BC Hydro
Clean Power 2040 Survey

REPORT

PREPARED FOR

Corporate and Market Research

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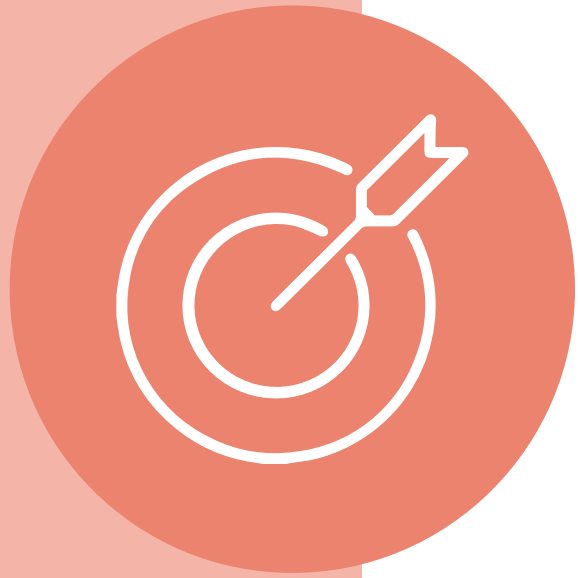


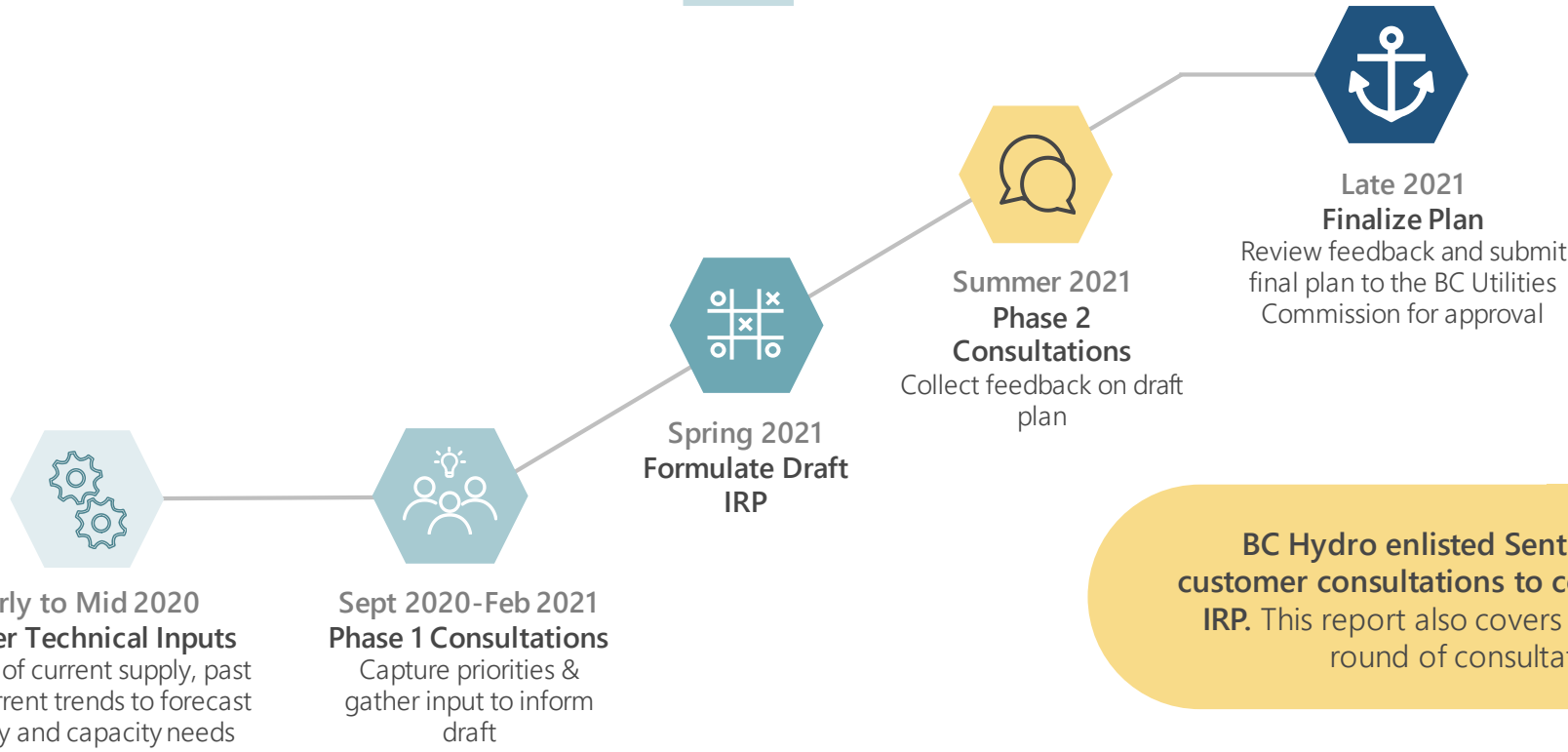
Objectives & Approach

BACKGROUND & OBJECTIVES

BC Hydro is currently developing its 2021 Integrated Resource Plan (IRP) that outlines how it will meet the province's electricity needs over the next 20 years.

Part of the process (Clean Power 2040), involves consulting with various stakeholder groups, including BC Hydro customers, the general public and technical experts to gather feedback on the various elements of the plan.

Clean Power 2040: An Overview



BC Hydro enlisted Sentis to conduct Phase 2 of the customer consultations to collect feedback on the draft IRP. This report also covers the findings from the second round of consultations with the broader public.

METHOD

Approach

846 BC Hydro customers invited by email or sourced through an online consumer panel

Email to Online (Customer Survey)
- Survey Dates: July 12-Aug 6
- Customer listings provided by BC Hydro
- Email reminders sent to non-responders to encourage participation

Panel Survey
- Survey Dates: July 14-24
- Utilized to capture feedback from non-account holders (though account holders still qualified)
- To qualify, participants had to reside in a household that receives electricity service from BC Hydro

1,149 members of the public who completed the survey posted on bchydro.com

Public Survey
- Survey Dates: June 21-July 31
- Final survey sample includes all those who gave a rating on each of the plan elements

Survey Responses

Target Group	Completed Surveys	Maximum Margin of Error (95%)
BC Hydro Customers (Customer & Panel Survey)	**846**	**±3.4%**
Account Holders	768	±3.5%
Non-Account Holders	78	±11.1%
BC Residents (Public Survey)	**1,149**	**n/a**

Analytical Notes

No weighting was required on the customer dataset as measures were taken at the sampling and data collection stage to ensure the final sample was representative of the target population.

Those who participated in the Public Survey tended to be more engaged on energy issues, as reflected in their verbatim comments. Therefore, they do not necessarily reflect the views of the general BC Hydro customer base. No weighting was applied to the Public Survey results.

Highlights

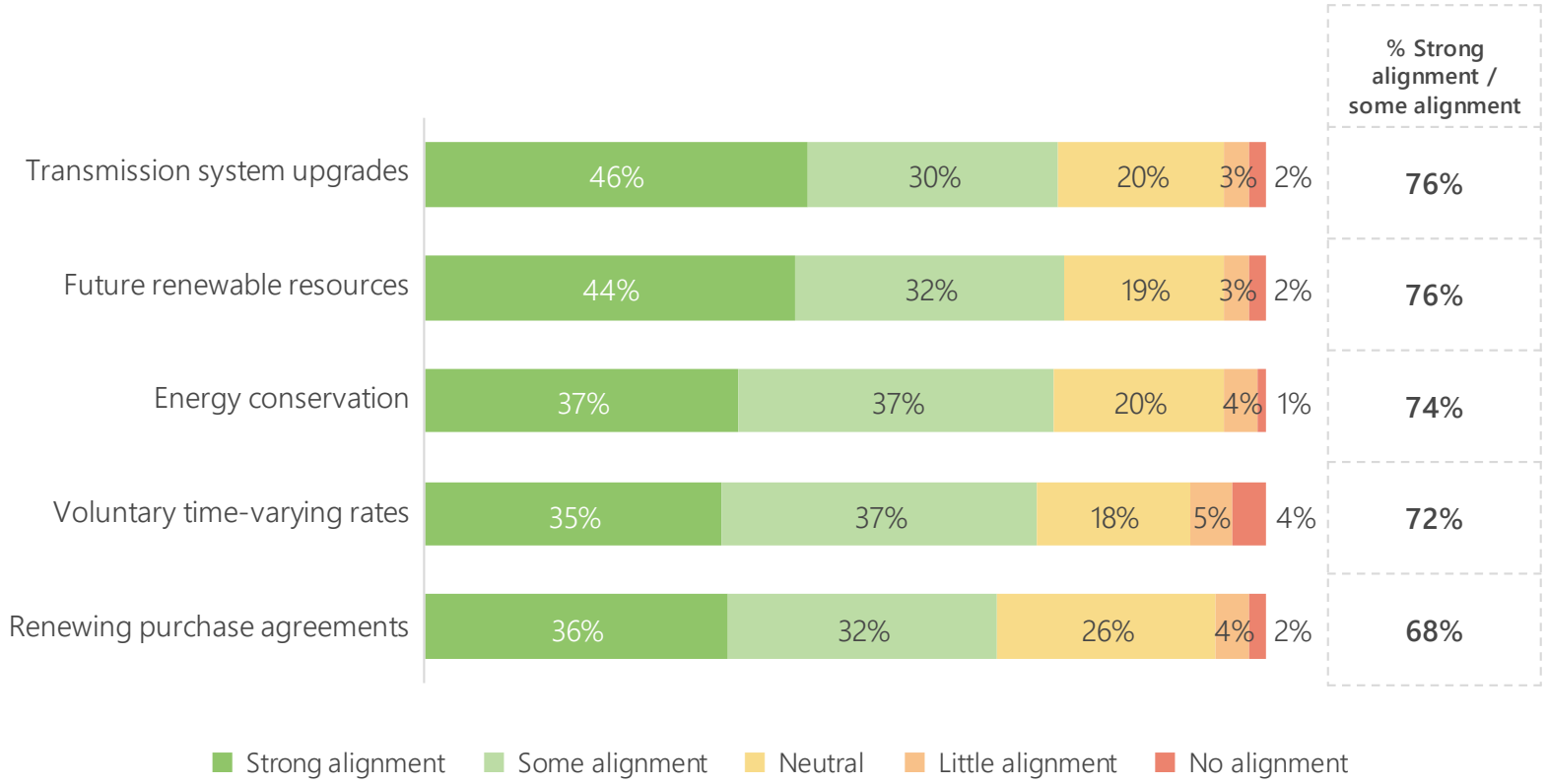
HIGHLIGHTS

The results from both the customer/panel survey and the public survey show clear support for the BC Hydro's draft Integrated Resource Plan (IRP).

Customer & Panel Survey

In the customer/panel survey, alignment with the plan elements ranges from 68% (for renewing purchase agreements) to 76% (for transmission system upgrades and future renewable resources).

Level of Alignment for Each Plan Element

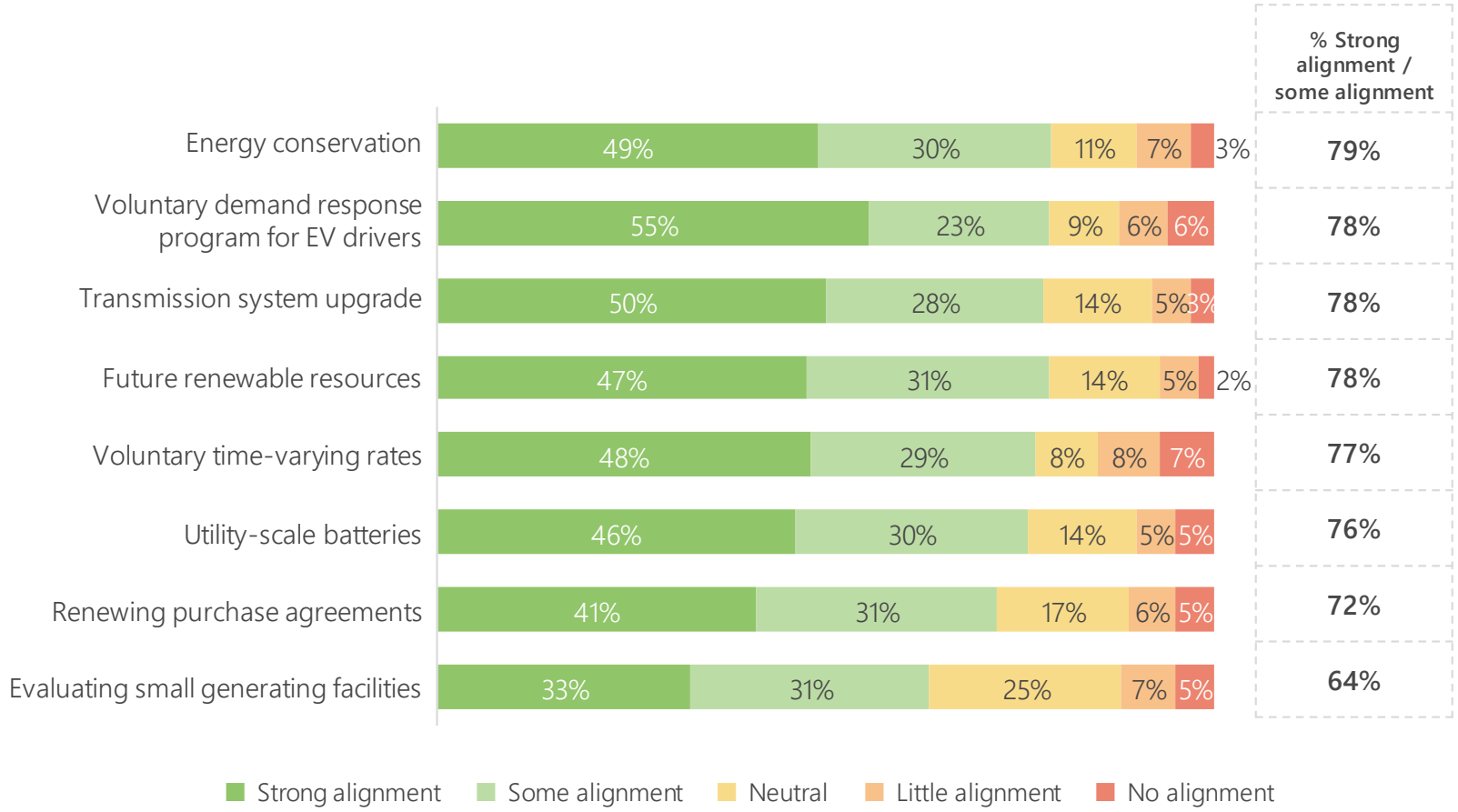


HIGHLIGHTS

Public Survey

In the public survey, alignment with the plan elements ranged from 64% (for evaluating small generating facilities) to 79% (for energy conservation programs). Fully 69% of public survey participants expressed alignment with at least six of the eight plan elements, and only 2% did not express alignment with any elements of the plan.

