Understanding reactions to BC Hydro's Draft Integrated Resource Plan Phase 2

Findings from Online Qualitative Research

July/August 2021

BC Hydro

upwords

INSIDE THIS **FINAL REPORT**

PROJECT DETAILS

WHAT WE WANTED TO FIND OUT

Background and Objectives

BC Hydro wanted to understand customer perceptions and opinions on topics related to Phase 2 of the Draft Integrated Resource Plan (IRP), also known as Clean Power 2040 – Phase 2.

Clean Power 2040 is a province-wide, long-term resource planning process. Engaging with customers will help BC Hydro make informed strategic decisions to meet future electricity demand. These decisions will become part of the 2021 Integrated Resource Plan.

This qualitative research was conducted concurrently with a broader quantitative survey.

HOW WE WENT ABOUT IT

Project Details

2-day Online Discussion

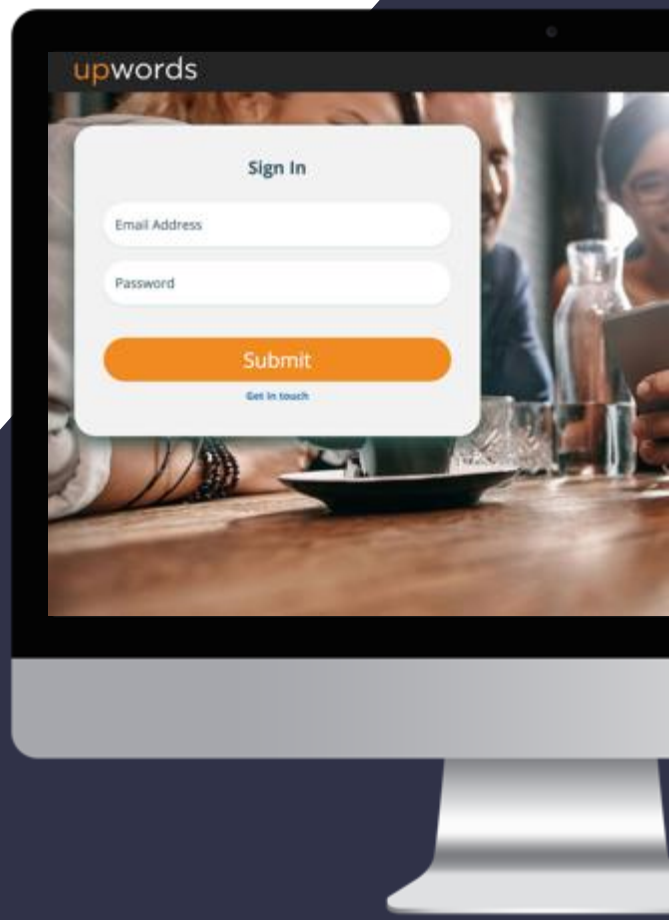
3-day online discussion; ~2 hours of activity/participant in total

- Participants were provided a URL and logged in to the online discussion platform to complete their tasks
- Tasks were completed independently first, then participants were shown the responses of others in discussion groups of 7 people (homogeneous based on region, age and gender) and encouraged to comment and build on the ideas of others
- Professionally trained, online qualitative moderators from Upwords probed for clarity and added detail.
- Stakeholders could log in to the platform to observe the discussion.

Sections:

- **Context**: Energy sources – Ingoing associations with BC Hydro – Problem set-up
- **Evaluation of Draft IRP – Phase 2**
  - Part 1 – Energy Conservation Programs
  - Part 2 – Voluntary Time-varying Rates
  - Part 3 – Renewing Electricity Purchase Agreements
  - Part 4 – Upgrades to Transmission System
  - Part 5 – Future Renewable Resources

- Participants were divided into 10 ‘discussion groups’, who could see and build on each other’s responses; groups were chosen homogeneous based on region, age and gender.



WHO WE TALKED TO: PARTICIPANT DETAILS

60 randomly selected participants completed this discussion. All were BC Hydro Customers.

Gender: 31 Female; 29 Male

Age:
18-29 years old – 17 participants
30-39 years old – 20 participants
40-49 years old – 12 participants
50-65 years old – 11 participant

Region:
30 – Lower Mainland (LML)/Fraser Valley
10 – Vancouver Island/Gulf Islands
7 – Southern Interior
7 – Central Interior
2 – Northeast
4 – Northwest

Type of Dwelling:
24 – Apartment or Condo
29 – Detached House
7 – Townhouse/semi-detached/ row house
38 – Own; 22 – Rent

Income:
3 – Under $25k
12 – $25-49k
8 – $50-74k
6 – $75-99k
21 – $100-149k
10 – Over $150k

Inclusive segments:
8 – Newcomer to Canada (in past 10 years)
5 – LGBTQ2+
3 – First Nation, Indigenous or Metis
2 – have a physical disability that depends on electricity for a medical device or equipment

Ethnicity:
30 – Caucasian
18 – Asian (incl. Chinese; Korean; South, East, and Southeast Asian)
3 – South and Latin American
3 – Persian
3 – Indigenous
1 – Fijian
1 – Indo-Canadian
1 – Western European

HOW TO
INTERPRET THE FINDINGS

The findings of these interviews are qualitative in nature and cannot be projected to be statistically representative of the population.

They represent the views of a small group of people across British Columbia.

They are however valuable in providing **direction and insight** into the issues discussed.

INSIGHT SUMMARY

The energy and capacity shortage B.C. will have to solve in the next 20 years was new information for many.

Although it was new information, many were not surprised that an energy shortage would likely be a problem in the future – especially in the Lower Mainland.

The **perceived** urgency of the problem was however surprising and even alarming for some.

> ***Surprise*** *that regionally* ***capacity will be greater than demand so soon*** *- 2026. This is* ***all new information*** *but* ***makes sense*** *with the pandemic and increased energy use at home. And with global warming - running A/C and fans more.*
> - Male, Vancouver, 50-65 years old

> *I'm* ***surprised*** *to hear there will be an energy shortage in 10 years. I* ***haven't heard this before****, but I'm* ***not surprised that the Lower Mainland/Island is the area that needs more*** *because they are the most densely populated in BC. The Integrated Resource Plan is new information to me.*
> - Female, Central Interior, 18-29 years old

> *I was unaware of the situation that BC Hydro was running out of energy due to the amount of usage****. I never thought that would be an issue*** *- very interesting.* - Male, Lower Mainland, 18-29 years old

The Draft Integrated Resource Plan (Phase 2) as presented felt reasonable and well thought-out.

The plan overall felt **comprehensive** for most in theory; it was appreciated for considering many possible aspects such as costs, environmental impact, and Indigenous nations.

Some appreciated the plan as **pro-active**: BC Hydro was seen as forward thinking for considering the needs of the future.

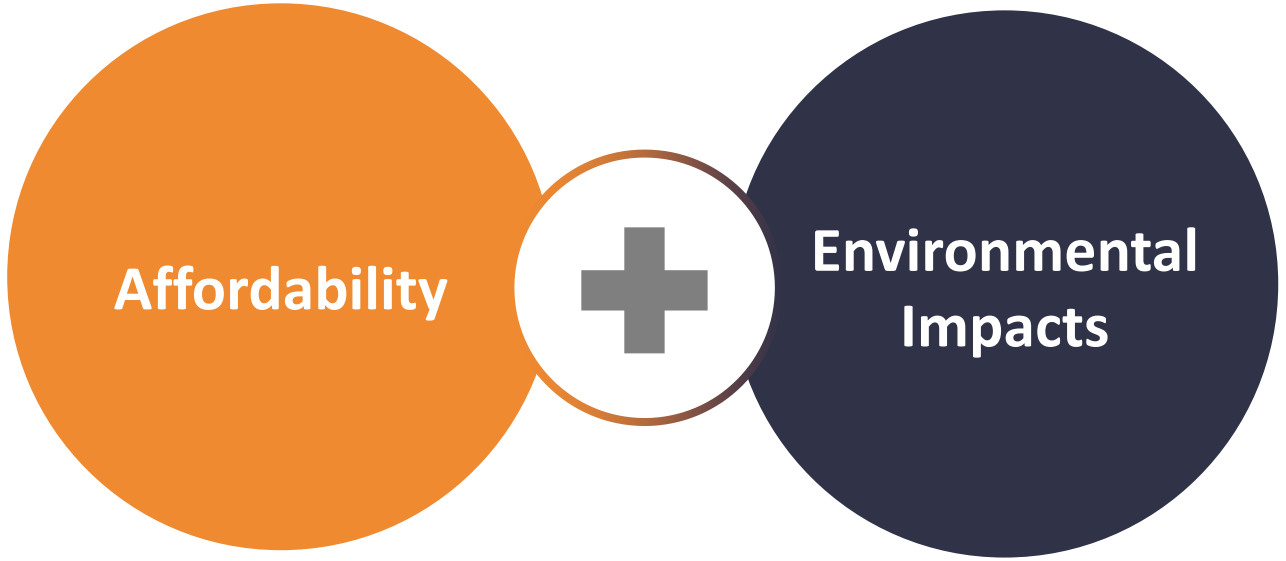
> ***I feel positively about BC Hydro's Integrated Resource Plan overall**. I felt that the challenges that BC and BC Hydro are facing seemed daunting at first but as I learned more about the plan, **I grew confident that BC Hydro is taking the right steps** to meet the needs of British Columbia and its citizens.*
> – Male, Vancouver Island, 30-39 years old

Others, however, felt there should be **more urgency**, or that the proposed plans were not aggressive enough, especially with respect to larger energy consumers (industry) vs. individual households.

> *I feel that BC Hydro's plan is [a] good idea. In theory. (...) I think that it's **very idealistic** and **I don't think that it's aggressive enough** considering the gap that they're expecting in the next 10 years.*
> - Female, Lower Mainland, 18-29 years old

Neutrality in reactions and lower alignment with some of the evaluated plan components were often driven by a **perceived lack of information** in the presented descriptions, and the need for **more concrete personally applicable** examples (How might I get involved? What does this mean for me?).

Balancing affordability (costs) as well as minimizing environmental impacts continued to be important.



September 2020

Two things immediately come to mind: ***cost and environment****. My concern is* ***will I be able to afford it*** *but also* ***how will it effect the environment****.*

July 2021

I think all these points are a win-win situation. ***We all want to save money*** *where we can,* ***help out other communities*** *and* ***reduce our carbon footprint****. We all live on this earth together!*

An expected increase in electricity dependency as an unavoidable reality stood in contrast to promoted conservation efforts.

Conservation programs as the first step were widely supported and most felt aligned; however, most also **expected to use more electricity** in the future.

Conservation Efforts ⟷ **Tension** ⟷ **Increased Electrification/ Energy Dependency**

> *I feel like **they are trying to get us to limit how much energy we consume** (which is good because ultimately its better for the planet) **but at the same time** knowing that **everything is becoming electric.***
> – Male, Vancouver Island, 40-49 years old

Some hoped **increased energy efficiency in newer technology** might help offset higher consumption; others felt like they were already conserving as much as they can.

> *Incentives to reduce consumption during peak times would encourage us to try to make changes when and if possible, but **realistically, I don't feel it would make a substantial difference. We are already quite conscientious** when it comes to energy conservation within the home.*
> *– Female, Southern Interior, 50-65 years old*

Some raised financial questions:
Who's paying for it?
OR
What's in it for me?

Two types of **financial considerations** will affect the support and engagement level customers have for the plans:

- **Impact on rates for customers**
- **Need for realistic and enticing incentives to encourage voluntary participation 'for the greater good':** while fostering individual responsibility for energy usage and conservation *in general* was appreciated, individual participation in voluntary programs (rebates, time-varying rates) would depend on personal answers to the questions: **what's in it for me? How can I save money? Is it worth the inconvenience?**

> *In reality, if people are trying to change their habits to align with this ideal that we are dispersing energy consumption accordingly but let's be honest, BC Hydro is still a corporation that charges insane amounts. If you're going to be inconvenienced to that kind of degree to save $10... not convinced I would keep up with it or even bother. That's not to be a jerk it's just to be realistic.* ***How much is the inconvenience going to save me?***
>
> – Female, Northeast, 30-39 years old

These financial concerns highlight Behavioural Science principals around **Present Bias** – the human tendency to favour today over tomorrow.

A few parts of the proposed draft plan felt exclusive for some.

Concerns around inequality for certain demographics were evident throughout:

- *Time-varying rates* felt **exclusive for certain lifestyles -** not everyone has the means and flexibility to automate tasks based on time of day or to make changes to their schedule; seen as especially hard for families with kids or those with 'average 9-5 jobs'
- *Conservation* and *Time-varying rates* could be perceived as **benefitting the rich** (or homeowners vs. renters) – spending money is required in order to qualify for incentives/rebates
- *Upgrades to Transmission System* felt exclusive for **those living in northern or interior BC.**

> *Unfortunately, there will be an **imbalance of money saving opportunities** to customers who are unable to shift their peak usage, while those with more flexibility will benefit more.*
>
> – Female, Southern Interior, 40-49 years old

> *The **greatest incentives benefit the rich far before they benefit the poor**. I would like to see more equality for future incentive programs.*
>
> – Male, Lower Mainland, 40-49 years old

> *I live in the North, **very far from the map** [stimulus reference]**.** So, I feel **it doesn't include us** up here. It's kind of an eye opener (…). **We are the Almost forgotten cities up here.***
>
> – Male, Northwest, 40-49 years old, Lower Income

There was a call for more opportunities for individual participation in the solution to the energy problem.

Looking forward, a few would **appreciate more opportunities to produce their own energy** (e.g. through solar), potentially even contributing to the grid.

