

EB-2022-0200 : 1 : Kelly Bruce

COST CLAIM NUMBER
1476

SUBMISSION DEADLINE DATE
July 12, 2023

CLAIM STATUS
Approved by Finance

EB#
EB-2022-0200: Rates: Distribution: Enbridge Gas
Inc.

OTHER EB#S

PHASE #*
1

INTERVENOR
Bruce, Kelly; +1 (437) 328-9397
kbruce@enerlife.com

INTERVENOR COMPANY*
Building Owners and Managers
Association, Toronto: Cooperative

INTERVENOR TYPE
Full Registrant

HST RATE ONTARIO
13.00

EXCHANGE RATE

COUNTRY

HST NUMBER
R119420859

LATE SUBMISSION ALLOWED
No

EXTENSION DEADLINE DATE

PARTICIPANTS

			Total (\$)	Total Hours	Participant Claim Status
New	Non-Filing Participant First, Last Name	Filing Participant			
Yes	Giovanni , Madalozzo		16,048.83	61.75	Submitted
Yes	Natalie , Millan		2,161.13	11.25	Submitted
Yes	Simon , Sahi		2,209.15	8.50	Submitted
No		Jarvis, Ian; +1 (416) 915-1530 x.203 ijarvis@enerlife.com	60,532.88	162.33	Submitted
Yes	Pavel , Rusyaev		8,788.58	45.75	Submitted
No		Jarvis, Ian; +1 (416) 915-1530 x.203 ijarvis@enerlife.com	22,746.91	61.00	Submitted

ATTACHMENTS

Attachment	Document Type	Import Message
BOMA EB-2022-0200 Cost Claim 071220231757.pdf		

TOTAL LEGAL/CONSULTANT/OTHER FEES
99,546.40

TOTAL DISBURSEMENTS
0.00

TOTAL HST
12,941.08

TOTAL CLAIM
112,487.48

TOTAL AMOUNT AWARDED

TOTAL HOURS CLAIMED
350.58

TOTAL HOURS DISALLOWED

REASON FOR
DISALLOWANCE

REASON FOR
DISALLOWANCE - 2

REASON FOR
DISALLOWANCE - 3

MAKE CHEQUE PAYABLE TO
Enerlife Consulting Inc.

SEND PAYMENT TO ADDRESS
90 Eglinton Ave E
Suite 412
Toronto, Ontario
M4P 2Y3

ATTENTION

SUBMIT SECTION

I am a representative of the Party. I have examined all of the documentation in support of this cost claim. The costs incurred and time spent are directly related to the Party's participation in the OEB Process referred to above.

This cost claim does not include any costs for work done, or time spent, by a person that is an employee or officer of the Party as described in section 6.05 and 6.09 of the OEB's Practice Direction on Cost Awards.

The information (fees and disbursements) filed in this cost claim is complete and accurate and in accordance with the OEB's Practice Direction for Cost Awards and Appendix A, the Cost Awards Tariff.

SUBMITTED BY
Kelly Bruce

DATE SUBMITTED
July 12, 2023

Giovanni Madalozzo

CASE EB-2022-0200: Rates: Distribution: Enbridge Gas Inc.	COST CLAIM EB-2022-0200 : 1 : Kelly Bruce	INTERVENOR NAME Bruce, Kelly; +1 (437) 328-9397 kbruce@enerlife.com	PARTICIPANT CLAIM STATUS Submitted
FILING PARTICIPANT	NEW PARTICIPANT Yes	NON-FILING PARTICIPANT F. NAME Giovanni	NON-FILING PARTICIPANT L. NAME Madalozzo
SERVICE PROVIDER TYPE* Consultant	YEAR CALLED TO BAR*	COMPLETED YEARS PRACTICING/YEARS OF RELEVANT EXPERIENCE* 10	HOURLY RATE 230
HST RATE CHARGED* 13.00	CV STATUS (FOR CONSULTANT/ANALYST) CV Attached	LAST CV DATE July 12, 2023	OVERRIDE HOURLY RATE No
HST NUMBER R119420859	HEARINGS Yes	CONSULTATIONS No	DISBURSEMENTS Yes

HEARINGS

Hearings Hours	Hearings Subtotal (\$)	Hearings Total Tax (\$)	Hearings Total (\$)			
61.75	14,202.50	1,846.33	16,048.83			
<u>Name</u>	<u>Hours</u>	<u>Hourly Rate</u>	<u>Sub Total</u>	<u>HST Rate</u>	<u>HST</u>	<u>Total</u>
REVIEW APPLICATION AND EVIDENCE						
Review Application and Evidence		230		13.00		
DISCOVERY						
Preparation of Interrogatories		230		13.00		
Review Interrogatory Responses		230		13.00		
Technical Conference Preparation		230		13.00		
Technical Conference Attendance		230		13.00		
Technical Conference Follow Up		230		13.00		
ISSUES LIST						
Preparation		230		13.00		
Attendance at Issues Conference		230		13.00		
INTERVENOR EVIDENCE						
Preparation	61.75	230	14,202.50	13.00	1,846.33	16,048.83
Interrogatory Responses		230		13.00		
Preparation of Witness(es) for Attendance at Hearing		230		13.00		
SETTELEMENT CONFERENCE / ADR						
Preparation		230		13.00		
Attendance		230		13.00		

<u>Name</u>	<u>Hours</u>	<u>Hourly Rate</u>	<u>Sub Total</u>	<u>HST Rate</u>	<u>HST</u>	<u>Total</u>
Preparation of Settlement Proposal		230		13.00		
Attendance at Presentation to Panel		230		13.00		
ORAL HEARING						
Preparation		230		13.00		
Attendance at Oral Hearing		230		13.00		
SUBMISSIONS						
Written Submissions		230		13.00		
Oral Submissions		230		13.00		
Attendance at Oral Submissions		230		13.00		
OTHER ATTENDANCE						
Other Attendance		230		13.00		
COMMUNICATION						
With Client		230		13.00		
With Other Parties		230		13.00		
MOTIONS						
Preparation of Motion(s) Materials		230		13.00		
Prepare Submissions on the Motion(s)		230		13.00		
Attendance at Hearing on Motion(s)		230		13.00		
CONFIDENTIALITY						
Preparation of Application for Confidentiality		230		13.00		
Prepare Submissions on Confidentiality		230		13.00		
Attendance at Hearing on Confidentiality		230		13.00		
DECISION						
Review		230		13.00		
RATE ORDER						
Review		230		13.00		
Prepare Submission on Rate Order		230		13.00		
TOTAL SERVICE PROVIDER FEES						
Total Service Provider Fees:	61.75		14,202.50	1,846.33		16,048.83

Attachments

<u>Attachment</u>	<u>Document Type</u>	<u>Import Message</u>
Inv 3814 OEB 2022-0200 Expert Evidence Interim Inv.pdf	Time Docket and Invoice	
Enerlife CV Giovanni Madalozzo 2022.pdf	CV	

DISBURSEMENTS

Disbursement Subtotal(\$)	Disbursement Total Tax(\$)	Other Taxes/Tips Total(\$)	Disbursement Total(\$)
0.00	0.00	0.00	0.00

<u>Name</u>	<u>ATT.</u> <u>REQ'D</u>	<u>ATT.</u> <u>PROV</u>	<u>Qty</u>	<u>\$/</u> <u>Unit</u>	<u>Net</u> <u>Cost</u>	<u>HST</u> <u>Rate</u>	<u>HST</u>	<u>Other</u> <u>Taxes/Tip</u>	<u>Total</u>	<u>Rationale/</u> <u>Comment</u>
Scanning/Photocopy (Internal)						13.00				
Scanning/Photocopy (External)						13.00				
Printing (Internal)						13.00				
Printing (External)						13.00				
Courier						13.00				
Teleconference						13.00				
Travel: Air						13.00				
Travel: Car Rental						13.00				
Travel: Gas						13.00				
Travel: Car Mileage – Southern Ontario				0.40						
Travel: Car Mileage – Northern Ontario				0.41						
Travel: Rail						13.00				
Travel (Other)						13.00				
Parking						13.00				
Taxi						13.00				
Accommodation						13.00				
Other						13.00				

Hearings, Consultations, Disbursements Attachments

<u>Attachment</u>	<u>Document Type</u>	<u>Claim Type</u>	<u>Import Message</u>
Inv 3814 OEB 2022-0200 Expert Evidence Interim Inv.pdf	Time Docket and Invoice	Hearings	
Enerlife CV Giovanni Madalozzo 2022.pdf	CV	Hearings	

To: Ontario Energy Board
2300 Yonge Street
Suite 2701
Toronto, Ontario M4P 1E4



Re: EB-2022-0200 Enbridge Gas Inc. 2024 Rebasing Application Interim Cost Claim for Expert Witness

Date: July 12, 2023

Invoice # 3814

Date	Hours	Analyst/Consultant/Case Mgmt	Project Phase	Description	Rate	Total
Tuesday, February 7, 2023	1.5	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review Correspondence	\$ 230.00	\$ 345.00
Wednesday, February 15, 2023	1	Giovanni Madalozzo	Intervenor Evidence - Preparation	Internal meeting	\$ 230.00	\$ 230.00
Friday, February 17, 2023	3.25	Giovanni Madalozzo	Intervenor Evidence - Preparation	Research - Review ICF-Enbridge report	\$ 230.00	\$ 747.50
Tuesday, February 21, 2023	3	Ian Jarvis	Intervenor Evidence - Preparation	Research - Analyze savings potential for different commercial building sectors, Gas load shape for commercial building with heat recovery	\$ 330.00	\$ 990.00
Friday, February 24, 2023	0.25	Ian Jarvis	Communication with other parties	Research - internal meeting	\$ 330.00	\$ 82.50
Friday, February 24, 2023	3.25	Giovanni Madalozzo	Intervenor Evidence - Preparation	Research - Review Simcoe Place base case and heat recovery analysis	\$ 230.00	\$ 747.50
Sunday, February 26, 2023	2	Pavel Rusyaev	Intervenor Evidence - Preparation	Research - Prepared estimated gas use and savings potential for retail, office and multi-family	\$ 170.00	\$ 340.00
Monday, February 27, 2023	0.25	Ian Jarvis	Intervenor Evidence - Preparation	Research - Review Simcoe Place model with Giovanni	\$ 330.00	\$ 82.50
Monday, February 27, 2023	1.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Researched information re gas demand and commercial sector areas growth	\$ 170.00	\$ 255.00
Tuesday, February 28, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Research - Review sectoral savings potential model	\$ 330.00	\$ 165.00
Tuesday, February 28, 2023	3.5	Giovanni Madalozzo	Intervenor Evidence - Preparation	Research - Review baselines - create GBPS model and baselines - review SPL additional gas meter	\$ 230.00	\$ 805.00
Wednesday, March 1, 2023	1	Ian Jarvis	Intervenor Evidence - Preparation	Prepared estimated gas use and savings potential for retail, office and multi-family	\$ 330.00	\$ 330.00
Wednesday, March 1, 2023	2	Pavel Rusyaev	Intervenor Evidence - Preparation	Review of the exhibit provided by Enbridge, prepared summary of gas savings potential for various building types from the recently performed analysis	\$ 170.00	\$ 340.00
Wednesday, March 1, 2023	2.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review Bear Creek data and create analysis	\$ 230.00	\$ 632.50
Thursday, March 2, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Prepared a summary of gas savings potential for various building types from the recently performed analyses	\$ 170.00	\$ 85.00
Friday, March 3, 2023	1	Ian Jarvis	Intervenor Evidence - Preparation	Internal meeting, review correspondence	\$ 330.00	\$ 330.00
Friday, March 3, 2023	2.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review chiller information and 2010-2011 projects	\$ 230.00	\$ 632.50
Monday, March 6, 2023	1	Ian Jarvis	Intervenor Evidence - Preparation	Review correspondence with ED, analysis, internal meeting	\$ 330.00	\$ 330.00
Monday, March 6, 2023	2	Pavel Rusyaev	Intervenor Evidence - Preparation	Modified chart, adding 1.6% growth line, prepared gas benchmark with SPL 2010 normalized to 2021 for EWRB report	\$ 170.00	\$ 340.00
Wednesday, March 8, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Internal meeting	\$ 330.00	\$ 165.00
Wednesday, March 8, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Search for data on share of commercial sector in total gas demand in Ontario	\$ 170.00	\$ 85.00
Wednesday, March 8, 2023	2.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review and analysis of the gas data on TDSC schools	\$ 230.00	\$ 632.50
Thursday, March 9, 2023	0.25	Ian Jarvis	Intervenor Evidence - Preparation	Review Wilson Av off gas analysis, review with Simon	\$ 330.00	\$ 82.50
Friday, March 10, 2023	3.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Review material	\$ 170.00	\$ 595.00
Sunday, March 12, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Review results from Pavel, email next steps	\$ 330.00	\$ 165.00
Sunday, March 12, 2023	2	Pavel Rusyaev	Intervenor Evidence - Preparation	Research on how new base temperature impacts design day demand	\$ 170.00	\$ 340.00
Monday, March 13, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Research on how the climate change may affect extreme cold weather events	\$ 170.00	\$ 85.00
Tuesday, March 14, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Update, progress review	\$ 330.00	\$ 165.00
Tuesday, March 14, 2023	1	Pavel Rusyaev	Intervenor Evidence - Preparation	Research documents submitted by Enbridge pertaining to gas metering	\$ 170.00	\$ 170.00
Wednesday, March 15, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Research documents	\$ 170.00	\$ 85.00
Thursday, March 16, 2023	3.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review Terry Fox interval gas consumption for heat pump analysis	\$ 230.00	\$ 862.50
Monday, March 20, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Reviewed NOAA's monthly US climate report	\$ 170.00	\$ 85.00
Wednesday, March 22, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Internal progress meeting	\$ 330.00	\$ 165.00
Wednesday, March 22, 2023	3.75	Pavel Rusyaev	Intervenor Evidence - Preparation	Extracted data re electricity and gas savings potential due to commercial buildings	\$ 170.00	\$ 637.50
Wednesday, March 22, 2023	2.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review Terry Miller gas interval data	\$ 230.00	\$ 632.50
Friday, March 24, 2023	0.25	Ian Jarvis	Intervenor Evidence - Preparation	Internal meeting	\$ 330.00	\$ 82.50
Monday, March 27, 2023	1	Pavel Rusyaev	Intervenor Evidence - Preparation	Research re minimum gas consumption to be eligible to be a contract customer	\$ 170.00	\$ 170.00
Tuesday, April 4, 2023	1.5	Ian Jarvis	Intervenor Evidence - Preparation	Outline work plan	\$ 330.00	\$ 495.00
Wednesday, April 5, 2023	1	Ian Jarvis	Intervenor Evidence - Preparation	Draft report	\$ 330.00	\$ 330.00
Wednesday, April 5, 2023	1	Pavel Rusyaev	Intervenor Evidence - Preparation	Call with Ian, Giovanni and Simon to discuss the upcoming work on the research report	\$ 170.00	\$ 170.00
Wednesday, April 5, 2023	2.5	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review Bear Creek interval data model	\$ 230.00	\$ 575.00
Wednesday, April 5, 2023	0.5	Simon Sahi	Intervenor Evidence - Preparation	Meeting w/ Ian and team	\$ 230.00	\$ 115.00
Thursday, April 6, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Development	\$ 330.00	\$ 165.00
Thursday, April 6, 2023	6.75	Pavel Rusyaev	Intervenor Evidence - Preparation	Prepared the file with data for research report	\$ 170.00	\$ 1,147.50
Monday, April 10, 2023	8	Ian Jarvis	Intervenor Evidence - Preparation	Development	\$ 330.00	\$ 2,640.00
Tuesday, April 11, 2023	1.25	Ian Jarvis	Intervenor Evidence - Preparation	Draft report	\$ 330.00	\$ 412.50
Tuesday, April 11, 2023	7	Simon Sahi	Intervenor Evidence - Preparation	Pavel wasn't available - I used R-studio to download weather files and pick summerize them for Ian	\$ 230.00	\$ 1,610.00
Tuesday, April 11, 2023	4	Natalie Millan	Intervenor Evidence - Preparation	Create report and tables	\$ 170.00	\$ 680.00
Wednesday, April 12, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Report development	\$ 330.00	\$ 165.00
Thursday, April 13, 2023	0.5	Simon Sahi	Intervenor Evidence - Preparation	Review costing	\$ 230.00	\$ 115.00
Friday, April 14, 2023	0.5	Simon Sahi	Intervenor Evidence - Preparation	Review costing	\$ 230.00	\$ 115.00
Monday, April 17, 2023	3.5	Ian Jarvis	Intervenor Evidence - Preparation	Analysis and draft report	\$ 330.00	\$ 1,155.00
Monday, April 17, 2023	3.5	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review gas consumption interval data for Terry Fox and associated ASHP - Contact vendors for ASHP performance model	\$ 230.00	\$ 805.00
Tuesday, April 18, 2023	3	Ian Jarvis	Intervenor Evidence - Preparation	Internal meeting, review draft report	\$ 330.00	\$ 990.00
Tuesday, April 18, 2023	0.25	Pavel Rusyaev	Intervenor Evidence - Preparation	A call with Ian and Giovanni to review the outstanding items for the report	\$ 170.00	\$ 42.50
Tuesday, April 18, 2023	1.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Contact vendors for ASHP performance model	\$ 230.00	\$ 402.50
Wednesday, April 19, 2023	5.25	Ian Jarvis	Intervenor Evidence - Preparation	Evidence review, draft report	\$ 330.00	\$ 1,732.50
Wednesday, April 19, 2023	2.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review ASHP model for Terry Fox	\$ 230.00	\$ 632.50
Wednesday, April 19, 2023	0.5	Natalie Millan	Intervenor Evidence - Preparation	Draft report	\$ 170.00	\$ 85.00
Wednesday, April 19, 2023	2.5	Natalie Millan	Intervenor Evidence - Preparation	Draft report	\$ 170.00	\$ 425.00
Thursday, April 20, 2023	7	Ian Jarvis	Intervenor Evidence - Preparation	Review evidence, correspondence, school ASHP model, draft report	\$ 330.00	\$ 2,310.00

