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Device	Recommended Browser
Laptop/desktop	Google Chrome, Mozilla Firefox or Microsoft Edge
iPhone/iPad	Safari
Android phone or tablet	Google Chrome

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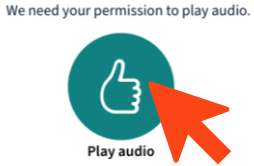

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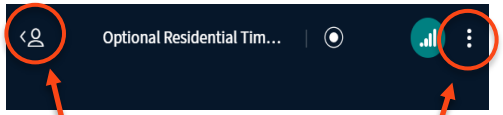

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Optional Residential Time-of-Use Rate Workshop

November 29, 2022

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Workshop Agenda

Time	Agenda Item	Presenter
9:00 – 9:05	Welcome	Cynthia Curll, Moderator
9:05 – 9:15	Opening Remarks	Keith Anderson, Vice President, Customer Service
9:15 – 9:35	Background and Context	Chris Sandve, Chief Regulatory Officer
9:35 – 9:55	Summary of engagement to date	Mario Laszczak, Customer Policy and Engagement Manager
9:55 – 10:45	Proposed Optional Time-of-Use Rate	Shiau-Ching Chou, Senior Regulatory Manager
10:45 – 11:00	Break	
11:00 – 11:30	Demand Side Management	Pat Mathot, Residential Marketing Manager
11:30 – 11:45	RIB Pricing Principles	Chris Sandve, Chief Regulatory Officer
11:45 – 12:00	Wrap Up and Next Steps	Chris Sandve, Chief Regulatory Officer

Objectives for today's session

- **Provide context and updates since we last met**
- **Provide a summary of engagement to date and insights**
- **Review new proposed optional residential TOU rate design**
  - Respond to questions and gather your feedback
- **Review Residential Demand Side Management programs**
  - These programs complement an optional time-of-use rate
- **Review our Residential Inclining Block (RIB) pricing principles proposal**
- **Review next steps**

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Opening Remarks

Keith Anderson, Vice President

Customer Service

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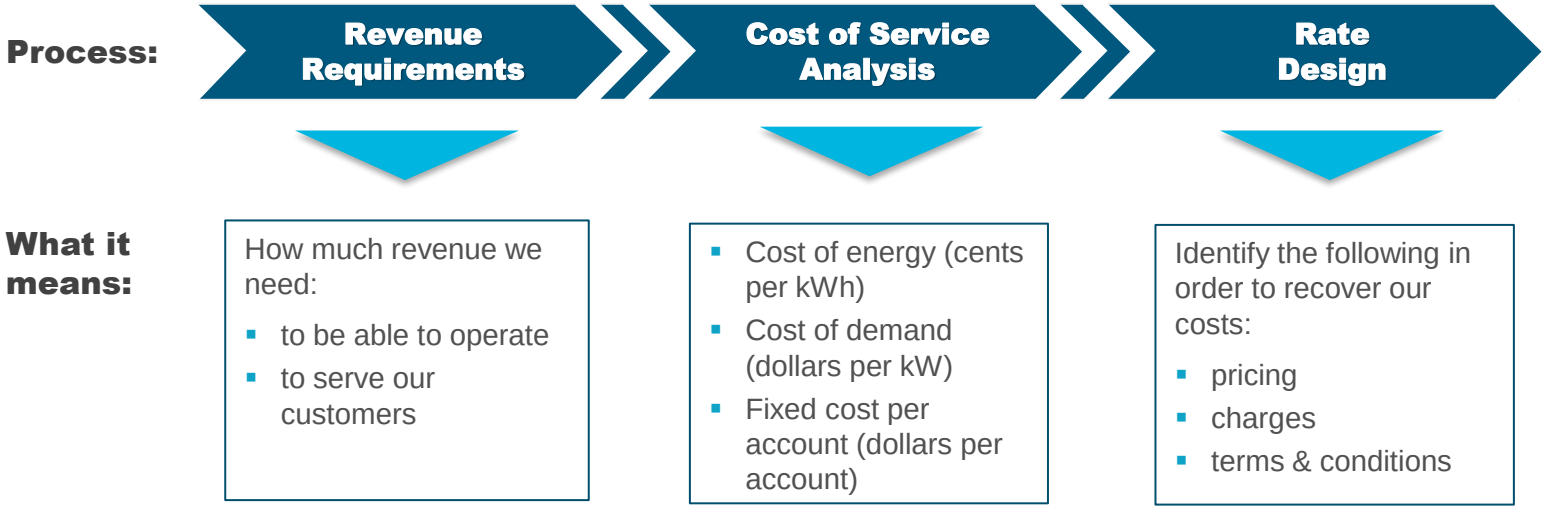
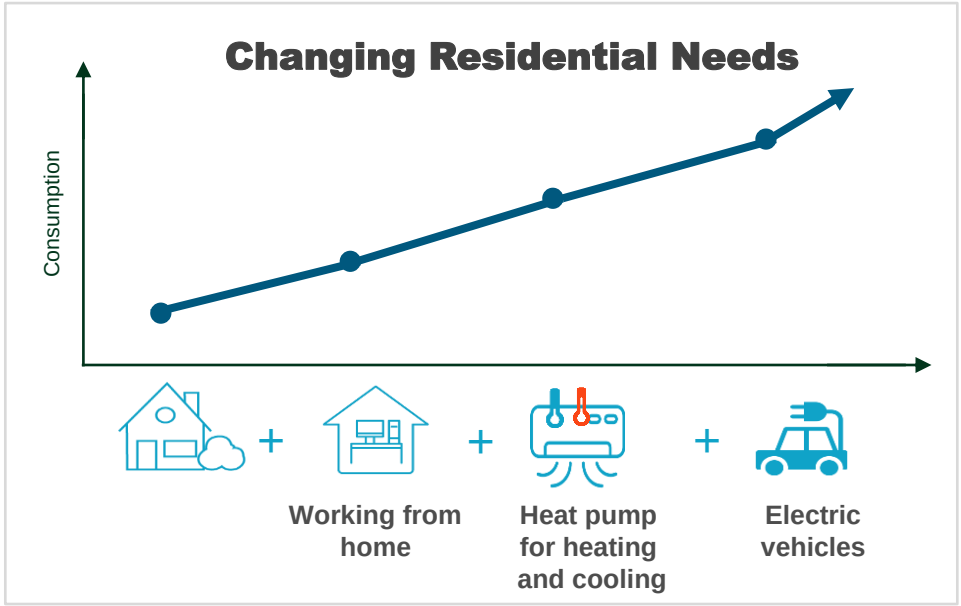
What is rate design?

