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# 2019 Clean Energy Canada B.C. Focus Groups

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*By McAllister Opinion Research*

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*McAllister is an accredited member of ESOMAR, the international professional body  
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## RESEARCH METHODOLOGY

In May 2019, Clean Energy Canada contracted McAllister Opinion Research to conduct a series of focus groups in British Columbia clean energy issues. Six 2-hour gender-separated focus groups were conducted in Vancouver, Surrey and Kamloops over the evenings of May 14, 15 and 16.

Specifically, the focus groups were designed to provide insight into:

- (1) how well *clean energy sympathetic audiences* understand the issue of clean energy in Canada,
- (2) what obstacles might *impede support* for clean energy policy, and
- (3) how advocates might make clean energy policy *a vote determining issue* in the face of the ongoing counter-campaign orchestrated by the fossil fuel industry and their allies.

Focus group participants were recruited from BC citizens aged of 25 to 54, who reported ‘always’ or ‘nearly always’ voting in provincial or federal elections. Participants were further screened for:

- Belief that anthropogenic climate change is occurring,
- Willingness to consider at least one political party that supports progressive clean energy policy, and,
- Identification of climate change as either ‘very important’ or ‘somewhat important’ in determining how they will vote.

Based on previous quantitative research, we estimate that two-thirds of Canadians fall into this definition of *clean energy sympathetic audience*.

Climate activists and climate deniers, that is, people who said climate change is ‘the most important issue’, ‘not very important’, or ‘not at all important’ in determining their vote, were not recruited for these groups.

Each focus group assessed:

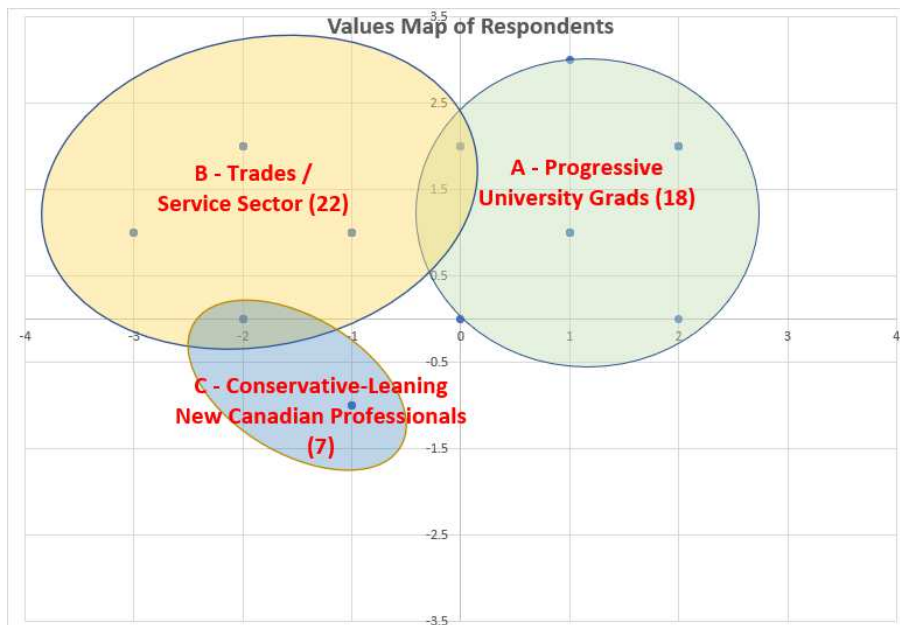
- Salience, awareness, and understanding of energy issues (economic, financial, environmental, climate, dependence, sources, etc).
- Defining the issue / framing effects (e.g. transition, shift, revolution etc).
- Threat and opportunity factoids
- Videos on climate, clean energy solutions, cost savings
- A 3-minute pitch on the need for Canada to adopt new clean energy policy vs. a 3-minute counter-pitch on the need to embrace the status quo.

## KEY FINDINGS

1. Clean energy is not necessarily a top-of-mind issue among clean energy sympathetic audiences. However, once introduced, the topic of clean energy draws attention and interest. In a world of information overload and distraction, clean energy sympathizers want to hear more about clean energy, and they want to talk about it. This is a huge advantage.
2. Among the 70 percent of Canadians sympathetic to clean energy policies, clean energy is universally perceived as a good thing, worthy of support, and strongly understood to be in alignment with Canadian identity and values. People want to feel hope for the future, and they know that clean energy is one topic that delivers.
3. Framing the clean energy ask as “transition” works for most, even if simply a move toward “diversification”. Evolution works too for many, few dispute that clean energy is about moving forward. However, talk of clean energy “revolution” or language that implies rapid or abrupt change makes a large segment of this audience nervous and potentially shuts them down.
4. Clean energy sympathizers connect the dots between clean energy and climate change. They accept that climate change is a reality, and there is general consensus that clean energy is a solution to the problem. However, conversations benefit greatly when audiences are primed with climate 101 explaining the notion that “Humans are now generating more carbon pollution than earth’s natural systems, forests and oceans, can absorb. The burning of fossil fuels has formed a blanket of layer of carbon pollution around the earth which traps the sun’s heat in our atmosphere and causing the earth to heat up. That’s why scientists are talking about a climate meltdown. And Canada is directly affected.”
5. The “Clean Energy Pitch” exercise revealed that activating even “clean energy sympathizers” to vote for a clean energy transition *is not a slam dunk over the status quo*. Trevor’s pitch marginally beat out Paul’s pitch by an average of just one or two points on a scale of ten. And this was after nearly two hours of priming on why clean energy policies are important.
  - Trevor’s “clean energy” pitch beat Paul’s “status quo” pitch by at least two points in three of the six focus groups. However, Trevor’s clean energy pitch beat Paul by only one point in two groups (Vancouver women, Surrey men), and lost by a point in one group (Surrey women).
  - The groups in which Trevor fared best were generally more educated and less economically insecure. They also tended to feature at least one or two participants who served as confident and informed validators to information provided. For instance, in Kamloops, “Mike” played this role.
  - Paul fared better among economically stressed and less educated participants, who were sympathetic to clean energy, but did not see themselves as part of such an economy and appeared to fear that any move would cost them in the short to medium term, despite long-term benefits.

6. The main obstacles to engaging “persuadable” voters appear to be perception of cost, lack of a vision of what “clean energy economy” looks like from the perspective of “mainstreet”, and the mistaken sense that the clean energy economy was distant, idealistic, and marginal, and that oil and gas are a primary driver and component of the Canadian economy.
  - There were a number of things that are clearly working and which we ought to keep pushing.
    - The videos on Jim and Alysia and the electric car commute worked. We need to turn up the volume on presenting the consumer angle on the clean energy economy as already happening, affordable, and part of everyday life for Canadians we can all relate to.
    - The factoids that generated attention and positive dialogue were those that helped to illustrate (a) how Canada is already a clean energy powerhouse with momentum, (b) how a clean energy economy will provide job and training opportunities for “real people” that include services, trades, and small business, (c) that the clean energy economy was already far larger than the fossil fuel economy and that major economic actors were already investing heavily in it in Canada, (d) how Canada’s per capita footprint was significant and how the impacts of climate change are affecting health, nature, and cost of living in Canada.
  - There were a number of things that did not appear to help us and which we may wish to reconsider or “tweak”.
    - Examples that cited climate impacts that were not local, that were not massive, and that were in the distant future, or abstract fared poorly. Trevor’s reference to impacts in Bangladesh and threat factoids that referenced Montreal or single digit economic growth statistics went over like a lead balloon.
    - The status quo still owns “realist” and clean energy is seen by many as “idealist” and abstract. The clean energy pitch needs to take back “realist” and do better at framing the “status quo” as stuck in the past, dreamland, and impractical. The “Blockbuster” analogy was partially successful but did not seem to close the deal on the level of policy. Perhaps it would be worthwhile to try some health and safety policy analogues like leaded gasoline, DDT, the blue box, or even seatbelts.
7. Clean energy sympathetic audiences come in roughly three flavours:
  - a. Clean Energy Choir (20% of sympathizers)
    - Knowledgeable, motivated to vote for clean energy
    - High ranking for Trevor, low ranking for Paul
    - Typically university educated, urban, young, post-material values
  - b. Clean Energy Congregation Swing Vote (50% of sympathizers)
    - Somewhat knowledgeable, but unsure about what a “clean economy” looks like from street level, how it might benefit them in everyday life.

- Close ranking for Trevor and Paul, with Trevor pulling ahead, but Paul still in strong contention.
  - Typically trades or college educated, working family, higher concern with material security, but also connected to community.
- c. Clean Energy Cautious (30% of sympathizers)
- Concerned about energy costs, jobs, and pollution, low-information voter, easily mislead
  - Rank Paul more highly than Trevor
  - Typically conservative-leaning, Gen-X, new Canadian professionals (e.g. accountants) with a strong orientation toward material security and isolated from community.



## A. CORE AUDIENCE VALUES

The focus groups started with a brief discussion of how respondents perceive our regional and national strengths and weaknesses relative to other regions of the world. We asked participants what they like most about where they live, and then we moved onto the issues that they see as challenges for their region and Canada.

The main purpose of this exercise was to explore opportunities to align clean energy branding with the way in which British Columbians see themselves. We were particularly interested in the values and language that inform place-based identity, and how these might be incorporated into a clean energy narrative.

### 1. Identity

All groups seemed to view nature and beauty as elemental to British Columbian identity and source of pride. Clean air, clean water, weather, and nature came up in all regions. And closely related to that was recreational opportunities, especially among men.

*Nature, that's a huge category. I love that (Chris, Vancouver). Trees as well. Like being able to just skip over to North Van and do a hike in the trees (Andy, Vancouver). Biodiversity throughout Canada (Carmen, Vancouver). Spacious (Gelaina, Vancouver). Access to nature (Linoy, Vancouver).*

*Weather. Scenery. The trees. The atmosphere. Yeah (Danny, Surrey). Mountains, oceans (Victor, Surrey). You can do almost anything, like hiking, different trails, and uhh, the slopes (Marc, Surrey). Water. Air (Maryanne, Surrey). Yeah, definitely the environment (Tina, Surrey).*

*Fresh water (Sandy, Kamloops). Clean air (Sarvin, Kamloops). The outdoors 25 lakes 25 minutes away. (Todd, Kamloops). Fishing. Fishing, for sure (Fayne, Kamloops). Mountain biking (Michael, Kamloops). The environment is free (Freddie, Kamloops).*

Inclusivity, diversity, kindness, rights, and community were also strong themes in Vancouver, Surrey, and especially Kamloops. These were often mentioned proudly in pointed contrast to either the United States, or in the case of Kamloops, to Vancouver.

*Multicultural (Samantha, Vancouver). Inclusiveness... (Wendy, Vancouver). Equal rights. The fact I can access healthcare I need as a woman (Carmen, Vancouver).*

*People like us. (Tina, Surrey). We have a good reputation (Rubina, Surrey). Like most people here. I mean, we're nicer (Ian, Surrey). And we're more diverse too, right? (Marc, Surrey). I think more rights for minorities (Ali, Surrey). Taking care of the poor and underprivileged kids (James, Surrey). We're nice. And helpful (Danny, Surrey).*



*Diversity, certainly diversity (Darren, Kamloops) I'd say the same thing, the sense of community. People are nice. They say hi to you when you walk down the street. It's good. (Chris, Kamloops)*

In some groups, the notion that we are more accepting, kinder, and community-minded, seemed to be viewed as a source of greater safety and freedom violence and conflict.

*Fairly safe here (Apinder, Surrey). No guns (Shelley, Kamloops). Safety. You don't hear about any bombings, mass shootings (Victor, Kamloops) Well, we're generally calm. We don't have civil unrest. (Chris, Kamloops)*

Other perceived strengths mentioned in the groups were a *strong economy, natural resources, freedom, and health care*. However, while these latter sets of strengths were mentioned with sincerity, they did not appear elicit the same amount of emotion and group engagement as did mentions of features related to the environment, nature, recreation, diversity, and community.

## 2. Top-of-Mind Issues

After discussing what people liked about their communities, we asked groups, unprompted, what issues concerned them most in their regions.

Issues linked to personal material or economic security were noticeably more salient or top-of-mind in the Surrey and Kamloops groups than the Vancouver groups. In fact, while some in the Vancouver groups listed cost of housing as an issue, this issue did not generate much engagement and was discussed only fleetingly by a few male participants:

*Cost of living, uh, which is price of housing (David W.). The price of gas maybe, but it's not really that big (Andy, Vancouver). Our economy, and how we're being treated by Trump (Joe, Vancouver).*

Most of the engagement on top-of-mind concerns the Vancouver groups seemed to focus on social issues affecting others:

*Wealth and inequality, the poverty we have here (Chris, Vancouver). The lack of accessibility to education for a lot of minority groups (David W., Vancouver). Never talking to your neighbours, and a kind of disconnect from people (Derek, Vancouver).*

*The indigenous situation and we're so behind... (Laura, Vancouver). The overdose crisis right now (Linoy, Vancouver). We have so many social, racial problems within this country that are really heartbreaking, um, yeah (Carmen, Vancouver). Just the complexity of being in the world. Movements and power. And stuff. (Kimberly, Vancouver)*

In contrast, material insecurity issues were far more salient and personal in the Surrey and Kamloops groups<sup>1</sup>. In these communities, cost of living came up immediately when participants were asked about top-of-mind concerns:

*Cost of living (James, Surrey). Housing expenses (Denny, Surrey). Fuel prices (Victor, Surrey). My hydro costs have gone up considerably (Ian, Surrey). Cost of living (Maryanne, Surrey). The cost of living, for sure (Rubina, Surrey).*

*Affordability. Just everything. Food, gas, fuel, house, cloths, everything (Michael, Kamloops). Cost of living and wages that aren't matching that (Darren, Kamloops). I make a decent wage, and with three boys, there's not a lot of money going into savings...(Todd, Kamloops).*

The focus group participants in Surrey and Kamloops were also far more likely than Vancouverites to mention jobs as a concern. The primary focus appeared to be loss of service or trades jobs due to automation.

*The trades, seems they're just going away (Tina, Surrey). Computers taking peoples' jobs (Michelle, Surrey). Robots (Donna, Surrey).*

*Well, you go into, like, McDonald's now and they have ... half of them are robotic computer screens. You don't, you don't even need a person anymore. That's jobs right there lost. (Fayne, Kamloops).*

*A lot of companies are coming- cutting down on things because everything's costing them more money so they're trying to make cutbacks here, there and everywhere and it's usually people (Michelle, Surrey).*

Interestingly, taxes were not a top-of-mind issue in any of the six groups<sup>2</sup>. The topic did not come up in Vancouver or Surrey, and just one participant in Kamloops, Todd, mentioned the carbon tax. Notably, nobody else in his group picked up on the topic, and they all moved on.

Environmental issues came up as unprompted top-of-mind concerns in both the Surrey women's group and the Kamloops groups. In Surrey, mention of environmental issues was spontaneous and sincere, but also somewhat generic:

*Lack of resources. Our environment, our trees, our soil. Air (Maryanne, Surrey). Water (Rubina, Surrey). Definitely the environment (Tina, Surrey).*

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<sup>1</sup> The salience of material insecurity as a top-of-mind issue in Surrey and Kamloops relative to Vancouver is likely reflective of the socio-economic composition of groups and communities. Fourteen of the sixteen Vancouver participants were university graduates, which was at least double the number in other communities. This educational skew is consistent with recent census numbers which show that City of Vancouver residents are three times more likely to hold university degrees than residents of Surrey and Kamloops.

<sup>2</sup> The absence of concern about taxes as an issue is likely due to the nature of the participants screened out in the recruitment process. These represented about 25-30% of voters in BC and it seems that top-of-mind concern about taxes and the carbon tax is mostly confined to this one segment of voters.

In the Kamloops groups however, top-of-mind environmental concerns were tightly linked to resource depletion and the notion of waste. Respondents almost seemed personally offended by “waste”.

*Canada is the number one waste producer of industrial countries. What are we going to do with all this stuff? (Haley, Kamloops). There's so much that can't be recycled and now China and the other countries are rejecting it. Yeah, consumerism (Shelly, Kamloops).*

Participants also seemed to view the waste problem as an economic or systems issue, not just an outcome of personal choice:

*I would argue that it's not the consumers fault, its more industry's fault (Sarvin, Kamloops). All this stuff. It's not built to last, it's built so that we keep buying it (Flora, Kamloops).*

*Well, like everything 'antiquates'. Your car does, your computer does, your phone does, I mean, everything's on cycle (Chris, Kamloops). That's cuz we build them like that (Ben, Kamloops). Built to wear out (Darren, Kamloops). Built to wreck in 10 years (Fayne, Kamloops).*

The Kamloops women's group saw the only mention of “sustainability” and “carbon” as an unprompted top-of-mind concern.

*Sustainability. The ability to live without, um, like every day without negatively impacting the environment. Our carbon footprint (Rubina, Kamloops).*

Kamloops men were the only group to discuss wildfires as an unprompted top-of-mind concern. The group devoted considerable energy to this topic and at least one participant linked it to climate change.

*Wildfires. For instance here, we've had smoky summers for the entire...(Scott, Kamloops)...past three years (Todd, Kamloops). Kills tourism, kills lots of stuff in the summers (Scott, Kamloops). Possible climate change, global warming issues related to that (Darren, Kamloops).*

Another individual in the Kamloops men's group linked climate change to concerns about salmon and water shortages.

*Seems like every year the salmon run seems less and less and less. Less water from the mountains coming down, less run-off so they don't come up, less eggs spawned...(Fayne, Kamloops).*

### 3. Summary: The Big Picture

Across all community focus groups, a clean, healthy environment and a strong, caring community are seen as top-of-mind strengths that make people feel good about living where they do. However, when it comes to the issues that concerned participants on a regional or national level, climate change and clean energy were not on the “top-of-mind” radar.

While, in the Kamloops, climate-related issues like wildfires and drought were clearly a top-of-mind concern among men, climate change as a cause was only raised in passing. Encouragingly, nobody appeared to object to the linkage to climate change, but the issue of climate change itself was NOT the point of entry into the conversation.

The exploration of top-of-mind concerns also reflected the socioeconomic differences between Vancouver and Surrey and Kamloops. Respondents in Surrey and Kamloops appears to be far more likely to look at issues through the lens of personal material security (i.e., cost of living and jobs), while those in Vancouver seemed more concerned about issues related to social justice. This contrast in focus would be consistent with the socioeconomic differences between the regions: Census data show that Vancouver residents aged 25+ are three times as likely to have graduated from university than residents of the same age cohort in Surrey and Kamloops.

## B. THE ENERGY CONVERSATION

The second part of each focus group explored how people think and talk about clean energy issues. The topic of energy was introduced by saying “*now we want to talk about the issue of energy. Not personal energy, but the energy that powers our day to day lives at home, on the streets, and in our economy.*” And then participants were asked to name and discuss the top three issues related to energy in our province. The goal was to assess how participants understand *the problem at hand* and what they see as *the way forward*.

### 1. Affordability and Dependence

The issue of gas prices was mentioned up front as the top-of-mind issue in every group. However, many seemed to treat the price of gas a pro forma fact of life, and did not linger on the topic.

*Gas pricing (Joe, Vancouver).*

*Gas price (Jacqueline, Vancouver).*

*Prices. (Victor, Surrey)*

*Dang it's expensive. Doesn't make sense. (Apinder, Surrey).*

*I got, uh, cost for the first one, cost (Michael, Kamloops).*

The notion that the price of gas could be blamed on the carbon tax and/or need for a TMX pipeline seemed to have little or no traction in any of the six groups. The only time a participant tried to link the carbon tax to high gas prices, other participants were resistant to the claim.

*Correct me if I'm wrong, I think it's because they added a carbon tax into the cost of gas. So that's why, um, there's a sudden rise in price. At least about 30-40 cents a litre. (Jacqueline, Vancouver).*

*I don't think that carbon tax is that much (Linoy, Vancouver). It's not just carbon, but it's things like paying for our transit infrastructure (Kimberly, Vancouver). Is gas expensive here because of the carbon tax? Oh, I have no idea. (Gelaina, Vancouver)*

Pipeline delays as a possible source of gas price increases came up just twice. This line of reasoning too was met with skepticism. In Kamloops, the men resisted the attempt to link supply to the cost of gas by implying that gouging was the more likely explanation.