Thursday, April 20, 2023	7.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Data verification and illustrations (charts and tables) for the report	\$ 170.00	\$ 1,275.00
Thursday, April 20, 2023	7.5	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review school charts - review ASHP model for Terry Fox	\$ 230.00	\$ 1,725.00
Thursday, April 20, 2023	1.75	Natalie Millan	Intervenor Evidence - Preparation	Final draft for submission	\$ 170.00	\$ 297.50
Friday, April 21, 2023	1.5	Ian Jarvis	Intervenor Evidence - Preparation	Research	\$ 330.00	\$ 495.00
Friday, April 21, 2023	1	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review school charts for report	\$ 230.00	\$ 230.00
Friday, April 21, 2023	2.5	Natalie Millan	Intervenor Evidence - Preparation	Review/draft report	\$ 170.00	\$ 425.00
Saturday, April 22, 2023	0.25	Ian Jarvis	Intervenor Evidence - Interrogatory	Research	\$ 330.00	\$ 82.50
Tuesday, April 25, 2023	0.5	Ian Jarvis	Intervenor Evidence - Interrogatory	Review Interrogatory Responses	\$ 330.00	\$ 165.00
Tuesday, April 25, 2023	1	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review ASHP energy model - contact manufactures	\$ 230.00	\$ 230.00
Wednesday, April 26, 2023	2.5	Giovanni Madalozzo	Intervenor Evidence - Preparation	Internal meeting to review ASHP energy model	\$ 230.00	\$ 575.00
Friday, April 28, 2023	1	Ian Jarvis	Intervenor Evidence - Interrogatory	Review all IR's and assess questions re BOMA evidence	\$ 330.00	\$ 330.00
Tuesday, May 9, 2023	2	Pavel Rusyaev	Intervenor Evidence - Preparation	Answers to Ian's questions on the 2019 Achievable Savings Potential study	\$ 170.00	\$ 340.00
Wednesday, May 10, 2023	6	Ian Jarvis	Intervenor Evidence - Interrogatory	Draft report, modeling	\$ 330.00	\$ 1,980.00
Thursday, May 11, 2023	3.25	Ian Jarvis	Intervenor Evidence - Interrogatory	Peak demand analysis, draft response	\$ 330.00	\$ 1,072.50
Thursday, May 11, 2023	1.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Research on the variance accounts referenced by the Staff / Ian	\$ 170.00	\$ 255.00
Thursday, May 11, 2023	6	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review energy recovery and ASHP model for Simcoe and Terry Fox - Include exhaust heat recovery for Terry Fox	\$ 230.00	\$ 1,380.00
Friday, May 12, 2023	4.25	Ian Jarvis	Intervenor Evidence - Interrogatory	Draft report, variance account analysis	\$ 330.00	\$ 1,402.50
Friday, May 12, 2023	6	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review energy recovery and ASHP model for Simcoe and Terry Fox, create graphs and table for the report, discussion with Trane about ASHP performance	\$ 230.00	\$ 1,380.00
Saturday, May 13, 2023	2.5	Ian Jarvis	Intervenor Evidence - Interrogatory	Final draft, peak gas demand analysis	\$ 330.00	\$ 825.00
Monday, June 5, 2023	2.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Research to answer Ian's questions (whole system peak day gas consumption and demand, the load factor and load shape on the peak day)	\$ 170.00	\$ 425.00
Wednesday, June 7, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Images in high resolution for the report	\$ 170.00	\$ 85.00
Thursday, June 8, 2023	2	Pavel Rusyaev	Intervenor Evidence - Preparation	Research on the lowest temperatures by year for a number of cities in Ontario / Ian	\$ 170.00	\$ 340.00
Friday, June 9, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Extended the table back 1991	\$ 170.00	\$ 85.00
Monday, June 12, 2023	0.75	Ian Jarvis	Intervenor Evidence - Interrogatory	Search for data, intervenor correspondence	\$ 330.00	\$ 247.50
Payment due upon receipt						
Please make cheque to:					Subtotal	\$ 45,977.50
Enerlife Consulting Inc.						
90 Eglinton Ave E.					HST	\$ 5,977.08
Suite 412						
Toronto, ON, M4P 2YE					Total	\$ 51,954.58

GIOVANNI MADALOZZO BSc, CEM, LEED GA

Project Analyst, Enerlife Consulting Inc., 2017 to present
gmadalozzo@enerlife.com 416-915-1530 x 217

SUMMARY OF PROFESSIONAL EXPERIENCE

Giovanni has a strong educational background in building science and energy efficiency, combined with several years of experience in energy analysis and modeling. As a member of Enerlife's Integrated Building Performance Team, Giovanni assists senior engineers in providing evidence-based retrofits and operational solutions for mechanical and electrical systems in commercial and institutional buildings. He also co-leads building systems audits and analyzes and interprets building energy and water performance metrics for a wide range of building types and building systems. He also co-leads building systems audits and analyzes and interprets building energy and water performance metrics for a wide range of building types and building systems.

RELEVANT PROJECTS

Providence Healthcare

Since 2012, Enerlife has worked directly with Providence to help identify, plan, and implement energy efficiency measures with the goal of tackling inefficiencies identified through its metrics and meeting its target. Giovanni assisted the lead engineer with the design and implementation of the building automation system optimization, ventilation system upgrades and chiller plan optimization. He created M & V plans meeting the IPMVP requirements and worked with IESO's third-party reviewers to document and process post-implementation measures verifications.

Alberta Health Services

Giovanni is the project analyst for 6 recommissioning projects where he conducted data analysis, identified energy conservation measures, and helped senior engineers with implementation and measurement, and verification of savings. He helped create measurement and verification plans, set up baselines, and implemented routine and non-routine adjustments to document real savings

Humber College

Giovanni conducted energy audits and assisted in the design and implementation of mechanical and building automation system improvements. His work led to multi-year improvements in the facilities that generated energy savings and reduced greenhouse gas emissions. He also created measurement and verification (M&V) plans for 4 buildings and led the M & V work that successfully documented and proved projected savings

Grand River Hospital

For Grand River Hospital, Giovanni has conducted a building performance audit to identify how to implement a low carbon heating plant. He provided the hospital with analysis of the peak heating load analysis and identified potential areas of improvement. As part of this work, he worked with contractor to coordinate boiler testing and quotes for upgrades.

Headwaters Health Care

Giovanni conducted a building performance audit on the ventilation and heating systems at Headwaters to help identify opportunities for energy efficiency. He analyzed utility and BAS trends, identified anomalies and provided recommendations

HIGHLIGHTS OF EXPERIENCE

- Experience providing evidence-based retrofits and operational solutions for mechanical and electrical systems in commercial and institutional buildings

AREAS OF SPECIALIZATION

- Building Energy Audits
- Data Analysis & Implementation
- ASHRAE and CSA standards implementation
- RETScreen Advance Expert

ASSOCIATIONS

- Certified Energy Manager
- LEED Green Associate

ACADEMIC QUALIFICATIONS

- Advanced Diploma in Sustainable Energy and Building Technology, Humber Institute of Technology & Advanced Learning
- Bachelor of Science-Mechanical Engineering, University Center of FEI, São Bernardo do Campo, Brazil

for improvements. He supported the Integrated Building Performance Team meetings, with data diagnostics, visualization of data and building operations knowledge.

Slate Asset Management

Enerlife is working with Slate Asset Management to implement energy efficiency improvements in all Ontario buildings in their portfolio, focusing on operational improvements. As a member of the project's Integrated Building Performance team, Giovanni was responsible for data collection and analysis of building automation system trends and for incentive applications and assisted with the implementation of new smart sequences of operations.

Natalie Millan

CASE EB-2022-0200: Rates: Distribution: Enbridge Gas Inc.	COST CLAIM EB-2022-0200 : 1 : Kelly Bruce	INTERVENOR NAME Bruce, Kelly; +1 (437) 328-9397 kbruce@enerlife.com	PARTICIPANT CLAIM STATUS Submitted
FILING PARTICIPANT	NEW PARTICIPANT Yes	NON-FILING PARTICIPANT F. NAME Natalie	NON-FILING PARTICIPANT L. NAME Millan
SERVICE PROVIDER TYPE* Consultant	YEAR CALLED TO BAR*	COMPLETED YEARS PRACTICING/YEARS OF RELEVANT EXPERIENCE* 5	HOURLY RATE 170
HST RATE CHARGED* 13.00	CV STATUS (FOR CONSULTANT/ANALYST) CV Attached	LAST CV DATE July 12, 2023	OVERRIDE HOURLY RATE Yes
HST NUMBER R119420859	HEARINGS Yes	CONSULTATIONS No	DISBURSEMENTS Yes

HEARINGS

Hearings Hours	Hearings Subtotal (\$)	Hearings Total Tax (\$)	Hearings Total (\$)			
11.25	1,912.50	248.63	2,161.13			
<u>Name</u>	<u>Hours</u>	<u>Hourly Rate</u>	<u>Sub Total</u>	<u>HST Rate</u>	<u>HST</u>	<u>Total</u>
REVIEW APPLICATION AND EVIDENCE						
Review Application and Evidence		170		13.00		
DISCOVERY						
Preparation of Interrogatories		170		13.00		
Review Interrogatory Responses		170		13.00		
Technical Conference Preparation		170		13.00		
Technical Conference Attendance		170		13.00		
Technical Conference Follow Up		170		13.00		
ISSUES LIST						
Preparation		170		13.00		
Attendance at Issues Conference		170		13.00		
INTERVENOR EVIDENCE						
Preparation	11.25	170	1,912.50	13.00	248.63	2,161.13
Interrogatory Responses		170		13.00		
Preparation of Witness(es) for Attendance at Hearing		170		13.00		
SETTELEMENT CONFERENCE / ADR						
Preparation		170		13.00		
Attendance		170		13.00		

<u>Name</u>	<u>Hours</u>	<u>Hourly Rate</u>	<u>Sub Total</u>	<u>HST Rate</u>	<u>HST</u>	<u>Total</u>
Preparation of Settlement Proposal		170		13.00		
Attendance at Presentation to Panel		170		13.00		
ORAL HEARING						
Preparation		170		13.00		
Attendance at Oral Hearing		170		13.00		
SUBMISSIONS						
Written Submissions		170		13.00		
Oral Submissions		170		13.00		
Attendance at Oral Submissions		170		13.00		
OTHER ATTENDANCE						
Other Attendance		170		13.00		
COMMUNICATION						
With Client		170		13.00		
With Other Parties		170		13.00		
MOTIONS						
Preparation of Motion(s) Materials		170		13.00		
Prepare Submissions on the Motion(s)		170		13.00		
Attendance at Hearing on Motion(s)		170		13.00		
CONFIDENTIALITY						
Preparation of Application for Confidentiality		170		13.00		
Prepare Submissions on Confidentiality		170		13.00		
Attendance at Hearing on Confidentiality		170		13.00		
DECISION						
Review		170		13.00		
RATE ORDER						
Review		170		13.00		
Prepare Submission on Rate Order		170		13.00		
TOTAL SERVICE PROVIDER FEES						
Total Service Provider Fees:	11.25		1,912.50		248.63	2,161.13

Attachments

<u>Attachment</u>	<u>Document Type</u>	<u>Import Message</u>
Enerlife CV Natalie Millan 2022.pdf	CV	
Inv 3814 OEB 2022-0200 Expert Evidence	Time Docket and Invoice	
Interim Inv.pdf		

DISBURSEMENTS

Disbursement Subtotal(\$)	Disbursement Total Tax(\$)	Other Taxes/Tips Total(\$)	Disbursement Total(\$)
0.00	0.00	0.00	0.00

<u>Name</u>	<u>ATT.</u> <u>REQ'D</u>	<u>ATT.</u> <u>PROV</u>	<u>Qty</u>	<u>\$/</u> <u>Unit</u>	<u>Net</u> <u>Cost</u>	<u>HST</u> <u>Rate</u>	<u>HST</u>	<u>Other</u> <u>Taxes/Tip</u>	<u>Total</u>	<u>Rationale/</u> <u>Comment</u>
Scanning/Photocopy (Internal)						13.00				
Scanning/Photocopy (External)						13.00				
Printing (Internal)						13.00				
Printing (External)						13.00				
Courier						13.00				
Teleconference						13.00				
Travel: Air						13.00				
Travel: Car Rental						13.00				
Travel: Gas						13.00				
Travel: Car Mileage – Southern Ontario				0.40						
Travel: Car Mileage – Northern Ontario				0.41						
Travel: Rail						13.00				
Travel (Other)						13.00				
Parking						13.00				
Taxi						13.00				
Accommodation						13.00				
Other						13.00				

Hearings, Consultations, Disbursements Attachments

<u>Attachment</u>	<u>Document Type</u>	<u>Claim Type</u>	<u>Import Message</u>
Enerlife CV Natalie Millan 2022.pdf	CV	Hearings	
Inv 3814 OEB 2022-0200 Expert Evidence Interim Inv.pdf	Time Docket and Invoice	Hearings	

NATALIE MILLAN BSc Eng, MBA, PMP

Project Manager, Enerlife Consulting Inc., 2014 to present
nmillan@enerlife.com 416-915-1530 ext 205

SUMMARY OF PROFESSIONAL EXPERIENCE

Natalie Millan is an experienced project manager with a solid financial and civil engineering background. She provides comprehensive project management support to a wide range of projects in the municipal, commercial office and schools sector. As a Project Management Professional, Natalie has a thorough understanding of Project Management methodology. She has over 10 years of project management experience on projects of varied scale for institutional and commercial sector clients.

