

Date: 2025-03-19

City of West Kelowna 2760 Cameron Rd. Email: erin.goodwin@westkelowna.ca West Kelowna, BC V1Z 2T6

**Attention:** Erin Goodwin

Re: Royal LePage Place Arena – Recommended Energy Measures based on Update Incentive

Offer

Dear Erin:

After receiving a copy of the updated funding offer from FortisBC (Implementation Incentive Letter dated March 13, 2025), and based on the previously received tender costs, we recommend the energy upgrades at the Royal Lepage Arena include the following measures:

- ECM-2: Controls Optimization: Update and refresh the existing Building Automation System (BAS) control strategies to reduce energy demands on the facility while maintaining indoor comfort.
- ECM-4: Optimization of Dehumidifier Operation: Modify the existing arena dehumidifier control logic to include a dew point setpoint reset based on outdoor air conditions to reduce gas consumption associated with the dehumidifier.
- ECM-5A: Replace Existing Arena Heat Recovery System: Upgrade and replace the existing Multistack HP in the arena with a high-temperature heat pump to service the Royal Lepage Arena.
- ECM-7: Desuperheater: This measure involves connecting a desuperheater to the refrigeration plant to preheat the Zamboni hot water.

Table 1 summarizes the costs and anticipated benefits of implementing these measures. Capital costs are based on the previous tender costs received on October 18, 2024. Through the implementation of these ECMs, the combined Royal Lepage Arena and Jim Lind gas consumption is anticipated to be reduced by 53%, with operational GHG emissions being reduced by 225 tons of CO₂e per year. The anticipated annual energy cost savings is approximately \$44,000 per year.

File No.: P026.003.24

Ph: 778.797.8805



Table 1 – ECM Energy and Cost Performance Summary

ECM	Description	Energy Savings		Cost	Capital Cost (\$)			
		Natural Gas (GJ/year)	Electricity (kWh/year)	Savings (\$/year)	Base Cost	ECM Cost	Incentive Offer	Net Cost
2	Controls optimization for RLP boilers	310	4,777	\$4,099	\$0	\$15,625	\$9,300	\$6,325
4	Dehumidifier Optimization	194	4,615	\$2,668	\$0	\$6,250	\$4,688	\$1,563
5a	Install 100-ton heat pump at RLP	3,445	-202,250	\$29,931	\$0	\$1,157,861	\$475,410	\$682,451
7	Desuperheater	567	-	\$6,956	\$0	\$85,000	\$51,040	\$33,970
Total	<u> </u>	4,516	-192,854	\$43,664	\$-	\$1,264,736	\$540,428	\$724,309

Note that although the base cost for ECM-5a is zero, the current unit is not functional and needs to be replaced to provide any savings. An additional benefit of ECM-5a is that the installed heat pump could provide cooling for the facility if a dry cooler or cooling tower is added. We understand that cooling may be necessary to use the facility as a wildfire response centre in the future.

A summary of key metrics is summarized below:

## **Financial Metrics**

Total Project Cost: \$1.27 million

• Incentives: \$540k (43% of project)

Net Cost to City: \$730k

Annual Cost Savings: \$44k

## **GHG Emission Reduction**

- 225 tons CO<sub>2</sub>e avoided per year
- 4,500 tons of CO<sub>2</sub>e avoided over life of measures (20 years)
- Lifetime savings is equivalent to 74,000 tree seedlings grown for 10 years.

We trust the above information is clear and helpful for project planning purposes. We are available to provide further clarification as requested.



Yours very truly,

First Light Energy Solutions Ltd.

Mike Reimer, P.Eng., LEED AP

Principal

Attachment(s):

• Fortis BC Offer Letter CEP-209739 (March 13, 2025)

Professional Seal & Signature





CEP-209739 March 13<sup>th</sup>, 2025

The City of West Kelowna c/o Erin Goodwin 2760 Cameron Road West Kelowna, BC, V1Z 2T6

RE: Custom Efficiency Program Implementation Incentive Approval Letter, The City of West Kelowna, Royal LePage Place Arena, 2760 Cameron Road, West Kelowna, BC, V1Z 2T6 (the "Building")

FortisBC Inc. and FortisBC Energy Inc. (collectively, "FortisBC") are pleased to advise that you are eligible for an implementation incentive ("the Program"). The incentives for approved energy conservation measures (ECMs) are set out in the table below to support your energy efficiency and/or greenhouse gas reduction project, subject to the measures being installed and to compliance with the attached terms and conditions.

