

From: phumphries@nalcenergy.com
To: [Todd Williams](#)
Cc: auburnwarren@nalcenergy.com; [Dawei Zhou](#); [Frank Stern](#); [Jim Peterson](#); [Ralph Zarumba](#)
Subject: RE: 1992 Hydro Offer
Date: Friday, September 2, 2011 9:54:18 AM
Attachments: [.png](#)
[1992 RFP.pdf](#)

Good Morning Todd: Following our recent discussion regarding Section 3.1 of the report I have refreshed my memories from 19 years ago and realize that while I still do have a memory it not perfect. As a result some of the statistics quoted in section 3.1 are not correct. The actual RFP was executed in two stages an Expression of interest followed by a final submission between EOI and final submission hydro evaluated all proposals(and there were approximately 30) and provided Proponents with estimates of Interconnection costs. The EOI's had no pricing information. At Final Submission stage Hydro received 11 proposals the summary of which is included in the attached pdf. Based on this you may wish to adjust your 2015 and 2025 hydro estimates.

Again in section 3.1 the proposed transmission line upgrades on the Avalon Peninsula will be in place by 2017 but as discussed yesterday the 2025 assumption for additional renewables is totally driven by Thermal production levels and insuring that the renewables will always be displacing fuel.

Hope this helps

Paul

From: Todd Williams <twilliams@navigant.com>
To: "PHumphries@nalcenergy.com" <PHumphries@nalcenergy.com>
Cc: "AuburnWarren@nalcenergy.com" <AuburnWarren@nalcenergy.com>, Frank Stern <frank.stern@navigant.com>, Jim Peterson <jim.peterson@navigant.com>, Ralph Zarumba <ralph.zarumba@navigant.com>, Dawei Zhou <dzhou@navigant.com>
Date: 08/22/2011 04:15 PM
Subject: RE: 1992 Hydro Offer

Thanks, Paul

I think this is all we need for now. The fact that no one bid below the maximum price in 1992 supports my thinking that the least cost new hydro beyond the three you have in the Isolated Island case would be at least 10% higher than your 1992 offer price (after escalation to whatever the COD would be).

With respect to transmission, I had suspected the need for a new line, so this is also consistent with our thinking.

Todd

Todd Williams | Managing Director | Energy | Navigant

1 Adelaide Street E | Suite 3000 | Toronto, ON M5C 2V9

647.288.5204 Office | 613.544.7941 Mobile | 416.777.2441 Fax

Assistant: Colleen Martino | Phone: 416.956.5008 | Colleen.Martino@navigant.com

www.navigant.com

Visit our website for [Expert Perspectives and Navigant Events](#)

DISPUTES & INVESTIGATIONS • ECONOMICS • FINANCIAL ADVISORY • MANAGEMENT CONSULTING

From: PHumphries@nalcenergy.com [<mailto:PHumphries@nalcenergy.com>]

Sent: Monday, August 22, 2011 2:05 PM

To: Todd Williams

Cc: AuburnWarren@nalcenergy.com; Frank Stern; Jim Peterson; Ralph Zarumba

Subject: Re: 1992 Hydro Offer

Hi Todd: The 1992 RFP for small offered an NLH maximum pricing structure as follows

	Energy Component	Demand Component	Total
	cents/KWh	cents/KWH	cents/KWH
Winter 1 Nov- 31 Mar (3624 hours)	3.58	4.50	8.08
Summer 1 Apr- 31 Oct (5136 hours)	3.58	2.11	5.69

\$ 1992 Energy escalated at CPI for duration and Demand escalated at CPI to in service

There were a number of bids. None below maximum price but at or slightly above.

If you feel it material I could provide a copy of the RFP and possibly the bid prices.

With respect to upgrades required to get beyond the additional 100 MW this will require a 4th 230 kv line from Bay D'Espoir to the avalon peninsula. This line would cost approx. \$ 200 million \$ 2011.(This line would not be required in the Thermal case)

Hope this helps

Regards

Paul

Paul Humphries P.Eng

Manager System Planning

Nalcor Energy

Tel: 709-737-1211

Fax: 709-737-1435

email: phumphries@nalcoreenergy.com

From: Todd Williams <twilliams@navigant.com>

To: 'Paul Humphries/NLHydro' <PHumphries@nalcoreenergy.com>

Cc: "AuburnWarren@nalcoreenergy.com" <AuburnWarren@nalcoreenergy.com>, Frank Stern <frank.stern@navigant.com>, Jim Peterson <jim.peterson@navigant.com>, Ralph Zarumba <ralph.zarumba@navigant.com>

Date: 08/22/2011 02:04 PM

Subject: 1992 Hydro Offer

Paul,

When we spoke on Thursday, you mentioned that NL Hydro had an offer for hydro power at \$66.80/MWh in 1992 and that only two projects ultimately came from this offer (with another two being stopped through environmental regulation / legislation).

I would like to use this in our hydro discussion and would appreciate any further information about this offer you could provide (press release, original offer, etc. from your archives).