*Prices are a problem. We should be using Canadian oil in Canada instead of trying to ship it out. I can't believe they killed energy east. Like, why are we importing oil on one coast and shipping it out from the other (Freddie, Kamloops).*

*I mean, our gas prices keep on skyrocketing and say it's over some flood in Texas, but yet no oil from there going to Saskatchewan that's, that's Conoco. Never had any flood and that gas still went at the same price (Fayne, Kamloops).*

*But when gas first went up and it was, what 85 cents...it's because that barrel was \$100, so everyone's like, "Oh, okay, I get it. It went up from 50 cents to 85. Okay". And then that barrel went down to \$33 bucks less than a year ago. And now we're paying \$1.10. Right. (Michael, Kamloops).*

In Surrey, the women resisted the linkage between a pipeline and lower gas prices by suggesting that shifting away from oil might be better.

*Well, pipeline's a big issue now, I think. I mean our gas prices are almost doubling (Michelle, Surrey).*

*So maybe more wind power or tidal power or something like that. We need to be actively looking for alternate resources um, or ways of producing energy essentially, right? Like, you know, it needs to be clean energy (Tina, Surrey).*

*Because, um, there's not an endless supply of oil and gas. So, um, yeah we need to find a way that we can power our cars and find an alternate means. There's a huge environmental impact. Like, I was just kind of flipping through news stories on my phone and Britain apparently is, like, the headline was just, "Britain is, like, looking to become the, number one leader in electro cars." (Rubina, Surrey).*

*Well, I mean, I think solar power is getting more utilized, I mean ... why not? (Michelle, Surrey).*

The implicit notion that the high price of gas is connected to our dependency on oil and the lack of alternatives was evident other groups as well.

*Yeah. I put the gas prices. I guess the second one is the global warming, renewable energy. People are moving away from, uh, this thing carbon, carbon, like an oil natural gas, right? So we are kind of dependent, our economy is dependent on it --and maybe we should move towards something else. (Mustafa, Vancouver).*

*Cost of gas is a big issue. Erm, at the same time I would love to see more electrical energy being used. (Sarvin, Kamloops).*

## 2. The Need for Alternatives

When asked about top-of-mind energy issues other than price, every group spoke about the need for renewable or sustainable energy. In all groups the need to transition to renewables seemed to be undisputed.

*Renewability and unsustainable kind of resources. The destruction of our planet (Derek, Vancouver).*

*We should be investing in renewable resources and things could move us forward rather than trying to just milk what resources we have. (Chris, Vancouver).*

*I just put sustainability, but I was thinking along those same lines yeah (James, Surrey).*

*I would love to see more electrical energy being used. I mean environment-wise (Sarvin, Kamloops)*

*Uh, we need more renewables. We've got lots of hydro but we need to expand, get some more wind and solar and that kind of stuff going (Freddie, Kamloops).*

Participants in all groups seemed to share a strong sense of the inevitability of energy transition, and a belief that we are not moving fast enough or commensurate with the scale of the crisis.

*[A transition] would take jobs, offer more jobs while we're taking from the other jobs. Other people are already there, Scandinavia is already there, Norway and Iceland and like Sweden-Canada's behind everyone. Canada's just such a huge country, so we have the, we have all the resources we need to do it, to, uh, change. We just have to put the money in there to do it. (Laura, Vancouver)*

For most respondents, the transition to a clean energy economy felt realistic, desirable and connected to their daily lives. For example, when asked how many people could see themselves driving an electric car in the next 10 years, nearly all respondents say they could.

*We'll do the idea that like, you know, like solar is the best example that it's, uh, you just install the thing and then it does the work for, you don't have to burn coal. You're not like processing and shipping things around every, you know, it's a lot less emissions is a lot less, excess (Chris, Vancouver).*

There seemed to be a clear and consistent understanding across all groups that renewable or sustainable energy referred to wind, hydro, or solar energy production. Geothermal was also mentioned.

While several people spoke of the need for “alternative” energy or “electric” in these discussions, nobody in any group used the term “clean energy”.

It is also notable that very few people mentioned energy conservation. The two or three people that did refer to conservation, tended to frame it as an individual lifestyle choice, or in association with recycling or household waste reduction.

### 3. Renewable Gas

We introduced the notion of “renewable gas” when asking participants to explain “desirable” types of energy for the future.

Participants see natural gas as non-renewable and not clean, but cleaner than conventional fossil fuels. When asked what energy sources were considered ‘clean’, participants consistently listed wind, solar & hydroelectricity. When prompted with “what are things that are not renewable



energy sources of energy?”, nearly all participants started with oil, and then immediately listed “natural gas”.

*Natural gas, digging up fossil fuels, there's only so many, right? They take millions of years for them to develop. (James, Surrey) Natural gas is not sustainable in the long term. (Ian, Surrey)*

When probed on whether natural gas constituted clean energy, participants were in near universal agreement that it was “clean-er” than conventional fossil fuel-based energy-sources but were generally unconvinced that it was “clean”.

*Okay so is natural gas a solution? (Moderator) No. (Gelaina, Vancouver) No. (Kimberly, Vancouver) Why not, isn't it clean? (Moderator) I don't know (Kimberly) No. Just because it's natural doesn't mean it's clean, I mean, like, the fuel is technically natural we get it from the earth but that's not really clean. (Gelaina).*

*I think it's marketed as clean 'cause at anytime you attach the word 'natural' to something people assume that it's cleaner. (Ian, Surrey)*

Participants displayed no frame of reference for whether the natural gas they used in their homes was cheap or not.

*Okay, and what about things like natural gas. Is it more expensive here? (Moderator) I actually don't know, I really don't...It's just in my bills (laughs). (Gelaina, Vancouver) Yeah, I know right. I honestly don't know. I just pay it, but it doesn't seem exorbitant to me. (Kimberly, Vancouver)*

With the exception of one or two people, participants showed essentially zero knowledge of RNG, methane capture or waste-to-energy, and many were skeptical and unconvinced.

*I wouldn't pay a dime, more for it unless I knew for a fact that it was [renewable], because when I hear something like, all this renewable natural gas what I hear is that a marketing department has come up with something. I don't trust that without research for a second. (Ian, Surrey)*

*I have a question. Is there such a thing as renewable natural gas? I don't think there is. (Sandy, Kamloops)*

*I was just signing up for- for this account the other day and I saw that there was this option for renewable gas. You pay a bit of a premium. I wasn't quite sure what exactly or how that is renewable. (Marc, Surrey) Has anyone else heard about that? (Moderator) No. (Participants)*

One participant raised a concern that if RNG became a significant energy source, it would require an ongoing stream of garbage to sustain it.

*Because the concern is that if you're continuing to use a resource that's using something like a dump heap, you still need to produce the dump heap and the objective is to remove the dump completely. If you create something that is renewable, if you create something that's reusable and where we're recycling more, there is no dump heap. There is no energy that's being produced by the dump heap because it doesn't exist. (Nathan, Vancouver)*



When RNG was explained, participants generally responded positively to idea of collecting of waste methane and turning it in to renewable natural gas, although there was also skepticism that this could be a significant part of the energy mix.

*So, and then they're taking that and creating energy from that? Yeah, I think that's great, I think it's great. Because it's using the trash as apposed to just making it sit there and be trash. (Carmen, Vancouver)*

*Well...I know it's happening... But, I mean, I've heard it doesn't really create much energy. I think it's creating some energy but not enough. (Michelle, Kamloops)*

*I think it's okay. At least, I mean, even if it's not producing so much. At least because we have waste anyway. (Pamela, Kamloops)*

Although the idea of collecting waste methane was generally received positively, there was some confusion and cognitive dissonance associated with the idea of burning it, i.e. 'if it's good to collect it and prevent it escaping into the atmosphere, then shouldn't it be bad to burn it and release it?'

*Like someone said here, you're collecting methane and then burning it and creating one or one of the other. You're not taking away the problem. (Michael, Kamloops)*

*Well, I think you're taking the methane gas that would create the CO2 and before it does create it, you're using it again. So, it's almost like you're not really creating more, unless you're just kind of taking what was going to go in there anyways and then reusing it. So, it's almost like a double, a double tap of it. (Fayne, Kamloops)*

For most participants, the 15% RNG target felt like a step in the right direction, but ultimately insufficient and likely expensive.

*I call BS. I think 15% is a joke... like, Costa Rica's been running on clean energy for a year. Yeah, but it's not good enough. (Haley, Kamloops)*

*I feel like 15% maybe would be a reasonable number, but I don't think I necessarily know enough about how difficult it is to make renewable natural gas. Like, is this a billion-dollar investment this company is putting forth to make 15%? Or is it a 100,000 dollar investment that this major company is putting forth? So, I don't know if I could really, like, say that that number is reasonable or not... Obviously, we'd like to see bigger, but I feel like this is probably a really big investment that they're going in to make that number. (Felisha, Kamloops)*

*I mean, it sounds good but it also makes me worry because it sounds like a solution but is our government going to be able pay for that? And if they do, where does it come from? (laughs) Because we can barely pay for other things (laughs). (Gelaina, Vancouver)*

*My question is like, how much are we paying for that? (Shelley, Kamloops)*

*I wouldn't support that, it reminds me of the organic food industry. One woman who was saying, less fertilizers, less damage, but look at the organic food industry. It hasn't really taken off up because of the cost. (Joe, Vancouver)*

Despite increased cost, approximately half of participants indicated some willingness to pay more for RNG if it was better for the environment.

*So I could choose either renewable natural gas [or conventional]? (Gelaina, Vancouver)  
Exactly. You'd pay a little bit more if it's renewable. (Moderator) So then no one's going to choose that. (Gelaina) I would. (Laura) I would totally choose that. (Carmen)*

*How many people here would actually consider, signing up for something that was a little bit more, that reduced your carbon footprint and was renewable? So one, two, three everybody almost, well except for Victor. (Moderator, Surrey)*

## 4. What Drives the Perceived Need for Renewables?

The problem solved by renewable or sustainable energy often was initially described as being about not “running out”.

*Something non-renewable like fuel, we burn it, it's gone. But we can have a dam and that generates power over and over again just like wind. (Kimberly, Vancouver).*

*Renewable energy. Things like solar, and wind, and- and what not. To me it doesn't make sense that as a long-term goal, that you're relying on something that's going to run out (Ian, Surrey).*

But most conversations seemed to gravitate quickly toward the problem of environmental harm.

*The emissions, the pollutants that come out of, um, the energy that we use, um. I think a lot of people make the wrong choices (Chris, Kamloops).*

*Our consumption of our energy, I think we have some environmental issues. People complain about wind stations taking out birds. But we gotta get to a happy medium somewhere. Wreck the planet or take a bird out. (Fayne, Kamloops).*

## 5. Framing Environmental Harm

The language used to describe environmental harm is useful to note. For instance, the term “waste” was frequently employed to refer to *pollution* and *environmental impacts*, and not just the “unnecessary squandering of resources”.

*Renewables inherently produce energy without creating waste. You don't have to burn coal. You're not like processing and shipping things around every, you know, it's a lot less emissions, a lot less, excess. (Chris, Vancouver).*

*We need to produce energy without creating waste. Basically, oil's not as renewable as solar, wind and hydro (Nathan, Vancouver).*

*I have, uh, environmental impact and overall waste. Waste in the forms of, you know, we use excess energy. (Kimberly, Vancouver).*

*I had waste as well... unsustainable waste (Linoy, Vancouver).*

*The biggest issue I feel like is that this country is not training people or providing, um, training to people who are going to be moving out of fossil fuel-based industries and so there's no waste. The production of energy itself is often, like, really wasteful and not eco-friendly and pollutes our air...(Hannah, Kamloops).*

*The major problem is the big industries and they're the huge users of energy. Not a lot of regulations to tell them, like, tell them to use less energy. (Ashley, Kamloops).*

The term depletion, which sounds like it is about “running out”, was also used to describe downstream environmental impacts or harm.

*It's more about the non-deplete-ability of it. If you have a finite resource that's not renewing itself like oil. If we put all of our energy into water, you're going to actually affect things. Something like solar would be far more effective and it says that it is renewable in the sense that is not depleting, it can have downstream effects. (Andy, Vancouver).*

*It doesn't hurt our earth. Yeah, whereas, taking stuff from, not stuff but, like... I wanna say decomposed dinosaurs but that sounds bad. We're not depleting the earth of its resources. (Gelaina, Vancouver).*

## 6. Salience of Climate Change

Climate change was named or referred to obliquely as a top-of-mind energy issue by just one or two respondents in each group.

*First, I put the gas prices. I guess the second one is global warming, renewable energy. (Mustafa, Vancouver)*

*If you're gonna, you know, burn hydrocarbons and chill, we all boil to death and kill off the phytoplankton population inside of the oceans, everything dies (David K., Vancouver)*

*I guess one more would be our carbon footprint. And fossil fuels. (Laura, Vancouver).*

*Uh, carbon emissions we create in our daily lives. Um, because of all of the climate change that's happening. (Geliana, Vancouver).*

*Well, it's kind of the environment. We're getting less and less water. We look at the mountains right now there's no snowcap. With climate change we're getting less precipitation which can fill our rivers. So maybe wind - more wind power or tidal power or something like that. (Tina, Surrey).*

*Personally, I'm worried about carbon. I meant isn't it one of the reasons that you're seeing climate change? It just doesn't feel right, it's more what you're going to leave the Earth as. In the future. That's my bigger concern. And not just for us humans, I mean, for the animals, for the plants, for the... Yeah. They're gonna be gone. (Sarvin, Kamloops).*

*I mean the - the fossil fuels right, the whole global warming thing like- I think that's a big issue (Flora, Kamloops).*

These one or two climate change respondents in each group tended to be passionately concerned, but somewhat isolated. The initial stance of the other members of these groups around climate change seemed to be receptive, but cautious.

Pipelines also came up in both the Vancouver and Surrey groups as an environmental concern. However, despite the efforts of anti-pipeline campaigners, there was little or no engagement around climate impacts. People were more concerned about spills and became especially engaged when the issue was linked to marine tanker traffic.

*That pipeline and the environment stuff, they'd be bringing ships here taking oil and- and ruining the marine life and stuff (James, Surrey). Yeah, Leaks and spills (Ali, Surrey). Oh yes, spills (Marc, Surrey).*

*Well, I put transportation of fossil fuels, and, environmental impact it has. An accident, if it goes by tanker (Danny, Surrey).*

## 7. Connecting the Dots to Climate Change

A major barrier to connecting the dots between energy and climate appeared to be a lack of a common understanding or shared mental model for how it works. While a few participants in each group knew that carbon or fossil fuels were the primary cause of climate change, few seemed to have the ability to explain how this worked.

**Moderator:** Let's talk about the issue of climate change, global warming. What's the cause of that, as far as you understand? Let's just try to go around the table.

*I think [carbon is] clogging up the earth. It gets into the water; it gets into our watering system and it gets into the water. It affects our plants and affects our wildlife - - it affects the whole planet. And then it just keeps doing it over. (Sandy, Kamloops)*

*When we're destroying the O-zone layer and we're...(Flora, Kamloops)*

*That's different! (Haley, Kamloops)*

*That's a different thing right but, you know, you hear over the years the different explanations. (Flora, Kamloops)*

This pattern of confusion was common throughout all groups. Even in groups where one or two people had a handle on the mental model, they had a hard time explaining it to others.

*Um, emissions create a layer, the carbon dioxide, it prevents, it prevents heat from evaporating... traps heat with a blanket of carbon dioxide (Joe, Vancouver).*

*It's dirty combustion. With clean combustion you wouldn't have the issue of hydrocarbons (Derek, Vancouver).*

*Uh, no. I wouldn't call it dirty combustion (Joe, Vancouver).*

After the Vancouver groups, we tried presenting a mental model to groups inspired by the Frameworks Institute's metaphor of a heat-trapping blanket. This explanation evolved slightly over the course of the groups, but it was basically a variation on this script:

*Over the past 150 years since the start of the fossil fuel economy, we've been burning more carbon pollution than the earth's natural systems like forests and oceans can absorb. And so the concentration of carbon in the earth's atmosphere has increased massively in a short period of time.*

*And the problem carbon pollution is this: CO2 is a heat-trapping gas. We've generated this insulating blanket of pollution that blocks the escape of solar heat energy from our atmosphere and the earth is heating up.*

*So there's a fear that we're at a tipping point. That's because there hasn't been this much CO2 in the atmosphere for millions of years. And carbon's like anything. Like salt. A little bit is great for you, but too much can throw things off balance, mess things up.*

*The last time that we had this much CO2 in the atmosphere, the polar ice caps were completely melted, and large patches of the earth were uninhabitable. And that starts a chain reaction which throws off the balance of nature, screws up the food chain, and triggers the displacement and migration of millions of people. That's why people are concerned.*

All focus groups seemed to respond well to this attempt at providing a mental model for climate change mental. The video record shows people remaining attentive during the monologue and afterwards they seemed to be more willing to discuss climate change as an issue. Those had previously expressed concern about climate as an issue particularly seemed to find it helpful:

*I'm curious, how many actually knew that. Cus I feel like I did, I feel like I just don't know how to explain it. Like, for the most part, I feel like knew that. (Haley, Kamloops)*

## 8. Perceived Barriers to Moving Forward

While there was generally strong agreement that we need to move to a renewable energy future, there were certain familiar issues that demonstrated their potential for derailing the conversation.

The first and most obvious was the notion that renewable energy is unaffordable.

*Like, I don't see very many solar panels around... and Kamloops would be the ideal place to do it. But you can't afford it. (Michael, Kamloops)*

There was also uncertainty about the dependability and quality of new technologies like electric cars.

*That's the thing. The options are there and they keep coming up with new ones but it's what's been tested and how long we know it's going to last. Do we know what's quality? And, and the cost of exploring these, these options is, is astronomical. (Scott, Kamloops)*

Concerns about infrastructure also surfaced.

*With renewables the issue is more building infrastructure and I guess the equipment needed so that you can produce energy that's going to continue for a foreseeable future. (Marc, Surrey)  
There're just no resources, like, you have a million, a whole bunch of electric cars but there's not a lot of plugs, like, to, you know what I mean? (Donna, Surrey).*

And a few people believed that batteries were going to be an environmental problem.

*I've just never really been fully sold on the idea of electric cars, cause the, just producing the batteries you hear about all the by-products that go along with those as well. (Ian, Surrey)*

The fear that economic benefits of renewable energy did not accrue to Canadian was also expressed.

*You know, we have all these electric cars, but none of them are built in Canada, right? So what's the sense of buying an electric car when it's not employing any Canadians? (Fayne, Kamloops)*

And yet in the overall scheme of the conversations, these objections were not really posed as arguments to not move forward. They are more a checklist or list of items people expect to see addressed in the process of transition. None of these perceived barriers are surprising. But they do provide a reminder that people need to see addressed and acknowledged up front, not just in the vision of the clean energy future, but specifically in the plan to get there.

## 9. Expectations of Companies Versus Government

Respondents generally did not feel it was likely or credible that companies would lead.

*Linoy: There's no reason for [companies] to do it if they can make more profit.*

People want governments to lead, with a near universal support for financial inducements and subsidies to help people transition.

*The industries need to be willing to do it, but the government needs to make it possible for them to do so (Ian, Surrey).*

*I mean humans are incented by money, like, money pushes a lot of things so it would have to be cheaper for people, honestly, like if you want people to make that change it's gonna have to be cheaper. (Michelle, Surrey).*

*What Michelle was saying, I said almost pretty much the same thing: education, and incentives to make the change. And on the consumer level. (Rubina, Surrey)*

And yet at the same time, there is little awareness or recognition of any of the existing programs that serve this purpose.

*ANGUS: Has anyone here heard about CleanBC?*

*LINOY: I like that name but I don't know much about it*

*LAURA: Is that their plan? To be the cleanest city in the world in 2020?*

*ANGUS: That's a different- that's a- I think that's a city thing.*

*CARMEN: You should walk in the downtown East side and like the garbage overflows, like, it's - it- all that garbage...*

Participants indicated that while it was ultimately the responsibility of the government to lead the transition to clean energy, they would view positively and support a company that was making a genuine effort to lead.

*I do think that it has to come from the government because ultimately it needs to be regulated. Um, but yeah, there are companies that are taking the initiative to try to make a difference in a positive way. (David, Vancouver)*

*If I had the money to do so, I would totally give my money to a company that would be supportive of [RNG] over the other. Who would not? (Nathan, Vancouver)*

## 10. Summary: Framing the Clean Energy Ask

Participants were asked to pick which of the following words best described the type of change needed to move forward on energy issues.

- Transition
- Shift
- Revolution
- Evolution
- Adaptation



- Diversification

The terms that were most frequently selected were “Transition” and “Diversification”. The reasoning for transition was that it sounded more “gradual”, less “scary” and less “disruptive”.