Rate design refers to pricing, charges, and terms & conditions of service



Customers' energy needs are evolving

- Changes in customer energy needs and expectations
- Increased focus on climate change and environmental impacts
- Changes in BC Hydro's costs, such as a reduction in the cost of new energy supply, and the potential need to invest in transmission and distribution infrastructure



Background and Context

Chris Sandve

Chief Regulatory Officer

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BC Hydro's rate design objectives

Affordability

Measured by bill impacts associated with a rate design

Economic efficiency

Measured by how closely the energy charge reflects our marginal cost

Decarbonization

Measured by how much the rate design encourages switching from fossil fuels to clean electricity

Flexibility

Measured by the ability to respond to changes in the economic and policy environments and anticipate the need for greater product and service differentiation in rate design

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Why is BC Hydro Proposing An Optional Residential Time-of-Use Rate?

- Customer Choice
- Electric Vehicles
- 2021 Integrated Resource Plan

1. Pursue voluntary time-varying rates supported by demand response programs to achieve approximately 220 MW of capacity savings at the system level by fiscal 2030
2. Pursue a combination of education and marketing efforts as well as incentives for smart-charging technology for customers to support a voluntary residential time-of-use rate to shift home charging by 50 per cent of residential electric vehicle drivers to off-peak demand periods to achieve approximately 100 MW of capacity savings at the system level by fiscal 2030

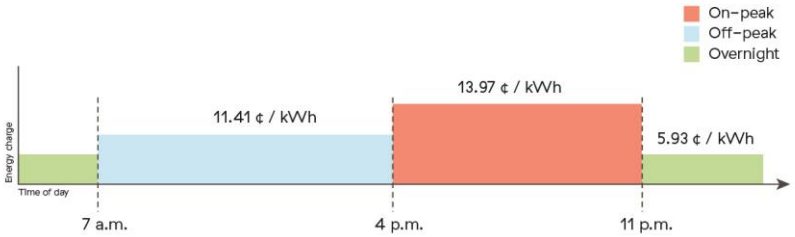
Last November….

We showed you these leading optional residential time-of-use rate design concepts.

EV Only Time-of-Use Rate

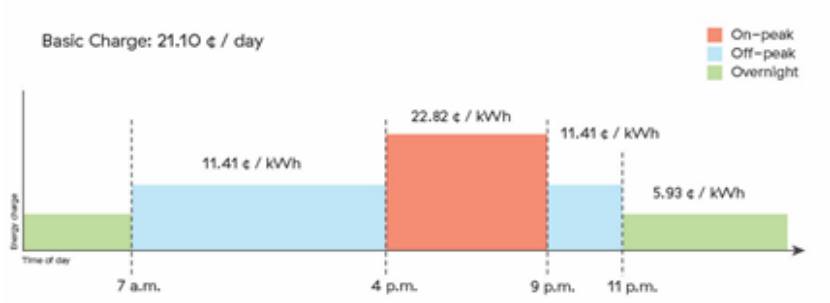
Available for separately metered EV Charging

Year Round

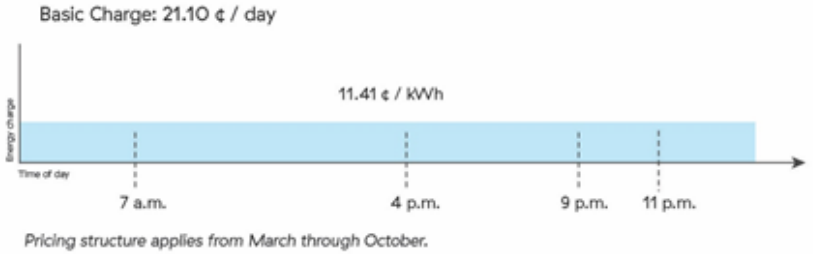


Whole Home Time-of-Use Rate

Winter



Non-Winter



Pricing structure applies from March through October.

Challenges with These Rate Designs

- With time-of-use rate, amount that a customer pays should depend on their **load shape**
- However, when the default rate is an inclining block rate, the amount that a customer pays depends on both their **load shape** and **overall consumption**

This creates two problems

- **Low Participation:** Customers with low overall consumption can't save because the **time-based charges are too high**
- **Structural Winners:** Customers with high overall consumption save without reducing their peak demand because the **time-based charges are too low**

Concept Question

Is there a way to avoid charging customers more/less based on overall consumption?

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Engagement Summary

Mario Laszczak, Manager

Customer Policy and Engagement

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Engagement | Consultation Process

- **In December 2020, BC Hydro began a process to engage with residential customers and stakeholders as it explored opportunities to update residential rates.**
- **2 phases of engagement over 14 months:**

- **Quantitative and qualitative feedback and inputs collected through various channels and methods from ~35,000 participants on a range of rate options:**
  - keeping existing rates
  - optional time-of-use and end-use rates
  - flattening the two-tiered rate

Stakeholder Engagement | Summary of Activities

Stakeholder Engagement Efforts	Number of Participants	Representation
BC Hydro Workshops & Special Interest Group Meetings	**~200**	▪ Residential customers ▪ Aboriginal housing ▪ Housing development ▪ Electric vehicles ▪ Indigenous Nations ▪ Environment & sustainability ▪ Local government ▪ Low income ▪ Seniors ▪ Union employees ▪ Commercial customers ▪ Builders

Customer Engagement | Summary of Activities

Customer Engagement Efforts	Number of Participants	Purpose of engagement
Quantitative Consultation Efforts		
Poll	**1,931**	▪ Testing of engagement objectives and questions
6 Surveys	**32,821**	▪ Understand customer needs & perceptions about rates ▪ Learn about rate preferences, energy use, values, priorities and bill perceptions ▪ Explore rate concepts and understanding
Qualitative Consultation Efforts		
In-depth interviews	**15**	▪ Individual engagement to assess perceptions and values related to rates
Telephone Townhalls	**395**	▪ Explore rate concepts
Digital dialogue	**35**	▪ In-depth discussion about bill impacts
Focus Groups	**32**	▪ Explore time-of-day concepts with Electric Vehicle and non-Electric Vehicle owners

Stakeholder Engagement | What we heard

Input and feedback from the workshops generally fell into the following key topics:

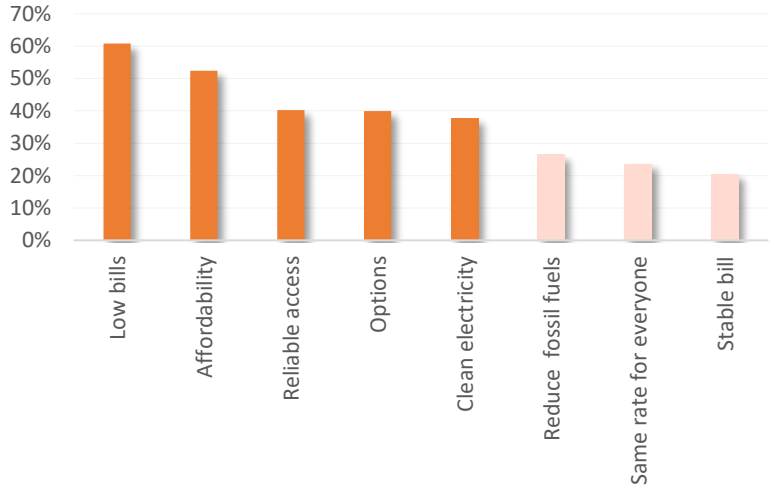
- Environment, particularly decarbonization, heat pumps, and Electric Vehicles
- Affordability and fairness
- Fuel switching
- Eliminating RIB or transitioning to a flat rate
- Time-of-use (TOU) rate designs

Support electrification through voluntary time-of-use rates to reduce Electric Vehicle charging costs and incent customers to shift usage from BC Hydro's system peak period.

