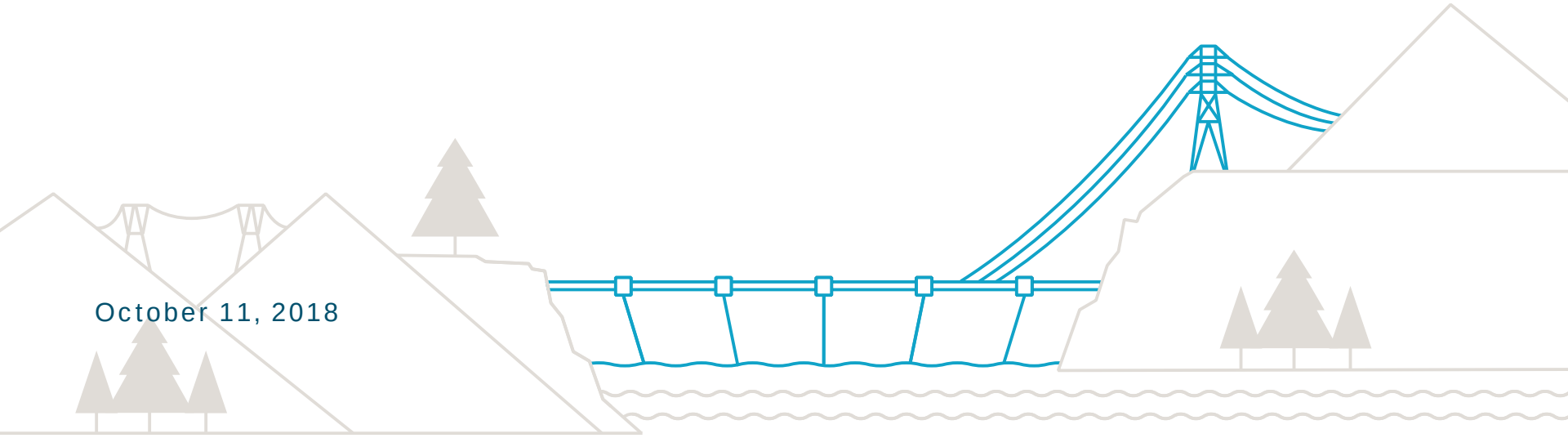
Transmission Service Rate Design Workshop



October 11, 2018

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Workshop Objectives

1. **Why?** **Review and get feedback on proposals for transmission service rates and new optional rates for load attraction and retention**

2. **What?** **Review and get feedback on key rate design elements (eligibility, pricing, terms, etc.)**

3. **How?** **Review and get feedback on the regulatory and consultation process in support of rate applications to the BCUC**

Feedback Requested

Verbal feedback given today

Feedback form and/or written submission

Inform rate design criteria and options for further analysis

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Agenda

Time	Item	Speakers
8:45 am	**Welcome and Opening Remarks**	Keith Anderson, Vice President, Customer Service
9:00	**Rates Primer** • Overview of existing transmission rates	David Keir, Manager Large Customer Rate Operations
9:15	**RS1823 Pricing Principles** • Background • Feedback on status quo proposal	Anthea Jubb, Manager Tariffs
9:45	**Market Reference Priced Rates** • Freshet Rate: Year 3 results, items for review • Review and discussion of rate design elements for annual option	David Keir Manager, Large Customer Rate Operations
10:30	• Break	
10:45	**Load Attraction Rate** • Background and jurisdiction review • Review and discussion of rate design criteria	Anthea Jubb, Manager Tariffs Allan Chung, Regulatory Specialist
11:30	**Load Retention Rate** • Background and jurisdiction review • Review and discussion of rate design criteria	David Keir Manager, Large Customer Rate Operations
noon	**Closing and Next Steps**	Fred James Chief Regulatory Officer

Opening Remarks

Keith Anderson

Vice President Customer Service

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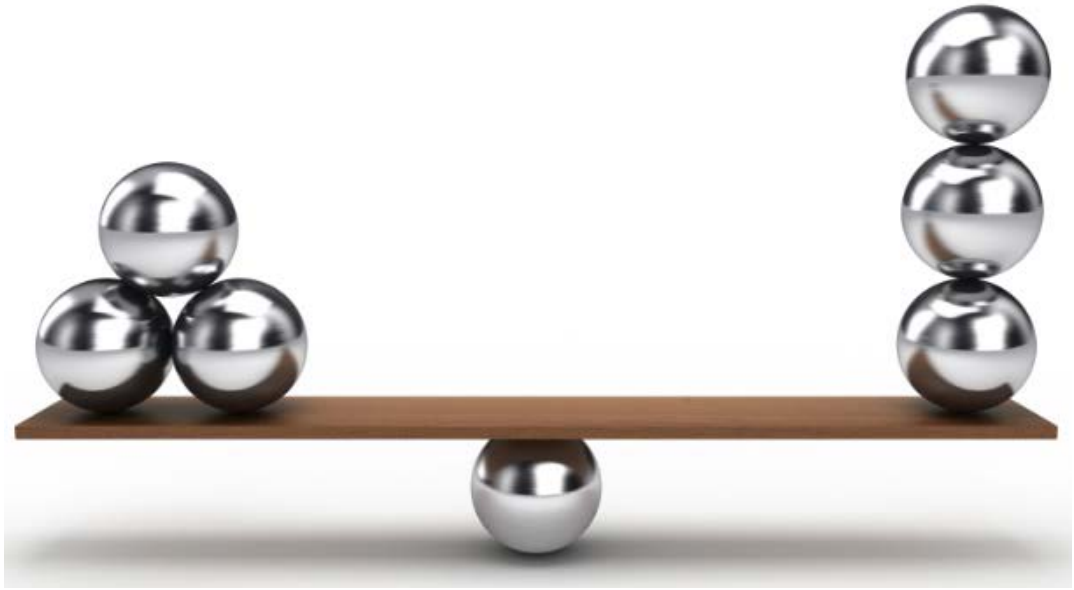
Current state assessment

Key pressures:

1. **Declining industrial load**
2. **Energy-intensive, resource-dependent customer base**



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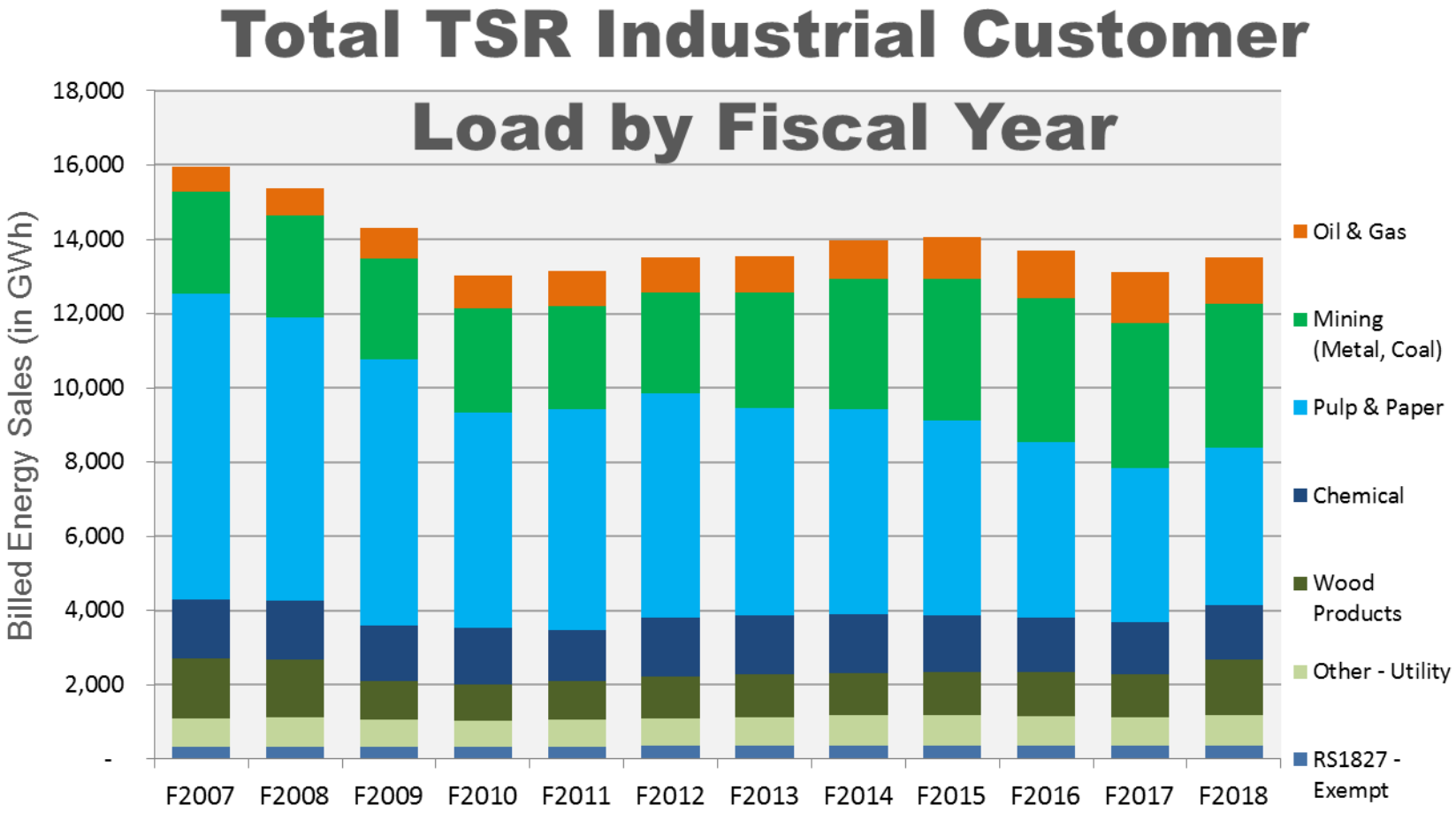
Historical Industrial Load



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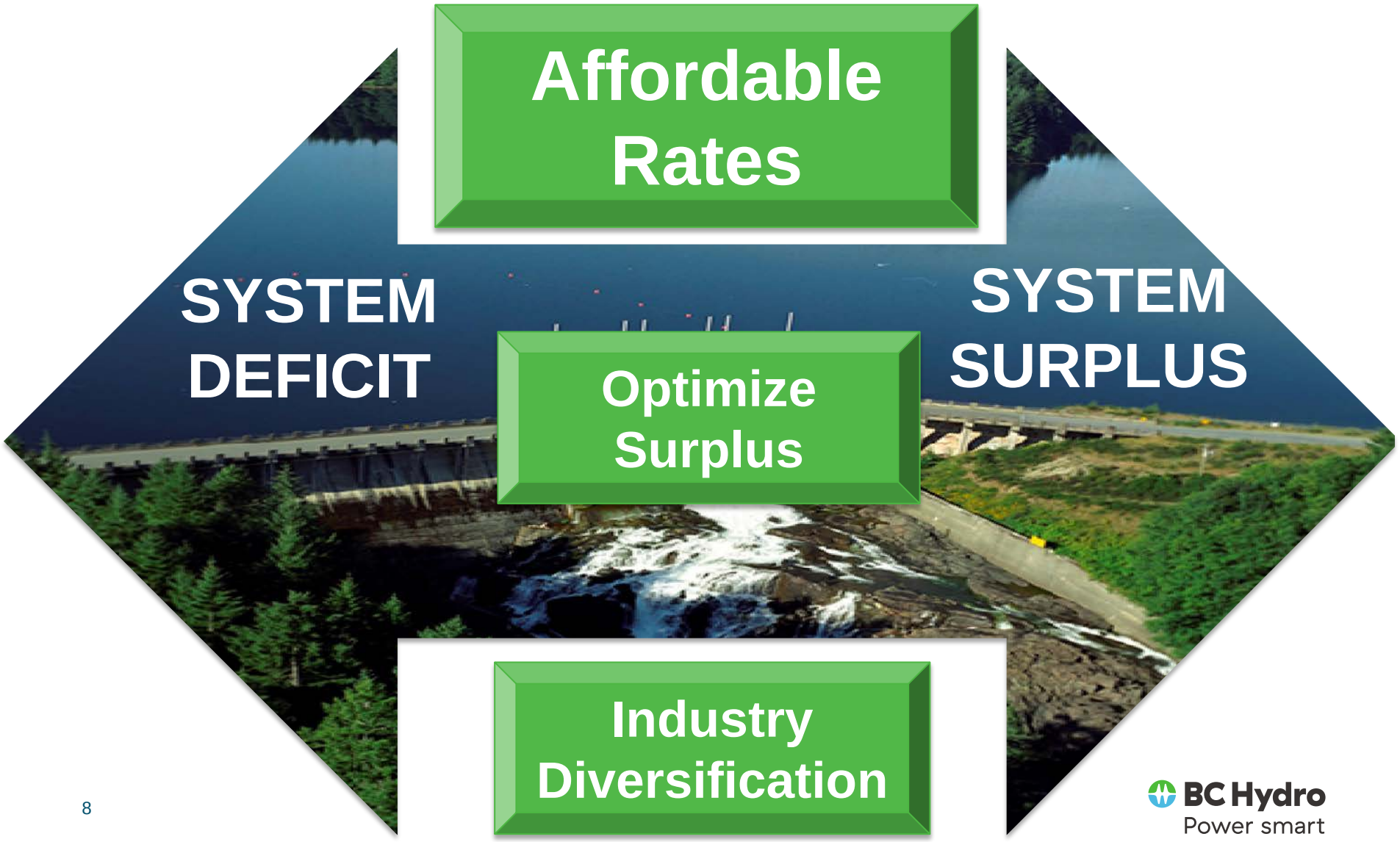
Strategic focus



