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June 4, 2015

Newfoundland and Labrador Board of Commissioners of Public Utilities 120 Torbay Road P.O. Box 21040 St. John's, NL A1A 5B2

Attention: Ms. G. Cheryl Blundon, Director of Corporate Services and Board Secretary

Dear Ms. Blundon:

#### RE: Newfoundland and Labrador Hydro's 2013 Amended General Rate Application

Please find enclosed the original and twelve (12) copies of the Export Report for the Nunatsiavut Government in respect of the above-noted matter.

We have provided a copy of this correspondence together with the enclosures to all the concerned parties.

Should you have any questions or concerns please contact the undersigned.

Yours truly, Benson Buffett PLC Inc. GENEVIEVE M. DAWSON GMD Encl.

C.C. Geoffrey P. Young, Newfoundland & Labrador Hydro Gerard Hayes, Newfoundland Power Thomas O'Reilly, Q.C., Cox & Palmer Dennis Browne, Q.C., Browne Fitzgerald Morgan & Avis Thomas Johnson, O'Dea Earle Yvonne Jones, MP Labrador Senwung Luk, Olthuis, Leer, Townshend LLP T 709.579 208 £0xworth \$ 569:355 Md \$ pivey E info@bensonbuffett.com

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**Expert Report** 

## Filed with the Public Utilities Board, Newfoundland and Labrador

In the Matter Concerning

General Rate Applications Submitted by Newfoundland and Labrador Hydro

Prepared for:



June 4, 2015

# 1 I. Nunatsiavut Region

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4	The Nunatsiavut Government (NG) was established in 2005 following the establishment of the			
5	Labrador Inuit Land Claims Agreement (LILCA). LILCA includes self-government provisions rendering			
6	the NG a	the NG a regional Inuit government within the province of Newfoundland and Labrador. The NG has		
7	authority	authority over many central governance areas including health, education, housing, culture and		
8	language, justice and community matters.			
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11 12 13	II. Energy and Nunatsiavut Communities			
14	The energy situation in Nunatsiavut is precarious.			
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16	1.	Power demand is growing and putting pressure on diesel plant capacity in several		
17		communities,		
18	2.	The cost of energy, for electricity and heating, puts an enormous economic burden on		
19		families and individuals, especially seniors and those in economically-challenging		
20		situations,		
21	3.	Capacity limitations, the high cost of diesel fuel, and the limitations of remote diesel		
22		systems (such as power outages) are exacerbating social and economic conditions		
23		throughout the region, including safety, health and community quality of life,		
24	4.	Energy costs and constraints are a major barrier to economic development, and		
25	5.	Lack of cleaner, reliable and cost-competitive power is having a pronounced impact on		
26		communities, Inuit and other residents in Nunatsiavut.		
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28	Energy cost concerns are particularly pressing. A large and growing percentage of families in the			
29	region face cost barriers to maintaining liveable and heated indoor homes year-round. Certain			
30	communities, have a high percentage of homes that are inadequately heated. More than half the			
31	homes in Nain and Hopedale are inadequately heated (including 57% in Nain and 64% in Hopedale).			
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It is critical to appreciate that community energy and economic picture for residents and business in 33 34 Nunatsiavut. 35 36 Box 1 37 **Energy & Economy Factors in Nunatsiavut** 38 39 1. Energy costs for Nunatsiavut residents include: space heating, transport 40 and electricity. 2. Reliance on heating fuel, propane and wood for space heating significantly 41 adds to the total energy cost envelope which includes electricity. 42 3. Average heating cost, including electricity, during the extensive winter in 43 Nunatsiavut is \$619/month. 44 4. Monthly demand thresholds and private home ownership requirements for the Take Charge energy efficiency program preclude participation of 45 many Nunatsiavut residents. 62% of residents in the region are renters (Take Charge requires private ownership of homes). A minority of homes 46 rely on electricity for space heating (the Take Charge program only 47 marginally addresses space heating in a very minor manner) 48 5. 44% of residents have stated that their homes are inadequately heated, and having sufficient resources for affordable heat is a major challenge. 49 6. Average income in Nunatsiavut is \$27,079, in comparison to the Canadian 50 average of \$74,307. 51 7. Many components (food, energy, services, supplies, equipment, etc.) comprising the cost of living in Nunatsiavut are higher than in non-remote 52 areas by as much as 35% above costs on the Island. 53 54 Sources: Statistics Canada (2010 and 2015 Census), Nunatsiavut Government 55 56 57 58 The net effect of the above energy and economy factors highlights the vulnerability Nunatsiavut 59 residents and businesses to energy prices. Specifically: a) total energy costs are high, much higher than for residents elsewhere in the province; b) cost of living for many items are much higher than 60 other regions in the province; c) average income is much lower in comparison to other regions of 61 Canada and Newfoundland and Labrador, and d) many Nunatsiavut residents and businesses do not 62