*It's the way of the world, not gonna be over night, it's gonna be gradual. (Michelle, Surrey)  
Baby steps. (Pamela, Surrey)*

*It happens over a period of time, yeah (Rubina, Surrey).*

*I feel like that's the safest word... Whereas a shift is abrupt, or a revolution sounds like, "we're changing everything! And this is the way it is now!" But a transition is like, "Here's where we are... here's where we want to go." And there's a little bit more handholding, but we're clearly going forward. (Hannah, Kamloops).*

However, many also liked diversification because it implied “choice” and “prudence”.

*I just feel like there's a lot of different issues in different communities and maybe different solutions. Like, the diversity of solutions (Linoy, Vancouver).*

*In order to kinda build upon these changes, and you know, one thing doesn't work and go into another idea, because, I don't fully agree with putting in all the eggs in one basket...(Denny, Surrey)*

Adaptation and evolution received mixed reviews because they did not seem to make reference to pace or scale of change. And to some evolution also seemed to imply criticism or that they had no choice in the matter.

*Caught between transition and revolution (Derek, Vancouver)  
Seems like it's saying we are doing something wrong. I feel criticized (Todd, Kamloops).  
Because we have no choice but to change (Chris, Vancouver).*

The few that liked revolution tended to be strong environmentalists and already bought into the need for drastic action. But for most the term revolution was rejected, not surprisingly because it seemed extreme.

*It's going to be uncomfortable. It's very uncomfortable for a lot of discomfort. (Derek, Vancouver)  
That's a drastic change and a lot of people won't buy into that. (Marc, Surrey).*

A few found shift attractive because it was direct and implied completion of sorts. But its fans also tended to be the participants who were already bought into the need for urgent action.

*It's moving from one thing over completely to another thing. Completely off of fossil fuel burning to renewables (Freddie, Kamloops).*

*I like "shift" because it's direct. You know, starting here and ending here (Chris, Kamloops).*



## C. THE POWER OF FACTOIDS

In the “Factoids” exercise, we primed conversations with short 1-3 sentence factual statements formulated to tell a story. The relative attention or inattention to different factoids provided insight on what types of narrative content are most likely to engage our audiences, how, and why.

Each group of participants was shown 25 numbered “threat” and “solutions” factoids on paper, one set at a time. Participants had 5 minutes to quickly scan the 25 items on a sheet of paper. They then used stickers to mark the three factoids that were the most striking or which most caught their attention. Items could be selected for any reason, good or bad. After 5 minutes of reviewing the items, the moderator tallied up which factoids were picked and lead the group through a discussion of what specifically got their attention and why.

### 1. Threat Factoids

The first set of 25 factoids presented were about “threats” that clean energy policy is intended to address<sup>3</sup>. Each of these factoids implicitly told a story about the need for Canada to take action on climate.

The five factoids that participants saw as most compelling are listed below along with their total vote tally:

1. Canadians have one of the largest carbon emission footprints in the industrialized world, producing about 3 times as much pollution per person as citizens in Europe and the top 20 industrialized nations. **(26)**
2. On average today, one Canadian emits as much climate pollution to the atmosphere as 2 people in China, 10 people in India, or 33 people in Bangladesh **(21)**.
3. Canada is warming at twice the global rate, with Northern Canada heating up three times faster than the global average **(18)**.
4. 751 species are at risk of extinction in Canada, with climate change the leading cause for the 62 species at risk that live in the North **(16)**.
5. Warmer winters have allowed the Mountain Pine Beetle to spread rapidly in B.C., killing more than 16 million hectares of forest. Now, the same thing is happening with ticks. **(11)** /TIE/ Due to forest fire smoke, spending a day outside in Prince George this summer was the equivalent of smoking 17 cigarettes **(11)**.

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<sup>3</sup> The full list of 25 threat factoids is included in Appendix B

Insights on what makes a threat factoid “compelling” are evident when we look at the five threat factoids that generated the least attention. The following factoids were selected by fewer than two people across all groups:

- The average electric car loses 20% of its range in weather colder than 4 degrees Celsius.
- Gas prices in Vancouver hit all time highs this spring, nearing \$1.70 per litre.
- Electric cars are more expensive upfront. Tesla's cheapest model, the Model 3, retails for nearly \$50,000.
- At least 66 people in Montreal died from extreme heat during the 2018 summer heatwave.
- Approximately 100,000 Canadian oil and gas employees lost their jobs between 2014 and 2017.

The factoids that generated little or no attention offered participants little or no new information (factoids 1-3), failed to provide local relevance (factoid 4), or a comparative context (factoid 5). For example, the factoid on the 100,000 Canadian oil and gas job losses does not offer comparison with any other industry, or a direct connection to British Columbia. By comparison, the most compelling threat factoids shared the following qualities:

- Framed comparisons in concrete and personal terms. For by talking about the per capita pollution emitted by “Canadians” or “one Canadian” as opposed to Canada. This per capita emissions frame is also more aligned with our notions of natural justice which are premised on the rights of individuals.
- Made the threat of climate pollution or global warming relevant to British Columbia or Canada. For example, linking forest fire smoke impacts to “Prince George” or specific the number of species at risk in “Canada”, not the entire planet.
- Translated the risks or harm of threats like “warmer winters” or “forest fires” from an abstraction to vivid and viscerally-experienced impacts, like “more ticks” or “equivalent of smoking 17 cigarettes”.
- Evoked or built on familiar mental models (e.g., the greenhouse effect) or axioms like “pine beetles have spread because our winters aren’t cold enough to kill them anymore”.

In factoid discussion, participants did not appear interested in debating the veracity of climate change<sup>4</sup>. Instead, the participant discussion tended to focus on fitting the information to their existing understanding of the world. But the most powerful factoids did not work merely because they presented new information. Rather they worked because they triggered conversations which helped participants connect dots together and make sense of the world.

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<sup>4</sup> This is likely because our participants represent the 70 percent of Canadians that more or less accept the reality of the science.

## Canada's Carbon Footprint - 1

The threat factoid that generated the most attention in all the groups compared Canadian emissions to European countries. Most participants were surprised, but also seem to feel that the comparison made sense and accepted it at face value.

*We have to do better. (Hannah, Kamloops)*

*When you compare us to other industrialized nations and we don't have the same excuses (Felisha, Kamloops)*

*We're not as efficient, less efficient (Flora, Kamloops)*

*We just rely on more on our cars (Denny, Surrey).*

*We're not looking so good. (Michelle, Surrey)*

*We're living in a bubble (Pamela, Surrey)*

*We need more innovation (Donna, Surrey)*

*I think it's our lifestyle. (Rubina, Surrey)*

## Canada's Carbon Footprint - 2

The factoid that compared Canada's per capita emissions to those of developing countries like China also captured a lot of attention.

*That's crazy. (Fayne, Kamloops)*

*What are we doing? (Ben, Kamloops)*

*We're polluting that much more than those people. (Scott, Kamloops)*

*I just feel it's crazy that we're not aware of that already. I mean we live in North America. We... We're pigs. You know, compared to the rest of the world, really. Who did you think was polluting more than us? (Chris, Kamloops)*

However, the comparison to China also led to more confusion because it conflicted with the commonly held perception of China as a major polluter.

*It's a little misleading though, because there's three-hundred times the people in those countries than here... (Freddie, Kamloops)*

*But it's saying per person... I think the population basis of where they live, how they live. Two-thousand square foot house for two people in Canada. Thirty square foot place for three people in China, per person in that huge apartment. (Fayne, Kamloops)*

*Yeah, the China one's a little shocking. Their coal emissions alone... They can't afford heat. Can't afford a TV 'cause they're all poor. Or how about like in Cuba where they live in huts and have no electricity. Well they're not gonna produce anything, right? So does that mean they're more green? (Michael, Kamloops)*

*Canada, we're one of the more developed countries, we have superior technology compared to other countries, right? And you would think that with all this technology, we wouldn't have a carbon footprint compared to China (Victor, Surrey)*

In some groups this latter disconnect was neutralized by participants who drew attention to China's public transportation systems.

*In China because they have like sky trains and railway systems. We just rely on more on our cars. So, we're just in our cars all day, all night, so. (Denny, Surrey)*

*Public transportation, far superior to ours. And you see lots of people biking to work (Ian, Surrey)*

*Yeah, and like the whole factory will get on one bus and get transported to their jobs (James, Surrey)*

*Like, I think it's, you know, we commute to work, or issues with that, we'll drive our kids to school instead of walking the ten minutes, like, I think it's our mindset. Our culture. (Rubina, Surrey)*

## **Canada Warming Faster than the Global Rate**

The factoid about Canada and the North warming faster than the rest of the world was also compelling to many, possibly because of participants' familiarity with loss of Arctic ice.

*I think it's really easy to forget about northern Canada, and especially when we talk about kind of changing global warming. That directly effects our country. (Haley, Kamloops)*

*Yeah, I picture the ice caps melting, the glacier's melting with it. (Rubina, Surrey)*

The factoid about Canada warming faster may have also been compelling because of participants' familiarity with wildfires in British Columbia.

## Pine Beetles, Ticks, and Forest Fires

The factoid that compared forest fire smoke to smoking cigarettes triggered intense emotional engagement. In Kamloops, the fires were fresh in peoples' memories, despite having occurred nearly a year previous.

*That's terrible. (Sandy, Kamloops)*

*That's horrifying. (Felisha, Kamloops)*

*It was bad there. It was really bad. (Haley, Kamloops)*

*Or, I'd guess it's more than 17 even. It looked like freaking midnight at 9:00 AM. (Flora, Kamloops)*

*Yeah. (Shelley, Kamloops)*

*So if you spend the day out there, I think if you spent an hour out there, you're getting 15 cigarettes, it's that thick. With all the particles and everything, oh yeah. (Flora, Kamloops)*

*It's crazy... (Hannah, Kamloops)*

The forest fire factoid also tended to trigger conversations in which participants described the problem as one that affects us collectively, not just as individuals.

*Well this is how we have to live now...It's not, that's not how we should be living. (Sarvin, Kamloops)*

## Species at Risk of Extinction

This species at risk factoid drove conversations that went beyond sympathy for animals, in many groups, it also surfaced deeply felt statements of concern about human survival.

*Just 'cause we're almost at - we're going into a mass extinction right now. (Tina, Surrey)*

*Yeah. Like, if the animals are gonna go, then soon enough humans might, right? (laughs) Like, kinda at the point where... (Rubina, Surrey)*

The species at risk factoid also connected the dots between concerns about the future and the wisdom of having kids:

*Do we even want our kids to have kids? Like, that's a serious thought that I have. Do I really want my kids to have kids? As much as I'd like to be a grandmother Right? It's that scary. (Tina, Surrey)*

*What's gonna be left for them?!?! (Donna, Surrey)*

*Right? (Tina, Surrey)*

The factoid on warmer winters and increased threats from pests was instantly understood and triggered collective explanations of how it works.

*Oh, because pine beetles... (Flora, Kamloops)*

*Because they are killed off in colder weather, in colder weathers. (Haley, Kamloops)*

*It takes at least two weeks of below freezing to kill them off. So when we have warm weather for a long time then they just keep reproducing, reproducing, and spreading throughout the forest. (Flora, Kamloops)*

*Well, we have more ticks because of the weather. (Haley, Kamloops)*

*We have a lot of ticks in this area. (Shelley, Kamloops)*

The conversation about ticks also triggered conversations about Lyme disease.

*Well and the incidences of Lyme disease are just sky rock - rocketing. (Haley, Kamloops)*

*Yep, yeah, they're higher. (Shelley, Kamloops)*

*I had no idea that that was happening and ticks just freak me out too because they can give you Lyme. (Andy, Vancouver)*

*Yeah, I just, uh, I was more so taken aback with the tick thing. Um, growing up in the interior, I saw with the mountain pine beetle 10, 15 years ago. Even just now driving between Columbia and Vancouver, just same as far as I've been completely wiped out as a result of that was wild. And now to think that, that could happen with ticks and with people and the potential of things like Lyme disease spreading and to see how that's a little unsettling. (Nathan, Vancouver)*

Participants also connected the dots between pine beetle and other climate feedback loops.

*Yeah, and it's 16 million hectares less oxygen being produced, and less trees and plants, pine specifically, not producing oxygen. (David K, Vancouver)*

Of all the factoids, the pine beetle story seemed to drive the richest and most compelling discussions of climate change.

*It's environmental because they're not dying off in the winter, because the winter is not as cold and it all adds up. Causality. You know...the dots connect. (David W., Vancouver)*

*For me, it's just like the fact that this is, this is not the first thing you think about when you think about gas and global warming and things like that. It's kind of downstream effect. It's like, oh, this is going to have an effect here. Is my dog is not going to have ticks all over. Am I going to have ticks too? (Derek, Vancouver)*

Generally, the most effective and engaging threat factoids were not simply about learning a set of discrete “facts”. Instead, the most potent factoids triggered conversations that allowed participants to pool their knowledge and strengthen their shared mental model for how global warming works.

*How much carbon is emitted, burned by gas... by people driving their cars? Burns through the ozone layer? It's not good for the atmosphere. (Linoy, Vancouver)*

*I think that it gets trapped within the ozone so that when, um, sun gets reflected or something that it, the heat doesn't get released so it gets trapped within our ozone and things start to melt and, like... (Jacqueline, Vancouver)*

*It's like a greenhouse, you know, greenhouses get hotter because of the sun. So, that's- it's a greenhouse gas because it's allowing everything to get hotter... (Gelaina, Vancouver)*

*Yeah, uh, no sun's energy the...I think that is it the sun's energy it kind of just...yeah, it heats stuff. (Jacqueline, Vancouver)*

The discussion of how global warming works led to repeated reflections on why it is a problem.

*It's melting the polar caps, causing a lot of flooding, getting rid of habitats for animals... (Gelaina, Vancouver)*

The threat factoids seemed to trigger conversations that help people make sense of the problem together. And in the course of the dialogue with other members of their community, participants validate the notion that climate change is a problem we face collectively.

*How much is enough before, before it's mandated, before, you know, we make the change, right?! (Maryanne, Surrey)*

Developing factoids that help people strengthen their shared mental models of the problem and which connect the dots to their existing knowledge is likely critical to energizing and mobilizing Canadians at a policy scale.

## 2. Solutions Factoids

After threat factoids, the groups were shown a second set of 25 factoids about “solutions” that clean energy policy is intended to offer<sup>5</sup>. Participants marked their three most compelling items independently (using stickers) before sharing their views so as to minimize the possibility of “groupthink”. And then the score for each item was tallied.

The five factoids that participants saw as most compelling are listed below along with their total vote tally:

1. In B.C., driving an electric car will save you more than 75% on fuel costs. A gasoline-powered SUV costs approximately \$18 to drive 100km, while an electric SUV will cost just over \$3. Also, electric cars don't need oil changes **(18)**.
2. Unlike regular natural gas, renewable natural gas is created by collecting methane from landfills. It literally turns waste into fuel **(17)**.
3. The B.C. government has legislated into law that by 2040, every new car sold in B.C. will be a zero-emission vehicle **(17)**.
4. In B.C., you can get a \$10,000 rebate when you buy an electric car—this goes up to \$16,000 if you scrap your old gas car **(16)**.
5. Canada's clean energy sector employs 300,000 workers. Canada's oil & gas sector, in contrast, employs 173,000 people **(14)**.

And the following five factoids were the least engaging to focus group participants. These least engaging factoids were selected by nobody in most groups, and fewer than three people in total across all groups.

- Automakers are investing a combined \$300 billion over the next decade in electric vehicles.
- According to the International Energy Agency more than 60% of the world's solar panels are made in China.
- In 2018, 8% of all new car sales in Canada were electric, which is twice as many as 2017.
- Most Canadians (56%) believe that electric cars will become the majority within 10 years.
- Canada's clean energy sector employs 300,000 Canadians.

Comparing the top and bottom factoids it is evident that the most engaging “solution” factoids generally offer information that is relatable and relevant, but also usually focus on Canada and offer a point of comparison.

For instance, high-performing Factoid 1 above is not just about the low cost of driving an electric car, it offers a comparison to the cost of driving an ICE vehicle. And high-performing Factoid 5 above is an upgraded version of a poorly-performing Factoid with an added comparison between the clean energy sector and the oil and gas sector. A poorly-performing factoid saying that 80% of

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<sup>5</sup> The full list of 25 Solutions factoids is included in Appendix B.



all solar panels are made in China, would likely performed better if it had included comparative numbers for Canada and the United States.

A poorly-performing factoid indicating that Canada's electric car sales in 2018 had doubled over the previous year offers a comparison, but participants did not deem the single digit 2018 sales figure (8%) attention-worthy.

Finally, the poorly performing factoid saying that 56 per cent of Canadians believe electric cars will become the majority in 10 years may have done better if it had a comparison between Albertans and the rest of Canada, or incorporated the comparison to actual Norwegian electric car sales.

As with the threat factoids, the most compelling solutions factoids were accepted as true at face value. People responded to the solutions factoids as puzzle pieces to be integrated into their collective understanding of the world.

## Electric Car Savings and Rebates

The conversation about the electric car factoids was intense, many people in Vancouver and Surrey indicating strong interest. Interestingly, while many people picked the fuel cost savings factoid as compelling, the discussion in every group focused entirely on electric car rebates.

*I had no idea, but that was, I guess there'd be a rebate, but 10 grand or 16 if you scrap your old car... that's really good. That makes me want to, let's look at getting one on the next year or two. (Andy, Vancouver)*

*If you take a look at what a base model electric vehicle costs, even like a Tesla three, when you do apply those rebates, you're looking at a vehicle that's comparatively priced to a fully loaded, you know, four door sedan. So it does put it in a price point that, you know, would be a more attainable to the general public than just people making, you know, buckets of money. (Nathan, Vancouver)*

*That's pretty decent. (James, Surrey)*

*That's pretty cool. (Robert, Surrey)*

*It makes me think that you know, 20 years, we could be doing a lot of things different. (Michelle, Surrey)*

The focus on the rebates instead of the savings was perhaps because participants could not bring themselves to think about saving money on gas if they couldn't see themselves purchasing such a vehicle.

*Angus (Moderator): What kind of person drives an electric car these days?*

*Fayne (Kamloops): A rich person!!! (laughter).*

Many participants were skeptical about availability and whether they themselves could afford an electric car even with the rebate.

*Cost is too high, and I'm concerned about availability. (Flora, Kamloops)*

*We don't have the stock of electric vehicles in Canada. Like, we don't have enough. (Haley, Kamloops)*

*They're not necessarily affordable, but they are for some of the people who can afford them are buying them. (Chris, Kamloops)*

One or two participants expressed concern about the range, but this was generally not a concern for city commuters.

*Yes. I think it also boils down to range anxiety, obviously...if you're looking at somebody who's on the highway, they'd probably feel more comfortable in something like a hybrid or something fossil fuel-powered where they know they're going to have the availability and just the time convenience to fill it up and just go. (Nathan, Vancouver)*

However, the most commonly expressed concern was a perceived lack of charging infrastructure.

*Personally, it's not the range that I feel is uncomfortable. It's the accessibility of chargers because if you've got a grid of, you know, network of charging stations throughout the province or throughout the country, I feel like, if you have enough of them, people would jump into electric cars right away. (David W., Vancouver)*

*I live in an apartment. There are no charging stations. (Joe, Vancouver)*

*Put money into, like, charging stations (Michael, Kamloops)*

## **BC Government ZEV Regulation**

Still, when discussing the fact that “The B.C. government has legislated into law that by 2040, every new car sold in B.C. will be a zero-emission vehicle”, few participants appeared to feel that this was too aggressive.

*It definitely sounds like a good thing. I mean I marked that one down because I was surprised. (Ian, Surrey)*

*Having government step in and take the lead, that pushes industry to make sure that they're producing these cars for people (Marc, Surrey)*

Across the groups in all cities, participants were adamant that the government should be taking a more active role in facilitating the transition to electric vehicles.

*Well, if the government incentivize it, I think that would do it. (Derek, Vancouver)*

*Oh, I just said that the government needs to almost force stuff. Like, this is the way it's gonna be. (Donna, Surrey)*

In fact, several people felt that the 2040 deadline was too timid, or worried that the promise would not be kept:

*I think it's not soon enough. (Derek, Vancouver)*

*I thought they probably would've done this sooner. (Denny, Surrey)*

*I mean people might start realizing that this has to happen, then it might get done a lot faster. (Michelle, Surrey)*

*We've been made promises, but how many of them are kept? (Victor, Surrey)*

## Renewable Natural Gas

In discussing the factoid on renewable natural gas, some participants were initially enthusiastic.

*Renewable natural gas is created by collecting methane from landfills, it literally turns waste into fuel. I love that. (Carmen, Vancouver).*

*It's good. (Fayne, Kamloops)*

However, in most groups the conversations quickly focused on whether the 15% was sufficient.