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Key initiatives

- Business development focus / streamlined interconnections
- Leverage brownfield and greenfield sites with spare capacity
- **Innovative rate options for industrial customers**

Corporate Priority: Make it easier for customers to do business with us

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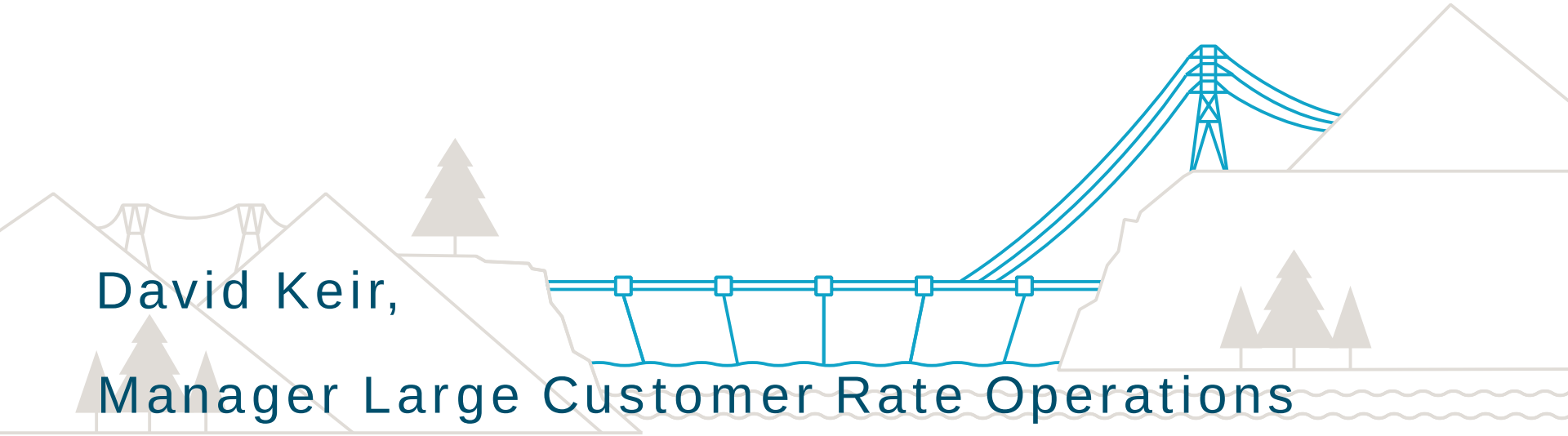
Rates primer: Transmission service rates for electricity supply



David Keir,

Manager Large Customer Rate Operations

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What's in BC Hydro's toolbox?

CAPEX SOLUTIONS
(e.g., DSM incentives)

SERVICE SOLUTIONS
(e.g., Indirect Interconnection Service)

OPEX SOLUTIONS
(e.g., new optional rates for load attraction and load retention)

Rates

Tools must be fit-for-purpose and designed to withstand regulatory scrutiny

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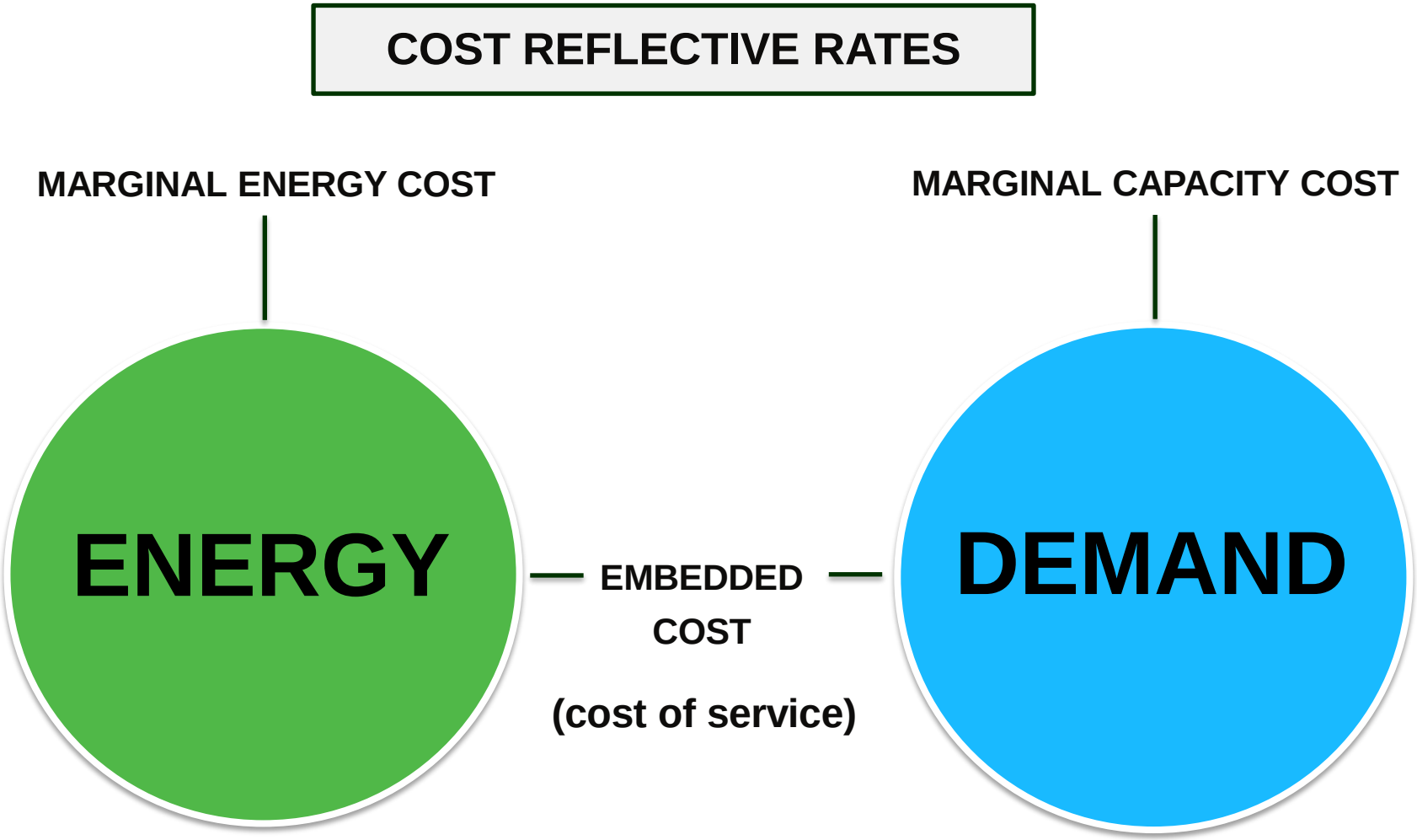
Supply rate billing determinants



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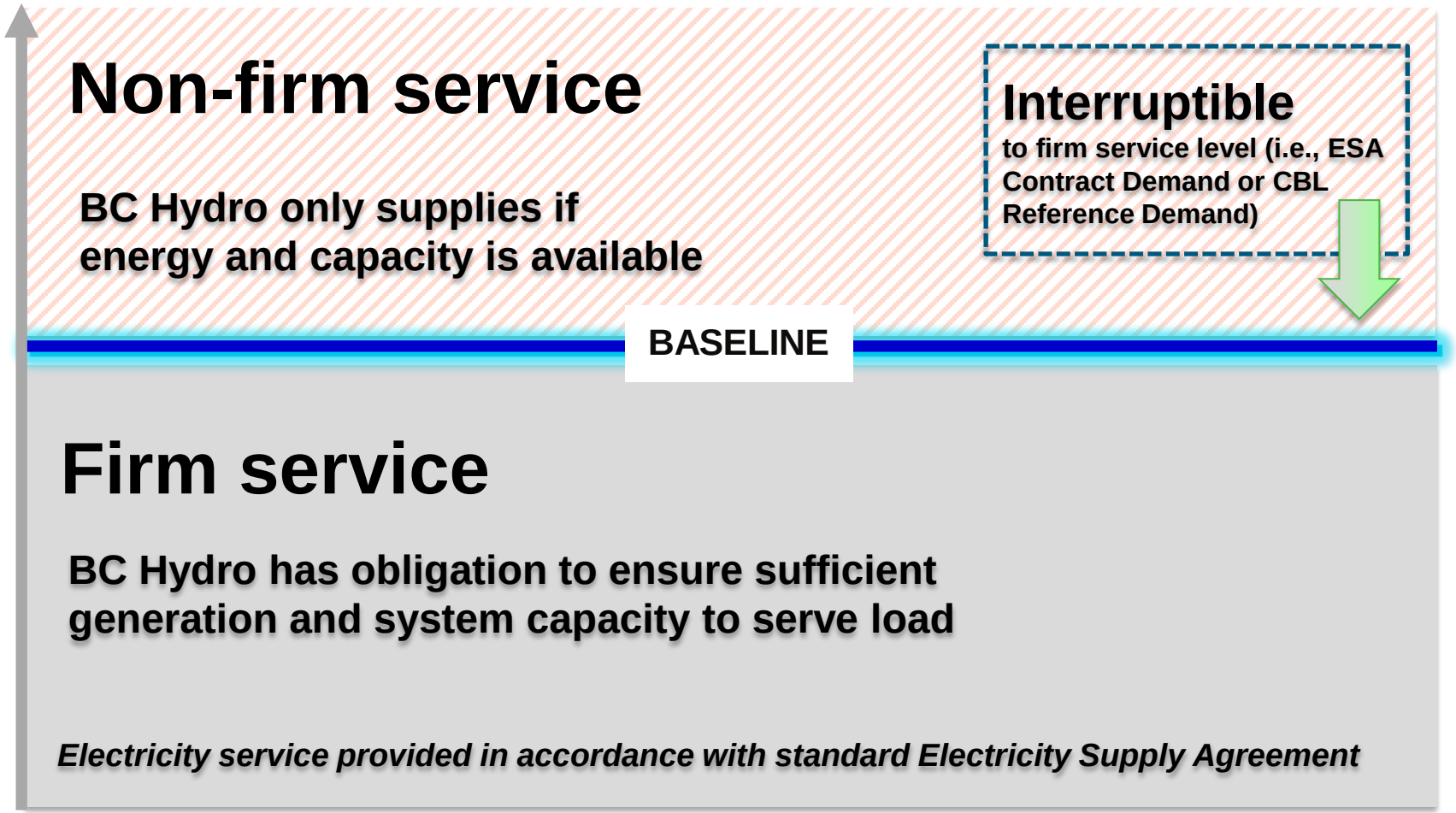
Electricity supply rates – service characteristics



Electricity service provided in accordance with standard Electricity Supply Agreement