The main benefits of individual energy production included:

- **Saving money** – through lower bill and possibly being paid for contributing to the grid
- **Helping** to meet energy and capacity needs
- **Improved self-sufficiency** – important and helpful to weather power outages
- **Increased property value**

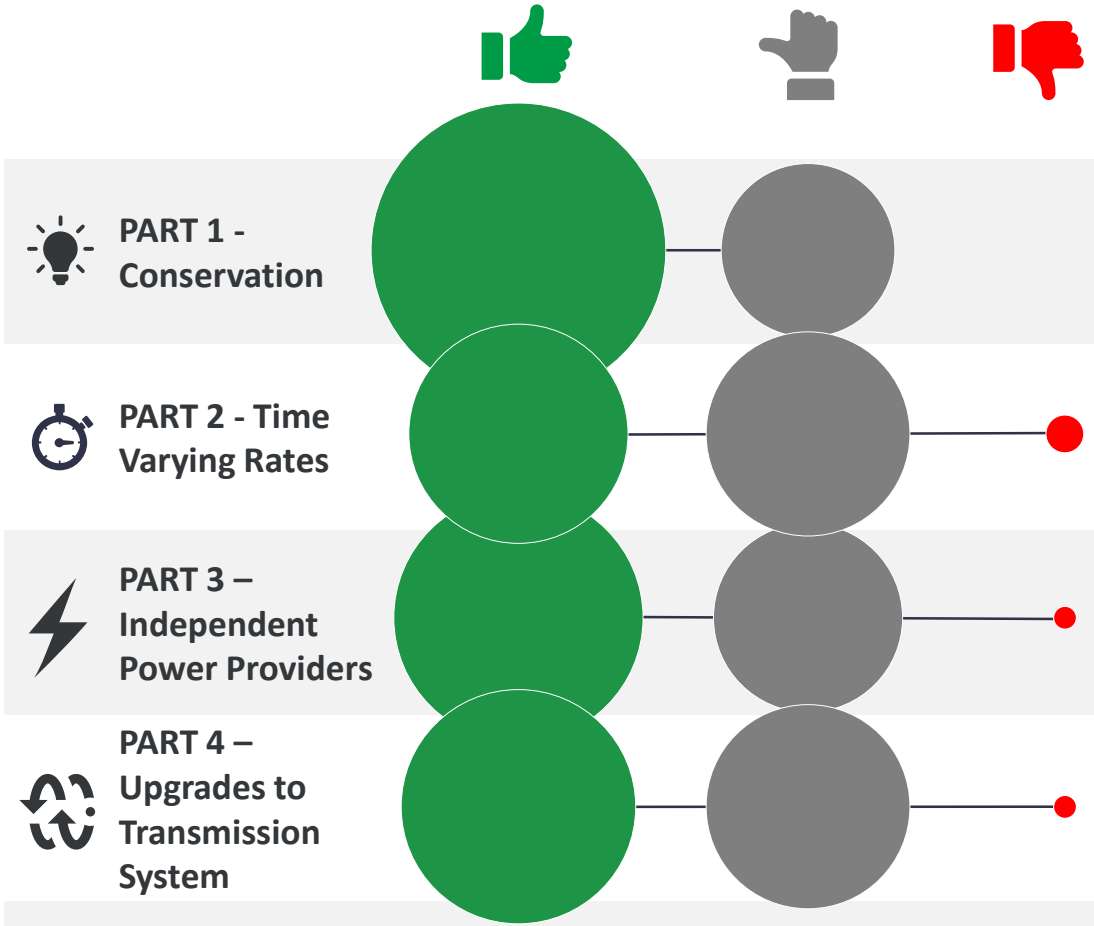
> *So, generating my own electricity or contributing to the grid would hopefully allow me to save or even earn money. Does BC Hydro have the ability to contribute to the grid already? If not, they definitely should get that.* ***It would be great if BC Hydro offered incentives to install solar panels and batteries to help them reach their Energy and Capacity targets.***
>
> – Male, Vancouver Island, 30-39 years old

> *I think that when we look at new clean and renewable energy production,* ***we need to look at ways that each household can contribute to producing some of their own energy*** *to reduce strain on the overall system.*
>
> – Male, Lower Mainland, 50-65 years old

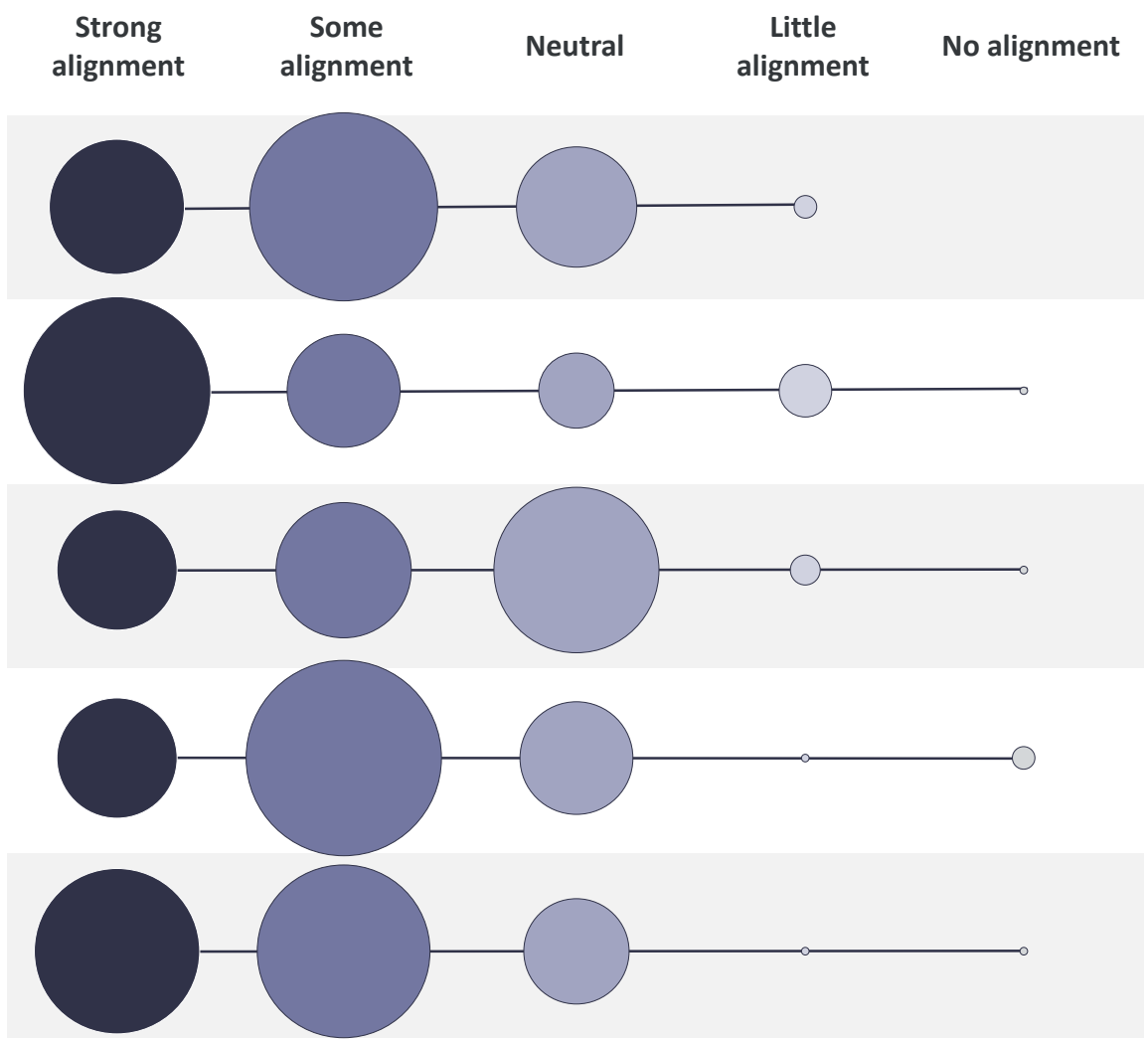
Draft Integrated Resource Plan – Phase 2 Evaluation Summary

All parts of the draft plan were well received, gaining mainly positive reactions in both Appeal and Alignment.

Q. What is your gut reaction to (…)?



Q. How much does (…) align with your values and interests?



*Caution, all sample sizes are small!

Part 1

Energy Conservation Programs

- **Education** and **incentives** were key drivers of appeal; conservation felt like a natural 'first step' for most.
- Questions were focused around **program execution details** and **personal impact** (what's in it for me?).
- Some were concerned about **relying on human involvement** to effect change – conservation **requires awareness AND action** - and/or felt that these programs were **not aggressive enough** to have real impact.
- Additionally, conservation programs felt **geared towards homeowners** and those with the financial means to participate (need to spend money)

Concerns about **relying on human involvement to effect change were amplified** for a few by recent experiences with the COVID-19 pandemic:

"I like the idea but there will always be people that will be against it like anti-maskers and anti-vaxxers. We have all witnessed this during the pandemic."

Part 2

Voluntary Time-varying Rates

- Drivers of appeal for many were largely focused on the **voluntary nature of the program and opportunities to save money** (especially relevant for SOME E.V. owners)
- Many longed for **more information** as questions and concerns were largely related to **execution details** (*when will rates be cheaper? How might I participate?)* **and personal impact** (*what's in it for me?*).
- Concerns were consistent with learnings from September 2020*: there is potential for this to become a **penalty system** in practice for those who do not choose to participate (increased rates); there were also concerns about the **practicality and application** in their own lives – some things cannot shift (e.g. heat in winter)
- Some also wondered about the 'work' involved, weighing individual effort vs. potential savings (**will it be 'worth it'?)**

The voluntary nature of this program *may* impact participation; Behavioural Science teaches that we are **more inclined to participate when 'opting in' is the default** and/or '**opting-in' is positioned as the social norm.**

*IRP Digital Dialogue 1 – see appendix 2 slide 87

Part 3

IPP Contract Renewals

- Strong appreciation for **diversification,** especially with **clean and renewable** Independent Power Producers; however, many were left wondering **WHO the IPPs are** (Foreign or Domestic? Indigenous?) and **what *their* business practices are**
- **'Market prices'** were left to **interpretation**:
    - Lower cost contracts *may* filter to the customer as lower rates; what if market prices are HIGHER – how might that impact ME?
    - Is 'market price' a 'fair' price for IPPs?
- A few questioned **why** BC Hydro would consider **selling power** on the open market **when facing a deficit in the future** (why not save it for later when *we* need it?)

Part 4

Transmission Upgrades

- Consistent with learnings in September 2020*, **upgrades were preferred over new projects** as they are less impactful to the environment (land, water, wildlife and people)
- **Costs** related to upgrading were top of mind for many (*Who's paying for this? What does this mean for ME and my bill?)*
- Transmission Upgrades felt heavily focused on supporting the Lower Mainland, to the **exclusion of other parts of B.C.** (Interior & North)
- While engagement with Indigenous nations was appreciated, there is potential for **vague references to lack meaning** ("lip-service") especially given current media around residential schools; **it will be important to back up these statements with actions and facts.**

Part 5

Future Renewables

- **Most expected to use more electricity in the future** relating largely to life-stage, increased electrification, planned electric vehicle purchase and 'environmental' factors (climate change and pandemic impacts)
- Some *hoped* **increased efficiency** in new technologies **might help offset** increased demand
- Strong appreciation for future **investments in alternative renewable energy sources** (balancing energy needs with impacts on the environment)
- Questions and concerns were largely focused on **execution, a lack of detailed information** AND a **desire for greater urgency** in pursuing renewables (why wait?)

*IRP Digital Dialogue 1 – see appendix 2 slide 88

Key Considerations

Key Considerations

1. Ideas and topics related to the draft Integrated Resource Plan Phase 2 are more likely to resonate with BC Hydro customers if the problem and its impact on the individuals are clearly understood.

2. To strengthen potential for alignment, BC Hydro should provide concrete examples of how customers *can* participate.

3. Realistic and meaningful incentives TODAY will be important to change behaviour with the future in mind.

4. Including ALL of B.C. in the draft IRP Phase 2 will help strengthen alignment in the plan; the plan currently focuses heavily on the Lower Mainland to the exclusion of other areas of B.C.

DETAILED FINDINGS

The Context

Most had a **combination of electricity and natural gas** as energy sources in their homes. **Feelings** about their energy sources were first based on **cost considerations**, then **the impact on environment**.

Primary Factors

COST

Slightly different perceptions on costs by a few:

- Some considered gas more affordable than electricity
- A few others thought that gas was more expensive than electricity (specifically hot water tanks)

IMPACT ON ENVIRONMENT

Many felt positively about the energy sources they use based on their environmental friendliness.

- Generating electricity through **hydro power in BC** was appreciated as a **clean and renewable resource** with sufficient supply available; it could even cause a feeling of pride that own energy needs were not contributing to global warming or climate crisis.

Some felt negatively about their energy sources based on perceived environmental impact:

- A few agreed that they wanted to **get away from fossil fuels** (incl. natural gas)
- A few saw natural gas as having a negative impact on the environment (high pollution, fracking; digging trenches for transmission lines; creates CO2).
- Hydroelectric dams cause havoc for wildlife
- Propane and diesel were seen as negatively impacting the environment as a result of byproducts

Secondary factors that impacted feelings about energy sources were its **reliability** and **work or time involved**.

Secondary Factors

RELIABILITY

Some felt positively about their energy sources based on their **stability**, or that they **never had any issues or complaints**.

- Electricity can be an issue for heating because of outages; gas/wood not impacted by outages

WORK OR TIME INVOLVED

Some commented on the work or time required for a specific energy source (mainly related to heat):

- Burning wood takes work and is messy
- Gas furnace or fireplace appreciated as providing/dispersing heat quickly and efficiently
- Electricity and heat pumps were also appreciated as simple and immediate heat, or dispersing heat quickly and efficiently

IDEAL

Some mentioned **preferences or wishes for the future** when thinking of energy sources:

- Desire to add **own renewable energy sources**, such as **solar panels and batteries** (when they become more cost effective) to offset high costs of heating or be self-sufficient
- **Gas preferred over electricity for cooking** by a few, due to familiarity or the “real feel” of cooking over a flame

Unaided impressions of BC Hydro were mostly neutral: many simply saw it as the main electricity provider in the province, connecting BC Hydro with hydroelectric dams.

POSITIVE Brand impressions:

- Some commented on **clean, sustainable power** (relatively) in connection with BC Hydro as they use natural resources such as water and wind to source power, not fossil fuels
- Some appreciated that BC Hydro's services were **reliable**
- A few associated BC Hydro with **education and initiatives** promoting energy conservation
  - Dave, the Hydro guy
  - Memories of BC Hydro coming to school
  - Interactive and detailed graph showing own consumption on account
  - Energy Star Appliances

NEUTRAL Brand impressions:

- Many simply associated BC Hydro with **hydroelectric dams**
- Some referred to the brand as a **large crown corporation,** servicing and employing many people, but also being privatized 'one piece at a time'
- Some mentioned **the site C project** and the controversies and conflicts around it; expressed opinions were mostly neutral, not strongly advocating either side
- For some, **bills, the logo, or the color blue** were top-of-mind when thinking of BC Hydro

NEGATIVE Brand impressions:

- Some felt negatively about **not having a choice in providers**, saying they were 'stuck with them'; BC Hydro's perceived monopoly to a few meant that they could set whatever prices they wanted
- A couple mentioned **environmental concerns** related to dams
- Bills from BC Hydro felt **expensive** to a few, especially for lower income households (under $50k/year)

Note: in this research participants were NOT required to be favourable towards BC Hydro; this research reflects customers with a mix of in-going brand impressions.

The energy and capacity problem facing BC Hydro and the province was **all new information** for many

Stimulus as presented:

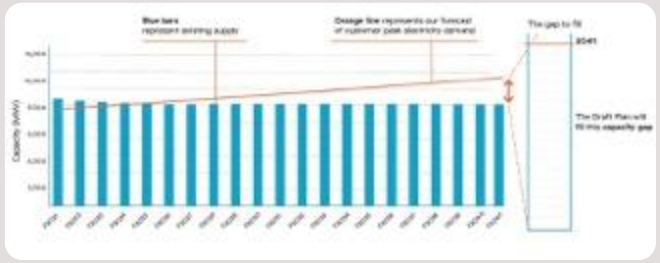
BC Hydro has enough energy for about the next 10 years, then they'll need more.

The blue bars represent BC Hydro's existing supply. The orange line is what they forecast their customers future demand will be. The gap grows between forecast demand (line) and supply (bars), and the draft plan will show how BC Hydro plans to close that gap by 2041.

B.C. has a regional need for CAPACITY within the next 10 years

Now let's look at capacity. Capacity differs by region.

- In most of the province, BC Hydro's ability to meet capacity needs in the next 10 years is good.
- However, on the South Coast (Lower Mainland and Vancouver Island), BC Hydro's need for additional capacity will appear within the first 10 years of their plan and is an area of focus for this Integrated Resource Plan (IRP).



