

**UTILITIES CONSUMER GROUP
(UCG)**

1 **REFERENCE: October 6, 2008 Application Cover Letter, Page 1**

2

3 YEC states "This GRA deals primarily with 'Phase 1' Yukon Energy revenue requirement
4 matters for the test years of 2008 and 2009, and does not address 'Phase 2' cost of
5 service and general rate design matters that would require joint work by Yukon Energy
6 and the Yukon Electrical Company Limited".

7

8 **REFERENCE: Yukon Utilities Board Report on Yukon Energy Corporation**
9 **20-Year Resource Plan, January 15, 2007, Page 51**

10

11 The YUB states "Now is an appropriate time for YEC and YECL to have a complete
12 review of all GRA Phase I and Phase II matters. The Board recommends that YEC and
13 YECL file a full GRA application before October 31, 2007. The application should include
14 a full cost of service, rate design and an update of the Electric Service Regulations. The
15 Board also suggests that YEC and YECL consider a performance-based regulation
16 mechanism. As well, the Board recommends that evidence be provided as to what other
17 utilities provide for Maximum Company Investment and model theirs accordingly".

18

19 **REFERENCE: Order in Council 2008/149 – Directive to Amend the Rate**
20 **Policy Directive (1995)**

21

22 **REFERENCE: December 8, 2008 Hansard, Yukon Legislative Assembly**

23

24 *Mr. McRobb:* Let's talk about some consumer issues. I have a question starting with the
25 general rate application. We know there was a separate filing by Yukon Electrical and
26 Yukon Energy and it seems this is becoming normal in recent years. Does this speak to
27 a somewhat less-than-amicable relationship between the two companies? Why don't
28 they file an application jointly as in years past?

29

30 *Mr. Morrison:* Perhaps in years past, their interests were common. What I suggest by
31 that doesn't mean that we have anything less than a good working relationship with
32 Yukon Electrical. Our interests are different. We have the benefit of a new industrial
33 customer which has created additional revenue for the corporation and following the
34 Yukon Utilities Board practices, rules or regulation, we would earn more than our rate of
35 return; therefore, when you do that, you would normally come in and return those
36 additional funds to the ratepayers. Our interest was to file a rate application that would
37 reduce rates. For whatever their own internal reasons are, Yukon Electrical's interest

1 was to file a rate application that increased rates. **I don't know how you would do that**
2 **together.** We have some very different interests and we have different approaches to
3 rates and consumers, just in general.

4
5 **QUESTION:**

- 6
7 a) Please provide specific details of efforts made by YEC to comply with the Board's
8 recommendation to prepare and file materials to allow for a review of all GRA
9 Phase 1 and Phase 2 matters. Please include details of when the decision was
10 made to proceed with a Phase 1 GRA with rate components not supported by
11 Phase 2 analysis and the reasons why YEC believed that to be the best
12 approach.
13
- 14 b) Please provide all internally generated reports or documents prepared for or by
15 senior management or otherwise in 2007 and 2008 which discuss in any way
16 how YEC should proceed with respect to an application to the YUB regarding
17 2008 and 2009 rates.
18
- 19 c) Please explain how YEC's current application could be considered a General
20 Rate Application when YEC is not proposing to review rate design and terms and
21 conditions of service nor provide cost of service data.
22
- 23 d) Please provide details of any discussions that YEC participated in and the input
24 that YEC made regarding the development of OIC 2008/149.
25
- 26 e) Please identify the parts of OIC 2008/149 that YEC feels prohibit the YUB and
27 other parties from reviewing the cost allocation and rate design of YEC.
28
- 29 f) Please confirm YEC's understanding that none of the Orders-in-Council issued to
30 amend the Rate Policy Directive (OIC 1995/90) have affected the YUB's over-
31 arching jurisdiction to determine electricity rates that are just and reasonable for
32 all Yukon electricity ratepayers.
33
- 34 g) To YEC's knowledge, have there ever been any discussions related to changing
35 any of the provisions in the rate policy directive to allow for greater flexibility in
36 revenue-to-cost ratios incorporated in rates? For example, charging industrial
37 customers something different than 100% of costs in order to ease the burden on

1 residential customers, to allow for the development of commodity-based
2 industrial rates, etc.

3
4 h) Please explain how YEC's proposal ensures that "rate adjustments for retail
5 customers apply equally, when measured as percentages, to all classes of retail
6 customers" especially when combined with rate adjustments proposed by YECL.