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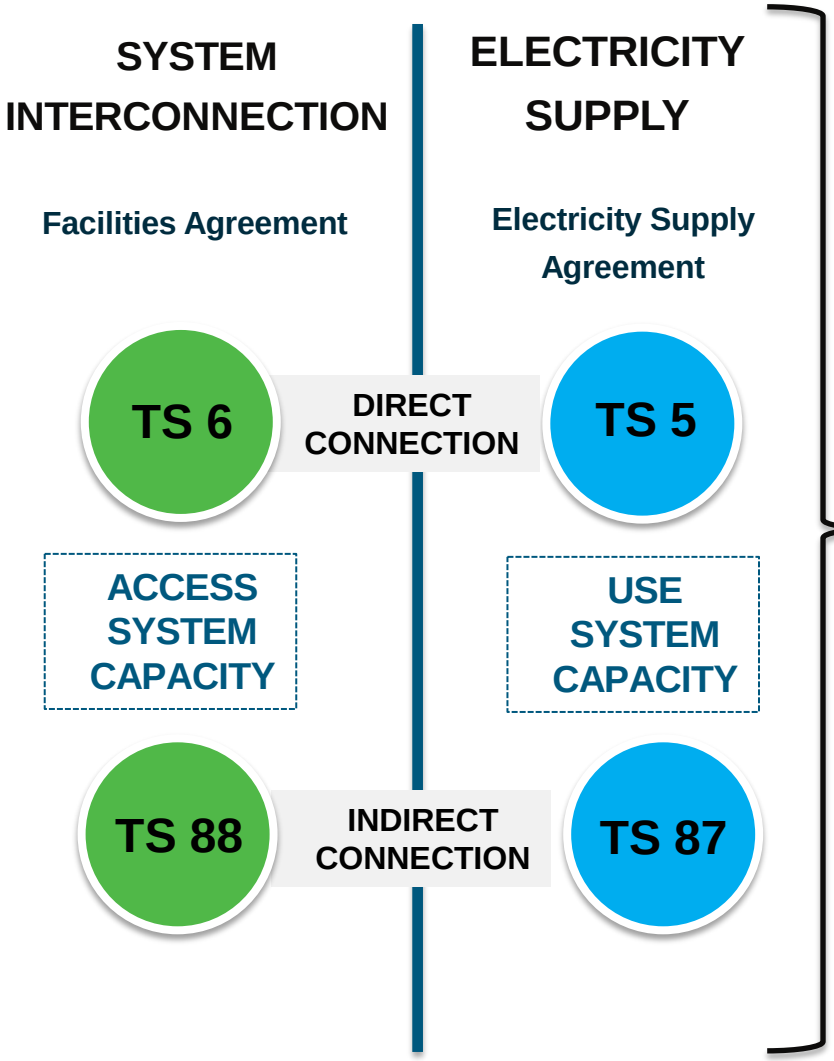
Transmission Voltage Service Portfolio



Existing rates for firm service:

- **RS 1823: Stepped Rate (default service)**
- **RS 1825: Time of Use Rate**
- **RS 1827: Exempt Rate**

Proposed new optional firm-service rates:

- **RS xxxx: Load attraction rate**
- **RS xxxx: Load retention rate**

Existing rate for Curtailment Service:

- **RS 1852: Modified Transmission Demand**

Existing rates for non-firm, interruptible service:

- **RS 1853: IPP Station Service**
- **RS 1880: Maintenance & Standby Rate**
- **RS 1891: Shore Power Rate**
- **RS 1892: Freshet Rate (pilot)**

Proposed new optional non-firm service rate:

- **RS xxxx: Incremental energy rate**

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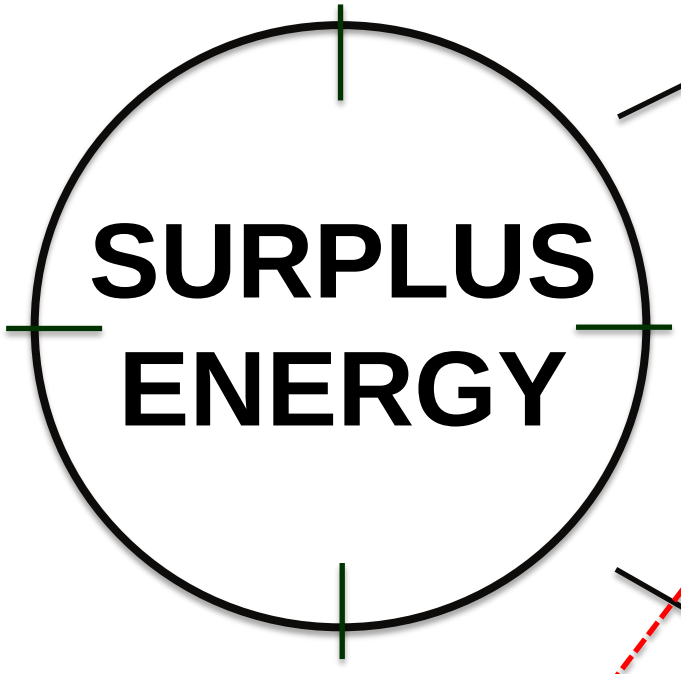
Illustrative opportunity assessment for new rates



Sell to domestic TSR customer @ RS 1823

$65/MWh

Tariff Revenue

Ratepayers are no worse off / or better off

$0-35/MWh

Opportunity for margin

Sell to Export Market @ Mid-C (average)

$30/MWh

Baseline Revenue

KEY RISKS

- Variable system conditions
- Variable market prices
- System reinforcement costs (firm service)

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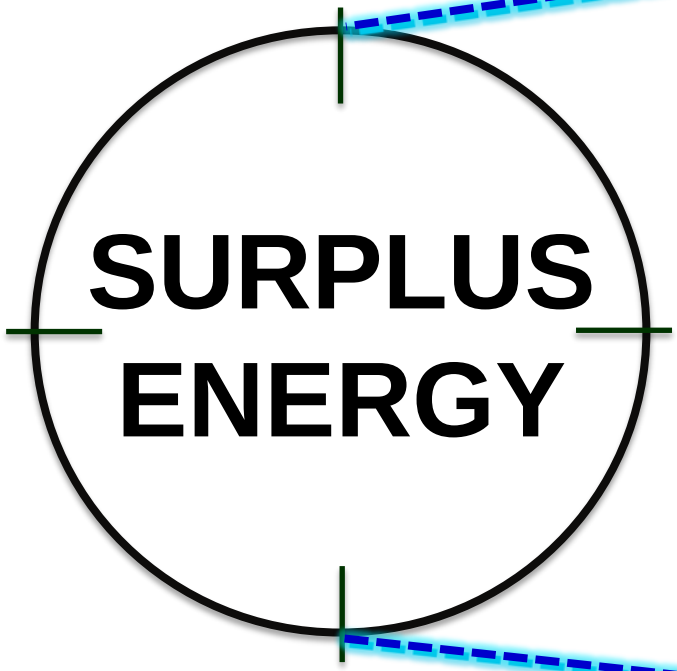
Illustrative, simplified economics



Opportunity for margin = Volume * Price

150 MW x 76% LF

= 1,000 GWh/yr

@ $10/MWh margin = $10M

@ $20/MWh margin = $20M

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Guiding principles

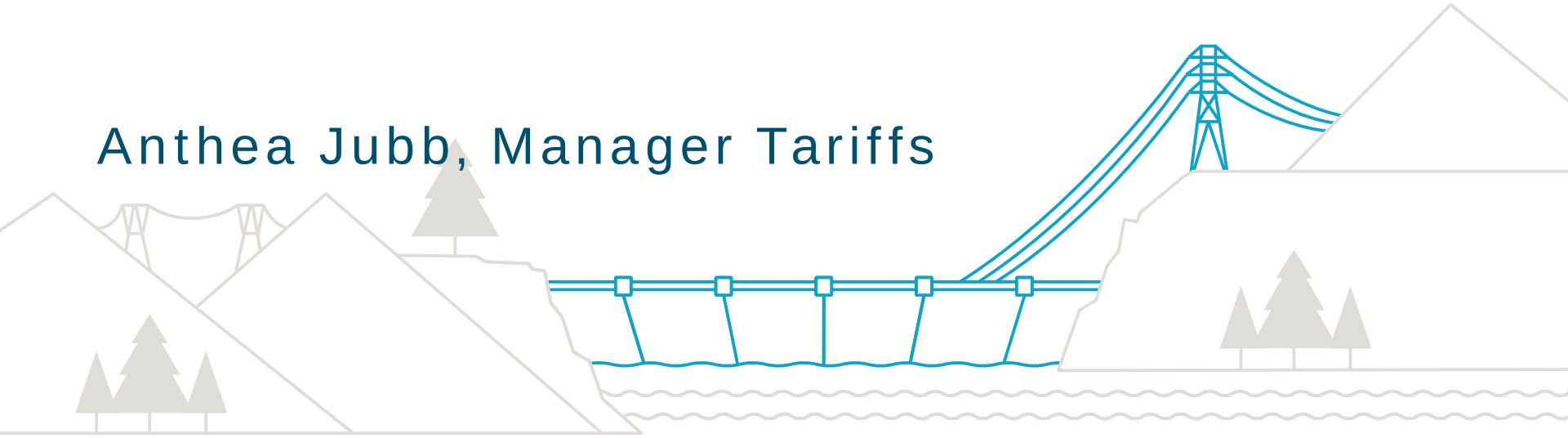
1. **No Harm** **Ratepayers are no worse off - or better off** ***(participants and non-participants)***

2. **No Undue Discrimination**
   (rates are fair, cost reflective, free from controversy)

3. **Rates are practical to implement and accepted by customers**
   (simple, pragmatic, match customer needs)

Rate Schedule 1823 (Stepped Rate) Pricing Principles

Anthea Jubb, Manager Tariffs



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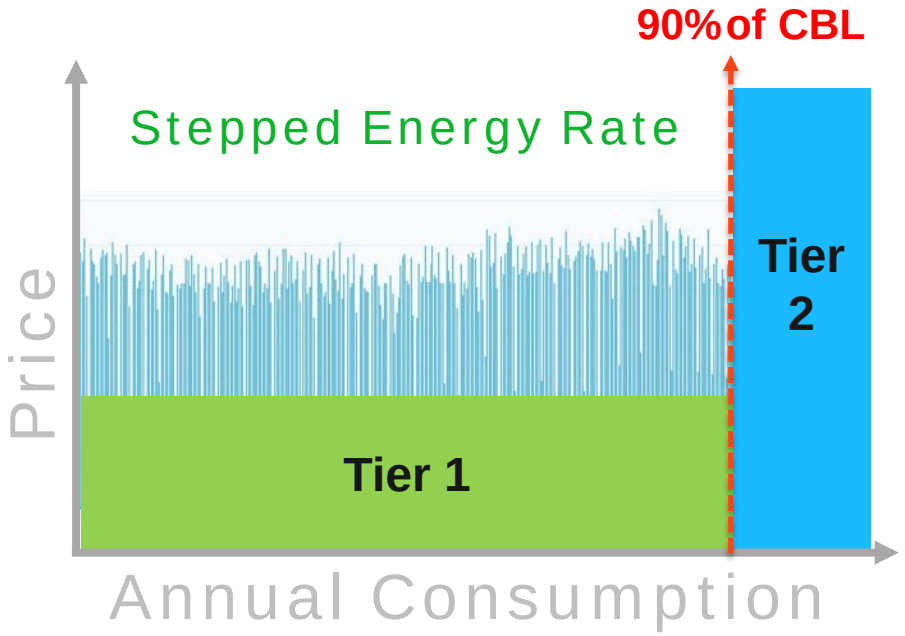
Outline

1. Overview of RS 1823
2. RS 1823 Pricing Principles Background
3. Rate Impacts of Re-pricing RS 1823 Energy Charges
4. BC Hydro's RS 1823 Pricing Principles Proposal for F2020

Overview of RS 1823 Stepped Rate

- RS 1823 is the default rate for BC Hydro's transmission service rate customers
- Introduced April 2006 pursuant to government direction
- Two step inclining block rate for energy to promote conservation
- Tier 2 rate set to reflect long-run marginal cost of new energy supply
- Flat rate for peak kVA demand



Energy pricing based on cumulative annual consumption relative to annual baseline (Annual Energy CBL)

- **Up to 90% of CBL = Tier 1**
- **> 90% of CBL = Tier 2**

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RS 1823 Pricing Principles: Background

- Re-pricing refers to adjusting the prices of the various components of the rate (e.g. demand and/or energy charges), without changing the total revenue from the rate class
- Re-pricing may be undertaken periodically to better align the rate components with costs and with Bonbright rate design principles
- BCUC approves the pricing principles and any resulting re-pricing of RS 1823 energy and demand charges (subject to applicable government direction)
- Re-pricing may change the electricity bills of individual customers
- Current RS 1823 pricing principles expire March 31, 2019
- F2020 RS 1823 Pricing Principles Application to the BCUC planned for winter 2018/19

RS 1823 Repricing: 2015 Rate Design Application

Commission approved pricing principles for RS 1823 Stepped Rate:

For F2017:

- Tier 2 energy rate set to lower end of BC Hydro's long run marginal cost of energy (LRMC)
- Tier 1 energy rate picked up general rate increase

For F2018 and F2019:

- Tier 1 and Tier 2 rates increased equally by the general rate increase

Rate Schedule 1823	F2016	F2017	F2018	F2019
BC Hydro General Rate Increase	**6.00%**	**4.00%**	**3.50%**	**3.00%**
RS1823 Energy Charges				
RS 1823 Energy Charge A *($/MWh)*	43.03	44.75	46.31	47.70
RS 1823 Tier 1 Rate *($/MWh)*	38.36	39.81	41.20	42.44
RS 1823 Tier 2 Rate *($/MWh)*	85.04	89.20	92.32	95.09
RS1823 Demand Charge *($/kVA)*	7.340	7.634	7.901	8.138

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Rate Impacts of Re-pricing RS1823 Energy Rates

- BC Hydro's updated long run marginal cost of energy may be lower than the value used in the 2015 RDA
- If so, then re-pricing Tier 2 lower may result in better alignment with marginal costs
- However, re-pricing the Tier 2 rate lower would necessitate increasing the Tier 1 rate higher

Illustrative Rate Impact of Re-pricing Tier 2 downwards in F2020
(Assuming 2.0% General Rate Increase and no Demand Charge Re-pricing)

		Status Quo Pricing Principles		Reprice Tier 2 to:					
				$80/MWh		$70/MWh		$60/MWh	
RS 1823	F2019 (c/kWh)	F2020 (c/kWh)	% change	F2020 (c/kWh)	% change	F2020 (c/kWh)	% change	F2020 (c/kWh)	% change
Tier 1 rate	4.244	4.329	2.0%	4.518	**6.5%**	4.629	**9.1%**	4.74	**11.7%**
Tier 2 rate	9.509	9.699	2.0%	8.00	**-15.9%**	7.00	**-26.4%**	6.00	**-36.9%**

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BC Hydro RS 1823 Pricing Proposal for F2020

- BC Hydro proposes status quo pricing principles for F2020
    - No change to the Tier 1 rate, Tier 2 rate or demand charge as a result of re-pricing. Any F2020 RRA increases would be applied equally to each of the Tier 1 rate, Tier 2 rate and demand charge
- This proposal would provide rate and bill stability, and be practical to implement
- We believe this proposal would also have customer understanding and acceptance, and seek your input on this.
- If supported, BC Hydro will file an application with the Commission for approval of this proposal
- Consultation on pricing principles for F2021 and beyond planned for next year

Do you support maintaining status quo RS1823 pricing principles for F2020?

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Questions

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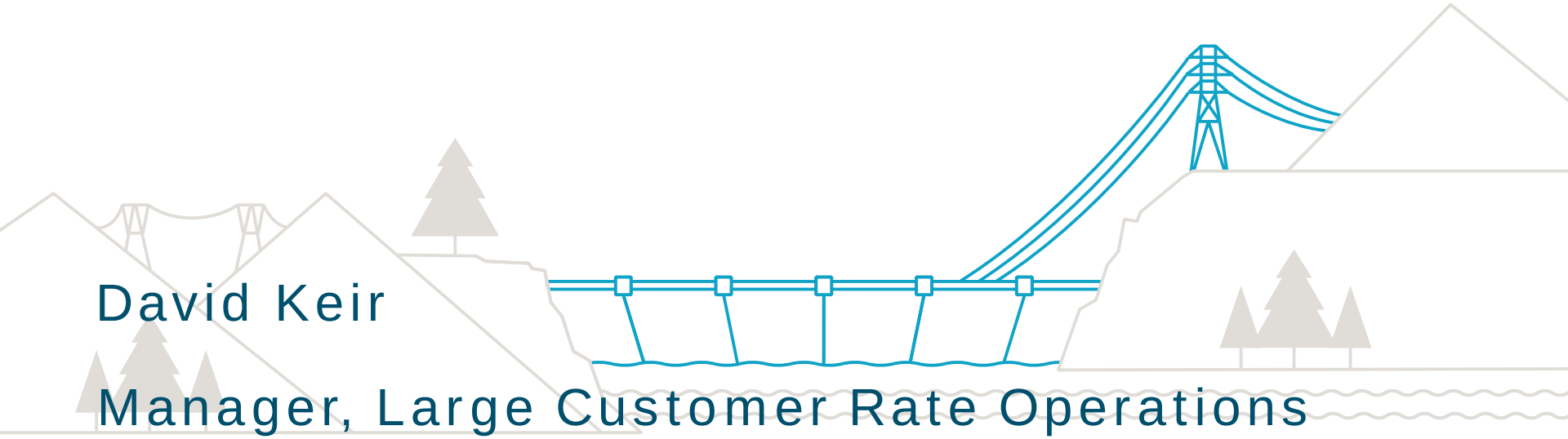
Market Reference Priced Rates (seasonal): RS 1892 Freshet Rate Pilot



David Keir

Manager, Large Customer Rate Operations

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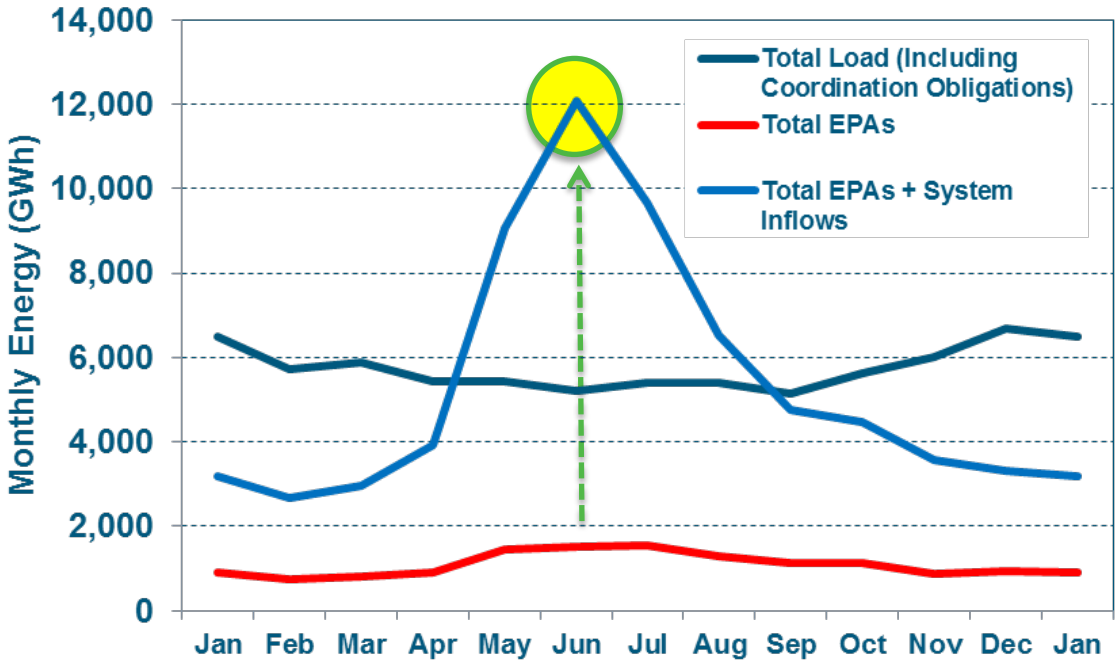
Freshet Rate Pilot

SYSTEM:
Well-designed to absorb large seasonal inflows, but seasonal EPA power increases total gen supply

ISSUE:
Generation over-supply and low domestic loads



SOLUTION:
Sell <u>incremental</u> electricity at market-referenced prices to domestic customers

IMPACTS:
Surplus energy (water) not able to be stored in system is either sold to market at depressed prices (typically in LLH) or spilled

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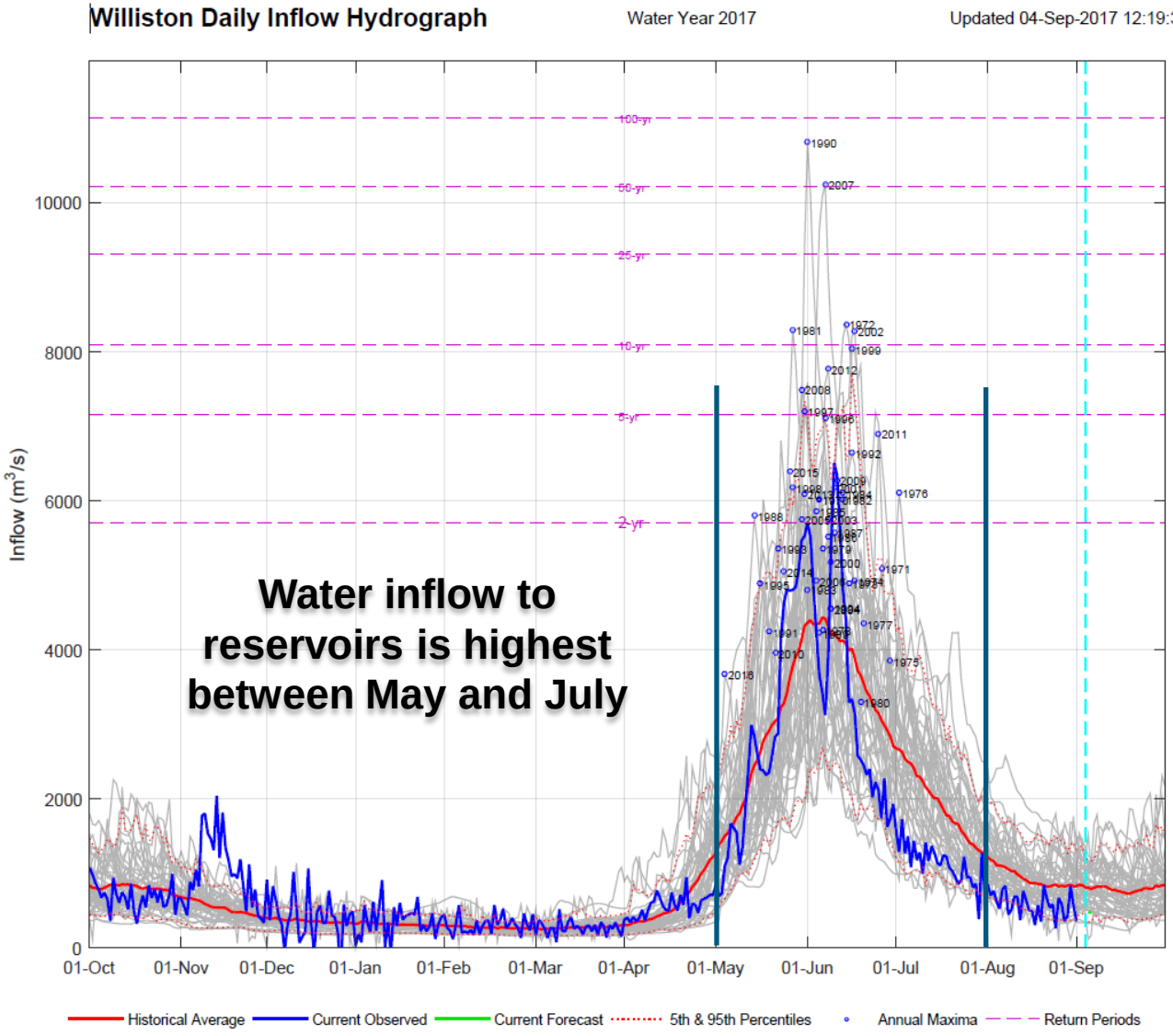
Freshet Period: 01 May – 31 July



Water inflow to reservoirs is highest between May and July

Historic period of hydro generation surplus

snow melt + heavy rainfall

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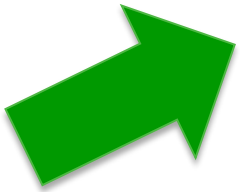
Stepped rate overlay and service distinction

