

Integrated Resource Plan

Appendix 7C-1

**Public and Stakeholder Consultation -
Summary Report 2011**



BC Hydro Integrated Resource Plan

Consultation Summary Report

Public and Stakeholder Consultation
*Considering Our Clean Energy Future:
Assessing and Evaluating Options*

MAY 2011

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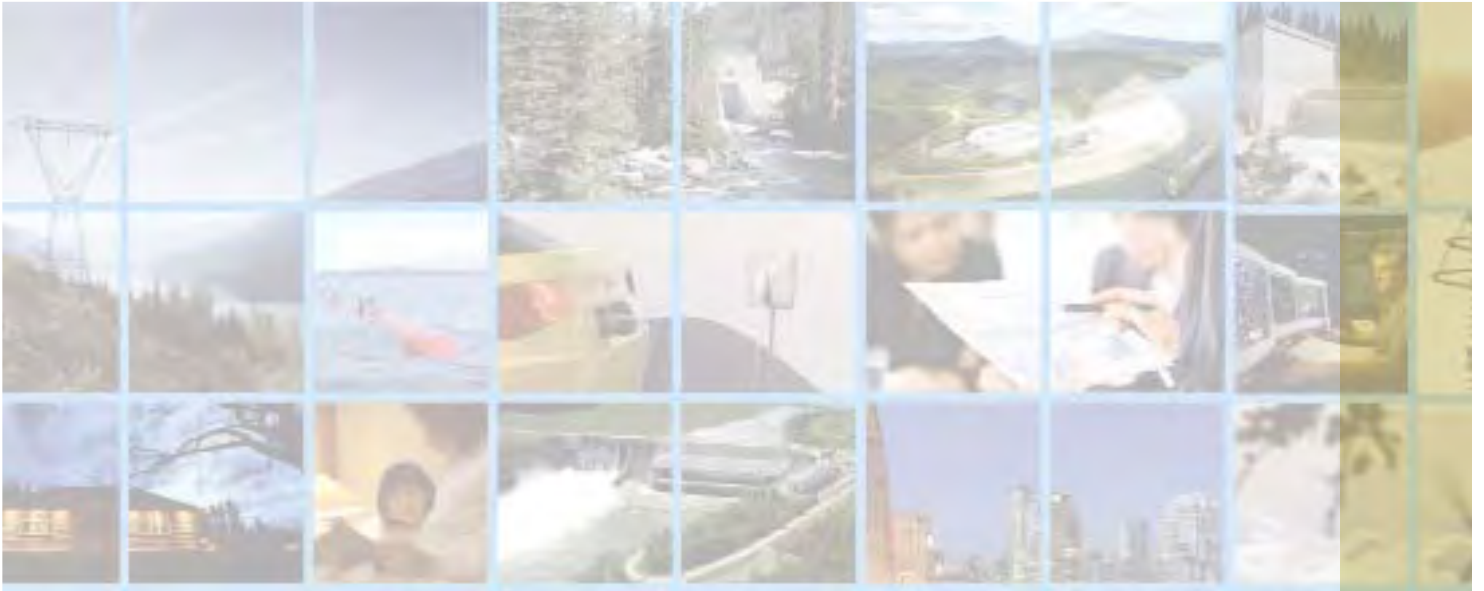


Kirk & Co. Consulting Ltd. is recognized as an industry leader in designing and implementing comprehensive public and stakeholder consultation programs. Utilizing best practices in consultation, the firm designs consultation programs to maximize opportunities for input. Kirk & Co. works with polling firms to independently analyze and report on large volumes of public and stakeholder input.



Synovate Ltd. is an internationally recognized market research firm. All consultation input received by feedback form and written submission has been independently verified and analyzed by Synovate.

The views represented in this report reflect the priorities and concerns of consultation participants. They may not be representative of the views of British Columbians and other stakeholders because participants self-selected into this consultation. Although feedback form results are presented in the form of percentages, there are no margins of error for this data because there is no probability sample. The sample in question is based on self-selection, for which a sampling error cannot be measured.



BC Hydro Integrated Resource Plan Consultation Summary Report

*Considering Our Clean Energy Future:
Assessing and Evaluating Options*

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EXECUTIVE SUMMARY

Overview

The Integrated Resource Plan (IRP) is BC Hydro's long-term plan for acquiring resources to meet customers' needs for the next 20 years. It is guided by the government of British Columbia's *Clean Energy Act*, which came into effect in June 2010, setting specific new energy objectives for BC Hydro with respect to its long-term electricity plan. BC Hydro renews its long-term plan at regular intervals. Most recently, it developed an Integrated Electricity Plan in 2006 and a Long-Term Acquisition Plan in 2008. Once developed, BC Hydro will renew the Integrated Resource Plan periodically.

At its core, the Integrated Resource Plan will describe how BC Hydro proposes to meet future growth in electricity demand over the next 20 years. The IRP, subject to government approval, will set out a path for BC Hydro describing key actions to be taken over the next few years to ensure customers' needs can be met over the next 10 and 20 years. Any specific project later developed in response to the IRP will undergo an appropriate design, consultation, permitting and approval process.

The Integrated Resource Plan will provide an analysis and outlook to guide BC Hydro operations for two decades and beyond. It will include:

- A 20-year Base Resource Plan that sets out a mix of demand-reduction, generation and transmission options that are able to fulfil the forecasted demand.
- Contingency Resource Plans that address the uncertainties inherent in long-term planning, such as higher than expected demand. Contingency resource plans put forth a range of alternative resource options that would be relied upon if conditions change significantly.
- A 30-year transmission plan.

This report summarizes feedback received from the public and stakeholders during the March/April 2011 consultation "Considering Our Clean Energy Future: Assessing and Evaluating Options". During this phase of consultation BC Hydro asked the public, First Nations and stakeholders to consider relevant topics being addressed in the IRP. These topics included the approach to conservation and efficiency, electricity generation options, electrification, approaches to planning transmission, and export market potential.

Consultation Process

BC Hydro is consulting with First Nations, stakeholders and the public to develop a draft Integrated Resource Plan that responds to its service obligations, B.C.'s energy objectives and BC Hydro's obligations set out in the *Clean Energy Act*. The process for developing the Integrated Resource Plan includes three phases:

Technical Review and Foundation for Integrated Resource Planning (Fall 2010)

In the first phase of developing the IRP, BC Hydro focused on assembling key pieces of technical data necessary to construct a plan, and sought input from selected First Nations and stakeholders with regard to the design of the consultation process. BC Hydro also worked with its Electricity Conservation and Efficiency Advisory Committee as it constructed options for energy conservation. During this phase, BC Hydro also updated its forecast of future electricity demand to establish the gap between future demand and existing and committed energy resources.

An IRP Technical Advisory Committee was established to assist BC Hydro in creating a plan through detailed technical advisory input and feedback. This advisory input is in addition to input provided by the public, First Nations and stakeholders through the province-wide consultation process.

Considering Our Clean Energy Future – Assessing and Evaluating Options (March/April 2011)

In the second phase of developing the IRP, BC Hydro used the technical data prepared in the fall to compare alternative ways of meeting growing demand and associated clean energy objectives. BC Hydro asked the public, First Nations and stakeholders to consider relevant topics being addressed in the IRP. These topics included the approach to conservation and efficiency, electricity generation options, electrification, approaches to planning transmission, and export market potential. As part of this phase, and in considering resource alternatives, BC Hydro is examining the Site C Clean Energy Project, a potential third dam and hydroelectric generating station on the Peace River in northeastern B.C. Input received through consultation will be considered along with technical, financial, environmental and economic development input as BC Hydro evaluates alternatives and drafts the Integrated Resource Plan.

Reviewing the Draft Integrated Resource Plan (Anticipated in Fall 2011)

In this final phase, First Nations, the public and stakeholders will be invited to provide feedback on the draft Integrated Resource Plan. BC Hydro will consider this feedback as it prepares its final draft IRP for submission to the provincial government for review and approval.

Participation

There were multiple opportunities for stakeholders and the public to participate in the March/April 2011 consultation. The following is a breakdown of participation:

723 people attended consultation events:

357 people attended 14 stakeholder meetings

356 people attended 12 open houses

10 people participated in 1 webinar

400 feedback forms were received, 292 online and 108 in hard copy. 51 written submissions were received.

Public Notification

Public notice of opportunities to participate in the consultation was provided through a news release, newspaper ads, radio ads, email, phone calls, social media (Twitter), the BC Hydro website and a BC Hydro bill insert in January/February 2011. Approximately 4,600 stakeholders were emailed and called, inviting them to, and reminding them of, opportunities to participate in multi-stakeholder meetings, public open houses and a webinar. Newspaper ads were placed in regional and community newspapers to advise residents of opportunities to participate in open houses. Radio ads were run for several weeks on radio stations in communities across the province advising residents of the open house schedule available at www.bchydro.com/irp. BC Hydro customers received a bill insert regarding the Integrated Resource Plan consultation with their monthly statement between January and February 2011. Approximately 1.4 million residential customers received this notice, which included general information regarding the consultation, and encouraged people to visit the project website for more information.

Consultation Topics

BC Hydro sought public and stakeholder feedback on the following consultation topics:

- Conservation and Efficiency
- Electricity Generation Options
- Electrification
- Transmission Planning
- Export Market Potential

Methodology

400 completed feedback forms were received and tabulated between March 1 and April 30, 2011 (292 were received online and 108 in hard copy). In addition, 51 written submissions were received through fax, email and mail, and those responses were coded and analyzed in conjunction with the tabulated feedback forms.