Level of Alignment for Each Plan Element



HIGHLIGHTS

While those who align with the elements of the plan outnumber those who don't align with them by a wide margin, the reasons participants give for being aligned, neutral, or not aligned highlight perspectives that BC Hydro needs to be mindful of as it moves forward with revising the IRP and communicating with the public about it.

Energy Conservation Programs

Most are highly supportive of these programs and consider them to be a cornerstone of effective demand side management, although some view energy conservation programs as a poor investment due to the assumption that people can't be triggered to change behaviour without a very strong carrot or stick. Those who are less aligned caution that electricity conservation will be difficult in the future given the impending increase in demand as a result of electrification.

Time-Varying Rates and Supporting Demand Response Programs

Time-varying rates enjoy broad support because they're considered an easy, effective way to shift demand that has worked elsewhere – and they can help defer the need for generation infrastructure. Those who are less aligned raise issues of fairness – seeing it, in effect, as a penalty for those whose circumstances prevent them from shifting use to off-peak times.

Among those less aligned to offering lower rates for EV charging during off-peak times, a key theme is that EV users should always receive lower rates for EV charging, given their greater contribution to GHG reduction through EV use.

Renewing Purchase Agreements

Among those who are aligned with this element of the plan, renewing electricity purchase agreements at market-based prices is considered a good use of existing infrastructure and a way to keep costs down. Those who are less aligned are skeptical of the benefits these agreements bring or of BC Hydro's ability to effectively manage the agreements.

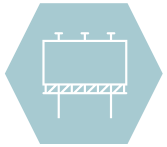
HIGHLIGHTS

Transmission System Upgrades

Those who are aligned with this element of the plan see it as a way to defer the cost of new infrastructure (and its potential negative environmental impacts) while also helping meet future demand. Those who are less aligned want to see a move away from traditional, centralized generation toward local, distributed generation.

Future Renewable Resources

There is very little opposition to increasing the share of electricity generated from renewable sources. The difference between those aligned and not aligned with this element of the plan is one of scale and focus. Those not aligned with this element of the plan want BC Hydro to ramp up the use of renewables more quickly, but there is some skepticism of the economic viability of solar and wind in the renewable mix.



Evaluating Small Generating Facilities

While support is still substantial at 64%, this was the element of the plan that also saw a sizeable neutral group at 25%. This likely reflects the lower degree of personal investment in the topic itself as well as the fact that BC Hydro customers want to see more of a focus put on local, distributed generation.

Utility-Scale Batteries

Those who are aligned with this element of the plan see utility-scale batteries as an effective way to adjust to varying demand scenarios. Those who are less aligned question whether batteries are the most sustainable solution.

Summary of Findings

Summary of Findings: Customer & Panel Survey

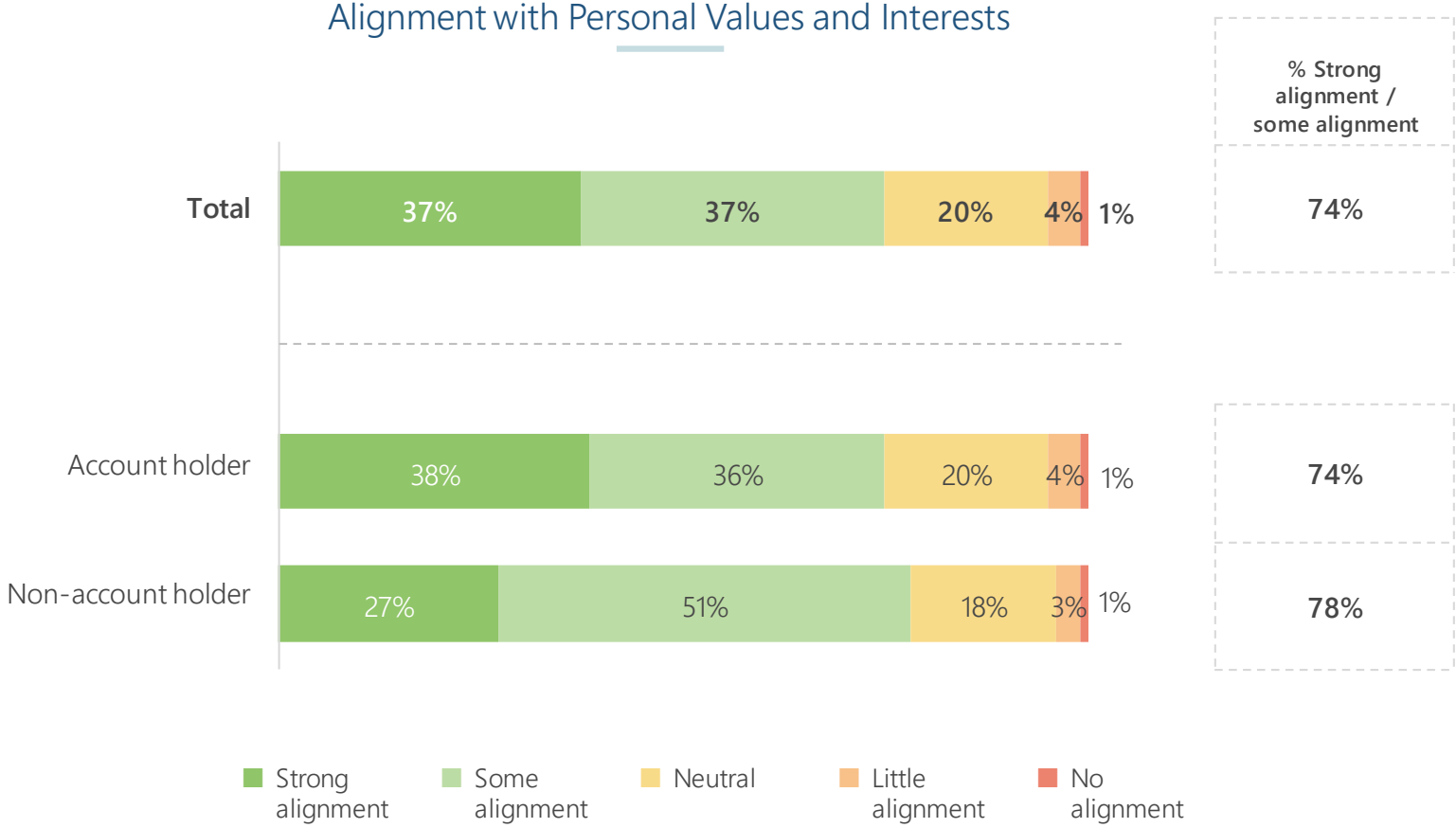
ENERGY CONSERVATION PROGRAMS

Overall, three-quarters of participants (75%) consider the plan to keep the current level of energy conservation and ramp up as needed to align with their values and interests.

Only five percent do not feel that this element of the plan aligns with their values and interests.

The balance (20%) are neutral.

Alignment with Personal Values and Interests



Base (Customer & Panel Survey): Total (846); Account holder (768); Non-account holder (78)
C1. How does our plan to keep with our current level of energy conservation and ramp up when we need it align with your values and interests?

ENERGY CONSERVATION PROGRAMS

Those who are aligned with this element of the plan view it as a pragmatic, cost-effective approach to achieving sustainability and GHG reduction.

Those who are not aligned express a range of views including that the plan should be more aggressive regarding conservation, that there should be more investment in new infrastructure, and that it will be difficult to conserve electricity in the future – either because electricity demand will increase or because it is difficult to motivate people to conserve.

Those who are neutral are more likely to express skepticism of this element of the plan. They are also more likely to indicate that they need more information.

Reasons Plan Element Aligns / Doesn't Align with Values and Interests	Total	Aligned	Neutral	Not Aligned
Base (Customer & Panel Survey): Providing a comment	509	412	62	35
	% of mentions	# of mentions		
Good idea / Cost-effective / Pragmatic / Programs reduce consumption	34%	**167**	5	1
Energy conservation is important for reducing GHGs/achieving sustainability / Safeguards the environment	16%	**78**	2	1
Electricity conservation will be difficult / Demand will increase as we switch to electricity from fossil fuels	9%	36	3	**5**
Hard to motivate people to conserve with energy conservation programs / Too much responsibility in end-users' hands	8%	27	**9**	**5**
Be more aggressive re: conservation programs	6%	24	0	**9**
Avoiding new infrastructure is important to limit the impact on the environment/land/water	6%	30	1	0
Skeptical of the plan / Question the plan / Skeptical of BC Hydro	5%	9	**13**	4
Promote conservation through education/awareness	5%	22	1	2
Already conserving energy / Doing what I can	5%	18	4	1
There is too much energy being wasted	4%	18	0	1
Need to keep costs/prices/rates low	4%	13	3	2
Focus on other renewables - e.g., solar, wind, tides, geothermal/distributed power generation	3%	11	2	3
Should focus on investing in new infrastructure/building capacity to match growing demand in the future	3%	8	1	**7**
What you can accomplish with conservation programs is limited	3%	12	1	2
Need more information about plan	3%	2	**12**	0

Bolding indicates top mention within each subgroup.
Note: Only major mentions of 3% or more are shown in the table above.
C1a. What are your reasons for having this view of our plan regarding energy conservation programs?

ENERGY CONSERVATION PROGRAMS: EXAMPLE COMMENTS

The following are example comments that correspond with the top feedback themes for each respondent subgroup.

Aligned

Good idea / Cost-effective / Pragmatic / Programs reduce consumption

"***Energy conservation is key to managing the resource.*** *People need to use less energy and stop being wasteful.* ***Having programs in place to help families finance household improvements that are more energy efficient is very important. Education is also key.*** *I learned as a child to turn off lights in unused rooms. With always on technology like home computers, we need to learn how to best use what we have."*

Energy conservation is important for reducing GHGs/achieving sustainability / Safeguards the environment

"I prefer the conservation approach as this will have the least impact on the environment."

Neutral

Hard to motivate people to conserve with energy conservation programs / Too much responsibility in end-users' hands

"I feel like energy conservation projects are good but I rarely, if ever, read, do research or practice conservation. ***I feel that it costs the consumer too much*** *and to have to* ***pay out of pocket to make improvements and become more energy efficient is way too expensive even with rebates available****. The rebates are hard to get and not worth it. There isn't enough "motivation" to make it worth while. If energy conservation programs are to be effective, then more has to be offered to the consumer."*

Not Aligned

Be more aggressive re: conservation programs

"***If our province truly strives to go green, we need to ramp this effort up now, not prepare to ramp up****. It takes ages for education efforts to play out. I hear 2030 and 2050 as the two big dates politicians seem to be targeting. Shouldn't you be striving for real improvements in conservation *before* those dates?"*

Should focus on investing in new infrastructure/building capacity to match growing demand in the future

"If we know the infrastructure will not meet requirements soon ***we should start already increasing infrastructure capacity before it becomes undersized.*** *I have no interest in experiencing brownouts as part of a conservation effort."*

C1a. What are your reasons for having this view of our plan regarding energy conservation programs?

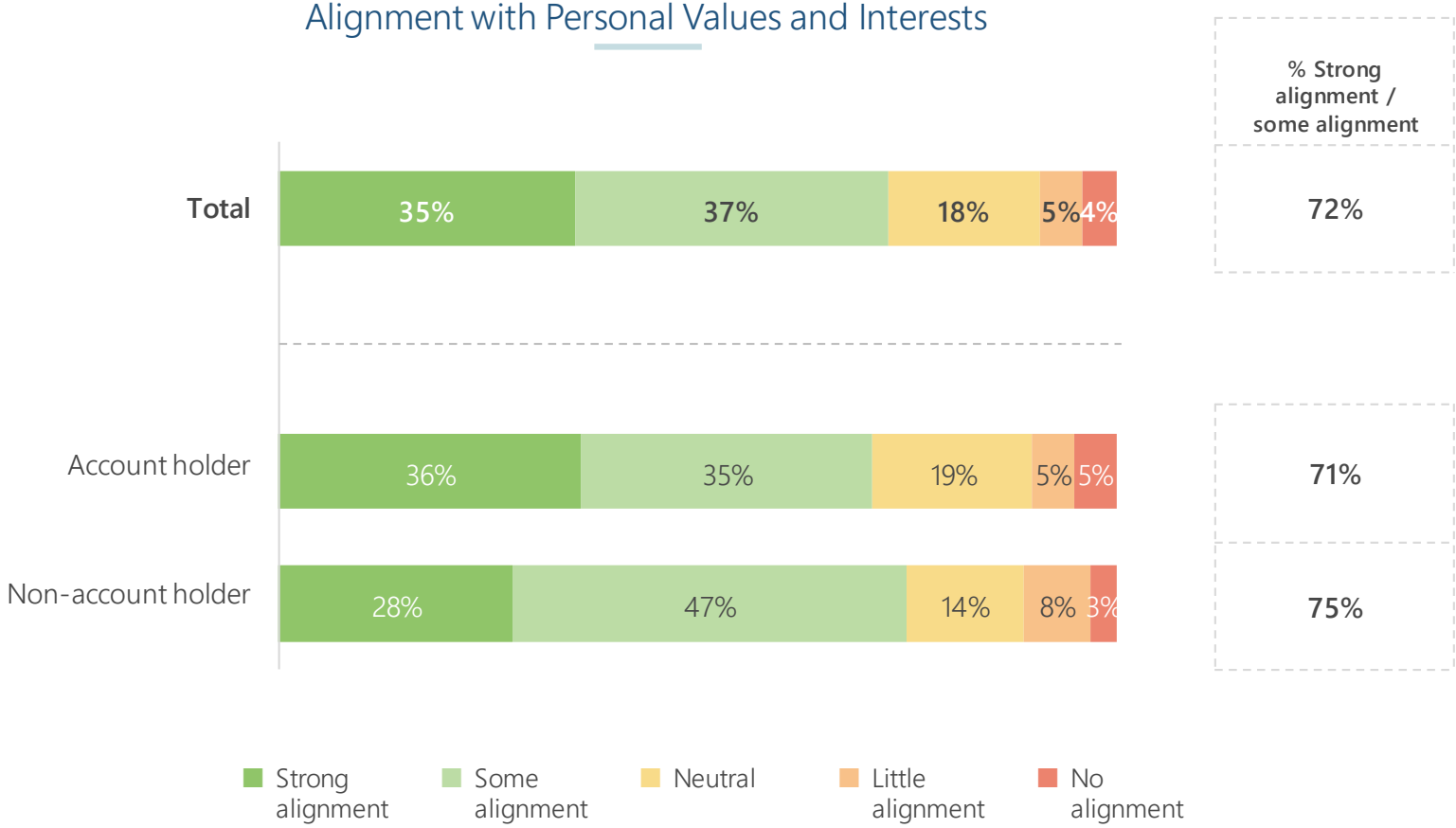
VOLUNTARY TIME-VARYING RATES AND SUPPORTING DEMAND RESPONSE PROGRAMS

Overall, 72% of participants consider the plan to pursue voluntary time-varying rates and supporting demand response programs to align with their values and interests.