Optional non-firm service under RS1892 for incremental load

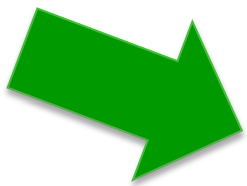


Short-run marginal cost

Daily market price signal to increase use

Energy and Demand Baselines approved by Commission

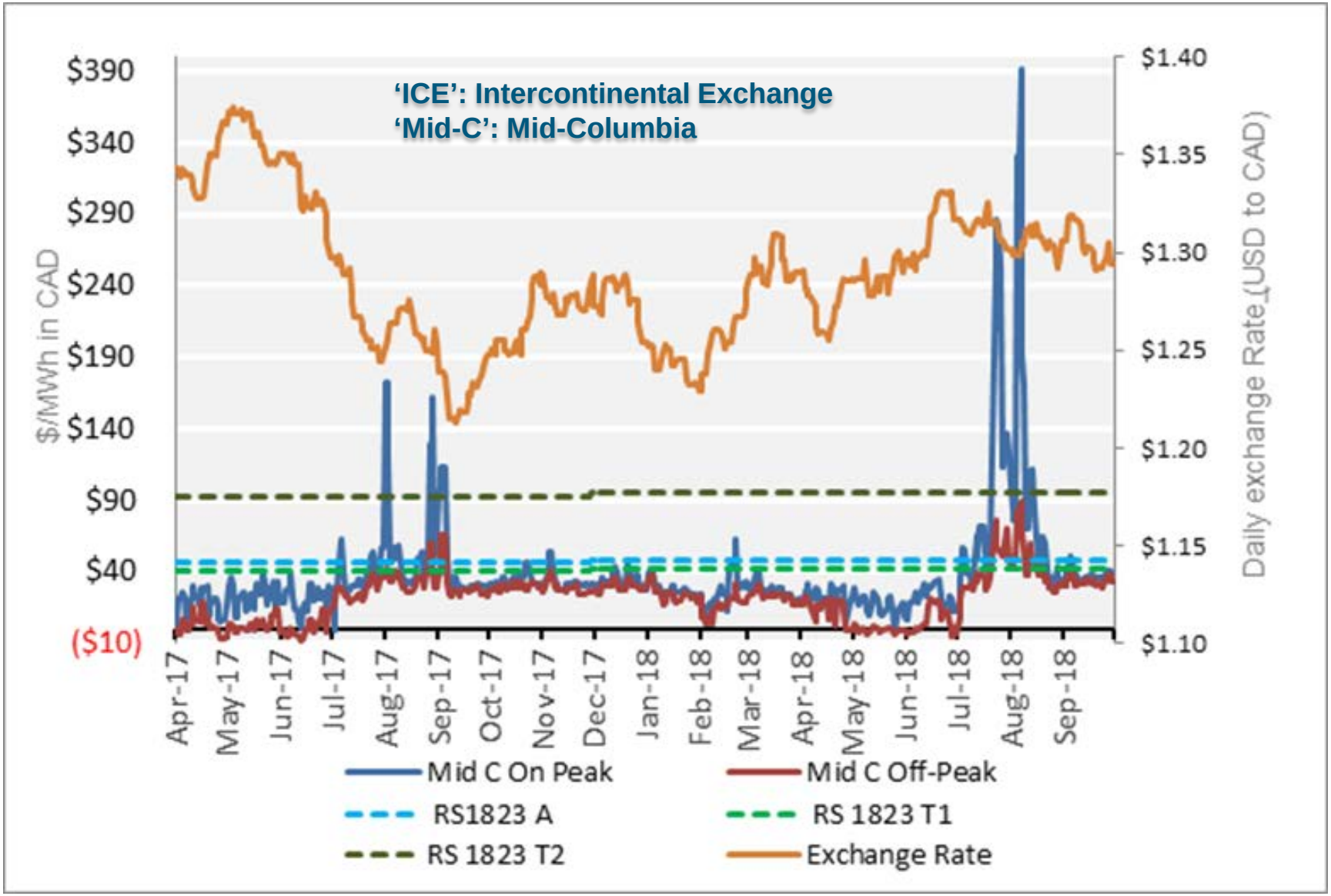
Firm service base load under RS1823



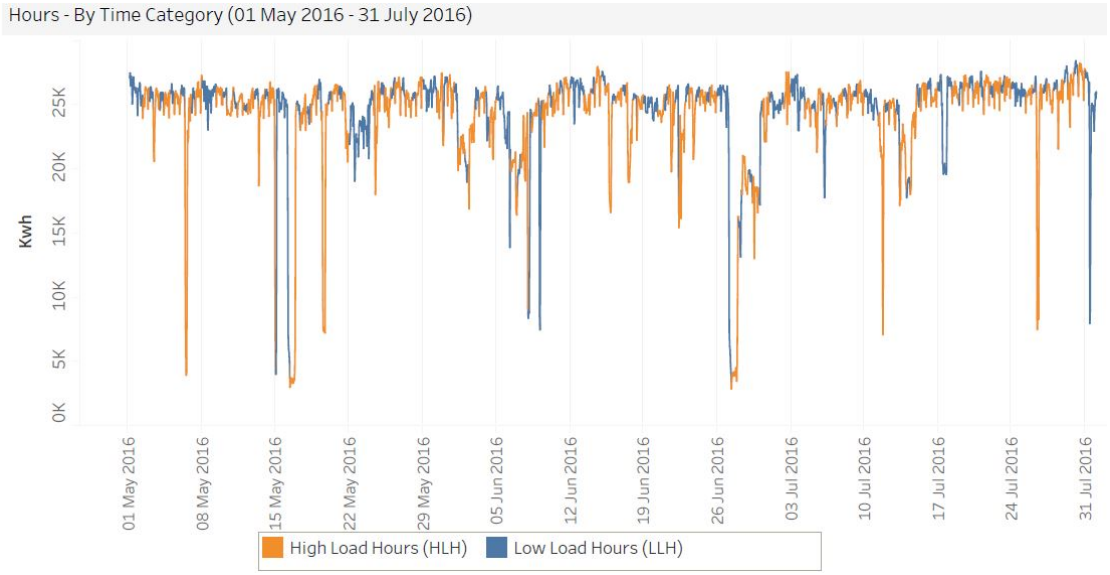
Long-run marginal cost

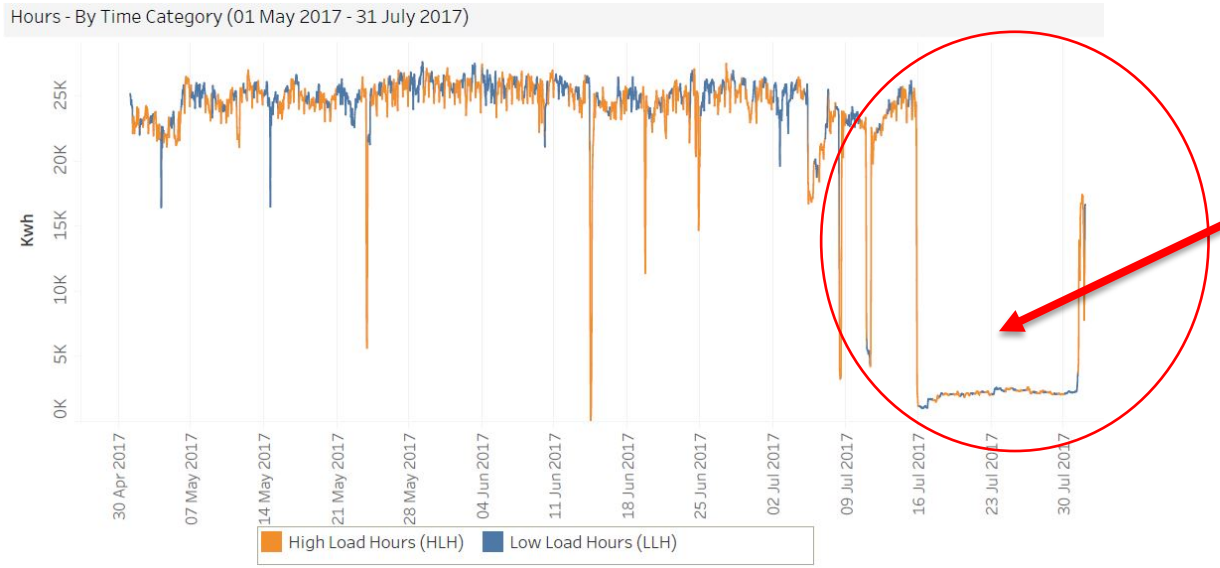
Annual price signal for conservation and efficiency

ICE Index: Day Ahead Mid-C Power Price reference



Baseline determination





1. **Review data from most recent freshet periods prior to participation**
2. **Confirm "normal" consumption in consultation with customer**
3. **File electricity baselines with Commission**

Adjust to remove impact of unique events

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Baseline determination example

HLH:
6am – 10pm, Mon-Sat
Excludes Sundays and stats

LLH:
All other hours

01 May 2017 - 31 July 2017	Hours	Energy (kWh)
High Load Hours (HLH)	1,232	50,119,189
Low Load Hours (LLH)	976	39,558,053
PERIOD TOTAL	**2,208**	**89,677,242**

	kWh/hr Ave.
High Load Hours (HLH)	40,681
Low Load Hours (LLH)	40,531

Monthly Invoice Check:

Month	Billing Period			Billed Energy (kWh)	Billed demand (kV.A)
May 2017	30 April	-	May 31	29,346,862	41,843
June 2017	31 May	-	June 30	28,360,229	50,566
July 2017	30 June	-	July 31	31,970,151	51,073
Total				**89,677,242**	**143,482**

Average kV.A

Reference Demand	47,827

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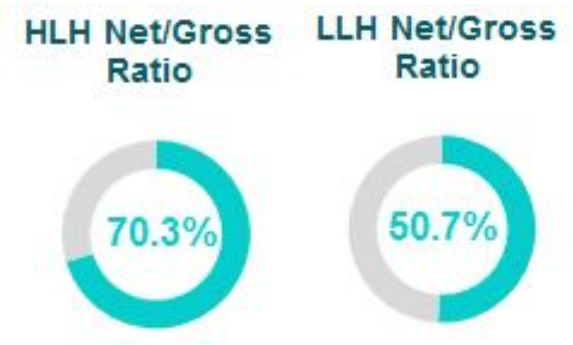
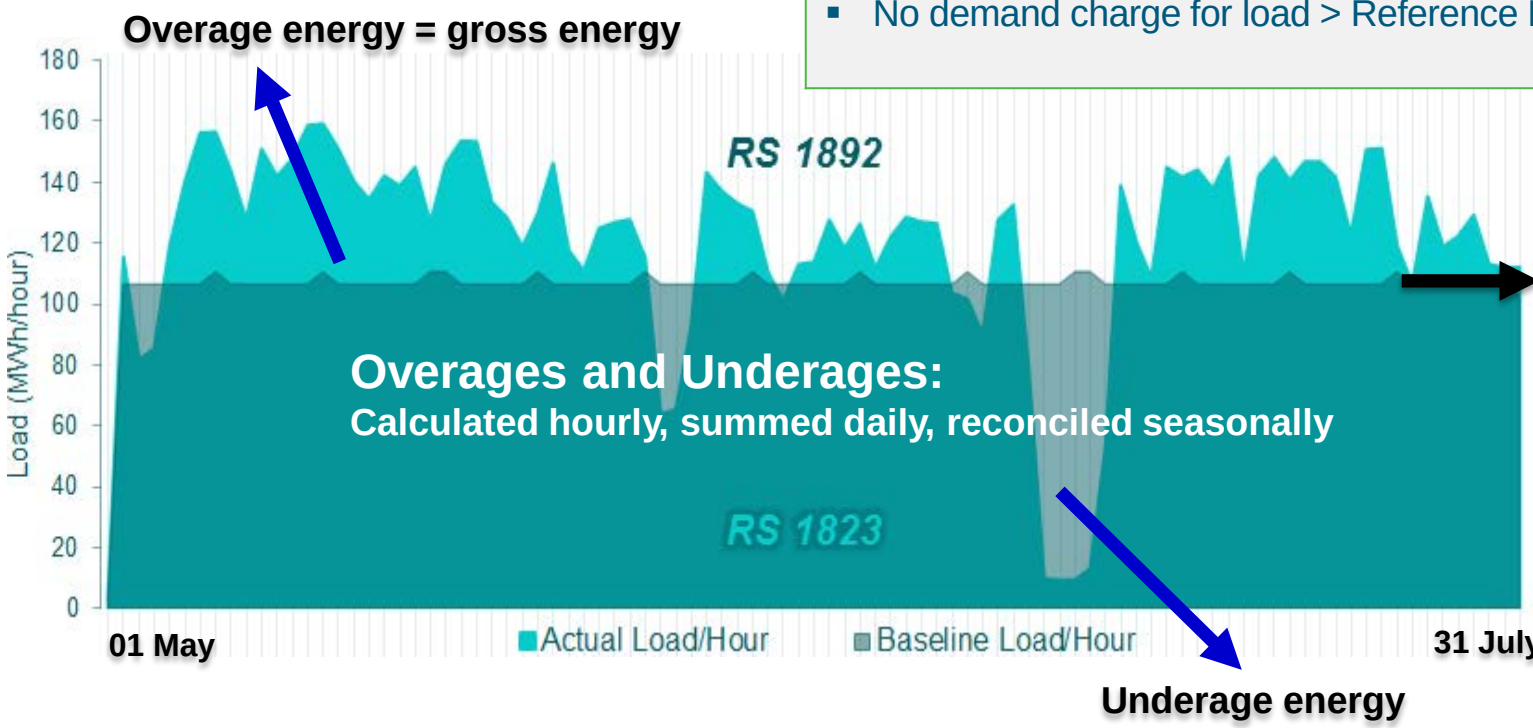
How the Freshet rate works