RELEVANT PROJECTS

Mayors' Megawatt Challenge Roadmap to Net Zero Ice Rink Pilot

Natalie provided project management for the development and roll out of the cohort pilot to develop net zero carbon design briefs and implementation plans over time for nine ice rinks. She was responsible for control and monitoring of the scope, schedule, and budget.

Alberta Health Services Utilities Management Plan

Responsible for ongoing management and reporting for the development of the 10-year Utilities Management Plan and business case for the 192 hospitals managed by AHS.

Town of Halton Hills Corporate Energy Plan

Project manager for the Town of Halton Hills Corporate Energy Plan update. The Corporate Energy Plan provided the strategy and roadmap for 2019 – 2024 to lay the foundations for achieving the long-term goals. Natalie managed the site visits, building performance evaluation and analysis to recommend strategic actions to achieve the Town's overall goals as well as building-specific low-carbon targets.

Cadillac Fairview

Project manager for a multi-year energy performance management project, responsible for Cadillac Fairview's Energy Star Portfolio Manager, data analysis, reporting, budgeting, planning and client relations.

Simcoe County District School Board

Natalie managed the implementation of the Board's 2014-2019 Energy Conservation and Demand Management Plan, including budget development, project planning, and developing the project schedule.

Region of Peel GHG Emission Reduction Prioritization Methodology and Implementation Plan

Natalie was the lead project manager overseeing building data and energy analysis, development of greenhouse gas emissions reduction model, reporting, workshop development, and overall project budgeting, scheduling and communications.

Performance-Based Conservation Pilot Project

Project manager for the Performance-Based Conservation pilot with Ontario's Independent Electricity System Operator, with 200 municipal, school and

HIGHLIGHTS OF EXPERIENCE

- Extensive experience managing projects for institutional and commercial clients
- Energy and water data and buildings performance analysis

AREAS OF SPECIALIZATION

- Forecast budgeting
- Project planning
- Control and monitoring methodologies for scope, schedule, and budget

PROFESSIONAL AFFILIATIONS

- Project Management Institute Member
- Southern Ontario Charter PMI Member
- Project Management Professional (PMP), Project Management Institute

ACADEMIC QUALIFICATIONS

- Master of Finance, IESA, Caracas, Venezuela
- Master of Business Administration (MBA), IESA, Caracas, Venezuela
- Bachelor of Science – Civil Engineering, Universidad Santa Maria, Caracas, Venezuela

commercial office buildings. Responsible for planning, budgeting, reporting, energy performance analysis, energy assessments reports, workshop and webinars, ongoing program management and client relationships.

Sustainable Schools Program

Responsibilities included developing the project proposal, creating the project charter, developing the implementation plan including schedule, scope and budget, and overseeing the data analysis for and preparation of Top Energy Performing School Boards reports.

To: Ontario Energy Board
2300 Yonge Street
Suite 2701
Toronto, Ontario M4P 1E4



Re: EB-2022-0200 Enbridge Gas Inc. 2024 Rebasing Application Interim Cost Claim for Expert Witness

Date: July 12, 2023

Invoice # 3814

Date	Hours	Analyst/Consultant/Case Mgmt	Project Phase	Description	Rate	Total
Tuesday, February 7, 2023	1.5	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review Correspondence	\$ 230.00	\$ 345.00
Wednesday, February 15, 2023	1	Giovanni Madalozzo	Intervenor Evidence - Preparation	Internal meeting	\$ 230.00	\$ 230.00
Friday, February 17, 2023	3.25	Giovanni Madalozzo	Intervenor Evidence - Preparation	Research - Review ICF-Enbridge report	\$ 230.00	\$ 747.50
Tuesday, February 21, 2023	3	Ian Jarvis	Intervenor Evidence - Preparation	Research - Analyze savings potential for different commercial building sectors, Gas load shape for commercial building with heat recovery	\$ 330.00	\$ 990.00
Friday, February 24, 2023	0.25	Ian Jarvis	Communication with other parties	Research - internal meeting	\$ 330.00	\$ 82.50
Friday, February 24, 2023	3.25	Giovanni Madalozzo	Intervenor Evidence - Preparation	Research - Review Simcoe Place base case and heat recovery analysis	\$ 230.00	\$ 747.50
Sunday, February 26, 2023	2	Pavel Rusyaev	Intervenor Evidence - Preparation	Research - Prepared estimated gas use and savings potential for retail, office and multi-family	\$ 170.00	\$ 340.00
Monday, February 27, 2023	0.25	Ian Jarvis	Intervenor Evidence - Preparation	Research - Review Simcoe Place model with Giovanni	\$ 330.00	\$ 82.50
Monday, February 27, 2023	1.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Researched information re gas demand and commercial sector areas growth	\$ 170.00	\$ 255.00
Tuesday, February 28, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Research - Review sectoral savings potential model	\$ 330.00	\$ 165.00
Tuesday, February 28, 2023	3.5	Giovanni Madalozzo	Intervenor Evidence - Preparation	Research - Review baselines - create GBPS model and baselines - review SPL additional gas meter	\$ 230.00	\$ 805.00
Wednesday, March 1, 2023	1	Ian Jarvis	Intervenor Evidence - Preparation	Prepared estimated gas use and savings potential for retail, office and multi-family	\$ 330.00	\$ 330.00
Wednesday, March 1, 2023	2	Pavel Rusyaev	Intervenor Evidence - Preparation	Review of the exhibit provided by Enbridge, prepared summary of gas savings potential for various building types from the recently performed analysis	\$ 170.00	\$ 340.00
Wednesday, March 1, 2023	2.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review Bear Creek data and create analysis	\$ 230.00	\$ 632.50
Thursday, March 2, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Prepared a summary of gas savings potential for various building types from the recently performed analyses	\$ 170.00	\$ 85.00
Friday, March 3, 2023	1	Ian Jarvis	Intervenor Evidence - Preparation	Internal meeting, review correspondence	\$ 330.00	\$ 330.00
Friday, March 3, 2023	2.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review chiller information and 2010-2011 projects	\$ 230.00	\$ 632.50
Monday, March 6, 2023	1	Ian Jarvis	Intervenor Evidence - Preparation	Review correspondence with ED, analysis, internal meeting	\$ 330.00	\$ 330.00
Monday, March 6, 2023	2	Pavel Rusyaev	Intervenor Evidence - Preparation	Modified chart, adding 1.6% growth line, prepared gas benchmark with SPL 2010 normalized to 2021 for EWRB report	\$ 170.00	\$ 340.00
Wednesday, March 8, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Internal meeting	\$ 330.00	\$ 165.00
Wednesday, March 8, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Search for data on share of commercial sector in total gas demand in Ontario	\$ 170.00	\$ 85.00
Wednesday, March 8, 2023	2.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review and analysis of the gas data on TDSC schools	\$ 230.00	\$ 632.50
Thursday, March 9, 2023	0.25	Ian Jarvis	Intervenor Evidence - Preparation	Review Wilson Av off gas analysis, review with Simon	\$ 330.00	\$ 82.50
Friday, March 10, 2023	3.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Review material	\$ 170.00	\$ 595.00
Sunday, March 12, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Review results from Pavel, email next steps	\$ 330.00	\$ 165.00
Sunday, March 12, 2023	2	Pavel Rusyaev	Intervenor Evidence - Preparation	Research on how new base temperature impacts design day demand	\$ 170.00	\$ 340.00
Monday, March 13, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Research on how the climate change may affect extreme cold weather events	\$ 170.00	\$ 85.00
Tuesday, March 14, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Update, progress review	\$ 330.00	\$ 165.00
Tuesday, March 14, 2023	1	Pavel Rusyaev	Intervenor Evidence - Preparation	Research documents submitted by Enbridge pertaining to gas metering	\$ 170.00	\$ 170.00
Wednesday, March 15, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Research documents	\$ 170.00	\$ 85.00
Thursday, March 16, 2023	3.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review Terry Fox interval gas consumption for heat pump analysis	\$ 230.00	\$ 862.50
Monday, March 20, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Reviewed NOAA's monthly US climate report	\$ 170.00	\$ 85.00
Wednesday, March 22, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Internal progress meeting	\$ 330.00	\$ 165.00
Wednesday, March 22, 2023	3.75	Pavel Rusyaev	Intervenor Evidence - Preparation	Extracted data re electricity and gas savings potential due to commercial buildings	\$ 170.00	\$ 637.50
Wednesday, March 22, 2023	2.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review Terry Miller gas interval data	\$ 230.00	\$ 632.50
Friday, March 24, 2023	0.25	Ian Jarvis	Intervenor Evidence - Preparation	Internal meeting	\$ 330.00	\$ 82.50
Monday, March 27, 2023	1	Pavel Rusyaev	Intervenor Evidence - Preparation	Research re minimum gas consumption to be eligible to be a contract customer	\$ 170.00	\$ 170.00
Tuesday, April 4, 2023	1.5	Ian Jarvis	Intervenor Evidence - Preparation	Outline work plan	\$ 330.00	\$ 495.00
Wednesday, April 5, 2023	1	Ian Jarvis	Intervenor Evidence - Preparation	Draft report	\$ 330.00	\$ 330.00
Wednesday, April 5, 2023	1	Pavel Rusyaev	Intervenor Evidence - Preparation	Call with Ian, Giovanni and Simon to discuss the upcoming work on the research report	\$ 170.00	\$ 170.00
Wednesday, April 5, 2023	2.5	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review Bear Creek interval data model	\$ 230.00	\$ 575.00
Wednesday, April 5, 2023	0.5	Simon Sahi	Intervenor Evidence - Preparation	Meeting w/ Ian and team	\$ 230.00	\$ 115.00
Thursday, April 6, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Development	\$ 330.00	\$ 165.00
Thursday, April 6, 2023	6.75	Pavel Rusyaev	Intervenor Evidence - Preparation	Prepared the file with data for research report	\$ 170.00	\$ 1,147.50
Monday, April 10, 2023	8	Ian Jarvis	Intervenor Evidence - Preparation	Development	\$ 330.00	\$ 2,640.00
Tuesday, April 11, 2023	1.25	Ian Jarvis	Intervenor Evidence - Preparation	Draft report	\$ 330.00	\$ 412.50
Tuesday, April 11, 2023	7	Simon Sahi	Intervenor Evidence - Preparation	Pavel wasn't available - I used R-studio to download weather files and pick summerize them for Ian	\$ 230.00	\$ 1,610.00
Tuesday, April 11, 2023	4	Natalie Millan	Intervenor Evidence - Preparation	Create report and tables	\$ 170.00	\$ 680.00
Wednesday, April 12, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Report development	\$ 330.00	\$ 165.00
Thursday, April 13, 2023	0.5	Simon Sahi	Intervenor Evidence - Preparation	Review costing	\$ 230.00	\$ 115.00
Friday, April 14, 2023	0.5	Simon Sahi	Intervenor Evidence - Preparation	Review costing	\$ 230.00	\$ 115.00
Monday, April 17, 2023	3.5	Ian Jarvis	Intervenor Evidence - Preparation	Analysis and draft report	\$ 330.00	\$ 1,155.00
Monday, April 17, 2023	3.5	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review gas consumption interval data for Terry Fox and associated ASHP - Contact vendors for ASHP performance model	\$ 230.00	\$ 805.00
Tuesday, April 18, 2023	3	Ian Jarvis	Intervenor Evidence - Preparation	Internal meeting, review draft report	\$ 330.00	\$ 990.00
Tuesday, April 18, 2023	0.25	Pavel Rusyaev	Intervenor Evidence - Preparation	A call with Ian and Giovanni to review the outstanding items for the report	\$ 170.00	\$ 42.50
Tuesday, April 18, 2023	1.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Contact vendors for ASHP performance model	\$ 230.00	\$ 402.50
Wednesday, April 19, 2023	5.25	Ian Jarvis	Intervenor Evidence - Preparation	Evidence review, draft report	\$ 330.00	\$ 1,732.50
Wednesday, April 19, 2023	2.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review ASHP model for Terry Fox	\$ 230.00	\$ 632.50
Wednesday, April 19, 2023	0.5	Natalie Millan	Intervenor Evidence - Preparation	Draft report	\$ 170.00	\$ 85.00
Wednesday, April 19, 2023	2.5	Natalie Millan	Intervenor Evidence - Preparation	Draft report	\$ 170.00	\$ 425.00
Thursday, April 20, 2023	7	Ian Jarvis	Intervenor Evidence - Preparation	Review evidence, correspondence, school ASHP model, draft report	\$ 330.00	\$ 2,310.00

Thursday, April 20, 2023	7.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Data verification and illustrations (charts and tables) for the report	\$ 170.00	\$ 1,275.00
Thursday, April 20, 2023	7.5	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review school charts - review ASHP model for Terry Fox	\$ 230.00	\$ 1,725.00
Thursday, April 20, 2023	1.75	Natalie Millan	Intervenor Evidence - Preparation	Final draft for submission	\$ 170.00	\$ 297.50
Friday, April 21, 2023	1.5	Ian Jarvis	Intervenor Evidence - Preparation	Research	\$ 330.00	\$ 495.00
Friday, April 21, 2023	1	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review school charts for report	\$ 230.00	\$ 230.00
Friday, April 21, 2023	2.5	Natalie Millan	Intervenor Evidence - Preparation	Review/draft report	\$ 170.00	\$ 425.00
Saturday, April 22, 2023	0.25	Ian Jarvis	Intervenor Evidence - Interrogatory	Research	\$ 330.00	\$ 82.50
Tuesday, April 25, 2023	0.5	Ian Jarvis	Intervenor Evidence - Interrogatory	Review Interrogatory Responses	\$ 330.00	\$ 165.00
Tuesday, April 25, 2023	1	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review ASHP energy model - contact manufactures	\$ 230.00	\$ 230.00
Wednesday, April 26, 2023	2.5	Giovanni Madalozzo	Intervenor Evidence - Preparation	Internal meeting to review ASHP energy model	\$ 230.00	\$ 575.00
Friday, April 28, 2023	1	Ian Jarvis	Intervenor Evidence - Interrogatory	Review all IR's and assess questions re BOMA evidence	\$ 330.00	\$ 330.00
Tuesday, May 9, 2023	2	Pavel Rusyaev	Intervenor Evidence - Preparation	Answers to Ian's questions on the 2019 Achievable Savings Potential study	\$ 170.00	\$ 340.00
Wednesday, May 10, 2023	6	Ian Jarvis	Intervenor Evidence - Interrogatory	Draft report, modeling	\$ 330.00	\$ 1,980.00
Thursday, May 11, 2023	3.25	Ian Jarvis	Intervenor Evidence - Interrogatory	Peak demand analysis, draft response	\$ 330.00	\$ 1,072.50
Thursday, May 11, 2023	1.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Research on the variance accounts referenced by the Staff / Ian	\$ 170.00	\$ 255.00
Thursday, May 11, 2023	6	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review energy recovery and ASHP model for Simcoe and Terry Fox - Include exhaust heat recovery for Terry Fox	\$ 230.00	\$ 1,380.00
Friday, May 12, 2023	4.25	Ian Jarvis	Intervenor Evidence - Interrogatory	Draft report, variance account analysis	\$ 330.00	\$ 1,402.50
Friday, May 12, 2023	6	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review energy recovery and ASHP model for Simcoe and Terry Fox, create graphs and table for the report, discussion with Trane about ASHP performance	\$ 230.00	\$ 1,380.00
Saturday, May 13, 2023	2.5	Ian Jarvis	Intervenor Evidence - Interrogatory	Final draft, peak gas demand analysis	\$ 330.00	\$ 825.00
Monday, June 5, 2023	2.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Research to answer Ian's questions (whole system peak day gas consumption and demand, the load factor and load shape on the peak day)	\$ 170.00	\$ 425.00
Wednesday, June 7, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Images in high resolution for the report	\$ 170.00	\$ 85.00
Thursday, June 8, 2023	2	Pavel Rusyaev	Intervenor Evidence - Preparation	Research on the lowest temperatures by year for a number of cities in Ontario / Ian	\$ 170.00	\$ 340.00
Friday, June 9, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Extended the table back 1991	\$ 170.00	\$ 85.00
Monday, June 12, 2023	0.75	Ian Jarvis	Intervenor Evidence - Interrogatory	Search for data, intervenor correspondence	\$ 330.00	\$ 247.50
Payment due upon receipt						
Please make cheque to:					Subtotal	\$ 45,977.50
Enerlife Consulting Inc.						
90 Eglinton Ave E.					HST	\$ 5,977.08
Suite 412						
Toronto, ON, M4P 2YE					Total	\$ 51,954.58