357 people attended the 14 multi-stakeholder meetings held in 12 communities around the province: Abbotsford, Campbell River, Castlegar, Cranbrook, Fort Nelson, Fort St. John, Kamloops, Prince George, Terrace, Vancouver, Vernon and Victoria.

356 people attended 12 open houses held in 12 communities around the province: Abbotsford, Campbell River, Castlegar, Cranbrook, Fort Nelson, Fort St. John, Kamloops, Prince George, Terrace, Vancouver, Vernon and Victoria.

10 people participated in one webinar.

The online feedback form was posted on www.bchydro.com/irp beginning March 1, 2011 and all feedback forms received up to and including April 30, 2011 have been included in this report.

As BC Hydro evaluates alternatives and drafts the Integrated Resource Plan for consulting in fall 2011, the input from this consultation will be considered, along with technical, financial, environmental and economic development input.

Key Results from Feedback Forms

400 completed feedback forms were received and tabulated between March 1 and April 30, 2011:

- 292 were received online
- 108 in hard copy

In addition, 51 written submissions were received through fax, email and mail, and those responses were coded and analyzed in conjunction with the tabulated feedback forms. Detailed feedback form findings can be found beginning on page 23.

CONSERVATION AND EFFICIENCY

A strong majority (75%) of participants in the March/April 2011 phase of IRP consultation endorse the Greater Conservation and Efficiency approach to meeting future demand for electricity in B.C.

- **Additional Comments:** Support for the approach was mainly attributed by participants to BC Hydro’s focus on conservation (90 mentions), energy efficiency (65), and alternative forms of power generation (37).
- The most significant objections to this approach, mentioned by 30 participants, included the need for efficiency upgrade incentives and that rates should reflect true costs. Others also mentioned not wanting Smart Meters (27) as a reason for disagreeing with this greater conservation and efficiency approach.

ELECTRICITY GENERATION OPTIONS

Three electricity generation options to meet future electricity needs were presented to participants, who were asked to rate their level of agreement with each.

Portfolio 1: Renewable Mix

This portfolio includes a mix of renewable resources such as wind, run-of-river and biomass from Independent Power Producers (IPPs). The Site C Project is specifically excluded from this portfolio. Given that wind and run-of-river hydro are intermittent resources, this portfolio requires backup resources when the intermittent resources are not available.

Portfolio 1 received the highest level of support, as well as the lowest level of opposition of all three options. A majority of participants (58%) agreed with this approach overall, compared to 30% who disagreed.

- **Additional Comments:** The use of alternative energy sources (80) and a diverse mix of renewable resources (61) contributed most to support for this portfolio. Others believed that this renewable mix portfolio is the best choice for the environment (27). The main concerns expressed by participants were negative impacts from run-of-river projects (53) and the use of IPPs (47). Participants also thought Site C should be considered in this option (39).

Portfolio 2: Renewable Mix with Site C

This portfolio includes a mix of renewable resources that include Site C, along with wind, run-of-river and biomass projects from IPPs.

Portfolio 2 received support from 50% of participants and was opposed by 40%. The inclusion of Site C in this portfolio contributes to both support for and opposition to this option.

- **Additional Comments:** Those who disagreed with this option were most likely to mention Site C (71) as their reason for opposition. Others believed it is not an environmentally friendly option (48). Those who supported
- Portfolio 2 did so mainly because they were in favour of Site C (47) and because they felt it was the option that provided the most balanced approach (18).

Portfolio 3: Renewable Mix with Site C and Gas-Fired Generation

This portfolio includes Site C, other potential renewable resources such as wind and run-of-river from Independent Power Producers, and gas-fired generation allowable under Clean Energy Act limits.

Portfolio 3 was the least favoured option, opposed by 66% and supported by only 25% of participants.

- **Additional Comments:** The most prevalent reason for opposition to this option was disagreement with gas-fired generation with its higher greenhouse gas (GHG) emissions (103). Secondary reasons included opposition to Site C (40).
- Among participants who agreed with this portfolio, the main reasons included support for the continued use of natural gas (25) and support for Site C (17).

Electricity Generation Options – Additional Comments

When asked if participants had any other comments about electricity generation resource options to meet customers' future electricity needs, the most common mentions include:

- promote solar energy
- provide incentives for renewable resources and feed-in tariffs
- promote wind generation

ELECTRIFICATION

Asked to rate their level of agreement with active promotion of electrification, a majority (58%) agreed with this approach, compared to 29% who disagreed.

- **Additional Comments:** Participants who agreed with this approach did so because it would decrease GHG emissions (45), because they supported the switch to electrification (37), and because they supported a proactive approach (25).
- Participants who did not support this approach cited the increased demand for electricity (28), the need for the technology of electric cars to improve (24), and the need for government and industry to be responsible for electrification, not BC Hydro (22) as reasons for disagreement.

TRANSMISSION PLANNING

About half (51%) of participants agreed with the proactive approach to planning transmission, while 28% were opposed. However, a significant minority (21%) neither agreed nor disagreed with this approach.

- **Additional Comments:** The main reason for endorsing the proactive approach to transmission planning was support for long-term planning (69). In addition, supporters of the proactive approach said it would be cheaper in the long run (22), would be worth the investment and would reduce environmental impacts (15).
- Participants who disagreed with this approach are concerned about risks of investing based on uncertain forecasts (41), thought there was a need to encourage more regional power generation (37), and were concerned that ratepayers should not bear transmission costs for private enterprise (35).

EXPORT MARKET POTENTIAL

Participants were divided on the enhanced export of clean electricity, with 48% opposing this approach and 44% agreeing.

- **Additional Comments:** Those who disagreed with this approach were most likely to mention the negative impacts of power generation on the environment (68), the need to ensure electrical sustainability within B.C. (66), and opposition to the involvement of IPPs (56).
- The economic benefits of this approach (36), ability to sell green electricity (31), and B.C.'s abundant supply of natural resources (19) were the primary reasons given by participants for endorsing this approach.

ADDITIONAL COMMENTS — OVERALL

Under an “Additional Comments” section of the Feedback Form, participants were invited to provide any further open-ended comments about electricity planning. The most common mentions include:

- Need to include alternative forms of generation
- Need to protect the environment
- Need for BC Hydro to be independent of the government

Written Submissions

Of the 51 written submissions received, the most common themes were:

- Include alternative forms of power generation/renewable resources (15 submissions)
- Encourage power conservation/create an energy conservation program (11 submissions)
- Don’t build dams/Site C/will damage the environment (8 submissions)

Key Theme Summary of Multi-Stakeholder Meetings

The following represents a review of the key themes from each of the 14 multi-stakeholder meetings to determine the most frequently mentioned topics. Stakeholder meetings took place in the following communities, listed in the order in which they were held: Victoria, Campbell River, Vancouver, Abbotsford, Kamloops, Terrace, Prince George, Fort St. John, Vernon, Castlegar, Fort Nelson and Cranbrook. The key themes are presented from most frequently to least frequently heard. It is important to note that this key theme summary represents a qualitative analysis of stakeholder meeting notes, as opposed to the quantitative analysis of feedback forms noted elsewhere in this report.

1. Conservation and Efficiency – Stakeholders suggested that BC Hydro should include a greater approach to conservation and efficiency in its Integrated Resource Plan, including a balance of incentives, codes and standards (a key theme at 10 meetings).

- A few participants suggested that more education and greater incentives are required to encourage energy conservation, particularly in areas of the province that do not experience the direct impacts of generation projects.
- A few participants cautioned BC Hydro against encouraging too many codes and standards, preferring that BC Hydro provide greater incentives for people to conserve electricity.
- Some participants expressed support for smart meters to encourage conservation. They also encouraged BC Hydro to use rate design or financial solutions to encourage conservation rather than legislation. Others opposed the two-step residential rate as a conservation measure.
- A few stakeholders expressed concern about a greater approach to conservation because they believe it puts a disproportionately higher burden on rural communities that do not have alternative energy choices. These participants also noted potential additional costs due to new codes and standards.

2. Electrification – Stakeholders expressed concerns with BC Hydro taking a proactive approach to electrification (a key theme at 10 meetings).

- Many participants voiced concern that a proactive approach to electrification could significantly increase demand for energy, which would require a significant new supply of energy such as large hydro, wind, run-of-river and other generation resources with attendant costs and environmental impacts.
- Several stakeholders had concerns about rural customers not being able to use electric cars because of the nature of the agricultural sector and the travel patterns of smaller, dispersed communities.
- A few stakeholders supported a proactive approach to electrification, suggesting that British Columbia and North America could benefit from the environmental benefits of reducing reliance on fossil fuels.

3. Transmission Planning – Participants were supportive of BC Hydro pursuing a proactive approach to planning and building transmission lines (a key theme at 9 meetings).

- Several stakeholders expressed a desire for BC Hydro to consider offsetting transmission costs by locating electricity generation facilities closer to the electricity demand. This would reduce the need for very long transmission lines.
- A few participants encouraged BC Hydro to consider increasing opportunities for communities to partner in the ownership of new electricity generation projects and transmission lines to encourage community support and to enhance community development.
- A few participants cited the benefits of proactive transmission planning as a way to reduce the environmental footprint of transmission lines.

4. Electricity Generation Options – Stakeholders did not express a preference for any of the three portfolio options (a key theme at 9 meetings).