7
8 i) Please explain whether the impacts of the fuel adjustment rider have been
9 incorporated into YEC's proposal regarding equal rate adjustments.

10
11 j) Please provide an indication of the anticipated timing of YEC's next general rate
12 application and timing of YEC's discussions in this regard with Yukon Electrical
13 Company Limited.

14
15 k) Please confirm YEC's President's position on December 8, 2008 that YEC does
16 not know how it would prepare and submit a consolidated general rates
17 application to the YUB that would incorporate a net revenue increase from YEC's
18 operations and a net cost increase from YECL's operations.

19
20 **ANSWER:**

21
22 **(a)**

23
24 Please see response to YUB-YEC-1-20.

25
26 **(b)**

27
28 Documents were prepared to seek Board of Directors approval of the Application and
29 are Board documents and are therefore confidential.

30
31 **(c)**

32
33 Please see response to YUB-YEC-1-20. The Application as-filed addresses both
34 revenue requirement and the rate issues that can be addressed in light of OIC both past
35 and recent directions provided by the Yukon Government. Given the constraints on any
36 inter-class rebalancing prior to 2013 due to the issuance of OIC 2008/149, Yukon
37 Energy has focused on producing a GRA that was as comprehensive as possible within

1 the current regulatory framework. Yukon Energy has also sought to make some
2 progress towards adjusting second block rates to ensure second block rates are based
3 on rate design principles that promote economy and efficiency as required by OIC
4 1995/90.

5

6 In this vein, the Application includes requested approvals for changes to the following
7 rate schedules, as well as provision in rate schedules to include Pelly Crossing in the
8 Hydro rate zone rate schedules:

9

- 10 • Rate Schedule 32 Secondary Energy
- 11 • Rate Schedule 39 (re: fixed Rider F component applicable to Rate Schedule 39
12 Major Industrial Customers
- 13 • New Rider U - Yukon Energy Revenue Reduction Rider
- 14 • Rate Schedules for Residential Non-Government (1160,1260, 1360, 1460) and
15 Residential Government (1180, 1280,1380,1480)
- 16 • Rate Schedule 42 (re: Energy Reconciliation Adjustment provision, and a small
17 adjustment to the base energy rate).

18

19 **(d)**

20

21 Please see responses to LE-YEC-1-2 and LE-YEC-1-3.

22

23 **(e)**

24

25 Please see response to YUB-YEC-1-20.

26

27 **(f)**

28

29 The Yukon Utilities Board must approve rates that are just and reasonable within the
30 regulatory framework provided by the Yukon Utilities Act and all OIC directions including
31 Rate Policy Directive OIC 1995/90 and any subsequent OIC directions.

1 **(g)**

2

3 To YEC's knowledge no such discussions have taken place.

4

5 **(h)**

6

7 As noted at page 1 of the Application, Yukon Energy's proposal applies all proposed rate
8 adjustments for retail customers equally, when measured as percentages, to all classes
9 of retail customers, and therefore prevents rate revenue rebalancing among retail
10 customer classes. YECL's rate proposals to date would not create rate revenue
11 rebalancing among retail customer classes.

12

13 **(i)**

14

15 Fuel adjustment rider impacts are considered in YEC's Application. YEC's revenue
16 requirement reflects the full forecast price of fuel and the full forecast revenues from
17 secondary sales for each test year. If approved, the YEC elements of the fuel adjustment
18 rider would be reset to reflect these new GRA fuel prices, and the rider would going
19 forward would address only the extent that fuel prices or secondary sales prices vary
20 from the 2009 GRA forecasts.

21

22 **(j)**

23

24 Please see YUB-YEC-1-20.

25

26 **(k)**

27

28 Not confirmed. The comments referred to a YEC application that would reduce rates, not
29 an application seeking a net revenue increase from YEC's operations. The comments
30 overall were in regards to the different objectives in the YECL application (seeking a
31 material increase to its rate revenues) and the YEC application (seeking a decrease to
32 its rate revenues), and how to ensure customers saw the benefit of the YEC rate
33 decrease when it occurs at the same time as a substantial rate increase by YECL.

1 **REFERENCE: October 6, 2008 Application Cover Letter, Page 2**

2
3 YEC states “Yukon Energy previously committed to apply the benefits that accrue from
4 providing grid service to Minto towards overall rate reductions”.