Simon Sahi

CASE EB-2022-0200: Rates: Distribution: Enbridge Gas Inc.	COST CLAIM EB-2022-0200 : 1 : Kelly Bruce	INTERVENOR NAME Bruce, Kelly; +1 (437) 328-9397 kbruce@enerlife.com	PARTICIPANT CLAIM STATUS Submitted
FILING PARTICIPANT	NEW PARTICIPANT Yes	NON-FILING PARTICIPANT F. NAME Simon	NON-FILING PARTICIPANT L. NAME Sahi
SERVICE PROVIDER TYPE* Consultant	YEAR CALLED TO BAR*	COMPLETED YEARS PRACTICING/YEARS OF RELEVANT EXPERIENCE* 10	HOURLY RATE 230
HST RATE CHARGED* 13.00	CV STATUS (FOR CONSULTANT/ANALYST) CV Attached	LAST CV DATE July 12, 2023	OVERRIDE HOURLY RATE Yes
HST NUMBER R119420859	HEARINGS Yes	CONSULTATIONS No	DISBURSEMENTS No

HEARINGS

Hearings Hours	Hearings Subtotal (\$)	Hearings Total Tax (\$)	Hearings Total (\$)			
8.50	1,955.00	254.15	2,209.15			
<u>Name</u>	<u>Hours</u>	<u>Hourly Rate</u>	<u>Sub Total</u>	<u>HST Rate</u>	<u>HST</u>	<u>Total</u>
REVIEW APPLICATION AND EVIDENCE						
Review Application and Evidence		230		13.00		
DISCOVERY						
Preparation of Interrogatories		230		13.00		
Review Interrogatory Responses		230		13.00		
Technical Conference Preparation		230		13.00		
Technical Conference Attendance		230		13.00		
Technical Conference Follow Up		230		13.00		
ISSUES LIST						
Preparation		230		13.00		
Attendance at Issues Conference		230		13.00		
INTERVENOR EVIDENCE						
Preparation	8.50	230	1,955.00	13.00	254.15	2,209.15
Interrogatory Responses		230		13.00		
Preparation of Witness(es) for Attendance at Hearing		230		13.00		
SETTELEMENT CONFERENCE / ADR						
Preparation		230		13.00		
Attendance		230		13.00		

<u>Name</u>	<u>Hours</u>	<u>Hourly Rate</u>	<u>Sub Total</u>	<u>HST Rate</u>	<u>HST</u>	<u>Total</u>
Preparation of Settlement Proposal		230		13.00		
Attendance at Presentation to Panel		230		13.00		
ORAL HEARING						
Preparation		230		13.00		
Attendance at Oral Hearing		230		13.00		
SUBMISSIONS						
Written Submissions		230		13.00		
Oral Submissions		230		13.00		
Attendance at Oral Submissions		230		13.00		
OTHER ATTENDANCE						
Other Attendance		230		13.00		
COMMUNICATION						
With Client		230		13.00		
With Other Parties		230		13.00		
MOTIONS						
Preparation of Motion(s) Materials		230		13.00		
Prepare Submissions on the Motion(s)		230		13.00		
Attendance at Hearing on Motion(s)		230		13.00		
CONFIDENTIALITY						
Preparation of Application for Confidentiality		230		13.00		
Prepare Submissions on Confidentiality		230		13.00		
Attendance at Hearing on Confidentiality		230		13.00		
DECISION						
Review		230		13.00		
RATE ORDER						
Review		230		13.00		
Prepare Submission on Rate Order		230		13.00		
TOTAL SERVICE PROVIDER FEES						
Total Service Provider Fees:	8.50		1,955.00	254.15		2,209.15

Attachments

<u>Attachment</u>	<u>Document Type</u>	<u>Import Message</u>
Inv 3814 OEB 2022-0200 Expert Evidence Interim Inv.pdf	Time Docket and Invoice	
Enerlife CV Simon Sahi 2022.pdf	CV	

Hearings, Consultations, Disbursements Attachments

<u>Attachment</u>	<u>Document Type</u>	<u>Claim Type</u>	<u>Import Message</u>
Inv 3814 OEB 2022-0200 Expert Evidence Interim Inv.pdf	Time Docket and Invoice	Hearings	
Enerlife CV Simon Sahi 2022.pdf	CV	Hearings	

To: Ontario Energy Board
2300 Yonge Street
Suite 2701
Toronto, Ontario M4P 1E4



Re: EB-2022-0200 Enbridge Gas Inc. 2024 Rebasing Application Interim Cost Claim for Expert Witness

Date: July 12, 2023

Invoice # 3814

Date	Hours	Analyst/Consultant/Case Mgmt	Project Phase	Description	Rate	Total
Tuesday, February 7, 2023	1.5	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review Correspondence	\$ 230.00	\$ 345.00
Wednesday, February 15, 2023	1	Giovanni Madalozzo	Intervenor Evidence - Preparation	Internal meeting	\$ 230.00	\$ 230.00
Friday, February 17, 2023	3.25	Giovanni Madalozzo	Intervenor Evidence - Preparation	Research - Review ICF-Enbridge report	\$ 230.00	\$ 747.50
Tuesday, February 21, 2023	3	Ian Jarvis	Intervenor Evidence - Preparation	Research - Analyze savings potential for different commercial building sectors, Gas load shape for commercial building with heat recovery	\$ 330.00	\$ 990.00
Friday, February 24, 2023	0.25	Ian Jarvis	Communication with other parties	Research - internal meeting	\$ 330.00	\$ 82.50
Friday, February 24, 2023	3.25	Giovanni Madalozzo	Intervenor Evidence - Preparation	Research - Review Simcoe Place base case and heat recovery analysis	\$ 230.00	\$ 747.50
Sunday, February 26, 2023	2	Pavel Rusyaev	Intervenor Evidence - Preparation	Research - Prepared estimated gas use and savings potential for retail, office and multi-family	\$ 170.00	\$ 340.00
Monday, February 27, 2023	0.25	Ian Jarvis	Intervenor Evidence - Preparation	Research - Review Simcoe Place model with Giovanni	\$ 330.00	\$ 82.50
Monday, February 27, 2023	1.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Researched information re gas demand and commercial sector areas growth	\$ 170.00	\$ 255.00
Tuesday, February 28, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Research - Review sectoral savings potential model	\$ 330.00	\$ 165.00
Tuesday, February 28, 2023	3.5	Giovanni Madalozzo	Intervenor Evidence - Preparation	Research - Review baselines - create GBPS model and baselines - review SPL additional gas meter	\$ 230.00	\$ 805.00
Wednesday, March 1, 2023	1	Ian Jarvis	Intervenor Evidence - Preparation	Prepared estimated gas use and savings potential for retail, office and multi-family	\$ 330.00	\$ 330.00
Wednesday, March 1, 2023	2	Pavel Rusyaev	Intervenor Evidence - Preparation	Review of the exhibit provided by Enbridge, prepared summary of gas savings potential for various building types from the recently performed analysis	\$ 170.00	\$ 340.00
Wednesday, March 1, 2023	2.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review Bear Creek data and create analysis	\$ 230.00	\$ 632.50
Thursday, March 2, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Prepared a summary of gas savings potential for various building types from the recently performed analyses	\$ 170.00	\$ 85.00
Friday, March 3, 2023	1	Ian Jarvis	Intervenor Evidence - Preparation	Internal meeting, review correspondence	\$ 330.00	\$ 330.00
Friday, March 3, 2023	2.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review chiller information and 2010-2011 projects	\$ 230.00	\$ 632.50
Monday, March 6, 2023	1	Ian Jarvis	Intervenor Evidence - Preparation	Review correspondence with ED, analysis, internal meeting	\$ 330.00	\$ 330.00
Monday, March 6, 2023	2	Pavel Rusyaev	Intervenor Evidence - Preparation	Modified chart, adding 1.6% growth line, prepared gas benchmark with SPL 2010 normalized to 2021 for EWRB report	\$ 170.00	\$ 340.00
Wednesday, March 8, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Internal meeting	\$ 330.00	\$ 165.00
Wednesday, March 8, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Search for data on share of commercial sector in total gas demand in Ontario	\$ 170.00	\$ 85.00
Wednesday, March 8, 2023	2.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review and analysis of the gas data on TDSC schools	\$ 230.00	\$ 632.50
Thursday, March 9, 2023	0.25	Ian Jarvis	Intervenor Evidence - Preparation	Review Wilson Av off gas analysis, review with Simon	\$ 330.00	\$ 82.50
Friday, March 10, 2023	3.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Review material	\$ 170.00	\$ 595.00
Sunday, March 12, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Review results from Pavel, email next steps	\$ 330.00	\$ 165.00
Sunday, March 12, 2023	2	Pavel Rusyaev	Intervenor Evidence - Preparation	Research on how new base temperature impacts design day demand	\$ 170.00	\$ 340.00
Monday, March 13, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Research on how the climate change may affect extreme cold weather events	\$ 170.00	\$ 85.00
Tuesday, March 14, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Update, progress review	\$ 330.00	\$ 165.00
Tuesday, March 14, 2023	1	Pavel Rusyaev	Intervenor Evidence - Preparation	Research documents submitted by Enbridge pertaining to gas metering	\$ 170.00	\$ 170.00
Wednesday, March 15, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Research documents	\$ 170.00	\$ 85.00
Thursday, March 16, 2023	3.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review Terry Fox interval gas consumption for heat pump analysis	\$ 230.00	\$ 862.50
Monday, March 20, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Reviewed NOAA's monthly US climate report	\$ 170.00	\$ 85.00
Wednesday, March 22, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Internal progress meeting	\$ 330.00	\$ 165.00
Wednesday, March 22, 2023	3.75	Pavel Rusyaev	Intervenor Evidence - Preparation	Extracted data re electricity and gas savings potential due to commercial buildings	\$ 170.00	\$ 637.50
Wednesday, March 22, 2023	2.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review Terry Miller gas interval data	\$ 230.00	\$ 632.50
Friday, March 24, 2023	0.25	Ian Jarvis	Intervenor Evidence - Preparation	Internal meeting	\$ 330.00	\$ 82.50
Monday, March 27, 2023	1	Pavel Rusyaev	Intervenor Evidence - Preparation	Research re minimum gas consumption to be eligible to be a contract customer	\$ 170.00	\$ 170.00
Tuesday, April 4, 2023	1.5	Ian Jarvis	Intervenor Evidence - Preparation	Outline work plan	\$ 330.00	\$ 495.00
Wednesday, April 5, 2023	1	Ian Jarvis	Intervenor Evidence - Preparation	Draft report	\$ 330.00	\$ 330.00
Wednesday, April 5, 2023	1	Pavel Rusyaev	Intervenor Evidence - Preparation	Call with Ian, Giovanni and Simon to discuss the upcoming work on the research report	\$ 170.00	\$ 170.00
Wednesday, April 5, 2023	2.5	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review Bear Creek interval data model	\$ 230.00	\$ 575.00
Wednesday, April 5, 2023	0.5	Simon Sahi	Intervenor Evidence - Preparation	Meeting w/ Ian and team	\$ 230.00	\$ 115.00
Thursday, April 6, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Development	\$ 330.00	\$ 165.00
Thursday, April 6, 2023	6.75	Pavel Rusyaev	Intervenor Evidence - Preparation	Prepared the file with data for research report	\$ 170.00	\$ 1,147.50
Monday, April 10, 2023	8	Ian Jarvis	Intervenor Evidence - Preparation	Development	\$ 330.00	\$ 2,640.00
Tuesday, April 11, 2023	1.25	Ian Jarvis	Intervenor Evidence - Preparation	Draft report	\$ 330.00	\$ 412.50
Tuesday, April 11, 2023	7	Simon Sahi	Intervenor Evidence - Preparation	Pavel wasn't available - I used R-studio to download weather files and pick summerize them for Ian	\$ 230.00	\$ 1,610.00
Tuesday, April 11, 2023	4	Natalie Millan	Intervenor Evidence - Preparation	Create report and tables	\$ 170.00	\$ 680.00
Wednesday, April 12, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Report development	\$ 330.00	\$ 165.00
Thursday, April 13, 2023	0.5	Simon Sahi	Intervenor Evidence - Preparation	Review costing	\$ 230.00	\$ 115.00
Friday, April 14, 2023	0.5	Simon Sahi	Intervenor Evidence - Preparation	Review costing	\$ 230.00	\$ 115.00
Monday, April 17, 2023	3.5	Ian Jarvis	Intervenor Evidence - Preparation	Analysis and draft report	\$ 330.00	\$ 1,155.00
Monday, April 17, 2023	3.5	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review gas consumption interval data for Terry Fox and associated ASHP - Contact vendors for ASHP performance model	\$ 230.00	\$ 805.00
Tuesday, April 18, 2023	3	Ian Jarvis	Intervenor Evidence - Preparation	Internal meeting, review draft report	\$ 330.00	\$ 990.00
Tuesday, April 18, 2023	0.25	Pavel Rusyaev	Intervenor Evidence - Preparation	A call with Ian and Giovanni to review the outstanding items for the report	\$ 170.00	\$ 42.50
Tuesday, April 18, 2023	1.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Contact vendors for ASHP performance model	\$ 230.00	\$ 402.50
Wednesday, April 19, 2023	5.25	Ian Jarvis	Intervenor Evidence - Preparation	Evidence review, draft report	\$ 330.00	\$ 1,732.50
Wednesday, April 19, 2023	2.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review ASHP model for Terry Fox	\$ 230.00	\$ 632.50
Wednesday, April 19, 2023	0.5	Natalie Millan	Intervenor Evidence - Preparation	Draft report	\$ 170.00	\$ 85.00
Wednesday, April 19, 2023	2.5	Natalie Millan	Intervenor Evidence - Preparation	Draft report	\$ 170.00	\$ 425.00
Thursday, April 20, 2023	7	Ian Jarvis	Intervenor Evidence - Preparation	Review evidence, correspondence, school ASHP model, draft report	\$ 330.00	\$ 2,310.00