- Several stakeholders acknowledged the need for additional energy capacity provided by large hydro such as Site C but encouraged BC Hydro to also include options such as small-and large-scale solar, geothermal and wind. Stakeholders encouraged BC Hydro to support opportunities for local, individual and community energy generation.
- Several stakeholders expressed a desire for BC Hydro to consider offsetting transmission costs by locating electricity generation facilities closer to the electricity demand. This would reduce the need for very long transmission lines.
- Some stakeholders in Fort St. John strongly opposed inclusion of Site C in any resource portfolio and suggested that natural gas could be a superior alternative, given its abundance in the Peace River region and its low cost relative to other resources.
- Other participants around the province said that BC Hydro should carefully balance the economic trade-offs associated with a portfolio, such as Portfolio 1, which has relatively more renewables, because it may not be as beneficial to British Columbians with relatively more private power production rather than public power production.

5. Export Market Potential – Participants supported clean electricity generation for the purpose of export, provided BC Hydro is first able to meet domestic electricity requirements (a key theme at 7 meetings).

- While many participants supported electricity generation for export, some participants also cautioned BC Hydro, expressing concerns that economic benefits may not be enough to justify the environmental and social impacts associated with building new electricity generation to meet additional export requirements.

Key Theme Summary of Open House Question & Answer Sessions

A summary of key themes from the open house question and answer sessions that took place in Fort St. John and Castlegar can be found starting on page 46. Question and answer sessions were held in these communities due to high interest and the volume of inquiries from the public and stakeholders.

Key Theme Summary of Webinar

Participants were given an opportunity to provide their comments on consultation topics and to ask questions. Full meeting notes and a summary of the key themes from the webinar can be found in Appendix 5 or online at www.bchydro.com/irp.

1. OVERVIEW – BC Hydro’s Integrated Resource Plan

1.1 Overview

The Integrated Resource Plan (IRP) is BC Hydro’s long-term plan for acquiring resources to meet customers’ needs for the next 20 years. It is guided by the government of British Columbia’s new *Clean Energy Act*, which came into effect in June 2010 and sets specific new energy objectives for BC Hydro with respect to its long-term electricity plan. BC Hydro has renewed its long-term plan at regular intervals. Most recently, it developed an Integrated Electricity Plan in 2006 and a Long-Term Acquisition Plan in 2008. Once developed, BC Hydro will renew the Integrated Resource Plan periodically.

The IRP, if approved by government, will set out a path for BC Hydro and will require key action to be taken over the next few years that will ensure customers’ needs can be met over the next 10 and 20 years. Any specific project that is later developed in response to the IRP will have its own individual design, consultation, permitting and approval process.

The Integrated Resource Plan will provide an analysis and outlook that can guide BC Hydro operations for two decades and beyond. It will include:

- A 20-year Base Resource Plan that sets out a mix of demand reduction and generation and transmission options that are able to fulfil the forecasted demand.
- Contingency Resource Plans that address the uncertainties inherent in long-term planning, such as higher than expected demand. Contingency resource plans put forth a range of alternative resource options that would be relied upon if conditions change significantly.
- A 30-year transmission plan.

This report summarizes feedback received from the public and stakeholders during the March/April 2011 consultation “Considering Our Clean Energy Future: Assessing and Evaluating Options”. During this phase of consultation BC Hydro asked the public, First Nations and stakeholders to consider relevant topics being addressed in the IRP. These topics included the approach to conservation and efficiency, electricity generation options, electrification, approaches to planning transmission, and export market potential.

1.2 Consultation Process

BC Hydro is consulting with First Nations, stakeholders and the public to develop a draft Integrated Resource Plan that responds to its service obligations, B.C.’s energy objectives and its obligations set out in the *Clean Energy Act*. The process for developing the Integrated Resource Plan includes three phases:

Technical Review and Foundation for Integrated Resource Planning (Fall 2010)

In the first phase of developing the IRP, BC Hydro focused on assembling key pieces of technical data necessary to construct a plan, and sought input from selected First Nations and stakeholders with regard to the design of the consultation process. BC Hydro also worked with its Electricity Conservation and Efficiency Advisory Committee as it constructed conservation plan options for energy conservation. During this phase, BC Hydro also updated its forecast of future electricity demand to establish the gap between future demand and existing and committed energy resources.

An IRP Technical Advisory Committee was established to assist BC Hydro in creating a plan through detailed technical advisory input and feedback. This advisory input is in addition to input provided by the public, First Nations and stakeholders through the province-wide consultation process.

Considering Our Clean Energy Future – Assessing and Evaluating Options (March/April 2011)

In the second phase of developing the IRP, BC Hydro used the technical data prepared in the fall to compare alternative ways of meeting growing demand and associated clean energy objectives. BC Hydro asked the public, First Nations and stakeholders to consider relevant topics being addressed in the IRP. These topics included the approach to conservation and efficiency, electricity generation options, electrification, approaches to planning transmission, and export market potential. As part of this phase, and in considering resource alternatives, BC Hydro is examining the Site C Clean Energy Project, a potential third dam and hydroelectric generating station on the Peace River in northeastern B.C. Input received through consultation will be considered along with technical, financial, environmental and economic development input as BC Hydro evaluates alternatives and drafts the Integrated Resource Plan.

Reviewing the Draft Integrated Resource Plan (Fall 2011)

In this final phase, First Nations, the public and stakeholders will be invited to provide their feedback on the draft Integrated Resource Plan. BC Hydro will consider this feedback as it prepares its final draft IRP for submission to government in early December 2011, after which government will review the plan and decide whether to approve it.

2. PUBLIC AND STAKEHOLDER CONSULTATION Considering Our Clean Energy Future (March – April 2011)

2.1 Purpose

The public and stakeholder consultation – Considering Our Clean Energy Future — was held from March 1 to April 30, 2011. This phase of consultation incorporates public and stakeholder input from the Technical Review and Foundation for Integrated Resource Planning, the previous phase of consultation, and is designed to consult the public and provincial stakeholders about topics being addressed in the draft Integrated Resource Plan.

2.2 Participation

- **723 total participants:**
 - o 357 people attended 14 stakeholder meetings
 - o 356 people attended 12 open houses
 - o 10 people attended 1 webinar
- **51 written submissions (fax, email and mail)**
- **400 feedback forms** were returned at stakeholder meetings, open houses, and by web, email, fax and mail (292 were received online and 108 in hard copy)

2.3 Public Notification

Public notice of opportunities to participate in the consultation was provided through a news release, newspaper ads, radio ads, email, phone calls, the BC Hydro website, social media (Twitter) and a BC Hydro bill insert.

- **Emails and Phone Calls:** Approximately **4,600 stakeholders** were emailed and called, inviting them to, and reminding them of, opportunities to participate in stakeholder meetings, public open houses and a webinar.
- **Print Ads:** Print ads, including the complete open house schedule, were placed in the following newspapers to notify the public and stakeholders of the consultation and invite them to attend open houses:
 - o *The Vancouver Sun* – February 26 and March 7, 2011
 - o *Victoria-Times Colonist* – February 26 and March 7, 2011
 - o *Campbell River Mirror* – February 25 and March 4, 2011
 - o *Abbotsford Times* – February 25 and March 11, 2011
 - o *Kamloops Daily News* – February 26 and March 14, 2011
 - o *Terrace Standard* – February 23 and March 16, 2011
 - o *Prince George Citizen* – February 24 and March 17, 2011
 - o *Northeast News* – February 21 and March 14, 2011
 - o *Vernon Morning Star* – February 27 and March 23 and 27, 2011
 - o *Castlegar News* – February 24 and March 24, 2011
 - o *Kootenay News Advertiser* – February 25 and April 1, 2011
 - o *Fort Nelson News* – March 30, 2011
 - o *Cranbrook Daily Townsman* – March 30, 2011

- **Radio Ads:** Radio ads ran on the following stations between February 28 and April 1, 2011, alerting local residents of the consultation and encouraging them to attend an open house:

Community	Radio Station
Victoria	CFAX-AM
Campbell River	CIQC-FM
Vancouver	CKNW-AM
Abbotsford	CKNW-AM
Kamloops	CHNL-AM
Terrace	CFTK-AM
Prince George	CKKN-FM
Fort St. John	CKFU-FM
Vernon	CKIZ-FM
Castlegar	CJAT-FM
Fort Nelson	CKRX-FM
Cranbrook	CHDR-FM

- **Bill Insert:** BC Hydro customers received a bill insert regarding the March/April 2011 IRP public and stakeholder consultation with their monthly statement between January and February 2011. Approximately 1.4 million residential customers received the insert, which included general information about the Integrated Resource Plan and encouraged people to visit the project website for more information about the consultation. The bill insert also included the complete open house schedule.
- **Social Media:** Those who follow BC Hydro’s corporate Twitter account received notifications throughout the consultation period, letting them know of ways to participate in the IRP consultation, when and where public open houses were being held, and how to access information on the BC Hydro website.