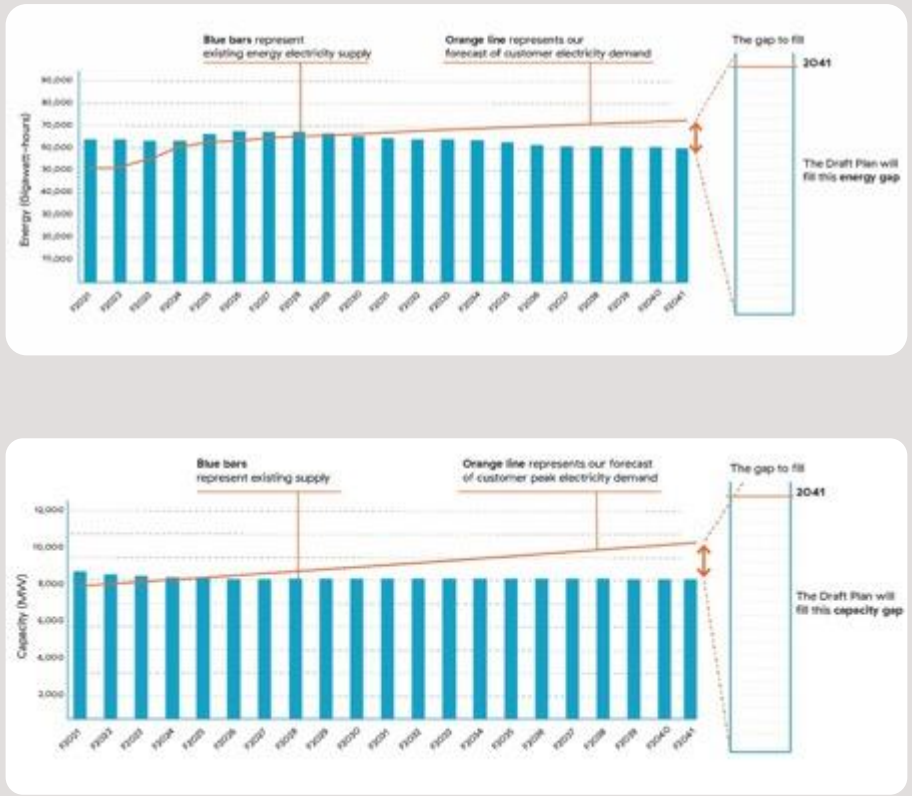
Reactions were divided

- **Many were not surprised**
  - To some among this group, this specific information was **new but not surprising,** while some others **already knew** an energy shortage was or would be a problem in the future.
  - The energy and capacity problems made sense **due to population increase and/or increase in electricity consumption (specifically EVs**)
  - A few felt they had been aware, but **did not know how soon this would become a problem**

- Some felt **surprised** - **"I never thought this would/could be an issue"**
  - Some felt **alarmed or shocked** that there were only 10 years of sufficient supply left
  - A few were **worried or** even **scared** about the possibility of running out of energy

The graphics were a helpful visualization for many, but also raised questions for some.

Stimulus as presented:



The format of the graphics was seen as **clear and easy to read** for many, helping them understand the challenges.

Only a few found the graphs **unhelpful or unnecessary**, or had unanswered questions:

- **What are the plans to fill the gap** (meet expected demand)? Where will additional energy be sourced from?
- A few were aware that BC Hydro is **selling hydro outside of Canada** (to the US) and wondered how that fit with the presented problem of the gap
- A few questioned **why the blue bars were projected to go down or fluctuating?**
- A few did not understand **the difference between the graphs**
- A couple wondered **how the forecast is predicted.** They questioned whether the following were considered or reflected in the graphics:
  - increase in EVs - would that cause even higher increase in demand?
  - Site C - How much will that project increase capacity? Is it reflected in the graph?

Part 1 – Energy Conservation Programs

Stimulus as presented

Part 1a:

The plan starts with **Energy Conservation Programs**.

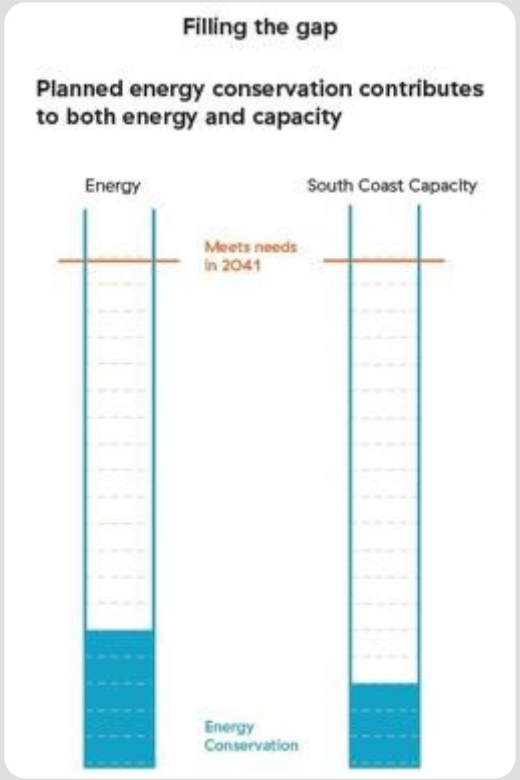
Conservation Programs include energy efficient education, providing tools and support to manage electricity use, and providing incentives for purchasing energy-efficient products.

Energy Conservation Programs can help close energy and capacity gaps.

The graphic below will be used throughout our discussion to help illustrate how each part of BC Hydro's Integrated Resource Plan addresses the gaps between energy in BC and capacity requirements in the South Coast specifically..

BC Hydro's plan:

Keep current level of Energy Conservation Programs and prepare to ramp up.



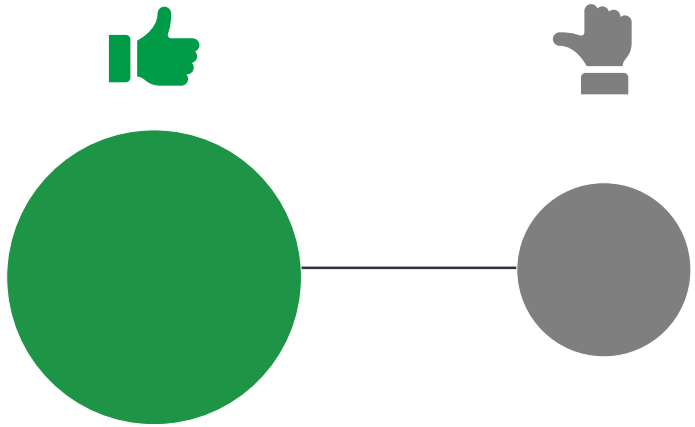
Part 1b - Reasons:

Below are **some reasons** that BC Hydro feels continuing and preparing to ramp up **Energy Conservation Programs are is important place to start** their plan to meet energy and capacity needs now and into the future.

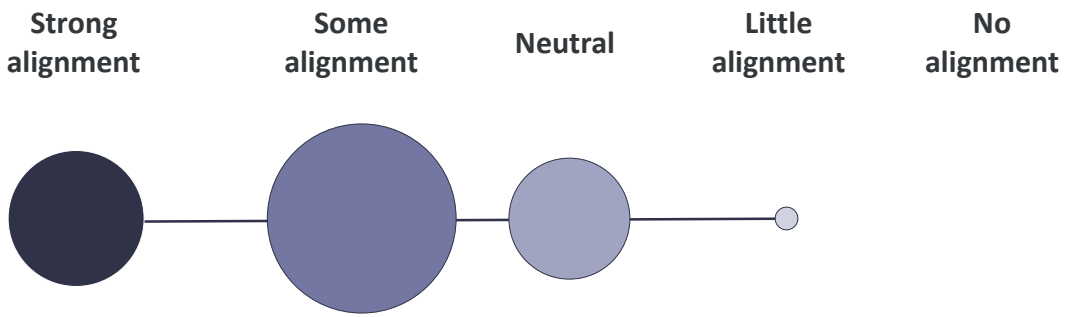
- Low cost relative to other electricity resources
- Energy conservation provides flexibility, allowing BC Hydro to increase or decrease effort when needed.
- Limits land and water impacts by avoiding or deferring construction of new power infrastructure.

Part 1 – Energy Conservation Programs received many positive gut reactions and no negatives; most were at least somewhat aligned

Q. What is your gut reaction to the idea of BC Hydro continuing to use Energy Conservation Programs as the first step of the Integrated Resource Plan (…)?



Q. How much does BC Hydro's plan to keep current level of energy conservation and ramp up when needed align with YOUR values and interests?



> *I appreciate BC Hydro's commitment to educating the consumer. It shows me they understand supply and demand of power and how we take for granted. (…) **Having this huge company focus on consumer attitudes surrounding conservation makes BC Hydro a positive role model in our communities.***
>
> – Female, Southern Interior, 40-49 years old, Indigenous

> *I think it's a good first step, but my initial reaction tells me **it's not enough**. I think with only a 10-year window, which in reality isn't a lot **we need to take some steeper measures**. These programs as a baseline are good but not what's needed. (…) it's a great start but it's **simply not enough**. It's just another corporation doing the bare minimum in my opinion.*
>
> - Male, Lower Mainland, 18-29 years old

Educating people about their effect on the environment, the focus on conservation, and the promise of rebates/incentives were key drivers of appeal

Drivers of Appeal

- **Education and conservation** seemed like a natural start to many – increasing awareness and consciousness of personal energy usage through education was seen as important; conservation is easily implemented with perceived low-cost
- Mentions of **'rebates' and 'incentives'** sounded appealing to some – 'getting something back' or saving money on bills felt motivating
- Focus on **decreasing consumption** overall was appreciated, aligning well with personal waste reduction goals and/or saving money and helping the environment
- **Limiting impact on environment** highly important for many – protecting natural resources, and the beauty of B.C.

> *I think Energy Conservation Programs are **naturally the first step** to address the energy and capacity needs in BC because these programs are probably the **easiest to implement as well as lower-cost.***
> - Male, Lower Mainland, 30-39 years old

> ***Incentives are extremely important** as oftentimes energy-efficient products can be more expensive. **People tend to be more cooperative when it benefits them**.*
> - Female, Vancouver Island, 40-49 years old, Lower Income

Only a few had questions related mainly to execution and impacts of conservation programs

Questions
How does this focus on conservation fit with the larger trend toward more dependency on electricity? (more Electric Vehicles, increased work from home, growing population, climate change)
How would this education be **delivered**?
What are the 'tools and support', and how do customers learn about them?
How will this **impact costs** for customers? What's in it for me?

> *This **won't tackle some roots of the problem**, such as growing population, more reliability on electricity (such as increased amount, of electric vehicles on the road).*
> – Male, Lower Mainland, 18-29 years old, Newcomer to Canada (from Hong-Kong)

> *I am also concerned about **how this information will be delivered**. Personally, I do not watch ads (both on social media platforms and the television) and I would guess that this information would be delivered in an ad style or format. (…) I **would like to learn more about the tools and support** BC hydro plans to implement for their energy conservation programs. For example, I would like [to] see specific scenarios and presentations. I find customer service has been declining with most companies and **almost find the concept of "tools and support" unbelievable.***
> – Female, Southern Interior, 18-29 years old

Concerns and questions were focused on mainly on impact and reach.

Concerns/Worries

- **Not enough:** not soon enough, not worth the effort, not aggressive enough, especially without the inclusion of **large energy consumers such as industry.**

- Concerns about **the willingness or desire of people to change behaviour**
  - people can be apathetic or opposed to **measures that feel restrictive, aiming to regulate or change behaviour** (evidenced by the current conversation around rights and freedoms related to COVID-19 restrictions)
  - *realistic* incentives are needed, something to entice individuals to conserve energy 'for the greater good' vs. only thinking of "what's in it for me?"

- **Inequality watch-out**: incentives and rebates felt geared towards homeowners and/or those who have money to spend (conservation costs money): need to spend in order to get something back; cumbersome/difficult to qualify for

> *I would prefer that BC Hydro to be **more proactive instead of reactive** when it comes to energy conservation and **ramp up energy conservation now, and not when needed**.* – Female, Central Interior, 30-39 years old

> *I see **little evidence** that BC Hydro will be able to **make enough of a change with industry,** and **that's where the real consumption issues are**. Again, I think personal energy conservation is great, but I often feel like we expect individuals to make sacrifices and lifestyle changes, without demanding changes from industry.*
> - Female, Central Interior, 30-39 years old, LGBTQ2+

> ***People will always complain** about being pushed to do something. Especially if it feels like an inconvenience.*
> – Male, Lower Mainland, 30-39 years old

> *The products that they want us to purchase to "conserve energy" **tend to cost more**. The incentives that they offer up are usually very **hard to qualify for.** Even the packages that they offer to try and help you to conserve energy - unless you make under a certain amount per year in your household you have to pay for it. **Doesn't sound very convincing** for someone that is looking to save us from not having enough in 10 years and more like someone that's concerned with lining their wallets.*
> – Male, Vancouver Island, 30-39 years old

“The Human Factor” –

Conservation requires human involvement, awareness and action

*I think a lot of people may not be worried about their energy consumption at this time purely because **they are unaware**. They’re being told that they should try to conserve energy, but **they aren’t being told or shown why**. Prior to reading about this, I fell in with the group that got the emails about conserving energy but didn’t really take them seriously. Now, having seen how soon we will be in energy deficit, I will be taking those emails a lot more seriously.*

- Female, Lower Mainland, 18-29 years old

*The cynic in me thinks these won't work out well as **people either won't care** (people who are mining cryptocurrency) **or don't understand the topic enough to want to care** (similar to voting).*

- Male, Vancouver Island, 30-39 years old

*I think education is a great place to start, but **I am apprehensive that it will be impactful enough**. (…) **My concern mainly lies in the inability of the human race to make meaningful changes in behaviour**. The scale of change required to make an impact is asking more than we can likely manage.*

– Female, Central Interior, 30-39 years old, LGBTQ2+

*I do really like the idea, but my concern is that **people just don't care enough.***

– Male, Lower Mainland, 18-29 years old, LGBTQ2+, Newcomer to Canada (from China)

*I like the idea but **there will always be people that will be against it** like anti-maskers and anti-vaxxers. We have all witnessed this during the pandemic.*

– Female, Vancouver Island, 50-65 years old

Minimizing environmental impacts while maintaining low costs were important and personally relevant for most

Limits land and water impacts by avoiding or deferring construction of new power infrastructure.

Low cost relative to other electricity resources

Energy conservation provides flexibility, allowing BC Hydro to increase or decrease effort when needed.

None of these are important or relevant for me personally

- **Low cost** was broadly interpreted as low cost to the customer (i.e., on their bill/for them vs. the brand)
- While broadly personally relevant, **limiting land and water impacts** were especially important to those with indigenous heritage (caution: small sample)

> ***Land and water impacts are incredibly important to me as an Indigenous person**. Land and water are sacred and should be treated with respect. Any efforts made to preserve forests, oceans, habitats, wildlife, and such **should be deemed essential**. Understandably, we do need infrastructure, but it must be done in a good way, and with consultation and blessings of those who occupy the land and territories.*
> – Female, Lower Mainland, 18-29 years old, with Disability, Indigenous

> *1) I mean **who doesn't like low costs**? With the price of everything going up I really appreciate the costs being lower. 2) We can't live without the earth, so it's great that **minimal impact is being made against land and water** to not disturb vital ecosystems that allow our existence.*
> – Female, Vancouver Island, 18-29 years old, Lower Income

Q. Which (if any) of the following reasons do you feel are important or relevant for you personally with respect to the idea of Energy Conservation Programs?