# Implementation Incentive Funding

FortisBC Funded Measures (must be installed and operational within 18 months of the date of the Implementation Incentive Letter) <sup>1</sup>							
	Estimates						
Approved Energy Conservation Measures		Project Cost Natural Gas (\$) Savings (GJ/y)		Annual Annual Electricity Greenhouse Savings Gas Savings (kWh/y) (t CO₂e/y)		Implementation Incentive <sup>3</sup>	Indicate Intention to Implement
ECM 2	Controls optimization for RLP Boilers	\$15,625	310	4,777	15.37	\$9,300	
ECM 4	Dehumidification Optimization	\$6,250	194	4,615	9.62	\$4,687.50	
ECM 5a	Install 100-ton high temp heat pump at RPL	\$1,157,861	3,445	(202,250)	170.80	\$475,410	_
ECM 5b	Install 30-ton high temp heat pump at JL	\$656,139	784	(49,716)	38.87	\$108,192	
ECM 7	Desuperheater Heat Recovery	\$85,000	567	-	28.11	\$51,030	0
ECM 8*	Replace Existing Dehumidifier*	\$456,250	698	43,324	34.61	\$62,820	
ECM 3	Low-Flow Plumbing Fixture	\$17,631	145	-	7.19	\$8,700	_
TOTAL		\$2,394,756	6,143	(199,250)	304.57	\$720,139.50	

<sup>\*</sup>ECM 8 savings are dependent on heat pump installed in ECM 5b. ECM 5b must be implemented to receive rebate for ECM 8.

<sup>&</sup>lt;sup>1</sup> Please see section 1(d)(iii) of the Terms and Conditions.

<sup>&</sup>lt;sup>2</sup> Please refer to the implementation Incentive Funding Terms and Conditions for further information on Minimum Savings requirements.

<sup>&</sup>lt;sup>3</sup> Subject to the attached Implementation Incentive Funding Terms and Conditions. Note that Implementation Incentive cannot exceed 75% of the invoiced cost of the measure.

# **Energy Study Incentive & Implementation Bonus**

An Energy Study Incentive of \$27,523.36 was sent to you on December 18, 2023.

If you implement any ECM listed above you will also qualify for an Implementation Bonus of \$9,174.45.

## **Participant Declaration**

I declare, covenant and agree that:

- I am the owner or long-term lessee of or a duly authorized representative of the owner or long-term lessee of the building(s) described within the Energy Report and meet the eligibility requirements to participate in, and receive incentives under, the Program.
- All information submitted to FortisBC, including the Energy Report, and as otherwise communicated
  to FortisBC with respect to participation in the Program is accurate and complete and I will promptly
  notify FortisBC in writing if any information changes.
- I accept the Implementation Incentive Funding Terms and Conditions attached to this letter.
- If I apply for or receive funding from any other source for the Energy Report or for implementing approved measures, I will promptly notify FortisBC, providing the name of the funder(s) and the amount of funds available.
- I have not already ordered or purchased any of the materials or equipment required to implement the approved measures.
- I intend to implement the approved measures eligible for an implementation incentive as selected in the table above by:

(implementation	date)	_	
Participant name (please print)	Position/title	Signature	Date (Yr/Mth/Day)

<sup>&</sup>lt;sup>1</sup> Please see section 1(d)(iii) of the Terms and Conditions.

<sup>&</sup>lt;sup>2</sup> Please refer to the implementation Incentive Funding Terms and Conditions for further information on Minimum Savings requirements.

<sup>&</sup>lt;sup>3</sup> Subject to the attached Implementation Incentive Funding Terms and Conditions. Note that Implementation Incentive cannot exceed 75% of the invoiced cost of the measure.

# **Next Key Milestones**

- Return a signed copy of this letter within 60 days to confirm your commitment.
- FortisBC upgrades must be installed and operational by September 10, 2025

# Future Steps in the Program

- Contact FortisBC when your project is complete.
- Submit invoices and schedule a site visit to receive incentive payments. Terms and conditions apply. Visit
  our website for details

## Questions

If you have additional questions, please review the General Terms and Conditions or speak directly with a FortisBC representative by calling **1-866-884-8833** or by emailing <a href="mailto:customdesign@fortisbc.com">customdesign@fortisbc.com</a>

<sup>&</sup>lt;sup>1</sup> Please see section 1(d)(iii) of the Terms and Conditions.