2.4 Consultation Topics¹

During this public and stakeholder consultation, BC Hydro sought public and stakeholder feedback on the following consultation topics:

- 1. Conservation and Efficiency:** The first and best way to meet our future electricity needs is to reduce demand through conservation and energy efficiency. Conservation occurs when customers change their behaviours, business operations, equipment purchases, or capital investment decisions in ways that reduce electricity use. Methods of conservation include programs, electricity rates and government regulations designed to encourage or require customers to conserve electricity. The current conservation and efficiency plan is designed to reduce the forecast growth in demand by 79% by 2020. This is above the new *Clean Energy Act* target of 66%. One of the important questions in the IRP is whether BC Hydro should target additional savings from conservation and efficiency over and above the current significant plan to reduce growth by 79% by 2020.
- 2. Electricity Generation Options:** While British Columbians are doing more than ever to conserve electricity, electricity use is expected to continue to increase over the coming decades due to growth in population and energy-intensive industries. BC Hydro will develop and analyze various portfolios (sets of resource options) that may be used to meet future electricity needs and clean energy objectives. Potential resource generation options include run-of-river hydro, biomass, wind, large hydroelectric with storage (Site C), natural gas, and emerging technologies, such as tidal and wave.
- 3. Electrification:** Electrification describes the process of switching from other fuel sources to electricity. For example, switching vehicles from petroleum to electric, or switching household heating or large industrial processes from natural gas to electric. Efficient electrification is one way of supporting the province's greenhouse gas emission reduction targets. The Integrated Resource Plan will consider how potential electrification can affect electricity demand over time and what measures BC Hydro may need to take to serve its customers.
- 4. Transmission Planning:** The transmission system, the essential link between electrical generators and energy consumers, is planned and designed to deliver energy efficiently and reliably. Because transmission lines require long lead times to plan and construct, the Integrated Resource Plan will assess the demand forecast and the transmission options that will most effectively meet those demands over the next 30 years.
- 5. Export Market Potential:** While BC Hydro currently trades electricity when it has a short-term surplus, the B.C. *Clean Energy Act* includes the objective that the province be a net exporter of clean or renewable power. The Integrated Resource Plan will assess the export market potential, including the share of the clean energy market that B.C. could expect to capture, and make recommendations to the provincial government about what actions, if any, are required now.

¹ For a full description of consultation topics, please go to www.bchydro.com/irp to find the consultation workbook.

2.5 Consultation Methods

Public and stakeholder consultation materials were available online at www.bchydro.com/irp on March 1, 2011. Input and feedback were collected through the following methods.

2.5.1 Workbook and Feedback Form

A 40-page consultation workbook explained the purpose and scope of the public and stakeholder consultation — Considering Our Clean Energy Future — and included a feedback form to assist in gathering input. A copy of the workbook and feedback form can be found in Appendix 6 or online at www.bchydro.com/irp.

The workbook also provided participants with information and background about the following:

- The Integrated Resource Plan and BC's Hydro's obligations as set out in the new *Clean Energy Act*
- How much electricity British Columbians will need over the next 20 years, the gap between existing supply and demand, and considerations about how to close that gap
- A look at potential future resource options
- Integrated resource planning and how BC Hydro is addressing B.C.'s future electricity needs
- Public and Stakeholder Consultation Program
- Consultation topics

A feedback form was included in the workbook to gather input on the consultation topics for participants to provide additional comments.

Feedback was also gathered through:

- stakeholder meetings
- open houses
- online feedback form
- webinar
- email
- mail
- phone

2.5.2 Web-Based Consultation

All consultation materials were available on the web (www.bchydro.com/irp), including the feedback form, which could be completed and submitted directly from the IRP website or faxed to BC Hydro. Of the 400 feedback forms received, 292 were received online through the web-based feedback form.

2.5.3 Multi-Stakeholder Meetings

357 people attended 14 multi-stakeholder meetings.

As part of the consultation, BC Hydro hosted 14 multi-stakeholder meetings across the province, which were facilitated by Kirk & Co. Consulting Ltd. The meetings were held on the following dates and are listed in chronological order.

- | | | |
|-----|----------------|---------------------------------|
| 1. | March 9, 2011 | Victoria 1:00 – 3:00 p.m. |
| 2. | March 10, 2011 | Campbell River 1:00 – 3:00 p.m. |
| 3. | March 15, 2011 | Vancouver 9:00 – 11:00 p.m. |
| 4. | March 15, 2011 | Vancouver 1:00 – 3:00 p.m. |
| 5. | March 16, 2011 | Abbotsford 1:00 – 3:00 p.m. |
| 6. | March 17, 2011 | Kamloops 1:00 – 3:00 p.m. |
| 7. | March 22, 2011 | Terrace 1:00 – 3:00 p.m. |
| 8. | March 23, 2011 | Prince George 1:00 – 3:00 p.m. |
| 9. | March 24, 2011 | Fort St. John 1:00 – 3:00 p.m. |
| 10. | March 24, 2011 | Fort St. John 3:30 – 5:30 p.m. |
| 11. | March 29, 2011 | Vernon 1:00 – 3:00 p.m. |
| 12. | March 30, 2011 | Castlegar 4:30 – 6:30 p.m. |
| 13. | March 31, 2011 | Fort Nelson 1:00 – 3:00 p.m. |
| 14. | April 7, 2011 | Cranbrook 1:00 – 3:00 p.m. |

A Kirk & Co. Consulting Ltd. facilitator and IRP project staff attended the multi-stakeholder meetings. At each meeting, IRP project staff gave a short presentation on the IRP and consultation topics. Workbooks and feedback forms were made available to all participants.

Participants were given an opportunity to provide their comments on the consultation topics and to ask questions of IRP staff. Key themes from each meeting are summarized in this report, beginning on page 39. Full notes from the meetings can be found in Appendix 3 or online at www.bchydro.com/irp.

2.5.4 Public Open Houses

12 public open houses were held as part of the consultation. During each open house, participants engaged in one-on-one or small-group discussions with members of the IRP team. A moderated question and answer session was facilitated by Kirk & Co. Consulting Ltd. at the Fort St. John and Castlegar open houses.

356 people attended the 12 open houses. Key themes of the question and answer sessions are summarized in this report beginning on page 45. Full meeting notes from the question and answer sessions can be found in Appendix 4 or online at www.bchydro.com/irp.

Community	Date	Time	Location
Victoria	Wednesday, March 9	6:00 - 9:00 p.m.	Hotel Grand Pacific
Campbell River	Thursday, March 10	6:00 - 9:00 p.m.	Coast Discovery Inn & Marina
Vancouver	Tuesday, March 15	6:00 - 9:00 p.m.	Simon Fraser University Harbour Centre
Abbotsford	Wednesday, March 16	6:00 - 9:00 p.m.	Clearbrook Community Centre
Kamloops	Thursday, March 17	6:00 - 9:00 p.m.	Ramada Kamloops
Terrace	Tuesday, March 22	6:00 - 9:00 p.m.	Terrace Sportsplex
Prince George	Wednesday, March 23	6:00 - 9:00 p.m.	Ramada Prince George
Fort St. John	Thursday, March 24	6:00 - 9:00 p.m.	Quality Inn Northern Grand
Vernon	Tuesday, March 29	6:00 - 9:00 p.m.	Best Western Vernon Lodge
Castlegar	Wednesday, March 30	6:00 - 9:00 p.m.	Castlegar & District Community Complex
Fort Nelson	Thursday, March 31	6:00 - 9:00 p.m.	Woodlands Inn
Cranbrook	Thursday, April 7	6:00 - 9:00 p.m.	Prestige Rocky Mountain Resort and Conference Centre

2.5.5 Webinar

10 people attended the webinar that took place on April 4 from 11:30 a.m. – 1:00 p.m. A Kirk & Co. Consulting Ltd. facilitator and IRP staff attended the webinar. A BC Hydro employee from the IRP team gave a short presentation on the IRP and consultation topics. Workbooks and feedback forms were made available to all participants electronically.

Participants were given an opportunity to provide their comments on consultation topics and to ask questions. Full meeting notes from the webinar can be found in Appendix 5 or online at www.bchydro.com/irp.

2.6 How Feedback Will Be Used

Input from this phase of the public and stakeholder consultation will be considered along with technical, financial, environmental, and economic development input as BC Hydro evaluates alternatives and drafts the Integrated Resource Plan.

3. DETAILED FINDINGS – Public and Stakeholder Consultation (March – April 2011)

The following provides a summary of input received through the feedback forms.

Synovate Ltd., a professional market research firm, was commissioned by Kirk & Co. Consulting Ltd. and BC Hydro to help develop the consultation feedback form, host the online feedback form, and tabulate and analyze all feedback forms and written submissions received during the consultation period.

400 completed feedback forms were received between March 1 and April 30, 2011 (292 were received online and 108 in hard copy). In addition, 51 written submissions were received and those responses were coded and analyzed in conjunction with the tabulated feedback forms.

The following table shows the number of completed feedback forms and submissions received as part of this consultation.

Feedback Forms	Number Received
Open Houses	32
Multi-Stakeholder Meetings	31
Mail-In (including fax and drop-off)	45
Online	292
Total Feedback Forms	400
Written Submissions	51
Total Written Submissions	51

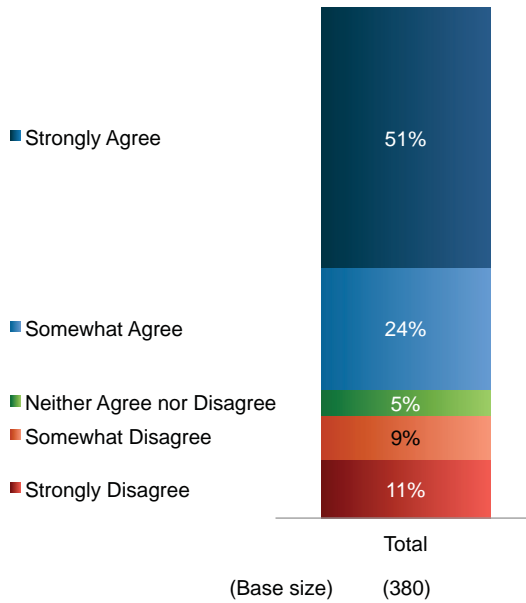
3.1 Feedback Forms

In the following summary, feedback form results are shown graphically with key themes from the additional comments section for each question. The number of participants who responded to each question is indicated below each graph. Totals may not add up due to rounding.