Customer Engagement | What we heard

Along with desire for service that's low cost, affordable and reliable, customers want rates that encourage clean electrification and offer choices to meet a variety of needs and circumstances.

Electricity Service Priorities:

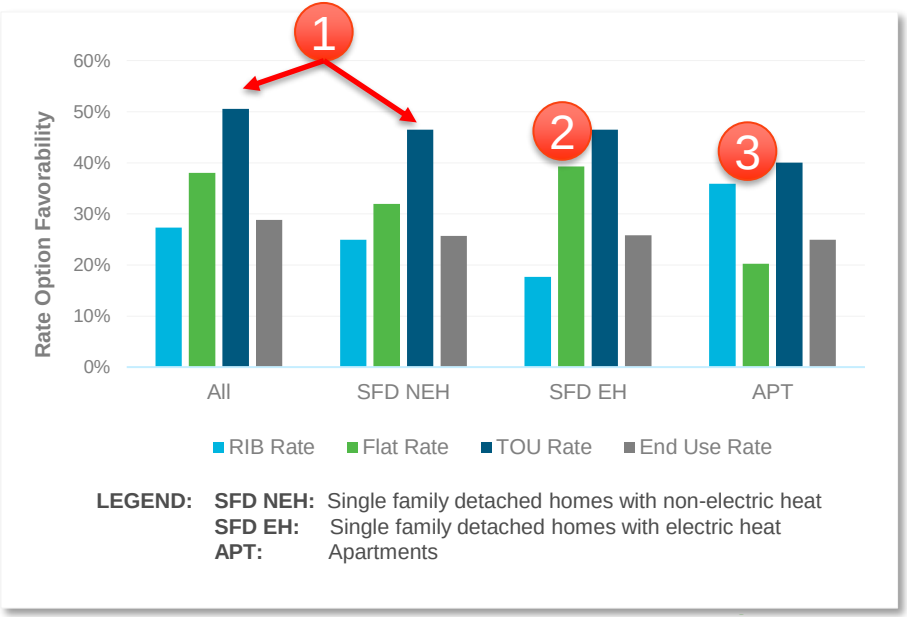


Rate Design Preferences:

Customer Survey (N=749)	Public Survey (N=22,680)
Time-Of-Use	Time-Of-Use
RIB	Flat
Bill Stability	Plan with options

Engagement | Rate Preferences

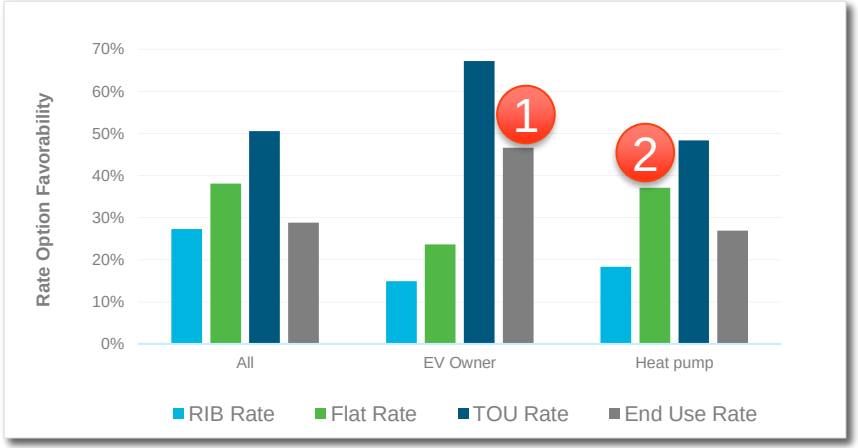
1. Optional Time-Of-Use rate is most preferred overall & in non-electrically heated Single Family Detached homes
2. Electrically heated Single Family Detached homes showed preference for the optional Flat and TOU rates
3. Apartments showed preference for the Residential Inclining Block (RIB) and optional TOU rates



Participants were asked to select up to 3 rates

Engagement | Rate Preferences

1. Electric Vehicle owners tend to prefer the optional Time-Of-Use and End-Use rates
2. Heat pump owners prefer optional Time-Of-Use and Flat rates



Participants were asked to select up to 3 rates

Of the potential rate options presented, optional Time-Of-Use rates drew the most interest.

Customer Engagement | Feedback Summary

Rate preference trends:

- Customers with higher bills due to the current stepped rate, and those looking to electrify, seek opportunities to save through other voluntary rate options.
- Customers with lower bills and those supporting conservation prefer the current stepped rate (RIB).
- Electric Vehicle owners favour optional Time-Of-Use and End-Use rates, but the potential requirement for separate metering for an EV charging Time-Of-Use rate is seen as impractical and too expensive.
- Time-Of-Use rate should be offered daily, year-round with a peak price no higher than $0.25/kWh
- Those with limited or no ability to shift when they use electricity, view Time-Of-Use rates as unfair.

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Engagement | Support for Concepts & Principles

Based on personal circumstances and preferences, customers and stakeholders expressed interest in and support for:

- Rates that remove barriers and encourage environmentally friendly and sustainable electrification.
- Time-Of-Use rates that reduce electric vehicle charging costs and incent a shift of usage to make better use of existing electrical infrastructure.
- Voluntary rate choices and options to meet the range of individual customer needs and circumstances.