<sup>&</sup>lt;sup>2</sup> Please refer to the implementation Incentive Funding Terms and Conditions for further information on Minimum Savings requirements.

<sup>&</sup>lt;sup>3</sup> Subject to the attached Implementation Incentive Funding Terms and Conditions. Note that Implementation Incentive cannot exceed 75% of the invoiced cost of the measure.

## Custom Efficiency Program Implementation Incentive Funding Terms and conditions

# Energy at work FORTISBC

#### ECM REQUIREMENTS AND CONDITIONS

- Energy conservation measure requirements
  - (a) Changes to ECMs. Incentives are available only for the implementation and/or installation of approved energy conservation measures (each, an "ECM") identified in the incentive letter ("the Implementation Incentive Letter") issued by FortisBC and signed by named Company (the "Participant"), which approval was based on the descriptions, analysis and assessments contained in the participant's energy study report and/or other supporting documentation accepted by FortisBC (the "Energy Report"). The Participant will promptly notify FortisBC if an ECM or the estimated energy savings or greenhouse gas reductions vary from the details set out in the Energy Report and will provide an updated Energy Report to FortisBC for approval. The Participant is solely responsible for the cost of updating the Energy Report. FortisBC may, in its sole discretion, rescind approval or funding for any ECM or recalculate the amount of funding based on such changes.
  - (b) Quality. All products, materials and/or equipment installed as part of an ECM must be new, CSA-approved or certified by a recognized accredited independent organization and ordered and purchased after the date of the Implementation Incentive Letter.
  - (c) Costs. The Participant is responsible for all commitments and costs to implement the ECMs, including any cost overruns.
  - (d) Installation.
    - (i) The implementation of ECMs must not commence until the declaration portion of the Implementation Incentive Letter has been completed and signed by the Participant and delivered to FortisBC.
    - (ii) The Participant is responsible for the proper installation of ECMs, and disposal of any resulting hazardous materials, by qualified persons and in accordance with manufacturer's instructions and all applicable laws.
    - (iii) The Participant must have the ECMs installed and operational within 18 months of the date of the Implementation Incentive Letter
  - (e) Compliance. ECMs must be installed and operated in accordance with all applicable laws, orders, regulations, ordinances standard, codes and other rules, licenses and permits of all lawful authorities. HVAC and control redesigns should adhere to applicable ASHRAE guidelines and calculation procedures. ECMs must meet or exceed the requirements of the Energy Efficiency Act (British Columbia) and the Energy Efficiency Act (Canada) and any applicable regulatory requirements in British Columbia, as determined by FortisBC, in its sole discretion. The approval of ECMs or the provision of funding by FortisBC does not constitute approval of, or waiver from approval by, Technical Safety BC, a building inspector, or any other approving authority.
- Minimum operating period. Unless otherwise set out in these terms and conditions, ECMs must remain in operation at the premises for their intended purpose for at least 36 months (3 years) following commencement of operation (the "Minimum Operating Period").

#### **PAYMENT CONDITIONS AND TERMS**

- Conditions of funding
  - (a) Conditions general.
    - (i) Payment of funding is subject to the Participant and ECMs meeting the eligibility requirements and these terms and conditions, FortisBC's receipt, review and approval of all required deliverables and satisfactory site visits. Funding payments cannot be assigned without the prior written consent of FortisBC, which consent may be arbitrarily withheld.
    - (ii) At the time of funding, the Participant must be:
      - a customer of FortisBC in good standing; and
      - either the owner of the premises, or long term lessee of the premises (lease for a term of 15+ years (including renewals) with > 5 years remaining) who has the consent of the landlord/owner for the installation of the measures.
    - (iii) FortisBC may, in its sole discretion, refuse to pay any funding, recalculate the amount of funding, terminate the Participant's participation in the program, and/or require the Participant to immediately repay all or part of any funding paid, if FortisBC, in its sole discretion, determines:
      - information provided by the Participant is incorrect or incomplete; or
      - the Participant, the premises or the ECMs are not eligible for the program or the Participant has not provided satisfactory proof of eligibility; or