Part 2 –
Voluntary Time-varying Rates and Supporting Demand Response Programs

Stimulus as presented:

Part 2a:

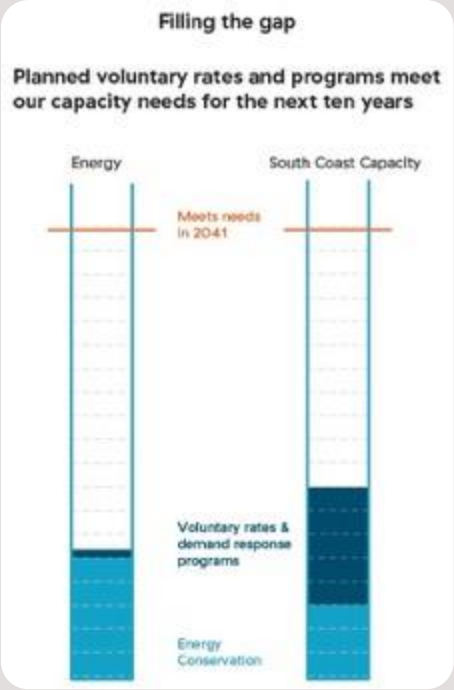
Voluntary time-varying rates and supporting demand response programs.

Voluntary time-varying rates and supporting demand response programs encourage customers to reduce electricity use during times of high demand on the electricity system, called peak periods. Customers that choose to participate could pay lower rates if they shift their energy consumption from peak periods to the lower rates offered during off-peak times.

Supporting demand response programs using automated technologies and incentives would be offered to help participating customers make shifts in electricity use.

A voluntary rate and program combination could support electric vehicle drivers to shift the time of charging to off peak periods to save money.

Time-varying rates and supporting demand response programs help to close the capacity gap by shifting electricity use from 'peak' to 'off peak' periods.



BC Hydro's plan:

Pursue voluntary time-varying rates and supporting demand response programs.

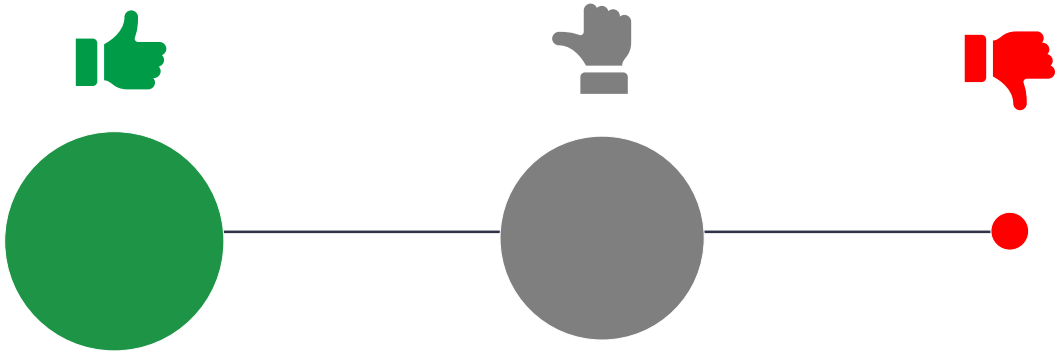
Part 2b:

Below are **some reasons** that BC Hydro feels pursing **time varying rates and supporting demand response programs** is an **important part of managing B.C.'s energy and capacity needs** for the next 20 years.

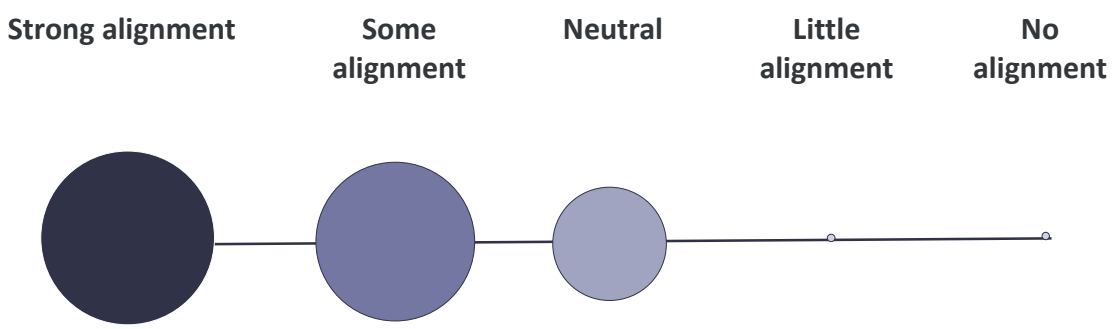
- Low cost relative to other electricity resources
- Customers who participate can shift their electricity usage to take advantage of lower electricity rates during off-peak periods.
- Because they are voluntary, customers who do not have the flexibility to shift the timing of their electricity use or those who do not want to don't have to participate.
- Limits land and water impacts by avoiding or deferring the construction of new power system infrastructure.

Most felt positive or neutral about *Part 2 – Voluntary Time-varying Rates* and were strongly or somewhat aligned

Q. What is your gut reaction to the idea of BC Hydro introducing voluntary time varying rates and supporting demand response programs (…)?



Q. How does BC Hydro's plan to pursue voluntary time-varying rates and supporting demand response programs align with your values and interests?



> *I really like that people are **given the option** and will be **rewarded** for volunteering! That might truly encourage people to be thoughtful about their energy use and save some money on top of that.* – Female, Northwest, 18-29 years old

> *I like the idea of **fostering individual responsibility** in energy stewardship.* – Female, Central Interior, 30-39

> *One of my **personal interests is in efficiency**, I always like to reduce the amount of effort any given project might have. As a result, an incentivized program that would allow me to use that personal interest to reduce my energy impact to our infrastructure and potentially save a little money is **right up my alley.*** – Male, Vancouver Island, 30-39 years old

Drivers of appeal were focused on the voluntary nature of the program and opportunities to save money

Questions
✓ **Opportunity to save money** – an effective motivator to change habits; provides personal incentive to conservation efforts (what's in it for me?)
✓ **Voluntary nature of program** – giving choice fosters individual responsibility and involvement; possibility to opt out was important to many
✓ Some EV owners or those intending to purchase liked that time-varying rates would save them money if charging their EV overnight (as suggested by the stimulus)

> *I like the initiative. I think that **change in habits is not that difficult when you put some effort into it, especially if you can save money** doing that. I do not see any issues regarding it, especially because if you cannot, for some reason, change your habit, in theory, **you are not losing the status quo** you already have.*
> – Female, Lower Mainland, 40-49 years old, Newcomer to Canada (from Brazil)

> *I also think that **a lot of people would appreciate the incentives** of a cheaper Hydro Rate and **including the people who have electric vehicles** and need to charge is a good idea.* – Female, Central Interior, 30-39 years old

> *If there is an **incentive**, people might be **encouraged to change their routines**.* – Male, Southern Interior, 50-65 years old

Questions were largely related to execution and impacts: When would rates be cheaper? And how might I participate?

Questions

- **What are the peak periods**? As peak periods were undefined, many assumed/guessed what times they would be
- Need for more **practical broadly applicable examples** (EV not relatable for everyone)
- More information about **automated technologies** used to monitor and decrease electricity usage was desired
- **Is it worth it**? How much would the difference in rates be? How big would the savings be? Incentives (savings) need to be strong enough for alignment and participation

> ***It would be helpful to know what the peak times are*** *to see if this would work for us and our schedules.* – Female, Lower Mainland, 50-65 years old

> *I'd like to know what* ***other examples*** *would be that would be more applicable to the energy use in my home,* ***since I don't have an electric vehicle*** *- lowering heating during the winter? Using washer/dryer/dishwasher during a different time of day?* - Female, Central Interior, 18-29 years old

> *I* ***would like to know more about the automated technologies*** *used to monitor and decrease energy use. Would this be an app on a smart device?* - Female, Southern Interior, 18-29 years old

> *I'm interested in knowing* ***how deep the rates would be cut*** *to make it actually motivating.* – Female, Vancouver Island, 40-49 years old, Lower Income

Perceived lack of fairness and concerns of penalties were worrisome for some

Concerns/Worries

- **Unfair for certain demographics**, won't work for everyone, e.g. families, "average 9-5 jobs"; loosing out on incentives, **imbalance of saving opportunities**
  - with EVs being the only example given in the Stimulus, some thought this was ONLY or MOST beneficial for EV owners
- **Fear of being penalized**, concern about peak period rates increasing
- Fear of **being "stuck" with choice**, not able to switch back, becoming mandatory later
- Concern about **practicality** and **application in own life**: not possible to shift peak usage times as dictated by schedule and season (e.g. heating in winter cannot be shifted)
  - as peak periods were not defined, some felt it would be hard to charge EVs during off-peak periods and assumed most EVs would be charging at the same time (evenings/overnight)

> *Unfortunately, there will be an **imbalance of money saving opportunities** to customers who are unable to shift their peak usage, while those with more flexibility will benefit more.*
> – Female, Southern Interior, 40-49 years old

> *The idea is good but I think **most of the power consumption comes from heating up** the place. How would I be able to shift that? Turn on the heat when is not cold and turn it off when it is? I just don't see enough use cases of this. (…) Yes, the one example about electric car charging can be done easily but **no[t] everyone has a[n] electric car** and there's **no other reason for me to be part of this program**.* - Male, Lower Mainland, 18-29 years old, Newcomer to Canada (from China), LGBTQ2+

> *I **would not like to see clients being penalized** from using energy on peak time. People in the city are often obliged to **follow the same schedule** as everyone else, therefore it would be difficult to manage.* - Female, Northwest, 18-29 years old

Some wondered about the ‘work’ or inconvenience involved, weighing individual effort against potential savings

“

*In order to take advantage of this new proposal, I **would have to analyze my usage**, and think about it every time I use power. **That’s just not something I would do** as my personality does not allow me to question my actions like that. If I had an electric car, then I may take the time to analyze how much it costs to charge and what’s the best time to do so. But **I can’t see myself obsessing over when I should use power or not use it***

- Female, Southern Interior, 40-49 years old, Indigenous

“

*In reality, if people are trying to change their habits to align with this ideal that we are dispersing energy consumption accordingly but let’s be honest, BC Hydro is still a corporation that charges insane amounts. **If you’re going to be inconvenienced to that kind of degree to save $10… not convinced I would keep up with it or even bother**. That’s not to be a jerk it’s just to be realistic. **How much is the inconvenience going to save me?***

– Female, Northeast, 30-39 years old

The voluntary nature of the program was important and relevant for most; strong appreciation for the freedom of choice

Important to most

Important to least

Because they are voluntary, customers who do not have the flexibility to shift the timing of their electricity use or those who do not want to don't have to participate.

Customers who participate can shift their electricity usage to take advantage of lower electricity rates during off-peak periods.

Limits land and water impacts by avoiding or deferring the construction of new power system infrastructure.

Low cost relative to other electricity resources

None of these are important or relevant for me personally

The voluntary nature was important to most as many were unsure if it was a feasible and beneficial option for themselves; many expressed they would be willing to give it a try.

> *I really like everything about that. It gives people the **freedom**, the **power of choice** and **avoids impacting negatively nature**! All things that I'm advocate for.* – Female, Northwest, 18-29 years old

> *I like the idea of **choosing to participate** in cost saving measures. It gives a **sense of being involved** instead of being told what to do.* – Female, Vancouver Island, 50-65 years old

> *[I] am **unsure if these programs would be beneficial to my household**. I like that these programs are **voluntary** and would **at the very least attempt to trial** the programs.*
> – Female, Southern Interior, 18-29 years old

> *Having the option to choose whether to join this program or not is very much appreciated. **Personally, I wouldn't know if it would make financial sense for me**.*
> – Male, Lower Mainland, 18-29 years old, Newcomer to Canada (from Hong-Kong)

Part 3 – Renewing Electricity Purchase Agreements

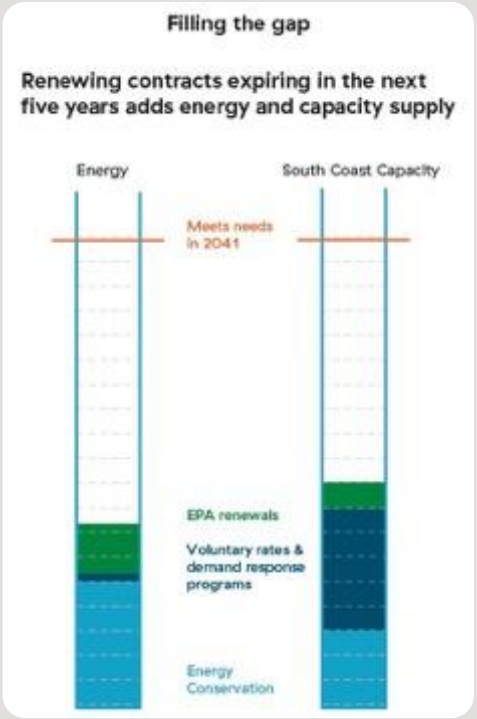
Stimulus as presented

Part 3a:

Renewing electricity purchase agreements

BC Hydro has been acquiring power from Independent Power Producers since the mid-1980s to help meet B.C.'s electricity needs.

While BC Hydro is in surplus over the next several years and doesn't need additional power, approximately 20 electricity purchase agreements for projects producing clean and renewable power are expiring before BC Hydro's next Integrated Resource Plan, anticipated in 2026. As such, BC Hydro be offering renewals for these agreements at market-based prices, which will be lower than the original contracts.



BC Hydro's plan:

Offer a market-price based renewal option to existing clean or renewable independent power producers with electricity purchase agreements expiring in the next five years.

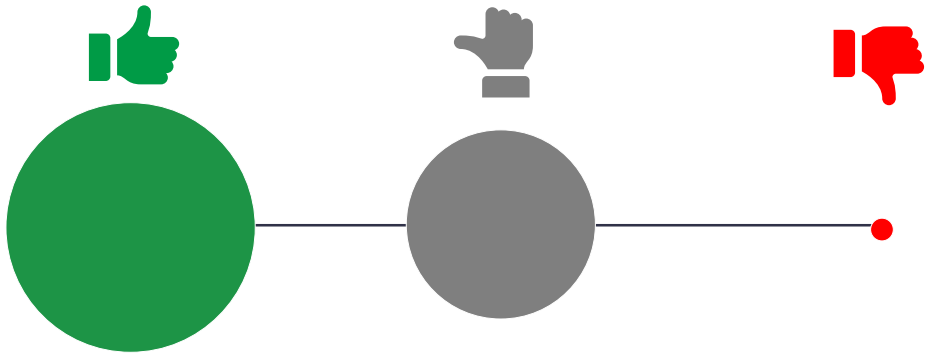
Part 3b:

Below are **some reasons** that BC Hydro feels **renewing electricity purchase agreements with Independent Power Providers** is an important part of managing B.C.'s energy and capacity needs for the next 20 years.