*15% is not much, it's small (Andy, Vancouver)*

*I call BS. I think 15% is a joke... like (Haley, Kamloops)*

*How much, how much renewables, natural gas can you produce? (Joe, Vancouver)*

Some of the more environmentally motivated participants fixated on the “waste” and wondered whether it might be better to solve the waste issue instead.

*Well I know it's happening. They've been using this for a while but I just, I don't know how much energy it creates for what they're collecting. Like, I don't know if it's actually helping or hurting, like, well it can't hurt. But, I mean, I've heard it doesn't really create much energy. I think it's creating some energy but not enough. (Michelle, Surrey)*

*Uh, I had, I was like- I was like... I have questions about it. (Kimberly, Vancouver)*

*Yeah, I have questions too. (Gelaina, Vancouver)*

*I think that's great, but does it actually solve the idea of, like, waste? Is, like, you know what I mean? Is our waste, wasting outweighing the benefits of the output? (Kimberly, Vancouver)*

In the Kamloops men's group, many were skeptical about whether renewable natural gas was a solution.

*Like someone said here, you're collecting methane and then burning it and creating one of the other. Seems useless. You're not taking away the problem. (Michael, Kamloops)*

*How are you defining the word "clean?" (Scott, Kamloops)*

*Well, I think you're taking the methane gas that would create the CO2 and before it does create it, you're using it again. So you're kind of... it's almost like you're not really creating more, unless you're just kind of taking what was going to go in there anyways and then reusing it. So it's almost like a double, a double tap of it. (Fayne, Kamloops)*

*And also by burning it you're converting it to CO2 as opposed to leaving it as CH4. (Freddie, Kamloops)*

*They're both carbon cycles. (Scott, Kamloops)*

Still, for others, especially in the women's groups, the symbolism of effort itself was more important than the impact or the amount of renewable gas produced.

*So the effort's there, but not the result (Maryanne, Surrey)*

*I think it's okay. At least, I mean, even if it's not producing so much. At least we're doing something, 'cause we have waste anyway. (Pamela, Surrey)*

*Excessive waste. (Tina, Surrey)*

*Yeah. So turning it into something good that we can use again. (Pamela, Surrey)*

*Okay, but here's my question to you. Is 15% better than zero percent? (Sarvin, Kamloops)*

*Like, is this a billion dollar investment this company is putting forth to make 15%? Or is it a 100,000 dollar investment that this major company is putting forth? So, I don't know if I could really, like, say that that number is reasonable or not... it's smaller, like, obviously, we'd like to see bigger, but I feel like this is probably, like, a really big investment that they're going in to make that number. (Felisha, Kamloops)*

## Clean Energy Jobs in Canada

The factoid on the number of workers employed in clean energy jobs in Canada (i.e., 300,000) was a complete failure in the initial Vancouver groups, selected by nobody. So we enhanced it in the Surrey and Kamloops groups with a comparison to the number of workers in Canada's oil & gas sector (i.e., 173,000).

The new factoid immediately caught people's attention because was completely contrary to what they thought was true.

*Yeah, that surprised me. (Rubina, Surrey)*

*I would've thought the other way around. (James, Surrey)*

*I agree. (Robert, Surrey)*

*Yeah. And I think people are always worried about losing jobs, um, because of going greener, but it seems like it could actually be creating more jobs. (Ashley, Kamloops)*

Much of this surprise may be due to gross misperceptions about the significance of oil & gas in our economy. When probed about how much of Canada's GDP was oil & gas, participants in one group said they thought that it comprised 70-80% of our economy (as opposed to the reality of 3-4%).

Another source of confusion seems to be a weak public understanding of what constitutes a clean energy job.

A couple of people pointed to Hydro as a possible source of clean energy jobs.

*I think what it is that they're defining clean energy as hydro, so it's people who work in hydro (Ian, Surrey)*

And several seemed to imagine clean energy jobs as requiring elite high-tech skills.

*Computers and AI, I imagine (Mike, Kamloops)*

*No, it's like tech and um... it's skilled type of work. (Haley, Kamloops)*

*Probably some bio scientists trying to come up with better, you know, clean solutions mostly. (Apinder, Surrey)*

But nobody spoke of clean energy transportation, building retrofits, maintenance, design, planning, or building of new generation, storage, and distribution systems. Most participants seemed stumped.

Perhaps this is because the most commonly used image of clean energy is solar panels and wind turbines, often just the "thing" alone operating in nature without evidence of humans. Thus, the images used to represent the sector may create the impression of sterility and automation. This sterile, non-human-friendly imagery may be a key reason participants struggle when trying to explain clean energy jobs.

Again, we found the most effective factoids capture attention by using comparison to tell a story. And they help people to help make sense of the world to themselves and others. These stories build the mental models that connect the dots between our personal wants and needs, clean energy policy, and climate change.

## D. VIDEO IMPACT TESTS

In the video test we showed each group five videos and asked them to rate the videos from 0 to 10 points, where 10 was the highest score. We also asked respondents to explain and discuss the reason for their rating of each video. Below are the results of the testing:

	Title	Score / 10	Positive Comments	Negative Comments
1	Bill Nye	9-10	Funny, Refreshing, On Point	Too much swearing
2	Jim & Alissa	7-8	Relatable family, shows savings, hopeful, friendly, you have options	Too happy
3	Ontario Commuter	7-8	Relatable commuter, lifestyle, shows how cheap it is	Not all of us have a car or a garage.
4	In our nature	6-7	Inspiring, Positive emotion, Feel good about Canada	Cheesy, Propaganda, Government ad, Stock
5	Scientists agree	5-6	I don't want to agree with politicians.	Negative, Divisive, Not educational, Chiding, Too political

### Bill Nye

The **Bill Nye** video scored the highest largely due to the humour and familiarity of Bill Nye. Many participants had already seen it and seemed to enjoy watching it again.

*My kid says this was her favorite video of the year so far. (Michael, Kamloops)*

*Got to the point, was funny and used a childhood favourite. (Nathan, Vancouver)*

*Great - good humour; really communicates the urgency. Use of Bill Nye to adult audience was great. We're familiar with him as children - refreshing he's talking to us as adults. (Kimberly, Vancouver)*

*I love him. (Felisha, Kamloops)*

Just two people in all six groups objected to the swearing.

*Too much vulgarity! Intention known but too general. Asians might not appreciate it. (Joe, Vancouver)*

*Blunt and honest. It's what we need before it's too late to stop the environmental changes (but maybe with less swearing). (Samantha, Vancouver)*

## Jim & Alissa / Ontario Commuter

Both the **Jim & Alissa** and **Ontario commuter** videos were also well received due to their relatability and practical content.

*I love the idea of cheap clean fuel. (Michael, Kamloops)*

*Amazing that she saved so much and reduce impact on environment (Rubina, Surrey)*

*Focuses on practical solutions for a small family. (Linoy, Vancouver)*

*It gives us numbers that show how your lifestyle doesn't have to change because you choose a cleaner - more sustainable way of life. (Laura, Vancouver)*

There were two common objections which surfaced in the **Ontario commuter** and **Jim & Alyssa** videos. Some felt the actors were overly happy, and others pointed out that these spots were not necessarily relevant to people without a family, house, garage, or commuter lifestyle.

*That's great if you have a garage to charge your car in... not all of us do. (Michelle, Surrey)*

*But cheesy. How can I afford heat pump on my income? Makes me sad I cannot afford. (Tina, Surrey)*

## In Our Nature

The **In Our Nature** video was liked by some due to the feel-good, inspiring message about Canada.

*Very positive. Acknowledges global warming. Made me proud. (Chris, Vancouver)*

*It was hopeful theme and it was very macro and then it was, "Canada!" but it was hopeful theme, I liked that. (Carmen, Vancouver)*

However, to many it felt like cheesy government propaganda with too much stock footage.

*Exploitation of nature. "It's in our nature" - Gas is in our nature. Seems too much like nationalist propaganda. (Derek, Vancouver)*

*Vague and very propaganda like. (David W, Vancouver)*

*Seemed like a "brought to you by the gov ad". (Mustafa, Vancouver)*

*And it just seemed like stock images and it didn't really have a call for change. I mean, it was saying like, "It's in our nature," but that to me makes me feel like, oh I'm doing everything right, I don't need to change. (Gelaina, Vancouver)*

*Felt like a tourism video. (Marc, Surrey)*

## Scientists Agree

The **Scientists Agree** video scored the lowest of all videos. The people who liked it, however, were very much sold by the appeal to science over politics.

*We need to listen to people that know about they are talking about. (Ben, Kamloops)*

*Edgy. Shock factor. Backed by science. (Maryanne, Surrey)*

*Quirks, quarks guy... authority on science and so... more authenticity for me. (Darren, Kamloops)*

The people who rated Scientists Agree poorly, seemed to not connect with the graphics, content, or political tone.

*I'm so confused - too much graphicky going on. (Tina, Surrey)*

*Not much really grabbed my attention. (Michelle, Surrey)*

*I didn't like the voice! Not gov/political based. (Hannah, Kamloops)*

*No real hard facts. (Michael, Kamloops)*

*Not as impactful. Scientist vs. government. (Rubina, Surrey)*

Some, especially the swing voters on climate change felt that Scientists Agree was negative. One person felt that it was “chiding”.



## E. THE CLEAN ENERGY PITCH

The goal of the Pitch and Counter-Pitch section of the focus groups was to test how clean energy messages might fare in the wild when (a) assembled into a 3-5 minute narrative pitch, and (b) when judged in the face of a counter-narrative from opponents.

Participants listened to an *in-person* clean energy “pitch” presented by Trevor Melanson from Clean Energy Canada, followed by an *in-person* “counter-pitch” presented by Paul Noble from McAllister Opinion Research<sup>6</sup>. Participants were invited to ask questions of clarification after each pitch but did not rate either pitch or counter-pitch *until after they had heard both*. The ratings and rationale for ratings were completed on paper, and then discussed as a group.

### Narrative Content

Trevor Melanson’s **Clean Energy Pitch** made the case that “accelerating the energy transition is the best way forward for Canada”. The 4 main points in the Pitch are listed below:

- (1) ***Climate change is the single greatest threat we face, and it is accelerating.*** This does not allow for a “business as usual” scenario. We need to skate to where the puck is going.
- (2) ***Canada has a responsibility to act.*** This is because we are a major polluter and one of the top 10 largest economies in the world.
- (3) ***Clean energy is an opportunity for Canada.*** The clean energy sector is growing, while the fossil fuel sector is losing jobs. New clean energy technologies are an upgrade on obsolete technologies.
- (4) ***Opponents to clean energy transition are putting us at risk.*** They put the profit margins of an outdated industrial sector ahead of what’s best for Canadians, Canada’s economy, and our future. They do not have a plan.

Paul Noble’s **Counter-Pitch** made the case that “we must proceed slowly with caution, protecting what we have today”. The 4 main points in the Counter-Pitch were:

- (1) ***Climate change is real, but we need a plan that is realistic.*** Clean energy technologies are too expensive and unreliable to replace fossil fuels right now.
- (2) ***Accelerating the energy transition will harm Canadians.*** The fossil fuel energy sector produces goods essential to our everyday life, supports Canadian jobs, and funds services and programs we all need.
- (3) ***Canada is too small to make a difference.*** We like to see ourselves as leaders, but the reality is that Canada produces just 1.6% of all emissions. Anything we do will not matter.

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<sup>6</sup> Cleaned-up versions of the “best-performing” Pitch and Counter-Pitch are included in the Appendix of this report.

Besides, shutting down Canadian oil will simply require increased dependency on imports from countries whose human rights records offend our fundamental values.

(4) **Proponents of accelerating transition mean well but are not realistic.** They want too much too soon and are not accounting for the facts on the ground.

While the main points in the Pitch and Counter-Pitch were more or less the same across all six groups, the support and examples used were different from group to group.

## What worked and what did not work

Over the six groups the Clean Energy Pitch was a clear winner in three groups: Vancouver men and Kamloops men and women. The Counter-Pitch beat the Pitch among the Surrey women and came within one point of a tie in Vancouver women, and Surrey men.

### Summary Scores

	1 - VAN MEN	2 - VAN WOMEN	3 - SURREY MEN	4 - SURREY WOMEN	5 - KAMLOOPS MEN	6 - KAMLOOPS WOMEN	TOTAL
<b>PITCH 1 Trevor</b>	8	7	8	7	7	8	7.5
<b>PITCH 2 Paul</b>	4	6	7	8	5	5	5.8

The audience reaction to the pitches reveal a number of key insights on what did and did not work.

### 1.Be Local, Not Global

Leading with a locally relevant threat and linking the pitch to local opportunities is a clear win. Trevor started the Kamloops men’s pitch with a story about his cab driver from the airport describing feeling like a “prisoner in his own home” during the first season. At that moment, the entire group leaned in and softened. When Trevor spoke to them about a clean energy company in Richmond called Corvus that was building batteries for world-leading electric ferries, they leaned in again. Participant feedback in Kamloops was unique: *“Honest and heartfelt. Made themselves relatable at the beginning and end. Clear plan for what to do / where to invest.” “Clear notes, spoke well and professional. Made the local and therefore emotional connection to his cause. Optimistic in change. We need to be the change.”*

On the other hand, when Trevor spent minutes describing climate impacts in Europe, Syria, Bangladesh and “tropical areas” to the Surrey men’s and women’s groups, the energy left the room and participants zoned out. Similarly speaking about California, Trump, Europe, and the “global economy” seemed to cause flickers of inattention and annoyance for these participants. To bring them onside, the conversation needs to be anchored in not the distant and abstract, but the

concrete and proximate: Canada, regional, and local. As several participants state: *“He uses points not addressed to the Canadian population. Eg: how it affects Asia.”* And *“Trump allusion is not helpful”*.

## 2. Lead With Benefits, Not the Cost

In the best performing pitches in Kamloops, Trevor spoke of electric vehicles saving 75% on your fuel, retraining programs for the clean energy economy, a wood office tower in Prince George, and electrification of copper mining. These provide a relatable vision of the clean energy economy to people trying to imagine where you want to take us. *“His speech was clear, he had a much more convincing argument. He gave clear examples of what this means and how it impacts us Canadians. I want him to stand up for me with the gov.”*

In Trevor’s worst performing pitches in Surrey, he ended with a defence of the carbon tax and pricing pollution. As they say, if you want to sell a trip to Hawaii, talk about the beach. People want a vision in which they can see themselves, not a pricing policy. Moreover, the carbon tax and pricing pollution pitches were also the ones that focused on economic opportunities in the “global economy”, “California”, and “Shell” without linking it back to “us” and “here”. If we are to speak of opportunity, it needs to be an opportunity for people “like us”, not just young elites who live in global cities. *“Didn’t connect. You have to remember people need the money.”* *“Info overload. Understand we are in trouble. But more simply put. People need to see it.”* *“Made a lot of good points but didn’t seem to have a clear solution.”*

## 3. Realist vs. Idealist Tropes

All 47 participants are climate sympathizers and they were subjected to at least 90 minutes of clean energy priming and propaganda prior to the pitches. And the truth is that clean energy transition is the cause of the realists. And yet in the Surrey groups, Paul managed to convince a majority of the participants that Trevor was the idealist with no plan. He also managed to convince people that he was the realist, and yet somehow didn’t need a plan. Participants made statements like: *“More realistic that pitch 1, made a lot of good points about climate change and our economy.”* *“I liked that Paul was taking about being realistic and that makes sense because change is slow and hard.”* *“It’s true, we have to be realistic about the change. It can’t happen overnight and we can’t make people have the money.”* *“Trevor has a great plan. A little unrealistic. Not something that can happen overnight.”*

The “idealist without a plan” trope did not seem to stick when Trevor gave examples of ways forward that spoke to his audience’s needs. In Kamloops he talked about training programs, governments investing in incentives to make transition cheaper, UNBC investing in a Wood Innovation and Design Centre, Obama pushing for cleaner and more efficient vehicles that cost you less in gas, and voting for a party that supports these policies. *“Good ideas but need more details. I liked investing in new jobs for old employees.”* *“Very persuasive. Felt like change could happen and I could make a difference.”*

## 4. The Threat Message

A clear threat message that connects to people's mental models of greenhouse gases, global warming, and heat-trapping pollution also seemed to diminish the impact of the counter-pitch. In the groups that Angus primed with the "greenhouse" mental model of global warming", and where Trevor spoke of the recent forest fires, the threat message seemed to really stick. That is, people who understood the "mental model" seemed to be better inoculated against the "realist = inaction" trope.

The "skate-to-where-the-puck-is-going" analogy seemed to work when set up with the compelling and relatable threat message. These participants saw urgent action was the only realistic path forward and rejected the go-slow message in the counter-pitch. *"Speaker was well-spoken, but the points had factual rebuttals that negated many points. I have a super critical eye, so I am sorry to be harsh, but this perspective literally made me feel like the answer is to suck it up and just live until we and the planet inevitably die. 46% of people living with \$200 away from insolvency are the very people who are being impacted most by the climate crisis."* *"Relatable, but negative. Nobody wants to be told to slow down when our instincts are telling us to shift."*

## 5. Responsibility, Not Guilt

The responsibility pitch did not work so well when linked to the suffering of people in Asia and beyond. "The pitch made me feel guilty as a Canadian that it is my problem and that I contributed for climate change. I like the idea and endorse electric solution (car, home efficiency/energy)." While the "Canada as a top emitter" message is an important one, it may be more productive to link it to a pivot that incriminates opponents to a clean energy transition and leaders who put the profit margins of an outdated sector ahead of our children. This might better set up a call-to-action like: "Our kids can't vote, but we can."

## 6. Canadian Values

Equality, fairness, community, and compassion are core Canadian values. As such, the strongest element in Paul's counter-pitch was the mention of one in two Canadians who are within \$200 of financial insolvency every month. That line hit home in every group. That is in part because environmental initiatives from organics to Teslas are firmly associated with affluence in the public imagination. The following sentiment was shared by many: *"I agree people are in a tough spot financially and can't expect the population to take on the financial burden in so short of time."*

The Clean Energy Pitch needs to address this critical concern head-on by showing that it not just for the affluent university-educated hippy crowd and government bureaucrats with jobs for life. Speaking about a "reasonable and fair" transition is not enough. Inoculating against rising right-wing populism will likely require experimenting with imagery and factoids that show how the transition includes a path forward for all Canadians, including working families and the precarious (e.g., rebates, dividends, re-training). It may also be worthwhile linking the transition to making us all less vulnerable to the predations of big transnational oil.

## 7. Messenger vs. Style

Participants who were local and knowledgeable about the local impacts of climate change and local and regional solutions/projects held a lot of sway in the groups. These participants had the ability to make or break the credibility of our “out-of-town” “ivory-tower” pitches. Michael in Kamloops is a good example of such a validator-key influencer participant. His confidence or lack of confidence in our material was key to the dynamic in the room. His comment about Paul’s pitch is revealing: *“Understand the fear but playing safe is what we have done and that has put us where we are now, and we can’t afford that. Much better speaker though.”* The takeaway from this comment is that locating and getting these validators in the room is key to getting our message across, and that with these validators in the room the substance of the message will carry over the form.

## F. FINAL INSIGHTS

1. **Share of Audience:** Our public opinion research data suggests that 70% of British Columbians are sympathetic to the clean energy transition.
2. **Three Key Segments:** Analysis of focus group profiles, suggests these can be divided into the three core segments described below:
  - a. **The Clean Energy Choir** (20% of sympathizers)
    - Knowledgeable, motivated to vote for clean energy
    - High ranking for Trevor, low ranking for Paul
    - Typically, university educated, urban, young, post-material values
  - b. **The Clean Energy Congregation Swing Vote** (50% of sympathizers)
    - Somewhat knowledgeable, but unsure about what a “clean economy” looks like from street level, how it might benefit them in everyday life.
    - Close ranking for Trevor and Paul, with Trevor pulling ahead, but Paul still in strong contention.
    - Typically trades or college educated, working family, higher concern with material security, but also connected to community.
  - c. **The Clean Energy Cautious** (30% of sympathizers)
    - Concerned about energy costs, jobs, and pollution, low-information voter, easily mislead
    - Rank Paul more highly than Trevor
    - Typically conservative-leaning, Gen-X, new Canadian professionals (e.g. accountants) with a strong orientation toward material security and isolated from community.
3. **The Clean Energy Economy:** No one knows what a ‘clean economy’ is. Many envision sterile solar panels and wind turbines standing in empty fields or, and high-tech computer automation. These do not evoke images of jobs and employment for most working Canadians. We need to make the full meaning of clean energy economy visible and accessible and describe the wide range of employment and business opportunities available.
4. **Elite Identity:** Clean energy is often viewed as the domain of affluent urban elites. Many working people think of Tesla and Prius, not Volt and Bolt. They can’t even get to imagining how these might benefit people like themselves. People need to understand how the clean energy transition might offer them careers that fit their skillsets and budgets, and an affordable path through the transition.
5. **The Oil & Gas Economy:** People appear imagine the oil & gas economy to represent a far larger share of the Canadian economy than it actually is. When they learn that it is in fact

just 3-4% of the economy and not over half the economy, they are far less concerned about transitioning away from it.