One-in-ten participants do not feel that this element of the plan aligns with their values and interests.

The balance (18%) are neutral.

Alignment with Personal Values and Interests



Base (Customer & Panel Survey): Total (846); Account holder (768); Non-account holder (78)
C2. How does our plan to pursue voluntary time-varying rates and supporting demand response programs align with your values and interests?

VOLUNTARY TIME-VARYING RATES AND SUPPORTING DEMAND RESPONSE PROGRAMS

Those who are aligned with this element of the plan view it as a good approach because it's easy to implement, has worked elsewhere, and is economical - both with respect to deferring new infrastructure and providing customers with a financial incentive to shift use.

Those who are not aligned express two main views: they are skeptical that this plan will actually shift behaviour, and they feel it's unfair because not everyone will be able to take advantage of time-varying rates.

Like those who are not aligned, those who are neutral are more likely to be skeptical that this plan will shift behaviour and to question the fairness of it.

Those who are neutral are also more likely to indicate that they need more information.

Reasons Plan Element Aligns / Doesn't Align with Values and Interests	Total	Aligned	Neutral	Not Aligned
Base (Customer & Panel Survey): Providing a comment	530	391	73	66
	% of mentions	# of mentions		
Time-varying rates are a good idea/make sense/will work/are fair/have worked elsewhere/easy to implement	29%	**149**	3	1
It will reduce costs / Is economical/cost-effective / Having a financial incentive is good/important	14%	**75**	1	0
People can't always shift use / Will have to use electricity in hours in peak periods	13%	35	**18**	**14**
Doubt it will work / Won't motivate people / Limited impact / Not practical	12%	28	**15**	**20**
Not everybody can take advantage of or benefit from time-varying rates due to circumstances / Shouldn't be penalized for that	7%	17	7	**12**
Participation should be voluntary	6%	34	0	0
I/we can take advantage of time-varying rates	6%	31	0	0
Need more information (e.g., when are the off-peak times?)	4%	10	**13**	0
Should be focused on reducing our energy use/protecting the environment/achieving sustainability	4%	20	1	0

Bolding indicates top mention within each subgroup.
Note: Only major mentions of 4% or more are shown in the table above.
C2a. What are your reasons for having this view of our plan regarding voluntary time-varying rates and supporting demand response programs?

VOLUNTARY TIME-VARYING RATES AND SUPPORTING DEMAND RESPONSE PROGRAMS: EXAMPLE COMMENTS

The following are example comments that correspond with the top feedback themes for each respondent subgroup.

Aligned

Time-varying rates are a good idea/make sense/will work/are fair/have worked elsewhere/easy to implement

*"This seems like a great way to reduce usage at critical times. **What will be key for this to be successful are tools for users to understand the timing, and make it easy for them to automate scheduling.** If users have to figure it all out manually, they will never do it."*

It will reduce costs / Is economical/cost-effective / Having a financial incentive is good/important

*"**I like this idea and think it ties into the conservation tenet as well in incentivize people to reduce energy use at peak times by rewarding them with lower rates at slower times.** I would definitely find this appealing as I'm always looking to save money! I appreciate and think it's important that it's voluntary and not coercive.*

Neutral

People can't always shift use / Will have to use electricity in hours in peak periods

*"**Not everyone has the ability to choose when they consume more energy.** People who work from home or are retired are able to do laundry or run appliances at times that I cannot. Perhaps an incentive will encourage them to do so."*

Doubt it will work / Won't motivate people / Limited impact / Not practical

*"I like this idea in theory but, again, **people are lazy and unless it is very automated getting the lower rate it won't make much difference.** People don't pay enough attention to the energy consumption on their bill, just how much it is. **I think it will be hard to get people to make the connection between when they use the energy and the dollars saved on their bill.**"*

Not Aligned

Doubt it will work / Won't motivate people / Limited impact / Not practical

*"I think that for the most part this **goal is unrealistic**. People don't use power at peak times or non-peak times callously but based on their needs according to their life schedules, usually dictated by outside forces (work schedules, meal-times and periods of extreme or inclement weather)."*

People can't always shift use / Will have to use electricity in hours in peak periods

*"The problem is, **between work, school, and sleep, your average working consumer or family won't necessarily have that time flexibility to vary times much**. Just as 3-6 is the busiest time to grocery shop as everyone's out of school or off work the same goes for cooking, cleaning, laundry, etc. Additionally, there may be other parameters such as shift work or noise restrictions (condo/apartment buildings for example) that limit how late or early laundry, cleaning can be done."*

C2a. What are your reasons for having this view of our plan regarding voluntary time-varying rates and supporting demand response programs?

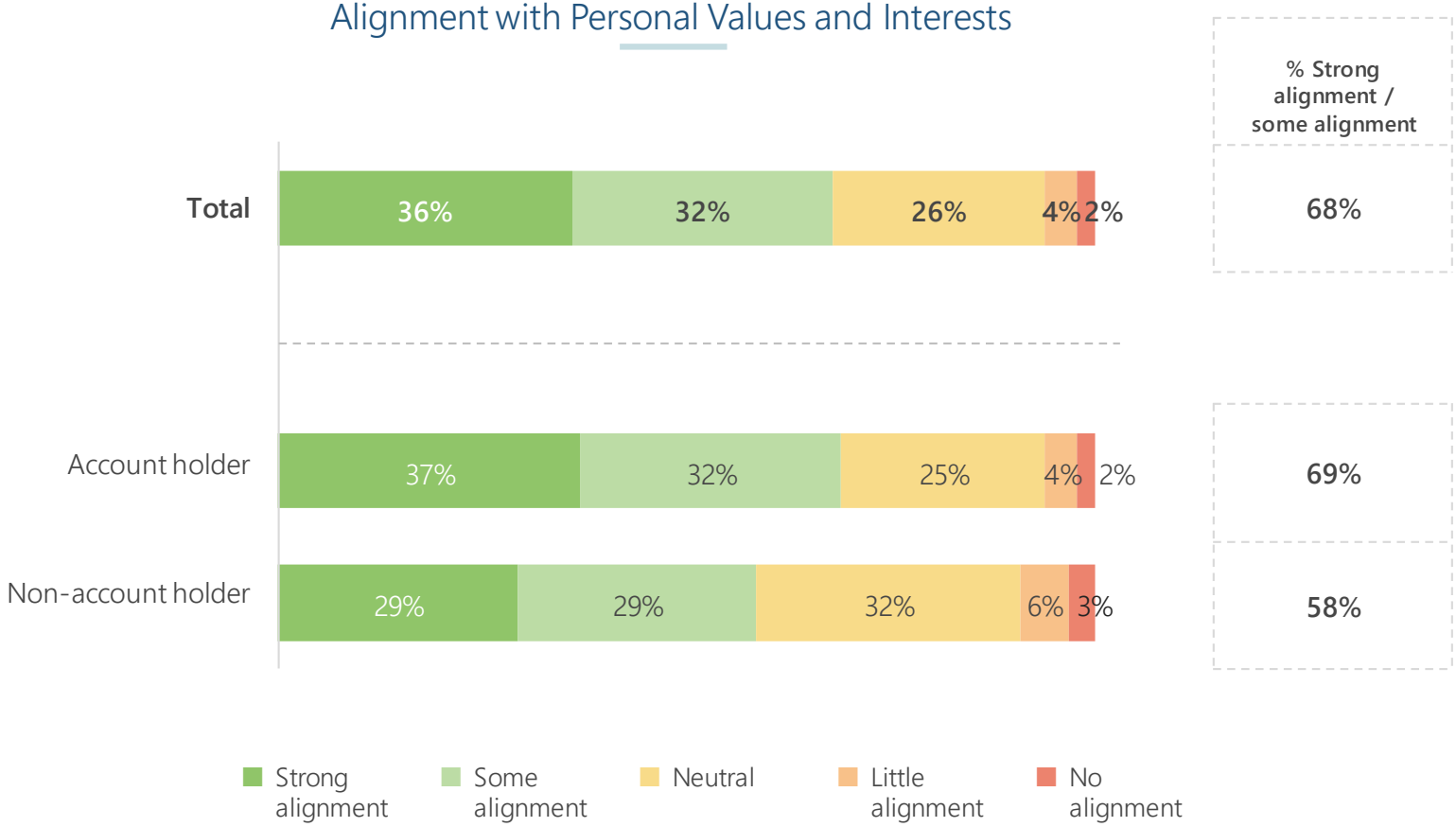
RENEWING PURCHASE AGREEMENTS

Just over two-thirds of participants (68%) consider the plan to offer market-based pricing when renewing electricity purchase agreements that will be expiring in the next five years to align with their values and interests.

Only six percent do not feel that this element of the plan aligns with their values and interests.

The balance (26%) are neutral.

Alignment with Personal Values and Interests



Base (Customer & Panel Survey): Total (846); Account holder (768); Non-account holder (78)
C3. How does our 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?

RENEWING PURCHASE AGREEMENTS

Those who are aligned with this element of the plan see it as an effective way to use existing infrastructure and an important step in keeping costs down.

Those who are not aligned are more likely to express skepticism of IPP agreements and major energy projects, like Site C.

Like those who are not aligned, those who are neutral are more likely to express general skepticism of this element of the plan.

Those who are neutral are also more likely to indicate that they need more information and are more likely to oppose the sale of any excess power by BC Hydro.

Reasons Plan Element Aligns / Doesn't Align with Values and Interests	Total	Aligned	Neutral	Not Aligned
Base (Customer & Panel Survey): Providing a comment	438	328	70	40
	% of mentions	# of mentions		
Agree with the proposed plan / Makes sense / Good to use infrastructure that we already have	37%	**156**	4	0
Should not be paying more than market rates / Need to keep electricity prices low/costs down	16%	**68**	2	2
Skeptical of the plan / Question the plan / Skeptical of BC Hydro	8%	5	**16**	**13**
BC Hydro should only renew agreements where environmental impacts are low / Supply must be sustainable	7%	23	7	1
Need more information	7%	9	**20**	1
Limits land and water/environmental impacts	7%	30	0	0
Skeptical that market-based pricing will be viable / Lowering payment given to IPPs is unfair/discouraging	6%	23	2	3
Other sources of supply should be considered/supported (e.g., solar, wind, geothermal)	6%	20	1	4
IPPs and/or IPP agreements are concerning/worrisome	4%	6	1	**9**
BC Hydro should not sell excess power	3%	2	**9**	1
Negative comments about dams/Site C/Run of River	2%	3	2	**5**
BC Hydro should support Indigenous communities	2%	9	0	0

Bolding indicates top mention within each subgroup.
Note: Only major mentions of 2% or more are shown in the table above.
C3a. What are your reasons for having this view of our plan with respect to renewing electricity purchase agreements?

RENEWING PURCHASE AGREEMENTS: EXAMPLE COMMENTS

The following are example comments that correspond with the top feedback themes for each respondent subgroup.

Aligned

Agree with the proposed plan / Makes sense / Good to use infrastructure that we already have

"***Maintain and extend existing relationships vs. trying to build new ones is a smart use of in-house resources.*** *Go with what you know. So long as the Power Producers have some aligned values with Hydro. Synergistic business relationships that incorporate values have benefits beyond just the primary objective."*

Should not be paying more than market rates / Need to keep electricity prices low/costs down

"***All contracts have to be renewed at lower rates - no exceptions***. *Consumers cannot continue to bear the increases as there a limit on how much we can pay. We have limited income and with taxes utilities etc all increasing costs more than our pension increase we have to sacrifice something Power is one of those item people will sacrifice. Just look at the number of people who died in the past heatwave because they didn't or could not afford extra power."*

Neutral

BC Hydro should not sell excess power

"Selling our power bothers me somewhat. We have had situations in the past where the contracts to outside purchase are more important than your provincial customers."

Not Aligned

IPPs and/or IPP agreements are concerning/worrisome

"*We need to work on being independent and have sufficient power for the province without relying on 3rd party producers.."*

Negative comments about dams/Site C/Run of River

"Independent energy provider could be an opinion if we have to purchase energy from them. However, when BC Hydro proposed Site C program, ***you claimed that Site C will satisfy our provincial energy needs in next 100 years, so why we still need to purchase energy from those IPPs?"***

C3a. What are your reasons for having this view of our plan with respect to renewing electricity purchase agreements?