- Renewing these contracts helps limit land and water impacts by making use of existing facilities to help meet future electricity need when it arises.
- Renewing these contracts helps facilities, including those with Indigenous and community interests, continue to operate until B.C. needs the electricity in future.
- Offering a market-based price approach means any excess power could be sold on the open market, potentially lowering costs relative to today.

Most felt positive or neutral about *Part 3 – Renewing Electricity Purchase Agreements*; most were not previously aware of or familiar with these agreements

Q. What is your gut reaction to the idea of BC Hydro renewing electricity purchase agreements as a means to help meet B.C.'s electricity needs?

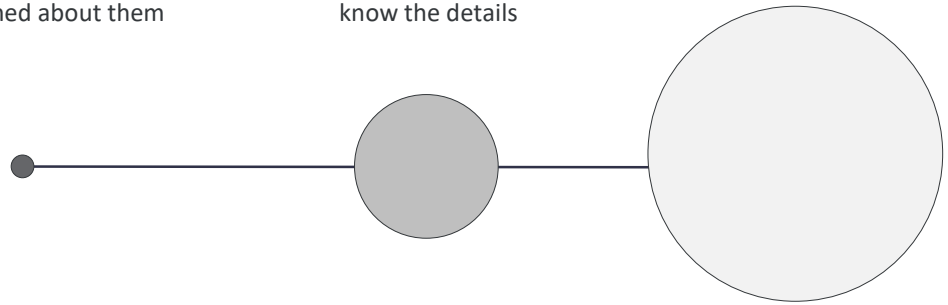


Q. Before today, which of the following best describes how aware you were previously that BC Hydro has been acquiring power from Independent Power Producers?

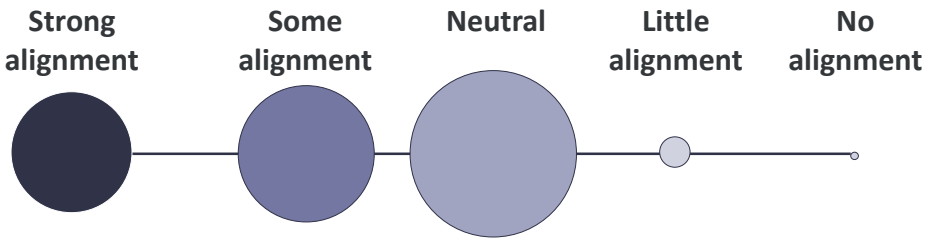
Very Aware
I was previously aware of the arrangements and feel well informed about them

Somewhat aware
I have heard something about this in the past but do not know the details

Not at all aware
I was not previously aware, this is new information for me



Q. How does BC Hydro's plan to offer a market-based contract to renew expiring electricity purchase agreements that are expiring over the next five years align with your values and interests?



> *I like that they are **not as monopolistic as I thought** - they support through purchase agreements other business entities. In addition, I like that **this diversifies our energy infrastructure.***
> – Male, Vancouver Island, 30-39 years old

> *[I would like to hear] **more info** about the current Independent Power Providers and how well they have been doing at fulfilling the current contracts, the effects they have had on the environment, etc. Also, info about how long the new contracts will be for and any commitment to providing more jobs for BC residents, etc. would be helpful in making it more positive than neutral for me.*
> - Female, Central Interior, 18-29 years old

IPPs using clean, renewable resources was an important driver of appeal and many could understand the need to diversify

Drivers of Appeal

- Most appreciated that this would **limit the impact on environment** by making use of existing facilities; mention of **using clean and renewable** sources
- **Diversification** through using multiple providers appreciated - “not putting all eggs in one basket”, good to have back-up options
- **Paying less** for the same product – potential for lower electricity prices for customers
- When aided with reasons, **support for local facilities** (esp. with Indigenous interests) to be able to continue operating was important for many as it would maintain stability in small, resource-based communities, helps people keep their jobs
- Some understanding that sources and jobs need to be in place to support future demand

> [Somewhat aware] *This means **multiple sources** are contributing, and that might help meet the future goals and avoid environmental impact by **using existing sources, instead of building more infrastructure**.*
> – Female, Southern Interior, 40-49 years old

> [Not at all aware] *It seems like they will be getting this power for a **cheaper price than the previous contracts**. This should mean that the **savings will be passed along to the consumers**.*
> – Male, Southern Interior, 50-65 years old

> [Very aware] *The IPP basically got golden contracts to create electricity which was barely required. **I’m okay with renewing these contracts only if the IPP are offered contracts at market rates.** The fact that they were offered such high rates for their electricity was basically theft to the BC taxpayer.*
> – Male, Lower Mainland, 40-49 years old, LGBTQ2+

Many had questions about who the Independent Power Producers are, where they were located and about their business practices in general

Questions

- **Who are the independent providers**? Foreign/Canadian? Owned by Indigenous people? How many people are employed by them?
- **How environmentally friendly are THEIR practices**?
- **How long** are the contracts?
- Do market prices mean **HIGHER prices**, and consequently higher costs for consumers? (What does this mean for ME?)
- **Why renew if unnecessary**? What would happen if contracts were not renewed?

> [Not at all aware] *My questions are, **who are those suppliers**? Do they have concern about keeping the environment safe?*
> - Female, Northwest, 18-29 years old

> [Not at all aware] ***Why not start** renewal discussions **closer to when the power is actually needed**? What was the duration of the previous agreements? How long would the renewals be for?*
> – Male, Vancouver Island, 30-39 years old

> [Somewhat aware] *One thing that really concerns me about it is **the control the independents have on their prices** when that demand is high, and the supply is low. **Is it actually cost effective in the end**, or does it just cost the consumer more and BC Hydro less?*
> - Female, Northeast, 30-39 years old

Concerns with this part of the plan were focused on a lack of details/information and outsourcing power production

Concerns/Worries

- Some felt they **needed more information** to form an opinion
- A few were concerned around **'market prices',** that BC Hydro would be capitalizing on IPPs by controlling prices and up-charging customers – lower prices paid might hurt small communities where IPPs may be located; is 'market price' a fair price?
- Desire for **BC Hydro to produce all the energy themselves** in order to be self-sufficient without having to rely on other (especially foreign) sources

> [Not at all aware] *I feel that I **need more information** about the nature of these independent power producers to feel more informed in my response.* - Female, Central Interior, 30-39

> [Not at all aware] *I am concerned that the money spent for the renewals **could not be better spent** on methods for BC Hydro to **produce clean and renewable power themselves** since there is a surplus lasting a few years.* – Male, Vancouver Island, 30-39 years old

> [Not at all aware] ***I don't love the idea of our province not being able to produce enough energy to sustain itself.***
> – Male, Southern Interior, 18-29 years old

> [Somewhat aware] *Depends on **where the renewals are coming from**?….. Alberta?? USA?? If it's from power facilities in BC that's a good thing,…. If we need to go outside of our province, then that not a solution, that's a band- aid!!! We **need to be self-sufficient here**……. And from here.* – Male, Northeast, 50-65 years old

‘Market prices’ were not universally understood as positive

[Somewhat aware] I was aware of this and at the same time ***I've heard BC Hydro was not paying the IPP a fair market value for the power being generated****. BC Hydro should be limited on the amount of market for this type of energy if the plan is going to work.* ***You can't be greedy****. (...) I've heard of IPP's generating power for BC Hydro and they would only want to pay a fractional portion of the market rate. It wasn't worth the effort for the IPP to continue. (...)* ***It must be a fair market-based price.*** *BC Hydro has the upper hand in controlling what it wants to pay for electricity. This should not be the case. The government should set a limit as to how much BC Hydro can upcharge the consumer.*

- Male, Lower Mainland, 50-65 years old

I feel ***neutral about the market-based pricing*** *BCH is proposing.* ***BCH should not capitalize this to make profit off of the producers*** *and thus discouraging them to further produce renewable energy to close-in on the energy/capacity gap.*

– Male, Lower Mainland, 40-49 years old

Just wondering ***if the lower cost for these contracts will hurt the community, indigenous individuals****....*

– Female, Vancouver Island, 40-49 years old, Lower Income

Minimizing environmental and human impacts were personally important and relevant for most

> *I am in favour of **anything that decreases our impact on water and land**, as well as **supporting local and improving BC's own economy.***
> – Female, Central Interior, 30-39 years old

> ***Helping indigenous and communities** that are operating these places is very important to me to support their economies.* – Male, Lower Mainland, 50-65 years old, Indigenous

> *I quite **dislike the concept of selling excess power** to the free market. I **would rather see BC Hydro store excess energy for later use** and reduce rates to customers.*
> – Female, Southern Interior, 18-29 years old

While 'selling power on the open market' had support from many, it also **raised questions** about what exactly that means and any potential consequences (individual and collective), leaving some uncomfortable with this idea.

Part 4 – Upgrades to Transmission System

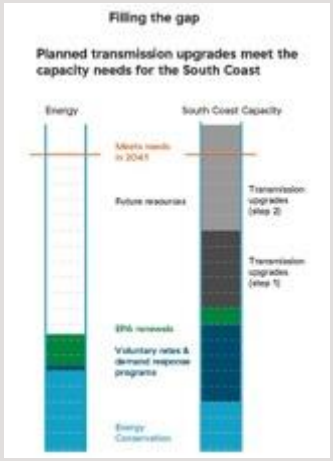
Stimulus as presented

Part 4a:

Upgrades to the transmission system from the Interior of B.C. to the South Coast.

Transmission upgrades involve improving equipment at BC Hydro's substations to increase BC Hydro's ability to move more electricity through a power line at any given time. Upgrades can go further by adding new stations of equipment. However, these upgrades don't produce any extra energy, they only improve BC Hydro's ability to deliver electricity during peak periods. These upgrades involve stations and don't include new power lines.

Click on the image below for a map to see specifically where these proposed upgrades could occur.



Transmission upgrades can meet the remaining capacity needs for the South Coast.

BC Hydro's plan:

BC Hydro proposes transmission upgrades from the Interior of B.C. to the South Coast in two steps.

Step one: Replace and add equipment to six existing stations. This will help maintain the voltage levels in the transmission line, allowing more electricity to pass through the line over long distances.

Step two: Prepare to add up to five new capacitor stations (locations to be determined).

A key part of these steps is to undertake early engagement with Indigenous Nations.

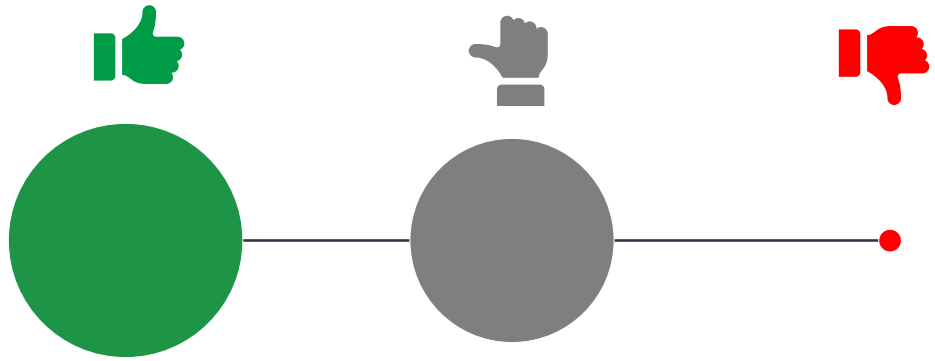
Part 4b:

Below are **some reasons** that BC Hydro feels **upgrading the transmission system from the Interior of B.C. to the South Coast** is an important part of managing B.C.'s energy and capacity needs for the next 20 years.

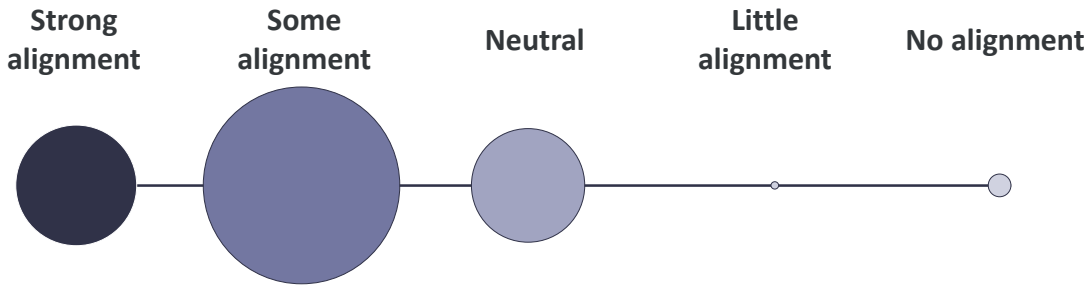
- These upgrades can provide a large amount of capacity that most other options can't.
- Upgrades are lower cost to other similar capacity options
- Upgrades limit land and water impacts relative to building new transmission lines or new pumped storage hydro facilities in the South Coast.

Most felt positive or neutral about *Part 4 – Upgrades to Transmission System*; for most* this idea aligned with their values and interests

Q. What is your gut reaction to the proposed idea of BC Hydro upgrading the transmission system from the Interior of B.C. to the South Coast (…)?



Q. How does advancing the first step of transmission upgrades (replacing and adding equipment to six existing stations) of transmission upgrades to the South Coast and prepare to initiate step 2 (prepare to add up to five new capacitor stations) align with your values and interests?



*Those in the Lower Mainland were more favourable/aligned vs. those in the Interior or Northern BC

> *It's good that **BC Hydro is being proactive** in upgrading the transmission systems now instead of when it starts to become a problem.* - Female, Central Interior, 30-39 years old

> *Climate change and our environmental impact are at the top of so many people's minds. **Upgrading as oppose[d] to building new seems more efficient and environmentally friendly.*** – Male, Lower Mainland, 50-65 years old

> *I'm not sure if I'm being selfish but upgrading BC Hydro's equipment to meet the capacity issues in the South Coast **aligns with my interests strongly**. I would want reliable electrical service. […] I do understand there are potential environmental costs to these upgrades, but **it sounds like BC Hydro has considered this in their research and planning**. I also appreciate that the Indigenous Nations will be consulted and participate in this planning. That is essential.* – Male, Lower Mainland, 50-65 years old

Upgrades were preferred over new projects* and consultation with Indigenous communities was a vital driver of appeal

Drivers of Appeal

- Support for **improving existing infrastructure before building new**; many understood that upgrading and maintenance are necessary - “best bang for your buck”
- Some considered it **important/vital to involve the Indigenous communities** early
- **Focus on delivery of electricity** appreciated by a few – the amount of electricity being produced is irrelevant if the system does not function optimally
- The promise of **better support during peak periods** for some addressed and resolved their worries about running out of energy during peak periods

> *I think that **if we don’t have an adequately functioning system,** the **amount of energy** BC Hydro can produce **is irrelevant**. If the upgrades are **necessary** for smooth running, then they should happen.* – Female, Central Interior, 30-39 years old, LGBTQ2+

> *I am all for lower costs, but not at the expense of long-term quality options, so I’m **hoping this option strikes a balance between costs and quality of upgrade (best bang for your buck).***
> - Male, Lower Mainland, 50-65 years old

> *I am **happy to see that improvements will be made** to secure upgrades. I cannot stress enough **how important it will be to consult with and listen to Indigenous voices and communities** during these upgrades.* – Female, Lower Mainland, 18-29 years old, with Disability, Indigenous

**Consistent with findings in September 2020 – IRP Digital Dialogue 1 (Appendix 2 – slide 88)*

Some longed for more detailed and specific information or had questions about costs associated with upgrading the system

Questions
How will this **affect the environment**?
What were the **“other options”** considered?
What will the **locations of the new capacitor stations** be?
Who will be paying for this? How will it affect hydro rates charged to customers?