The views represented in this report reflect the priorities and concerns of consultation participants. They may not be representative of the views of British Columbians and other stakeholders because participants self-selected into consultation. Although feedback form results are presented in the form of percentages, there are no margins of error for this data because there is no probability sampling. The sample in question is based on self-selection, for which a sampling error cannot be measured.

Conservation and Efficiency

Q1 Please indicate your level of agreement with this greater conservation and efficiency approach. In developing your response, please consider the summary to the left, including the trade-offs and other factors that have been provided.
 (Question as it appears in the workbook on page 28.)



- Three-quarters (75%) of participants stated they “agree” (strongly or somewhat) with the greater conservation and efficiency approach to meeting future customer demand for electricity, including half who stated they “strongly agreed”.
- 20% of participants disagreed with this approach, while 5% held neutral opinions.

Conservation and Efficiency

Additional Comments

Q1 Please provide any comments in the space provided below to explain the reasons for your agreement or disagreement.

	Total
Base (Among Those Answering)	288 #
Positive	193
Focus on power conservation	90
Expand energy efficiency programs/PowerSmart/energy reduction	65
Include alternate forms of power generation/renewable resources	37
Building codes/efficiency standards must be improved	30
In favour of two-tier plan/reward efficiency	29
Negative	203
There need to be incentives for efficiency upgrades	30
People will not conserve power if rates do not increase/rates must reflect true costs	30
No Smart Meters	27
Disagree with contracting IPPs	25
Doing all we can to save/maximize efficiency now	17

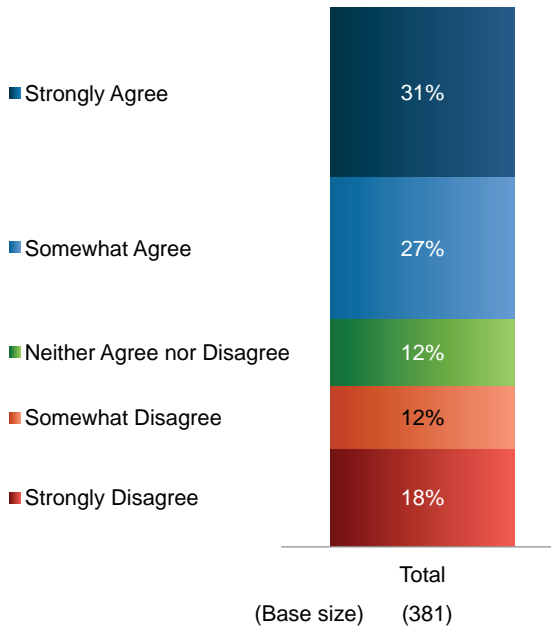
- Support for the approach was mainly attributed by participants to its focus on conservation (90 mentions), energy efficiency (65), and alternative forms of power generation (37).
- The most common reason for disagreeing with the approach was the need for efficiency upgrade incentives (30) and that rates must reflect true costs (30).
- Others also mentioned not wanting smart meters (27) as a reason for disagreeing with this greater conservation and efficiency approach.

Electricity Generation Options — Portfolio 1

Portfolio 1: Renewable Mix

This portfolio includes a mix of renewable resources such as wind, run-of-river and biomass from Independent Power Producers. The Site C Project is specifically excluded.

Q2.1 Please indicate your level of agreement with Portfolio 1 — Renewable Mix. In developing your response, please consider the summary to the left, including the trade-offs and other factors that have been provided. (Question as it appears in the workbook on page 29.)



- Portfolio 1 is endorsed by 58% of participants, including 31% who strongly agreed with this option. 30% of participants disagreed with this option and 12% were neutral.

Electricity Generation Options — Portfolio 1

Additional Comments

Q2.1 Please provide any comments in the space provided below to explain the reasons for your agreement or disagreement.

	Total
Base (Among Those Answering)	139 #
Positive	150
Incorporate biogas/solar/other energy generation into the portfolio	80
Uses a diverse mix of renewable resources	61
It is the best choice for the environment	27
Agree with the exclusion of Site C Project	21
Creates job opportunities/economic diversity	21
Negative	209
Dislike run-of-river projects/bad for the environment/high cost	53
Disagree with use of IPPs	47
Site C/Hydro power should be considered	39
Expensive/will increase costs	36

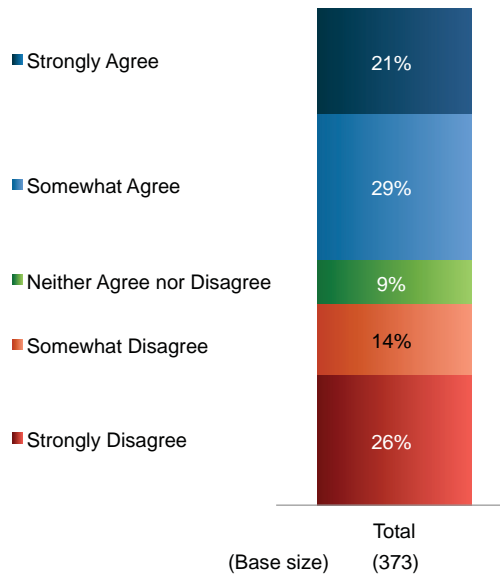
- Agreement with Portfolio 1 was attributed by participants primarily to its incorporation of alternative energy sources (80 mentions) and diverse mix of renewable resources (61). Others believed that this renewable mix portfolio is the best choice for the environment (27).
- Participants who disagreed with this portfolio expressed concern about the negative consequences of run-of-river projects (53) and use of IPPs (47) and thought that Site C should be considered in this option (39).

Electricity Generation Options — Portfolio 2

Portfolio 2: Renewable Mix with Site C

This portfolio includes a mix of renewable resources that include Site C along with wind, run-of-river and biomass projects from Independent Power Producers.

Q2.2 Please indicate your level of agreement with Portfolio 2 — Renewable Mix with Site C. In developing your response, please consider the summary to the left, including the trade-offs and other factors that have been provided. (Question as it appears in the workbook on page 30.)



- 50% of participants agreed with Portfolio 2, including 21% who “strongly agreed”. A total of 40% of participants somewhat disagreed and strongly disagreed.

Electricity Generation Options — Portfolio 2

Additional Comments

Q2.2 Please provide any comments in the space provided below to explain the reasons for your agreement or disagreement.

	Total
Base (Among Those Answering)	245 #
Positive	92
In favour of Site C	47
Good diversity/most balanced approach	18
Has the least impact to the environment/lowest GHG emissions	17
Reliable/low risk/acts as storage/requires less backup	16
Negative	180
Do not build Site C	71
Not an environmentally friendly option	48
Not diverse/should consider other forms of renewable resources	37
It will negatively affect the people in the Peace region/the First Nations are against it	31
It will destroy agricultural land	25
Expensive	22

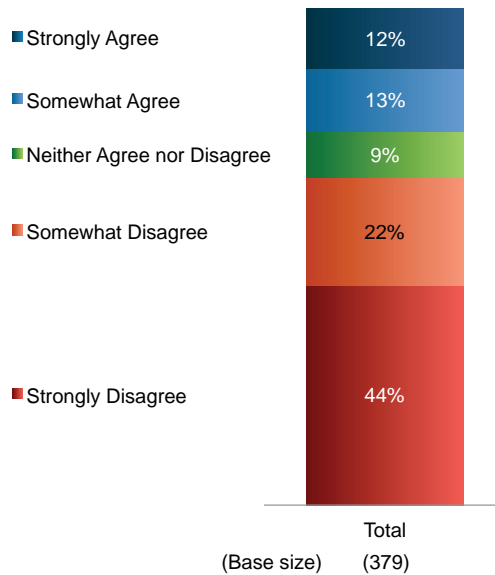
- Participants who support Portfolio 2 did so mainly because they are in favour of Site C (47 mentions) and the renewable mix with Site C portfolio provided the most balanced approach (18).
- Conversely, those who disagreed with this option are most likely to mention Site C (71 mentions) as their reason for opposition. Others believed it is not environmentally friendly (48).

Electricity Generation Options — Portfolio 3

Portfolio 3: Renewable Mix with Site C and Gas-Fired Generation

This portfolio includes Site C, other potential renewable resources such as wind and run-of-river from Independent Power Producers, and gas-fired generation allowable under Clean Energy Act limits.

Q2.3 Please indicate your level of agreement with Portfolio 3 — Renewable Mix with Site C and Gas-Fired Generation (within 93% *Clean Energy Act* target). In developing your response, please consider the summary to the left, including trade-offs and other factors that have been provided. (Question as it appears in the workbook on page 31.)



- Portfolio 3 received the lowest level of endorsement of all three options, with two-thirds (66%) of participants disagreeing with it. 25% of participants agreed with the portfolio overall, including 12% who strongly agreed, while 9% were neutral.

Electricity Generation Options — Portfolio 3

Q2.3 Please provide any comments in the space provided below to explain the reasons for your agreement or disagreement.

	Total
Base (Among Those Answering)	242 #
Positive	69
Support the use of natural gas/already have infrastructure in place	25
In favour of Site C	17
Burrard Thermal/gas should be retained as a backup/for emergencies	13
Agree with wind generation	13
Lower cost/cost-effective	12
Negative	197
Disagree with gas-fired generation/higher GHG emissions/not sustainable	103
Do not build Site C	40
Fluctuations in natural gas prices/can rise in the future	28

- The most prevalent reason for opposition to this option was disagreement with gas-fired generation with its higher GHG emissions (103 mentions). Secondary reasons included opposition to Site C (40).
- Among participants who agreed with this portfolio, the main reasons given included support for the continued use of natural gas (25 mentions) and support for Site C (17).