5
6
7 **REFERENCE: Yukon Utilities Board Report on Yukon Energy Corporation**
8 **20-Year Resource Plan, January 15, 2007, Page 31**

9
10 The YUB states “YEC submitted that the Minto PPA would result in material benefits,
11 over and above the cost of the line, so that ratepayers will not be adversely affected by
12 the expenditures required to implement this project”.

13
14 **QUESTION:**

- 15
16 a) Please provide evidence of when YEC made its commitment regarding applying
17 benefits from serving Minto (Capstone Mining) towards overall rate reductions.
18
19 b) Please provide quantified details of all the benefits and costs to ratepayers of the
20 Minto connection and explanations of where the net benefits have been
21 incorporated in the Application material.
22
23 c) Please confirm that YEC’s commitment to “overall rate reductions” does not
24 mean the same as a commitment to “overall bill reductions”.
25
26 d) Please provide calculations of the total bill (including all riders, rate relief, and
27 taxes) for a residential customer living in Whitehorse using 1000 kWh, 1200 kWh
28 and 1400 kWh per month in January 2005, January 2006, January 2007, January
29 2008, January 2009 and August 2009 assuming that the Rate Stabilization Fund
30 expires in July 2009 and the rate adjustments proposed by YEC and YECL are
31 approved. Please provide details of the bill calculations.
32
33 e) Given YEC’s proposed bill increases for Yukon electricity ratepayers that
34 consume higher amounts of electricity (especially those using electricity as a
35 primary source for space heating), please explain how Yukon ratepayers have
36 not been adversely impacted by the capital and O&M expenditures decisions
37 made by YEC.

1 **ANSWER:**

2

3 **(a)**

4

5 Ratepayer benefits from the Carmacks-Stewart project and connection of Minto mine to
6 the WAF system were noted in the 20 Year Resource Plan Supplementary Materials
7 May 2006 (filed in conjunction with the main Resource Plan), in the Resource Plan
8 Update November 2006 (Exhibit B-16 from the 20 Year Resource Plan proceeding) and
9 in the PPA proceeding. At the time of the PPA proceeding, Yukon Energy was proposing
10 that ratepayer benefits be accrued in a Mine Net Revenue Account (to address capital
11 costs of the CSTP project and focus benefits of the Minto mine net revenues on capital
12 investment), and not be used for immediate rate reductions at the time of the Minto
13 connection. The Mine Net Revenue Account was rejected by the Board in Order 2007-5
14 on April 30, 2007.

15

16 The revised PPA was filed with the Board on May 14, 2007, which no longer included
17 the Mine Net Revenue Account. Consequently, with this revision, the rate benefits from
18 Minto would accrue to ratepayers from the date of connection, rather than be deferred
19 towards long-term infrastructure benefits. Also note the following government press
20 release provided May 14, 2007, which indicates that the benefits arising from the
21 provision of service to Minto mine will be applied to ratepayers via a 2008 rate reduction.

22

23 <http://www.gov.yk.ca/news/2007/07-091.html>

24

25 **(b)**

26

27 Please see YUB-YEC-1-36(a).

28

29 **(c)**

30

31 Yukon Energy can only directly control its own revenue requirement and consequently
32 the rates required to meet that Revenue Requirement, plus propose specific rate change
33 adjustments to address specific issues that Yukon Energy is able to address. Yukon
34 Energy can not commit to control all factors affecting overall bills, which include separate
35 YECL rate increase applications, ongoing Rider F changes to reflect ongoing fuel price
36 changes, and Yukon Government subsidies such as the RSF.

1 YEC has, through the timely completion of the CSTP and the negotiation of a Power
2 Purchase Agreement with Minto mine, secured rate benefits for all Yukon retail
3 ratepayers through the provision of grid service to the mine site. In addition, Yukon
4 Energy has proposed specific overall rate adjustments for first block residential and
5 general service retail customer use that would, if adopted, more than offset the impact of
6 removal of the remaining RSF subsidies.

7
8 The rate benefits provided in Yukon Energy's current Application may be muted on the
9 bills to be paid by ratepayers through either significant rate increases, as applied for by
10 YECL in its 2008/2009 GRA, or through any subsequent reduction in RSF subsidies
11 provided by the government, or through deferral or rejection by the YUB of the specific
12 rate adjustments proposed by YEC for first block energy rates. Such impacts are matters
13 beyond the control of YEC, other than to the extent that Yukon Energy can affect the
14 revenue requirement or rates set for YECL through participation in the regulatory review
15 of such rates as an intervenor in YECL's separate process.