> *I would like to learn more about **what the "other options" might be** that would increase capacity however I do think increased capacity is a good idea.*
> - Female, Southern Interior, 18-29 years old

> *I’m wondering what the upgrades will entail as far as **any environmental impact**, as well as the impact of the new planned stations. Is there a **back up plan** if the proposal is not accepted by the Indigenous Nations and/or is there a **maximum financial consideration**. **What financial impact** will the cost of this project have **on the consumer**?*
> – Female, Southern Interior, 50-65 years old

> *This sounds like it could be a **very expensive undertaking**. **Where is the funding coming from?** Will consumer rates go up to support the upgrades to these stations and the creation of new ones?*
> – Male, 30-39 years old, Vancouver Island

Transmission Upgrades felt exclusive for those not living in the Lower Mainland

Concerns/Worries

- Some **living in the North or Interior** felt left out of this plan, calling for support and upgrades as well – map only showed LML, which was not relevant for everyone
- A few felt they **did not have enough information**
- Some were **concerned about "*early engagement with Indigenous Nations*"** wondering: is there another plan if they do not accept the proposal?

> *The main focus seems to be on the coast so **as a northerner I feel a little left out.*** – Male, Southern Interior, 50-65 years old

> *I live in the North, **very far from the map.** So, I feel it doesn't include us up here. It's kind of an eye opener (…). **We are the Almost the forgotten cities up here.** (…) Sometimes [the power goes out] randomly out of nowhere, no bad weather, nobody hit a pole, nothing. It is probably due the lack of stations and transmission of power like the statement is suggesting for Southern BC.* – Male, Northwest, 40-49 years old

> *I see mention of meeting the energy needs of the South Coast, which I have assumed throughout the modules to be the highest energy demand area in the province, however, **I would like to learn more about the Interior and Kootenay regions capacity needs. Will these be met? Will residents of these areas have negative effects** (etc. increased billing) due to increased capacity needs NOT in their own region? I would like to know what areas BC hydro is considering for capacitor stations.*
> - Female, Southern Interior, 18-29 years old

Vague references to engaging Indigenous Nations also have potential to feel like “lip-service”/lack meaning

These performative comments about early engagement with Indigenous Nations are painful.
I'm inclined to believe that including the line of 'early engagement with Indigenous Nations' is only because of the recent media blitz of Indigenous issues and awareness in regard to Residential Schools. It's like when you see Coke or MasterCard or Bell using a rainbow logo during pride month. ***It's cringey and performative****. If they desperately need to include that,* ***back it up with some facts****. Say 'we have a Gold Rating form the Canadian Council for Aboriginal Business'. If I were to be part of this discussion 3 years ago, would that line have been included? How much indigenous activism is BC Hydro a part of? When corporations try playing the 'we care about the issues' game it comes off disingenuous because the bottom line is always money, i.e.* ***capitalism and racial justice do not mix.***

- Male, Lower Mainland, 30-39 years old, Lower Income

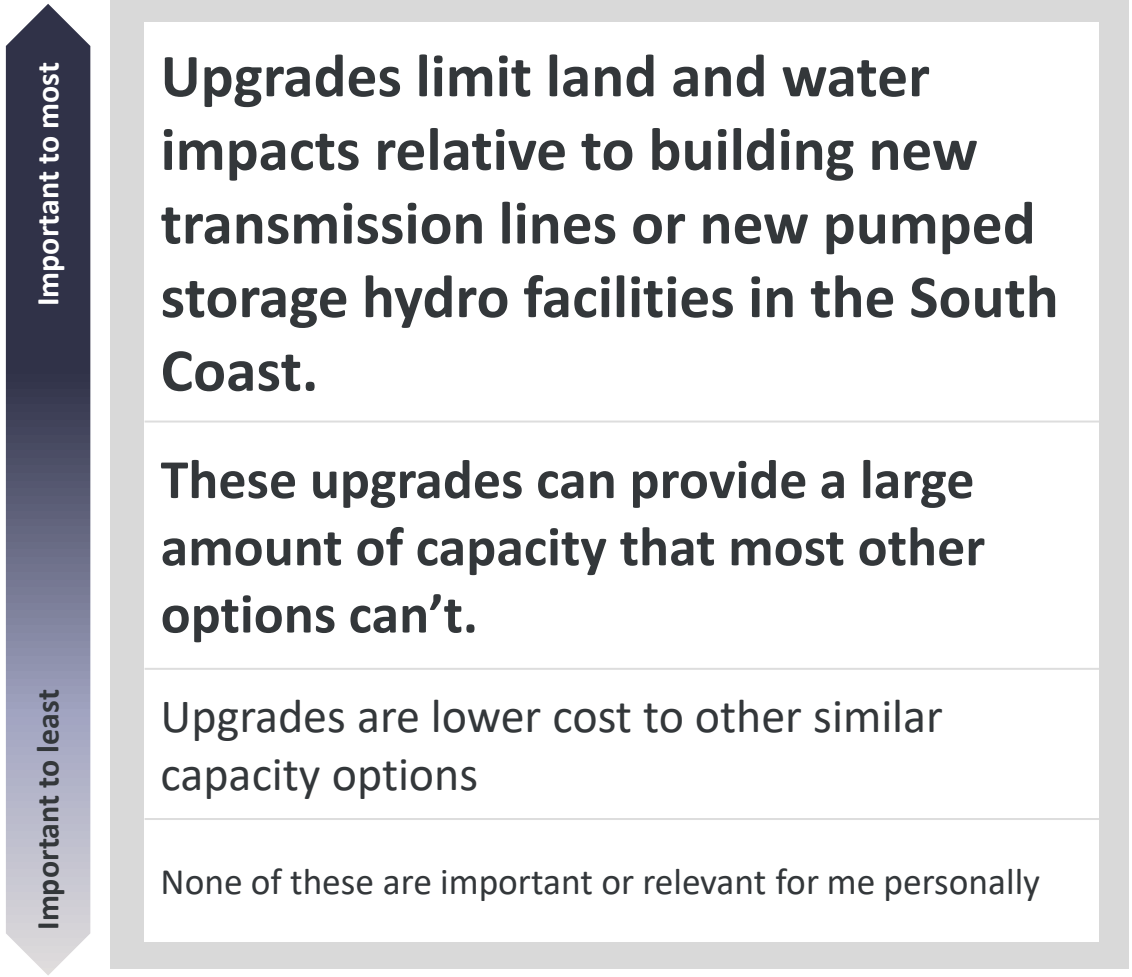
I get concerned when talking about early engagement with the Indigenous Nations is brought up. Just because ***their territories are rarely respected****, and they continue to be harassed when they don’t agree or are asking for changes on the plan. So,* ***I feel confused****.*

– Female, Lower Mainland, 18-29 years old, Newcomer to Canada (from Colombia)

Normally when something comes up like "engagement with Indigenous Nations" it ***tends to mean that we take away more*** *or make promises that are not fulfilled.*

– Male, Vancouver Island, 30-39 years old

Minimizing environmental impacts continued to be important and relevant for many; many also appreciated that upgrades were the greatest opportunity to increase capacity



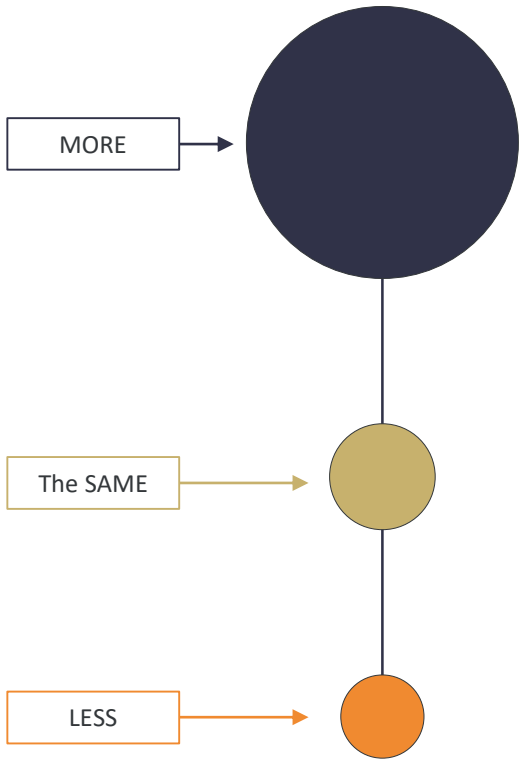
> *Looking at this situation practically, the **most important for me is that these upgrades can provide large amount of capacity that most other alternatives won't be able to**. If we need to increase the capacity to the south coast, we need to look at solutions and no solution will be 100% agreed upon by everyone, but as far as I can see, this option sounds great.*
> - Male, Lower Mainland, 18-29 years old, Newcomer to Canada (from Hong-Kong)

> *I guess because **I'm very ignorant on what "other similar capacity options" are**… or what they cost... I have to trust BC Hydro's word that it's the best option. **All those reasons are things I agree with, so I'm guessing this is the way to go?***
> – Female, Vancouver Island, 30-39 years old, with Disability

Part 5 – Future Renewable Resources

Most expected to use more electricity in the future; multiple factors influenced these expectations.

Q: Do you think you will use more electricity, the same amount of electricity or less electricity in the future than you do now?



Most expected their electricity use to change in the future; the majority expected an increase in use. Factors that influenced their expectations included:

- **Life-stage, lifestyle or living conditions**:
  - Children either increase consumption (having children, children aging) or decrease consumption (children leaving the home)
  - Planned purchase of a home; shifting from apartment/condo rental to home ownership = increased consumption

- **Increased digitization and electrification** through increased reliance on technology including **planned purchase of an electric vehicle** = increased consumption

- **Environmental factors**: **climate change** and more extreme temperatures (recent heat wave – July 2021= more air conditioners); **pandemic** – working from home and/or kids increased relying on technology as entertainment = increased consumption

Some however felt they were already trying their best to conserve energy, had made changes to their homes already (e.g. LED lightbulbs, educating kids) or expected no changes to their lifestyle or living conditions that would impact the amount of electricity they use in the future.

Expectations for the future – in their words

*Over the next pile of years, presuming I stay in Victoria, and the **climate** continues to move on in the way it seems to be, I'll **need to investigate in an air conditioning unit**, or some other form of temperature control. As well, I **plan on investing in an electric ve**hicle, which will also **increase my electricity usage**.*

- Male, Vancouver Island, 30-39 years old

*Will definitely use more electricity simply as **we move to a more digital world. This is a no-brainer**. Cell phones, electric vehicles need charging, more screens, more technology. These are powered somehow and usually that's electricity.*

- Male, Lower Mainland, 18-29 years old

Although I try my best to be conservative with electricity** and try to use it as efficiently as possible, I know that **my demand will most likely go up**. At some point I will **need to upgrade my vehicle and it will most likely be an EV.

- Male, Lower Mainland, 50-65 years old

*Realistically I can't see myself using more electricity than I already do as **my "setup" for work/home is somewhat constant.***

- Male, Lower Mainland, 18-29 years old

*I'm definitely sure our electricity will go down drastically as the **kids will be moved out.***

- Male, Southern Interior, 40-49 years old

Some hoped increased efficiency in new technologies might help offset increased demand.

While some expected newer technology to be more energy efficient, it was unclear how much impact increased efficiency would have, given increased demand and reliance on electricity.

> *Ideally, I plan on getting an electric vehicle. I am not sure how much that increases power usage. Other than that,* ***everything is digital and requires power.*** *So, I assume that there may be some stuff that consumes power like crazy.* ***But more and more products will get more efficient. So, who knows.***
>
> – Male, Lower Mainland, 30-39 years old

> *We are* ***moving toward electronics and technology*** *which means higher usage of energy but* ***at the same time we have improvement in the products*** *and lower energy requirement.*
>
> – Female, Lower Mainland, 40-49 years old

> *The first thing that comes to mind is that I plan to own an electric vehicle in 5-10 years so I know for certain that that will use a lot of electricity. I will also definitely be* ***upgrading to newer and more efficient appliances****, which will* ***help to offset the consumption of the EV.***
>
> – Male, Vancouver Island, 30-39 years old

Stimulus as presented

Part 5:

The final part of BC Hydro's Clean Power 2040 IRP is focused on **Future renewable resources.**

BC Hydro expects to need new electricity supply in the second half of the planning period (between 2030 and 2040). The specifics will be addressed in BC Hydro's next Integrated Resource Plan in about five years.

A lot can happen between now and when these resources are needed, and BC Hydro has time before making any decisions.

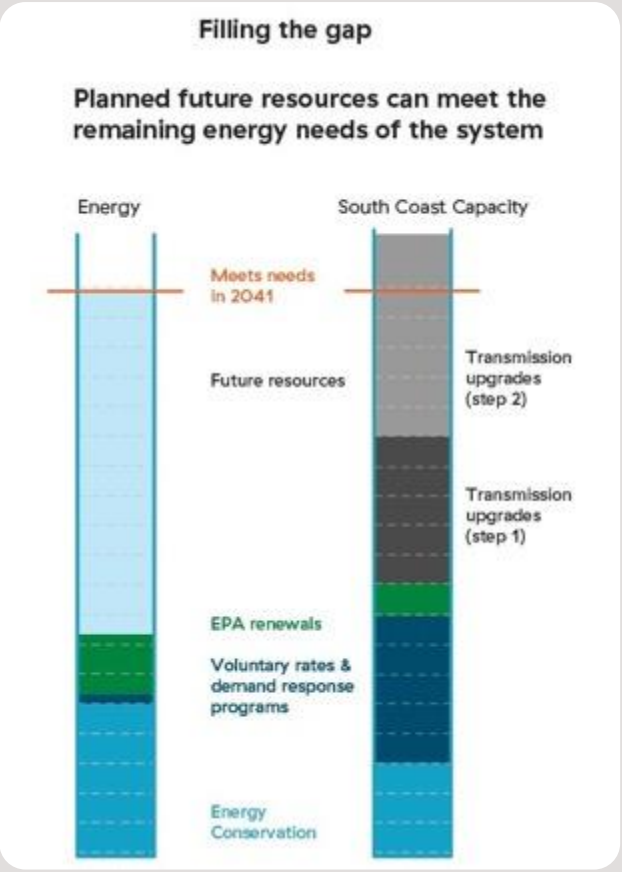
When the time comes, options include:

- More renewals of expiring electricity purchase agreements (about 50 agreements could further defer future needs)
- Upgrades to existing BC Hydro facilities
- New clean & renewable energy resources (e.g. solar, wind)

BC Hydro's plan:

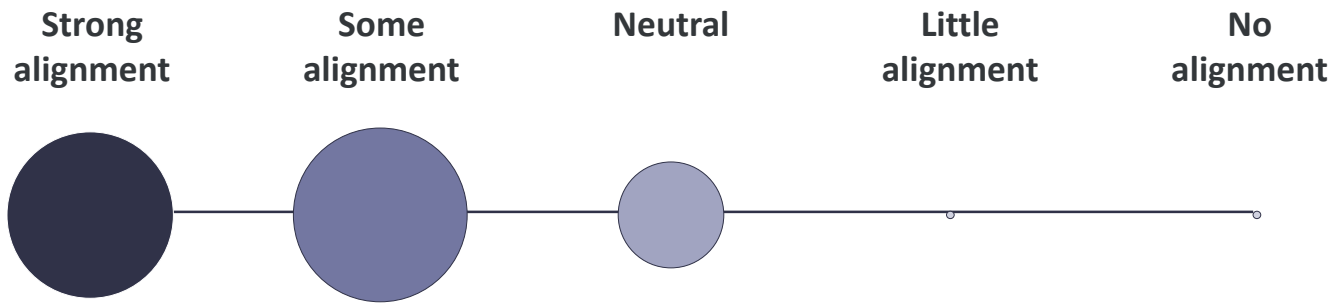
Beyond BC Hydro's planned elements of conservation, time-varying rates with supporting programs and electricity purchase agreement renewals, BC Hydro plans to acquire new energy resources.