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Customer Quotes

> *I am happy to see that BC Hydro is considering an improved rate structure to account for the implementation of electric vehicles, heat pumps and electric furnaces, all of which we are going to need to transition to very soon to fight climate change.*

> *I would definitely subscribe to a time of use charge from my EV. Such a rate structure would encourage me to sell my wife's car and buy another EV. It would certainly encourage further purchases of EV's.*

> *No one size fits all but it would be good to find the one method which would help meet the needs of keeping hydro as a clean energy fuel while maintaining a reasonable cost to homeowners. Giving homeowners a choice as to when they could access electricity at a lower rate by choices they personally make as to how and when they use electricity is a good model.*

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Optional Residential Time-of-Use Rate

Shiau-Ching Chou, Senior Regulatory Manager

Tariffs and Rate Design

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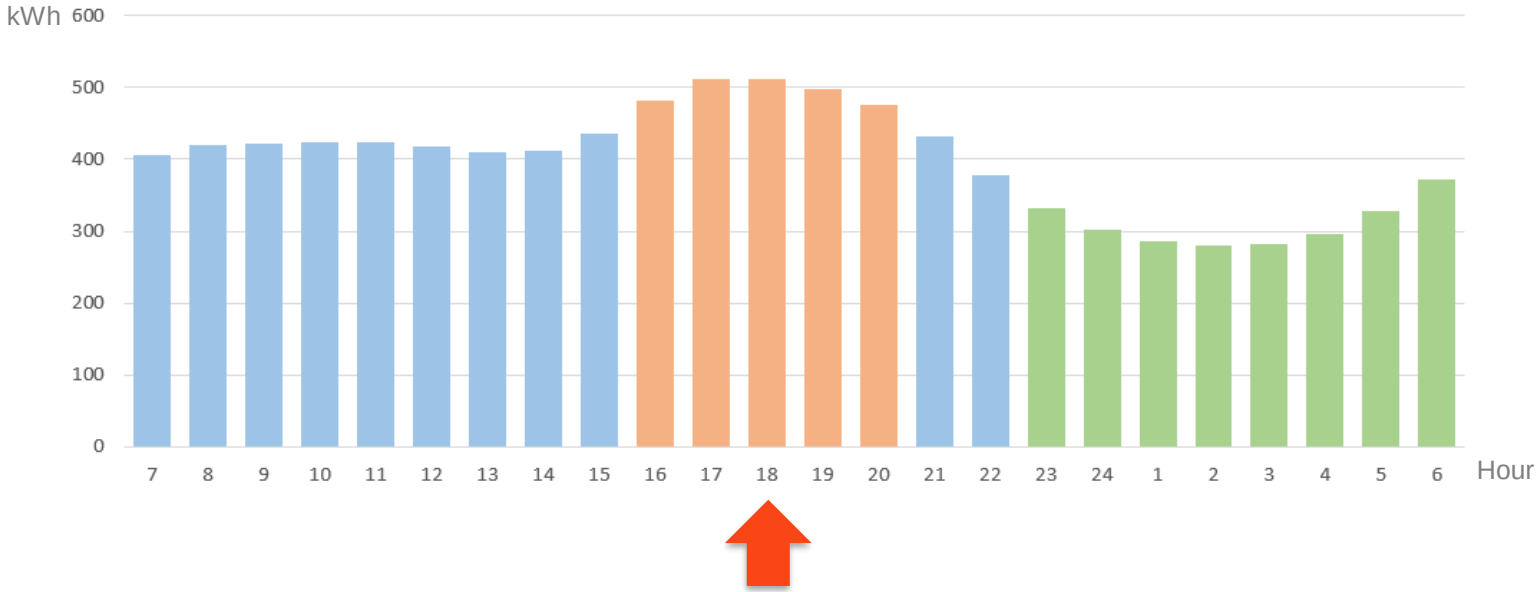
Average Residential Customer Load Shape



BC Hydro's system peak

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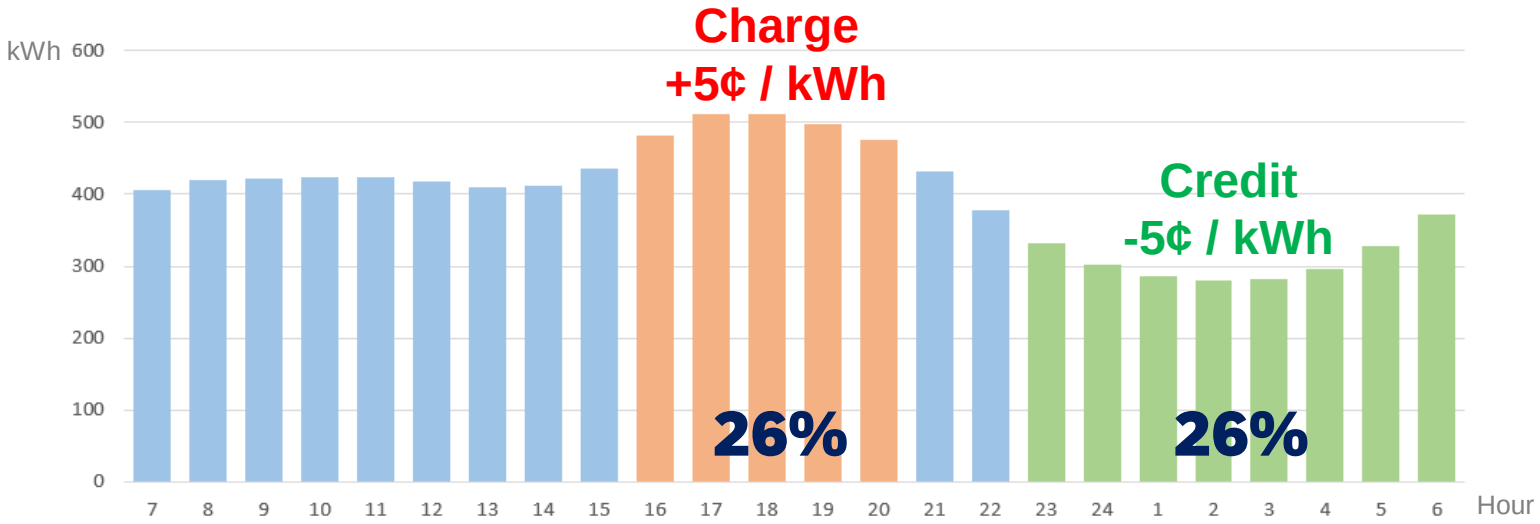
New Credit/Charge Rate

First: two-step rate	Customer's energy charges are calculated by the two-step rate.
Second: time-of-use rate	Customer receives a 5-cent credit for every kWh consumed during the Overnight period and a 5-cent charge for every kWh consumed during the Peak period.
Third: two step + time-of-use	Customer's monthly energy charge includes the two-step rate + time-of-use charges.



