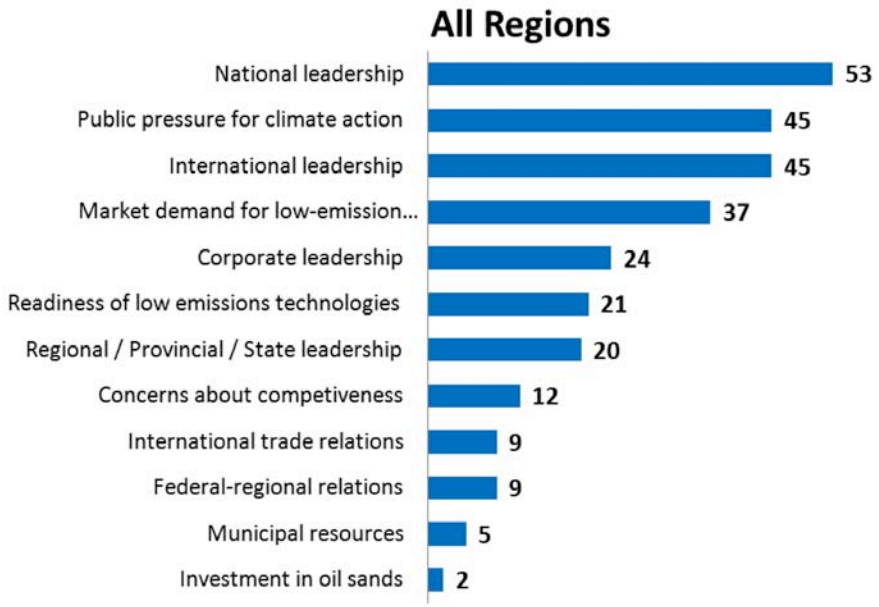
When thought leaders are asked to identify the three most important factors in achieving progress on climate change, the top choices are national leadership (53%), international leadership (45%) and public pressure for climate action (45%). Canadian and American thought leaders are most likely to focus on national leadership, while Europeans are more likely to focus on international leadership.

Market demand for low-emissions technologies is considered a key factor by 37 per cent, while corporate leadership is mentioned by 24 per cent. Readiness of low-emissions technologies is mentioned by 21 per cent and regional, state or provincial leadership is mentioned by 20 per cent. Canadian thought leaders are more likely to mention regional, state or provincial leadership than others.

Just 12 per cent point to concerns about international competitiveness as a key factor, while less than 10 per cent mention international trade relations (9%), federal-regional relations (9%), municipal resources (5%) and investment in oil sands (2%). Canadian thought leaders are no more likely than others to mention oil sands investment as an issue.

Most Important Factors Affecting Climate Progress

Below is a list of factors affecting progress on climate change. In your opinion, what are the MOST IMPORTANT to achieving progress on climate change? [Select up to 3]



12. Achieving a Green Economy[6]

While Canadian thought leaders view cutting subsidies to dirty energy as having the most potential for greening the economy, Americans and Europeans are far more focused on green infrastructure investment.

Asked to assess various approaches to greening the economy as high, medium or low potential, American (82%) and European (77%) thought leaders are, by far, most likely to rate green infrastructure investment as high potential. In comparison, green infrastructure investment is rated as high potential by just over half of Canadians (58%).

In the view of Canadian thought leaders, cutting subsidies to polluting or dirty forms of energy has the highest potential (58%). One in two (50%) Americans and just 31 per cent of Europeans concur.

Job training and retraining (e.g. clean technology and green energy) are also rated as high potential by a majority of Americans (55%), just under one in two Europeans (46%), and only 31 per cent of Canadians.