6. **Renewable Energy:** While people understand what clean energy is, they are more likely to use the term renewable energy.
7. **Environmental Harm as “Waste”:** For many British Columbians, the energy and environment issue that offends them most is “waste”. Waste is not just a form of inefficiency, but it is also a form of contamination. A key reason they want to see a transition to clean renewable energy is “waste”.
8. **Transition and Diversification:** While the Clean Energy Choir were more comfortable with terms like energy revolution and shift, many of the Congregation Swing Vote and Cautious found these terms unsettling. The latter two audiences express a strong preference for transition and diversification as energy goals. For these Canadians, these terms were less scary and felt less disruptive.
9. **Broken Mental Models:** When Canadians are asked to explain the primary cause of climate change in surveys, the majority are hazy on the mechanics, often pointing to the ozone hole, radiation, chemicals, and/or just “pollution in general”. In the focus groups, this hazy understanding of the connection between carbon, clean energy, and climate change seemed to be an obstacle to meaningful discussion.
  - Without a basic understanding of how the dots connected, participants lacked the ability to integrate and assess the significance of information. Discussions between people of differing levels of understanding quickly bogged down.
  - As a solution, we tried reverting to the mental model of a greenhouse, which scientists used in the 1990s to explain global warming to the public. We found that explaining the mental model of the greenhouse effect early in the groups to be of great help. When people understand global warming as the greenhouse-like effects of a heat-trapping gas, conversations about the connection between clean energy, fossil fuels, and climate change become much more efficient. Interjections about aerosol spray cans, chemicals, Fukushima, and recycling are minimized and the conversations start to make a whole lot more sense.
10. **The Trap of Individualism:** Another barrier to productive engagement on clean energy transition is a focus on individual choice and lifestyle. This habit inevitably leads to finger pointing, defensiveness, and distraction from more productive engagement. In the groups, we found that making it clear that the subject matter at hand was “systems” and decisions made by companies and governments as opposed to personal habits was of great help.
11. **The Public Does Not Want to Pay:** ‘How are you going to pay for it-ism’ is another trope that tends to bog down policy discussion. Interestingly, we found that this did not seem to come up as long as we were talking about electric vehicle rebates and charging station infrastructure that is seen to benefit the parties in the conversation. Neither did cost seem to be an issue when it comes to training programs for new clean energy careers. The only time spending or investment became contentious was when a policy or service was seen to



benefit an outside party such someone in Bangladesh or another community or social group.

- 12. Complexity, Scale, and Horizon:** People have a hard time grappling with a problem that is complicated, global, and set to happen over centuries. Clearly, an abstract threat such as climate change needs to be framed so it is comprehensible (i.e., mental model), and translated into local or regional impacts (i.e. forest fires), and visibly linked to a current pain (e.g., cost of living, secure local jobs). The focus group factoid pine beetle, ticks, forest fires, and extinction conversations demonstrated that when people are given the opportunity to connect the dots themselves, they will. And that these conversations reinforce the shared understanding of the problem of climate change as a systemic problem that requires collective action.
- 13. No One Has Heard of CleanBC:** And yet the public expects the Provincial Government to play a leading role in the clean energy transition. They view the 2040 electric vehicle target as timid. They not only expect clean energy infrastructure like electric charging stations, electric ferries, and new alternative generation, but they also expect the government to fund training and retraining in their regions. They do not want jobs, they want careers. Not just for their kids, but for older workers as well. This seems like an easy opportunity for the provincial government. The communications need to work at a local and regional level and be aligned with (a) existing pride of place, (b) community values, and (c) improvements to material security.
- 14. 15% RNG Feels Like a Weak and Insufficient Target:** For most of the public, industry is the bad guy in the clean energy story. When it comes to environmental issues, the BC public expresses very little confidence in large resource and extraction companies. These players are widely seen as self-interested environmental scofflaws and for many, the low bar was set by events like the Mount Polley mine waste disaster. As such, expectations are low, even for retail energy distribution companies. For many focus group participants, making a genuine effort seems to count as much as results.
- 15. Affordability and Dependence:** The cost of gasoline is a major source of aggravation for British Columbians, particularly on Vancouver Island and the Lower Mainland. The focus group conversations suggest that the British Columbians implicitly understand that oil companies get away with gouging us at the pumps only because we are a captive market wholly dependent on a pernicious fluid that they monopolize. This sentiment presents an opportunity to subtly frame electric vehicles as freedom from the grasping clutches of the fossil fuel company cartel.



# APPENDIX A: DISCUSSION GUIDE

A. INTRODUCTION	2 minutes -> 0:05
<p><b>Thank participants for their time. Outline ground rules/expectations:</b></p> <ul style="list-style-type: none"> <li>● INTRODUCE Angus McAllister. Conduct research on peoples' opinions.</li> <li>● WHAT IS A FOCUS GROUP – a guided discussion to gain insight into topic we're trying to understand.</li> <li>● GROUND RULES: My job is to listen. And to guide discussion. May try to stimulate it as well.               <ul style="list-style-type: none"> <li>○ I may interrupt, so I apologize in advance.</li> <li>○ Want to hear your views, not “other people’s views”.</li> <li>○ No right or wrong answers. Feel free to disagree, don't be disagreeable.</li> </ul> </li> <li>● RECORDING: Colleagues viewing on camera. Recorded.               <ul style="list-style-type: none"> <li>○ Ensure I get it right in report. Wave.</li> </ul> </li> <li>● PRIVACY/CONFIDENTIALITY:               <ul style="list-style-type: none"> <li>○ No video of you saying things going to appear on Facebook, or on TV.</li> </ul> </li> <li>● TIMING               <ul style="list-style-type: none"> <li>○ Session ENDS n 2 hours. i.e. 8/10 o clock. All good?</li> <li>○ Honorarium to say thank you.</li> <li>○ QUESTIONS?</li> </ul> </li> </ul>	
WARM-UP	8 minutes -> 0:15
<p><b>I'd to go around the table and introduce ourselves:</b></p> <ul style="list-style-type: none"> <li>● Tell everyone a little bit about yourself. And.... Maybe...who inspires you.</li> <li>● I'll go first. _____. NOTE: Moderator give example of who inspires him</li> <li>● Clockwise to my left. <u>Concise</u>.               <ul style="list-style-type: none"> <li>○ Diagram of names.</li> </ul> </li> </ul>	

**IDENTITY**

5 minutes -&gt; 0:20

**Tell me what's so great about BC, compared to other regions of the world?**

- Write it down. Then tell me.
- Probe for advantages. What are our strengths?

**What would you say are some challenges facing us in the world today?**

- Write it down. Then tell me.
- Probe for advantages. What are our strengths?

**B. BASELINE ENERGY & CLIMATE AWARENESS**
**ENERGY OPEN-ENDED PROBES**  
 >0:40

20 minutes –

**Now I want to talk about energy in our province. Not personal energy, but the energy that powers our day to day lives and the economy.**

- **What are the top issues affecting energy in our province?**
  - Write down 3 challenges that come to your mind. ONE PER POST-IT NOTE.
  - Stick them on the flipchart up front.
  - DISCUSS /PROBE.
    - CATEGORIZE: Top issues/challenges
- **Start with cost/bills etc. then supply etc.**
  - How does it affect you/others/society? Why care?
  - What are the causes of these problems? Probe for systemic insight.
  - What are the solutions.
- **Zero in on clean/dirty energy. What comes to mind when you hear the term “clean energy?”**
  - **Why is X a problem? How big a problem?**
  - How does it affect you/others/society? Why care?
  - What is the cause? Probe for systemic insight.

- **What are the ways forward?**
  - Are some kinds of energy better than others? What are the solutions. What is the future?
  - PROBE: Transportation solutions. Are electric cars a solution? Why/Why not? What kind of person drives an electric car?
    - What makes something a real solution? Newer/Cheaper/Advanced?
    - Is it affordable? When?
  - PROBE: Home solutions. Is natural gas a solution? Why/Why not? What kind of person has solar panels on their home?
    - What makes something a real solution? Newer/Cheaper/Advanced?
    - Fake solutions? Realistic solutions? Downsides.
    - **Has anyone heard about “renewable natural gas”?**
      - Renewable natural gas turns waste from landfills into fuel? Would you be interested in seeing more of that being developed?
      - What if it cost more? Would you pay more for it? What if it were mixed in? What if governments were required to use it?
- **Are we there yet? Is it happening fast enough for you? Why aren't we there yet?**
  - Is it lack of technology? What is stopping us?
  - Who is leading / obstructing energy transition?
  - How does Canada compare to other regions of the world/
- **Who should lead? What role do you expect of the following?**
  - Government
  - Industry
  - Consumers
  - Who is doing a good job? Examples.
  - Have you heard of any traditional industries, for instance natural gas suppliers, investing in new renewable technologies, like hydrogen?
  - What do you think of those companies? Does it affect your impression of their ethics or sense of corporate responsibility? Would you be more willing to support such companies?
- **Have you heard of the provincial government's CleanBC plan?**

- What do you think it’s about?
- ONE WORD TO DESCRIBE TYPE OF CHANGE NEEDED, IF ANY, AND WHY.
  - **LISTEN FOR Transition vs. Revolution vs. Evolution vs. Adaptation**

## D. FACTOIDS

### THREATS FACTOIDS

20 minutes -> 1:00

HAND OUT ASSET SHEETS AND 3 RED DOT STICKERS TO EACH PARTICIPANT.

- These are factoids covering some threats to our province.
  - Some you may know. Some you may not know.
  - The lists are designed to give you a bit of sensory overload.
- I WANT YOU TO SCAN THROUGH THESE LISTS OF FACTOIDS.
- USE THE RED STICKERS MARK 3+ ITEMS THAT YOU FIND “INTERESTING” OR “COMPELLING” FOR ANY REASON. JUST PICK THREE.
- YOU HAVE 3 MINUTES.

COMPILE DOT VOTES ON A NUMBERED FLIP CHART.

DISCUSS STARTING WITH THE MOST COMPELLING. ASK PARTICIPANTS TO READ.

- What is striking or compelling about this item?
- What made you choose it?
- Anyone else select this? Why?

What’s missing?

<p><b>FEATURES FACTOIDS</b></p>	<p>15 minutes -&gt; 1:15</p>
<p>HAND OUT ASSET SHEETS AND <u>3 BLUE DOT</u> STICKERS TO EACH PARTICIPANT.</p> <ul style="list-style-type: none"> <li>• These are factoids covering some good things about our province.             <ul style="list-style-type: none"> <li>• Some you may know. Some you may not know.</li> <li>• The lists are designed to give you a bit of sensory overload.</li> </ul> </li> <li>• I WANT YOU TO SCAN THROUGH THESE LISTS OF FACTOIDS.</li> <li>• USE THE BLUE STICKERS MARK 3+ ITEMS TO ID ITEMS THAT ARE “INTERESTING” OR “COMPELLING” FOR ANY REASON. JUST PICK THREE.</li> <li>• YOU HAVE 3 MINUTES.</li> </ul> <p>COMPILE DOT VOTES ON A NUMBERED FLIP CHART.</p> <p>DISCUSS STARTING WITH THE MOST COMPELLING. ASK PARTICIPANTS TO READ.</p> <ul style="list-style-type: none"> <li>• What is striking or compelling about this item?</li> <li>• What made you choose it? Is it credible?</li> <li>• Anyone have any objections to this factoid?</li> <li>• Anything missing?</li> </ul>	
<p><b>SUMMARY DISCUSSION</b></p> <p>1:20</p>	<p>5 minutes -&gt;</p>
<ul style="list-style-type: none"> <li>• So all in all, thinking of what we’ve covered and what you’ve heard WHAT’S THE STORY HERE?</li> <li>• Re-prompt:             <ul style="list-style-type: none"> <li>• What is the cause / mental model?</li> <li>• Who is responsible / bad guys?</li> <li>• What is the way forward / solutions?                 <ul style="list-style-type: none"> <li>• <i>[How has the story changed since initial climate discussion?]</i></li> </ul> </li> </ul> </li> </ul>	

## META FRAMES

10 mins -&gt; 1:30

Now I'm going to show you three videos, after each one I want you to rate it 0 to 10, where zero is awful and 10 is great, then after the final one we'll have a discussion.

### [IDENTITY / PROGRESS]

<http://cleanenergycanada.org/all-stories/clean-solutions-its-in-our-nature/>

### [INCENTIVES / POCKETBOOK]

<http://cleanenergycanada.org/all-stories/this-ontario-family-loves-their-affordable-low-carbon-lifestyle/>

### [SURVIVAL]

<https://www.youtube.com/watch?v=IFgBFYkBZ6E>

Possible questions:

- What is video #1 about? 2? 3?
  - [How is each video trying to motivate you?]
  - [What is the goal of each video?]
- What's the moral of the story?

## THE PITCH

### MASTER PITCH

10 minutes -&gt; 1:40

- We've reviewed some challenges. And I've heard some things about what you'd like to see.
  - Now I want to bring someone into the room. They are from what you might call a "thinktank". This person wants to give you a "pitch" on a positive vision of the future.
  - AND HOW WE MIGHT GET THERE. Let's call it "THE WAY FORWARD".
  - He is going to have 1-2 minutes to give you her pitch.
  - I want you to listen. Then you'll have 3 minutes to ask him a few questions. Or clarifications.
  - Then she is going to leave the room. And we are going to rate her pitch.
  - It's kind of like a "Dragon's Den" for ideas. Are you good with that? =
- **[PITCH]**

- Now I want you to rate this as 0 is TERRIBLE IDEA -- 0 1 2 3 4 5 6 7 8 9 10 -- GREAT IDEA.
- Write it down on a sticky note and put your name and the letter ‘T’ in the corner

**FOIL PITCH**

10 minutes -> 1:50

- Now XX is from a think tank where there are different points of view.
  - And now I want to bring in another person who represents that OTHER point of view.
  - He is going to have 1-2 minutes to give you her pitch.
  - I want you to listen. Then you’ll have 3 minutes to ask him a few questions or clarifications.
  - Then he is going to leave the room. And THEN we are going to have a chat. Are you OK with that?
- MAKE THE COUNTER-PITCH.
- 5 MINUTES MAX FOR QUESTIONS/COMMENTS WITH COUNTER-PITCHER IN THE ROOM.
  - **[COUNTER-PITCH]**
- Now I want you to RE-ASSESS THE FIRST PITCH IN LIGHT OF WHAT YOU JUST HEARD.

And now I want you to rate the pitch you just heard and write down a number from 0-10 on a post-it note. Where ZERO means TERRIBLE IDEA -- 0 1 2 3 4 5 6 7 8 9 10 -- GREAT IDEA

**PITCH DISCUSSION**

5 minutes -> 1:55

DISCUSS PITCHES:

- What was PITCH 1 ABOUT?
- What was PITCH 2 ABOUT?
  - Which pitch made most sense to you? Why?
  - Strengths. Weaknesses.
  - What was missing.

***[Does the MASTER pitch survive the foil?]***

**CLOSE / THANK YOU**

**2 MINUTES -> 2:00**

Those were all the questions I have for you. Thanks again for your participation. All that is left for you to do is, on your way out, sign the attendance sheet again to confirm you received the incentive we promised you.

[FOR FIRST GROUP ONLY] And please avoid discussing what was raised during this session as you make your way out of the facility since I have participants from my next group waiting.



## APPENDIX B: Factoids

### Threat Factoids

1	\$110 billion dollars worth Canadian oil sands investment risks becoming "stranded" if government climate policy doesn't allow oil companies to extract all the oil they've found.
2	1 in 10 Canadian properties may soon be deemed too "high risk" for insurance due to extreme weather events like floods and forest fires.
3	751 species are at risk of extinction in Canada, with climate change the leading cause for the 62 species at risk that live in the North.
4	According to official numbers, Canada is forecast to lose 12,500 oil and gas jobs in 2019, mostly in Alberta.
5	Approximately 100,000 Canadian oil and gas employees lost their jobs between 2014 and 2017.
6	Big oil companies like Shell, Total Imperial, ConocoPhillips, ExxonMobil, and Statoil have backed away from Canadian oil sands investments in recent years, and some like Shell, Total and Statoil have left Canada altogether.
7	Canada is warming at twice the global rate, with Northern Canada heating up three times faster than the global average.
8	Canadians have one of the largest carbon emission footprints in the industrialized world, producing about 3 times as much pollution per person as citizens in Europe and the top 20 industrialized nations.
9	Carbon dioxide has now reached 415 parts per million, its highest point in 3 million years. Last time it was this high, sea levels were 50 ft higher, forests grew in the Arctic, and large expanses of the continent where people live today, were uninhabitable.
10	Due to forest fire smoke, spending a day outside in Prince George this summer was the equivalent of smoking 17 cigarettes.
11	Electric cars may be inexpensive to operate and maintain, but they can be very expensive upfront. Tesla's cheapest model, the Model 3, retails for nearly \$50,000.

12	Every single one of the last five years has been one of the five hottest years ever recorded.
13	In 2018, extreme weather cost Canadians \$2 billion in property damage.
14	Insurance payouts from extreme weather have doubled every five years since 1980.
15	Last year, 2018, was B.C.'s worst forest fire season in recorded history. The previous year, 2017, was the second worst fire season ever, where an area equal to more than a third of Vancouver Island burned.
16	Methane is 30 times more damaging than carbon dioxide for the climate, but methane released from landfills can be captured and turned into natural gas.
17	On average today, one Canadian, emits as much climate pollution to the atmosphere as 2 people in China, 10 people in India, or 33 people in Bangladesh.
18	Sea levels are forecast to rise as much as 9 feet in Canada by the year 2100.
19	The average electric car loses 20% of its range in weather colder than 4 degrees celsius.
20	The average wind turbine kills 8 birds a year, meaning turbines are responsible for about 54,000 bird deaths per year across Canada.
21	The cost of solar power has declined by 88% since 2009, while the cost of wind power has dropped by 69%. In most places, it is now more cost efficient to build new renewable power than run existing coal plants.
22	The insurance industry expects to see significantly higher levels of death, injury and property damage from floods, fires, and extreme weather in Canada over the next decade. These new risks may result in diminished average life expectancy among the current generation of young adults and children.
23	Warmer winters have allowed the Mountain Pine Beetle to spread rapidly in B.C., killing more than 16 million hectares of forest. <i>Now, the same thing is happening with ticks.</i>
24	At least 66 people in Montreal died from extreme heat during the 2018 summer heatwave.

## Solutions Factoids

1	B.C. is a clean energy powerhouse. More than 90% of B.C.'s electricity is produced by 120 renewable energy hydro power stations across the province.
2	B.C. is one of the world's climate leaders, and was the first place in North America to introduce a carbon tax. British Columbia's per capita carbon emissions are 75% less than Alberta's.
3	Chinese consumers bought 1.1 million electric vehicles last year, more than the rest of the world combined. Total U.S. sales were 358,000, while 34,000 electric cars were sold in Canada.
4	Canada's electricity grid is one of the cleanest in the world. Over 80% of our electricity come from non-polluting sources like hydro and wind.
5	In B.C., you can get a \$10,000 rebate when you buy an electric car—this goes up to \$16,000 if you scrap your old gas car.
6	According to the International Energy Agency more than 60% of the world's solar panels are made in China.
7	Bloomberg estimates that batteries, which can store power from wind and solar energy for later use, will be a \$620-billion industry by 2040.
8	Canada's clean energy sector employs 300,000 workers. Canada's oil & gas sector, in contrast, employs 173,000 people.
9	Electric vehicles outsold gas and diesel models in Norway for the first time ever last month, accounting for 58.4% of all vehicle sales.
10	Canada's clean energy sector grew by 4.8% a year between 2010 and 2017, significantly faster than the rest of Canada's economy (3.6%).
11	In B.C., driving an electric car will save you more than 75% on fuel costs. A gasoline-powered SUV costs approximately \$18 to drive 100km, while an electric SUV will cost just over \$3. Also, electric cars don't need oil changes.
12	Ford just dropped \$500 million into an electric truck startup with an eye toward electrifying its best-selling trucks, the F-series.