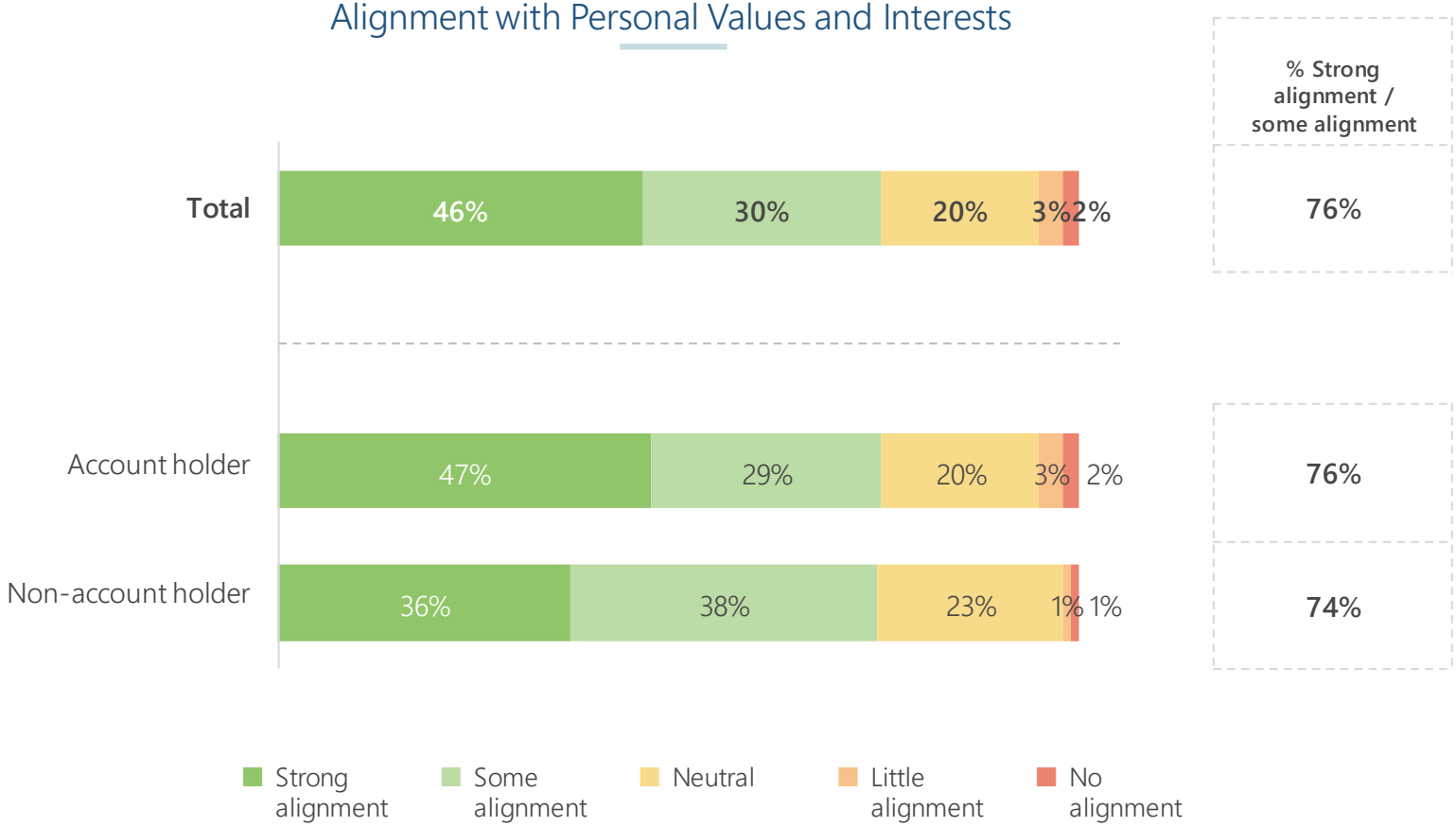
TRANSMISSION SYSTEM UPGRADES

Just over three-quarters (76%) of participants consider the plan regarding transmission system upgrades to align with their values and interests.

Only four percent of participants do not feel that this element of the plan aligns with their values and interests.

The balance (20%) are neutral.

Alignment with Personal Values and Interests



Base (Customer & Panel Survey): Total (846); Account holder (768); Non-account holder (78)
C4. How does advancing the first step of transmission upgrades to the South Coast and prepare to initiate step 2 align with your values and interests?

TRANSMISSION SYSTEM UPGRADES

Those who are aligned with this element of the plan view upgrading as necessary and cost-effective. They also view it as an important way to meet growing demand in the future.

Those who are not aligned express a range of views including concern over environmental impacts, wanting to see more local power generation, and wanting more generation facilities to be built.

Those who are neutral are also varied in their viewpoints. Some agree that the upgrades are necessary and cost-effective, while others express concern over environmental impacts or concern that this element of the plan doesn't benefit all communities. They are also more likely to indicate that they need more information.

Reasons Plan Element Aligns / Doesn't Align with Values and Interests	Total	Aligned	Neutral	Not Aligned
Base (Customer & Panel Survey): Providing a comment	459	381	53	25*
	% of mentions	# of mentions		
Good idea / Cost-effective to upgrade before adding new infrastructure / Needs to be done	43%	**188**	**9**	0
Will ensure future reliability/capacity / Meet growing demand	21%	**95**	1	1
Good that it will limit impact on environment/land/water	8%	38	1	0
Need more information	8%	20	**17**	1
Concerned about environmental impact / Impact on indigenous communities	6%	15	**8**	**6**
Concerned about costs / Don't want to pay more	5%	15	6	3
Consulting with Indigenous nations is important	5%	17	4	0
Doesn't benefit all communities/regions / Consider other areas as well	4%	6	**8**	3
Skeptical of the plan / Question the plan / Skeptical of BC Hydro	3%	4	4	**5**
Should already have been done	3%	13	0	0
Should be investing in solar/other green energy/ local projects	3%	5	3	**5**
Should instead focus on reducing consumption and demand	2%	4	2	3
Not enough - need more capacity/generation facilities	2%	3	1	**4**
Ensure those who benefit from it pay for it	2%	4	2	1

*Caution: small base size.
Bolding indicates top mention within each subgroup.
Note: Only major mentions of 2% or more are shown in the table above.
C4a. What are your reasons for having this view of our plan regarding transmission system upgrades?

TRANSMISSION SYSTEM UPGRADES: EXAMPLE COMMENTS

The following are example comments that correspond with the top feedback themes for each respondent subgroup.

Aligned

Good idea / Cost-effective to upgrade before adding new infrastructure / Needs to be done

*"The plan to upgrade current facilities rather than adding new ones to provide the best relay of power **just makes sense, less cost in the long run, lower bills or the customer**."*

Will ensure future reliability/capacity / Meet growing demand

*"Upgrades can provide a large amount of capacity that most other options can't, and hopefully more efficiently. They **limit land and water impacts relative to building new transmission lines or new pumped storage hydro facilities in the South Coast**."*

Neutral

Concerned about environmental impact / Impact on indigenous communities

*"I would need to understand more the impacts these upgrades will have on current natural habitats and if further deforestation is required to add transfer lines. I like the idea of upgrading the current, but **worry the additional stations will have a negative impact to the environment**."*

Doesn't benefit all communities/regions / Consider other areas as well

*"Upgrades are necessary to maintain integrity of transmission lines, just not only to the south coast. **Concerned about that area only getting the upgrades while other areas left with substandard/old lines**."*

Not Aligned

Concerned about environmental impact / Impact on indigenous communities

*"**Due diligence needs to be done to indigenous lands and even to avoid destroying their culture and land by increasing budget**."*

Should be investing in solar/other green energy/ local projects

*"Investing in **new technologies** to generate electricity on the south coast could be a better option. **Hydrogen based electricity is the future**."*

C4a. What are your reasons for having this view of our plan regarding transmission system upgrades?

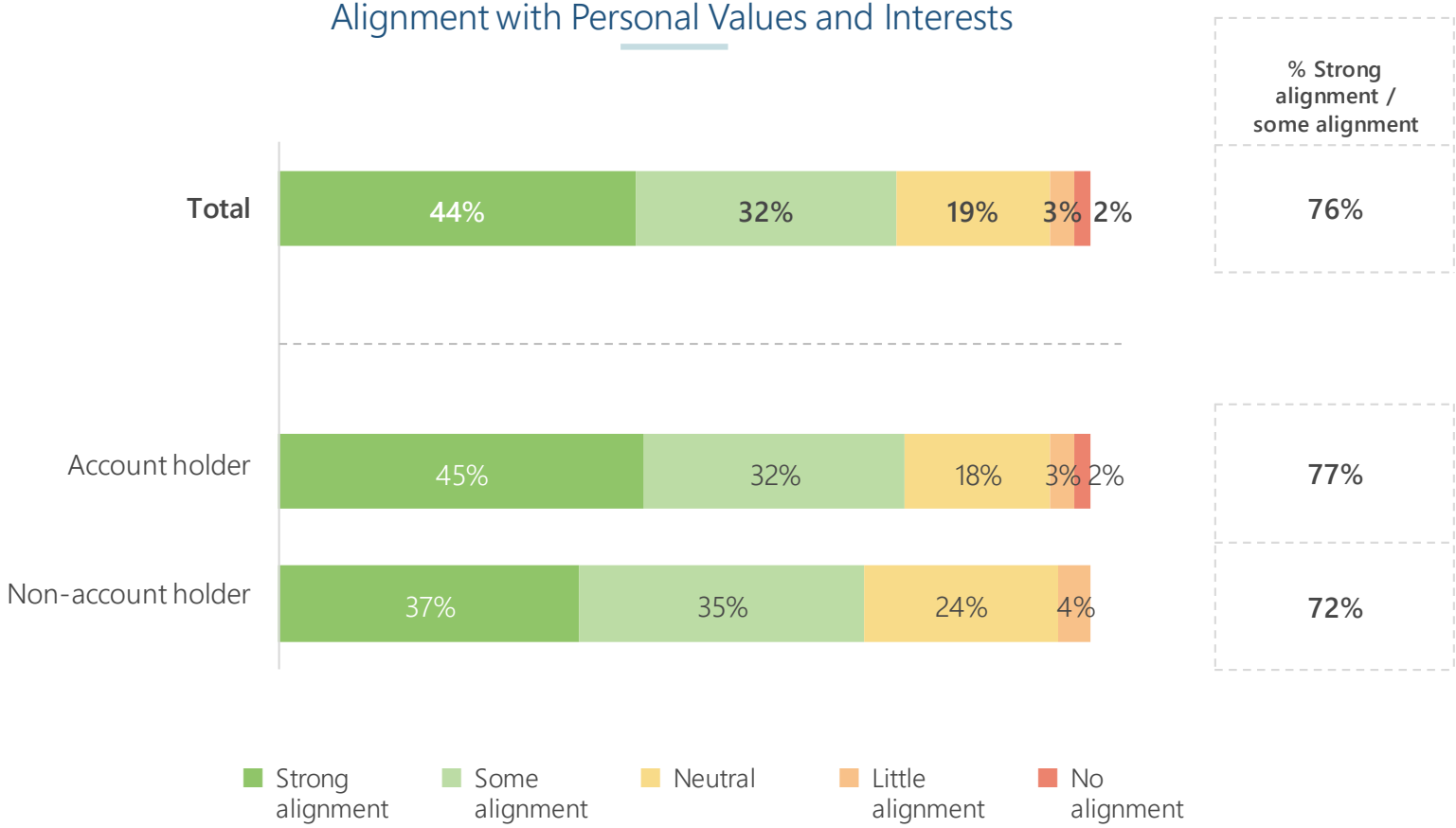
FUTURE RENEWABLE RESOURCES

Just over three-quarters (76%) of participants consider the plan's approach regarding future renewable resources to align with their values and interests.

Only five percent of participants do not feel that this element of the plan aligns with their values and interests.

The balance (19%) are neutral.

Alignment with Personal Values and Interests



Base (Customer & Panel Survey): Total (846); Account holder (768); Non-account holder (78)
C5. How does our approach to future resources align with your values and interests?

FUTURE RENEWABLE RESOURCES

Those who are aligned with this element of the plan strongly support renewable power generation and see it as a way to limit environmental impacts from energy sources that are less clean.

Again, those who are not aligned express a range of views including that solar and wind are not viable options and that the transition to renewables needs to happen more quickly than outlined in the plan.

Those who are neutral are more likely to indicate that they need more information.

Reasons Plan Element Aligns / Doesn't Align with Values and Interests	Total	Aligned	Neutral	Not Aligned
Base (Customer & Panel Survey): Providing a comment	450	354	59	37
	% of mentions	# of mentions		
Need more renewables / Support distributed, local generation	35%	**149**	4	5
Support this / Good idea / Makes sense	16%	**72**	2	0
Need to focus on GHG reduction / Reduced environmental impacts	11%	46	1	3
Need to plan for the future/growth	11%	37	6	5
Need more information	8%	16	**18**	4
Need to do this now / Act now	6%	17	4	**7**
Solar/wind not viable/expensive/unreliable	5%	9	5	**9**

Bolding indicates top mention within each subgroup.
Note: Only major mentions of 5% or more are shown in the table above.
C5a. What are your reasons for having this view of our plan regarding future renewable resources?

FUTURE RENEWABLE RESOURCES: EXAMPLE COMMENTS

The following are example comments that correspond with the top feedback themes for each respondent subgroup.

Aligned

Need more renewables / Support distributed, local generation

*"While we have the good fortune to rely on Hydro generation for the bulk of our energy **we need to bring other renewable sources into the mix to lessen our dependence on just one primary source**. This will take time but hydro power alone can see stronger seasonal variation due to climate change and therefore cannot be relied on alone anymore."*

***New energy sources including renewable technology is the path to a sustainable future** and lessens our dependence on fossil fuels. This is a responsibility that we all share for our children's, and our children's children's future.*

Neutral

Need more information

*"Again, I **don't know how these upgrades would affect the communities in which they are being implemented** so I can't say one way or the other.*

***"Without a clear and definitive plan it is hard to be in alignment.** I think that every house and building should have a solar system installed with the option of selling excess power back to Hydro. The cost of the system would be on the building owner with the option to pay for it by the conservation of their power they could sell back to the grid. This with other non fossil fuel resources as other countries are now proving cost effective should be researched."*

Not Aligned

Solar/wind not viable/expensive/unreliable

*"**Renewable energy sources add little to the capacity as they are not reliable** and the electricity they produce is more expensive.*

Need to do this now / Act now

*"This feels like you're just pushing out defining the solution by 5 years. **While things will change, it seems like we'd be better off starting some of these programs now**. Especially for programs that incent users to install solar to reduce demand on the system, or businesses to increase generation. These programs take a long time to gain momentum, so starting sooner seems better.*

C5a. What are your reasons for having this view of our plan regarding future renewable resources?

ADDITIONAL FEEDBACK ON DRAFT IRP

Just under one-third of participants (31%) offered additional feedback on the IRP.

The most common feedback offered was that participants support the plan.

Other relatively common types of feedback reflect the following desires: more focus on local generation, more investment in renewables other than electricity, keeping costs down, reducing energy use and environmental impacts, and investing in new infrastructure.