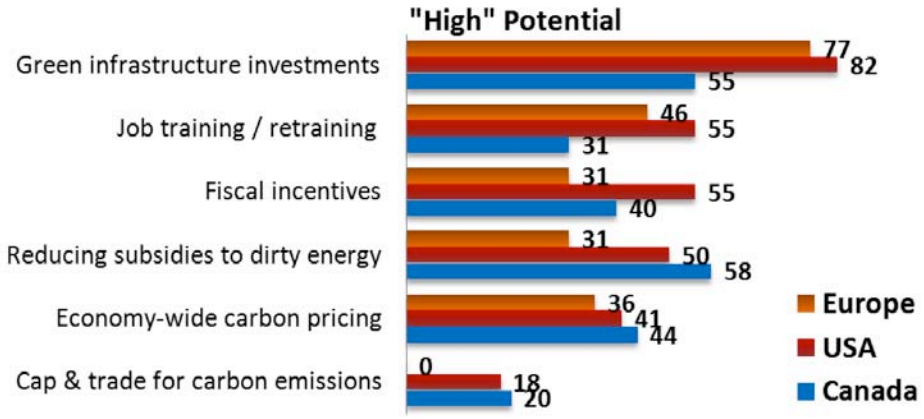
A majority of Americans (55%) rated fiscal incentives (e.g., renewable energy subsidies and consumer rebates) as having high potential, while again fewer Canadians (40%) and Europeans (31%) concurred. Economy-wide carbon pricing was rated highly by 44 per cent of Canadian thought leaders, while fewer Americans (41%) and Europeans (36%) shared this view.

Of all approaches, cap-and-trade for carbon emissions is the approach least likely to be seen having potential for achieving a green economy with no Europeans and just 18 per cent of Americans and 20 per cent of Canadians seeing it as high potential.

[6] Sections 11-15 are based on data from the Green Ecomomy section of the survey with subsample of n=290. As sample size is limited, regional breakouts are not shown, except in sections 12 and 15 where the numbers are meant to impart emphasis.

Best Approaches to Greening the Economy

There are many approaches to achieving a green economy, each with pros and cons. Please rate your overall impression of the POTENTIAL of…



13. National Progress on Greening the Economy

Thought leaders are most critical of their countries' progress at full-cost accounting and implementing carbon pricing, while they are most supportive of efforts to encourage energy efficiency.

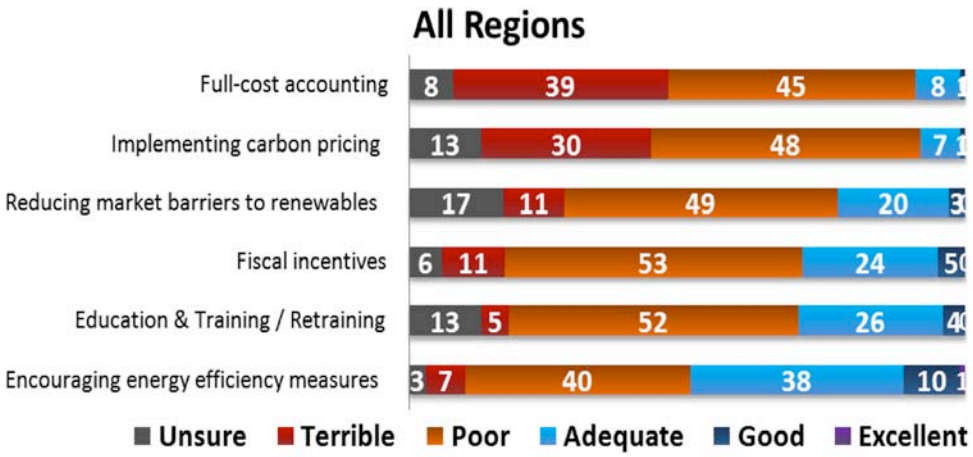
In all regions surveyed, thought leaders are critical of progress at implementing measures to green the economy. A majority of thought leaders in all regions rate progress at implementing full-cost accounting for social, environmental and economic factors (84%), carbon pricing (78%) and fiscal incentives (64%) as poor or terrible.