13	Automakers are investing a combined \$300 billion over the next decade in electric vehicles.
14	In 2018, 8% of all new car sales in Canada were electric, which is twice as many as 2017.
15	The price of an electric car battery has fallen by 85% since 2010 and is projected to fall even further.
16	Unlike regular natural gas, renewable natural gas is created by collecting methane from landfills. It literally turns waste into fuel.
17	The B.C. government has legislated into law that by 2040, every new car sold in B.C. will be a zero-emission vehicle.
18	The B.C. government has also required that natural gas providers—which provide heating for many B.C. homes—will need to mix in 15% renewable natural gas by 2030.
19	Passive home energy technology that dramatically increases heating and cooling efficiency means houses can now be built that save 90% of energy costs.
20	Energy efficiency upgrades for Canadian homes would create 118,000 annual jobs between now and 2030, save the average family \$114 per year, and get Canada a quarter of the way to its climate goals.
21	The average salary in Canada is \$55,806 per year. The average Canadian renewable energy worker makes \$77,500 per year.
22	Skytrain is 100% electric and carries people on 500,000 trips per day across the Lower Mainland and Greater Vancouver.

# APPENDIX C: Pitch Transcripts

## THE TREVOR PITCH

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### VANCOUVER MEN-PITCH 1

Hi Everybody,

Very sensitive guy. I also am a guy with not a great memory, so I've written my notes down, but uh, I will try to look up as well.

So, I want to start this by asking you a couple questions. So, raise your hand if you've been to blockbuster in the last year. Okay. Raise your hand if you still use a typewriter. So, we all understand that companies that look forward, that you know, invest in what's becoming popular -- rather than what's been popular -- that these companies will be better off. To use a horribly overused business cliché via Wayne Gretzky, they skate to where the puck's going.

Climate change is the single greatest threat we face. It's on course to wipe out trillions of dollars and millions of lives. It's on course to make life for our children worse.

The world will fight climate change simply because it must, there's no business as usual scenario.

Businesses never stay business as usual for very long. And we've already begun the biggest economic transition of the century. Now that that is one hell of an opportunity for Canada. You know, there are already 300,000 jobs in Canada's clean energy sector. So that's not just building solar panels, that's jobs. And uh, on hydro dams, building electric cars and buses, helping, uh, build homes that wastes less energy in more and both those things, by the way, save you money. So energy efficiency in electric vehicles, according to BC hydro, you can cut your fuel bill by 70%, 75% with an electric car.

With government rebates and huge yearly fuel savings, you will be saving money thanks to your electric car in just a few years, within just a few years. And soon as those rebates, they won't even be necessary because electric car prices keep plummeting.

So, my point here is electric cars, they're not just a climate change solution. They're upgrades, right? I mean this is, this is Netflix replacing Blockbuster. This is computers replacing typewriters.

While Canada's oil sector has been losing jobs in recent years, you may have read the headlines, clean energy sectors been growing in value by 5% every year, and that's significantly ahead of the Canadian economy as a whole.

You may have heard also that Canada's warming at twice the rate of the rest of the world. Now I'm in my early thirties and even I can feel that difference, right? Like, that's because it's accelerating.

And so soon as the cost to us, every day that we delay, it's like borrowing money from the world's most unforgiving loan shark.

Do you all remember like how rabid climate change denial was just 10 years ago? But that's changed, right? Climate change, now they're not denying it as much anymore. They're downplaying it, right? But telling us that Canada is too small to make a difference. Even when we're in the top 10 countries in terms of economic size, and our carbon emissions, they're telling us to go slow so that a few big companies can have better profit margins.

But here's the thing, their bottom line is not the same thing as our economy, and certainly not the same thing as our future.

So here's my pitch. Accelerating the energy transition is the best way forward for Canada.

=====

**VANCOUVER MEN QUESTIONS**

Now I'll take any questions that you want to clarify from what, what is he talking about? What does he tell?

I'm talking across the board. So, you know, one of the big things, uh, the worst cold electrification, right? So it's getting more things onto electricity grid. Um, and then you have a cleanup [inaudible 01:30:02].

Canada's electricity grid is over 80% clean. All right. So if you get a car on that electricity grid or you get home heating on list, electricity grid or whatever it is, you're making it cleaner. So electrification is a word often used to sort of accelerate that. Um, I mean that makes Canada cleaner. But in terms of this, you know, uh, acceleration general-generally and so, so, uh, you know, if you invest in, if you create a climate at home for a company to succeed in, um, that will help them grow here and then potentially be more successful abroad, right?

Like, if you create a good business climate for, for clean tech companies at home, they're more likely to grow at home. And if they're companies are more likely to, you know, compete abroad as well. So that's, that's another benefit of this drawing, sort of reclaiming the idea that, you know, the world is moving this in this direction and so we want to build companies that are going to be big, successful global players, you know, down the road and not did not just trying to get a treat.

Sorry go ahead.

Sure.I mean, you sometimes does adjust transition, right? And I think it's absolutely important that we're investing in programs that help like \*\*\*\*train workers\*\*\*\* and stuff like that. But the new energy economy, and I mean it is a transition I advocate for, for a faster transition, but it's still a transition. It's not overnight.

Sure. Well, I mean we are export a lot of things already. I mean tech is a bigger industry than oil and gas in this country. I mean, the first thing I'd say is it's not really a choice, right? Like this is just the way things are going. Um, and so we can be smart about it or we cannot be smart about it. But you

know, oil and gas is, it's a significant part of the economy, but there are different numbers. I think often, the fossil fuel sector extraction is around 7% of Canada's GDP. Um, so it's not as big as some people think it is, which isn't to downplay it. But just to say that there are other really big sectors and I think some people over emphasize Canada's identity is no inhalation.

Yeah.

It's called plugin hybrid.

Good. Yeah. So, you can get back part.

Yeah. So plug in hybrids, charge like an electric vehicle and usually get like a 90 kilometers or something. So basically all your day to day driving, like around town we'll be on electric, but if you drive, some are further switches to gas. So, it's for people who want sort of a middle ground for a little while, I guess.

Well, those are two different things. So I mean hydrogen power is, it's, I think it's often been used in like trains and China's using it. Some of it's buses right now as well. So, that's an alternative energy system.

But I mean, but what we've seen so far, at least in terms of personality, automobile mobiles as electric cars are completely dominating versus hydrogen.

The cost of a hydrogen station has nothing to do with the cost of like billing and charging infrastructure. It's a different technology.

They're both good renewable technologies and hydrogen might succeed with different types of transportation, but right now in the consumer car market it's totally electric vehicles. One of them wrap it up here.

Um, it's not attempt by BC.

This is my pitch to you.

We work for thinking so we do work on policy at is something that we're complex as part of our bug and all.

Yeah and I will depart.

Thanks for having me. Thanks.

=====

**VANCOUVER WOMEN-PITCH 2**

Hi. Yeah, hi everyone.

I brought notes with me because I have a really bad memory but I will try and look up and be engaged. This is a very low seat (laughs), wait, I feel very... Okay, there. All right, so I'm just going to

read this for a bit and then, um, like Angus said if you have any questions, um, I'm happy to answer them.

So I- I wanna begin by ask- asking you first a couple questions and the first question I'd like to ask you is, can you raise your hand if you've been to a Blockbuster in the last year?..

A Blockbuster. Okay, So the second question, raise your hand if you still use a typewriter...Well, it's- it's because, uh, we all understand that companies that- that look forward, that invest in what's becoming popular rather than what's been popular, that these companies tend to do better.

It's, uh, like that horrible overused business cliché from Wayne Gretzky, escape to where the puck's going.

Climate change is- it's the single greatest threat we face. It's on course to wipe out trillions of dollars in millions of lives, it's on course to make the lives of our children much worse. So the world- the world will ultimately fight climate change because it must, there's no business as usual- as usual scenario. Business has never stayed usual for very long, and we're already... we've already begun the biggest economic transition of the century.

So here's what I- I would say that's one hell of an opportunity for Canada. So there right already 300,000 jobs in Canada's clean energy sector and that's not just jobs building solar panels, that's job on hydro dams, uh, building electric cars and buses, helping homes, uh, uh, waste less energy and- and so on. And both those things by the way can save you money, so energy efficiency and electric vehicles.

Now, according to BC Hydro you can cut your fuel bill by 75% with an electric car. With government rebates, that- and those yearly fuel savings, you'll be saving money, uh, thanks to your electric car, within just a few years, already, today. And soon those rebates won't even be necessary as electric cars prices continue to plummet. So here's my point, electric cars, they're not just a climate change solution or though they definitely are, they're also upgrades, right? This is Netflix replacing Blockbuster, this is computers replacing typewriters.

So while Canada's oil sector has been losing jobs in recent years, you may have seen the headlines, our our clean energy sector has been growing in value by 5% a year. To put that in context that's significantly high than the Canadian economy as a whole. You may have heard that Canada is warming, twice the rate of the rest of the world. Now I'm in my early thirties and even I can feel the different, right? Like, and that's because this is accelerating and so is the cost of this. Every day we delay is like borrowing money from the world's most unforgiving loan shark.

And do you all remember how rampant climate change denial was just like 10 years ago even? It's changed though, right?

They're not denying it so much these days, they're downplaying it.

They're telling us Canada's too small to make a difference, even though we're in the top 10 countries both in terms of our economic size and in terms of our carbon emissions. They're telling us to go slow so that a few big companies can have a bigger profit margin today.



But I would say that their bottom line is not the same as our economy and its certainly not the same as our future. So here's my pitch, accelerating the energy transition is the best way forward for Canada.

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**VANCOUVER WOMEN QUESTIONS**

Now I'm happy to take any questions or clarifications.

Thank you, okay... all right so this is my election speech, I'm running for office (laughs) [crosstalk 01:20:35]-

Yeah, there are more electric cars being put in roads in China than the rest of the world combined.

Well, I, uh, I'm going for a pretty, um, not going to ask for like, specific policies it's more, buying toward accelerating, like, wanting Canada to move in the direction, um, toward, uh, toward the energy transition faster, right? So rather than be slow or lag on this basically, generally embrace say, government policies that would move our economy more toward cleaner energy and- and towards less pollution. That would be what I would advocate for.

That's sound [crosstalk 01:21:44] and thank all of you.

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**SURREY MEN-PITCH 3**

I brought notes with me cause I have really bad memory so I'll look up too. Um so I'm just going to give you a talk for a few minutes and like Angus said I'll clarify anything afterwards.

Uh, and over these next few minutes, I basically, I just want to talk about two things. The first thing I want to talk about is responsibility. And then the second thing is opportunity.

So let's start with responsibility. I want you to visualize your body. Think of it like an engine. This engine runs hot. If it doesn't cool down enough, you will overheat. You will cook yourself to death. This is how people die from prolonged exposure to extremely hot weather. Since 1980, the number of places on earth that experience, uh, dangerous heat levels has up 50 fold, 50 times. The European heat wave of 2003 killed 2000 people every single day. By the end of the century, if we just sit on our hands, that'll just be a normal summer. As for people who live in tropical areas, countless will leave their homes, as refugees and countless will die. Unable to cool down. That's just one symptom of climate change. Air pollution already kills more people worldwide and smoking.

That was the shot. And here's the chaser. The average Canadian contributes as much climate pollution is two people in China as 10 people in India and as much as 33 people in Bangladesh. Now lets talk about Bangladesh for a second. Climate change could displace 50 million people in Bangladesh, by the end of the century. Syria was 3 million. Bangladesh didn't cause climate change, but Bangladesh and countries like it will suffer the most.

Don't let anyone tell you that Canada's carbon footprint is small. The world is made up of 195 countries and we are in the top 10 for highest emissions, top 10. We also have one of the world's biggest economies. We tend to forget that because we share a border with an elephant. If Canada is too small to matter, then so are 185 other countries, that emit less pollution than we do and then we're all screwed. So that's the bad news.

Here's some good news opportunity. Did you know that Canada's clean energy sector, what you did cause you saw the factoid, employees 300 000 Canadians? That's similar to oil. To use VC as an example. Now these are jobs up on hydro-grams as you mentioned Ian. There are jobs building batteries for world-leading electric ferries.

There's a company in Richmond that the called Corbis that does this. Um, I forgot my script here. There are also construction jobs, making homes more energy efficient. There's this actually this international best, uh, that comes out every year of the most promising clean tech companies in the world in six of the top 100 where it'd be safe.

So I'm sure you've all read the headlines. You know Canada's oil sector has been losing jobs in recent years, but did you know that our clean energy sector has been growing in value by 5% every year? That's after inflation. So I'm including inflation and it's significantly ahead of the Canadian economy as a whole. So my point is, clean energy, its not just the future, it's already are present. The other guys just have words. Speaking of that. So there's another guy who's gonna come in here and after me, and he might use words like realistic and pragmatic.

What he's doing is he's employing something called status quo bias. He knows people are inherently afraid of change, even when change is inevitable and planning for the changes, the smart thing to do. I'm not saying this all happen overnight, I know it's a transition and it needs to be a fair one for workers in every sector, but the global economy is moving in this direction with or without us. Canada should be among the leaders like California in Europe.

I don't want ditch my weight into Donald Trump personally. Sitting on our hands is not a good economic strategy when the house is on fire. And all the company's bottom line is not the same as our economy.

There's a reason why over 80% of economists support pricing pollution. So that's my pitch. Let's move faster in a smart way. Let's be Netflix as opposed to blockbuster and it's for the next guy. I suggest asking him what his plan is to deal with climate change. My sense of the way forward is that we should be moving faster and smarter way. We should be accelerating toward the energy transition faster. It's not overnight, but we should be actively moving in that direction and be amongst of the leading countries.

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**SURREY MEN QUESTIONS**

[RESPONSIBILITY, BANGLADESH, CHANGE, FASTER]

I actually love, I love movies as they used to film nerd and I actually kind of miss walking around and finding things that you wouldn't otherwise have wa- watch. So maybe personally that's not a good metaphor to use.

And yeah, it's, I mean it's like so many industries, right? I can slot in 10 different examples. We've seen so much disruption in industry that's been like, it felt like a, it couldn't die, you know, for a hundred years. And then in 10 years just changed.

Donald Trump?

Sorry. (Laughing).

Um, you need to ask him.

Yeah, I think the World Health Organization tracks that one. You can fact check it.

Um, I assume it's all things that smoking would kill your body. I mean air pollution probably causes a lot of the same home problems and smoking will.

Yeah, that does definitely. That's COPD.

Thanks.

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#### **SURREY WOMEN-PITCH 4**

Thank you. Thank you, Angus. I was very comfortable in my ivory tower, but, uh, I thought I would come down and speak for a few minutes. I brought notes, because I have a bad memory. But I will look up.

Um, so, I'm just gonna spend a few minutes, uh, talking through something here, and then afterwards, as Angus said, I will answer questions to clarify anything.

So, basically the next few minutes, I wanna talk about two things. The first thing I wanna talk about is responsibility, and the second things I want to talk about is opportunity.

So, let's start with responsibility. I want you to visualize your body. Think of it like an engine. This engine runs hot, and if it doesn't cool down enough, you will overheat. You will cook yourself to death.

This is how people die from prolonged exposure to extremely hot weather. So, since 1980 the number of places on earth that experience dangerous heat levels has gone up 50-fold. 50 times.

The European heatwave of 2003, killed 2,000 people every single day. And by the end of this century, if we just sit on our hands, that will just be a normal summer. As for people who live in tropical areas, countless will leave their homes as refugees, and countless will die unable to cool down. That's just one symptom of climate change. Air pollution, already today, kills more people worldwide than smoking. So, that was the shos, now here's the chaser. The average Canadian contributes as much climate pollution as two people in China. As 10 people in India, and as much as

33 people in Bangladesh. Let's talk about Bangladesh. Climate change could displace 50 million people in Bangladesh by the end of the century. Syria, for context, there's three million. Bangladesh didn't cause climate change. But Bangladesh, and countries like it, will suffer the most.

Now don't let anyone tell you that Canada's carbon footprint is small. The world is made up of 195 countries, and we're in the top 10 for highest emissions. The top 10.

We also have one of the biggest economies in the world. We tend to forget that, because we share a border with an elephant. If Canada's too small to matter, then so are 185 other countries that will emit less pollution than we do, and we're all screwed. So, that's the bad news.

Here's here's some good news. There's opportunity. Did you know that Canada's clean energy sector employs 300,000 Canadians? It's similar to oil. And to use B.C. as an example, these are jobs on hydro dams. These are construction jobs, as well, making homes more energy efficient. And these are jobs building, uh, batteries for world leading electric Ferries, by the way. There's a company in Richmond called Corvus, and that's what they do. There was this international list that, it comes out every year. Of the most promising clean tech companies in the entire world. And of the top 100, six were located here in B.C.

Now, I'm sure you've all read the headlines, Canada's oil sector has been losing jobs in recent years, but did you know that our clean energy sector has been growing in value by 5% every year? And that's not including inflation. That's significantly ahead of the Canadian economy as a whole. My point here is, clean energy, it's not just the future, it's already our present. The other guys just have a louder drum.

Now, speaking of that, there is another gentleman who will come in here after me, and he's looking at me right now, and uh, he, he might use words like, realistic and pragmatic, and what he's doing is employing something called, status quo bias. He knows people are inherently afraid of change, even when change is inevitable. And planning for change is the smart thing to do.

I'm not saying this will all happen overnight, I know it's a transition, and it needs to be a fair one for workers in every sector. But the global economy is moving in this direction, with or without us.

Canada should be among the leaders like California and Europe. Sitting on our hands is not good, like, not a good economic strategy, when the house is on fire.

One companies bottom line is not the same as our entire economy. There's a reason why over 80% of economists support pricing pollution. So, I'm not suggesting anything affordable here. You saw how electric cars can save your, uh, can save you money within a few years, is one example. And they keep falling in price. Every year, batteries keep getting cheaper.

What I'm saying is we need to take meaningful steps today, because that's a lot cheaper than paying for climate change. So, that's my pitch, let's transition, in a smart way, not stick with the status quo. Let's be Netflix, not Blockbuster, uh, 'cause that's, that's, that's good business. And of course, climate change is a very serious threat.

So, as for the next guy, I suggest asking him what his plan is to deal with climate change. And that is my pitch. My way forward is, um, that we need to transition. So, we need to transition toward a

cleaner economy, that we need to move faster. In, in, in a smart way, in a fair way, but we need to make a, make meaningful steps forward.

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### SURREY WOMEN QUESTIONS

[BANGLADESH, ASK THE OTHER GUY WHAT HIS PLAN IS TO DEAL WITH CLIMATE CHANGE, PRICING POLLUTION, SPECIFIC JOBS]

So, I'm trying not to get, um, too into the weeds in this, just so it doesn't get about that, but obviously there are policies like some people mentioned, like, you have rebates for electric cars.

Your carbon pricing. Um, stuff like, stuff that moves the economy in that direction. Just kind of as a general package, is what I'm advocating.

Exactly, 100%.

Mm-hmm (affirmative).

Sure, I mean, do you want a quick answer to that? I mean, B.C. as a province is not that bad. Um, the prairies on the border especially, have extremely high emissions that drag the whole country up.

Um, and, you know, a lot of it is cars. So, uh, I saw a stat recently, Canadians drive the least efficient cars in the world. You know, like, people drive a lot of trucks and SUVs.

You don't see as much in Vancouver, but you go, you know, deeper into B.C. it's everybody's driving a truck, right?

So, that's not, that's not like that in Europe.

That's a couple examples, so yeah, it, it's, um... B.C.'s not that bad, but, uh, it, a lot of it is in our industry to like, oil sands, for example.

And a lot of it's in transportation. A quarter of our emissions in Canada are, are in transportation. And that's split between like, heavy-duty trucks, and personal cars. And then, they do buildings, as well.

Um, so, right now our, you know, electricity grid is pretty clean. 80%, uh, just over 80% of Canada, in terms of just electricity, it's, it's non-emitting.

Um, so we want to get that to 100%. But the big thing we advocate it's, it's called electrification. Has anyone ever heard of that word?

The idea is you wanna get more things onto electricity. So, you make electricity clean. It's already pretty good in Canada. That's an advantage. That's why electric cars are even cleaner here than they are most places.

Um, so you wanna get things onto the electricity grid. Right? So, like heating your home, onto the electricity grid. Your car, onto the electricity grid. Industry, using clean electricity. So, that's, that's really the big-

Industry is the only thing I could see, so that's, that's really the big ... for Canada, that's the big opportunity. For other countries, it's a getting off coal.

But for Canada, I mean, we are phasing out coal, right now there's a little in Alberta and the prairies still, uh, so that's important, but, you know, from thinking about here in BC, it's, it's electrification.