Additional Feedback on Draft Plan	Total
Base (Customer & Panel Survey): Providing a comment % of total represented	259 31%
Support plan / Support what BC Hydro is doing	29%
Need more information	11%
Support/incent solar/local, distributed generation	11%
Focus on other renewables / Need more options than hydro-based electricity	10%
Appreciate opportunity to offer input	9%
Skeptical of the plan / Question the plan / Skeptical of BC Hydro	8%
Focus on reducing cost/rates for consumers	8%
Focus should be on reducing energy usage/conservation and reducing environmental impact	8%
Need to invest in the power grid/electricity infrastructure / Electricity consumption will increase in the future	6%

Example Comments

Support plan / Support what BC Hydro is doing

*"I think the **draft plan looks promising** and has some excellent ideas to accommodate for future demand. I look forward to seeing these plans implemented by or before 2041."*

Support/incent solar/local, distributed generation

*"While **microgeneration** (i.e. solar generating on individuals' homes) wasn't mentioned, it's a part of the changes of the construction industry for residential homes. They have a goal of all homes being net-zero (meaning all new homes will have them in the future). Being a supporter and aware of the future changes will allow BC Hydro to stay in a positive light."*

Focus on other renewables / Need more options than electricity

*I strongly believe we need to look at many different sources of energy. **Hydro power is only as good as existing water supplies**.*

*Maybe in case of renewable energy it makes sense to consider **tidal energy generation** (tides are predictable and reliable).*

Note: Only major mentions of 6% or more are shown in the table above.
Final. Thank you for completing our survey. Do you have any final feedback on our draft plan?

Summary of Findings: Public Survey

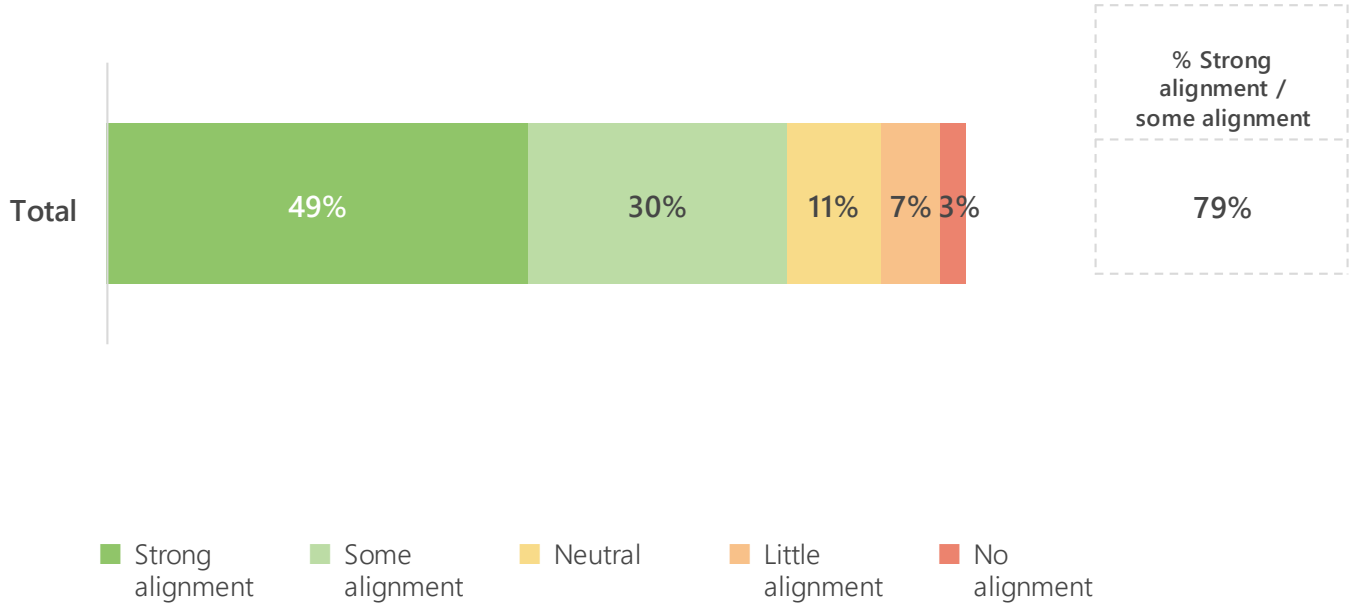
ENERGY CONSERVATION PROGRAMS

Overall, 79% of public survey participants consider the plan to keep the current level of energy conservation and ramp up as needed to align with their values and interests.

Ten percent of public survey participants do not feel that this element of the plan aligns with their values and interests.

The balance (11%) are neutral.

Alignment with Personal Values and Interests



Base (Public Survey): Total (1,149)
How does our plan to keep with our current level of energy conservation and ramp up when we need it align with your values and interests?

ENERGY CONSERVATION PROGRAMS

Those who are aligned with this element of the plan view it as a pragmatic, cost-effective approach that will contribute to sustainability and GHG reduction.

Those who are not aligned express a range of views including that the plan should be more aggressive regarding conservation, and that it will be difficult to conserve electricity in the future because demand will increase. They are also more likely to express skepticism of this element of the plan more generally.

Like those who are not aligned, those who are neutral are more likely to be of the view that electricity conservation will be difficult given demand will increase in the future.

Those who are neutral are also more likely to say that it is difficult to motivate people to conserve.

Reasons Plan Element Aligns / Doesn't Align with Values and Interests	Total	Aligned	Neutral	Not Aligned
Base (Public Survey): Providing a comment	742	582	58	102
	% of mentions	# of mentions		
Good idea / Cost-effective / Pragmatic / Programs reduce consumption	32%	**230**	2	2
Energy conservation is important for reducing GHGs/achieving sustainability / Safeguards the environment	13%	**96**	0	1
Be more aggressive re: conservation programs	9%	51	1	**18**
Hard to motivate people to conserve with energy conservation programs / Too much responsibility in end-users' hands	9%	53	**9**	7
Electricity conservation will be difficult / Demand will increase as we switch to electricity from fossil fuels	9%	36	**12**	**21**
Focus on other renewables - e.g., solar, wind, tides, geothermal/distributed power generation	8%	42	6	14
Avoiding new infrastructure is important to limit the impact on environment/land/water	7%	52	1	0
Already conserving energy / Doing what I can	6%	36	4	5
Skeptical of the plan / Question the plan / Skeptical of BC Hydro	5%	12	5	**21**
There is too much energy being wasted	5%	35	0	1

Bolding indicates top mention within each subgroup.
Note: Only major mentions of 5% or more are shown in the table above.
What are your reasons for having this view of our plan regarding energy conservation programs?

ENERGY CONSERVATION PROGRAMS: EXAMPLE COMMENTS

The following are example comments that correspond with the top feedback themes for each respondent subgroup.

Aligned

Good idea / Cost-effective / Pragmatic / Programs reduce consumption

*"Lowest hanging fruit. It is the **least expensive** (no additional capital investment in infrastructure) and is the only way to successfully begin to reduce carbon emissions. It has the most social benefits pointing out that everyone is responsible. Legislation will be required as well."*

Energy conservation is important for reducing GHGs/achieving sustainability / Safeguards the environment

*"Most important criteria for all affluent nations is to **reduce consumption to address the climate change crisis** and ecological collapse. Green technology and renewable energy has just proven to enable nations to continue to ramp up consumption levels - outstripping efforts to bend the curve. **Need policies that promote "less is more"** and need organizations such as BC Hydro to lead the way. Need a "conservative" society - conserve energy and reduce any forms of waste."*

Neutral

Electricity conservation will be difficult / Demand will increase as we switch to electricity from fossil fuels

*"We are going to **move aggressively towards electrical energy to address climate change**. Encouraging people to conserve electrical power is important, but the message contradicts the need to phase out CO2 emissions very quickly. **If everyone transitions off gas furnaces and gas water heaters in the next 20 years, have you guys planned in the demand increase?**"*

Hard to motivate people to conserve with energy conservation programs / Too much responsibility in end-users' hands

*"The public only react to money. **Unless immediate financial benefits seem likely the long-term payback for improving homes energy efficiency has little uptake.**"*

Not Aligned

Electricity conservation will be difficult / Demand will increase as we switch to electricity from fossil fuels

*"**I used to aggressive try to conserve my usage. The problem is as an end-user, the billing structure does not reward conservation**."*

Be more aggressive re: conservation programs

*"I believe we **need a more aggressive energy conservation program** with stronger rebates for solar or home and business run power and with the ability to give extra power generated back to the grid. **The knowledge and expertise already exists it just takes social and political will**. BC Hydro could be a leader in green energy. This is something I could strongly get behind."*

What are your reasons for having this view of our plan regarding energy conservation programs?

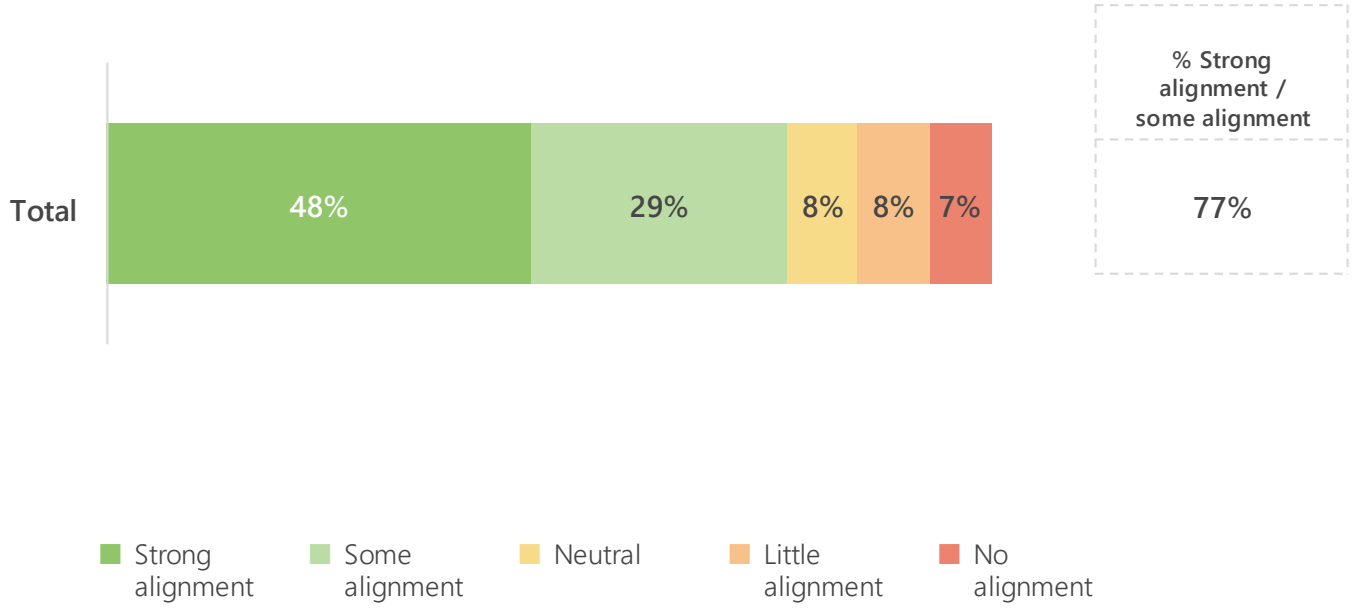
VOLUNTARY TIME-VARYING RATES AND SUPPORTING DEMAND RESPONSE PROGRAMS

Overall, just over three-quarters of public survey participants (77%) consider the plan to pursue voluntary time-varying rated and supporting demand response programs to align with their values and interests.

Fifteen percent of these participants do not consider this aspect of the plan to align with their values and interests.

The balance (8%) are neutral.

Alignment with Personal Values and Interests



Base (Public Survey): Total (1,149)
How does our plan to pursue voluntary time-varying rates and supporting demand response programs align with your values and interests?

VOLUNTARY TIME-VARYING RATES AND SUPPORTING DEMAND RESPONSE PROGRAMS

Those who are aligned with this element of the plan view it as a good approach because it's easy to implement, has worked elsewhere, and is economical - both with respect to deferring new infrastructure and providing customers with a financial incentive to shift use. They are also more likely to indicate that they will take advantage of time-varying rates.

Those who are not aligned and those who are neutral are more likely to feel that time-varying rates are unfair and that these rates won't motivate people to shift their use.

Those who are not aligned are also more likely to express skepticism of this element of the plan more generally.

Reasons Plan Element Aligns / Doesn't Align with Values and Interests	Total	Aligned	Neutral	Not Aligned
Base (Public Survey): Providing a comment	756	574	50	132
	% of mentions	# of mentions		
Time-varying rates are a good idea/make sense/will work/are fair / Have worked elsewhere / Easy to implement	37%	**273**	5	1
It will reduce costs / Is economical/cost-effective / Having a financial incentive is good/important	12%	**90**	1	1
I/we can take advantage of time-varying rates	11%	**83**	1	1
Not everybody can take advantage of or benefit from time-varying rates due to circumstances / Shouldn't be penalized for that	11%	42	**11**	**31**
People can't always shift use / Will have to use electricity in hours in peak periods	8%	40	5	15
Skeptical of the plan / Question the plan / Skeptical of BC Hydro	6%	5	4	**38**
Doubt it will work / Won't motivate people / Limited impact / Not practical	5%	11	**9**	**21**

Bolding indicates top mention within each subgroup.
Note: Only major mentions of 5% or more are shown in the table above.
What are your reasons for having this view of our plan regarding voluntary time-varying rates and supporting demand response programs?

VOLUNTARY TIME-VARYING RATES AND SUPPORTING DEMAND RESPONSE PROGRAMS: EXAMPLE COMMENTS

The following are example comments that correspond with the top feedback themes for each respondent subgroup.

Aligned

Time-varying rates are a good idea/make sense/will work/are fair/have worked elsewhere/easy to implement

"***We grew up with this system in England, Quebec, and Ontario so are comfortable with it.*** *It makes sense."*

It will reduce costs / Is economical/cost-effective / Having a financial incentive is good/important

"This would be an ***excellent way to incentivize consumers*** *to wait till later in the day/evening to plug their electric vehicles in and take advantage of lower electricity rates to do laundry or other electricity intensive activities."*

Neutral

Not everybody can take advantage of or benefit from time-varying rates due to circumstances / Shouldn't be penalized for that

"I am ***concerned that low-income earners will be at a disadvantage as less likely to have the opportunity to shift their use times*** *or afford "smart" appliances, heaters etc. that could take advantage of such a program."*

Doubt it will work / Won't motivate people / Limited impact / Not practical

"I doubt it will have the needed impact. ***The most affluent are the heaviest users and least likely to voluntarily vary time of day consumption patterns****. Especially true on south coast where impact would be greatest."*

Not Aligned

Not everybody can take advantage of or benefit from time-varying rates due to circumstances / Shouldn't be penalized for that

"***Many people do not have the privilege and luxury to shift their energy consumption to avoid peak periods.*** *For example, my laundry room closes at 10 PM, I work full time, when/how can I do laundry outside of the peak period?"*

What are your reasons for having this view of our plan regarding voluntary time-varying rates and supporting demand response programs?