- the Participant does not permit access to the premises to conduct site visits; or
- ECMs are not operational or have been removed during the Minimum Operating Period; or
- the Participant has not otherwise complied with the terms and conditions.
- the Participant does not participate in the Measurement and Verification Plan
- (b) Deliverables. The Participant must submit the following to FortisBC, all subject to FortisBC's satisfaction and approval, no later than 60 days after the ECM has been installed and is operational:
  - (i) proof of installation and operation of the ECM;
  - (ii) copies of detailed invoices and supporting documentation setting out contractor/vendor information, invoice numbers, purchaser name, address of installation; date of purchase; manufacturer makes(s)/model numbers(s), quantities and itemization of cost (including equipment and labour);
  - iii) if requested by FortisBC:
    - written Declaration of Substantial Completion by the architect, mechanical engineer and/or electrical engineer;
    - · copy of the Occupancy Permit;
    - equipment shop drawings, installation permits, start up reports, and the results of any commissioning tests;
    - inspection activity reports and final acceptances by building inspectors and/or Technical Safety; and
    - any other applicable permits.
- (c) Site visits. The Participant will provide or ensure FortisBC is granted access to the property and the ECMs during business hours upon reasonable notice to enable FortisBC to:
  - conduct a pre-installation inspection of the premises to verify the condition of the building(s) / facilities and existing equipment;
  - gather information for the development of any measurement and verification plan or protocol initiated and undertaken by FortisBC (the "Measurement and Verification Plan"), if required by FortisBC;
  - (iii) verify the installation and operation of the ECMs; and
  - (iv) conduct periodic inspections of the ECMs throughout the Minimum Operating Period.
- 4. Measurement and verification plan. At FortisBC's sole discretion and as identified on the Implementation Incentive Letter, The Participant will participate in, provide requested information for, and assist with the implementation of, any Measurement and Verification Plan. FortisBC will, at its sole discretion, reimburse the Participant up to a 100 per cent incurred by the Participant to implement the Verification Plan.

#### 5. Amount of funding

- (a) Calculation of ECM funding. Subject to reduction or repayment pursuant to sections 3(a) (Conditions General), 5(b) (Third Party Funding) 5(c) Funding Adjustment and 6(e) (Repayment), the amount of funding will be calculated by FortisBC applying the same methodology used to calculate the estimates shown in the Implementation Incentive Letter updated to incorporate metrics, inputs, outputs, results and other information applicable to the ECMs as installed and operating, including as contained in the Measurement and Verification Plan, provided that in no event will the aggregate funding for implemented ECMs exceed the maximum amount set out in the Implementation Incentive Funding table of the Implementation Incentive Letter (the "Maximum Incentive").
- (b) Third party funding. Participation in this program does not preclude the Participant from applying for or receiving contributions from other sources towards the acquisition or implementation of the ECMs ("Third Party Funding"), provided that, if the Participant accepts Third Party Funding and such funding plus the total FortisBC funding exceeds the total invoiced cost of the ECM, the Participant will, within 30 days of demand, repay the excess to FortisBC.
- (c) Funding Adjustment. Funding may be adjusted by FortisBC, at its sole discretion, for Participants who self-generate energy which results in energy savings not attributable to ECMs funded by FortisBC. Please contact <u>businessrebates@fortisbc.com</u> for more information.

#### 6. Payment and repayment

- a) Payment with respect to ECMs
  - If the ECM does not require a Measurement and Verification Plan, FortisBC will pay the funding upon satisfaction of the conditions of funding.

- (ii) If the ECM requires a Measurement and Verification Plan, as outlined on the Implementation Incentive Letter, FortisBC will pay the funding as follows:
  - 75 per cent of the amount paid upon ECM commissioning and all documentation received.
  - 25 per cent of the amount paid upon the project achieving the identified minimum energy savings as shown in the Implementation Incentive Letter.
  - If minimum savings are not achieved within the identified time frame, Verification can be extended for an additional year for a maximum of two years.
- (b) Implementation bonus. If the Implementation Incentive Letter approved an implementation bonus with respect to any ECM, FortisBC will pay the bonus concurrent with the payment of implementation funding for that ECM. The bonus is subject to the same payment and repayment terms and conditions as funding for the associated ECM.
- (c) Form of payment. FortisBC will issue payments by cheque, in name of, and mailed to, the Participant or, if requested by Participant in the application form, by electronic funds transfer. FortisBC is under no obligation to re-issue a payment which has been returned as undeliverable or to replace a stale-dated cheque.
- (d) Taxes. The Participant is responsible for any applicable tax on funding.
- (e) Repayment. In additional to repayment obligations set out in section 3(a) (Conditions of Funding), if, at any time during the Minimum Operating Period:
  - the Participant ceases to be a FortisBC gas customer with respect to the premises; or
  - (ii) an ECM ceases to operate, ceases to be used for its intended purpose, or is removed:

the Participant shall make a pro rata repayment of funding to FortisBC calculated based on the number of months or partial months remaining in the Minimum Operating Period within **90 days** of such triggering event:

#### **GENERAL TERMS AND CONDITIONS**

- 7. Program changes. FortisBC may amend or terminate the program and these terms and conditions at any time and for any reason without notice. In such event, FortisBC shall be under no obligation to pay any funding or further funding to the Participant. Dates are subject to change. Amount of available funding may be limited.
- 8. Limitation of liability and indemnity.
  - (a) The Participant acknowledges and agrees that:
    - (i) FortisBC, not being the designer, manufacturer, supplier or installer of the ECMs, makes no representation or warranty whatsoever regarding the ECMs or their installation or operation, including but not limited to, implied warranties or conditions of merchantability, merchantable quality, necessity, durability, fitness for a particular purpose, compliance with laws, energy efficiency/savings, title, and non-infringement, or the skill of any contractor. FortisBC accepts no liability or responsibility for any equipment, services, use of any contractor or any ECM.
    - (ii) FortisBC does not assume any liability for any damages, claims, losses or expenses incurred by the Participant with respect to the ECMs or the Participant's participation in the program.
    - (iii) FortisBC is not responsible for any costs incurred by the Participant for its participation in the program or attributable to the ECMs.

- (b) The Participant hereby indemnifies and saves harmless FortisBC and its representatives from and against all claims for any breach of these terms and conditions, for death of or injury to any person, for any loss of or damage to or destruction of any property or economic loss, suffered by any person arising from or occurring by reason of the Participant's participation in the program, receipt of funding or installation, use or operation of ECMs.
- (c) This section will survive termination of this agreement.
- No approval or endorsement. FortisBC does not approve or endorse any particular consultant, manufacturer, product, system, design, contractor, supplier or installer in promoting this program.
- 10. Ownership. Nothing herein shall be deemed or construed to constitute FortisBC assuming any ownership interest in any ECM, or to create a joint venture, partnership, employment or agency relationship between the FortisBC and the Participant for any purpose.
- Binding decisions. The determinations and decisions of FortisBC are final and binding. FortisBC may, upon request from the Participant, provide reasons for its determinations and decisions, but is under no obligation to do so.

#### 12. Marketing and promotion.

- (a) The application hereby consents to FortisBC identifying the Participant's involvement in the program, and publishing the Participant's business name, a general description of the ECMs and resulting energy performance and payback period, to promote the program in various forms of media. The Participant will be entitled to review and approve any promotional material prior to publication, such approval not to be unreasonably withheld, conditioned or delayed.
- (b) The Participant will acknowledge the funding received in all publications, publicity material, release and other forms of communication pertaining to the ECMs or the Participant's participation in the program. All such communications must be submitted to and approved in writing by FortisBC prior to publication.
- Use and disclosure of Information. The Participant acknowledges, consents and agrees FortisBC may:
  - (a) contact the Participant to administer, verify compliance with, and evaluate the program, and to obtain information and conduct surveys;
  - (b) collect and use information (including personal information as defined in the Personal Information Protection Act), whether provided by the Participant, obtained during site visits, contained in, or forming part of, any documents submitted as part of the program or generated by FortisBC as part of the Participant's participation in the program, and disclose the information to employees, affiliates, contractors, representatives, agents, funding partners and program partners to verify eligibility, process, manage, administer, audit, evaluate and report on the program, the funding amounts and the Participant's participation, to monitor, audit and assess compliance with these terms and conditions, and to develop other energy conservation programs;
  - (c) retrieve account data, including billing, energy use and consumption, for a period of **five years** prior to, and **five years** after, the ECM installation dates to evaluate consumption behavior and energy savings attributable to the program, and to collect, use and disclose such account data pursuant to (b) above.

FortisBC collects, uses and discloses personal information in accordance with the Personal Information Protection Act and its Privacy Policy (see <a href="fortisbc.com/privacy">fortisbc.com/privacy</a>).