Mm-hmm (affirmative).

That we're not moving fast enough?

Not necessarily. I mean, for example, uh, [inaudible 01:34:36] too long again?

Uh, but f-for example, like a clean tech company, so an interesting stat. So British Columbia was the first jurisdiction in North America to implement a carbon tax, in all of North America. Yet interestingly, we have six of the top hundred in the entire which is disproportionately high for the size. That's half ... There's 12 ... On this list of a hundred, 12 are in Canada, 6 are in BC. So something in carbon tax says, and this is just one policy example, there's a bunch of other ones, but something a-a carbon tax does is it makes it more expensive for businesses to pollute more. And so if you're a company that comes up with a solution or a technology to cut ... to help a company pollute less, um, the carbon tax is a big environment figure, because they have an incentive to buy new technology, right? So it's economy shifting.

Um, so if you, if you implement policies like that, you actually incentivize bigger companies. Carbon tax is an example of that.

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**KAMLOOPS MEN-PITCH 5**

I come from a real ivory tower. Sorry.

Hey guys. I was in the back and so I quickly checked it and so, the European Union carbon footprint is less than half of ours, per person. Because, I was curious too. So, I'm gonna read. I just have some notes here with me because I have a really bad memory. I'm gonna read through them and then if you have any questions, clarifications, I'll be happy to answer them.

So, last year, you probably know was BC's worst forest fire season in recorded history. And the year before that, 2017, was the second most. I didn't tell you that, right? Like you live in Kamoops... my cab driver on the way over... he was telling me these things, and he told me that the, the summer events are getting canceled. I think you mentioned that, Michael. He told me you could literally see ash in the air, last summer-

He told me that... I remember this part... he told me that there were days where, he said, "You feel like a prisoner in your own home", because... so, you can't open the windows, and he says "if you can't afford an air conditioner, its like, you know, double worse".

So, you know... climate change is the single greatest threat we face. And if we do nothing, it will literally wipe out trillions of dollars. I know it's an impossible number, but that's true. And millions of lives. And Kamloops... you live in Kamloops, you live on the front lines of climate change. And it's gonna get worse. I don't know how much it costs to fight forest fire. I assume it's very expensive. And if the fire reaches your home, you know you can't really put a price on that.

The global economy, it, it is transitioning. And this is already well underway. Automakers for example, as you saw earlier, are investing 300 billion dollars in electric cars right now. And even many of the big oil companies, like Shell, are investing heavily in electric cars and renewable power... wind, solar, batteries. They don't want to go the way of Blockbuster. Now, here's the good news. That's one hell of an opportunity for Canada. As you saw earlier, there are already 300,000 jobs in Canada's clean energy sector. That's similar to oil. In BC, many of these are on hydro dams, all across the province. Some are in clean tech. You might not know this but there's a company in Richmond, that build batteries for electric ferries. They're on waters in Norway and they're getting a couple in Kingston too.

So, but also the transition to this cleaner economy, it includes natural resources too. I think this is an important point. So forestry, for example. Have you seen those tall wood towers that have been going up in the last few years? There's one in Prince George. Erm, it's called the Wood Innovations and Design Center. And it's owned by UNBC, it's like a 17-story residence. They're made of this special dense wood that they manufacture in [inaudible 01:43:21].

So wood produces way less pollution than concrete. And these BC's a world leader in making mass-timber, that's the special material... which by the way is oh os very fire resistant.

It's also mining. So four times more copper goes into an electric car than a gas one. Canada's home to a lot of copper. There's a mine in Ontario that's electrifying all of its operations. Its trucks... everything. The mining industry sees itself in this transition to a cleaner economy. Mining and forestry, those are big in BC.

And you all remember how rabid climate change denial was a decade ago. But that's changed, right? They're not denying it as much anymore, it's more... they're downplaying it, and they're telling us that the status quo is fine, and they're telling us that Canada is too small, and that our oil industry is too big. So I'll make two points on that. The first one is, out of a 195 countries on this planet, Canada is one of the ten biggest polluters.

We also have one of the world's ten biggest economies. So we're not small. Second point, oil production presents just... oil production is just 3% of Canada's GDP. 3%. And I'd say that's nothing, and I don't blame you for thinking it was bigger than that. Because I certainly used to, and then I remembered how many oil-sands ads I used to see. Like every time I went to the movie theater, right? They were always before the trailers.

They're an industry, and they're interested in their quarterly earnings. But here's my point. Their profit margin is not the same thing as our economy. And I'm not saying to shut it all down or



anything like that. Right? I mean I get that fossil fuels will still be used next year, the year after that, for a while yet. I know you probably all drove here using fossil fuels. I get that. I took a plane to get here.

But what I'm saying is, we need to transition. In a way that is smart and deliberate. We need to invest in the growing parts of our economy that are sustainable, and that will still be around in couple of decades. We need to provide retraining programs for people whose industry has an expiration date. That's important, rather than pretending that you know... nothing's happening.

The world is already going this way. Right... Canada's oil sector's been shedding jobs in recent years and I'm sure you've all seen the headlines, maybe you know people. Our clean energy sector, on the other hand, has been growing in value by 5% every single year. That's way ahead of the Canadian economy as a whole. So, raise your hand quickly if you've Blockbuster in the last year. Right, Blockbuster video.

What about... has anyone used a typewriter? And, it's a stupid question, I know. But we all understand that companies look forward and increasingly invest in what's becoming popular rather than what's been popular... that, that those companies tend to thrive at the end of it, right? Because that... you know the really overly... over used Wayne Gretzky cliché, "You skate to where the puck's going."

Now the cost of transitioning and doing something about climate change is actually pretty small, and it comes with a lot of big opportunities. We don't need to let this apocalypse happen. We have a choice, and it's not even a painful choice. It's things like governments making it cheaper to buy an electric car. Which, by the way, is 75% cheaper to fuel than... and that's for BC. And you don't need to get an oil change.

That's just a choice we have to make. Because as bad as those forest fires are, that's just a sliver of what climate change is costing us, and it's going to cost us so much more. It's going to get so much worse if we do nothing. It will be worse than any recession the world has ever known, and unlike recession, there won't be any getting out of it.

People who wanna do nothing like to say that they're being realistic. They use that word... "Pragmatic. We're being pragmatic." There's nothing realistic or pragmatic about that... there's nothing realistic or pragmatic about sitting on your hands while the house is on fire. And guess what, there's a big, growing market for fire extinguishers.

So here's my argument in a nutshell. A reasonable path forward is one in which we deliberately transition in a reasonable and fair way, positioning ourselves with places like Europe and California. You and me can't make that happen, but you can vote for a government, a party that wants to move in that direction. That's my pitch.

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**KAMLOOPS MEN QUESTIONS**

And I'll take any questions or clarifications you want to add.

Um yeah, so California, most people associate it with cars, right?

So yeah, California, most people associate it with cars, right? But in terms of climate policy, they are the leader in America, right? So, like for example, Obama introduced these regulations to make cars cleaner and more efficient... cost you less in gas. Trump's trying to roll back. California's going to war with Trump to keep its own regulations in place.

That's one example, but um... there are a number of really good EV makers in California, the best in North America. And their EV... there are more electric cars on the road there than in Canada. Like, California is, is pushing hard, right?

Because they get it, they... of course, I mean they feel smog, they have huge traffic problems. You know California developed at a much later time, this century, right? So it developed in the '50s and '60s when it was everybody... was moving to the suburbs, so it was just total car city right? It wasn't deliberate, it just happened. And so now they're feeling the consequences of this, but yeah they're... in terms of policy, actually making deliberate steps to become the leader.

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**KAMLOOPS WOMEN-PITCH 6**

Hey.

I come from- I come from a real ivory tower. But I don't support the ivory industry.

Great So, we're, uh, having a meeting here. I've some notes here because I don't have very good memory, so I wouldn't remember what to say. And I'm going to talk through them and then if you have any question, clarifications I'll answer, um, whatever I can.

So, uh, I- I want to start off by point out that last year was BC's worst forest fire season- season ever recorded. Ah, and the year before that, 2017, what the second worst. I don't need to tell you that, right? 'Cause you like in Kamloops. Uh, so, my cab driver on the way over here; I was asking him some questions, getting to know the city. And- and he told me that there are, are summer events that are getting canceled, ah, he told me that you could literally see the ash in the air. He told me there were days where you feel like, uh, uh, a prisoner in your own home. I remember that, he used the prisoner, and it's the worst when you can't open the windows, and if you can't afford air conditioning neither. So, climate change it's the, the single greatest threat we face. If we nothing it'll literally wipe out trillions of dollars, and millions of lives. Here in Kamloops you're kind of on the front lines, and it's going to get worse. I don't know how much it cost to fight a for- to fight a forest fire. I would assume it's expensive, and if the fire reaches your home, you know, price is the least of your concern.

The global economy is transitioning. This is already well underway. Automakers, to give one example, they're investing 300 billion dollars in electric cars right now. Even the any ... Even many of the big oil companies, like Shell to give for an example, uh, they're investing heavily in electric cars, and renewable power, wind, solar, batteries. They don't want to go the way of Blockbuster.

Now, here's the good news; that that's one hell of an opportunity for Canada. There are already 300,000 jobs in Canada's clean air energy sector, and, uh, which is, you know, similar to oil. And, in BC many of these, you know, activity pitch, or many of these jobs are in hydro dams across the province, some are in clean tech though. There's this company in Richmond, they build batteries for electric ferries. Which is, you know, pretty big eclectic ferries now, they're going through the waters in New Orleans, and in Kingston, Ontario, they're bringing in a couple as well. But, uh, the transition to cleaner economy also includes natural resources, so, forestry for example, and- and- and I know you have some of them around here.

Have you seen those really tall wood towers they've been putting up recently in like Prince George, they have one? And in [EBC 01:27:27] there's like a 17 story, all wood, tower. Um, they're made of this special dense wood, and they actually make this ... They manufacture this dense wood and- and take down ... there's a company there called [Structurlant 01:27:38]. Ah, these- these- basically wood produces way less carbon pollution than concrete, right? So, and BC is world leader in making mass temperance material, which is also very resistant to fire, by the way. Ah, it's also mine, right, four time more copper goes into an eclectic car than a gas one. Canada is home to a lot of copper. There's a mine in Ontario that's electrifying all of it's operations right now. Trucks, everything. The mining industry sees itself in this transition to a cleaner economy. Ah, eh, you know, mining and forestry, those are, those are big, big industries in BC.

Now, do you all remember how rampant climate change, not, denial was just, like, even a decade ago? But that part has changed, they're more denying, uh, they're not denying as much anymore, they're, they're kind of down playing it and telling us, that the status quo is fine. Like, we need to be safe, we need to be careful. They're telling us Canada is too small, and that our oil industries too big. I make two points on that.

One, out of 195 countries in the world Canada is one of the worlds 10 biggest polluters. We also have one of the worlds 10 biggest economies. We are not small. And two, oil production presents just three percent of Canada's GDP. Three percent. And, I don't blame you for thinking it was bigger than that because I certainly used to. And then I remembered how many oil sands ads I saw as a young man, like every time I went to the movie theater. And they were the 2000's. They're in industry and their interested in their core lyrics, but their profit margin is not the same thing as our economy. And I'm not saying shut it all down, or anything like that, I get that fossil fuels will still be used the next year, and the year after, probably use them to get here.

What I'm saying is we need to transition in a way that is smart and deliberate. We need to invest in the growing parts of our economy that are sustainable, and that will still be around in a couple decades. We need to provide re-training programs for people whose industry has an expiration date, rather than pretending that nothings going to happen. The worlds already going this way, right? While Canada's oil sectors been shutting jobs in recent years, and probably with the headlines that, you know, people ... Our clean energy sectors been growing in value by five percent

every single year. That's after inflation. And, that's also way ahead of the Canadian economy on average.

So, raise your hand for a second if you've ever ... if you've been to a Blockbuster in the last year. Have you us- what about using a typewriter, have any of you used a typewriter in the last year? Right. These were ridiculous things, but we all understand that companies look forward, they increasingly invest in what's, you know, becoming popular rather than what's been popular, that these are the ones that thrive at the end of the day, right?

There the cliché that's used, overused in, you know, business rooms, ah, from W- Wayne Gretzky, "You skate to where the pucks going."

The cost of transition and doing something about climate change is- is- is pretty small, and again it comes with a lot of opportunities. We don't need to let the apocalypse happen. We have a choice and it's not even a painful choice. It's things like governments making it cheaper to buy an electric car, and, you know, by the way, to BC that will save you 75% on your fuel bill. It's things like retraining programs for people, uh, in this new clean energy economy.

It's a choice that we have to make because as bad as those forest fires are, that's just a sliver of what climate change is costing us, and it's going to get so much worse if we do nothing. It will be worse than any recession the world has ever known, and there will be no end to it. People who want to do nothing like to say we're be ... that they're being realistic. That they're being pragmatic. But, I would say there's nothing that's realistic, or pragmatic, about sitting on your hands while the house is on fire. And, guess what? There's this big growing market for fire solutions.

So, here's my argument in a nut shell. The reasonable path forward is one which we deliberately transition in a reasonably fair way, but just position ourselves, here in Canada, with places like Europe and California. You alone can't make that happen, but you can vote for a government that's want to move in that direction. So, that's my pitch.

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**KAMLOOPS WOMEN QUESTIONS**

Anyone have any questions? Clarifications? Comments? Comments?

Comparing.

Blockbuster?

You didn't like that part?

Fair. Condescending to?

You think this would be more compelling for your dad, than perhaps some other environmental speeches [crosstalk 01:33:07]?

Bye-bye guys [crosstalk 01:34:06]. Thanks.

## THE PAUL COUNTERPITCH

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### VANCOUVER MEN-COUNTERPITCH 1

My name is Paul. I'm going to give you kind of an alternative perspective to Trevor's.

First off, let me say climate change is serious, we all agree. I am in my thirties, and it will affect me in my lifetime, as in all of yours. You will be dealing with the impacts of this and so will our kids and grandkids; these are important things that need to be dealt with. I even hope to own a Tesla one day.

But we also have to be realistic. We have to really take stock of the facts on the ground as they exist today. Hands up if you used fossil fuels to get here today? So, 7 in 8. Hands up if you've been on a flight in the last year. Okay. All of you. So there are facts on the ground that we have to reconcile.

We're not gonna make the transition tomorrow. And generally, fossil fuels have made our lives pretty good. As you probably know, the last couple hundred years of industrial development are accredited to fossil fuels. The cars we drive, the plastics we use, the toys, the gadgets and whatever. And because of the inertia of the economic system, oil demand will remain strong for decades ahead no matter what we do today.

And we in Canada, have a lot of it. We've got the third biggest oil reserves in the world, and no country in it's right mind would find those reserves there in the ground and leave them there.

As you know, whether or Canada is burning oil tomorrow, it doesn't really matter, we're only responsible for 1.6% of global emissions.

And if Canada is not producing oil, the alternative is to get oil from countries that are a little sketchy on human rights. I would say that everybody in this room cares about human rights, yes? These are things that we hold as Canadian values and a lot of the oil exporters in the world don't. And so we're propping up a lot of unsavory regimes if we are bringing in their oil. That's just the reality.

And then there is of course, the promise of new clean technology. But new clean tech as desirable as it may be, is expensive.

I just saw an article from CBC, 46% of Canadians are within \$200 of financial insolvency at the end of every month. That is almost half. And like, you know, again, Tesla's are shiny. But we have to be realistic.

Yes, wind turbines and solar powers, solar panels can play a supporting role, but they're also a little bit unreliable. We have to upgrade our whole energy system and as you know the wind doesn't always blow, the sun doesn't always shine.

We need, we need more, not less reliability for our energy systems.

And the other piece of this is that if we're not out of step with the US, which is kind of, you know, the elephant in the room, our economies at a massive disadvantage. So we actually have to be conscious of that fact.

Nobody really knows what the future holds. We have to protect what we have today, we need to protect our vital industries. There are tens of thousands, if not hundreds of thousands of jobs in traditional resource industries.

Why not let the big players that can actually move the global economy act first. Yes, we'll be there, but we can't lead this thing.

So I guess the takeaway is slow and steady wins the race.

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**VANCOUVER MEN QUESTIONS**

Have you answered questions?

Probably pretty unrealistic. Yeah. Yeah. I mean, I don't see a lot of political will to do that kind of thing in Canada. You know, things will probably be more or less the same as they were in next year or as they were last year, next year.

I mean, I guess that's, you know, it's kind of interesting way of making my point. I'm all about being realistic, so like we can have thought experiments, but we actually have to deal with the facts on the ground as they exist today.

For sure. But there's an ethical tension between the people that we're going to force to incur these costs now, why did you make a lot of that land has already been dug up? I mean, I don't know how many of you been to Fort McMurray, you know? Yeah. Um, it already looks like the moon. Um, and there's, you know, tens of thousands of families that depend on that.

Do you ever hate to pay their mortgage together, truck payment to put their kids through university? Yeah. I mean, it's hard to imagine a rough neck on a drilling rig, building Tesla's tomorrow. So, we do have to really imagine the livelihoods and the lives that are, are built around these others.

But your job and your town and your family.

What's more dire consequences and losing your livelihood and your home and your place?

Uh, I've never seen one in the wild- More- more competing ideas than people...

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## VANCOUVER WOMEN-COUNTERPITCH 2

Thank you all for being here, my name is Paul and I am going to give you a slightly different perspective than Trevor did, lovely guy. I disagree with him on all kinds of things. Um, so, um, hands up who used fossil fuels to get here today? One, two, three, four, five... And... uh, the other three of you didn't take a bus? You walked, great, that's awesome, um, it's a nice neighborhood.

Um, so I was reading a CBC article, um, uh, yesterday and I read that 46% are within \$200 of being financially insolvent at the end of every month. Um, there are a lot of people... a lot of people that are struggling right now and so what I'm gonna say basically... Like, look I get climate change I'm a 30-something, uh, we're going to have to live with it in our generation, nevermind our kid's generation. And you know, maybe one day I'll even drive a Tesla but what I'm- what I'm trying to, kind of, convey here is that we need to take account of the facts on the ground.

We need to look where people are at, look where people's economic situations are at, look at the jobs, the livelihoods, the communities that are invested in this, you know, and traditional energy, and everything that goes around with it, and take that into account.

I would say that most people don't have the option to go and buy an electric car tomorrow. I would love to, I can't. It's great, nice to see government incentives, I still can't afford to go and buy an electric car tomorrow.

Fossil fuels are just a part of our daily lives. Most of the things we use on a daily basic are made of them, you know, the plastics that we use are made of them, like they're not going away tomorrow, and oil demand is going to remain strong for decades to come. So let's just be a little bit realistic about it.

We've got the third biggest oil resources in the world, um you know, that's a lot of tax revenue to go to health and education and these are important things for all of us. No country in the world would find those there and leave them in the ground. And if, you know, some country stumbled into an industry they wouldn't shut it down, you know, and put tens of thousands of people out of work tomorrow. We need to take account of people's livelihoods, they depend on this thing.

There's also the reality that because we are going to use oil for the next few decades it has to come from somewhere. It either comes from Canada or it comes from a country like Saudi Arabia or Venezuela or you know Nigeria. There's all sorts of human rights abuses and I mean all of us as Canadians, generally, are pretty committed to human rights as a fundamental part of our identity. And realistically a lot of those regimes' revenue comes from their oil industry so, if we're not providing oil to the world, someone else will be.

The energy transition that Trevor talked about, it's lovely, you know, I love solar panels and wind turbines. Wind turbines don't work when it's not windy. Just like solar panels don't work when it's not sunny, like when it's night time. And so we need to actually have a reliable, safe, secure energy supply to just power our daily lives.

And the other big piece I wanna kind of put into perspective is, Canada's a small country in the global scheme of things. We'd like to think that we're a world leader, but we're only responsible for

1.5% of global emissions. So even if we got rid of all of our oil tomorrow, it really wouldn't be a drop in the bucket and there's a lot of people that can't afford a 20% increase in their energy bill.

And you know that's not gonna change tomorrow. I guess what I'm saying is we just need to go slow, we'll eventually change, climate change is not going anywhere, but we need to be conscious about who we're affecting in making that kind of transition.

It's about being careful. It's about being safe. It's about taking an approach that is maybe slow and steady, a slow evolution over time or transition over time. But not rushing into something just because a Tesla is shiny or a solar panel is shiny. There's a lot of people who have realities, day-to-day realities that don't lend themselves well to that shiny new economy.

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### VANCOUVER WOMEN-QUESTIONS

But, there's one just up island right now actually.