16
17 **(d)**

18
19 For a bill calculation that includes all riders, rate relief, and taxes for residential
20 customers please see Table 4.7 at Tab 4 of the Application which shows the situation
21 with and without the Yukon Energy proposed changes, and with and without the RSF.
22 Yukon Energy cannot hypothesize about the size of YECL's rate increase that will arise
23 from the recently released Board Order on YECL's GRA.

24
25 There were no rate changes between 2005 and 2007 other than for Rider F, the diesel
26 fuel rider.

27
28 **(e)**

29
30 The 2008/2009 Yukon Energy General Rate Application contains an overall rate
31 reduction for Yukon ratepayers.

32
33 The second block runout rate is not based on revenue requirement or cost of service
34 considerations. Rate Policy OIC 1995/90 (section 4(3)) provides that the Board must fix
35 rates for each non-government retail customer class on the basis of rate design
36 principles to promote economy and efficiency. The Board has established rate design
37 principles for runout block rates (initially in its 1992 Report to the Commissioner in

1 Executive Council provided as Attachment 1 to YUB-YEC-1-21(d), and subsequently
2 affirmed in Board Order 1993-8 at page 99, and Order 1996-7).

3

4 The underlying rationale as directed by government OIC and Board Order is that runout
5 rate must promote economy and efficiency. Current board-approved rate design for
6 runout rates provides that to promote economy and efficiency such rates must be
7 adjusted to reflect short-run incremental costs. Capital and O&M expenditures included
8 in the Revenue Requirement have no impact on either the requirement for the modest
9 increase in runoff rate nor the quantum of the rate applied.

1 **REFERENCE: October 6, 2008 Application, Page 3**

2
3 YEC states "By reducing the surplus hydro generation, new industrial loads also
4 advance the timing for potential renewed diesel generation in Yukon".

5
6 **QUESTION:**

7
8 a) Please explain what is meant by this statement.

9
10 b) Please explain what YEC is doing to reduce the need for diesel generation now
11 and in the future.

12
13 c) Please provide details of diesel generation use in 2005, 2006, 2007 and 2008.
14 This information should include, but not be limited to amount of diesel fuel used,
15 cost of diesel-fired generation, kWh generated using diesel, and percentage of
16 total generation provided by diesel.

17
18 **ANSWER:**

19
20 **(a) and (b)**

21
22 The above statement refers to the fact that continuing load increases being experienced
23 in the test years (and anticipated to continue after the test years) will result in a material
24 reduction in the surplus hydro-generated energy currently available on the system.

25
26 Page 10 of the Application notes as follows with regard to long term system bulk power
27 supplies:

28
29 With the completion of the CSTP Stage 1 and connection of the Minto
30 mine, Yukon Energy's Whitehorse-Aishihik-Faro ("WAF") system is
31 reaching a point where the material existing surplus hydro generation is
32 becoming greatly diminished. Although sales of this surplus hydro at firm
33 rates bring clear net benefits, evidenced by the rate reductions proposed
34 in the Application, with ongoing load growth and expressed interest from
35 other future industrial customers, the existing hydro generation is likely to
36 be fully utilized within the next few years, necessitating new renewable

1 supply sources in order to avoid reliance on high cost baseload diesel
2 generation and the resulting GHG emissions issues.

3
4 Yukon Energy noted in both the current application as well as in the 2005 Required
5 Revenues and Related Matters Application that the hydro surplus available in the past
6 was finite and not expected to continue indefinitely as system loads increased over time.
7 Thus, to address both near term and long term considerations related to bulk system
8 planning and the need to continue to meet system requirements Yukon Energy in 2006
9 filed a 20-Year Resource Plan that at Chapter 4 addressed near term requirements and
10 at Chapter 5 addressed longer term industrial developments.

11
12 Recent Yukon Energy activities have been focused on ensuring that near term capacity
13 requirements are met and in this vein Yukon Energy has commenced, and in some
14 cases completed, the major projects discussed in Tab 5 of the Application including
15 completion of CSTP Stage 1, the purchase of the Minto diesels, the Whitehorse Mirrlees
16 Rebuild, the Faro Mirrlees Rebuild and Aishihik 3rd Turbine.

17
18 Chapter 5 of the Yukon Energy 20-Year Resource Plan identified longer term bulk
19 system planning requirements that Yukon Energy has started to address at this time to
20 ensure that over the long term, and with diminishing available hydro electricity and
21 increasing customer loads, Yukon Energy is able to continue to serve its customers in a
22 cost effective and environmentally sound manner.