Significant majorities in all regions also rated efforts to reduce market barriers to the deployment of renewables (60%) and education, training and retraining (57%) as poor or terrible.

The one area in which negative ratings did not outweigh the positive is in encouraging energy efficiency, where 49 per cent say that progress is adequate or better, while 47 per cent say that progress is poor or terrible.

Rating National Progress on Greening the Economy

Thinking of the international context, please provide your overall impression of your country's PROGRESS as a nation on implementing the following aspects of greening the economy…



14. Key Factors in Achieving a Green Economy

Thought leaders rate federal leadership, public support and corporate leadership as the most important factors in achieving a green economy.

According to thought leaders in all regions, the top three factors affecting the greening of the economy are federal leadership (63%), support of the general public (49%) and leadership from the corporate sector (41%).

Fewer see provincial leadership (30%), readiness of technologies (29%) and and federal and provincial leadership (24%) as key. The factors least likely to be seen as important in greening the economy are international trade relationships (19%), confidence of investors (18%) and human resource capacity (9%).

Most Important in Greening the Economy

Below is a list of factors affecting the greening of the economy. In your opinion, what are the most important? [Select up to 3]

15. Attitudes Toward Carbon Pricing

A strong majority of thought leaders across all economies say that a carbon tax, or a carbon tax with cap-and-trade, is the best approach to reducing greenhouse gas emissions. Almost none view cap-and-trade alone as the best solution.

On the use of a carbon tax versus a cap-and-trade system as a tool to reduce greenhouse gas emissions, two in three (67%) thought leaders across all regions recommend implementing a carbon tax either alone (27%) or with a cap-and-trade system (40%).

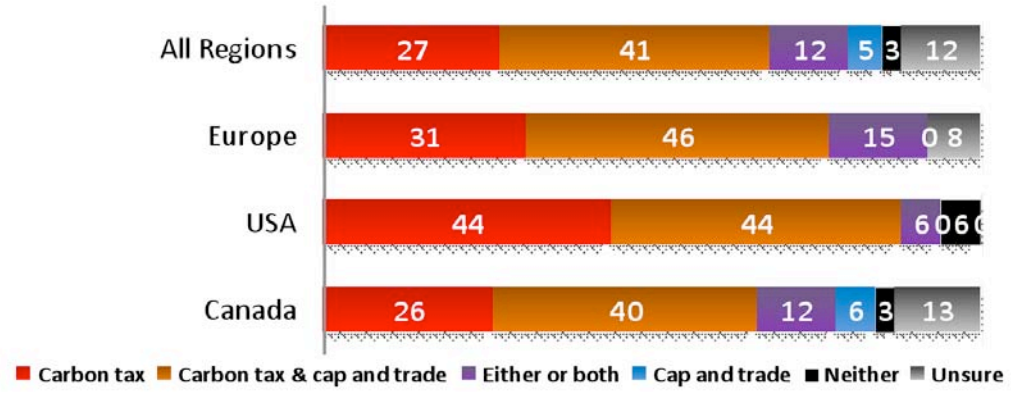
Americans and Europeans are more enthusiastic than Canadians about implementing a carbon tax in some form. Another 12 per cent overall say that either a carbon tax or cap-and-trade, or both, would work.

Perhaps surprisingly, few thought leaders (5%) recommend cap-and-trade alone. Virtually no Europeans or Americans express enthusiasm for that solution; the few advocates are found in Canada.

Just three per cent of the respondents thought that neither soluton is needed.

Carbon Tax vs. Cap-and-Trade?

A carbon tax and cap-and-trade are market approaches to reducing greenhouse gas emissions that have been proposed in Canada, the United States and Europe. In your opinion, which of the following would work best?



16. Solutions to Environmental Impacts of Oil Sands Development[7]

Establishing regional environmental thresholds is the highest rated solution to reducing the environmental impacts of oil sands, while voluntary commitments, carbon capture and storage (CCS) and low-carbon fuel standards are viewed as having the least potential.