Thursday, April 20, 2023	7.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Data verification and illustrations (charts and tables) for the report	\$ 170.00	\$ 1,275.00
Thursday, April 20, 2023	7.5	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review school charts - review ASHP model for Terry Fox	\$ 230.00	\$ 1,725.00
Thursday, April 20, 2023	1.75	Natalie Millan	Intervenor Evidence - Preparation	Final draft for submission	\$ 170.00	\$ 297.50
Friday, April 21, 2023	1.5	Ian Jarvis	Intervenor Evidence - Preparation	Research	\$ 330.00	\$ 495.00
Friday, April 21, 2023	1	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review school charts for report	\$ 230.00	\$ 230.00
Friday, April 21, 2023	2.5	Natalie Millan	Intervenor Evidence - Preparation	Review/draft report	\$ 170.00	\$ 425.00
Saturday, April 22, 2023	0.25	Ian Jarvis	Intervenor Evidence - Interrogatory	Research	\$ 330.00	\$ 82.50
Tuesday, April 25, 2023	0.5	Ian Jarvis	Intervenor Evidence - Interrogatory	Review Interrogatory Responses	\$ 330.00	\$ 165.00
Tuesday, April 25, 2023	1	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review ASHP energy model - contact manufactures	\$ 230.00	\$ 230.00
Wednesday, April 26, 2023	2.5	Giovanni Madalozzo	Intervenor Evidence - Preparation	Internal meeting to review ASHP energy model	\$ 230.00	\$ 575.00
Friday, April 28, 2023	1	Ian Jarvis	Intervenor Evidence - Interrogatory	Review all IR's and assess questions re BOMA evidence	\$ 330.00	\$ 330.00
Tuesday, May 9, 2023	2	Pavel Rusyaev	Intervenor Evidence - Preparation	Answers to Ian's questions on the 2019 Achievable Savings Potential study	\$ 170.00	\$ 340.00
Wednesday, May 10, 2023	6	Ian Jarvis	Intervenor Evidence - Interrogatory	Draft report, modeling	\$ 330.00	\$ 1,980.00
Thursday, May 11, 2023	3.25	Ian Jarvis	Intervenor Evidence - Interrogatory	Peak demand analysis, draft response	\$ 330.00	\$ 1,072.50
Thursday, May 11, 2023	1.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Research on the variance accounts referenced by the Staff / Ian	\$ 170.00	\$ 255.00
Thursday, May 11, 2023	6	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review energy recovery and ASHP model for Simcoe and Terry Fox - Include exhaust heat recovery for Terry Fox	\$ 230.00	\$ 1,380.00
Friday, May 12, 2023	4.25	Ian Jarvis	Intervenor Evidence - Interrogatory	Draft report, variance account analysis	\$ 330.00	\$ 1,402.50
Friday, May 12, 2023	6	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review energy recovery and ASHP model for Simcoe and Terry Fox, create graphs and table for the report, discussion with Trane about ASHP performance	\$ 230.00	\$ 1,380.00
Saturday, May 13, 2023	2.5	Ian Jarvis	Intervenor Evidence - Interrogatory	Final draft, peak gas demand analysis	\$ 330.00	\$ 825.00
Monday, June 5, 2023	2.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Research to answer Ian's questions (whole system peak day gas consumption and demand, the load factor and load shape on the peak day)	\$ 170.00	\$ 425.00
Wednesday, June 7, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Images in high resolution for the report	\$ 170.00	\$ 85.00
Thursday, June 8, 2023	2	Pavel Rusyaev	Intervenor Evidence - Preparation	Research on the lowest temperatures by year for a number of cities in Ontario / Ian	\$ 170.00	\$ 340.00
Friday, June 9, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Extended the table back 1991	\$ 170.00	\$ 85.00
Monday, June 12, 2023	0.75	Ian Jarvis	Intervenor Evidence - Interrogatory	Search for data, intervenor correspondence	\$ 330.00	\$ 247.50
Payment due upon receipt						
Please make cheque to:					Subtotal	\$ 45,977.50
Enerlife Consulting Inc.						
90 Eglinton Ave E.					HST	\$ 5,977.08
Suite 412						
Toronto, ON, M4P 2YE					Total	\$ 51,954.58

SIMON SAHI MASc, MEng, PEng, BEMP

Technical Manager, Enerlife Consulting Inc., 2022 to present
ssahi@enerlife.com 416-915-1530

SUMMARY OF PROFESSIONAL EXPERIENCE

Simon is an experienced energy modeler and a technical manager of Enerlife engineering team's tool development process. He is passionate about sustainability and has a thorough understanding of building science and technologies, whole building energy modeling, energy transfer in buildings, fire safety and resistance, and related thermal science topics. Simon has in-depth knowledge of major ASHRAE standards and guidelines, as well as rating systems such as LEED BD+C and ESNH. Simon has performed energy audits and consulting support for LEED, Toronto Green Standard, SB10, and CaGBC's Zero Carbon Building Standard. As a manager, Simon has experience in mentoring and supporting junior energy modeling staff as well as in providing training for clients' facility operations staff.

REPRESENTATIVE PROJECTS

Net Zero Feasibility studies

Working closely with the rest of Enerlife's engineering team, Simon supports the building data collection and technical analysis for pathway to net zero feasibility studies for community centres in municipalities across Canada. These studies, conducted in partnership with CIMCO Refrigeration, leverage funding from the Federation of Canadian Municipalities to lay out the measures each building should take over time to eventually achieve net zero carbon emissions.

Alberta Health Services

Enerlife prepared multi-year energy and carbon reduction plan for 193 healthcare facilities across Alberta. Following the adoption of plan recommendations, Enerlife is implementing the recommissioning measures in a number of Alberta hospitals. Simon is providing technical analysis and support for this project.

Research & Development

Simon is responsible for standardization of the suite of technical analysis tools developed by Enerlife. He is currently leading the development of Ventilation Tool and integration of the Ice Rink Tool.

Energy Modeling

Simon has extensive energy modeling experience in multiple building sectors. His recent projects include: PSOS energy model and metrics calculations for West Lincoln Memorial Hospital, LEED and SB-10 energy modelling for Georgina Recreation Centre, P3 energy modelling support for Archives Canada, Toronto Green Standard Tier-2 parametric modelling for residential developments (Union Park Development, High Park Village, 30 Merton), and multiple energy audits and energy model calibrations for Dream Properties.

Fanshawe College

Simon has conducted a Sustainable Buildings Canada workshop and provided SB-10 compliance and incentives support for Fanshawe College.

HIGHLIGHTS OF EXPERIENCE

- Over 10 years of experience in energy modeling
- Modeling expertise in post-secondary institutions, multi-unit residential buildings, offices, and healthcare facilities

AREAS OF SPECIALIZATION

- Energy modeling (eQuest, HOT200, EE4)
- Energy audits
- Feasibility studies
- Commissioning
- Project management
- Power BI
- Matlab

CERTIFICATIONS

- Building Energy Modeling Professional (BEMP), ASHRAE
- Certified Energy Advisor, Natural Resources Canada
- Graduate Certificates: Fire Safety, Green Energy, University of Waterloo

ACADEMIC QUALIFICATIONS

- Master of Engineering, Mechanical and Mechatronics Engineering, University of Waterloo
- Master of Applied Science, Mechanical Engineering, McMaster University
- Bachelor of Science, Mechanical Engineering, Lawrence Technological University, Michigan

CASE EB-2022-0200: Rates: Distribution: Enbridge Gas Inc.	COST CLAIM EB-2022-0200 : 1 : Kelly Bruce	INTERVENOR NAME Bruce, Kelly; +1 (437) 328-9397 kbruce@enerlife.com	PARTICIPANT CLAIM STATUS Submitted
FILING PARTICIPANT Jarvis, Ian; +1 (416) 915-1530 x.203 ijarvis@enerlife.com	NEW PARTICIPANT No	NON-FILING PARTICIPANT F. NAME	NON-FILING PARTICIPANT L. NAME
SERVICE PROVIDER TYPE* Consultant	YEAR CALLED TO BAR*	COMPLETED YEARS PRACTICING/YEARS OF RELEVANT EXPERIENCE* 30	HOURLY RATE 330
HST RATE CHARGED* 13.00	CV STATUS (FOR CONSULTANT/ANALYST) CV Provided within Previous 24 Months	LAST CV DATE February 21, 2023	OVERRIDE HOURLY RATE No
HST NUMBER R119420859	HEARINGS Yes	CONSULTATIONS No	DISBURSEMENTS No

HEARINGS

Hearings Hours	Hearings Subtotal (\$)	Hearings Total Tax (\$)	Hearings Total (\$)			
162.33	53,568.90	6,963.98	60,532.88			
<u>Name</u>	<u>Hours</u>	<u>Hourly Rate</u>	<u>Sub Total</u>	<u>HST Rate</u>	<u>HST</u>	<u>Total</u>
REVIEW APPLICATION AND EVIDENCE						
Review Application and Evidence	15.50	330	5,115.00	13.00	664.95	5,779.95
DISCOVERY						
Preparation of Interrogatories		330		13.00		
Review Interrogatory Responses	18.25	330	6,022.50	13.00	782.93	6,805.43
Technical Conference Preparation	23.75	330	7,837.50	13.00	1,018.88	8,856.38
Technical Conference Attendance	38.50	330	12,705.00	13.00	1,651.65	14,356.65
Technical Conference Follow Up		330		13.00		
ISSUES LIST						
Preparation		330		13.00		
Attendance at Issues Conference	8.75	330	2,887.50	13.00	375.38	3,262.88
INTERVENOR EVIDENCE						
Preparation		330		13.00		
Interrogatory Responses		330		13.00		
Preparation of Witness(es) for Attendance at Hearing		330		13.00		
SETTELEMENT CONFERENCE / ADR						
Preparation	11.75	330	3,877.50	13.00	504.08	4,381.58
Attendance	39.83	330	13,143.90	13.00	1,708.71	14,852.61

<u>Name</u>	<u>Hours</u>	<u>Hourly Rate</u>	<u>Sub Total</u>	<u>HST Rate</u>	<u>HST</u>	<u>Total</u>
Preparation of Settlement Proposal		330		13.00		
Attendance at Presentation to Panel		330		13.00		
ORAL HEARING						
Preparation		330		13.00		
Attendance at Oral Hearing		330		13.00		
SUBMISSIONS						
Written Submissions		330		13.00		
Oral Submissions		330		13.00		
Attendance at Oral Submissions		330		13.00		
OTHER ATTENDANCE						
Other Attendance	4.00	330	1,320.00	13.00	171.60	1,491.60
COMMUNICATION						
With Client		330		13.00		
With Other Parties	1.00	330	330.00	13.00	42.90	372.90
MOTIONS						
Preparation of Motion(s) Materials		330		13.00		
Prepare Submissions on the Motion(s)		330		13.00		
Attendance at Hearing on Motion(s)	1.00	330	330.00	13.00	42.90	372.90
CONFIDENTIALITY						
Preparation of Application for Confidentiality		330		13.00		
Prepare Submissions on Confidentiality		330		13.00		
Attendance at Hearing on Confidentiality		330		13.00		
DECISION						
Review		330		13.00		
RATE ORDER						
Review		330		13.00		
Prepare Submission on Rate Order		330		13.00		
TOTAL SERVICE PROVIDER FEES						
Total Service Provider Fees:	162.33		53,568.90		6,963.98	60,532.88

Attachments

<u>Attachment</u>	<u>Document Type</u>	<u>Import Message</u>
Inv 3813 OEB 2022-0200 Participant Interim Inv.pdf	Time Docket and Invoice	
BOMA 2022-0200 Interim Invoices July 12_2023.pdf	Cover Letter	

Hearings, Consultations, Disbursements Attachments

<u>Attachment</u>	<u>Document Type</u>	<u>Claim Type</u>	<u>Import Message</u>
Inv 3813 OEB 2022-0200 Participant Interim Inv.pdf	Time Docket and Invoice	Hearings	
BOMA 2022-0200 Interim Invoices July 12_2023.pdf	Cover Letter	Hearings	