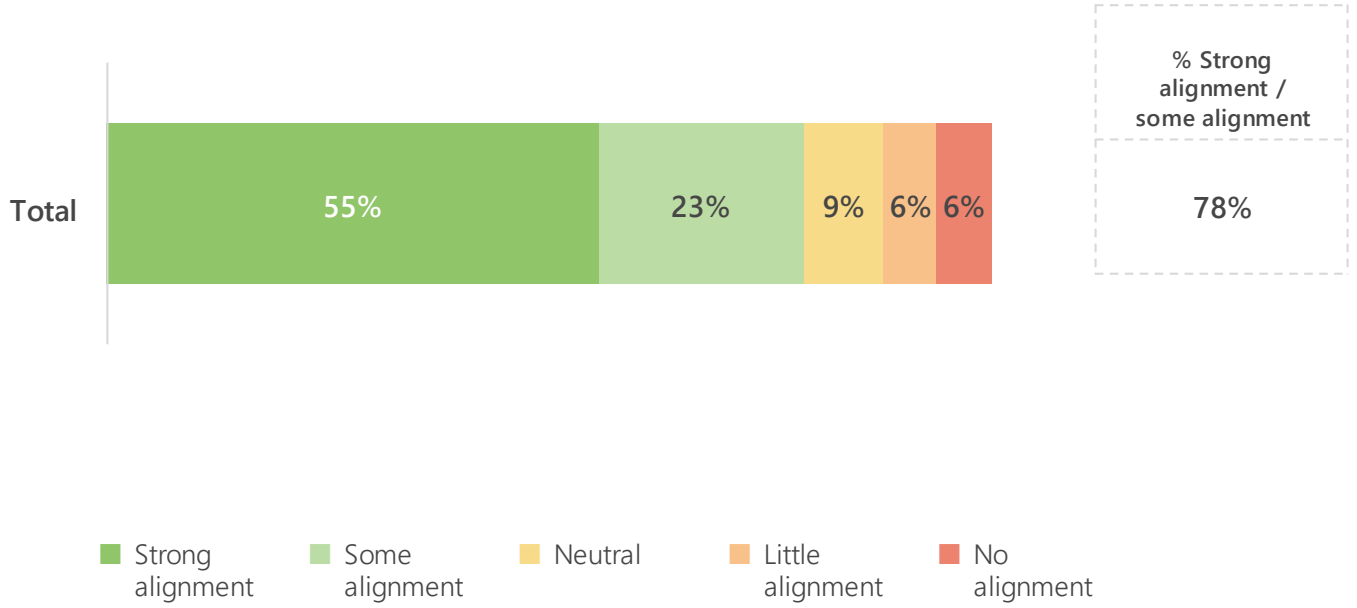
VOLUNTARY DEMAND RESPONSE PROGRAM TO SUPPORT SHIFTING EV CHARGING

Overall, over three-quarters of public survey participants (78%) consider the plan to pursue voluntary demand response programs targeting EV drivers to align with their values and interests.

Twelve percent of these participants do not consider this element of the plan to align with their values and interests.

The balance (9%) are neutral.

Alignment with Personal Values and Interests



Base (Public Survey): Total (1,149)
How does our plan to pursue voluntary demand response programs targeting electric vehicle drivers align with your values and interests?

VOLUNTARY DEMAND RESPONSE PROGRAM TO SUPPORT SHIFTING EV CHARGING

Those who are aligned with this element of the plan view it as an effective, easy way to shift more demand to off-peak times.

Those who are not aligned are more likely to see an EV demand response program as penalizing EV owners who can't always charge their EV during off-peak times. They are also more likely to express skepticism of this element of the plan more generally.

Those who are neutral express a range of views - some think it's a good idea, while others express views similar to those not aligned. They are also more likely to indicate that they need more information.

Reasons Plan Element Aligns / Doesn't Align with Values and Interests	Total	Aligned	Neutral	Not Aligned
Base (Public Survey): Providing a comment	692	527	63	102
	% of mentions	# of mentions		
Good idea / Makes sense / Pragmatic / Incentives will work	35%	**227**	9	7
Easy to charge EVs during off-peak periods	22%	**145**	5	4
Not all EV owners can charge only during off-peak times / Shouldn't penalize EV owners for that	8%	24	7	**27**
Already charge overnight	6%	38	2	0
Skeptical of the plan / Question the plan / Skeptical of BC Hydro	5%	7	7	**22**
I/we plan on getting an EV / Have an EV	4%	28	0	0
Don't have an EV	4%	8	8	10
Need more information (e.g., when are the off-peak times?)	4%	12	**12**	1

Bolding indicates top mention within each subgroup.
Note: Only major mentions of 4% or more are shown in the table above.
What are your reasons for having this view of our plan with respect to pursue voluntary demand response programs targeting electric vehicle drivers?

VOLUNTARY DEMAND RESPONSE PROGRAM TO SUPPORT SHIFTING EV CHARGING: EXAMPLE COMMENTS

The following are example comments that correspond with the top feedback themes for each respondent subgroup.

Aligned

Good idea / Makes sense / Pragmatic / Incentives will work

"*As an EV owner, I agree and would **happily charge during off-peak hours at a reduced rate.** If I could also tie into a solar system on my house through a government rebate program this would further enhance both my needs and Hydro's plans.*"

Easy to charge EVs during off-peak periods

"*We **have an electric vehicle and a charging station in our garage therefore there is considerable alignment,** however, we are not sure how it would work for those who do not have charging stations 'at the ready'.*"

Neutral

Need more information (e.g., when are the off-peak times?)

"***How would this be implemented? Would this scheme target private chargers, or would this include public chargers as well?** Are there any possible negative impacts on the uptake of electric vehicles or electrification of public transportation by doing this?*"

Not Aligned

Not all EV owners can charge only during off-peak times / Shouldn't penalize EV owners for that

"***Tiered rates for EV charging act as tax in my opinion** and may dissuade the purchase of EVs which are a key component to reduce fossil fuels. **Example would be a shift worker who works nights and needs to charge during peak hours. How is this fair?**"*

"***Demand-response works best with electricity intensive industrial customers that can adjust their processes accordingly.** Your plan equates to making customers who cannot adjust their charging schedule pay more, which is the least customer-centric approach there is. You should be creating incentives to accelerate the shift towards EV but all you do is create more constraints (you are already penalizing EV drivers with your Step invoicing system).*"

What are your reasons for having this view of our plan with respect to pursue voluntary demand response programs targeting electric vehicle drivers?

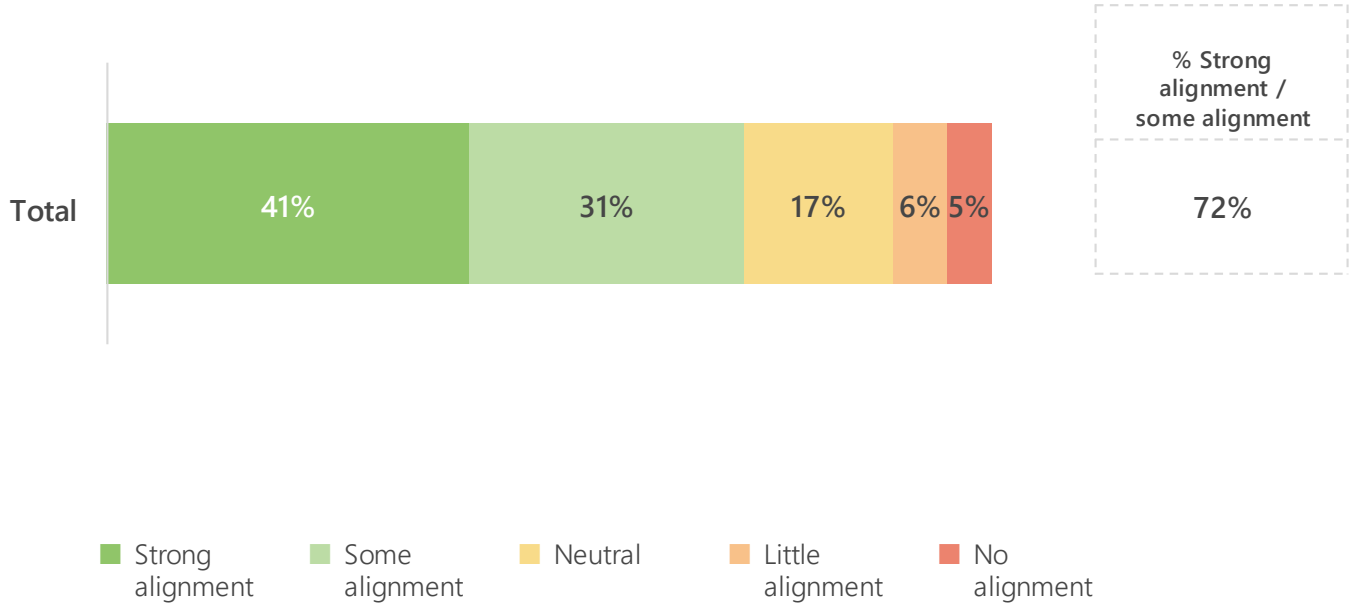
RENEWING PURCHASE AGREEMENTS

Overall, 72% of public survey participants consider the plan to offer market-based pricing when renewing electricity purchase agreements that will be expiring in the next five years to align with their values and interests.

Eleven percent of these participants do not feel that this element of the plan aligns with their values and interests.

The balance (17%) are neutral.

Alignment with Personal Values and Interests



Base (Public Survey): Total (1,149)
How does our 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?

RENEWING PURCHASE AGREEMENTS

Those who are aligned with this element of the plan see it as an effective way to use existing infrastructure and an important step in keeping costs down. They are also more likely to indicate that it's important for BC Hydro to support Indigenous communities.

Those who are not aligned and those who are neutral are more likely to express skepticism that market-based pricing will be viable and skepticism of this element of the plan generally. Those not aligned are also more likely to be concerned about IPPs.

Those who are neutral are also more likely to indicate that they need more information.

Reasons Plan Element Aligns / Doesn't Align with Values and Interests	Total	Aligned	Neutral	Not Aligned
Base (Public Survey): Providing a comment	647	468	74	105
	% of mentions	# of mentions		
Agree with the proposed plan / Makes sense / Good to use infrastructure that we already have	22%	**143**	2	0
Should not be paying more than market rates / Need to keep electricity prices low/costs down	17%	**103**	6	2
Other sources of supply should be considered/supported (e.g., solar, wind, geothermal)	11%	53	5	16
Skeptical that market-based pricing will be viable / Lowering payment given to IPPs is unfair/discouraging	11%	33	**13**	**24**
BC Hydro should only renew agreements where environmental impacts are low / Supply must be sustainable	10%	52	8	2
BC Hydro should support Indigenous communities	9%	56	1	4
Skeptical of the plan / Question the plan / Skeptical of BC Hydro	8%	6	**16**	**32**
Diversification of supply / Distributed supply is important	5%	23	3	4
IPPs and/or IPP agreements are a rip-off/are concerning/worrisome	4%	13	2	**13**
Negative comments about dams/Site C/Run of River	4%	13	2	10
Limits land and water/environmental impacts	3%	18	0	1
Need more information	3%	7	**11**	0

Bolding indicates top mention within each subgroup.
Note: Only major mentions of 3% or more are shown in the table above.
What are your reasons for having this view of our plan with respect to renewing electricity purchase agreements?

RENEWING PURCHASE AGREEMENTS: EXAMPLE COMMENTS

The following are example comments that correspond with the top feedback themes for each respondent subgroup.

Aligned

Agree with the proposed plan / Makes sense / Good to use infrastructure that we already have

*"If the environmental damage has already been done on a run-of-river or other green power source that is already in place. **Don't cancel them. Let them continue producing electricity as long as the environmental damage is not increasing with use**."*

Should not be paying more than market rates / Need to keep electricity prices low/costs down

*"I was **opposed to the non-market-based signing of these agreements in the first place** and will be glad to see BC Hydro be free of them. They made relatively little sense at the time still doesn't."*

Neutral

Skeptical that market-based pricing will be viable / Lowering payment given to IPPs is unfair/discouraging

*"**I would hope that the renewed contracts are not reduced so much that there is little incentive for them to remain in the game or improve their services as we require more energy**."*

Not Aligned

Skeptical that market-based pricing will be viable / Lowering payment given to IPPs is unfair/discouraging

*"**An IPP takes on a lot of risk building and providing supply. They must make a profit on their risk and cover operating costs.** A higher price paid for IPP supply is still far less expensive than BCH building new infrastructure."*

IPPs and/or IPP agreements are a rip-off/are concerning/worrisome

*"**The contracts with IPP (especially run of the river projects) have been a financial disaster for BC residents and only benefited wealthy corporations.** They largely produce power when it is not needed. I do support IPP for non-profit operations and/or supporting indigenous and community interests. There should be more attention directed to renewables such as solar, wind, tidal and geothermal."*

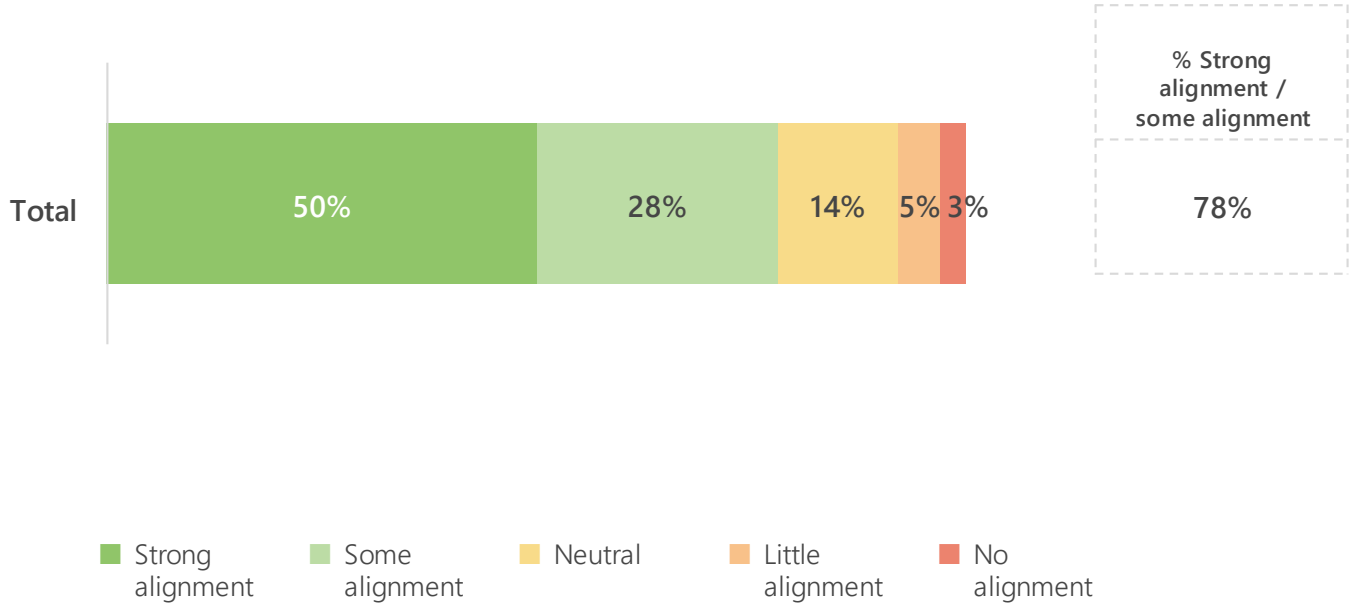
TRANSMISSION SYSTEM UPGRADES

Over three-quarters (78%) of public survey participants consider the plan regarding transmission system upgrades to align with their values and interests.