Asked to rate solutions to oil sands environmental impacts as high, medium or low potential, thought leaders give highest ratings to establishing regional thresholds for environmental impacts (32%). A similar proportion of respondents give high ratings to requiring the best available technologies to reduce air pollution (31%), prohibiting water withdrawals during low-flow periods (29%) and carbon pricing (28%).

One in four (25%) give high ratings to prohibiting tailings ponds and the creation of liquid mine wastes, and just 16 per cent rate voluntary commitments from companies as high.

The solutions that are least likely to be rated as having high potential are carbon capture and storage (13%) and low-carbon fuel standards (12%).

Solutions to Oil Sands Environmental Impacts

The oil sands are being developed in Canada's Boreal forest. Below are some proposed solutions to reduce the environmental impacts of oil sands development. Please tell us your overall impression of the POTENTIAL of each…

Canada	"High" Potential
Regional environmental thresholds within which development can occur	32
Require best available technologies to reduce air emissions	31
Prohibit water withdrawals during low-flow periods	29
Carbon pricing	28
Prohibit tailings ponds & creation of liquid mine wastes	25
Voluntary commitments from companies to reduce environmental impacts	16
Carbon capture & storage (CCS) technology within oil sands	13
Low carbon fuel standards	12

[7] Sections 16-19 are based on data from the Oil Sands section of the survey with subsample of n=125. Only Canadian respondents completed this section of the survey.

17. Progress by Canada on Oil Sands Development[8]

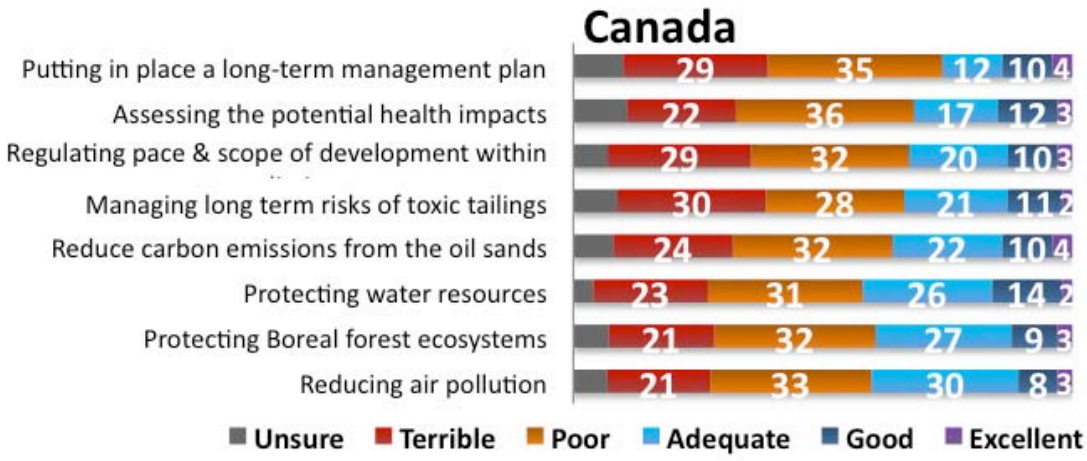
The majority of thought leaders surveyed see very little progress in managing the impacts of oil sands development, rating progress in all areas as poor or terrible.

Asked to rate progress on oil sands development, respondents are most likely to give poor or terrible ratings to progress on putting in place a long-term management plan (64%), regulating the pace and scope of development (61%), assessing the potential health impacts (58%), and manageing the long term risks of toxic tailings (58%). For each of these aspects of oil sands development, about one third or half as many agree that progress is adequate.

A majority also give poor or terrible ratings to progress on reducing carbon emissions from the oil sands (56%), protecting water resources (54%), protecting Boreal forest ecosystems (53%) and reducing air pollution (54%). On each of these items, about two in five agree that progress is adequate.