To: Ontario Energy Board 2300 Yonge Street Suite 2701 Toronto, Ontario M4P 1E4					
Re: EB-2022-0200 Enbridge Gas Inc. 2024 Rebasing Application Interim Cost Claim for Participant					
<div> <div></div> <div> Enerlife consulting </div> </div>					
Date: July 10, 2023			Invoice 3813		
Date	Hours	Cost Claim Category	Description	Rate	Total
Friday, December 16, 2022	0.25	Review Application and Evidence	Review Correspondence	\$ 330.00	\$ 82.50
Monday, November 7, 2022	1	Review Application and Evidence	Review Correspondence	\$ 330.00	\$ 330.00
Saturday, November 12, 2022	1	Review Application and Evidence	Review Correspondence	\$ 330.00	\$ 330.00
Wednesday, January 4, 2023	2.75	Review Application and Evidence	Review Correspondence	\$ 330.00	\$ 907.50
Monday, January 9, 2023	8.75	Attendance at Issues Conference	Jan 9 Issues Conference	\$ 330.00	\$ 2,887.50
Tuesday, January 10, 2023	1	Communication with other parties	Meeting with Kent Elson	\$ 330.00	\$ 330.00
Tuesday, January 10, 2023	1.25	Review Application and Evidence	Review Correspondence	\$ 330.00	\$ 412.50
Thursday, January 12, 2023	0.75	Review Application and Evidence	Review Correspondence	\$ 330.00	\$ 247.50
Monday, January 16, 2023	0.75	Review Application and Evidence	Review Correspondence	\$ 330.00	\$ 247.50
Saturday, January 28, 2023	0.25	Review Application and Evidence	Review Correspondence	\$ 330.00	\$ 82.50
Wednesday, January 18, 2023	0.5	Review Application and Evidence	Review Correspondence	\$ 330.00	\$ 165.00
Tuesday, February 7, 2023	1.25	Review Application and Evidence	Review Interrogatory Responses	\$ 330.00	\$ 412.50
Wednesday, February 8, 2023	8.5	Review Interrogatory Responses	Review evidence, identify BOMA interests, draft IRs	\$ 330.00	\$ 2,805.00
Thursday, February 9, 2023	7	Review Interrogatory Responses	Review IR's	\$ 330.00	\$ 2,310.00
Wednesday, February 15, 2023	5	Review Application and Evidence	Review Correspondence	\$ 330.00	\$ 1,650.00
Friday, February 17, 2023	0.75	Review Application and Evidence	Review Correspondence	\$ 330.00	\$ 247.50
Tuesday, March 14, 2023	2.25	Technical Conference Preparation	Review materials, correspondence re panels, focus areas and times	\$ 330.00	\$ 742.50
Wednesday, March 15, 2023	3	Technical Conference Preparation	Review application and evidence, OEB letter	\$ 330.00	\$ 990.00
Sunday, March 19, 2023	0.5	Technical Conference Preparation	Review, issues	\$ 330.00	\$ 165.00
Monday, March 20, 2023	0.75	Technical Conference Preparation	Review Exhibits, correspondence re design day	\$ 330.00	\$ 247.50
Tuesday, March 21, 2023	2	Technical Conference Preparation	Review, highlight issues, meeting prep	\$ 330.00	\$ 660.00
Saturday, March 25, 2023	0.25	Technical Conference Preparation	Review correspondence	\$ 330.00	\$ 82.50
Wednesday, March 22, 2023	6.25	Technical Conference Attendance	Attendance, notes, adjust questions for Day 2	\$ 330.00	\$ 2,062.50
Wednesday, March 22, 2023	2.25	Technical Conference Preparation	Review, notes, questions	\$ 330.00	\$ 742.50
Thursday, March 23, 2023	6.5	Technical Conference Attendance	Attendance, BOMA questions	\$ 330.00	\$ 2,145.00
Thursday, March 23, 2023	2	Technical Conference Preparation	Evidence check, refine questions, transcript	\$ 330.00	\$ 660.00
Friday, March 24, 2023	6.25	Technical Conference Attendance	Participation, Panel 3 questions	\$ 330.00	\$ 2,062.50
Friday, March 24, 2023	0.75	Technical Conference Preparation	Revisit evidence, adjust questions, transcript	\$ 330.00	\$ 247.50
Monday, March 27, 2023	0.25	Technical Conference Preparation	Review correspondence	\$ 330.00	\$ 82.50
Tuesday, March 28, 2023	6.5	Technical Conference Attendance	Panel 4 participation, correspondence on AMI interval metering	\$ 330.00	\$ 2,145.00
Tuesday, March 28, 2023	2.75	Technical Conference Preparation	Evidence and correspondence re IRP, metering, Day 4 transcript	\$ 330.00	\$ 907.50
Wednesday, March 29, 2023	6.75	Technical Conference Attendance	Panel 4 BOMA questions, participation in Panel 5	\$ 330.00	\$ 2,227.50
Wednesday, March 29, 2023	0.75	Technical Conference Preparation	Transcripts, intervenor breakout, transcript	\$ 330.00	\$ 247.50
Thursday, March 30, 2023	2.25	Technical Conference Attendance	Participation in selected periods, review documentation	\$ 330.00	\$ 742.50
Friday, March 31, 2023	4	Technical Conference Attendance	Attendance	\$ 330.00	\$ 1,320.00
Friday, March 31, 2023	1.25	Technical Conference Preparation	Transcript, evidence review	\$ 330.00	\$ 412.50
Thursday, April 13, 2023	1	Attendance at Hearing on Motion(s)	April 13 motions meeting, attend introductions, review transcript	\$ 330.00	\$ 330.00
Sunday, April 23, 2023	1.25	Technical Conference Preparation	Review updated information, prepare questions	\$ 330.00	\$ 412.50
Thursday, April 27, 2023	3.25	Technical Conference Preparation	Selective attendance, BOMA questions	\$ 330.00	\$ 1,072.50
Friday, April 28, 2023	0.5	Technical Conference Preparation	Review, highlight transcript	\$ 330.00	\$ 165.00
Monday, May 15, 2023	0.75	Meeting Preparation	Review IR responses	\$ 330.00	\$ 247.50
Wednesday, May 17, 2023	0.5	Meeting Preparation	Review correspondence	\$ 330.00	\$ 165.00
Thursday, May 18, 2023	1	Meeting Preparation	Review, summarize ED, OEB Staff, EG	\$ 330.00	\$ 330.00
Friday, May 19, 2023	0.5	Meeting Preparation	Review IR responses, correspondence	\$ 330.00	\$ 165.00
Tuesday, May 23, 2023	2.25	Other Attendance	Attend online meeting and follow up	\$ 330.00	\$ 742.50
Saturday, May 27, 2023	1.75	Meeting Preparation	Review and summarize correspondence, draft BOMA position	\$ 330.00	\$ 577.50
Sunday, May 28, 2023	1.5	Meeting Preparation	Review correspondence	\$ 330.00	\$ 495.00
Monday, May 29, 2023	5	Settlement Conference Attendance	Preparation, review files, summarize BOMA position, selective participatio	\$ 330.00	\$ 1,650.00
Tuesday, May 30, 2023	6.5	Settlement Conference Attendance	Participation, review correspondence and submissions	\$ 330.00	\$ 2,145.00
Wednesday, May 31, 2023	4.75	Settlement Conference Attendance	Participation, review submissions and correspondence	\$ 330.00	\$ 1,567.50
Thursday, June 1, 2023	4.5	Settlement Conference Attendance	UFG emails, selective attendance	\$ 330.00	\$ 1,485.00
Friday, June 2, 2023	6	Settlement Conference Attendance	Selective participation, review correspondence	\$ 330.00	\$ 1,980.00
Saturday, June 3, 2023	0.25	Settlement Conference Attendance	Design day, capital	\$ 330.00	\$ 82.50
Monday, June 5, 2023	2	Settlement Conference Attendance	Selective participation	\$ 330.00	\$ 660.00
Tuesday, June 6, 2023	4.83	Settlement Conference Attendance	Selective participation	\$ 330.00	\$ 1,593.90
Wednesday, June 7, 2023	2.75	Settlement Conference Attendance	Participation, EG caucus, design day analysis	\$ 330.00	\$ 907.50
Thursday, June 8, 2023	3.25	Settlement Conference Attendance	Participation	\$ 330.00	\$ 1,072.50
Friday, June 9, 2023	2.5	Meeting Preparation	Participation, design day correspondence	\$ 330.00	\$ 825.00
Monday, June 12, 2023	0.25	Meeting Preparation	Review correspondence	\$ 330.00	\$ 82.50
Tuesday, June 13, 2023	0.25	Meeting Preparation	Review correspondence	\$ 330.00	\$ 82.50
Friday, June 16, 2023	1.75	Other Attendance	Participation	\$ 330.00	\$ 577.50
Monday, June 19, 2023	1.5	Meeting Preparation	Review correspondence, comment on draft	\$ 330.00	\$ 495.00
Saturday, June 24, 2023	1	Meeting Preparation	Review correspondence, review Accounting Orders	\$ 330.00	\$ 330.00
Monday, June 26, 2023	0.5	Meeting Preparation	Review correspondence, issue 4 review and edits	\$ 330.00	\$ 165.00
Tuesday, June 27, 2023	2	Meeting Preparation	Intervenor meeting on Issue 4, correspondence	\$ 330.00	\$ 660.00
Wednesday, June 28, 2023	0.5	Meeting Preparation	Review final drafts, sign off	\$ 330.00	\$ 165.00
Payment due upon receipt Please make cheque to: Enerlife Consulting Inc. 90 Eglinton Ave E. Suite 412 Toronto, ON, M4P 2YE				Subtotal	\$ 53,568.90
				HST	\$6,963.96
				Total	\$60,532.86



July 12, 2023

[90EglintonAve.East
Suite412
Toronto,ONM4P2Y3
Tel:416.915.1530
Fax:416.915.1534
www.enerlife.com](#)

VIA RESS AND EMAIL

Ontario Energy Board
2300 Yonge Street, 27th Floor
Toronto, ON M4P 1E4

Attention: Nancy Marconi, Registrar

Dear Ms. Marconi:

Re: EB-2022-0200: Enbridge Gas Inc., 2024 Rebasing – BOMA Interim Cost Claims

BOMA's interim cost claims can be found attached for its participation in the EB-2022-0200 Enbridge Gas Inc. 2024 Rebasing Application proceeding as participant and expert evidence.

Please let me know if you have any questions.

Yours sincerely (for BOMA),

A handwritten signature in black ink, appearing to read "Ian A Jarvis", with a stylized flourish at the end.

Ian A Jarvis
President
Email: ijarvis@enerlife.com

Pavel Rusyaev

CASE EB-2022-0200: Rates: Distribution: Enbridge Gas Inc.	COST CLAIM EB-2022-0200 : 1 : Kelly Bruce	INTERVENOR NAME Bruce, Kelly; +1 (437) 328-9397 kbruce@enerlife.com	PARTICIPANT CLAIM STATUS Submitted
FILING PARTICIPANT	NEW PARTICIPANT Yes	NON-FILING PARTICIPANT F. NAME Pavel	NON-FILING PARTICIPANT L. NAME Rusyaev
SERVICE PROVIDER TYPE* Consultant	YEAR CALLED TO BAR*	COMPLETED YEARS PRACTICING/YEARS OF RELEVANT EXPERIENCE* 5	HOURLY RATE 170
HST RATE CHARGED* 13.00	CV STATUS (FOR CONSULTANT/ANALYST) CV Attached	LAST CV DATE July 12, 2023	OVERRIDE HOURLY RATE No
HST NUMBER R119420859	HEARINGS Yes	CONSULTATIONS No	DISBURSEMENTS No

HEARINGS

Hearings Hours	Hearings Subtotal (\$)	Hearings Total Tax (\$)	Hearings Total (\$)			
45.75	7,777.50	1,011.08	8,788.58			
<u>Name</u>	<u>Hours</u>	<u>Hourly Rate</u>	<u>Sub Total</u>	<u>HST Rate</u>	<u>HST</u>	<u>Total</u>
REVIEW APPLICATION AND EVIDENCE						
Review Application and Evidence		170		13.00		
DISCOVERY						
Preparation of Interrogatories		170		13.00		
Review Interrogatory Responses		170		13.00		
Technical Conference Preparation		170		13.00		
Technical Conference Attendance		170		13.00		
Technical Conference Follow Up		170		13.00		
ISSUES LIST						
Preparation		170		13.00		
Attendance at Issues Conference		170		13.00		
INTERVENOR EVIDENCE						
Preparation	45.75	170	7,777.50	13.00	1,011.08	8,788.58
Interrogatory Responses		170		13.00		
Preparation of Witness(es) for Attendance at Hearing		170		13.00		
SETTELEMENT CONFERENCE / ADR						
Preparation		170		13.00		
Attendance		170		13.00		

<u>Name</u>	<u>Hours</u>	<u>Hourly Rate</u>	<u>Sub Total</u>	<u>HST Rate</u>	<u>HST</u>	<u>Total</u>
Preparation of Settlement Proposal		170		13.00		
Attendance at Presentation to Panel		170		13.00		
ORAL HEARING						
Preparation		170		13.00		
Attendance at Oral Hearing		170		13.00		
SUBMISSIONS						
Written Submissions		170		13.00		
Oral Submissions		170		13.00		
Attendance at Oral Submissions		170		13.00		
OTHER ATTENDANCE						
Other Attendance		170		13.00		
COMMUNICATION						
With Client		170		13.00		
With Other Parties		170		13.00		
MOTIONS						
Preparation of Motion(s) Materials		170		13.00		
Prepare Submissions on the Motion(s)		170		13.00		
Attendance at Hearing on Motion(s)		170		13.00		
CONFIDENTIALITY						
Preparation of Application for Confidentiality		170		13.00		
Prepare Submissions on Confidentiality		170		13.00		
Attendance at Hearing on Confidentiality		170		13.00		
DECISION						
Review		170		13.00		
RATE ORDER						
Review		170		13.00		
Prepare Submission on Rate Order		170		13.00		
TOTAL SERVICE PROVIDER FEES						
Total Service Provider Fees:	45.75		7,777.50	1,011.08		8,788.58

Attachments

<u>Attachment</u>	<u>Document Type</u>	<u>Import Message</u>
Inv 3814 OEB 2022-0200 Expert Evidence Interim Inv.pdf	Time Docket and Invoice	
Enerlife CV Pavel Rusyaev 2022.pdf	CV	

Hearings, Consultations, Disbursements Attachments

<u>Attachment</u>	<u>Document Type</u>	<u>Claim Type</u>	<u>Import Message</u>
Inv 3814 OEB 2022-0200 Expert Evidence Interim Inv.pdf	Time Docket and Invoice	Hearings	
Enerlife CV Pavel Rusyaev 2022.pdf	CV	Hearings	

To: Ontario Energy Board
2300 Yonge Street
Suite 2701
Toronto, Ontario M4P 1E4



Re: EB-2022-0200 Enbridge Gas Inc. 2024 Rebasing Application Interim Cost Claim for Expert Witness