Electricity Generation Options — Additional Comments

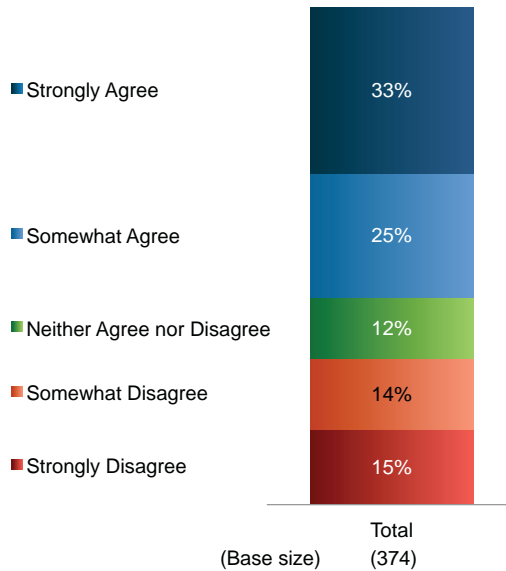
Q2.4 Do you have any other comments about electricity generation resource options to meet customers’ future electricity needs? (Please provide any comments in the space provided.)

	Total
Base (Among Those Answering)	269 #
Promote solar energy	69
Provide incentives for use of renewable resources/Feed-in tariff program/encourage small generators	52
Promote wind generation	41
Encourage power conservation/usage reduction	38
Promote renewable/green energy production/eliminate fossil fuels	29
Build Site C/hydro projects/dams	27
Encourage regional power production	23
Minimize damage to the environment	23
Promote tidal generators	22
Promote geothermal energy	22

- Participants were given an opportunity to provide additional comments regarding electricity resource options in an open-ended question. Of 269 participants who did so, the most frequent suggestions included promoting solar energy (69 mentions), providing incentives for renewable resources and/or a feed-in tariff to encourage small generators (52), promoting alternative sources of energy such as wind generation (41), and encouraging conservation (38).

Electrification

Q3 Please indicate your level of agreement with this approach to electrification that involves active promotion by BC Hydro. In developing your response, please consider the summary to the left, including as well as the trade-offs and other factors that have been provided (Question as it appears in the workbook on page 32).



- A majority (58%) endorsed this approach, including 33% who strongly agreed with it. 29% of participants disagreed with this approach and 12% were neutral toward it.

Electrification

Additional Comments

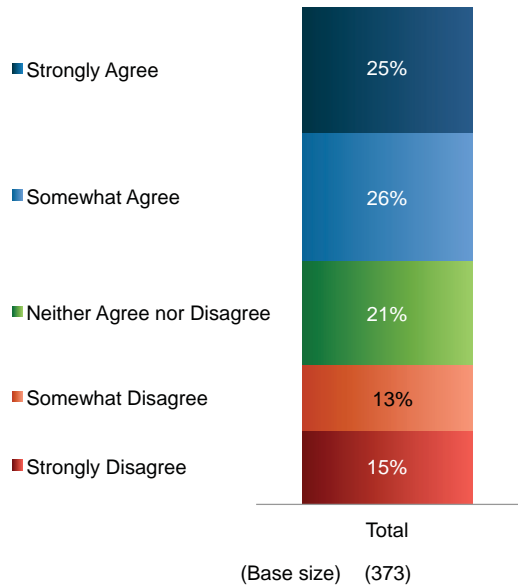
Q3 Please provide any comments in the space provided below to explain the reasons for your agreement or disagreement.

	Total
Base (Among Those Answering)	252 #
Positive	99
It will decrease GHG emissions/better for the environment	45
I support the switch to electrification/electric cars are a must	37
Be proactive/actively promote this direction	25
Create an infrastructure to support electric vehicles/can be used as power storage	14
Benefits will outweigh the costs/increased electricity rates are acceptable	12
Negative	175
It will increase the demand for electricity	28
There are problems with electric vehicles/current technology is better	24
BC Hydro should not be responsible for electrification/governments/industry should be involved	22
Concentrate on power conservation/efficiency	21

- Participants who agreed with the electrification approach did so primarily because it would decrease GHG emissions (45 mentions), and because they supported the switch to electrification in general (37), and they actively support a proactive approach (25).
- Participants who did not support this approach cited the increased demand for electricity (28), the need for technology of electric cars to improve (24), and the need for government and industry to be responsible for electrification, not BC Hydro (22), as reasons for disagreement.

Transmission Planning

Q4 Please indicate your level of agreement with this proactive approach to transmission planning. In developing your response, please consider the summary to the left, including the trade-offs and other factors that have been provided. (Question as it appears in the workbook on page 33.)



- About half (51%) of participants agreed with the proactive approach to planning transmission. 28% disagreed with it and over one in five (21%) neither agreed nor disagreed with this approach.

Transmission Planning

Additional Comments

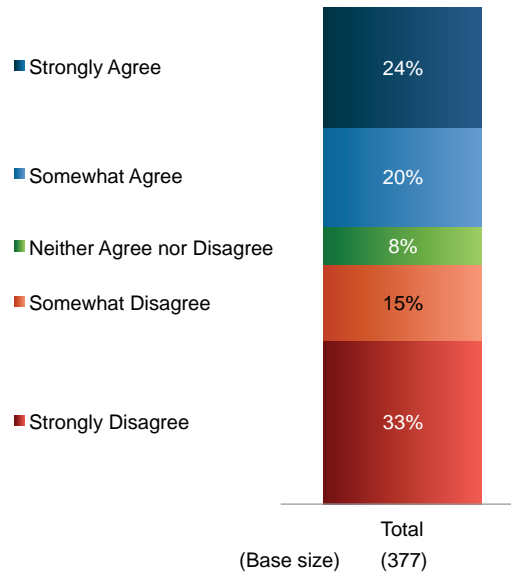
Q4 Please provide any comments in the space provided below to explain the reasons for your agreement or disagreement.

	Total
Base (Among Those Answering)	237 #
Positive	99
Be proactive/plan for the long term	69
Cheaper in the long run/worthwhile investment	22
Reduce environmental impact	15
It will promote economic growth/development	12
There is a need for power/some areas are not served	10
Negative	148
Risky investment/unsure about the reliability of forecast demands/technological changes	41
Encourage regional power production/a cluster transmission system	37
Ratepayers should not bear the costs/transmission costs for private enterprise	35
Reduce/eliminate negative impacts to the environment	18

- The main reason given for endorsing the proactive approach to transmission planning was support for long-term planning (69). In addition, supporters of the proactive approach said it would be cheaper in the long run, worth the investment (22) and reduce environmental impacts (15).
- Participants who disagreed with this approach were concerned about the risks of investing based on uncertain forecasts (41), thought there was a need to encourage more regional power generation (37), and were concerned that ratepayers should not bear transmission costs for private enterprise (35).

Export Market Potential

Q5 Please indicate your level of agreement with this export approach. In developing your response, please consider the summary to the left, including the trade-offs and other factors that have been provided (Question as it appears in the workbook on page 34).



- Opinion was almost evenly divided between participants who agreed with the enhanced export approach and those who disagreed with it. 48% opposed this approach while 44% supported it. The remaining 8% were neutral.

Export Market Potential

Additional Comments

Q5 Please provide any comments in the space provided below to explain the reasons for your agreement or disagreement.

	Total
Base (Among Those Answering)	272 #
Positive	77
Provide economic benefits/additional revenue	36
It can be sold as green electricity/will reduce GHGs/other pollutants	31
B.C. has an abundant supply of natural resources/It is a product B.C. can sell	19
Negative	207
Power generation/transmission has negative impact on the environment	68
Reduce focus on power exports/ensure electrical sustainability within B.C.	66
Disagree with the use of IPPs	56
Only export surplus/don't increase power generation for export	39
More analysis is needed/ensure environmental standards are met	25

- Participants who disagreed with this approach were most likely to mention the negative impacts of power generation on the environment (68), the need to ensure electrical sustainability within B.C. (66), and opposition to the involvement of IPPs (56).
- The economic benefits of this approach (36 mentions), the ability to sell green electricity (31), and B.C.'s abundant supply of natural resources (19) were the primary reasons given by participants for endorsing this approach.

Integrated Resource Plan

Additional Comments — Overall

Please provide any additional comments.

	Total
Base (Among Those Answering)	204 #
Include alternate forms of power generation/ renewable resources	48
Thanks for the opportunity to participate	32
Protect the environment/do not compromise future generations	22
BC Hydro needs to be independent of the government/work for the best interest of British Columbians	18
Encourage power conservation/create an energy conservation program	18
BC Hydro needs to continue to be proactive	15
No Smart Meters/no wireless meters/concerns about radiation	14
Lower rates/ensure power is affordable	13
The consultation process is flawed	13

- Among the 204 participants who provided open-ended feedback under an “Additional Comments” section of the feedback form, the most frequent comments were to include alternative forms of power generation (48) and the need to protect the environment (22).

3.2 Written Submissions (fax, email, phone and mail)

Open-ended feedback was also received in the form of 51 written submissions. The most common themes were:

- Include alternative forms of power generation/renewable resources (15 submissions)
- Encourage power conservation/create an energy conservation program (11 submissions)
- Don’t build dams/Site C/will damage the environment (8 submissions)

3.3 Multi-Stakeholder Meetings — Key Themes Summary

The following represents the key themes from each of the multi-stakeholder meetings. It is important to note that this key theme summary represents a qualitative analysis of stakeholder meeting notes, as opposed to the quantitative analysis of feedback forms noted above.