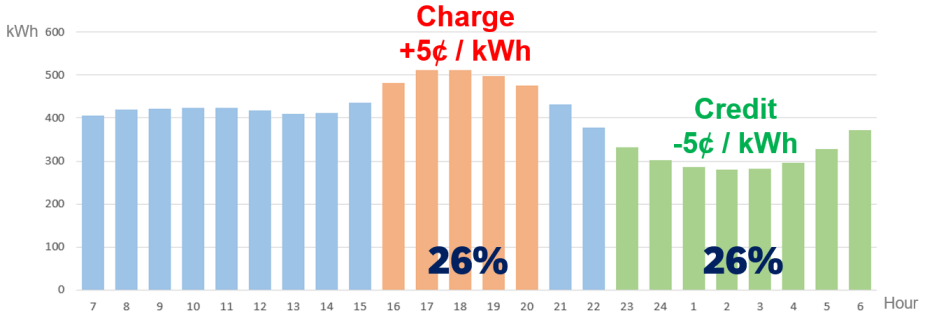
New Credit/Charge Rate

Illustrative Energy Charge calculation ***before*** load shifting for a 1,000 kWh bill

First

Step 1 Energy Charge	675 kWh X $0.0950 =	$64.13
Step 2 Energy Charge	325 kWh X $0.1408 =	$46.09
Total RIB Energy Charge		$110.22

Second



Overnight Period Credit	260 kWh X ($0.05) =	($13.00)
Peak Period Charge	260 kWh X $0.05 =	$13.00
Total TOU Energy Charge		$0.00

Third Total Energy Charges = $110.22

Feedback Questions

- Do you understand how the optional credit / charge time-of-use rate concept works?
- Do you think this rate is easy for customers to understand?

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Load Profiles by Customer Group

All Residential Customers

Peak Load 4PM – 9PM	Overnight Load 11PM – 7AM	Average Annual Bill Difference per Customer with No Load Shifting
26%	26%	(12 cents)

Electrically Heated			% of Customers	Housing Type	% of Customers	Non-Electrically Heated		
Peak Load	Overnight Load	Average Annual Bill Difference				Peak Load	Overnight Load	Average Annual Bill Difference
25.7%	25.8%	(10 cents)	19%	Apartment	9%	27.4%	24.3%	$5
24.4%	27.1%	($23)	16%	Single House	41%	26.5%	25.4%	$6
25.6%	25.3%	$2	6%	Townhouse	4%	27.4%	24.0%	$11
24.0%	27.5%	($22)	1%	Mobile Home	3%	25.8%	25.5%	$1
23.5%	28.6%	($32)	1%	Other (~1%)	1%	23.3%	28.8%	($19)

*Based on F2022 full year customer consumption with no load shifting

Load Profiles by Consumption

Annual Consumption (kWh)	% of Customers	Peak Load 4PM – 9PM	Overnight Load 11PM – 7AM	Average Annual Bill Difference
0 - 4,000	21%	27.2%	24.4%	$3
4,001 - 8,000	29%	26.9%	24.5%	$7
8,001 - 12,000	22%	26.5%	25.0%	$8
12,001 - 16,000	13%	25.9%	25.7%	$1
16,001 - 2,0000	7%	25.2%	26.5%	$(11)
20,001 - 30,000	6%	24.4%	27.5%	$(37)
30,001 - 50,000	2%	23.3%	29.3%	$(107)

*Based on F2022 full year customer consumption with no load shifting

Potential for structural winners and losers due to overall consumption is largely mitigated

Load Shape of Customers with an Electric Vehicle

Consumption	Average Annual Consumption (kWh)	Peak Load 4PM – 9PM	Overnight Load 11PM – 7AM	Off-Peak Load All other hours	Energy Charge Difference
Household	9,537	2,477	2,480	4,579	($0.12)
EV	2,433	718	892	823	($8.66)
Total	11,970	3,196	3,371	5,403	($8.78)
Total %	100%	27%	28%	45%	

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Credit/Charge Rate Assumptions

Input	Assumption
Non-EV Participation	15% with 6-year “S-curve” ramp up
EV Participation	50% with 6-year “S-curve” ramp up
Non-EV Peak Demand Reduction (50% to Off-Peak / 50% to Overnight)	5%
EV Peak Demand Reduction (20% to Off-Peak / 80% to Overnight)	75%

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Participation Assumptions

"I developed BC Hydro's enrollment assumptions for time-varying rates, with assistance from my Brattle colleagues. The base case enrollment assumptions are 15% for opt-in deployment…I developed these estimates through analysis of U.S. Energy Information Administration data on existing utility time-of-use rate offerings and a review of utility evaluation reports on time-varying rate offerings.

The enrollment assumptions for time-varying rates that I provided to BC Hydro are consistent with the best available industry data and literature on the topic, and supported by my extensive experience designing and evaluating the rate offerings for utilities across North America and internationally."

- Dr. Ahmad Faruqui, Capacity Savings Estimates in BC Hydro's 2021 IRP: An Independent Review, Section 5 (Exhibit B-3, 2021 IRP Proceeding)

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Participation Assumptions – Electric Vehicles

50% EV

"BC Hydro's assumption of 50% driver participation in EV charging DR programs and rates is ambitious, but I believe it is achievable based on a review of early experience with EV TOU rates in other jurisdictions…BC Hydro's participation estimate is near the upper end of the range of enrollment rates that have been achieved, but is not outside that range."

- Dr. Ahmad Faruqui, Capacity Savings Estimates in BC Hydro's 2021 IRP: An Independent Review, Section 10 (Exhibit B-3, 2021 IRP Proceeding)

75% Shifting

An evaluation prepared for San Diego Gas & Electric found that EV owners shifted 73% to 84% of their charging to the overnight period in response to price ratios in the range of 2:1 to 4:1.

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Price Ratios & Peak Demand Reduction Response

Price ratios of BC Hydro's credit / charge time-of-use rate proposal

Energy Charge	Peak Period +5¢	Off Peak Period	Overnight Period -5¢	Peak/ Overnight Ratio	Peak/ Off Peak Ratio
Step 1 Energy Charge	14.50	9.50	4.50	3.1 : 1	1.5 : 1
Step 2 Energy Charge	19.08	14.08	9.08	2.1 : 1	1.4 : 1

Blended price ratios

Consumption	Price Ratio
Household Consumption	2.1
EV Consumption	2.5

Peak demand reduction response monitored by the industry

Price Ratio	Peak Demand Reduction
1.4	2.9%
1.5	3.5%
2.1	6.4%
3.1	10.0%

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Feedback Question

- Do you understand how BC Hydro came up with the participation and peak demand reduction assumptions for the proposed optional residential time-of-use rate?

- Do you think these assumptions are reasonable?

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Estimated Bill Savings by Customer Group

Cost of EV charging

2,433 kWh

Step 1 rate	$239 / year
Step 2 rate	$343 / year
Flat rate	$278 / year

Electrically Heated			% of Customers	Housing Type	% of Customers	Non-Electrically Heated		
Home Only	EV Only	Home + EV				Home Only	EV Only	Home + EV
($5)	($57)	($62)	19%	Apartment	9%	$2	($57)	($55)
($38)	($57)	($95)	16%	Single House	41%	($5)	($57)	($62)
($9)	($57)	($66)	6%	Townhouse	4%	$4	($57)	($53)
($33)	($57)	($90)	1%	Mobile Home	3%	($8)	($57)	($65)
($43)	($57)	($100)	1%	Other (~1%)	1%	($26)	($57)	($83)

In F2024 dollars based on F2022 RS 1101 customer consumption data.