Rating Progress in Managing Oil Sands Development

Please rate your overall impression of PROGRESS by Canada on the following aspects of oil sands development.



[8] Sections 16-19 are based on data from the Oil Sands section of the survey with subsample of n=125. Only Canadian respondents completed this section of the survey.

18. Reducing the Impacts of Oil Sands Development

Canadian thought leaders identify leadership from the federal and Alberta governments as the most important missing ingredients in reducing the impacts of the oil sands.

Asked about the most important factors in reducing the impacts of the Canadian oil sands, thought leadersare most likely to pick leadership from Alberta (57%) and leadership from the Canadian federal government (46%), followed by scientific knowledge (46%).

Another one in three (34%) picked public pressure, while one in four (25%) pointed to corporate leadership. One in five (21%) pointed to laws and agreements affecting markets outside Canada, while just one in 10 selected readiness of technologies (10%) and confidence of investors (10%).

Key Factors in Reducing Impacts of Oil Sands

Below is a list of factors affecting oil sands development. In your opinion, what are the most important in reducing the impacts of the Canadian oil sands? [Select up to 3]

Canada	% Total
Leadership from Alberta	57
Leadership from the Canadian federal government	46
Scientific knowledge	45
Public pressure	34
Corporate leadership	25
Laws & agreements affecting markets outside Canada	21
Readiness of technologies	10
Confidence of investors	10

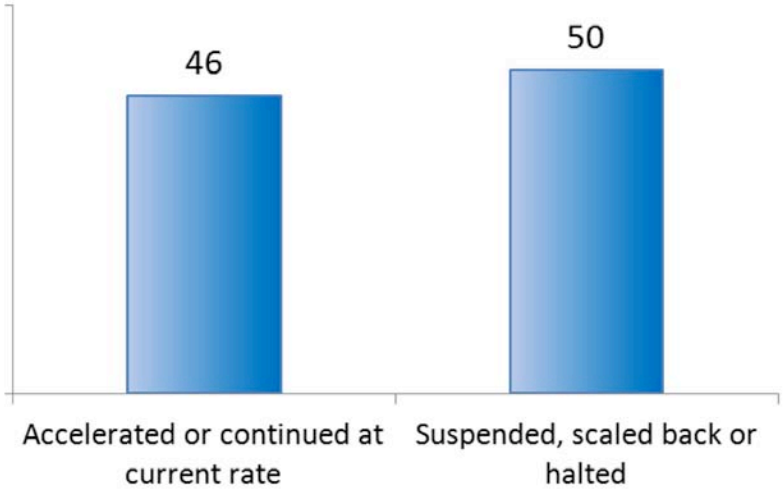
19. Pace of Future Oil Sands Development

Just over half of respondents think oil sands approvals should be suspended, scaled back or halted, while 46 per cent think they should be accelerated or continued at the current rate.

The Canadian thought leaders surveyed are split on whether Canadian oil sands development ought to be suspended, scaled back or halted permanently (50%), or accelerated or continued at the same rate (46%).

Should Approvals for New Oil Sands Developments be…?

In your opinion, should government APPROVALS for NEW oil sands developments in Canada be…?



20. Final Observations

The majority of more than 5,000 senior officials, experts and professionals polled in Canada, the United States and Europe rate progress on climate and sustainable energy issues as unequivocably poor or terrible.

Thought leaders are also critical of the progress made to date toward greening the economy and managing the impacts of the Canadian oil sands.

There is strong interest in advancing economic policies like incentives for low-carbon technologies, infrastructure investments and eliminating subsidies for dirty energy. A carbon tax, either alone or in combination with cap-and-trade, is seen as an effective tool, whereas very few endorse cap-and-trade alone.

Thought leaders across all regions point to national and international leadership, in addition to lack of public pressure for action, as the most significant barrier to progress on sustainable energy issues.

Comments at the end of the survey suggest that there is a strong appetite among thought leaders for meaningful engagement on sustainable energy issues.