63	gualify for	various energy efficiency programs and supports and those that do qualify are eligible for	
64	programs that inadequately address the major challenge (snace heating)		
65	programs	nat madequately address the major chancinge (space heating).	
66	To date. Ni	unatsiavut beneficiaries and the Nunatsiavut Government have not been extensively	
67	involved w	ith energy planning in the region. The Nunatsiavut Government has therefore worked	
68	intensively ever the past year to propage a Draft Nunatsiavut Government has, therefore, worked		
60	intensively over the past year to prepare a Drait Nunatsiavut Energy Security Plan, and the year		
69	ahead will develop an Implementation Strategy. To adequately address energy security in		
70	Nunatsiavut, there are substantive benefits to adopting a sustainable development approach that		
71	also takes into account other community infrastructure dimensions, including housing and		
72	community	/ facilities.	
73			
74	The Nunatsiavut Government shall be considering the Draft Nunatsiavut Energy Security Plan		
75	over the next 1-2 months, and the approved plan shall be forwarded to the Public Utilities Board		
76	of Newfou	ndland and Labrador upon finalization.	
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78	III. Forg	ging A Sustainable Energy Future for Nunatsiavut	
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80	The Nunatsiavut Region is considering adopting <i>Top 10 Nunatsiavut Sustainable Energy</i>		
81	Principles	that would guide energy matters, including:	
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83	1.	Energy Security Outcomes: Action on energy in Nunatsiavut's communities shall be	
84		guided by Energy Security Outcomes.	
85	2.	Community Involvement in Energy Planning and Management: The involvement of	
86		local communities is proactively sought and supported.	
87	3.	Socially-Sensitive Energy Decision-Making: Energy decision-making is sensitive to	
88		the social impacts of energy policy, pricing and delivery decisions.	
89	4.	Efficiency in Energy Services and Delivery: Enhancing efficiency in the delivery of	
90		energy services is pursued on an incremental basis.	
91	5.	Sustainable Energy Technologies and Innovation: The potential of new energy	
92		technologies and innovations shall be an essential component of the region's	
93		energy planning.	

94	6.	Long Term Investment Orientation: Energy decisions and capital planning shall	
95		adopt a long-term, life-cycle orientation.	
96	7.	Utilization of Local Skills and Knowledge: To the fullest extent possible, local skills	
97		and knowledge shall be utilized to guide planning and service delivery and for	
98		employment.	
99	8.	Energy-Oriented Infrastructure Planning and Development: Infrastructure	
100		strategies and investment in the region shall integrate and consider energy factors	
101		and consequences.	
102	9.	Promoting Energy for Economic Development: A prime Energy Security outcome	
103		will be to explore and pursue how sustainable energy systems can support regional	
104		and local economic development.	
105	10.	Sustainable Energy Partnerships: Creative and innovative energy and energy	
106		demand/supply partnerships shall form a major basis for the regions Sustainable	
107		Energy future.	
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109	The Nunat	siavut Government takes the position that the above principles should be reflected	
110	and integr	ated into electricity rate decisions made by the Public Utilities Board for Labrador	
111	off-grid co	mmunities	
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113 114 115	IV. Imp	act of Proposed Rate Increases	
116	As noted a	bove in Section II, energy costs are a major burden to Nunatsiavut residents and	
117	commercial operations, and comprise a large percentage of household and business		
118	expenditures. Thus the proposed General Rate Application (GRA) by Newfoundland and		
119	Labrador Hydro will have a major punitive impact on community quality of life and economic		
120 121	developme	ent in the region in the following manner.	
122	1. /	Energy Costs: Energy costs for the region include electricity and space heating. The	
123	I	remote nature of Nunatsiavut communities, the logistics and costs of transporting	