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Estimated Bill Savings by Consumption

Under this new concept, almost all customers have the potential to save.

Annual Consumption (kWh)	% of Customers	Old Rate No EV	Old Rate with EV	New Rate Home Only	New Rate EV Only	New Rate Home & EV
0 - 4,000	21%	$33	$23	$1	($57)	($56)
4,001 - 8,000	29%	$75	$39	$1	($57)	($56)
8,001 - 12,000	22%	$69	$13	($2)	($57)	($59)
12,001 - 16,000	13%	$30	($27)	($12)	($57)	($69)
16,001 - 2,0000	7%	($14)	($71)	($28)	($57)	($85)
20,001 - 30,000	6%	($80)	($136)	($58)	($57)	($115)
30,001 - 50,000	2%	($204)	($260)	($138)	($57)	($195)

In F2024 dollars based on F2022 RS 1101 customer consumption data.

Estimated Bill Saving for customers with an Electric Vehicle

Consumption	Average Annual Consumption (kWh)	Peak Load 4PM – 9PM	Overnight Load 11PM – 7AM	Off-Peak Load All other hours	Energy Charge Difference
Household	9,537	2,354	2,542	4,641	($9.41)
EV	2,433	180	1,323	931	($57.15)
Total	11,970	2,533	3,864	5,572	($66.56)
Total %	100%	21%	32%	47%	

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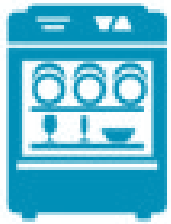
Illustrative Consumption Shifting Scenarios

Charge EV after work at 5 p.m.

Charge EV after 11 p.m.

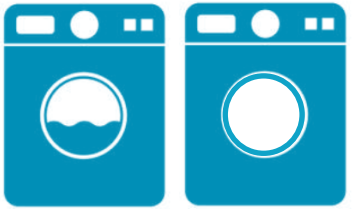
Up to $240 saving per year



Once a day at 7 p.m.

Once a day after 11 p.m.

Up to $25 saving per year



2 times a week at 7 p.m.

2 times a week at 9 p.m.

Up to $25 saving per year

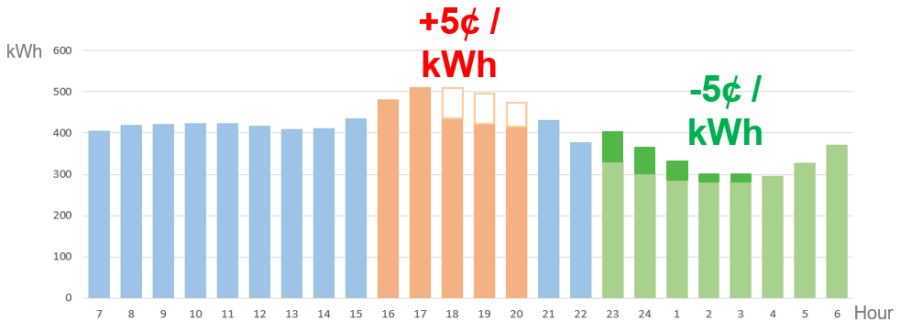
New Credit/Charge Rate

Illustrative Energy Charge calculation ***after*** load shifting for a 1,000 kWh bill

First

Step 1 Energy Charge	675 kWh X $0.0950 =	$64.13
Step 2 Energy Charge	325 kWh X $0.1408 =	$46.09
Total RIB Energy Charge		$110.22

Second



Overnight Period Credit	300 kWh X ($0.05) =	($15.00)
Peak Period Charge	220 kWh X $0.05 =	$11.00
Total TOU Energy Charge		($4.00)

Third Total Energy Charges = $106.22

Feedback Questions

- Compared to the old TOU rate design, do you agree that this concept does a better job mitigating the potential for people to save without reducing peak demand?
- Do you think this rate provides enough savings potential to encourage people to shift their consumption?

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Forecast Participation and Capacity Savings

Metric	F2030	F2038
Capacity Savings	166 MW	477 MW
Non-EV Participants	132,000	83,000
EV Participants	130,000	415,000

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Credit/Charge Rate Assessments

Cost of Service Justification

Target Revenue:Cost Ratio **93%**

$$\frac{\text{Total Participant Revenue}}{\text{Implementation cost + Total Participant Cost}}$$

Year 5	Year 10	Year 12	Year 15
88%	92%	93%	95%

Economic Justification

Target Benefit:Cost Ratio **1**

$$\frac{\text{Capacity Savings}}{\text{Implementation Cost + Revenue Loss}}$$

5 Year	10 Year	15 Year
0.50	1.10	1.75

Concept passes both tests

Assessment on Rate Design Principles

Grouping	Principle	BC Hydro assessment
Economic Efficiency	Price signals to encourage efficient use and discourage inefficient use	The rate provides a clear price signal to encourage customers to reduce consumption during BC Hydro's system peak period and incents customers to use more during the overnight period when more system capacity is available.
Fairness	Fair apportionment of costs among customers	The rate has an additional charge for each kWh during BC Hydro's system peak period when the cost to provide service is higher and a discount for each kWh during the overnight period when the cost to provide service is lower.
	Avoid undue discrimination	All customers are provided the same credit/charge if they choose to take service under the rate.
Practicality	Customer understanding and acceptance, practical and cost effective to implement	The simple "-5 / +5 per kWh" concept means it is easy for customers to understand and estimate bill savings. It's also easier to implement, administer and communicate to customers. The rate is flexible and can be layered on top of any rate structure.
	Freedom from controversies as to proper interpretation	Since the rate is voluntary and provides mutual benefits, freedom from controversy is not an issue.
Stability	Recovery of the revenue requirement	The rate is designed to be revenue neutral on a class average basis to recover forecast revenue requirements.
	Revenue stability	The rate largely eliminates structural revenue loss by overall consumption. This means that revenue loss will generally only occur from customers' shifting their consumption out of the peak period, which will have corresponding cost reductions for all ratepayers.
	Rate stability	The rate is stable as the charge/credit is fixed.

Feedback Question

Do you agree with BC Hydro's Bonbright Assessment of this proposed optional time-of-use rate design?