Rate Design Elements

- Market-referenced pricing (Mid-Columbia) for net incremental energy use
- Day ahead market index price (average daily HLH and LLH): $0 floor / no cap
- $3/MWh "wheeling charge" on net energy volume.
- No demand charge for load > Reference Demand



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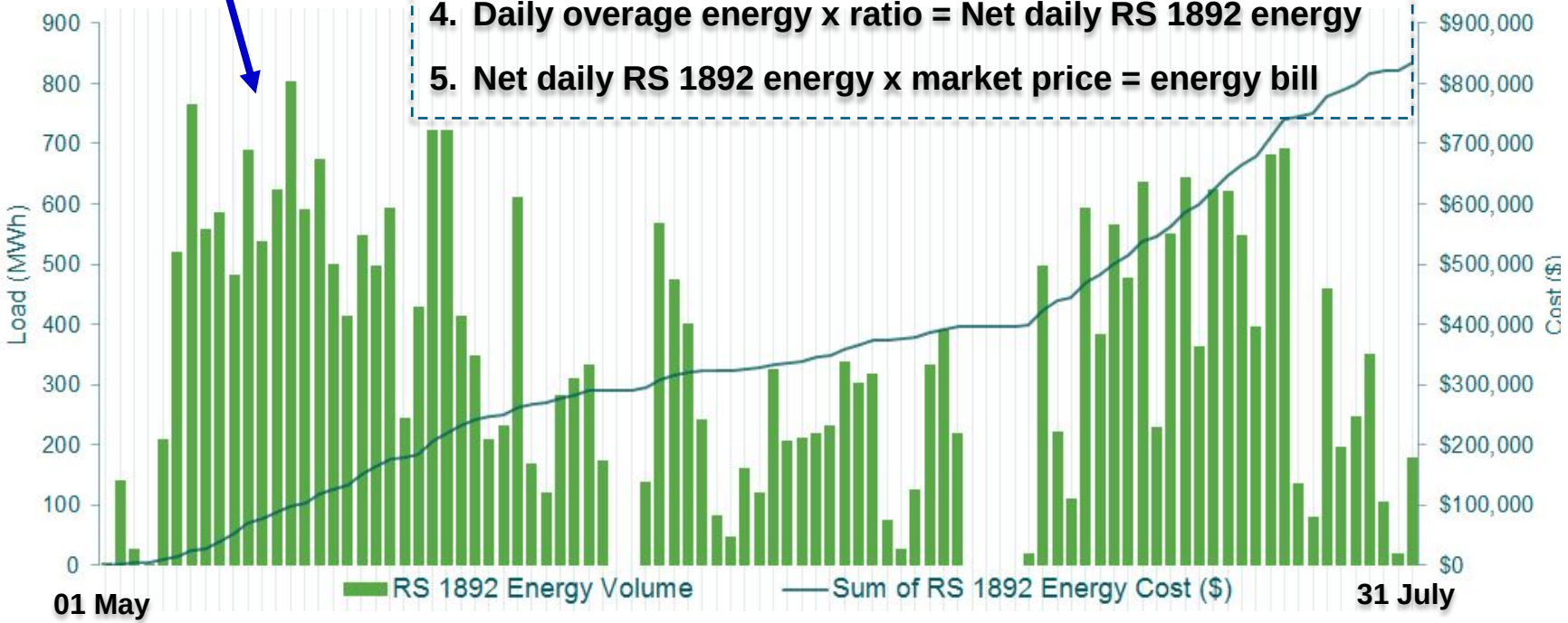
Freshet rate: seasonal billing example (illustrative)

1. **Gross incremental energy = hourly overage > baseline**
2. **Net energy (freshet season) = total overage energy – total underage energy**
3. **Net energy / total overage energy = Net:Gross ratio**
4. **Daily overage energy x ratio = Net daily RS 1892 energy**
5. **Net daily RS 1892 energy x market price = energy bill**

Daily net energy x daily Mid-C price



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Freshet Rate Pilot – Preliminary Results Summary (Years 1-3)

RS1892 SUMMARY OF RESULTS	YEAR 1	YEAR 2	YEAR 3
	May - July 2016	May - July 2017	May - July 2018
# of Participant Customer Sites	**39**	**44**	**45**
RS1892 energy sales (MWh)	**139,064**	**168,400**	**150,383**
Average incremental load (MW/hr)	63.0	76.3	68.1
Average unit cost of market-priced energy ($/MWh)	$ 21.88	$ 19.50	$ 23.81
RS1892 energy revenue ($M)	$ 3.0	$3.3	$3.6
Plus $3/MWh wheeling fee on energy volume ($M)	$ 0.4	$ 0.5	$ 0.5
Plus 5% rate rider ($M)	$ 0.2	$ 0.2	$ 0.2
Total RS1892 energy sales	**$ 3.6**	**$ 4.0**	**$ 4.2**
Ave. TOTAL unit cost of Freshet Rate energy ($/MWh)	$ 26.12	$ 23.63	$ 28.15
excluding taxes			

Freshet rate economics

Marginal resource used to serve incremental load is either Mid-C or large basin system generation

SYSTEM CONDITION

SELL

System Minimum Generation (market export)

- Incremental RS 1892 sales reduce forced market exports
- *BCH gains*: Avoided wheeling fees and transmission losses

BUY

System Minimum Generation (market import)

- Incremental RS 1892 sales result in increased market imports
- *BCH loses* : Incurred wheeling fees and transmission losses

HOLD

Energy supplied from large basin reservoirs on the margin

- Incremental RS 1892 sales are served from basin generation
- BCH gain / (loss) = RS 1892 Tariff – System Marginal Value (modeled price)

$3/MWh 'wheeling rate' helps to mitigate price risk from variable system conditions

Freshet Rate: Questions for Comment and Feedback

GENERAL

1. Do you think BC Hydro should continue to offer Freshet Rate service? Why/why not?
2. If yes, do you think BC Hydro should apply to have the Freshet Rate: (a) made permanent; or (b) extended for a further 3 year pilot period?

RATE DESIGN CONSIDERATIONS

a) Period to which the rate applies (e.g., replace July with April?)

b) Price floor (currently $0/MWh)

c) Wheeling rate (currently $3/MWh, nomenclature?)

d) Billing methodology (e.g., monthly ratio vs seasonal ratio)

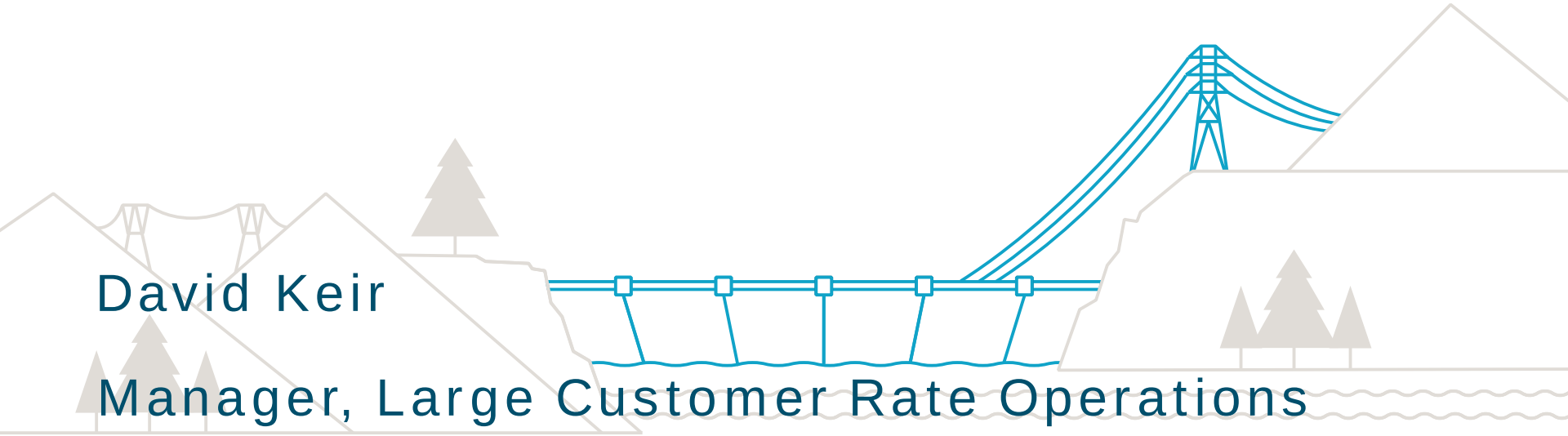
e) Baseline adjustment provisions (increases and decreases)

f) Baseline determination for new customers with limited history

g) Baseline assignment / intra-period ownership transfer = automatic opt-out

Market Reference Priced Rates (annual):

RS xx Incremental Energy Rate



David Keir

Manager, Large Customer Rate Operations

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Example - Real Time Pricing Rate (RTP): RS 1848

PURPOSE:

Load attraction - *serve incremental electricity*

Load retention - *serve "at risk" portion of historic load*

BACKGROUND AND CONTEXT

- BC Hydro had surplus electricity
- Market prices were (generally) lower than embedded cost tariff prices
- Market access considerations … prospective de-regulation

RTP SUMMARY

- RTP rate (RS 1848) approved in 1996 on a 1-yr pilot basis
- Application for ongoing rate (with modifications) approved in 1997
- Provided for non-firm, interruptible service at market-based prices
- BCH would make no new investments to assure delivery of RTP service
- Customer must apply to Commission for permission to access rate and for approval of Supplementary ESA
- RTP was terminated in 2005

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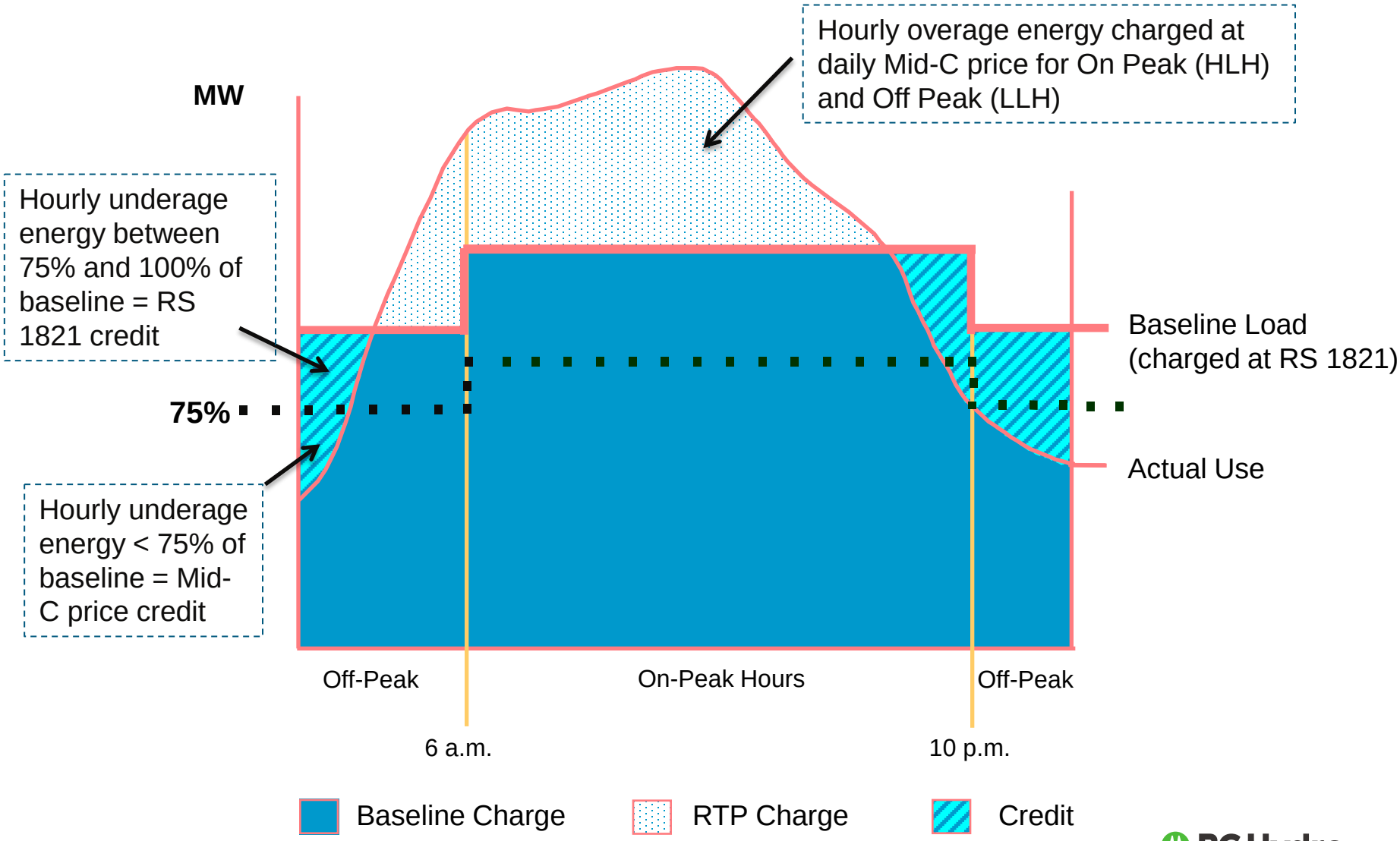
1997 RTP - How it Worked