My thinking is as follows:

- In response to the NL Hydro offer, developers would have looked closely at the various potential hydro

facilities in Newfoundland, but since they didn't bid (ie, weren't part of the four bids), then their costs would have been higher than what NL Hydro was willing to pay. For conservatism, assume their costs were at least 10% higher. This would yield a cost of at least \$73.48 in 1992\$

- Fast forward to 2025 when NL Hydro may be able to accommodate some additional hydro after the major transmission upgrades in the Isolated Island case and the hydro output would likely displace Holyrood thermal output 100% of the time (given load growth), and this 1992 cost increases to \$195 / MWh (assuming 3% escalation in capital costs for these types of facilities).
- Given this cost, I don't see hydro as being a viable renewable component (nor do I see biomass, which is likely to have similar costs based on some biomass cost estimates I did this morning).
- I think that wind would likely be the least cost source of additional renewables for the Isolated Island case and we are looking into 100 MW of additional wind (which would be a little beyond the limits of the 2004 Acres study) as displacement for Holyrood.
- I think this bounds the impact of additional renewables, but think that others might ask what it would cost to go beyond this level. I think you would need additional transmission system reinforcement (and this would be pretty expensive) and you would also need to have some more thermal capacity idling just for system stability, regulation, etc. Any thoughts on what it would take to add more renewables beyond the 100 MW you and I spoke about Friday?

Please give me a call if you want to discuss (probably faster than typing an e:mail)

Thanks,

Todd

Todd Williams | Managing Director | Energy | Navigant

1 Adelaide Street E | Suite 3000 | Toronto, ON M5C 2V9

647.288.5204 Office | 613.544.7941 Mobile | 416.777.2441 Fax

Assistant: Colleen Martino | Phone: 416.956.5008 | Colleen.Martino@navigant.com

www.navigant.com

Visit our website for [Expert Perspectives and Navigant Events](#)

DISPUTES & INVESTIGATIONS • ECONOMICS • FINANCIAL ADVISORY • MANAGEMENT CONSULTING

This communication is from Navigant Consulting Inc. E-mail text or attachments may contain information which is confidential and may also be privileged. This communication is for the exclusive use of the intended recipient(s). If you have received this communication in error, please return it with the title "received in error" to NCISecurity@navigant.com, and then delete the email and destroy any copies of it. In addition, this communication is subject to, and incorporates by reference, additional disclaimers found in Navigant Consulting's "Email Disclaimer" section at www.Navigant.com.

Navigant Consulting, Inc.

Company Registration Number: UK Ltd. 3641719

Registered in Delaware, USA

Registered Office Address: 30 South Wacker Drive, Suite 3400, Chicago, Illinois 60606

This communication is from Navigant Consulting Inc. E-mail text or attachments may contain information which is confidential and may also be privileged. This communication is for the exclusive use of the intended recipient(s). If you have received this communication in error, please return it with the title "received in error" to NCISecurity@navigant.com, and then delete the email and destroy any copies of it. In addition, this communication is subject to, and incorporates by reference, additional disclaimers found in Navigant Consulting's "Email Disclaimer" section at www.Navigant.com.

Navigant Consulting, Inc.

Company Registration Number: UK Ltd. 3641719

Registered in Delaware, USA

Registered Office Address: 30 South Wacker Drive, Suite 3400, Chicago, Illinois 60606



Newfoundland and Labrador Hydro

Tender Opening Record
Request for Proposals for Non – Utility Generation
From Small Hydro Projects

RFP 92 – 195

Proponent Name	Project	Size (kW)	Pricing Structure				
			Winter Period		Summer Period		
			Energy (¢/kWh)	Demand (¢/kWh)	Energy (¢/kWh)	Demand (¢/kWh)	
Penney Hydro	Garia Bay	15,000	3.580	4.500	3.580	2.110	6.68¢
Belle Isle Power	Northwest River	12,000	3.580	4.250	3.580	1.860	6.42¢
Algonguin Power Inc.	Rattle Brook	4,000	3.580	4.275	3.580	2.000	6.52¢
Trinity Energy & Resources Inc.	Lady Pond	300	3.580	4.500	3.580	2.110	6.68¢
10276 Nfld. Inc.	Sheffield Lake	5,000	3.580	4.500	3.580	2.110	6.68¢
Frontier Hydro Development Inc.	Southwest River, Port Blandford	7,000	3.401	4.275	3.401	2.000	6.34¢
Hydro Resource Development Inc.	Long Harbour	500	3.580	4.490	3.580	2.110	6.67¢
Abitibi-Price	Star Lake	15,000	3.220	4.050	3.220	1.900	6.01¢
St. Mary's Bay Hydro Corp.	Northwest Arm Brook Site #3	15,000	3.580	4.500	3.580	2.110	6.68¢
Torrent Small Hydro Corp.	Torrent River site 1c (with diversion)	15,000	3.580	4.500	3.580	2.110	6.68¢
ESI Power Corp.	King's Harbour River	15,000	3.400	4.500	3.400	2.100	6.49¢

13 – Aug – 93

Total Number of Submissions:

11

Total Capacity from RFP Submissions:

103,800 kW

* Contracts signed and constructed

** Contracts signed subsequently cancelled