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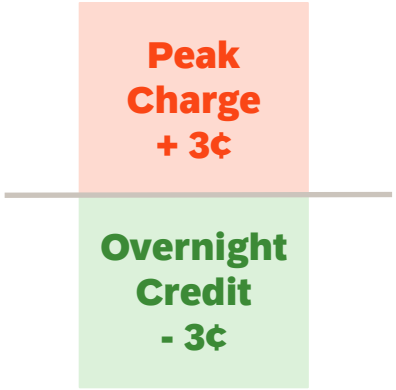
Alternatives to Be Explored through Customer Consultation

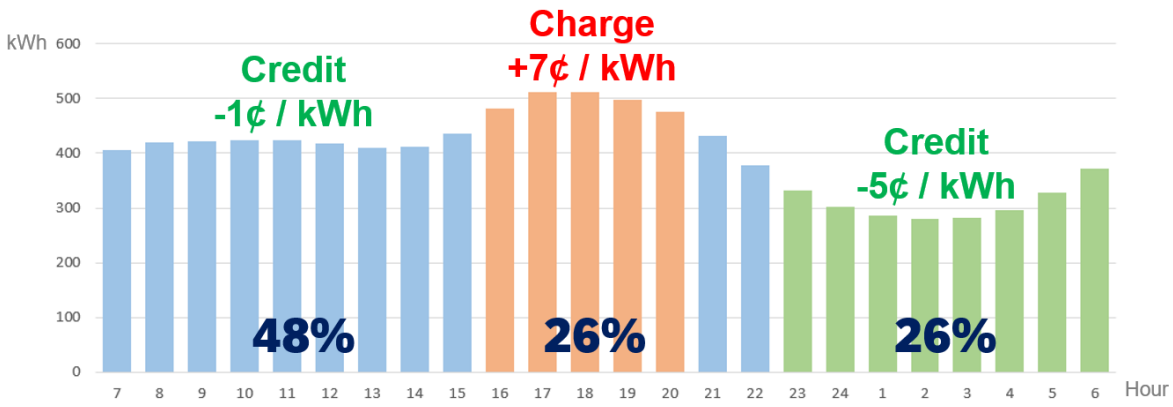
Alternative Option 1

A lower price signal



Alternative Option 2

Higher peak charge + moderate discount for all other hours



Feedback Question

Compared to the proposed rate design (+5/-5), would you be interested in these slightly different alternatives?

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Benefits of the Credit/Charge Rate

- ✓ All customers have the potential to save
- ✓ Eliminates most structural winners due to overall consumption
- ✓ Can be layered on to the two-step rate or other rate structures
- ✓ Can be applied to the whole home load or EV load only
- ✓ Incorporated customer feedback:
  - The rate is ***optional***
  - The rate is ***year-round***
  - The rate applies ***everyday*** during a week
  - Energy Charge during peak period does not exceed 25¢/kWh
  - No need to install a second meter to achieve savings from EV charging

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Feedback Questions

- Do you support BC Hydro advancing the proposed optional credit / charge residential time-of-use rate?
- Please provide any further comments you have about this optional time-of-use rate.

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BREAK

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Demand Side Management Programs

Pat Mathot

Manager, Residential Marketing

BC Hydro
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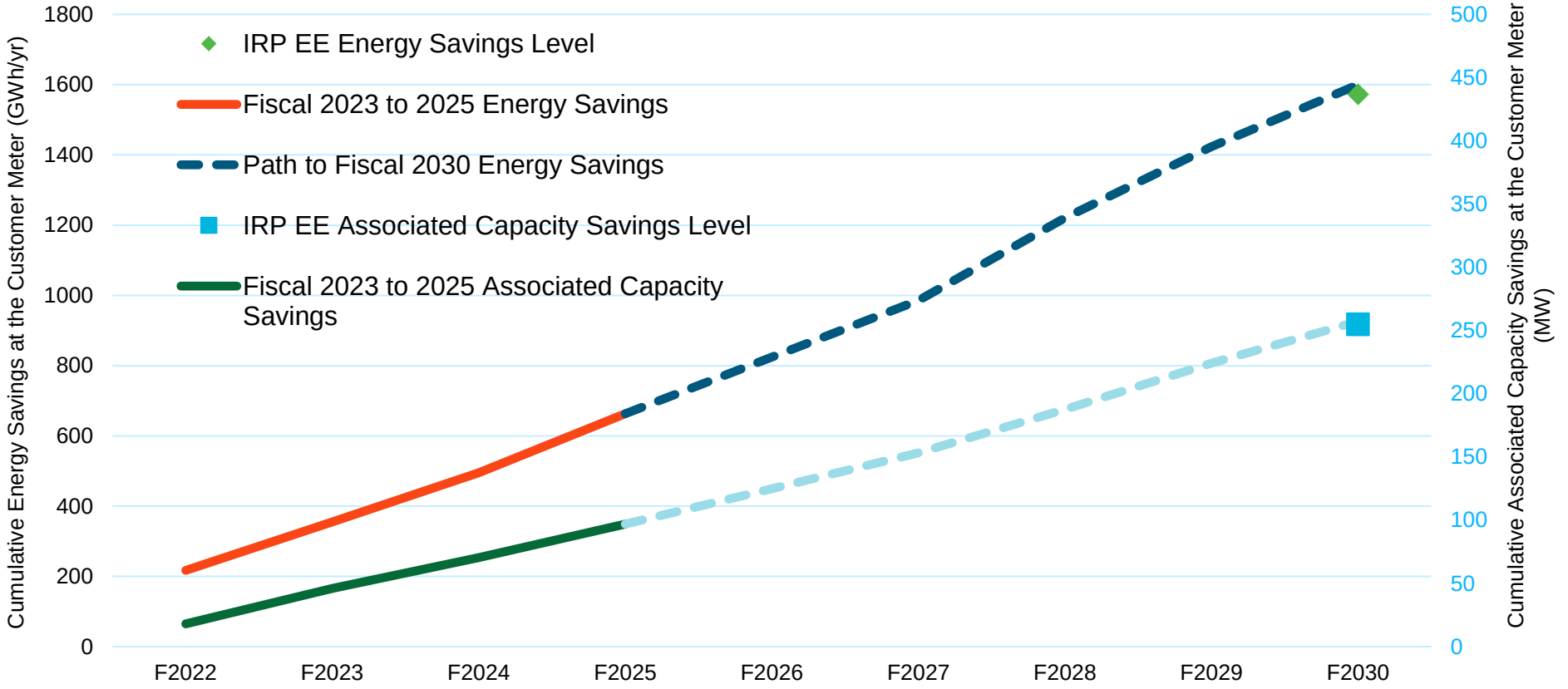
Increasing support for DSM



Existing Energy Efficiency Program Refresher

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Energy efficiency support for lowering bills

- Program support for all residential customers, regardless of rate choice
- Energy efficiency drives down overall consumption and peak-time usage
- Programs include:
  - **Home Renovation Rebates** – Insulation, windows, heat pumps
  - **Retail rebates** - Smart thermostats, lighting, appliances
  - **Team Power Smart** – Energy reduction challenges and rewards

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Income Qualified and First Nations

- **Energy Saving Kit (ESK)** - Free, easy to install measures

- **Energy Conservation Assistance Program (ECAP)** - free upgrades for individuals and non-profit housing providers
  - Examples of measures that may qualify:
    - LED light bulbs
    - Water-efficient showerheads & faucet aerators
    - ENERGY STAR appliances
    - Insulation in walls, attic, or crawl space
    - Heat pumps for mobile homes