124fuel, and the subarctic climate result in higher than average costs for space heating125relative to other areas of the province. As such, there are major concerns and126shortcomings regarding the lack of "affordable heating" for residents and businesses.1272. *"Energy Envelope":* It is already well known that constrained household and business128budgets mean that the "energy envelope" is not fully funded and many families and129seniors live in inadequately heated dwellings.

- 1303. Cost Impacts: Any rise in electricity costs will exacerbate this situation and lead to131more precarious space heating conditions resulting in health and quality of life132impacts, in a very harsh northern environment. Further, energy costs will be added133to the already high cost of food products. Approximately one out of every two134Nunatsiavut residents (Source: Nunatsiavut Government) is already food insecure,135and higher food prices due to electricity rate increases will exacerbate this situation.1364. Economic Development: Protecting existing businesses from cost impacts, and
- reducing hurdles to economic development are major concerns of the Nunatsiavut
  Government. The increased electricity rates proposed by Newfoundland and
  Labrador Hydro will not only compromise the establishment of new commercial
  operations, but carry the risk of making businesses no longer marginally viable with
  potential job losses resulting.
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143The Nunatsiavut Government takes the position that the combined rate impact of the General144Rate Application proposed by Newfoundland and Labrador Hydro, coupled with the addition145of the 15% deferred rate increase from 2007 will lead to severe and punitive community social146and economic hardship in the region. The impact on the health of Nunatsiavut residents will147be substantive and debilitating, and the economic outlook for existing and prospective148businesses dramatically curtailed.

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### V. Untapped Sustainable Energy Opportunities

The Nunatsiavut Government notes that Newfoundland and Labrador Hydro has been
 responsive to the need for augmented electricity capacity in the region, and has expanded a
 number of diesel generating plants.

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However, the Nunatsiavut Government has concluded that insufficient effort has been devoted
to energy efficiency and renewable energy for the region as a sustainable energy approach with
longer term economic potential. Specifically:

1. Energy efficiency efforts to date have been modest and have consisted of general 162 information an electricity consumption practices, and the promotion of minor 163 164 equipment (lighting, water use, etc.) installation. Larger and more substantive opportunities exist such as more energy-efficient: building systems, large electricity-165 consuming equipment and advanced lighting (e.g. LEDs). Catalysing these energy 166 167 efficiency opportunities requires more planning, management and investment than has been the case in the past, and a more flexible and inclusive program than is 168 169 currently the case.

- While the potential of small hydro, wind, solar and tidal energy has been examined
   generally for the region, no such projects have yet been taken forward to the
   feasibility stage, nor implemented.
- 1733. The lack of sufficient effort and investment into energy efficiency (including space174heating) and renewable energy reflects a truncated versus a more comprehensive175community energy planning approach; a more innovative process that is essential to176remote northern communities.
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The Nunatsiavut Government takes the position that electricity planning, services and rate decisions taken in isolation from broader community energy planning is reflective of shortterm thinking and results in sub-optimal potential for energy efficiency and renewable energy options. It would be more effective to consider a PUB decision/directive that caps electricity

