

1 **REFERENCE: Application, Section 4.1.2 – Peak Shaving Rate Option**

2
3 “The Peak Shaving Rate Option included in the Firm Mine Rate in Schedule C of the
4 PPA provides a specified credit on the firm demand billing rate tied to limits on the
5 mine’s ability to affect peak winter loads on the WAF system.”

6
7 **QUESTION:**

- 8
9 a) Please provide a paper copy and a working electronic copy of the cost of service
10 study used to determine that the proposed peak shaving rate is sufficient to
11 recover that portion of YEC’s 2008 revenue requirement allocated to the
12 industrial rate class for this service.
13 b) Please identify where a peak shaving rate option has been approved by
14 regulators in other jurisdictions and under what circumstances.

15
16 **ANSWER:**

17
18 **(a)**

19
20 As noted in response to UCG-YEC-2-6(b), electronic copies are not available for
21 external use. Appendix A attached provides a copy of the table used for Attachment A to
22 the Application to assess the COS for the peak shaving rate option. Please see YUB-
23 YEC-1-33 for detailed review of this example.

24
25 Please see YUB-YEC-1-10 for a discussion of the rationale behind the COS analysis
26 conducted by YEC for purpose of seeking approval for the specific new firm industrial
27 rates set out in the PPA.

28
29 [As directed in Board Order 2007-03, please see attached working electronic copy of the](#)
30 [cost of service table provided in response to this question. Please also see response to](#)
31 [UCG-YEC-2-6 as revised March 28, 2007. The related revenues and revenue/cost ratio](#)
32 [are provided below the table.](#)

33
34 **(b)**

35
36 Peak shaving rates of one form or other are common in other jurisdictions as part of
37 DSM or fuel switching programs. For example, programs that have similar

1 characteristics to the peak shaving aspect of the proposed Rate Schedule 39 in Yukon
2 include the following:

- 3
- 4 • Manitoba Industrial Curtailable Service Program: provides large industrial
5 customers with a credit towards their bill to the extent they subscribe all or a
6 portion of their load to the rate offering. The rate requires that customers interrupt
7 their service on a given amount of notice (varies depending on the option the
8 customer elects – can range from 5 minutes to 48 hours) when required by the
9 utility.
- 10 • Newfoundland Interruptible B: This former rate is similar to the Manitoba rate
11 offering described above. It is no longer offered.
- 12 • Hydro Quebec Rate DT: provides residential customers with a rate offering that
13 has a temperature differential and automatic interruption of certain loads
14 (typically electric heat) below a specified temperature. This offering provides
15 lower cost energy to the customer when the temperature is warmer than the
16 defined cutoff point.

1 **Appendix A to UCG-YEC-2-10 – COS with Peak Shaving**
2 **Example**
3

Yukon Industrial Costs of Service- - 2008 estimate (\$000)

LOADS	Customers	Energy			Coincident Peak			Minto Non-c Peak kW
		Sales MWh	Losses %	Generation MWh	Sales kW	Losses %	Generation kW	
Industrial								
Minto Mine	1	32,500	12.70%	36,627.5	2,934.8	14.70%	3,366.2	4,400.0
other	0	-	0.00%	-	-	0.00%	-	
sub total	1	32,500	12.700%	36,627.5	2,934.8	14.70%	3,366.2	
Other	15,750	292,000	11.81%	326,485	61,947	13.00%	70,000	
Total	15,751	324,500	11.90%	363,113	64,882	13.08%	73,366	% of contract winter peak shaving 66.7%
Industrial Share	0.006%			10.087%			4.588%	

cost escalation since 97

26.37%

PRODUCTION COSTS	Total Yukon	Demand Costs		Energy Costs			Total Industrial Class Costs	cents/kW.h
		Classify %	Yukon Costs	Industrial Costs	Classify %	Yukon Costs		
Fixed Costs:								
Diesel Plant	4,302.8	100%	4,302.8	197.4	0%	-	-	197.4 0.0061
Whitehorse #4	7,824.3	0%	-	-	100%	7,824.3	789.2	789.2 0.0243
Other Hydro	3,845.0	40%	1,538.0	70.6	60%	2,307.0	232.7	303.3 0.0093
Wind	199.4	0%	-	-	100%	199.4	20.1	20.1 0.0006
Sub Total	16,171.5	36%	5,840.8	268.0	64%	10,330.7	1,042.1	1,310.1 0.0403
FTN added cost	544.0				100%	544.0	54.9	54.9 0.0017
Sec Sales Credit	(1,101.0)	0%	-	-	100%	(1,101.0)	(111.1)	(111.1) (0.0034)
Fuel Expenses	4,786.0	0%	-	-	100%	4,786.0	482.8	482.8 0.0149
Wind O&M	91.2	0%	-	-	100%	91.2	9.2	9.2 0.0003
Other Production O&M	5,045.8	50%	2,522.9	115.8	50%	2,522.9	254.5	370.2 0.0114
Risk Insurance	546.7	32%	177.3	8.1	68%	369.3	37.3	45.4 0.0014
Revenue Offsets	(210.8)	33.4%	(70.5)	(3.2)	66.6%	(140.3)	(14.2)	(17.4) (0.0005)
Admin & General	3,824.1	33.4%	1,278.8	58.7	67%	2,545.2	256.7	315.4 0.0097
Total Production Costs	29,697.5	33%	9,749.4	447.3	67%	19,948.1	2,012.2	2,459.5 0.0757
Minto Mine				447.3			2,012.2	2,459.5 0.0757
TRANSMISSION COSTS								
Specific Line (WAF)	690.9							
Mayo Dawson line	2,630.6							
Carmacks-Stewart (Stage 1)	924.6							
Other Lines	2,786.8	100%	2,786.8	127.9				
Total Transmission Costs	7,032.9		2,786.8	127.9		4,246.1	428.3	556.2 0.0171
Minto Mine				127.9			428.3	556.2 0.0171
DISTRIBUTION COSTS								
Accounting & Marketing	2,279.8							
Other	9,956.0							
Total Distribution Costs	12,235.8							
Minto Mine								
other								
TOTAL COSTS	48,966.2			575.2		2,440.5	3,053.3	
net of new items	46,693							6.2%
Minto Mine				575.2		-	2,440.5	3,053.3 0.0939

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