As the time gets closer, BC Hydro will consult and make decisions with the latest information available.



Most felt some or strong alignment with BC Hydro's plans for *Part 5 - Future Renewable Resources,* appreciating investments to keep up with demand, and keeping costs and environmental impacts low.

Q. How does BC Hydro's approach to future resources align with your values and interests?



Being more efficient, making use of existing facilities and investing in new clean energy resources (solar & wind) ***all align with my personal values and interests****. I don't see enough about the impact to indigenous peoples and reparations though.*
– Male, Vancouver Island, 30-39 years old

I think that when we look at new clean and renewable energy production, we ***need to look at ways that each household can contribute to producing some of their own energy*** *to reduce strain on the overall system.*
- Male, Lower Mainland, 50-65 years old

It seems like BC Hydro is exploring a number of options to increase energy and capacity to meet future demand in an economically and environmentally-friendly way. This ***aligns with my values and interests in keeping my lights on, environmental impact limited, and energy bill low.***
- Female, Central Interior, 30-39 years old

Strong appreciation for future investments in alternative renewable energy sources (e.g. wind/solar)

Drivers of Appeal

- Investment in **clean, renewable** energy resources; importance of balancing energy needs and the environment – (i.e. limiting impacts on environment in trying to meet the energy demand)
- Making use of existing facilities/infrastructure by upgrading

> *This is great! We need to invest more into **renewable energy** as we will need to find a way to **balance energy and the environment.** Renewals of the agreement would also help some local companies.* - Male, Lower Mainland, 18-29 years old, LGBTQ2+, Newcomer to Canada (from China)

> *I think **hydro needs are important to live comfortably.** I like the idea of **cost effectiveness and reinstallation of the new plans** is great idea too.*
> – Female, Northwest, 18-29 years old, Newcomer to Canada (from India)

> *I like how BC Hydro is considering **other forms of renewable energy** such as solar and wind.*
> – Female, Southern Interior, 18-29 years old

Questions and concerns were largely focused on execution, a desire for greater urgency and a lack of information

Questions

? What exactly is planned for **generating more energy**? What are the new energy resources?

? Are the **agreements with independent power producers** also clean and renewable energy sources?

Concerns/Worries

X Worry about **carrying out** of plan – ideas sound good, but need to see them put into practice

X **Not enough information** to form an opinion

X **Plans do not go far enough**: fundamental change is needed now, should not "wait around"

> *I'm **glad they're looking to the future**, but I'm interested to know **what the grander plan is**, and **how they plan to generate more energy.*** – Male, Vancouver Island, 30-39 years old

> *I think BC Hydro has some good ideas, but **how they put it into effect** is what I'm a bit concerned about.*
> - Female, Lower Mainland, 18-29 years old

> *I would **need more details** about each solutions in order to truly decide if I'm for or against each of them.*
> – Female, Northwest, 18-29 years old

> *"A lot can happen between now and when these resources are needed". **We need fundamental change now.***
> - Male, Lower Mainland, 30-39 years old, Lower Income

Reactions to the Draft Integrated Resource Plan – Phase 2 (overall)

Many felt BC Hydro's Draft Integrated Resource Plan (Phase 2) overall was **well thought-out, reasonable, and achievable**

Comprehensive – the plan shows that BC Hydro has thought of many possible aspects (costs, environmental impact, indigenous nations)

Carefully crafted – shows they have a good understanding of what to expect

Covering all bases – shows that they are not putting all eggs into one basket by using a multi-prong approach

Considering the needs of the future – to some, the plan seemed **proactive rather than reactive**; they were glad that BC Hydro was thinking ahead

Conservation is key – there was an agreement among a few that education about conservation and providing tools is the right first step

Commitment to environment – some specifically liked that renewable energy sources were considered for future resources

> *Overall, **I feel pretty good** about BC Hydro's Integrated Resource Plan. I feel this way because I think the **plan's core outline and structure are strong** and **have been carefully crafted**.*
> - Female, Lower Mainland, 18-29 years old, with Disability, Indigenous

> *I'm **happy to hear that they're looking into this ahead of time** and I hope that everything will be smooth so that things will be like no issues for any of us moving forward.*
> - Female, Northwest, 30-39 years old

Questions and concerns were rooted in specific parts of the draft plan, the need for more information and/or a desire for greater urgency

Lingering concerns about specific parts:

- **Some uncertainty about voluntary time-varying rates** – not possible for everyone to take advantage; worry about becoming mandatory
- Some had lingering **concerns and questions about the independent power producers**
  - Who are they?
  - BC Hydro should produce the power themselves instead of buying from independent producers
  - Concern about environmental responsibility being passed on to private producers
- **Transmission upgrades need to keep the whole province in mind** – plan favours the Lower Mainland, interior and north feel excluded

Wanting/needing more information:

- What would **the impacts on indigenous populations** and territories be? How would that increase the challenges of step 2?
- History of selling **electricity to California** excluded – how does that fit into the energy gap and planned solutions?
- What is the **current impact of conservation programs**?
- Was the **Site C dam** in the presented numbers? Was **climate change** taken into account with the forecasted demand?
- What kind of **system upgrades are necessary vs. desirable?**

Desire for greater urgency/ more drastic measures:

- 5-10 years not very long
- Worry that the plan is not enough because the gap will be too large to bridge with increased electricity usage; especially with increase of EVs and the world becoming more digital
- Worry that the plan was too short-term

- A few longed for BC Hydro to foster **market of private power producers** (e.g. homeowners installing solar panels)

- A few called the plan **"too idealistic"**, looking good on paper, but needing to be put into practice (*'believe it when I see it', 'actions speak louder than words')*
  - Expectation of challenges in implementation
  - A couple thought it looked like BC Hydro just wanted to make money, with clean/renewable energy coming last

Reactions to the Draft Integrated Resource Plan (Phase 2) overall – in their words…

*I feel pretty good about the overall plan. I feel like there's **some things that might have been left out**. I **don't feel confident that I know all of the options that might've been dismissed**, but I do like the plan to upgrade existing infrastructure limit the impact on the environment, continue to diversify its energy sources and make just those small changes. So, consumers can adjust their behavior to best match BC Hydro's needs.*

– Male, Vancouver Island, 30-39 years old

*I think the five-part plan is a **well-thought-out plan** to tackle the upcoming energy deficit for the South Coast and province. I like that the plan is to not just build very expensive power plants - hydroelectric dams and natural gas - which have enormous environmental impacts. It's great to know that **everyday consumers can choose how to take part in the plan**, as well as larger users such as those in manufacturing and industry.*

– Male, Lower Mainland, 30-39 years old

*I feel like **they've covered all their bases** with **being proactive** with your energy conservation programs and upgrading transmission stations before it's needed, as well as building new infrastructure. (…) It seems **really well-rounded,** lots of options instead of just putting all their eggs into one basket, just, you know, having one solution, you've got **multiple solutions** to help with the upcoming energy shortages.*

– Female, Central Interior, 30-39 years old

*Overall, I like the plan contents. It **makes sense to use a multi-prong approach** to bridge the gap. With the increasing numbers of electric vehicles and greater virtual employment, I am **concerned that the gap will be too great to bridge**.*

– Female, Lower Mainland, 50-65 years old

*I think there should be **incentives** or leasing agreements **for customers to adopt solar panels and batteries to return power onto the grid**. Solar panels and batteries could contribute to meeting energy and capacity requirements. It fits into Energy Conservation (incentives), varying rates (sending back to the grid equals a negative rate), could also help reduce the need for transmission system upgrades as the electricity may not need to travel as far, and solar is a renewable resource.*

- Male, Vancouver Island, 30-39 years old

*Overall, I think the right questions are being asked and most of the plan is a **great start**. I like the idea of **educating and providing tools/support** to reduce energy consumption. having incentives to switch to more efficient options is a great start.*

- Male, Lower Mainland, 18-29 years old, Newcomer to Canada (from Hong-Kong)

*I feel that overall, **this [is] a good plan**. However, **it's very vague and a little difficult for a layperson like myself to understand** exactly what each element means and how it could affect my life. I **would like to see more details, examples, and information** added to make this plan more comprehensive and understandable for the general population. (...) Personally, I wish there were more details about what each element of the plan would look like for the average household, specifically for young families.*

- Female, Central Interior, 18-29 years old

THANK YOU

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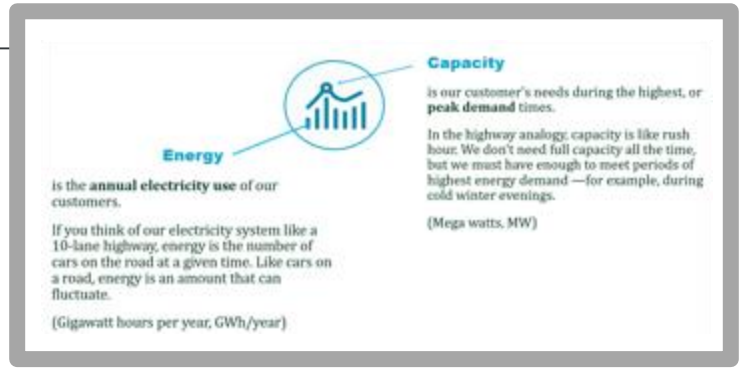
Appendix 1 –
Energy and Capacity
Understanding and Analogies

Most understood the definitions of Energy and Capacity well. Other suggested analogies centred around the themes of water/liquids and food.



Energy is like the flow of water through a pipe and Capacity is how wide the pipe actually is. If you increase the size of the pipe, more water could flow through the pipe over a min, thus more energy can be used. – Male, Lower Mainland, 30-39 years

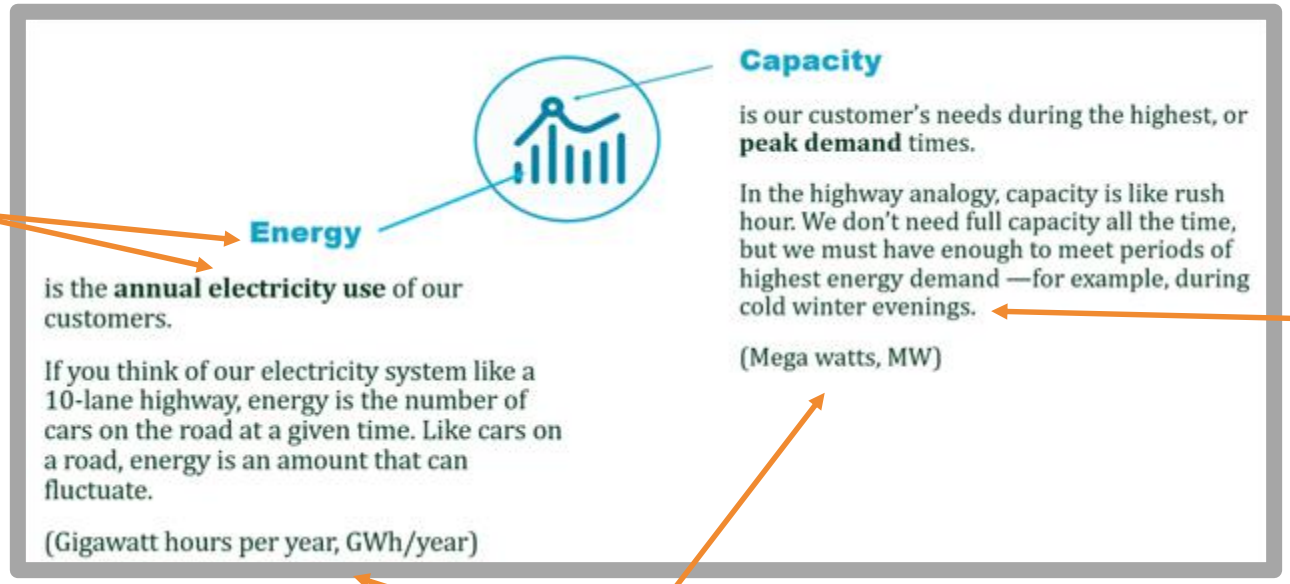
I would explain by use of a water tap……. The water flowing from the tap when I crack it open slightly would represent " A customer" using the power,…… and as other customers demand power, I would open the tap more and with the water increasing out I would explain that's more power " capacity" needed to keep all customers happy! - Male, Northeast, 50-65 years old

I could think of a restaurant that needs to meet the demand at 6pm on a Friday night. You need enough food and beverage to offer all your patrons a good experience and service.
- Female, Northwest, 18-29 years old

Internet providers provide a reasonable analogy. Energy would be the amount of bandwidth you use each month (data downloaded/uploaded), where Capacity is your internet speed (or, at the ISP level, their connections to the backbone) which dictates the absolute limit that you can receive data at. Ideally, you'd always have headroom in capacity to be able to handle any increase in load without service interruptions or quality degradations. – Male, Lower Mainland, 18-29 years old

A few* had specific questions about some parts of the definitions.

What's the difference between energy and electricity/electric?



The reference to "cold winter evenings" was unclear to one.

A couple said they were unfamiliar with the units of measurements

- What's the difference between Gigawatt hours and Giga-/ Megawatts?

**Confusion was minimal and mostly single mentions*

Appendix 2 – Draft IRP Digital Dialogue Phase 1

Key Learnings and Considerations

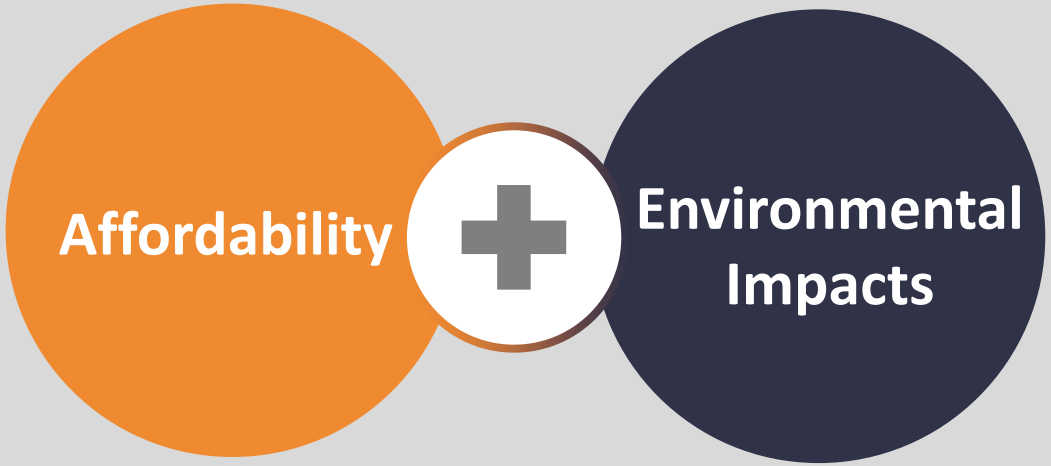
(September 2020)

KEY INSIGHTS

(Draft IRP Digital Dialogue Phase 1 – September 2020)

When planning for a clean electricity future both 'affordability' and focusing on 'clean, minimally destructive energy sources' were top of mind as important.