182 costs, coupled with a more intensive strategy for energy efficiency and renewable energy for 183 the Nunatsiavut Region. 184 VI. Alternative Rate Framework & PUB Decisions/Directives Requested 185 186 The Nunatsiavut Government makes the following submission to the Public Utilities Board 187 regarding an alternative rate framework, and requests specific PUB decisions/directives be 188 189 made that have pertinence to Newfoundland and Labrador Hydro and the provincial 190 government. 191 192 That: 193 1. Electricity charges for all types of consumers in Nunatsiavut, for various levels (i.e. blocks) of service effective in 2016 should remain at 2015 rates. 194 2. Any increase in rates from 2017 onwards on the base rate in response to the General 195 Rate Application proposed by Newfoundland and Labrador Hydro must consider the 196 impact on residents and business in the region. Further, any consideration of rate 197 rises over the longer term should be very gradual and subject to phasing-in 198 199 provisions. 3. The deferred rate increase from 2006 should be considered as having been addressed 200 by provincial government, and not be a part of any consideration of rate increases in 201 2016 and into the future. 202 203 4. Newfoundland and Labrador Hydro in collaboration with the provincial government be directed to work with the Nunatsiavut Government on the design and 204 development of a Pay-As-You-Save (PAYS) energy efficiency program for the region; 205 206 for implementation in 2017. Such a program, pioneered by utilities in other jurisdictions (e.g. Manitoba) has proven to be effective in reducing energy 207 consumption focusing on building systems, large electricity-consuming equipment 208 and advanced lighting (e.g. LEDs). These actions will reduce pressures on existing 209 diesel systems for isolated communities, including diesel fuel demand/costs. 210

211	5.	Newfoundland and Labrador Hydro in collaboration with the provincial government
212		be directed to pursue and identify 2-4 specific renewable energy opportunities
213		(including solar, wind and tidal sources) for Nunatsiavut, connected to the
214		Nunatsiavut Energy Security Plan, as a means to reduce pressures on existing diesel
215		systems for isolated communities, including diesel fuel demand/costs over the
216		medium to long term. In addition, that Newfound and Labrador Hydro and the
217		provincial government introduce specific policies and provisions to allow for
218		decentralized power generation (e.g. solar) by Nunatsiavut residents and businesses
219		that can be connected to local grids; and the consideration of net metering
220		arrangements be considered over the medium to long term.
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222	Submitte	d June 4, 2015
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### VII. Background & Qualifications of Energy Expert

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Chris Henderson is Clean Energy Advisor to the Nunatsiavut Government. He is the President of
Lumos Energy and Founder of the Delphi Group. For the past 25 years, he has led and been at the
forefront of ground-breaking Canadian enterprises and local/national business, social and ecological
initiatives which have global impact and resonance. Mr. Henderson is a consultant and adviser on
economic, environment and energy that generate outcomes for corporations, communities and
Canada.

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250 Mr. Henderson is Canada's pre-eminent Clean Energy Advisor to Aboriginal communities. He 251 advises Chiefs and Councils, Tribal Groups, regional Aboriginal governments and Aboriginal 252 Economic Development Corporations on how to effectively secure and leverage partnership 253 positions in clean energy projects across Canada. He also guides utilities, financial firms, 254 corporations and governments on engaging and partnering with Aboriginal communities on clean 255 energy opportunities. Mr. Henderson has catalyzed clean energy projects in every Canadian 256 province and territory. His book, *Aboriginal Power*, was published in 2013.

He possesses an extensive background in sustainability, green economy, strategic planning, financial
structuring and public policy. Mr. Henderson has held, or holds currently, a number of influential
leadership positions, locally and nationally, including:

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261 National Coordinator, Aboriginal Clean Energy (ACE) Network

- 262 Managing Director of the EXCEL Partnership
- Community Coordinator, 1,000 Solar Rooftops Ottawa
- 264 Past-Chair Chair of The Ottawa Partnership TOP
- 265 Adjudicator to the GLOBE Awards for Environmental Excellence
- 266 Past-Chair of the Canadian Environment Industry Association
- 267 Past-Member, Board of Directors, Community Foundation of Ottawa
- 268 Founding Advisor, Canada's Commission for the Environment

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