23
24 The Application (page 12) notes that to address the expected load increases, cost and
25 environmental considerations provide strong incentives for Yukon Energy to expand the
26 available complement of renewable generation, as well as transmission
27 interconnections. Test year planning cost budgets accordingly include material
28 expenditures for this next generation of power projects.

29
30 Specifically, Yukon Energy has embarked on a planning process to expand the available
31 complement of renewable generation and transmission interconnections. Tab 5 (pages
32 5-19 to 5-21) describes the significant initiatives being undertaken in the test years
33 related to planning and feasibility activities. These activities are directed at renewable
34 resource development projects identified as potential opportunities (in combination) to
35 displace 50 to 100 GWh of diesel generation in the 2010 to 2015 near term time period.
36 Projects being investigated include Mayo B, CSTP Stage 2 Pre-feasibility, the Gladstone
37 Diversion project, small scale Atlin winter storage, and Marsh Lake fall-winter storage.

1 Feasibility studies are also being undertaken with regard to geothermal generation
2 options and larger scale hydro generation.

3
4 For discussion of Supply Side Enhancement and DSM initiatives being investigated
5 please see response to LE-YEC-1-61.

6

7 **(c)**

8

9 YEC WAF diesel generation details for 2005 – 2007 are provided in the table below.

10

| ANNUAL SUMMARY | Diesel - Generation | | | Diesel - EFF | | Diesel - Litres | | | Diesel - Price | | | Diesel - Cost | | |
|-------------------|---------------------|-------------|--------------|---------------|---------------|-----------------|---------|---------|----------------|--------------|---------------|---------------|------------|-------------|
| | Whse KWh | Faro KWh | Total KWh | Whse KWh/L | Faro KWh/L | Whse | Faro | Total | Whse \$/L | Faro \$/L | Total \$/L | Whse \$ | Faro \$ | Total \$ |
| 2005 | 80,230 | 34,440 | 114,670 | 5.99 | 3.91 | 13,389 | 8,815 | 22,204 | 0.5012 | 0.5671 | 0.5274 | 6,710 | 4,999 | 11,710 |
| 2006 | 689,865 | 729,330 | 1,419,195 | 3.71 | 3.58 | 185,812 | 203,694 | 389,506 | 0.6419 | 0.7083 | 0.6766 | 119,280 | 144,268 | 263,548 |
| 2007 | 363,424 | 105,840 | 469,264 | 3.66 | 3.62 | 99,370 | 29,241 | 128,611 | 0.6895 | 0.7545 | 0.7043 | 68,517 | 22,061 | 90,578 |

11

12

13 Note that the above table incorporates a measurement mismatch with diesel generation
14 and fuel consumption occurring in January 2005 (leading to fuel being recorded as being
15 consumed in December 2004 that is related to generation occurring in January 2005,
16 likely related to timing or accuracy of recording fuel measurements).

17

18 Percentage of YEC WAF generation provided by diesel is shown in the table below.

19

| Year | Total KWh | Diesel KWh | % of Diesel Generation |
|------|--------------|---------------|---------------------------|
| 2005 | 283,644,232 | 114,670 | 0.04% |
| 2006 | 299,475,150 | 1,419,195 | 0.47% |
| 2007 | 305,362,146 | 469,264 | 0.15% |

20

1 **REFERENCE: October 6, 2008 Application, Introduction, Page 1-8**

2

3 YEC states that "Forecast oil prices for 2009 are materially above levels approved for
4 the 2005 Yukon Energy revenue requirement".

5

6 **QUESTION:**

7

8 a) Please provide details of the actual prices paid for diesel fuel in 2005, 2006, 2007
9 and 2008. Please include references to locations and amounts.

10

11 b) Please identify YEC's procurement practice and policy with respect to diesel fuel.

12

13 **ANSWER:**

14

15 **(a)**

16

17 The actual prices paid for diesel fuel in 2005, 2006, 2007 and 2008 are as follows:

18

| 2005 | | | |
|------------|---------|--------------|----------|
| | Litres | Dollars (\$) | Avg \$/L |
| Faro | - | - | - |
| Dawson | 151,934 | 122,256 | 0.8047 |
| Mayo | 10,000 | 7,160 | 0.7160 |
| Whitehorse | 40,910 | 25,708 | 0.6284 |
| | 202,844 | 155,124 | 0.7647 |