1. March 9, 2011 – Victoria Multi-Stakeholder Meeting

- **Conservation and Efficiency** – While acknowledging additional codes and standards, reduced consumption and higher deliverability risk, participants encouraged BC Hydro to take a greater conservation approach.
- **Electricity Generation Options** – While acknowledging the need for additional energy capacity provided by large hydro facilities such as the proposed Site C, gas plant capacity or capacity provided by pump storage, participants encouraged BC Hydro to include more innovative renewable energy projects such as electricity generation options including small-and large-scale solar, geothermal and wind.
- **Transmission Planning**– Participants encouraged BC Hydro to consider increasing opportunities for communities to be partners in the ownership of new electricity generation projects such as transmission lines, wind projects or small hydro. This could encourage community support for the development of new electricity and transmission and to enhance community economic development.
- **Electrification** – Participants said they would like BC Hydro to include a more proactive approach to electrification in the Integrated Resource Plan so that British Columbia and North America could gain from the environmental benefits of reducing reliance on fossil fuels.

2. March 10, 2011 – Campbell River Multi-Stakeholder Meeting

- **Local Community-Based Supply Network and Electricity Generation Options** – While appreciating the opportunity to provide input on large-scale generation options, participants said they would like BC Hydro to encourage and support opportunities for individual and community energy generation such as solar or small wind projects.
- **Conservation and Efficiency** – While acknowledging the importance of conservation measures across the province, participants encouraged BC Hydro to focus on practicality and workability of proposed programs and products to maximize adoption by the broad population.
- **Transmission Planning** – Participants encouraged BC Hydro to accelerate plans for transmission to the North Island to ensure reliability and support economic development.

3. March 15, 2011; 9:00 – 11:00 a.m. – Vancouver Multi-Stakeholder Meeting

- **Conservation and Efficiency** – Participants said that commercial and industrial energy users should be subject to higher rates and regulations that require them to increase their conservation efforts.
- **Export Market Potential** – Participants commented that BC Hydro customers may not bear the risks of the potential direct costs of export, but said that ratepayers could bear the risk of additional costs associated with export.

4. **March 15, 2011; 1:00 – 3:00 p.m. – Vancouver Multi-Stakeholder Meeting**

- **Conservation and Efficiency** – Participants said that BC Hydro should pursue a greater conservation and efficiency approach, adding that harmonization of codes and standards, particularly between the provincial government and local governments, would be needed to eliminate barriers to more conservation.
- **Electricity Generation Options** – Participants said that BC Hydro should carefully balance the economic trade-offs associated with preferred portfolios. Participants added that Portfolio 1, which has relatively more renewables, may not be as beneficial to British Columbians because it represents relatively more private power production rather than public power production. Other considerations regarding a portfolio with relatively more IPPs, such as Portfolio 1, included concern about a perceived lack of incentive for good maintenance of IPP electricity generation facilities and concern that BC Hydro should own the residual rights to IPP projects, once contract terms are completed.
- **Electrification** – Some participants were supportive of BC Hydro including a more proactive approach to electrification, while others expressed a concern that electrification would increase electricity demand so much that B.C. would require significant additional supply with attendant additional costs and environmental impacts.
- **Transmission Planning** – Participants said that BC Hydro should engage in better, longer-term planning regarding transmission requirements, including consideration of the benefits of creating transmission regions; some focused on gas, which may need relatively less transmission, and others focusing on electrification, which may need relatively more transmission. Participants asked BC Hydro to consider both local and provincial interests when planning transmission.

5. **March 16, 2011 – Abbotsford Multi-Stakeholder Meeting**

- **Conservation and Efficiency** – Participants said BC Hydro should take a greater conservation and efficiency approach, including a balance of incentives, codes and standards. They cautioned BC Hydro against encouraging too many additional codes and standards, preferring that BC Hydro provide greater incentives for people to conserve electricity.
- **Electricity Generation Options** – Participants suggested BC Hydro put more emphasis on air shed impacts when considering electricity generation options. In relation to Site C, the notion was expressed that the Fraser Valley produces the majority of British Columbia food; therefore, it could be reasonable to expect that another region, such as the Peace River, could supply the majority of British Columbia’s electricity.
- **Electrification** – Participants expressed concern that a proactive approach to electrification could significantly increase demand for energy, which would require a significant new supply of energy such as large hydro, wind, run-of-river and other generation resources with attendant costs and environmental impacts.
- **Transmission Planning** – Participants said that planning ahead and taking a proactive approach to transmission is worth considering so that BC Hydro could benefit from cheaper land acquisition costs for transmission rights-of-way.
- **Export Market Potential** – Participants cautioned BC Hydro against pursuing export market potential over and above the current approach, citing concerns that the economic benefits may not justify the additional environmental and social costs of building new electricity generation to meet new export requirements.

6. **March 17, 2011 – Kamloops Multi-Stakeholder Meeting**

- **Electricity Choice and Rates** – Participants expressed concern about increasing electricity rates, noting that customers in the North Thompson region do not have access to alternatives such as natural gas and therefore have higher energy costs than more urban areas such as the Lower Mainland. Other participants said that the recently introduced two-step conservation rate is improving conservation because the payback is higher, improving the business case for conservation.
- **Conservation and Efficiency** – Participants suggested that BC Hydro should be cautious about including a greater approach to conservation and efficiency in the Integrated Resource Plan because it puts a proportionately higher burden on rural communities that do not have alternative energy choices. In addition, they expressed concern about the additional costs due to new codes and standards, particularly in the building industry.
- **Electricity Generation Options** – Participants expressed mixed views about private ownership of power generation. Several participants expressed the view that residential customers should not have to pay more for electricity per kilowatt hour than industrial users.
- **Electrification** – Some participants said that BC Hydro should pursue a more proactive approach to electrification as long as the Integrated Resource Plan also includes greater incentives for consumers to reduce their use of high-consumption appliances and electronics. Other participants thought BC Hydro should continue to be responsive to electrification. Many participants reinforced that rural customers may not have the same opportunities to use electric cars, or otherwise engage in electrification of the economy, because of the nature of the agricultural sector and of smaller, more dispersed communities.
- **Transmission Planning** – Participants said that BC Hydro should take a more proactive approach to transmission, rather than a responsive approach, including more consideration for “over-building” transmission to encourage economic development in rural areas.
- **Export Market Potential** – Participants said that BC Hydro should be cautious about pursuing clean generation for the purpose of exporting, given the potential environmental effects of the additional electricity supply required. Participants acknowledged the potential economic and social benefits of exports, but reinforced the need to meet domestic needs first.

7. **March 22, 2011 – Terrace Multi-Stakeholder Meeting**

- **Conservation and Efficiency** – Participants suggested that BC Hydro should include a greater approach to conservation and efficiency in its Integrated Resource Plan, including additional codes and standards.
- **Electricity Generation Options** – Some participants asked if BC Hydro could improve incentives to encourage regional production of independent renewable power projects.
- **Electrification** – Some participants expressed concern that a proactive approach to electrification could increase the electricity supply gap, creating the need for more electricity generation and transmission with attendant expanded environmental footprints.
- **Transmission Planning** – Most participants said that BC Hydro should take a more proactive approach to transmission planning, which would reduce the environmental footprint through better planning and avoidance of unnecessary lines.
- **Export Market Potential** – Some participants said that BC Hydro should produce the maximum power possible to maximize revenue benefits for BC Hydro customers and British Columbians. Some said that the provincial government was prohibiting BC Hydro from maximizing public power production, which produces energy at lower cost.

8. **March 23, 2011 – Prince George Multi-Stakeholder Meeting**

- **Conservation and Efficiency** – Participants were supportive of greater incentives for conservation but expressed concern about affordability of measures that might be enforced through legislation. Participants expressed support for Smart Meters as one way to encourage greater conservation. They also encouraged BC Hydro to use rate design or financial solutions to encourage conservation, rather than legislation. Participants were supportive of rate incentives but asked that BC Hydro include geographical considerations to reflect seasonal conditions.
- **Electricity Generation Options** – Some participants suggested that geothermal energy and biomass should be considered as an alternative to other technologies. Some participants encouraged BC Hydro to explore opportunities for distributed generation and feed-in tariffs. Participants expressed a desire for BC Hydro to consider offsetting transmission costs by locating generation closer to the load.
- **Electrification** – Some participants felt there is a contradiction between government’s desire to promote energy conservation and its interest in promoting electrification. Some participants warned BC Hydro about the impracticality of promoting electrification for transportation (vehicles) in the north, given the distances travelled.
- **Transmission Planning** – Most participants were supportive of BC Hydro pursuing a proactive approach to planning and building transmission lines to encourage the development of renewable energy projects. Some participants encouraged BC Hydro to develop a more integrated trade market within Western Canada to take advantage of existing facilities.
- **Export Market Potential** – Participants were generally in favour of BC Hydro pursuing electricity generation for the purpose of export as long as the environmental and social impacts on taxpayers are not prohibitive.

9. **March 24, 2011; 1:00 – 3:00 p.m. – Fort St. John Multi-Stakeholder Meeting**

- **Conservation and Efficiency** – Participants said that BC Hydro should include a greater approach to conservation in its Integrated Resource Plan, suggesting that increased application of mandatory codes and standards and additional use of higher electricity rates to encourage conservation would be useful in increasing conservation.
- **Electricity Generation Options** – Some participants strongly opposed inclusion of Site C in any resource portfolio included in the Integrated Resource Plan.
- **Electrification** – Some participants expressed concern that active promotion of electrification could increase demand for electricity, increasing the likelihood of developing Site C, which these participants strongly oppose.
- **Transmission Planning** – Participants were divided regarding whether BC Hydro should pursue a proactive approach to planning and building transmission lines. Some said they should respond to transmission needs as they arise and reduce the need for long transmission lines by developing electricity generation closer to energy demand centres. Others said BC Hydro needs to proactively plan and build transmission lines to encourage the development of renewable energy projects.
- **Export Market Potential** – Participants said they were not in favour of BC Hydro pursuing electricity generation for the purpose of export because they do not think the revenue and low-carbon benefits are worth the impacts to rivers and agricultural land that would result from developing resources needed to generate electricity.