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Proposed principles for annual market-reference priced rate

Working title: “Incremental Energy Rate”

KEY RATE DESIGN PRINCIPLES:

1. Provide annual option for incremental market-reference priced electricity (non-firm service)
2. Fair, consistent, transparent design and customer application
3. Optimize benefits to all ratepayers (participants and non-participants)

RS 1823 STEPPED RATE OVERLAY

- Provide base (firm service) electricity supply under TS5 and RS 1823
- Use customer-specific baselines (CBL) of historical load to determine incremental use

MARKET PRICING PRINCIPLES:

- **Available** – daily access to market price information
- **Transparent** – determined in a market with active trading
- **Accurate** – index is accurate reflection of market prices
- **Verifiable** – index prices can be readily verified

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‘Strawman’ rate design proposal for review and discussion purposes:

Criteria	Incremental Energy Rate
Service type:	Non-firm, interruptible (to extent BCH has available energy and capacity)
Eligibility:	Existing RS 1823 customers
Size:	5 MW minimum ESA Contract Demand
Contract Term:	1 year, effective April 1st
Notice:	Written notice of intent to participate by 01 March
Baselines:	Energy CBL (HLH and LLH) and Reference Demand, by calendar month
Baseline Determination:	Most recent annual period (365 days of historical RS 1823 electricity use)
Baseline Adjustment:	Per TS 74 criteria, with Commission approval
Energy Pricing:	ICE Index: Day ahead Mid-C for On-Peak (HLH) and Off-Peak (LLH)
Demand Charge:	No demand charge for load above Monthly Reference Demand
Risk Adjustment Factor:	$/MWh monthly adder based on BPA wheel fee (with seasonal adjustments)
Rate Structure underlay	RS1823 pricing = lesser of baseline or actual electricity use (calculated hourly)
Rate Structure overlay	RSxxxx pricing = daily net incremental energy x daily Mid-C price (HLH and LLH)
Interruptibility + Notice:	Reduce load to baseline with 2hr minimum notice requirement
Penalty for Non-compliance:	150% x daily market price for energy > baseline during Interruption Period
Special Condition 1:	No dual participation in Freshet Rate and Incremental Energy Rate
Special Condition 2:	Opt-out at any time; no re-bill for completed Billing Periods; no in/out privileges

Summary Questions for Feedback

a. Do you think BC Hydro should offer an annual market-referenced price rate to provide a non-firm service option for incremental electricity use? Why or why not?

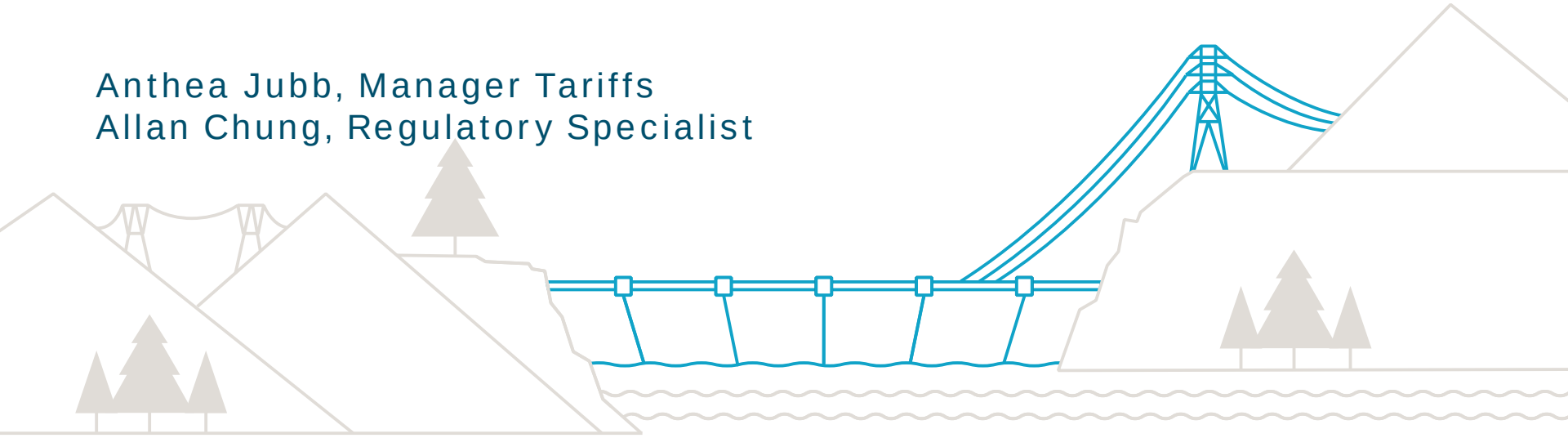
b. Do you agree or disagree with the high-level summary of proposed rate design and pricing principles? (slide 41)

c. Do you generally agree or disagree with the “strawman” rate design proposal? (slide 42)

d. What are the key issues and risks that you see with this rate concept?

Load Attraction Rate

Anthea Jubb, Manager Tariffs
Allan Chung, Regulatory Specialist



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Outline

1. Load Attraction Rate Overview, Objectives and Justification
2. Jurisdiction Review for Load Attraction and Retention Rates
3. Load Attraction Rate Potential Pricing
4. Load Attraction Rate Potential Availability
5. Load Attraction Rate Potential Term, Caps, Performance Monitoring and Evaluation

Load Attraction Rate Overview

- BC Hydro is currently forecasting an energy surplus
- BC Hydro's transmission service load has been declining
- The current environment provides opportunities to attract new loads and to diversify industrial customer base
- Large customers may have choices in where to invest new plant and electricity price may be critical factor in their decision making
- Several utilities offer competitive electricity prices to attract new loads

Load Attraction Rate Objectives

- Attract new large transmission service loads by providing discount to default firm service rate
- Maximize benefits to both participants and rate payers given BC Hydro's current surplus
- Prevent costs from being imposed on existing customers by providing ratepayer protection

Load Attraction Rate Justification

1. Load Attraction Rate revenue covers the marginal energy cost and in addition provides a contribution to fixed costs

    - All ratepayer's receive a benefit from contribution to fixed cost (i.e., demand and customer-related cost), which would not occur in absence of the rate
    - The cost of service is recovered over the longer term after the customer returns to standard RS 1823 electricity pricing

2. Target new transmission service rate customers who would not otherwise locate in BC Hydro's service territory <u>but for the discount</u>

Jurisdiction Review for Load Attraction and Retention Rates

Utility	Offer	Availability	Justification
Hydro Quebec, 2015 to current	Firm electricity supply discounted by between 20% to 5% from default rates ending 2027	New and expanding facilities > 1MW	• Ratepayer benefits due to efficient use of surplus • Provincial Economic Development
BC Hydro, RTP rate 1996 – 2006	Market-based pricing for marginal consumption. Reduced CBL for load retention and attraction	New and existing RS 1821 customers	• Improve system efficiency through increase use in surplus or decrease use in a shortage • Provide mutual benefit to participating and non-participating customers
PG&E SCE Standard EDR 2005 to current	12% discount on total standard bundled charges for 5 years for load retention and attraction	Minimum load 200 kW actively pursuing out of state location or would otherwise cease operations	• Contribution to margin from customers that would not otherwise remain or locate in service territory benefits other ratepayers

Jurisdiction Review for Load Attraction and Retention Rates

Utility	Offer	Availability	Justification
Manitoba Hydro Surplus Energy Option 2000 to current	Surplus energy available at market prices on an interruptible basis	General service with heating or self-generation loads over 200 kW and industrial loads >1,000 kV.A Limited to 25% of total load for industrial customers without back-up facilities	• The revenue raised under the SEP program should "break-even" on an annual basis i.e., it should be approximately the same as if the power had been sold to the opportunity export market.
Nova Scotia Power Load Retention Tariff 2012	Custom offer for Port Hawkesbury Paper which pays variable incremental cost of service with positive contribution to fixed cost	Port Hawkesbury Paper	• Some contribution to fixed costs is better than other ratepayers bear all of the costs

Load Attraction Rate Pricing

Guided by Bonbright, Principles of Public Utility Rates:

Some forms of price discrimination can be socially valuable in that they can lead ….to an overall reduction in the average price charged to consumers. For discrimination to be socially beneficial, certain conditions must be met. *(Bonbright et al. 1988 version, pg. 177)*

Load attraction rate pricing is under development. May offer a discount from standard rate (RS 1823) for the lesser of a number of years (eg. 5) or the end of the surplus, for example:

Should there be a larger discount to the energy charge only, or a smaller discount to both energy and demand charges?

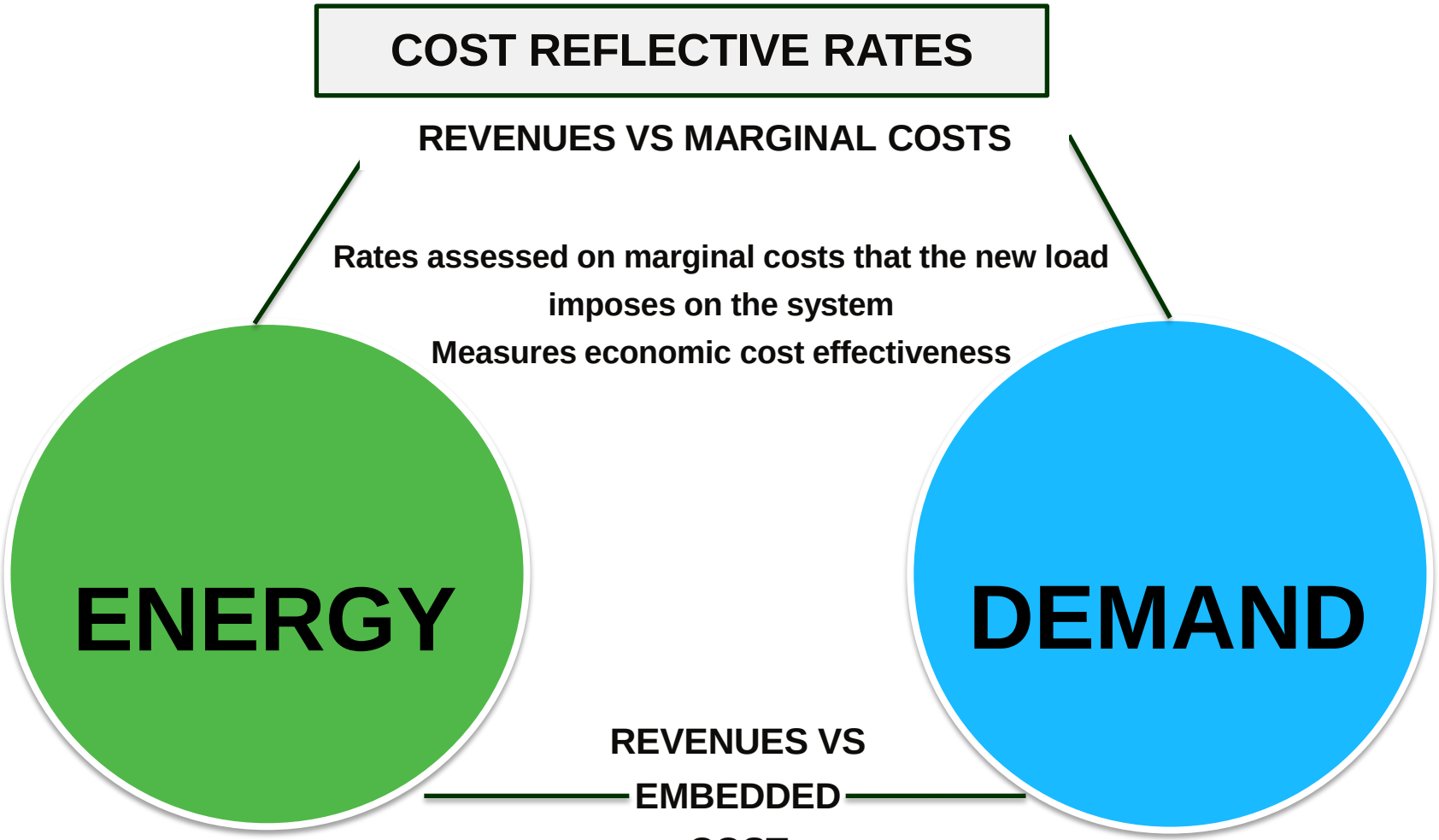
Should there be a larger discount with a earlier, abrupt transition to the standard rate, or a smaller discount with a later, more gradual transition?