Totally, I mean there's, like, interior communities that- that, you know, one of I think the facts was, you know, being living in Prince George in the summer was

Smoking 20 cigarettes or something-

It's like, I think it's the second highest in Canada, yeah.

Oh, is that right?

I mean it's- it's super complicated, right?

Like, the world is just a complicated place and like, there's you know again the no offense to Trevor, Trevor's got this nice story about how we're gonna make this great leap forward and everything is going to be shiny and new and beautiful and clean.

Um, but we still have to deal with the world as it exists today.

Yeah, yeah, I guess I earned the side of- of being cautious... (laughs) yeah.

Mm...

Mm-hmm (affirmative).

Totally.

Yeah, b-

But there's, like, not that many of us, right?

I mean there's only, you know, 30-36 million Canadians-

And 7 billion people in the world, um, yeah and I mean a lot of these big companies that are invested in the- the- the traditional energy sector, they're really trying like they're really doing their



part. Like they're investing a lot and cleaning up their acts and so on. You know, but it's just not going to happen overnight, that's- that's kind of the reality. Yeah, okay.

Sure, thank you very much. I'm sure Trevor will be fuming to hear what I had to say but he can't come back quite so he's gonna jump in at th-

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**SURREY MEN-COUNTERPITCH 3**

Hi how's everybody doing? Great. So my esteemed colleague, Trevor, probably told you that I eat kittens for breakfast. I assure you I do not eat kittens for breakfast.

I guess I'll start by saying I believe in climate change. I am a 30-something from west coast of Canada. And you know, there are big problems coming down the pipe at us. Anybody that is willing to listen to science knows that that's real, and it's not rocket science. The scientific consensus is clear, climate change is happening. We have to do something about it, fine.

Maybe one day I can get a Tesla. But I can't afford one right now. So, I guess I want to say that we as a country have have to change. But we also have to grapple with the world as it exists today, the facts on the ground as it exists today. I'm not some futurist, you know, Trevor Jetson's world. That sounds lovely, but, we actually have to have to grapple with the facts.

I read a CBC article the other day. If something like 46% of Canadians are within \$200 of financial insolvency, the end of every single month, like half of the population is living this like super marginal day to day existence, right? And all these shiny things that, you know, um, Trevor's is advocating for as we deal with climate change, they all cost money.

And how much can we possibly expect the average person paying? We're still dependent on the oil. I mean, hands up who use fossil fuels getting here today? Didn't?

What's the bus run on? Right. I mean, these are, these are the facts as they exist today. And we're not going to transition the wrong turn on a dime, you know, I mean, oil is going to be strong for decades to come. It's not going anywhere.

You know, there's, there's hundreds of billions of dollars that have been invested in this thing, this big machine that's been built and they're not going to, it's not going to go away tomorrow.

And plus it shouldn't, because there's a lot of livelihoods that deal with the depend on it. I mean, the individual families and individual communities that depend on the industry, but also us, all of us, because those tax dollars go to hospitals and schools and roads and buses, right?

Like that's where a lot of our national wealth comes from. We have the third largest oil reserves in the world and no sane country would find that in the ground and decided to leave it there just to, you know... Oh, you know, unless we had more money than we didn't want to do with. And most people in Canada don't know matters in the country for that matter.



The other part of it is that, that the energy transition or, revolution that Trevor's talking about it, cause that's what he's advocating, is about solar panels and wind turbines and Tesla's and it's lovely. They're all shiny, but you know, solar doesn't work when the sun isn't shining, which is pretty much half the day. Wind power doesn't work, when the wind isn't blowing, um, you know, Tesla's are coming down in price. But most people I know, in fact, everybody I know can't afford one yet.

So again, these are the facts as they exist today and we have to be realistic.

The other thing I'll say is that we export a lot of oil to the world. And lot of the world burns oil. Now, even if we turned off all of our taps tomorrow, even if we put hundreds of thousands of Canadians out of work, basically shut down our neighboring province, the oil that's used in the world is still going to have to come from somewhere. You know, plastics are made of oil. All of our Gizmos and gadgets are made of oil, half our clothes are made of oil, you know, um, so those countries still have to get oil from somewhere. And you know, like everybody, I'm sure around this table, believes in human rights. Like this is one of our core kind of, um, identities as Canadians and the countries that I would otherwise step up and supply the oil that we're currently supplying, aren't they on human rights, you know, the Saudi Arabia is, and the Venezuela was of the world. So, you know, there's, there's an ethical component to it.

In addition to all the livelihoods that are dependent on the industry. I guess what I'm going to say is no one knows what the future holds, but we have to protect what we have now. Um, and the way forward is about proceeding with caution related to about being safe and secure and really like slow and methodical about how we get to this, to this new future.

It's about proceeding with caution. It's about being realistic about where we are now. You know, even if we want to get down here 100 years from now, we have to know if it'd be realistic about where we are now. You know, we all love the dreamer. We all have that crazy uncle. Um, but at the same time, we need to live in the real world.

=====

**SURREY MEN-QUESTIONS**

Okay.

Yeah, I mean totally. And like if somebody wants to go out and install the solar panel on the roof, power to of them? That's fine. Um, but at the end of the day, there are, you know, there's a huge inertia. There's huge momentum behind our current economy. You know, we're dependent on this resource, um, and it's not going away tomorrow, so by all means go, go buy an electric car. Um, although that's got issues too, you know, there's, you know, sort of, you know, carbon required to build the electric car in the first place.

In what sense?

Sure.

Yeah. Yeah.

Probably most Canadians do, yeah

No, I don't think it is, but my, my point is that the core of, you know, of, of, you know, how almost owns how we make a living as a country. You know. Is it about resources. Right. Um, and that's not going to change tomorrow. Um, so, you know, but that doesn't, you know, people can go in and put solar panels on their houses. That's fine. But that's not, I mean, that's not the kind of thing that we're talking about that puts people out of work.

It's a good question. Yeah, that's a good question.

Yeah.

Nobody's got all the answers, but that's why we should resist these sort of simplistic, naive, you know, um, radical solutions that are just like, oh, let's change everything tomorrow. It just doesn't work that way.

Oh, I know.

I know, man, we argue about this all the time. Yeah, (laughing)

Yeah Yeah. That's okay.

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**SURREY WOMEN-COUNTERPITCH 4**

I'm Paul, as Trevor may have told you. He may have also told you that I eat kittens. I don't, I'm a vegetarian.

I'm gonna give you an alternative perspective to Trevor's as he told you. I'll start by acknowledging I guess that climate change is one of the biggest issues we face. You know, it's like, I'm on- ... I'm a 30-something, um, I'm gonna have to deal with this in my lifetime never mind my kids' lifetimes, right. Like this is going to be something that the whole world has to deal with, no doubt. Um, and we do have to change. The oil is gonna run out some day, you know, it's just prudent that we make this change.

I might even buy a Tesla some day but I can't afford it right now.

How many people here drove or took a bus or some other vehicle to get here that burns fossil fuels?

That's 100%.

So that's my main point, is like we have to be really realistic and honest with ourselves about where we're at today. Yes, you know, you know, this ... Trevor's shiny future of Teslas and jet packs is-is lovely, but here's where we are today and we have to be, we have to be honest about that.

I just read yesterday, I read an article in CBC and it said, I think it was 46% of Canadians are within \$200 at the end of every month of insolvency. Like, half of Canadians are barely making ends meet. And you know that's the reality. That's the situation, okay.

Vancouver's not unlike the rest of the country and there's enough people struggling here, but this is one of the richest places in, in, well the world, but also in Canada. Um, and so we have to be realistic about what people can actually afford.

There's different things like carbon taxes and electric cars, and you know heat pumps, whatever that is. All that stuff costs money, and we have to be realistic about what people can afford and how fast we can actually do this. We can't turn this whole thing around on a dime. It just, it's not how the economy works. It's a big complicated messy beast.

The other thing is that we have this giant, um, oil industry in Canada that actually supports a huge chunk of our economy right now. A huge portion of our tax revenue that pays for our hospitals, our schools, our roads, our teachers, our doctors, comes from oil revenue. The government has to get its money from somewhere and we depend on the government for all of these services. Um, and if the government's not gonna get its money from resources, then it's getting it from individual Canadians, and that just means ... generally it means more taxes.

So like this industry is kind of a fact on the ground. It exists. We can't wish it away tomorrow. We have to grapple with it as it is. I mean, Canada has the third largest oil reserves in the world. We export all sorts of oil mostly to the States but no country would find that much wealth, especially given that we don't have, you know, infinite money. I mean it's not like, you know, we're not like some countries that sit on buckets of money.

No country would find that oil in the ground and leave it there. Um, and the whole global economy still depends on oil. All of you drove here today in some form or another. Um, and if we're not supplying the oil to a lot of these companies, somebody else will and a lot of other countries that are oil producers, you know, are... let me back up.

As Canadians, we all have like a very profound commitment to human rights. It's one of the things that makes us who we are and a lot of these countries that are major oil exporters, I'm thinking like the Saudi Arabias and the Venezuelas of the world, are not great on human rights. And those regimes are propped up by oil revenue. They have been for 50 years. We're not perfect but we're I think we can take pride in ia our role as energy providers as Canadians.

The other thing Trevor was going on about being a leader. Canadians are proud of our country, we like to be seen as leaders. We're really small on the landscape of things. We're only 1.6% of global emissions. Canada has like the same population approximately as Shanghai.

Right, so like let's be realistic, let's be realistic about what we can do, what we can afford and how many livelihoods are currently dependent on this current on this industry.

I mean there are literally tens if not hundreds of thousands of Canadians who have to pay their mortgages every month, who have to buy groceries and their economic situation comes from the oil.

Nobody knows what the future holds and we don't have a crystal ball so we have to protect what we have today and I guess, I would say the way forward is to be cautious, to go slow, to recognize where we're at and where, you know, where we need to go down the road.

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## SURREY WOMEN-QUESTIONS

Fine, absolutely, with science, but what we can be realistic in accomplishing at, you know, if we're really honest with ourselves. So, that's it.

Yeah, I mean, it's acknowledging where we are today, and we're gonna create problems not matter what the transition looks like, right? You create a different set of problems with like a radical, you know, turnover of the Canadian economy.

You know, you ... like, I mean, the average person working at the oil sands if gonna retrain to be, you know, a-a software developer.

Right, and-and, you know that, you know, it would be lovely if everybody's living in these, you know, glass high rises I guess, you know, like, you know. Anyway, um, it does ... it's a really complicated problem to crack and, yeah.

[crosstalk 01:43:03] comments.

Mm-hmm (affirmative).

Yeah.

Right.

Well, and it's not an-an evil for like people that go to work every day with their lunch box.

They jump in their F-150. You know, they rattle off down the highway. You know, like that's not an evil. Their parents did it. Their grandparents did it. That's a core part of their identity, and not just that, you know, household, with that community, [crosstalk 01:44:13].

(laughs)

Yeah.

A lot of the time we're proud of those.

Mm-hmm (affirmative).

Mm-hmm (affirmative).

Yeah.

Yeah.

Yeah. And-and to be, to be, to be ... I didn't get into this, but a lot of companies are already working on it. You know, um, you know our oil sands, you know, emissions intensity per barrel has dropped really dramatically. Um, so a lot of companies are investing in these things.

Human rights records? Yeah, yeah.

Reputations, yeah.

Mm-hmm (affirmative).

Mm-hmm (affirmative).

Mm-hmm (affirmative).

It's all-

Yeah, it-it's also ... Yeah, that's an interesting point. There's also the reality that ...

... we can't burn you know, probably can't burn oil forever.

You know, we're gonna have to make this change eventually and if we stop now, and those guys just keep going ...

... and maybe they pump the last barrel of oil that's ever pumped out of Saudi Arabia or Venezuela-

And we're unemployed. (laughs)

Yeah.

Right. [inaudible 01:47:06].

Oil companies [crosstalk 01:47:28].

Well, even if they want to, like a lot of people just can't afford to.

Yeah.

And-and if you zoom out and look at the whole country through that same lens ...

... like we'd love to do all these things.

But what ... when we realize we can't afford it.

Mm-hmm (affirmative). Yeah, we-we're a resource country.

That's the reality.

Okay, [inaudible 01:48:35].

Thanks everyone.

Thanks buddy.

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**KAMLOOPS MEN-COUNTERPITCH 5**

Hi guys. How are you all doing? Okay. You've just heard from my colleague Trevor. I don't know if you agree or disagree, but um, I'm going to give you a slightly different perspective, um... on the way forward. Um, I'll start by saying, um... I'm in my 30s... I grew up, I actually grew up around here and Ontario. Um... I've seen the fires, you know, we were in Prince George last summer, too, and it was

completely apocalyptic. Um, climate change is real, and we have to deal with it. You know, 100%. We also have to be honest with ourselves about where we stand today.

What the economy loos like today, where the jobs are today. I mean... hands up, uh, if you drove to get here. Thanks, so did we. So you know, we can't turn this on a dime. We're going to use oil for decades to come, probably it'll still be pumped for decades to come. So, um, we've got to realize it and um, like... you know windmills and solar panels and all that are shiny. You know, it's a nice vision. But, I can't afford a Tesla. You know, most people I know can't afford... you know everybody I know can't afford a Tesla (laughs).

Article on CBC the other day was 46% of Canadians are within 200 dollars of being insolvent at the end of every month. Like half of Canadians are really, really struggling. Like... and the, the kind of the radical shift that Trevor wants to see happen, is going to cost a lot of money and we can't really put those costs onto people without cratering a, you know, a whole bunch of lives.

Whole bunch of communities, a whole bunch of jobs. Right, like? How many do you know, how many families depend on you know, energy sector or you know, spin-off sectors to just put food on the table. Especially if you, you know, want to get to this kind of shiny future of windmills and Teslas, um... those people still have to make ends meet.

Um, a couple of other quick points, and I won't take too much time. We're also... you know we like to think of ourselves as you know, world leaders that can make a big difference. It doesn't matter if you emit CO2 in Canada or in China. It's you know, that same molecule, it's the same. So even if we shut off our CO2 tomorrow, we're only 1.6% of global CO2 emissions as Canada. As the whole country.

Um, the Canadian population is the same as... the whole Canadian population is the same as Shanghai. So, you know, we have to be realistic about how you know... we like to feel that we're this, you know, this sort of this leader, but if you realize that we actually aren't. We also have the third largest oil reserves in the world. Um... and we have this, you know, multi hundred billion dollar industry that's built around extracting them. And you know, you can't shut it down tomorrow. No country would find that much raw resource in the ground, and not, you know... not use it, not um, benefit from it. I mean it's who we are generally... we're a resource based economy. Our culture is built on resources. It's our history. And the revenue that comes from that industry it, you know, it pays for hospitals and schools and roads and police and you know, firefighting, as great as that is. We actually need to pay for water bombers.

Um... and if you crater the economy, it's not going to happen. You know, so I guess, uh, I don't want to take too much time. I guess my takeaway is that we need to be cautious and realistic about how fast we can transition, where... you know, where we stand today, what the economy looks like today, not what we wish it was.

And you know, maybe we'll get there eventually. But we really need to be honest about what we can safely do without inflicting a lot of pain on a whole bunch of people that can't afford everything.

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**KAMLOOPS MEN-QUESTIONS**

Did you hear one from Trevor?

Yeah.

Yeah, I mean... so, I would say that things are going pretty well right now, um... for you know most people. Unemployment is at all time lows, you know the BC economy is leading the country. Um... and I guess, I guess that the plan is to not rock the boat too much.

Well, there's a fewer number that live in BC than the rest of the country. I mean, you go over the Rockies and I know people, we all know people who are families that live in the patch, you know... and yeah.. just, we have to be aware of the consequences of-

No, no I'm talking about the whole country.

Oil is going to run out at some point. It's not going to be around forever. But let's be realistic about how fast and how radically we can change the economy.

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**KAMLOOPS WOMEN-COUNTERPITCH 6**

Hi, everyone? How is everybody?

I won't keep you long. so Trevor's a lovely guy, but I'm going to give you a bit of a different perspective.

I'll start by saying that I'm in my 30's and those of uS, millennials and younger have grown up with climate being like a clear and present danger, like, we know this. We've internalized this, you know. So many movies coming out all the time, like, people know this on a really intuitive level now. And, you know. Nobody's denying it anymore. Like, as Trevor said, the conversation has shifted.

So, there will be gradual transition, um, to deal with climate. No doubt. Um, and not just in government, like our kids, our grandkids lifetimes, we're talking like our lifetimes, um, everyone in this room. Um, so things need to change, I mean the oil is going to run out eventually anyway. Um, lots of us know people that work in the oil sector, you know, those jobs aren't going to be there forever.

For people working in the oil sector, those jobs aren't gonna be there forever. So, you know, there's changes on the horizon, but first of all, how many people took a car to get here today?

Right. So, my main point is that. Let's be realistic about what the facts are on the ground. Yes, windmills and solar panels and Teslas are shiny, and maybe we'll get there one day. But, that kind of Jetson's future is gonna cost a ton of money, and people are really struggling right now.

I just saw an article yesterday. It was 40, uh, 46% of Canadians are within \$200 of insolvency at the end of every month. Like, half of Canadians are, are that close to the margin of making it or not making it. A lot of them are not.

So if you're really conscious about who bears the cost for this, who's gonna pay for this? And those aren't even the livelihoods that're dependent on the fossil fuel industry. You know, we've got this multi-hundred million dollar machine that we've built, we've got the third largest oil reserves in the world. We've built this giant extraction machine. Provinces and hundreds of thousands of people's livelihoods depend on this thing. We can't turn it off tomorrow.

The other piece is, it's a relatively small part of the economy, but that money goes toward hospitals and schools and, teachers and doctors and the programs that we actually need.

You can't just, like, pop out the oil economy and pop in a solar panel. Like, it doesn't, it doesn't work like that. It's a really complicated system with a lot of inertia. We have to be realistic, we have to be careful, and we can't, you know, change radically overnight. That's not how it works.

Oil demand is gonna be high for decades to come, and it's actually gonna go up. Everybody's price is gonna go up for the next little while, and if we're not providing it, somebody else is going to. If Canada shut off the top taps tomorrow, a lot of the other countries would step up to fill that gap. Canadians are, really committed as Canadians to human rights, and a lot of the countries would fill that gap for oil production are countries with really shoddy human rights records. And those regimes are propped up by oil revenue. That's the reality.

One final point, we like to think Canada as this world leader, you know? We're the good guys, right? That's part of our national identity. We punch above our weight, it's a core part of our identity. But, the reality is that we're only 1.6% of global CO2 emissions. The entire population of Canada is about the same as the entire population of Shanghai.

So even if we shut off the taps tomorrow, even if we shut down everything tomorrow, it's really not gonna make a dent in the global problem. And that CO2 coming from everywhere else in the world is still gonna create just as many forest fires here unless everybody else, does the same. Which, they don't seem to be ready or willing to.

So, anyway, I'll leave it there. My main point is that we just need to be careful about how we transition. There's a lot of people that are really hurting, who are so close to the margins. If we all of a sudden hit them with all these taxes and fees and transition costs, or clean energy costs, maybe that's gonna put a lot... push a lot of people over the edge.

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**KAMLOOPS WOMEN-QUESTIONS**

Yeah, no, no.

Yeah.



No, no. Totally, totally. Yeah. W- well, and, and this is the thing, I mean, nobody's really solved this yet, right? And we don't have w- you know, nobody in the world, no country in the world.

I mean, there's s- some di- different experiments going on, but no country in the world has made this radical shift, right?

Because of, of all the complexities in the system. So, we do- My-my poi-my point is, and I guess this is more of a direction than an actual plan, right?

If everybody was pitching a direction, I'm pitching, pitching a direction, and, like, this isn't, like, to get into like kind of the five points that we've, you know-

Yeah, please.

Mm-hmm (affirmative).

Mm-hmm (affirmative).

We don't have a... we don't have a cure for cancer.

And we don't have-

Totally, and, and I mean-

... the science-the science is clear.

Yeah, yeah and I mean-

... Totally, and a l- a lot of big companies are already realizing this, right? I mean-

... again, because oil is a finite resource, you know, even if they can't [crosstalk 01:41:46]

Um, I grew up in San Maur, actually.

Yeah, they were [inaudible 01:42:03]

Totally, and-and, uh, right now I live down in Victoria, and the smoke was thick.

I mean, this is something we all have to grapple with.

Um, but my core point is just: that we have to be realistic about what the facts are on the ground and honest with ourselves about how fast we can make this leap. You know, it can't be a radical change, because the system is really fragile.

Right, so electric cars are just as bad as...

Right. There's certainly less-

Yeah, good question.

Yeah it's really, it's complicated. And nobody's solved this yet.

Well most people can't just afford to go buy a new car tomorrow.