Date: July 12, 2023

Invoice # 3814

Date	Hours	Analyst/Consultant/Case Mgmt	Project Phase	Description	Rate	Total
Tuesday, February 7, 2023	1.5	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review Correspondence	\$ 230.00	\$ 345.00
Wednesday, February 15, 2023	1	Giovanni Madalozzo	Intervenor Evidence - Preparation	Internal meeting	\$ 230.00	\$ 230.00
Friday, February 17, 2023	3.25	Giovanni Madalozzo	Intervenor Evidence - Preparation	Research - Review ICF-Enbridge report	\$ 230.00	\$ 747.50
Tuesday, February 21, 2023	3	Ian Jarvis	Intervenor Evidence - Preparation	Research - Analyze savings potential for different commercial building sectors, Gas load shape for commercial building with heat recovery	\$ 330.00	\$ 990.00
Friday, February 24, 2023	0.25	Ian Jarvis	Communication with other parties	Research - internal meeting	\$ 330.00	\$ 82.50
Friday, February 24, 2023	3.25	Giovanni Madalozzo	Intervenor Evidence - Preparation	Research - Review Simcoe Place base case and heat recovery analysis	\$ 230.00	\$ 747.50
Sunday, February 26, 2023	2	Pavel Rusyaev	Intervenor Evidence - Preparation	Research - Prepared estimated gas use and savings potential for retail, office and multi-family	\$ 170.00	\$ 340.00
Monday, February 27, 2023	0.25	Ian Jarvis	Intervenor Evidence - Preparation	Research - Review Simcoe Place model with Giovanni	\$ 330.00	\$ 82.50
Monday, February 27, 2023	1.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Researched information re gas demand and commercial sector areas growth	\$ 170.00	\$ 255.00
Tuesday, February 28, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Research - Review sectoral savings potential model	\$ 330.00	\$ 165.00
Tuesday, February 28, 2023	3.5	Giovanni Madalozzo	Intervenor Evidence - Preparation	Research - Review baselines - create GBPS model and baselines - review SPL additional gas meter	\$ 230.00	\$ 805.00
Wednesday, March 1, 2023	1	Ian Jarvis	Intervenor Evidence - Preparation	Prepared estimated gas use and savings potential for retail, office and multi-family	\$ 330.00	\$ 330.00
Wednesday, March 1, 2023	2	Pavel Rusyaev	Intervenor Evidence - Preparation	Review of the exhibit provided by Enbridge, prepared summary of gas savings potential for various building types from the recently performed analysis	\$ 170.00	\$ 340.00
Wednesday, March 1, 2023	2.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review Bear Creek data and create analysis	\$ 230.00	\$ 632.50
Thursday, March 2, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Prepared a summary of gas savings potential for various building types from the recently performed analyses	\$ 170.00	\$ 85.00
Friday, March 3, 2023	1	Ian Jarvis	Intervenor Evidence - Preparation	Internal meeting, review correspondence	\$ 330.00	\$ 330.00
Friday, March 3, 2023	2.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review chiller information and 2010-2011 projects	\$ 230.00	\$ 632.50
Monday, March 6, 2023	1	Ian Jarvis	Intervenor Evidence - Preparation	Review correspondence with ED, analysis, internal meeting	\$ 330.00	\$ 330.00
Monday, March 6, 2023	2	Pavel Rusyaev	Intervenor Evidence - Preparation	Modified chart, adding 1.6% growth line, prepared gas benchmark with SPL 2010 normalized to 2021 for EWRB report	\$ 170.00	\$ 340.00
Wednesday, March 8, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Internal meeting	\$ 330.00	\$ 165.00
Wednesday, March 8, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Search for data on share of commercial sector in total gas demand in Ontario	\$ 170.00	\$ 85.00
Wednesday, March 8, 2023	2.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review and analysis of the gas data on TDSC schools	\$ 230.00	\$ 632.50
Thursday, March 9, 2023	0.25	Ian Jarvis	Intervenor Evidence - Preparation	Review Wilson Av off gas analysis, review with Simon	\$ 330.00	\$ 82.50
Friday, March 10, 2023	3.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Review material	\$ 170.00	\$ 595.00
Sunday, March 12, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Review results from Pavel, email next steps	\$ 330.00	\$ 165.00
Sunday, March 12, 2023	2	Pavel Rusyaev	Intervenor Evidence - Preparation	Research on how new base temperature impacts design day demand	\$ 170.00	\$ 340.00
Monday, March 13, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Research on how the climate change may affect extreme cold weather events	\$ 170.00	\$ 85.00
Tuesday, March 14, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Update, progress review	\$ 330.00	\$ 165.00
Tuesday, March 14, 2023	1	Pavel Rusyaev	Intervenor Evidence - Preparation	Research documents submitted by Enbridge pertaining to gas metering	\$ 170.00	\$ 170.00
Wednesday, March 15, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Research documents	\$ 170.00	\$ 85.00
Thursday, March 16, 2023	3.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review Terry Fox interval gas consumption for heat pump analysis	\$ 230.00	\$ 862.50
Monday, March 20, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Reviewed NOAA's monthly US climate report	\$ 170.00	\$ 85.00
Wednesday, March 22, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Internal progress meeting	\$ 330.00	\$ 165.00
Wednesday, March 22, 2023	3.75	Pavel Rusyaev	Intervenor Evidence - Preparation	Extracted data re electricity and gas savings potential due to commercial buildings	\$ 170.00	\$ 637.50
Wednesday, March 22, 2023	2.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review Terry Miller gas interval data	\$ 230.00	\$ 632.50
Friday, March 24, 2023	0.25	Ian Jarvis	Intervenor Evidence - Preparation	Internal meeting	\$ 330.00	\$ 82.50
Monday, March 27, 2023	1	Pavel Rusyaev	Intervenor Evidence - Preparation	Research re minimum gas consumption to be eligible to be a contract customer	\$ 170.00	\$ 170.00
Tuesday, April 4, 2023	1.5	Ian Jarvis	Intervenor Evidence - Preparation	Outline work plan	\$ 330.00	\$ 495.00
Wednesday, April 5, 2023	1	Ian Jarvis	Intervenor Evidence - Preparation	Draft report	\$ 330.00	\$ 330.00
Wednesday, April 5, 2023	1	Pavel Rusyaev	Intervenor Evidence - Preparation	Call with Ian, Giovanni and Simon to discuss the upcoming work on the research report	\$ 170.00	\$ 170.00
Wednesday, April 5, 2023	2.5	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review Bear Creek interval data model	\$ 230.00	\$ 575.00
Wednesday, April 5, 2023	0.5	Simon Sahi	Intervenor Evidence - Preparation	Meeting w/ Ian and team	\$ 230.00	\$ 115.00
Thursday, April 6, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Development	\$ 330.00	\$ 165.00
Thursday, April 6, 2023	6.75	Pavel Rusyaev	Intervenor Evidence - Preparation	Prepared the file with data for research report	\$ 170.00	\$ 1,147.50
Monday, April 10, 2023	8	Ian Jarvis	Intervenor Evidence - Preparation	Development	\$ 330.00	\$ 2,640.00
Tuesday, April 11, 2023	1.25	Ian Jarvis	Intervenor Evidence - Preparation	Draft report	\$ 330.00	\$ 412.50
Tuesday, April 11, 2023	7	Simon Sahi	Intervenor Evidence - Preparation	Pavel wasn't available - I used R-studio to download weather files and pick summerize them for Ian	\$ 230.00	\$ 1,610.00
Tuesday, April 11, 2023	4	Natalie Millan	Intervenor Evidence - Preparation	Create report and tables	\$ 170.00	\$ 680.00
Wednesday, April 12, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Report development	\$ 330.00	\$ 165.00
Thursday, April 13, 2023	0.5	Simon Sahi	Intervenor Evidence - Preparation	Review costing	\$ 230.00	\$ 115.00
Friday, April 14, 2023	0.5	Simon Sahi	Intervenor Evidence - Preparation	Review costing	\$ 230.00	\$ 115.00
Monday, April 17, 2023	3.5	Ian Jarvis	Intervenor Evidence - Preparation	Analysis and draft report	\$ 330.00	\$ 1,155.00
Monday, April 17, 2023	3.5	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review gas consumption interval data for Terry Fox and associated ASHP - Contact vendors for ASHP performance model	\$ 230.00	\$ 805.00
Tuesday, April 18, 2023	3	Ian Jarvis	Intervenor Evidence - Preparation	Internal meeting, review draft report	\$ 330.00	\$ 990.00
Tuesday, April 18, 2023	0.25	Pavel Rusyaev	Intervenor Evidence - Preparation	A call with Ian and Giovanni to review the outstanding items for the report	\$ 170.00	\$ 42.50
Tuesday, April 18, 2023	1.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Contact vendors for ASHP performance model	\$ 230.00	\$ 402.50
Wednesday, April 19, 2023	5.25	Ian Jarvis	Intervenor Evidence - Preparation	Evidence review, draft report	\$ 330.00	\$ 1,732.50
Wednesday, April 19, 2023	2.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review ASHP model for Terry Fox	\$ 230.00	\$ 632.50
Wednesday, April 19, 2023	0.5	Natalie Millan	Intervenor Evidence - Preparation	Draft report	\$ 170.00	\$ 85.00
Wednesday, April 19, 2023	2.5	Natalie Millan	Intervenor Evidence - Preparation	Draft report	\$ 170.00	\$ 425.00
Thursday, April 20, 2023	7	Ian Jarvis	Intervenor Evidence - Preparation	Review evidence, correspondence, school ASHP model, draft report	\$ 330.00	\$ 2,310.00

Thursday, April 20, 2023	7.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Data verification and illustrations (charts and tables) for the report	\$ 170.00	\$ 1,275.00
Thursday, April 20, 2023	7.5	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review school charts - review ASHP model for Terry Fox	\$ 230.00	\$ 1,725.00
Thursday, April 20, 2023	1.75	Natalie Millan	Intervenor Evidence - Preparation	Final draft for submission	\$ 170.00	\$ 297.50
Friday, April 21, 2023	1.5	Ian Jarvis	Intervenor Evidence - Preparation	Research	\$ 330.00	\$ 495.00
Friday, April 21, 2023	1	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review school charts for report	\$ 230.00	\$ 230.00
Friday, April 21, 2023	2.5	Natalie Millan	Intervenor Evidence - Preparation	Review/draft report	\$ 170.00	\$ 425.00
Saturday, April 22, 2023	0.25	Ian Jarvis	Intervenor Evidence - Interrogatory	Research	\$ 330.00	\$ 82.50
Tuesday, April 25, 2023	0.5	Ian Jarvis	Intervenor Evidence - Interrogatory	Review Interrogatory Responses	\$ 330.00	\$ 165.00
Tuesday, April 25, 2023	1	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review ASHP energy model - contact manufactures	\$ 230.00	\$ 230.00
Wednesday, April 26, 2023	2.5	Giovanni Madalozzo	Intervenor Evidence - Preparation	Internal meeting to review ASHP energy model	\$ 230.00	\$ 575.00
Friday, April 28, 2023	1	Ian Jarvis	Intervenor Evidence - Interrogatory	Review all IR's and assess questions re BOMA evidence	\$ 330.00	\$ 330.00
Tuesday, May 9, 2023	2	Pavel Rusyaev	Intervenor Evidence - Preparation	Answers to Ian's questions on the 2019 Achievable Savings Potential study	\$ 170.00	\$ 340.00
Wednesday, May 10, 2023	6	Ian Jarvis	Intervenor Evidence - Interrogatory	Draft report, modeling	\$ 330.00	\$ 1,980.00
Thursday, May 11, 2023	3.25	Ian Jarvis	Intervenor Evidence - Interrogatory	Peak demand analysis, draft response	\$ 330.00	\$ 1,072.50
Thursday, May 11, 2023	1.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Research on the variance accounts referenced by the Staff / Ian	\$ 170.00	\$ 255.00
Thursday, May 11, 2023	6	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review energy recovery and ASHP model for Simcoe and Terry Fox - Include exhaust heat recovery for Terry Fox	\$ 230.00	\$ 1,380.00
Friday, May 12, 2023	4.25	Ian Jarvis	Intervenor Evidence - Interrogatory	Draft report, variance account analysis	\$ 330.00	\$ 1,402.50
Friday, May 12, 2023	6	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review energy recovery and ASHP model for Simcoe and Terry Fox, create graphs and table for the report, discussion with Trane about ASHP performance	\$ 230.00	\$ 1,380.00
Saturday, May 13, 2023	2.5	Ian Jarvis	Intervenor Evidence - Interrogatory	Final draft, peak gas demand analysis	\$ 330.00	\$ 825.00
Monday, June 5, 2023	2.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Research to answer Ian's questions (whole system peak day gas consumption and demand, the load factor and load shape on the peak day)	\$ 170.00	\$ 425.00
Wednesday, June 7, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Images in high resolution for the report	\$ 170.00	\$ 85.00
Thursday, June 8, 2023	2	Pavel Rusyaev	Intervenor Evidence - Preparation	Research on the lowest temperatures by year for a number of cities in Ontario / Ian	\$ 170.00	\$ 340.00
Friday, June 9, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Extended the table back 1991	\$ 170.00	\$ 85.00
Monday, June 12, 2023	0.75	Ian Jarvis	Intervenor Evidence - Interrogatory	Search for data, intervenor correspondence	\$ 330.00	\$ 247.50
Payment due upon receipt						
Please make cheque to:					Subtotal	\$ 45,977.50
Enerlife Consulting Inc.						
90 Eglinton Ave E.					HST	\$ 5,977.08
Suite 412						
Toronto, ON, M4P 2YE					Total	\$ 51,954.58

PAVEL RUSYAEV BA

IT and Analytics Manager, Enerlife Consulting Inc., 2008 to present
prusyaev@enerlife.com 416-915-1530 ext. 209

SUMMARY OF PROFESSIONAL EXPERIENCE

Pavel Rusyaev is the senior member of Enerlife's data analytics team which provides the foundation for all of the company's work. He plays a key role in virtually all of Enerlife's projects and programs while producing the benchmarks, targets and metrics for our research, development, and demonstration initiatives. Pavel develops, maintains and updates Enerlife's tools, databases and online energy management system used for analyzing, organizing and visually presenting energy performance results. His experience spans the range of building performance data, from electricity, gas and water utilities (including interval metering), to building automation system (BAS) trend logs, to weather data. He applies exceptional data analysis skills to ensure consistency and reliability of data and excels in visual presentation of complex data to be understandable for technical and non-technical audiences.

Pavel is responsible for management and ongoing development of Enerlife's online Green Building Performance System and for proper documentation of systems, methodologies and tools. He manages data retrieval, quality control and analysis for hundreds of owners and thousands of buildings, including setting baselines and targets and reporting on energy savings. Pavel's strong organizational and project management skills support internal teams as well as external clients and program members with timely and reliable information.

Pavel is a member of the Working Group advising on Ontario Energy Board's policy development on Green Button data retrieval and Distributed Energy Resources.

REPRESENTATIVE PROJECTS

Greening Health Care

Pavel is responsible for data retrieval into Enerlife's online system for 60 member hospitals across Canada, producing the benchmarking and savings charts used by members to identify conservation measures and monitor actual savings over time. He develops and maintains the interval meter diagnostic tools used to identify and verify specific energy efficiency measures and is building our international benchmarking database which now contains over a thousand hospitals, importing publicly reported data from a variety of platforms.

Alberta Health Services Utility Management Plan

Pavel managed data retrieval and processing for this multi-year energy and carbon reduction plan covering 193 healthcare facilities across Alberta. He developed customized tools including an online building information survey which was successfully completed by over 95% of the hospitals and the financial modeling which enabled the what-if scenario testing used to develop the recommended investment and implementation strategy.

New York Nursing Homes Clean Energy Plan

Pavel worked with a number of data sources of varying detail and quality to produce and test and robust energy, emissions and financial model for New York State's 615 nursing homes. This work for the Department of Health and the New York State Energy Research and Development Authority (NYSERDA) identified readily

HIGHLIGHTS OF EXPERIENCE

- In-depth, visual analytical tools for diagnosing inefficiencies and verifying actual, weather-normalized energy savings
- Research into applications of multi-variable analysis to improve accuracy of savings calculations
- Managing baselines and savings reporting using monthly billing data for thousands of buildings.
- Streamlined data retrieval and quality control from various platforms
- Normalized benchmark reporting methodology for very large datasets from different geographic locations
- Diagnostic tools for interval meter and BAS trend seasonal profiles used to uncover savings opportunities

AREAS OF SPECIALIZATION

- Python, Excel and VBA programming
- Data retrieval and quality control management
- Individual building and mass data analytical tool and model development
- Pattern recognition for building performance analysis

PROFESSIONAL AFFILIATIONS

- Advanced Diploma in Computer Programming and Analysis, Seneca College
- Bachelor of Arts, Tashkent State Institute of Oriental Studies

achievable annual savings potential in excess of \$100 million with emissions reductions up to 44%, along with the one third of buildings which make up two-thirds of the overall savings.

Sustainable Schools Top Energy Performing Boards Report

Pavel designed and continues to develop this annual reporting which recognizes the most energy efficient of Ontario's 72 school boards. The sophisticated model contains almost 5,000 buildings and uses publicly reported annual data to produce the rational, weather normalized energy target, the resulting achievable savings potential and actual savings achieved since the previous year for each individual building. The model rolls up results to determine the top-20 boards for recognition while generating detailed information to guide every board in identifying its top savings potential buildings and appropriate energy conservation measures.

Cadillac Fairview Office Buildings

Pavel developed and manages the weekly reporting tool, using interval electric, thermal and water meter data, which is now used by the energy teams for multiple buildings to identify and correct operational measures and drive continuous performance improvement.

CASE EB-2022-0200: Rates: Distribution: Enbridge Gas Inc.	COST CLAIM EB-2022-0200 : 1 : Kelly Bruce	INTERVENOR NAME Bruce, Kelly; +1 (437) 328-9397 kbruce@enerlife.com	PARTICIPANT CLAIM STATUS Submitted
FILING PARTICIPANT Jarvis, Ian; +1 (416) 915-1530 x.203 ijarvis@enerlife.com	NEW PARTICIPANT No	NON-FILING PARTICIPANT F. NAME	NON-FILING PARTICIPANT L. NAME
SERVICE PROVIDER TYPE* Consultant	YEAR CALLED TO BAR*	COMPLETED YEARS PRACTICING/YEARS OF RELEVANT EXPERIENCE* 30	HOURLY RATE 330
HST RATE CHARGED* 13.00	CV STATUS (FOR CONSULTANT/ANALYST) CV Provided within Previous 24 Months	LAST CV DATE February 21, 2023	OVERRIDE HOURLY RATE No
HST NUMBER R119420859	HEARINGS Yes	CONSULTATIONS No	DISBURSEMENTS No

HEARINGS

Hearings Hours	Hearings Subtotal (\$)	Hearings Total Tax (\$)	Hearings Total (\$)			
61.00	20,130.00	2,616.91	22,746.91			
<u>Name</u>	<u>Hours</u>	<u>Hourly Rate</u>	<u>Sub Total</u>	<u>HST Rate</u>	<u>HST</u>	<u>Total</u>
REVIEW APPLICATION AND EVIDENCE						
Review Application and Evidence		330		13.00		
DISCOVERY						
Preparation of Interrogatories		330		13.00		
Review Interrogatory Responses		330		13.00		
Technical Conference Preparation		330		13.00		
Technical Conference Attendance		330		13.00		
Technical Conference Follow Up		330		13.00		
ISSUES LIST						
Preparation		330		13.00		
Attendance at Issues Conference		330		13.00		
INTERVENOR EVIDENCE						
Preparation	42.25	330	13,942.50	13.00	1,812.53	15,755.03
Interrogatory Responses	18.50	330	6,105.00	13.00	793.65	6,898.65
Preparation of Witness(es) for Attendance at Hearing		330		13.00		
SETTELEMENT CONFERENCE / ADR						
Preparation		330		13.00		
Attendance		330		13.00		