Load Attraction Rate – How much to discount?

Three potential approaches to determine the appropriate magnitude of the discount:

1. Revenues relative to embedded costs – fairness to other ratepayers
2. Revenues relative to marginal costs – economic efficiency and cost effectiveness
3. Rate relative to competing jurisdictions – attractive to potential new load

Load Attraction Rate – How much to discount?



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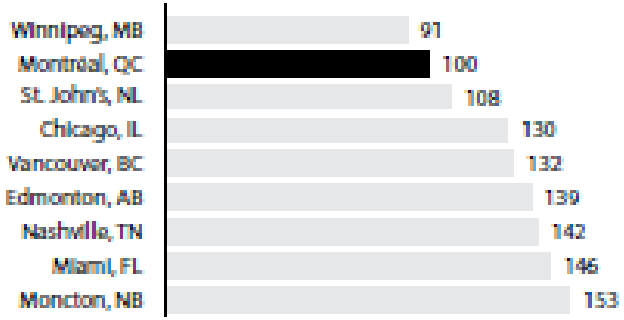
Load Attraction Rate – How much to discount?

- Ensure that the rate discount is sufficient to attract new load
- Hydro Quebec 2018 Rate Comparison Report found that BC Hydro Large Power rates are fifth, behind Manitoba, Quebec, Newfoundland, and Chicago



Comparative Index of Electricity Prices
Large-Power Customers

Consumption: 30,600,000 kWh/month
Power demand: 50,000 kW
Voltage: 120 kV

- Compare potential pricing scenarios with electricity rates in the following regions: Quebec, Manitoba, Pacific Northwest

In addition to Quebec, Manitoba and Pacific Northwest, would you suggest we analyze other regions?

Load Attraction Rate Availability

Potential Availability and Conditions

a. Available to facilities for which the discounted electricity rate will not undermine competitiveness of existing BC Hydro customers e.g., industries that already exist in BC and are involved in producing a commodity product that is priced according to a market index would not be eligible

b. Available to new load only

Do you support these potential availability criteria? Would you suggest others?

Load Attraction Rate Availability

Potential Free Ridership Screening Criteria

a. Electricity costs are a substantial share of operating costs (e.g., 10%)

b. Approval to participate in the rate predates final investment decision;

c. Attestation by Officer of the Company that the rate was a determining factor in decision to locate facility in BC Hydro service territory

d. Has the ability to relocate based on competitive electricity price options in other jurisdictions (criteria used under BC Hydro 1996/97 RTP rate)

e. Not geographically dependent on a localized resource

Do you support these potential criteria? Would you suggest any others?

Load Attraction Rate Term, Caps, Performance Monitoring, and Evaluation

Potential Term and Caps:

- The load attraction rate may be open for three years only, and in each year BC Hydro may approve no more than 500 GWh of new load

Do you support using these potential terms and caps? Would you suggest other values?

Potential Performance Monitoring

- Annual monitoring of load, revenues, incremental administration costs to BC Hydro

Potential Evaluation

- Complete a net impact evaluation at the end of year three, to determine the net new load attracted, and the net benefits to ratepayers achieved using the two assessment methods (embedded cost and marginal cost)

Do you support this potential monitoring and evaluation approach? Would you suggest the monitoring and evaluation of other metrics?

Questions

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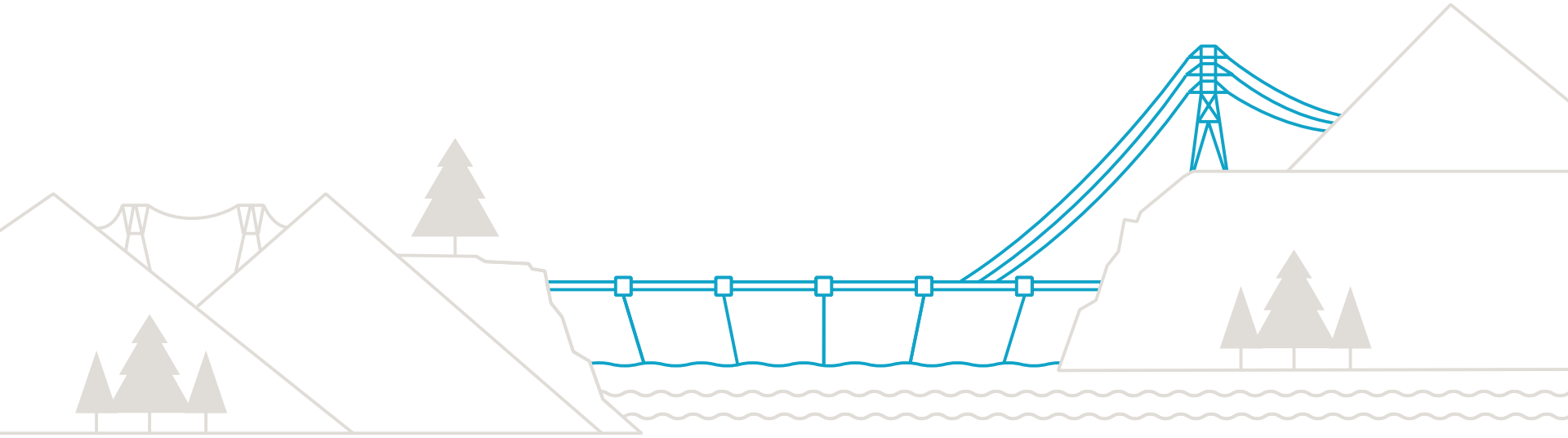
Load Retention Rate



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Load Retention Rate - Eligibility Considerations

Load Retention Criteria from BC Hydro's 1996 Industrial Services Application (for RTP Rate - RS 1848)

1. Customers must be currently receiving service under RS 1821 with electricity costs exceeding 10% of total variable costs; and
2. Customers must be able to demonstrate one of the following:
    a) Ability to self-generate; or
    b) Ability to relocate loads to other territories; or
    c) Inability to compete with similar producers in other territories because of electricity prices, resulting in reduced or discontinued production in BC

SPECIAL CONDITIONS FROM APPROVED RS 1848 RATE SCHEDULE:

1. Customer can satisfy BCH that it can reduce load to CBL within 1hr of receiving notice
2. Energy CBL required prior Commission approval where:
    a) CBL determination differs from actual average electricity use over prior 3 years
    b) CBL is reduced for load retention or economic development purposes

Load Retention Rate – CBL Adjustment Criteria for RTP (RS 1848)

CBL Reduction Principles from BCUC's 1996 Decision:

1. Avoid undue discrimination amongst customers in same industry
2. CBL reductions should be customer-specific and kept to minimum necessary to retain load
3. Over-riding principle should be the maximization of benefits to all customers

BC Hydro 1997 RTP Evaluation Report Findings:

- Using equivalent electricity prices available to the applicant's competitors outside of BC – or the price equivalence of an alternative fuel source – is an objective and effective way to determine the minimum level of CBL reduction required
- Applicant must demonstrate that its BC plant survival critically depends on reduced electricity cost in BC; and demonstrate diligent efforts in controlling costs for other inputs such as labour, materials, chemicals and fuels, etc.

Pricing:

- **RS1821 energy and demand for baseline load**
- **Market-referenced prices for load > baseline**

Load Retention Rate – Hydro Quebec

Sign-up Requirements (via written application):

- 3 years of audited financial statements
- Detailed variable costs of production (historical and forecast)
- Historical and forecast sales prices for manufactured products

Eligibility Criteria:

- Customer must demonstrate:
  a) financial difficulties that entail cessation of all or part of its operations
  b) it has obtained reductions from other key suppliers
  c) steps will be taken to improve profitability

Pricing (min) for eligible load up to 100%:

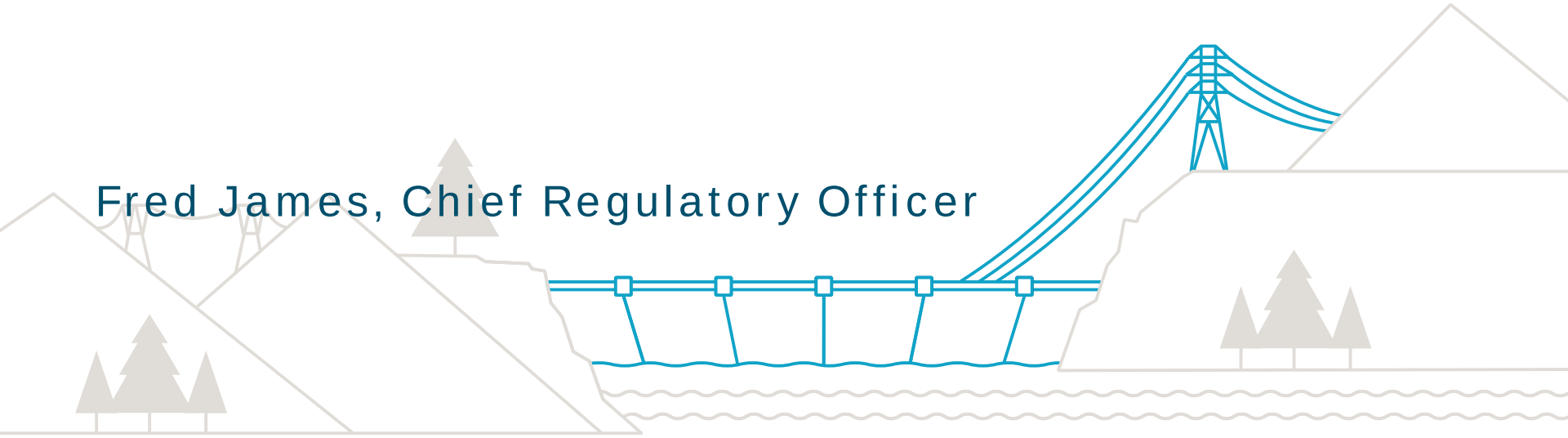
- **Energy charge + 10% premium**
- **No demand charge**

Summary Questions for Feedback

1. Do you think BC Hydro should offer a load retention rate for existing customers who are facing financial difficulties? Why or why not?
2. Is the provision of a load retention rate (i.e., some form of discounted firm service) to one customer within an industry sector where other customers pay standard tariff rates fair?
3. How should BC Hydro and/or the Commission determine the appropriate CBL reduction to reflect the ‘at risk’ portion of an existing operating customer load?
4. Should load for ‘plant restarts’ be eligible? Why or why not?
5. Should load for ‘plant expansions’ designed to extend plant operating life be eligible? Why or why not?

Closing and Next Steps

Fred James, Chief Regulatory Officer



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Next Steps

Engagement

- October 24, 2018: Deadline for feedback form and written submissions regarding today's workshop
- November 19, 2018: Transmission service rate design workshop #2, to include proposed pricing, availability and terms for load attraction and retention rates

Freshet Rate

- November 2018: Freshet Rate Final Evaluation Report and Application for Freshet Rate for F2020 and Beyond
- By February 28: Requested Commission approval for Freshet Rate, to allow continuation of this rate in the F2020 freshet period

Next Steps

Load Attraction and Retention Rates

- December 2018: Target filing our Load Attraction and Retention Rates Application
- January to spring 2019: Possible Streamline Review Process in February, if supported by interveners, or written process through spring 2019
- Fall 2019: Target implementation of Load Attraction and Retention Rates

RS1823 Pricing Principles

- Winter 2018/19: Application for status quo pricing principles for 2020
- Spring / summer 2019: Further development and consultation on pricing principles for F2021 and beyond

Thank you

Please remember to complete feedback forms

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