- **Non-Integrated Area and Indigenous Offers**
  - Higher value incentives
  - Community level planning and workforce capability building

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Enabling activities

- Industry support to provide customers with access to trained and qualified trade allies/supply-chain partners
    - Creating and driving trades training
    - Connecting customers with qualified trades/installers
    - Educating customers on efficient products and connecting them with partners that sell those products

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New Offers to Shift and Save

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Newer programs for shifting energy use

- **HydroHome** - Real-time energy data & insights
- **Peak Saver** - Behavioural peak day rewards
- **Peak Rewards** - Technology enabled demand response
- Customers on RIB and optional TOU rate are eligible

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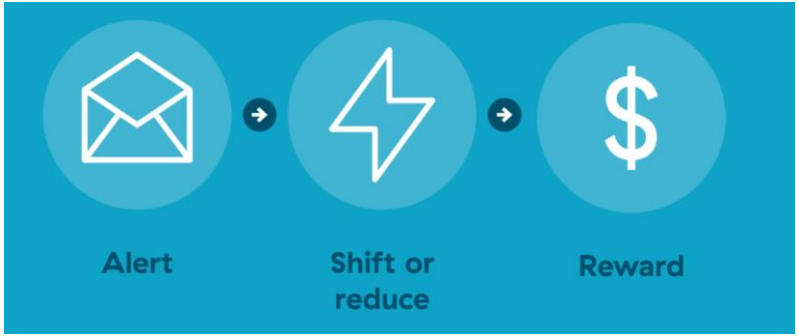
HydroHome
Advanced Energy Management App

- **Live Energy Usage Feedback**
- **Energy Consumption Analysis**
- **Personalized suggestions and recommendations**
- **Smart Home Control**

Peak Saver

- Low-barrier, no-cost, no penalties
- Accessible to all residential customers
- Reduce your use by 20% during a peak event, earn $3
- Participants choose what actions to take in their home



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Peak Rewards

- Connected devices that can be triggered remotely by BC Hydro to adjust their operation – set it and forget it
- Customer may opt-out any time and remains in control
- Receive $35 per device category each year
- New device types will be added as technology progresses

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Peak Rewards

- Devices include select:
  - Baseboard thermostats
  - Electric vehicle chargers
  - Water heater load controllers
  - Continually exploring other device categories

- Some devices support customer preference settings

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F2024 – F2025 Residential Inclining Block (RIB) Rate Pricing Principles

Chris Sandve

Chief Regulatory Officer

BC Hydro
Power smart

RIB Rate Pricing Principles

How revenue requirements application (RRA) rate increases / decreases are applied to the three elements of the RIB rate:

- Basic Charge
- Step 1 Energy Charge
- Step 2 Energy Charge

The current approved pricing principles will expire March 2023.

Fiscal Year	BCUC Order	Pricing Principle
F2009 - F2010	G-124-08	Approval of RIB Rate
F2011	G-180-10	Apply RRA % equally
F2012 - F2014	G-45-11	Step 2 increased to higher of RRA % or up to 10% bill impact
F2015 – F2016	G-13-14	Apply RRA % equally
F2017 – F2019	G-5-17	Apply RRA % equally
F2020	G-214-18	Apply RRA % equally
F2021 – F2022	G-62-20	Apply RRA % equally
F2023	G-210-22	Apply RRA % to Basic Charge, maintain Step 2, apply rate increase to Step 1 to earn F2023 forecasted revenue had RRA % been applied equally

F2024 RIB Pricing Principle

F2024 RRA – net impact of 2% increase

- 1% general increase
- (1%) Deferral Account Rate Rider, currently at (2%)

Option 1

Basic charge: increase by 1%
Step 1: increase by 1%
Step 2: increase by 1%
(1%) DARR applies to the total bill
All customers see a 2% bill increase

Option 2

Basic charge: increase by 1%
Step 1: increase by 1.89%
Step 2: no change
(1%) DARR applies to the total bill
Customers see various bill increases (see Table)

Option 2 Bill impact

Annual Energy Usage (kWh)	Average Bill Impact ($)	Average Bill Impact (%)	Bill Difference from Option 1
0-4000	$8	2.7%	$2
4001-8000	$17	2.7%	$4
8001-12000	$25	2.3%	$3
12001-16000	$31	1.9%	($2)
16001-20000	$37	1.7%	($7)
20001-30000	$45	1.5%	($15)
30001-50000	$62	1.3%	($32)
>50000	$142	1.1%	($110)

The BCUC approved Option 2 for F2023

F2025 RIB Pricing Principle

F2025 RRA – net impact of 2.7% increase

- 2.2% general increase
- (0.5%) Deferral Account Rate Rider, F2024 at (1%)

Option 1

Basic charge: increase by 2.2%
Step 1: increase by 2.2%
Step 2: increase by 2.2%
(0.5%) DARR applies to the total bill
All customers see a 2.7% bill increase

Option 2

Basic charge: increase by 2.2%
Step 1: increase by 4.3%
Step 2: no change
(0.5%) DARR applies to the total bill
Customers see various bill increases (see Table)

Option 2 Bill impact

Annual Energy Usage (kWh)	Average Bill Impact ($)	Average Bill Impact (%)	Bill Difference from Option 1
0-4000	$14	4.3%	$6
4001-8000	$28	4.3%	$10
8001-12000	$38	3.4%	$8
12001-16000	$43	2.6%	$(2)
16001-20000	$46	2.1%	$(14)
20001-30000	$51	1.7%	$(32)
30001-50000	$59	1.3%	$(70)
>50000	$98	0.8%	$(238)

The BCUC approved Option 2 for F2023

BC Hydro Proposes Option 2

- There is no justification to increase Step 2 Energy Charge beyond 14.08¢ / kWh.
- The RIB rate is no longer achieving incremental energy conservation.
- BC Hydro's long-run marginal cost of energy is 6.5¢ / kWh.
- Option 2 improves the fairness of revenue recovery of the RIB rate.
- The bill impact differences between Option 1 and Option 2 are moderate.
- A two-year Pricing Principles application improves regulatory efficiency.

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Feedback Question

- Which RIB Pricing Principles option do you think BC Hydro should propose?
- Do you support a one-year (F2024) or a two-year (F2024, F2025) pricing principles application?

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Wrap Up and Next Steps

Chris Sandve

Chief Regulatory Officer

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Next Steps

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Closing Remarks

- BC Hydro values your participation and feedback on our rate designs.
- Please contact BC Hydro Regulatory Group with any questions about the regulatory or engagement process: bchydroregulatorygroup@bchydro.com
- Remember to submit your feedback by December 15, 2022.
- The link to the online feedback form is: https://bchydro.ca1.qualtrics.com/jfe/form/SV_2lAa8hMHcxjPqjY

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