> *Two things immediately come to mind:* ***cost and environment****. My concern is* ***will I be able to afford it*** *but also* ***how will it effect the environment****.*



'Affordability' was **highly subjective** generally focused on personal circumstance (what *I* can afford); current (September 2020) rates were considered affordable for some and expensive for others.

Minimizing 'Environmental Impacts' through **clean minimally destructive** energy sources:

- Leveraging natural resources (wind, solar, water)
- Minimal *negative* impact to **land, water, wildlife AND communities/people**

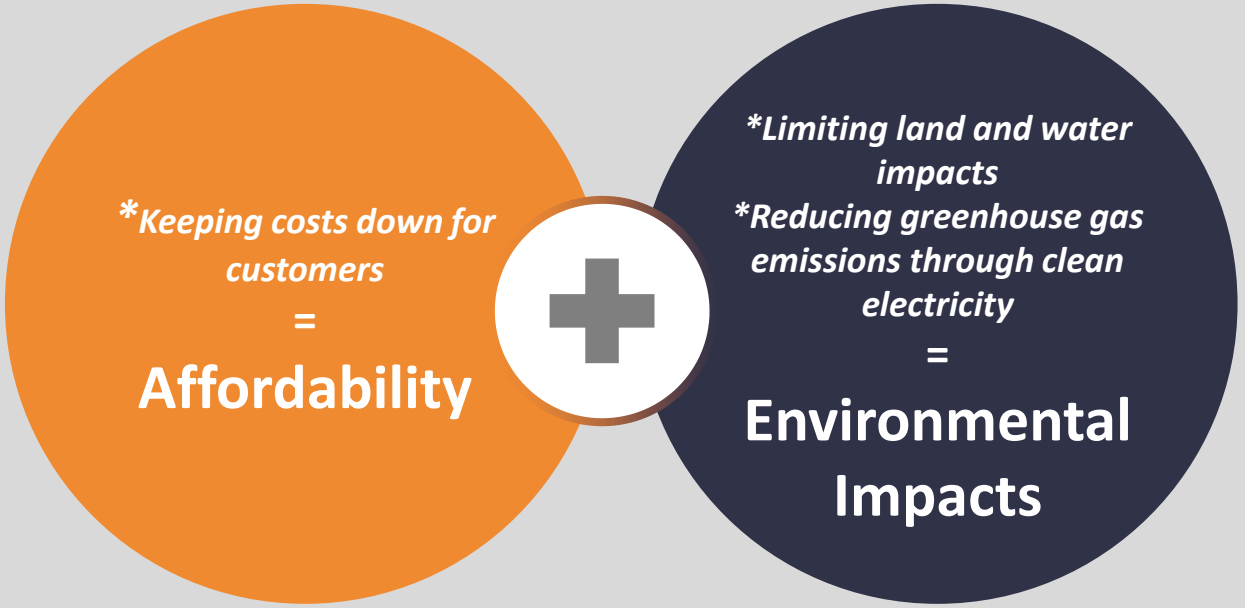
Balancing affordability (costs) with protecting the environment through clean energy sources **will be pivotal** in the future.

> *To me what is* ***most important is clean energy but at an affordable low-cost rate****. As much as I want to keep my energy use clean, if it becomes unaffordable then it's likely I will seek other forms of cheaper ways to generate energy (such as purchasing my own generator and using gasoline - which is very unclean).*

ALL IRP planning objectives were highly important; however, three rose to the top:

**Limiting land and water impacts*
**Reducing greenhouse gas emissions through clean electricity*
**Keeping costs down for customers*

The three top planning objectives fit directly with top-of-mind priorities:



Focused on individual needs - What's in it for ME?

Benefitting the collective - For the planet/the environment and the 'greater good'.

> *The costumer cost affects me personally, individually, and regularly…The other items, while still important to me, are generally important to me for the benefit of the entire province and the manner in which that effects me.*

Supporting reconciliation with Indigenous Nations as well as ***Supporting the growth of B.C.'s economy*** were seen as **'responsible' business practices** for BC Hydro – **highly important but less personally motivated** for most.

Ideas that focused on EDUCATION and CONSERVATION in general garnered greater support

Power Smart was the most strongly supported idea of those shared for 'Part 1: the first 10 years' of the Integrated Resource Plan.

P2

For 'Part 2: the later 10 years' ***Greater Conservation and Customer Involvement*** rose to the top.

BOTH of these ideas felt strongly linked to conservation overall. They both had a clear focus on raising awareness and educating consumers which was seen as promoting partnership and communication which helps ladder to transparency.

Conversely in Part 1, *Time Varying Rates* and *Demand Response* were more focused on cost saving and minimizing 'peak demand' specifically vs. conservation. 'Peak demand' was not clearly understood as or linked to conservation.

‘Avoiding or deferring infrastructure upgrades’ and ‘Upgrading the system’ was polarizing throughout

Those who supported upgrades:

- Understood maintenance was an inevitable necessity; cannot be avoided long term (over time all things need upgrading)

Those who were resistant:

- Were concerned about environmental, human and cost impacts

UPGRADES using the EXISTING INFRASTRUCTURE were preferred over replacement/new projects.

> *New infrastructure is expensive and always has a big impact on the local environment.*

> *I would rather improvement to current infrastructure rather than using up more green space.*

Avoid vague or unfamiliar terminology (jargon)

The following statements **lacked clarity** leaving customers unsure how to determine importance.

Power Smart

- Ensuring there is **flexibility** to ramp up program as demand for power increases into the future
  - *What does 'flexibility' refer to?*
  - *How do we ensure flexibility? What is the plan?*
- Providing **targeted opportunities** to **customers who need it most**
  - *What are targeted opportunities?*
  - *Who are these customers who need it most?*
- Reducing some **program offers** until we need the electricity savings
  - *What are 'program offers'?*
  - *Why would we want to hold off? Why wait?*

Time Varying Rates

- Accumulates **peak demand** reductions quickly
  - *Why should I care about peak demand reductions?*
  - *What does this statement refer to or mean exactly?*

Strong appreciation for BC Hydro's efforts to TALK to consumers/ask for their opinions, reflecting positively on the brand AND allowing customers to feel their voice has been heard.

Many described their experience participating in this project as 'thought provoking' and many felt they learned something new in the process.

> *I admire the efforts of BC Hydro to reach out to their customers for input.*

> *I just wanted to voice my appreciation for the opportunity to share my opinion and thoughts on the matter from my perspective. It is reassuring to know that BC hydro wants customer feedback before proceeding.*

> *I had no idea any of this was in the works with BC Hydro and am pleasantly surprised by what I have learned here. I hate to admit, but clearly, I have been a bit of a blind consumer since "growing up" and this is more information than I have received (or perhaps made the time to read) in a long time. It makes me hopeful that there are some positive developments in the works! Thank you for including me :) – Female, Southern Interior, 35-49 years old*

> *I love that there is research being done with the general public about these issues. …Going forward this is going to be one of the most important issues, so I am glad we are starting to think about this now!*

> *I'm pleased to know BC Hydro is seeking this input. It makes me feel better knowing they've consulted a wide range of opinions.*

***Note**: in this research participants were NOT required to be favourable towards BC Hydro as part of recruitment criteria; reactions reflect a variety of ingoing brand impressions*

IDEA EVALUATIONS

(Draft IRP Digital Dialogue Phase 1 – September 2020)

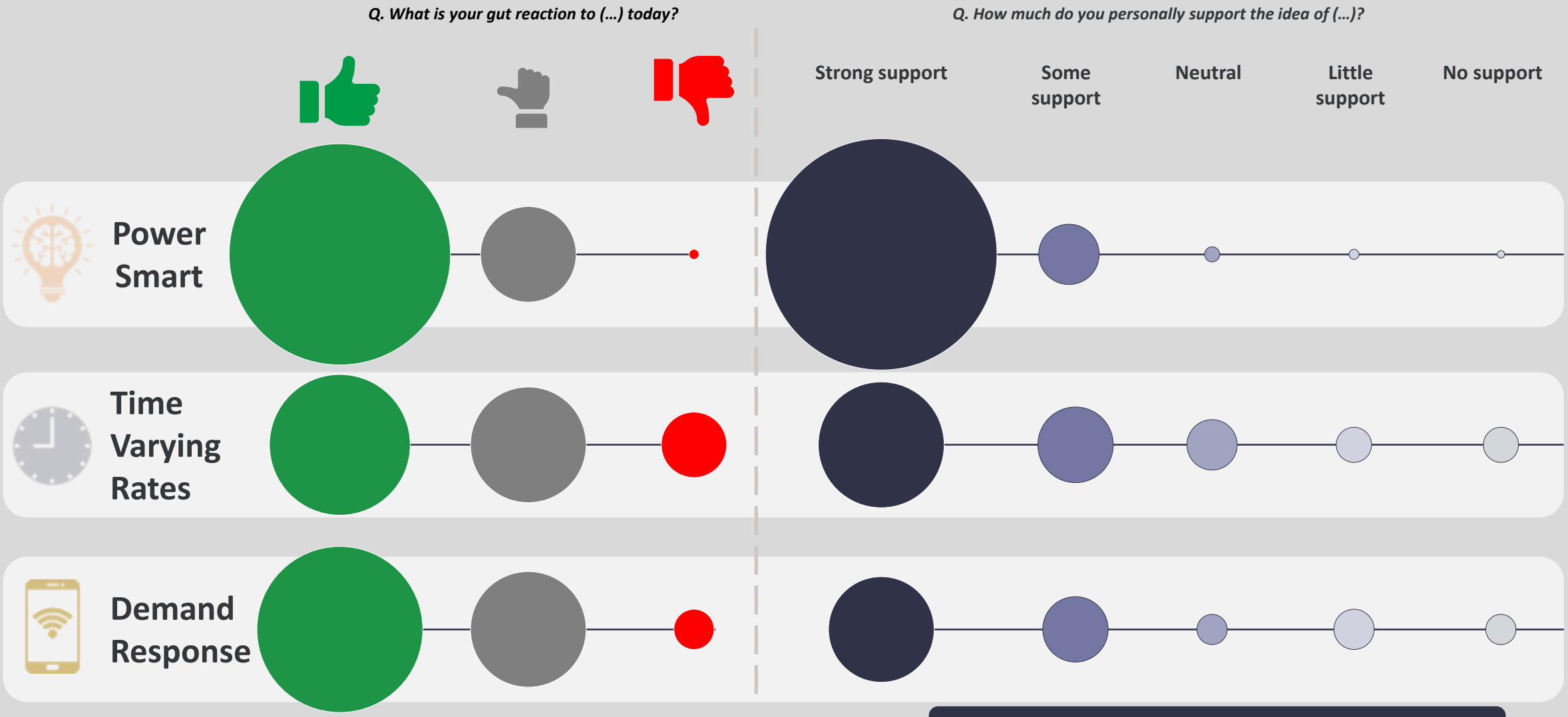
P1 – THE FIRST 10 YEARS (2020-2030)

Where BC Hydro has enough clean electricity in their system to meet customer needs

P2 – THE LATER 10 YEARS (2030-2040)

Where BC Hydro expects to need new supply

While all of the *First 10 year* ideas were appealing and widely supported, *Power Smart* received most positive gut reactions and the strongest support ratings



*Caution, all sample sizes are small!

Power Smart

Ability to **balance cost saving/affordability with conservation efforts = sense of control = empowering.**

- Appreciated for providing both EDUCATION and INCENTIVES
  - EDUCATION = COMMUNICATION & PARTNERSHIP which reflects POSITIVELY on the brand and helps ladder towards TRANSPARANCY
  - INCENTIVES pivotal to encourage change
- Promoting conservation with some of the BIGGEST ENERGY USERS suggested commercial = BIGGEST possible IMPACT

Clear focus on conservation (overall).

Time Varying Rates

Appreciated for offering **cost savings**, however even though *positioned as a benefit*, this program felt more like an **unfair penalty system** in practice = perceived as **unfair.**

- Factors that focused on the individual (COSTS, FLEXIBILITY and CHOICE) were considered most important to mitigate perceived unfairness as many felt **they would not reasonable be able to take advantage** of this program **without severe disruption to their lives**.

Focused on cost savings and minimizing 'peak demand' use specifically.

Demand Response

Those **already familiar** with and/or already using smart home technology were **generally supportive**; the **biggest concerns** related to **cost** and **privacy.**

- While appreciated both for the potential for COST SAVINGS based on reduced use and CONVENIENCE/PEACE OF MIND, many felt the program **required investment** in **and comfort** with the **technology** making it appear **exclusive**.
- Some were also highly concerned about **data privacy**, limiting appeal.

Saving money on bills was the most important and compelling part of BOTH of these ideas

‘Greater Conservation/Customer Involvement’ felt most tangible and easily understood.

Greater Conservation & Customer Involvement

- Easily **understood** (simple) and **tangible**
- Highlighted **partnership and communication** between BC Hydro and customers – laddering to **TRANSPARANCY**
- Focus on **education** and **raising awareness** (”no brainer”)

Upgrading the system

- **Upgrades were preferred over** replacement/**new** projects
- **Cost efficiencies** of upgrading the system were important proof points to garner support
- **Hope** that upgrades would make systems **MORE sustainable/eco-friendly and efficient**

General lack of understanding and familiarity with both areas of new local storage options.

Pumped Storage

- **Piqued interest** – reasonable or compelling ‘new’ idea **building on EXISTING** hydro **infrastructure**
- **STRONG negative response** to impacts on aquatic habitats

Batteries

- Appreciated and understood as a **back up for storing energy** – especially if considered in combination with wind and solar power
- **Strong concerns** around environmental impacts of both production, storage and disposal (both unaided and aided)

KEY CONSIDERATIONS

(Draft IRP Digital Dialogue Phase 1 – September 2020)

Key Considerations

Ideas and topics related future power generation in B.C. – specifically the Draft Integrated Resource Plan ('Clean Power 2040') - are more likely to resonate with BC Hydro customers if…:

1. …ideas are focused on meeting both:
   - INDIVIDUAL needs related to AFFORDABILITY and
   - COLLECTIVE needs relating to ENVIRONMENTAL IMPACTS (land, water and wildlife) and people of BC.
2. …EDUCATION, COMMUNICATION and PARTNERSHIP are highlighted, laddering to TRANSPARANCY, which increases trust
3. …CONSERVATION is talked about in general terms; people will more clearly link it to environmental impacts vs. when it is specific to peak demand
4. …use simple, consumer friendly, easily understood language (no jargon/vague terminology)