Only eight percent of these participants do not feel that this element of the plan aligns with their values and interests.

The balance (14%) are neutral.

Alignment with Personal Values and Interests



Base (Public Survey): Total (1,149)
How does advancing the first step of transmission upgrades to the South Coast and prepare to initiate step 2 align with your values and interests?

TRANSMISSION SYSTEM UPGRADES

Those who are aligned with this element of the plan view upgrading as necessary and as cost-effective. They also view it as an important way to meet growing demand in the future and limit impacts on the environment.

Those who are not aligned strongly advocate investing in solar and other green energy projects.

They also express concern over the extent of benefits to the broader province and are skeptical about this element in general.

Those who are neutral express a range of views. Some see the upgrades as cost-effective and necessary, while others express concerns similar to those who are not aligned. They are also more likely to be concerned about environmental impacts.

Reasons Plan Element Aligns / Doesn't Align with Values and Interests	Total	Aligned	Neutral	Not Aligned
Base (Public Survey): Providing a comment	596	457	69	70
	% of mentions	# of mentions		
Good idea / Cost-effective to upgrade before adding new infrastructure / Needs to be done	49%	**274**	**15**	2
Should be investing in solar/other green energy/local projects	14%	36	**13**	**36**
Will ensure future reliability/capacity / Meet growing demand	13%	**74**	5	1
Good that it will limit impact on environment/land/water	10%	**56**	1	0
Concerned about environmental impact/impact on indigenous communities	6%	21	**9**	3
Skeptical of the plan / Question the plan / Skeptical of BC Hydro	5%	8	**10**	**13**
Consulting with Indigenous nations is important	4%	23	1	2
Doesn't benefit all communities/regions / Consider other areas as well	4%	8	**8**	**8**
Should already have been done	4%	19	3	2

Bolding indicates top mention within each subgroup.
Note: Only major mentions of 4% or more are shown in the table above.
What are your reasons for having this view of our plan regarding transmission system upgrades?

TRANSMISSION SYSTEM UPGRADES: EXAMPLE COMMENTS

The following are example comments that correspond with the top feedback themes for each respondent subgroup.

Aligned

Good idea / Cost-effective to upgrade before adding new infrastructure / Needs to be done

"***It makes sense to makes better use of the energy we have*** *and to ensure it gets to the people and places that need it."*

Will ensure future reliability/capacity / Meet growing demand

"Increased demands put more load on system. ***Ensure system is as stable and up to date as possible to allow maximum efficiency****."*

Neutral

Should be investing in solar/other green energy/local projects

"***Need to encourage much more energy generation at or close to point of usage*** *(solar, for example), rather than the low-efficiency need transport electricity over long distances."*

Concerned about environmental impact/impact on indigenous communities

"I am concerned about impacts on Indigenous communities and the environment. ***I prefer earlier options, and if something like this goes forward, there must be meaningful consultation and free, informed consent****."*

Not Aligned

Should be investing in solar/other green energy/local projects

"I have long believed BC Hydro and the government ***should be doing more to encourage and facilitate decentralized small-scale energy self-sufficiency****. As in more homes and businesses with* ***rooftop solar****. This has many benefits including less demand on the BC Hydro system and greater resilience to power outages and transmission distributions. If every new build going forward had solar rooftops, all the issues you are trying to solve would not exist!"*

Doesn't benefit all communities/regions / Consider other areas as well

"***This just shifts the environmental impact from the south coast, to the north/interior****. We need to focus on reduced consumption/demand."*

What are your reasons for having this view of our plan regarding transmission system upgrades?

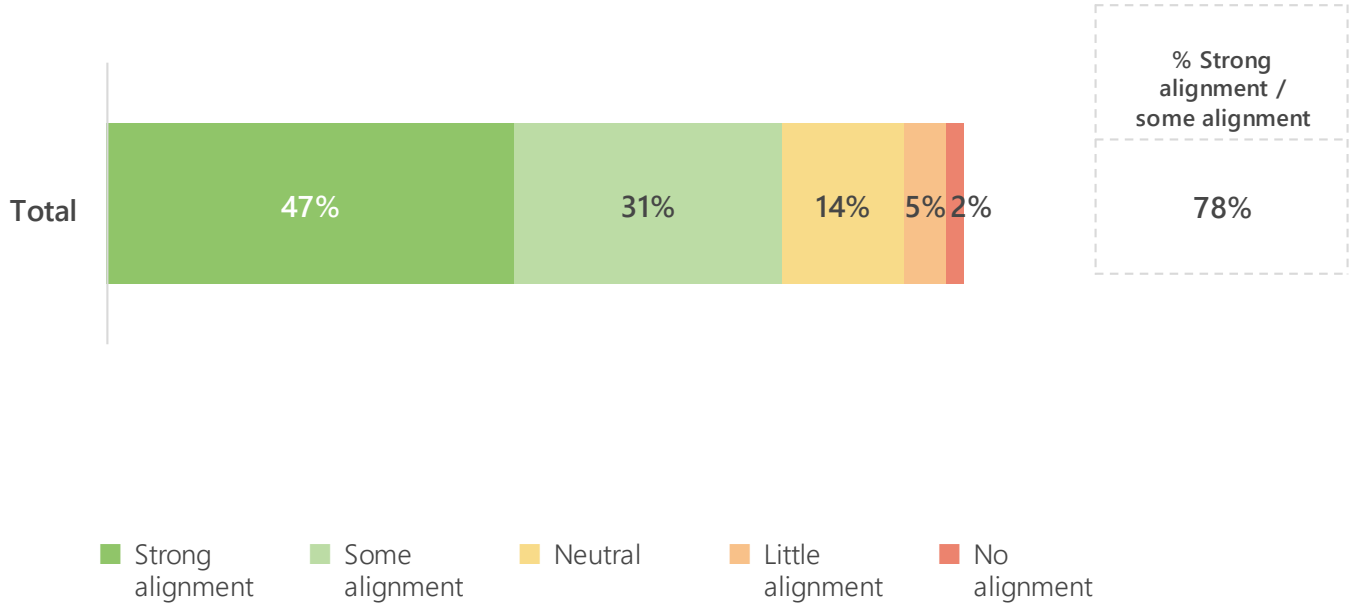
FUTURE RENEWABLE RESOURCES

Over three-quarters (78%) of public survey participants consider the plan's approach regarding future renewable resources to align with their values and interests.

Only seven percent of these participants do not feel that this element of the plan aligns with their values and interests.

The balance (14%) are neutral.

Alignment with Personal Values and Interests



Base (Public Survey): Total (1,149)
How does our approach to future resources align with your values and interests?

FUTURE RENEWABLE RESOURCES

While those who are aligned with this element of the plan are the group most likely to express support for renewable power generation, a substantial percentage of those who are not aligned or who are neutral also mention the need for renewable generation, which likely indicates that the latter two groups would like to see a more aggressive focus on renewables. On that theme, note the relatively substantial percentage of those who are not aligned indicating that transitioning more to renewables needs to happen now.

Those who are not aligned are also more likely to point to the limitations of solar and wind.

Those who are neutral are more likely to mention the need to focus on reducing environmental impacts and say they need more information.

Both those who are not aligned and neutral are also more likely to express skepticism about the plan generally.

Reasons Plan Element Aligns / Doesn't Align with Values and Interests	Total	Aligned	Neutral	Not Aligned
Base (Public Survey): Providing a comment	698	535	84	79
	% of mentions	# of mentions		
Need more renewables / Support distributed, local generation	48%	**279**	**28**	**29**
Provide incentives for residential solar (e.g., selling power back to the grid)	16%	99	10	6
Support this / Good idea / Makes sense	11%	77	1	0
Need to focus on GHG reduction/ Reduced environmental impacts	9%	46	**14**	5
Skeptical of the plan / Question the plan / Skeptical of BC Hydro	9%	18	**24**	**19**
Do not support large hydro projects (e.g., Site C)	8%	38	3	**13**
Need to do this now / Act now	7%	29	5	**14**
Consider other renewables - e.g., nuclear, geothermal	6%	39	2	3
Solar/wind not viable/expensive/unreliable	6%	21	6	**15**
Need more information	4%	14	**15**	1
Need to consider impact to, and involvement of, First Nations/ Indigenous	4%	29	0	1

Bolding indicates top mention within each subgroup.
Note: Only major mentions of 4% or more are shown in the table above.
What are your reasons for having this view of our plan regarding future renewable resources?

FUTURE RENEWABLE RESOURCES: EXAMPLE COMMENTS

The following are example comments that correspond with the top feedback themes for each respondent subgroup.

Aligned

Need more renewables / Support distributed, local generation

*"If you take your cues from Germany - where the amount of sun and wind exposure are very similar to BC (in fact they get less sun than we do), you will see they have converted over 38% of their grid to **locally produced solar and wind sources**. They did this in a span of about 15 years by providing very aggressive incentives in conjunction with government legislation, allowing customers to provide power back to the grid in a decentralized power structure. **Instead of building new dams (like Site "C") at the costs of tens of billions of dollars, we should be putting that money into upgrading the grid to allow it to be decentralized by customer based (Net Metering) and private independent power producers (like they did for German farmers).**"*

Neutral

Need more renewables / Support distributed, local generation

*"You **should be targeting wind and solar** now. You have the **potential to use individual customers with solar generation to boost capacity and energy and yet there is no incentive to do so,** and a cap has been placed on individual production. I don't understand why a customer who is willing to pay for the infrastructure is discouraged from doing so. Instead, we are billions over budget on site C that has significant environmental negative impact. There seems to be no foresight into using smaller less destructive models for energy production, even though the cost to BC hydro will be less than these large projects."*

Need to focus on GHG reduction/ Reduced environmental impacts

*"Yes, continue to support more solar and wind and other alternatives in the province. Upgrade existing facilities without expanding the footprint. Where possible, renew existing agreements. **Least palatable of the options is to build new facilities and infrastructure**."*

Not Aligned

Solar/wind not viable/expensive/unreliable

*"**There is no such thing as "clean and renewable" energy. The wind turbines and solar panels need far more natural resources to create are not recyclable or renewable**, the energy can't be stored, and are piling up in the landfills. Many wind farms have already been torn down due to not being energy efficient. "renewables" only contribute to less than 5% of the world grid, how much of our earth are you willing to dig up and fill up with these ideas?"*

Need to do this now / Act now

*"What are you waiting for? **Get planning now and be ahead of the game.** Building infrastructure and the construction megaprojects needed for these take decades to plan and make operational."*

What are your reasons for having this view of our plan regarding future renewable resources?

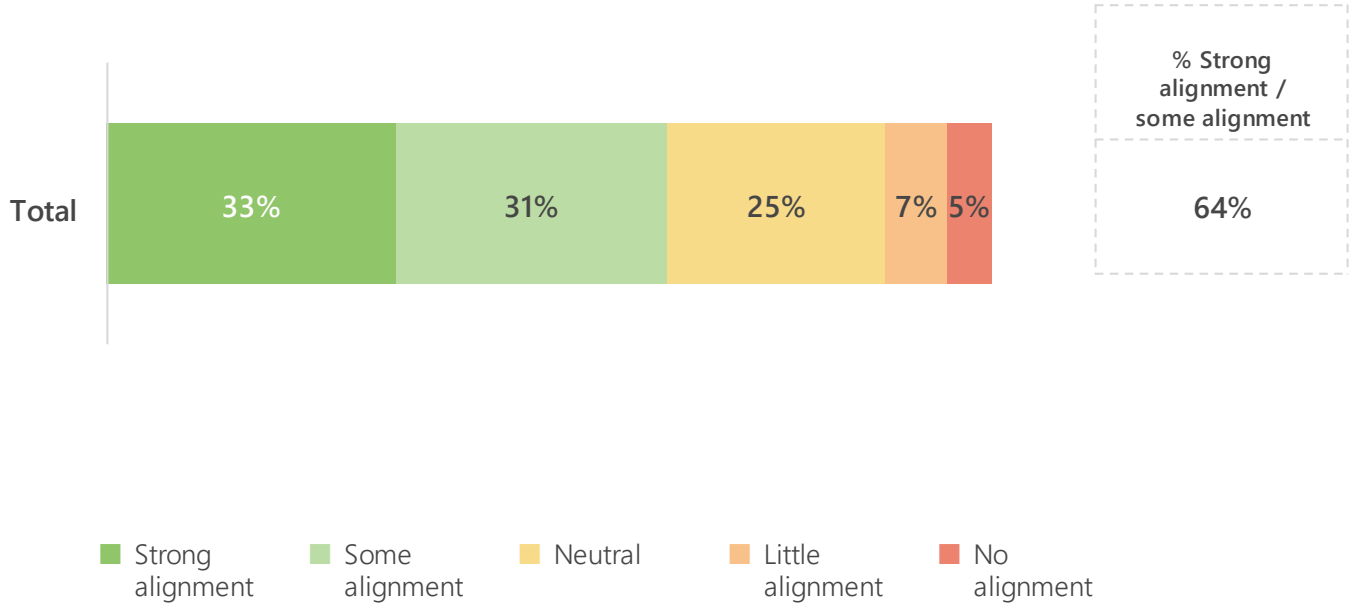
EVALUATING SMALL GENERATING FACILITIES

Just under two-thirds (64%) of public survey participants consider the plan's approach for evaluating small generating facilities to align with their values and interests.