10. March 24, 2011; 3:30 – 5:00 p.m. – Fort St. John Multi-Stakeholder Meeting

- **Conservation and Efficiency** – Participants suggested that more education and greater incentives are required to encourage energy conservation, particularly in areas of the province that do not experience direct impacts from generation projects. Some participants said BC Hydro should restructure industry rates to encourage more conservation.
- **Electricity Generation Options** – Some participants strongly opposed inclusion of Site C in any resource portfolio included in the Integrated Resource Plan. Some participants suggested that natural gas could be a superior alternative to Site C, given its abundance in the Peace River region and its low cost relative to other resources. Some participants encouraged BC Hydro to explore distributed generation options that would enable individuals and small business to generate their own energy.
- **Electrification** – Some participants expressed concern that a proactive approach to electrification could increase demand for electricity, increasing the likelihood of developing Site C, which some participants strongly oppose.
- **Export Market Potential** – Some participants said they were not in favour of BC Hydro pursuing electricity generation for the purpose of export because they are uncertain about the real benefits to taxpayers when weighed against the environmental impacts. Some participants were doubtful about BC Hydro’s ability to ensure that the heritage assets (including Site C) will only be for the benefit of British Columbia taxpayers.

11. March 29, 2011 – Vernon Multi-Stakeholder Meeting

- **BC Hydro and Fortis BC** – Some participants expressed concern with the lack of reliability of their electricity, particularly on Westside Road along Okanagan Lake. Participants suggested that BC Hydro and Fortis BC should work more co-operatively to improve reliability.
- **Conservation and Efficiency** – Some participants supported the use of electricity rates and tools, such as Smart Meters, to encourage conservation while others opposed the new two-step residential rate and proposed Smart Meters as a conservation measure.
- **Electricity Generation Options** – Participants said that they would like BC Hydro to plan for and support more local, distributed generation so that electricity is generated closer to where it is used.
- **Electrification** – Some participants supported BC Hydro including a proactive approach to electrification in the Integrated Resource Plan, while others said it was not BC Hydro’s mandate to promote electrification.
- **Transmission Planning** – Participants reinforced their desire that BC Hydro take a proactive approach and plan a system, including local service areas, where generation is developed closer to demand, reducing the need for long transmission lines.
- **Export Market Potential** – Participants said they would support electricity generation for export as long as British Columbia’s domestic needs are met first.

12. **March 30, 2011 – Castlegar Multi-Stakeholder Meeting**

- **Conservation and Efficiency** – Participants suggested that more a more aggressive approach to conservation should be considered, such as limiting available power or imposing regulations to limit frivolous use of power — particularly in areas of the province that do not experience direct impacts from generation projects.
- **Electricity Generation Options** – Participants encouraged BC Hydro to consider all costs of supply options, with greater consideration given to the environment. Some participants expressed concerns that restoration and compensation for impacts on fish and recreation had not been provided.
- **Export Market Potential** – Some participants said they were not in favour of BC Hydro pursuing electricity generation for the purpose of export because they are uncertain about the real benefits to taxpayers when weighed against the environmental impacts. Other participants were concerned about entering into long-term contracts that may limit access to power in later years when it is needed in B.C.

13. **March 31, 2011 – Fort Nelson Multi-Stakeholder Meeting**

- **Conservation and Efficiency** – Participants are supportive of BC Hydro’s current commitment to conservation, and are concerned about the potential financial investment BC Hydro might need to make to increase conservation and the potential additional costs for customers.
- **Transmission Planning** – Participants appeared generally supportive of the Northeast Transmission Line, but some encouraged BC Hydro to explore efficiency improvements in its transmission network system-wide to reduce the current rate of power loss (during transmission) estimated to be approximately 7%.
- **Export Market Potential** – Participants supported electricity generation for export provided BC Hydro is able to meet domestic electricity requirements.

14. **April 7, 2011 – Cranbrook Multi-Stakeholder Meeting**

- **Conservation and Efficiency** – Participants said they support BC Hydro including the existing conservation approach in the Integrated Resource Plan rather than the greater conservation approach. Participants were cautious about potential additional costs to customers that the more proactive conservation approach could create.
- **Electricity Generation Options** – Participants expressed a strong desire for BC Hydro to enhance its support for distributed generation rather than large-scale electricity generation. Participants said BC Hydro should encourage regional electricity generation, establishing regional generation targets, supported by incentives to develop regional solar energy, for example. Some participants expressed concern that wind and run-of-river projects create too many environmental impacts, while others said that wind and run-of-river are preferred by developers because they are more cost-effective.
- **Transmission Planning** – Some participants said BC Hydro should introduce a cost-recovery model, similar to local governments, so large operations that require new transmission pay the incremental cost of providing the electricity. A few participants said that BC Hydro should pay tax to local government for the land used for transmission lines because that land could be used by forestry or other commercial uses, producing tax revenue for local government.
- **Export Market Potential** – Participants were generally supportive of BC Hydro pursuing clean generation for export as long as domestic customers didn’t subsidize the additional electricity generation capacity. Some participants said BC Hydro’s export potential could be limited unless the provincial government negotiates a broader definition of clean and renewable electricity in some jurisdictions in the United States.

3.4 Open House Question and Answer Sessions — Key Theme Summary

The IRP Public and Stakeholder Consultation included 12 public open houses, which provided opportunities for the public to engage with the BC Hydro IRP team on a one-on-one basis while viewing display boards. In addition, the Fort St. John and Castlegar open houses included a one-hour moderated question and answer session.

1. March 24, 2011 — Fort St. John Open House

Demand for Electricity and the Supply Gap

- Some participants expressed concern about the way BC Hydro is portraying the gap between electricity supply and the forecasted demand for electricity over the next 20 years.
- It was suggested that the energy produced by the Columbia River should be included in the supply, which would reduce the gap and therefore reduce the need for additional supply, such as Site C, to fill the gap.

Electricity Generation Options

- Some participants strongly opposed inclusion of Site C in any resource portfolio included in the Integrated Resource Plan.
- Some participants suggested that natural gas could be a superior alternative to Site C, given its abundance in the Peace River region and its relatively low cost.
- Others suggested that geothermal energy should be developed by BC Hydro as a superior alternative to Site C.
- Participants expressed a desire for publicly developed and owned energy generation and said that the provincial government needs to expand BC Hydro's mandate to include responsibility for development of electricity generation options such as geothermal, solar, wind, biomass and other renewable energy options.
- Participants expressed a desire for BC Hydro to do more to develop electricity generation closer to where the energy is consumed.
- Participants said they think there is a contradiction in government policy between the desire to reduce the use of fossil fuels, while planning to encourage exploitation of natural gas in the Peace River region by providing electricity for natural gas extraction.

Transmission Planning

- Participants said BC Hydro should respond to transmission needs as they arise and reduce the need for long transmission lines by developing electricity generation closer to energy demand.

Export Market Potential

- Participants said they were not in favour of BC Hydro pursuing electricity generation for the purpose of export because they do not think the revenue and low-carbon benefits are worth the impacts to rivers and agricultural land that would result from developing resources needed to generate electricity, especially Site C.

Conservation and Efficiency

- Participants said that BC Hydro should provide more incentives to encourage greater conservation.

2. March 30, 2011 — Castlegar Open House

Conservation and Efficiency

- Several participants encouraged a more comprehensive approach to conservation, including a review of energy waste by municipalities. Street lights were cited as an example of potential savings through reduced hours or coverage. One participant worried that regardless of the incentives and pricing programs, people with means will not participate in conservation initiatives.

Electricity Generation Options

- Several participants encouraged BC Hydro to consider adding generating capacity to the Duncan Dam.

Export Market Potential

- Participants asked for more information about potential generation for export, and wondered if the Free Trade Agreement would oblige BC Hydro to continue to sell power regardless of market conditions and local requirements. Some participants were willing to consider generation for export but only if there was restoration and compensation for fish and wildlife.

Smart Meters

- Although BC Hydro is not the service provider in the region and will therefore not be installing Smart Meters, several participants expressed concern about the program being imposed on residents without consultation or consent.

3.5 Webinar Question and Answer Session

Ten people attended the webinar that took place on April 4 from 11:30 a.m. – 1:00 p.m. A Kirk & Co. Consulting Ltd. facilitator and IRP staff attended the webinar. A BC Hydro employee from the IRP team gave a short presentation on the IRP and consultation topics. Workbooks and feedback forms were made available to all participants electronically.

Participants were given an opportunity to provide their comments on consultation topics and to ask questions. Full meeting notes from the webinar can be found in Appendix 5 or online at www.bchydro.com/irp.

Appendices 1–9

Appendix 1: Pre-Consultation

Appendix 2: Consultation Terms of Reference

Appendix 3: Multi-Stakeholder Meeting Notes

Appendix 4: Open House Question and Answer Session Meeting Notes

Appendix 5: Webinar Meeting Notes

Appendix 6: Consultation Workbook and Feedback Form

Appendix 7: Stakeholder Email Invitation

Appendix 8: Newspaper Advertisements/Social Media Notification/Bill Insert

Appendix 9: Display Boards