<u>Name</u>	<u>Hours</u>	<u>Hourly Rate</u>	<u>Sub Total</u>	<u>HST Rate</u>	<u>HST</u>	<u>Total</u>
Preparation of Settlement Proposal		330		13.00		
Attendance at Presentation to Panel		330		13.00		
ORAL HEARING						
Preparation		330		13.00		
Attendance at Oral Hearing		330		13.00		
SUBMISSIONS						
Written Submissions		330		13.00		
Oral Submissions		330		13.00		
Attendance at Oral Submissions		330		13.00		
OTHER ATTENDANCE						
Other Attendance		330		13.00		
COMMUNICATION						
With Client		330		13.00		
With Other Parties	0.25	330	82.50	13.00	10.73	93.23
MOTIONS						
Preparation of Motion(s) Materials		330		13.00		
Prepare Submissions on the Motion(s)		330		13.00		
Attendance at Hearing on Motion(s)		330		13.00		
CONFIDENTIALITY						
Preparation of Application for Confidentiality		330		13.00		
Prepare Submissions on Confidentiality		330		13.00		
Attendance at Hearing on Confidentiality		330		13.00		
DECISION						
Review		330		13.00		
RATE ORDER						
Review		330		13.00		
Prepare Submission on Rate Order		330		13.00		
TOTAL SERVICE PROVIDER FEES						
Total Service Provider Fees:	61.00		20,130.00		2,616.91	22,746.91

Attachments

<u>Attachment</u>	<u>Document Type</u>	<u>Import Message</u>
Inv 3814 OEB 2022-0200 Expert Evidence Interim Inv.pdf	Time Docket and Invoice	

Hearings, Consultations, Disbursements Attachments

<u>Attachment</u>	<u>Document Type</u>	<u>Claim Type</u>	<u>Import Message</u>
Inv 3814 OEB 2022-0200 Expert Evidence Interim Inv.pdf	Time Docket and Invoice	Hearings	

To: Ontario Energy Board
2300 Yonge Street
Suite 2701
Toronto, Ontario M4P 1E4



Re: EB-2022-0200 Enbridge Gas Inc. 2024 Rebasing Application Interim Cost Claim for Expert Witness

Date: July 12, 2023

Invoice # 3814

Date	Hours	Analyst/Consultant/Case Mgmt	Project Phase	Description	Rate	Total
Tuesday, February 7, 2023	1.5	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review Correspondence	\$ 230.00	\$ 345.00
Wednesday, February 15, 2023	1	Giovanni Madalozzo	Intervenor Evidence - Preparation	Internal meeting	\$ 230.00	\$ 230.00
Friday, February 17, 2023	3.25	Giovanni Madalozzo	Intervenor Evidence - Preparation	Research - Review ICF-Enbridge report	\$ 230.00	\$ 747.50
Tuesday, February 21, 2023	3	Ian Jarvis	Intervenor Evidence - Preparation	Research - Analyze savings potential for different commercial building sectors, Gas load shape for commercial building with heat recovery	\$ 330.00	\$ 990.00
Friday, February 24, 2023	0.25	Ian Jarvis	Communication with other parties	Research - internal meeting	\$ 330.00	\$ 82.50
Friday, February 24, 2023	3.25	Giovanni Madalozzo	Intervenor Evidence - Preparation	Research - Review Simcoe Place base case and heat recovery analysis	\$ 230.00	\$ 747.50
Sunday, February 26, 2023	2	Pavel Rusyaev	Intervenor Evidence - Preparation	Research - Prepared estimated gas use and savings potential for retail, office and multi-family	\$ 170.00	\$ 340.00
Monday, February 27, 2023	0.25	Ian Jarvis	Intervenor Evidence - Preparation	Research - Review Simcoe Place model with Giovanni	\$ 330.00	\$ 82.50
Monday, February 27, 2023	1.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Researched information re gas demand and commercial sector areas growth	\$ 170.00	\$ 255.00
Tuesday, February 28, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Research - Review sectoral savings potential model	\$ 330.00	\$ 165.00
Tuesday, February 28, 2023	3.5	Giovanni Madalozzo	Intervenor Evidence - Preparation	Research - Review baselines - create GBPS model and baselines - review SPL additional gas meter	\$ 230.00	\$ 805.00
Wednesday, March 1, 2023	1	Ian Jarvis	Intervenor Evidence - Preparation	Prepared estimated gas use and savings potential for retail, office and multi-family	\$ 330.00	\$ 330.00
Wednesday, March 1, 2023	2	Pavel Rusyaev	Intervenor Evidence - Preparation	Review of the exhibit provided by Enbridge, prepared summary of gas savings potential for various building types from the recently performed analysis	\$ 170.00	\$ 340.00
Wednesday, March 1, 2023	2.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review Bear Creek data and create analysis	\$ 230.00	\$ 632.50
Thursday, March 2, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Prepared a summary of gas savings potential for various building types from the recently performed analyses	\$ 170.00	\$ 85.00
Friday, March 3, 2023	1	Ian Jarvis	Intervenor Evidence - Preparation	Internal meeting, review correspondence	\$ 330.00	\$ 330.00
Friday, March 3, 2023	2.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review chiller information and 2010-2011 projects	\$ 230.00	\$ 632.50
Monday, March 6, 2023	1	Ian Jarvis	Intervenor Evidence - Preparation	Review correspondence with ED, analysis, internal meeting	\$ 330.00	\$ 330.00
Monday, March 6, 2023	2	Pavel Rusyaev	Intervenor Evidence - Preparation	Modified chart, adding 1.6% growth line, prepared gas benchmark with SPL 2010 normalized to 2021 for EWRB report	\$ 170.00	\$ 340.00
Wednesday, March 8, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Internal meeting	\$ 330.00	\$ 165.00
Wednesday, March 8, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Search for data on share of commercial sector in total gas demand in Ontario	\$ 170.00	\$ 85.00
Wednesday, March 8, 2023	2.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review and analysis of the gas data on TDSC schools	\$ 230.00	\$ 632.50
Thursday, March 9, 2023	0.25	Ian Jarvis	Intervenor Evidence - Preparation	Review Wilson Av off gas analysis, review with Simon	\$ 330.00	\$ 82.50
Friday, March 10, 2023	3.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Review material	\$ 170.00	\$ 595.00
Sunday, March 12, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Review results from Pavel, email next steps	\$ 330.00	\$ 165.00
Sunday, March 12, 2023	2	Pavel Rusyaev	Intervenor Evidence - Preparation	Research on how new base temperature impacts design day demand	\$ 170.00	\$ 340.00
Monday, March 13, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Research on how the climate change may affect extreme cold weather events	\$ 170.00	\$ 85.00
Tuesday, March 14, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Update, progress review	\$ 330.00	\$ 165.00
Tuesday, March 14, 2023	1	Pavel Rusyaev	Intervenor Evidence - Preparation	Research documents submitted by Enbridge pertaining to gas metering	\$ 170.00	\$ 170.00
Wednesday, March 15, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Research documents	\$ 170.00	\$ 85.00
Thursday, March 16, 2023	3.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review Terry Fox interval gas consumption for heat pump analysis	\$ 230.00	\$ 862.50
Monday, March 20, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Reviewed NOAA's monthly US climate report	\$ 170.00	\$ 85.00
Wednesday, March 22, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Internal progress meeting	\$ 330.00	\$ 165.00
Wednesday, March 22, 2023	3.75	Pavel Rusyaev	Intervenor Evidence - Preparation	Extracted data re electricity and gas savings potential due to commercial buildings	\$ 170.00	\$ 637.50
Wednesday, March 22, 2023	2.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review Terry Miller gas interval data	\$ 230.00	\$ 632.50
Friday, March 24, 2023	0.25	Ian Jarvis	Intervenor Evidence - Preparation	Internal meeting	\$ 330.00	\$ 82.50
Monday, March 27, 2023	1	Pavel Rusyaev	Intervenor Evidence - Preparation	Research re minimum gas consumption to be eligible to be a contract customer	\$ 170.00	\$ 170.00
Tuesday, April 4, 2023	1.5	Ian Jarvis	Intervenor Evidence - Preparation	Outline work plan	\$ 330.00	\$ 495.00
Wednesday, April 5, 2023	1	Ian Jarvis	Intervenor Evidence - Preparation	Draft report	\$ 330.00	\$ 330.00
Wednesday, April 5, 2023	1	Pavel Rusyaev	Intervenor Evidence - Preparation	Call with Ian, Giovanni and Simon to discuss the upcoming work on the research report	\$ 170.00	\$ 170.00
Wednesday, April 5, 2023	2.5	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review Bear Creek interval data model	\$ 230.00	\$ 575.00
Wednesday, April 5, 2023	0.5	Simon Sahi	Intervenor Evidence - Preparation	Meeting w/ Ian and team	\$ 230.00	\$ 115.00
Thursday, April 6, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Development	\$ 330.00	\$ 165.00
Thursday, April 6, 2023	6.75	Pavel Rusyaev	Intervenor Evidence - Preparation	Prepared the file with data for research report	\$ 170.00	\$ 1,147.50
Monday, April 10, 2023	8	Ian Jarvis	Intervenor Evidence - Preparation	Development	\$ 330.00	\$ 2,640.00
Tuesday, April 11, 2023	1.25	Ian Jarvis	Intervenor Evidence - Preparation	Draft report	\$ 330.00	\$ 412.50
Tuesday, April 11, 2023	7	Simon Sahi	Intervenor Evidence - Preparation	Pavel wasn't available - I used R-studio to download weather files and pick summerize them for Ian	\$ 230.00	\$ 1,610.00
Tuesday, April 11, 2023	4	Natalie Millan	Intervenor Evidence - Preparation	Create report and tables	\$ 170.00	\$ 680.00
Wednesday, April 12, 2023	0.5	Ian Jarvis	Intervenor Evidence - Preparation	Report development	\$ 330.00	\$ 165.00
Thursday, April 13, 2023	0.5	Simon Sahi	Intervenor Evidence - Preparation	Review costing	\$ 230.00	\$ 115.00
Friday, April 14, 2023	0.5	Simon Sahi	Intervenor Evidence - Preparation	Review costing	\$ 230.00	\$ 115.00
Monday, April 17, 2023	3.5	Ian Jarvis	Intervenor Evidence - Preparation	Analysis and draft report	\$ 330.00	\$ 1,155.00
Monday, April 17, 2023	3.5	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review gas consumption interval data for Terry Fox and associated ASHP - Contact vendors for ASHP performance model	\$ 230.00	\$ 805.00
Tuesday, April 18, 2023	3	Ian Jarvis	Intervenor Evidence - Preparation	Internal meeting, review draft report	\$ 330.00	\$ 990.00
Tuesday, April 18, 2023	0.25	Pavel Rusyaev	Intervenor Evidence - Preparation	A call with Ian and Giovanni to review the outstanding items for the report	\$ 170.00	\$ 42.50
Tuesday, April 18, 2023	1.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Contact vendors for ASHP performance model	\$ 230.00	\$ 402.50
Wednesday, April 19, 2023	5.25	Ian Jarvis	Intervenor Evidence - Preparation	Evidence review, draft report	\$ 330.00	\$ 1,732.50
Wednesday, April 19, 2023	2.75	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review ASHP model for Terry Fox	\$ 230.00	\$ 632.50
Wednesday, April 19, 2023	0.5	Natalie Millan	Intervenor Evidence - Preparation	Draft report	\$ 170.00	\$ 85.00
Wednesday, April 19, 2023	2.5	Natalie Millan	Intervenor Evidence - Preparation	Draft report	\$ 170.00	\$ 425.00
Thursday, April 20, 2023	7	Ian Jarvis	Intervenor Evidence - Preparation	Review evidence, correspondence, school ASHP model, draft report	\$ 330.00	\$ 2,310.00

Thursday, April 20, 2023	7.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Data verification and illustrations (charts and tables) for the report	\$ 170.00	\$ 1,275.00
Thursday, April 20, 2023	7.5	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review school charts - review ASHP model for Terry Fox	\$ 230.00	\$ 1,725.00
Thursday, April 20, 2023	1.75	Natalie Millan	Intervenor Evidence - Preparation	Final draft for submission	\$ 170.00	\$ 297.50
Friday, April 21, 2023	1.5	Ian Jarvis	Intervenor Evidence - Preparation	Research	\$ 330.00	\$ 495.00
Friday, April 21, 2023	1	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review school charts for report	\$ 230.00	\$ 230.00
Friday, April 21, 2023	2.5	Natalie Millan	Intervenor Evidence - Preparation	Review/draft report	\$ 170.00	\$ 425.00
Saturday, April 22, 2023	0.25	Ian Jarvis	Intervenor Evidence - Interrogatory	Research	\$ 330.00	\$ 82.50
Tuesday, April 25, 2023	0.5	Ian Jarvis	Intervenor Evidence - Interrogatory	Review Interrogatory Responses	\$ 330.00	\$ 165.00
Tuesday, April 25, 2023	1	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review ASHP energy model - contact manufactures	\$ 230.00	\$ 230.00
Wednesday, April 26, 2023	2.5	Giovanni Madalozzo	Intervenor Evidence - Preparation	Internal meeting to review ASHP energy model	\$ 230.00	\$ 575.00
Friday, April 28, 2023	1	Ian Jarvis	Intervenor Evidence - Interrogatory	Review all IR's and assess questions re BOMA evidence	\$ 330.00	\$ 330.00
Tuesday, May 9, 2023	2	Pavel Rusyaev	Intervenor Evidence - Preparation	Answers to Ian's questions on the 2019 Achievable Savings Potential study	\$ 170.00	\$ 340.00
Wednesday, May 10, 2023	6	Ian Jarvis	Intervenor Evidence - Interrogatory	Draft report, modeling	\$ 330.00	\$ 1,980.00
Thursday, May 11, 2023	3.25	Ian Jarvis	Intervenor Evidence - Interrogatory	Peak demand analysis, draft response	\$ 330.00	\$ 1,072.50
Thursday, May 11, 2023	1.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Research on the variance accounts referenced by the Staff / Ian	\$ 170.00	\$ 255.00
Thursday, May 11, 2023	6	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review energy recovery and ASHP model for Simcoe and Terry Fox - Include exhaust heat recovery for Terry Fox	\$ 230.00	\$ 1,380.00
Friday, May 12, 2023	4.25	Ian Jarvis	Intervenor Evidence - Interrogatory	Draft report, variance account analysis	\$ 330.00	\$ 1,402.50
Friday, May 12, 2023	6	Giovanni Madalozzo	Intervenor Evidence - Preparation	Review energy recovery and ASHP model for Simcoe and Terry Fox, create graphs and table for the report, discussion with Trane about ASHP performance	\$ 230.00	\$ 1,380.00
Saturday, May 13, 2023	2.5	Ian Jarvis	Intervenor Evidence - Interrogatory	Final draft, peak gas demand analysis	\$ 330.00	\$ 825.00
Monday, June 5, 2023	2.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Research to answer Ian's questions (whole system peak day gas consumption and demand, the load factor and load shape on the peak day)	\$ 170.00	\$ 425.00
Wednesday, June 7, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Images in high resolution for the report	\$ 170.00	\$ 85.00
Thursday, June 8, 2023	2	Pavel Rusyaev	Intervenor Evidence - Preparation	Research on the lowest temperatures by year for a number of cities in Ontario / Ian	\$ 170.00	\$ 340.00
Friday, June 9, 2023	0.5	Pavel Rusyaev	Intervenor Evidence - Preparation	Extended the table back 1991	\$ 170.00	\$ 85.00
Monday, June 12, 2023	0.75	Ian Jarvis	Intervenor Evidence - Interrogatory	Search for data, intervenor correspondence	\$ 330.00	\$ 247.50
Payment due upon receipt						
Please make cheque to:					Subtotal	\$ 45,977.50
Enerlife Consulting Inc.						
90 Eglinton Ave E.					HST	\$ 5,977.08
Suite 412						
Toronto, ON, M4P 2YE					Total	\$ 51,954.58