Twelve percent of these participants do not feel that this element of the plan aligns with their values and interests.

The balance (25%) are neutral.

Alignment with Personal Values and Interests



Base (Public Survey): Total (1,149)
How does our approach to evaluating these facilities with our proposed timelines align with your values and interests?

EVALUATING SMALL GENERATING FACILITIES

Those who are aligned with this element of the plan see taking a case-by-case approach to deciding whether or not to refurbish or decommission small generating facilities as viable – both economically and environmentally.

While those who are aligned with this element of the plan see environmental benefits, all three groups – those who are aligned, neutral and not aligned – want BC Hydro to focus on reducing environmental impacts, particularly by investing in local, distributed generation.

Those who are neutral are more likely to indicate that they need more information.

Reasons Plan Element Aligns / Doesn't Align with Values and Interests	Total	Aligned	Neutral	Not Aligned
Base (Public Survey): Providing a comment	570	355	109	106
	% of mentions	# of mentions		
BC Hydro should focus on minimizing environmental impact / Distributed generation (e.g., solar) is good	23%	**71**	**26**	**33**
This plan seems viable/good idea	14%	**72**	4	1
A case-by case plan allows for a better approach either economically or environmentally	12%	**58**	8	0
Decommission facilities if won't impact local access to power/those who rely on it	11%	42	8	15
Facilities should be kept and upgraded to support the demand	11%	35	11	14
Concerned about the plan not being financially viable / Prioritize cost-efficiency	8%	25	14	7
Need more information	7%	13	**26**	2
BC Hydro should consult with Indigenous communities	6%	30	3	2
Skeptical of the plan / Question the plan / Skeptical of BC Hydro	5%	5	12	13
Consider giving back to First Nations / Get them involved in the operation / Ensure they benefit	5%	19	3	8
BC Hydro should not privatize energy production	5%	20	1	7

Bolding indicates top mention within each subgroup.
Note: Only major mentions of 5% or more are shown in the table above.
What are your reasons for having this view of our plan for evaluating these facilities?

EVALUATING SMALL GENERATING FACILITIES: EXAMPLE COMMENTS

The following are example comments that correspond with the top feedback themes for each respondent subgroup.

Aligned

BC Hydro should focus on minimizing environmental impact / Distributed generation (e.g., solar) is good

"***Decisions on the refurbishment or abandonment of these facilities must include not only financial considerations, but, also, environmental affects.*** *Where the environment is not an issue it seems sensible to have local power generation as this reduces transmission losses."*

A case-by case plan allows for a better approach either economically or environmentally

"***The case-by-case plan shows ability to understand and be flexible to work with the needs of the individual communities.***"

Neutral

BC Hydro should focus on minimizing environmental impact / Distributed generation (e.g., solar) is good

"***Replacement with renewable alternatives that are less damaging to the environment may be a better alternative****, especially if the cost of wind and solar generation continue to drop.*

Not Aligned

BC Hydro should focus on minimizing environmental impact / Distributed generation (e.g., solar) is good

"***These facilities may not be worth upgrading and that focus should be put elsewhere. Shifting away from hydro and toward solar and wind would be a better use of resources, in my opinion."***

What are your reasons for having this view of our plan for evaluating these facilities?

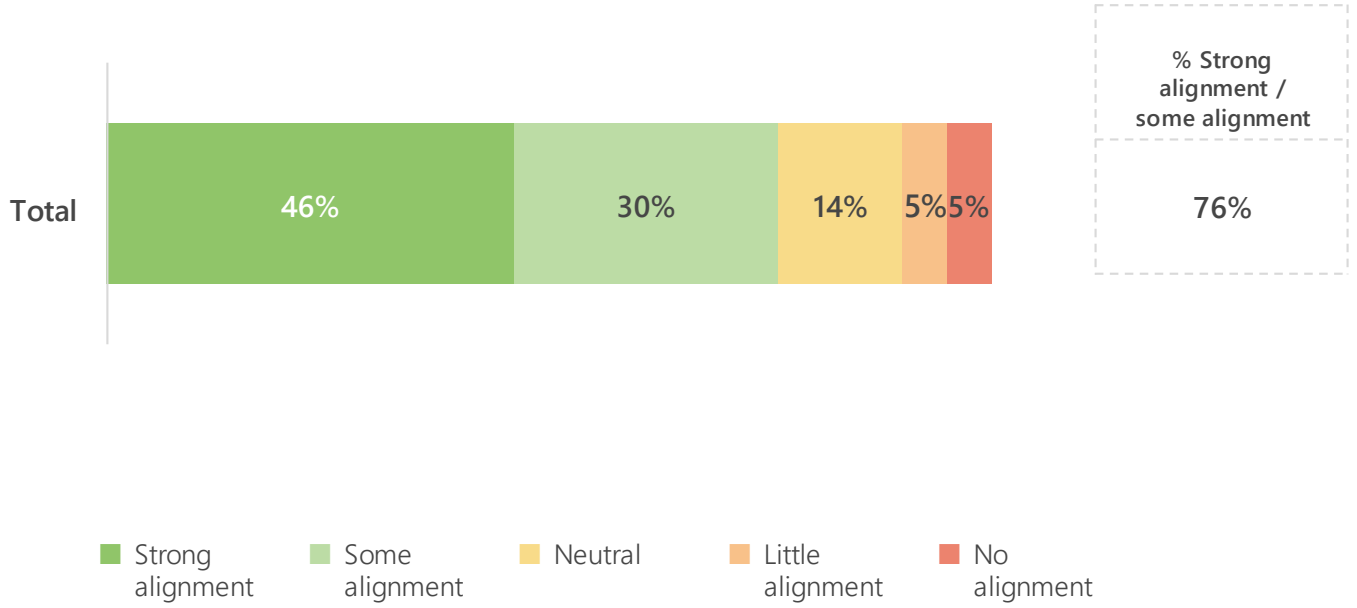
UTILITY-SCALE BATTERIES

Just over three-quarters (76%) of public survey participants consider the plan to introduce utility-scale batteries on the South Coast to align with their values and interests.

Ten percent of these participants do not feel that this element of the plan aligns with their values and interests.

The balance (14%) are neutral.

Alignment with Personal Values and Interests



Base (Public Survey): Total (1,149)
How does preparing to introduce utility-scale batteries in the South Coast align with your values and interests?

UTILITY-SCALE BATTERIES

Those who are aligned with this element of the plan see utility-scale batteries as an effective way to prepare for different demand scenarios in the future – particularly those in which consumption will increase.

Those who are not aligned and neutral are more likely to be of the view that batteries may not be the most sustainable solution.

Those who are not aligned are also more likely to favour use of dams (e.g. pumped storage) over batteries and express skepticism of the plan generally.

Those who are neutral are also more likely to indicate that they need more information.

Reasons Plan Element Aligns / Doesn't Align with Values and Interests	Total	Aligned	Neutral	Not Aligned
Base (Public Survey): Providing a comment	660	490	76	94
	% of mentions	# of mentions		
Support this plan / Good idea	26%	**171**	2	1
Batteries may not be the most sustainable solution	18%	65	**20**	**31**
Consider other technologies/forms to power generation as well (e.g. solar)	15%	80	8	12
Makes sense to plan on storing extra power / Need to plan for greater electricity consumption and manage peaks	15%	**94**	3	1
Plan should also include smaller residential batteries / Using electric vehicle storage & vehicle-to-grid	10%	55	3	5
Concerned plan is not cost effective / Needs to be cost-effective	9%	38	11	12
Need more information	9%	27	**28**	3
Need to ensure the best technology is used	7%	36	4	6
Pumped storage (using dams) would be a better option	6%	17	6	**18**
Works for Australia / TESLA Batteries / Proven to work elsewhere already	4%	27	0	2
Skeptical of the plan / Question the plan / Skeptical of BC Hydro	4%	3	6	**18**
Need to focus on reducing environmental impact / Increasing energy efficiency / Addressing climate change	4%	16	4	4

Bolding indicates top mention within each subgroup.
Note: Only major mentions of 4% or more are shown in the table above.
What are your reasons for having this view of our plan to introduce utility-scale batteries in the South Coast?

UTILITY-SCALE BATTERIES: EXAMPLE COMMENTS

The following are example comments that correspond with the top feedback themes for each respondent subgroup.

Aligned

Support this plan / Good idea

"***Great idea.*** *Level the demand; flatten the peaks. Lithium batteries are highly recyclable (near 100% of components can be reclaimed and remanufactured). Batteries also allow very fast response times for power conditioning, addressing synchronization / brownout and other power conditions. Could be we end up with "cleaner" (electrically-speaking) power while deferring some generation due to leveling off the peaks."*

Makes sense to plan on storing extra power / Need to plan for greater electricity consumption and manage peaks

"***Batteries are going to be a necessary part of future energy plans, especially with variable renewable generation.*** *Investing in them now (or very soon) just makes sense.*

Neutral

Batteries may not be the most sustainable solution

"My neutral response is due to my antipathy to battery use (and I am an EV driver). ***Environmental recycling/reuse of batteries has not kept pace, so far, with the burgeoning use of batteries in so many areas****. There are other methods of storage coming - storage liquids - and these may be more environmentally sound. The one factor not mentioned in trying to anticipate demand is recognition of the toll of upcoming climate factors will take on both the generation of and delivery of power!"*

Need more information

"Don't know enough. ***How will they be produced and disposed of? Batteries are a huge problem moving forward.*** *Until technology and research proves viable alternatives we should not produce or depend on more."*

Not Aligned

Batteries may not be the most sustainable solution

"Until we figure out a better option than batteries, it's killing our earth. ***Rare minerals needed for batteries are exactly that - rare. And those rare elements are already causing a global crisis where they are mined.*** *We need new technology!"*

Pumped storage (using dams) would be a better option

"***Pump water uphill into a dam instead of acquiring batteries. Water is way cheaper than batteries.*** *Storage batteries need maintenance and disposal / recycling. Water does not. Water is renewable. Pumped hydro demand response is fast. High tech solutions do not solve low tech problems."*

What are your reasons for having this view of our plan to introduce utility-scale batteries in the South Coast?

ADDITIONAL FEEDBACK ON IRP PLAN

One half of public survey participants (50%) offered additional feedback on the IRP.

While a substantial percentage of these participants expressed support for the plan, they made several recommendations that are noteworthy – incentivize local generation, invest in renewables other than electricity and invest in the grid infrastructure to prepare for an impending increase in demand.

Additional Feedback on Draft Plan	Total
Base (Public Survey): Providing a comment % of total represented	576 50%
Support/incent solar/local, distributed generation	23%
Support plan / Support what BC Hydro is doing	21%
Skeptical of the plan / Question the plan / Skeptical of BC Hydro	14%
Focus on other renewables / Need more options than electricity	10%
Need to invest in the power grid/electricty infrastructure/ Electricity consumption will increase in the future	10%
Appreciate opportunity to offer input	7%
Focus on developing electricity / Increase electricity use / Reduce GHG/ fossil fuel use	7%
Focus should be on reducing energy usage/conservation and reducing environmental impact	7%
Negative comment about Site C	6%

Example Comments

Support/incent solar/local, distributed generation

*"BC Hydro really **needs to encourage homeowners to go solar but still be tied to the grid.** I have solar panels, and when I see the buyback rate continually decrease, I start to see if it makes sense to even stay connect to the grid. Home solar and battery storage let's Hydro expand storage and capacity without a high initial investment cost."*

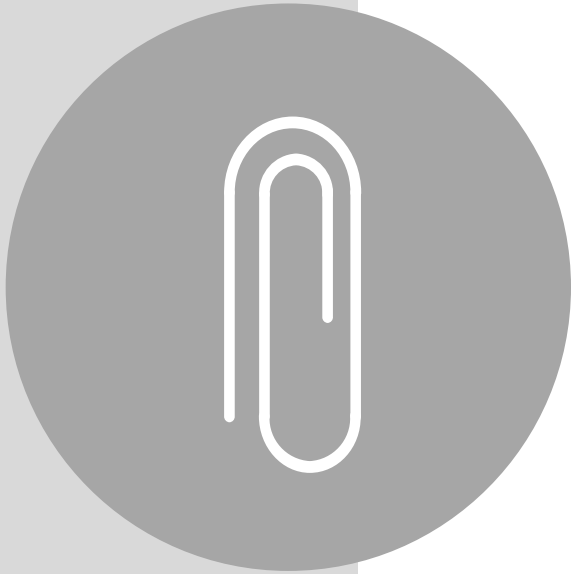
Support plan / Support what BC Hydro is doing

*"I **think Canada along with provincial government and Hydro are heading in the right direction.** The main concern and focus should be keeping the costs low by securing the future but without harming any habitat."*

Focus on other renewables / Need more options than electricity

***"It's disappointing that no consideration appears to have been given to exploring geothermal power generation, considering our rich potential here in BC** for developing this resource, there also isn't any mention given to BC supporting other jurisdictions in Canada in transitioning away from carbon-intensive means of power generation."*

Note: Only major mentions of 6% or more are shown in the table above.
You've now completed our survey. Do you have any feedback on our draft plan?



APPENDIX

Respondent Profile

RESPONDENT PROFILE: CUSTOMER & PANEL SURVEY

	Total
Gender (base)	846
Man	52%
Woman	47%
Other or non-binary	1%
Age	
18-24	3%
25-34	20%
35-44	19%
45-54	17%
55-64	17%
65+	24%
Region	
Lower Mainland / Fraser Valley	64%
Vancouver Island / Gulf Islands	21%
Southern Interior	3%
Central Interior	7%
Northwest	3%
Northeast	2%

	Total
HH Income (base)	846
Under $40,000	10%
$40,000 – under $80,000	24%
$80,000 – under $100,000	14%
$100,000 – under $140,000	17%
$140,000 – under $180,000	8%
$180,000 and above	11%
Prefer not to say	16%
HH Size	
1	24%
2	41%
3 to 4	26%
5+	10%
Dwelling Type	
Single-detached home	50%
Apartment or condominium	28%
Townhouse / rowhouse	13%
Duplex / triplex or similar	5%
Other	4%
Home Ownership	
Own	74%
Rent	23%
Live with family / Do not own the home	4%

RESPONDENT PROFILE: PUBLIC SURVEY

	Total
Region (base)	1149
Lower Mainland / Fraser Valley	50%
Vancouver Island / Gulf Islands	32%
Southern Interior	10%
Central Interior	7%
Northwest	1%
Northeast	1%
Customer Segment	
Residential	95%
Business or commercial	7%
Industrial	1%