| 2006 | | | |
|------------|---------|--------------|----------|
| | Litres | Dollars (\$) | Avg \$/L |
| Faro | 214,880 | 166,283 | 0.7738 |
| Dawson | 105,913 | 83,864 | 0.7918 |
| Mayo | - | - | - |
| Whitehorse | 213,956 | 159,032 | 0.7433 |
| | 534,749 | 409,178 | 0.7652 |

| 2007 | | | |
|------------|---------|--------------|----------|
| | Litres | Dollars (\$) | Avg \$/L |
| Faro | 40,465 | 32,085 | 0.7929 |
| Dawson | 247,060 | 216,060 | 0.8745 |
| Mayo | 5,500 | 4,816 | 0.8757 |
| Whitehorse | 81,221 | 64,228 | 0.7908 |
| | 374,246 | 317,189 | 0.8475 |

| 2008 | | | |
|------------|---------|--------------|----------|
| | Litres | Dollars (\$) | Avg \$/L |
| Faro | 40,005 | 42,979 | 1.0744 |
| Dawson | 139,289 | 154,356 | 1.1082 |
| Mayo | - | - | - |
| Whitehorse | 359,695 | 371,957 | 1.0341 |
| | 538,988 | 569,292 | 1.0562 |

1

2 **(b)**

3

4 Generally on an annual basis, Yukon Energy completes a public tender for the supply of
5 generation fuel to its various plants. See PWP/HML-YEC-1-42 for copies of YEC's
6 policies on competitive bidding.

1 **REFERENCE: October 6, 2008 Application, Sales and Generation, Page 2-2**

2
3 YEC states that its "Total forecast sales are 316,031 MW.h for the 2008 test year and
4 343,581 MW.h for the 2009 test year. Total forecast sales for 2008 include 258,989
5 MW.h of primary (firm) wholesale sales, 6,845 MW.h of primary Major Industrial sales,
6 29,640 MW.h of firm Retail sales (i.e., all firm sales other than wholesale or Major
7 Industrial), and 20,557 MW.h of secondary sales (most sold on a wholesale basis to
8 YECL), while total forecast sales for 2009 include 266,926 MW.h primary wholesale
9 sales, 29,023 MW.h Major Industrial sales, 31,019 MW.h firm Retail sales, and 16,613
10 MW.h of wholesale and retail secondary sales."

11
12 **REFERENCE: Hansard, Yukon Legislative Assembly, December 10, 2008**
13 **Willard Phelps, Chair of Yukon Development Corporation and**
14 **Yukon Energy Corporation**

15
16 "We are dealing firstly with demand-side concerns. I certainly agree with the member
17 that, as we get to a situation where our surplus is rapidly disappearing -- and it will be
18 disappearing with more industry, more people and more mines -- the whole issue of
19 demand-side management is increasingly important. Of course, one of the big
20 arguments that many in the green movement in North America agree with is that it's a
21 bad thing when rates are too low and don't reflect the real cost of the generation of
22 electricity, which is certainly a strong argument in favour of not having subsidies. When
23 people don't pay enough -- the real cost of their electricity -- they tend to waste it."

24
25 **QUESTION:**

- 26
27 a) Please provide details of demand-side management efforts that have been
28 promoted to Yukon electricity ratepayers by YEC and others. In particular, please
29 provide details of any DSM-related discussions / activities undertaken with the
30 Yukon government regarding their own facilities.
31
32 b) Please provide details on the audit processes that have been completed on
33 these DSM efforts.
34
35 c) Please provide details on how the impacts of DSM efforts are reflected in the
36 load forecasts of YEC's customer classes including secondary sales customers.

1 d) Please provide details of YEC's DSM-related expenditures in 2005, 2006, 2007
2 and 2008 and their percentage of revenue requirement.
3

4 **ANSWER:**

5
6 **(a), (b), (c) and (d)**
7

8 Yukon Energy has not carried out any material studies related to energy efficiency
9 programs or DSM programs and consequently no audits have been undertaken of these
10 activities. Energy efficiency issues typically need to be coordinated across fuels and
11 across customers in Yukon. This coordination role is currently undertaken by ESC in
12 conjunction with government. Yukon Energy continues to work cooperatively with ESC
13 on energy efficiency and DSM issues.
14

15 **1. Role of ESC in establishing energy efficiency and DSM programs**
16

17 The 20-Year Resource Plan notes that "since 2000, management of DSM programs has
18 been undertaken by the ESC. ESC is a service and program delivery agency for energy
19 efficiency and green power programs for the Federal and Yukon governments. The
20 programs run by ESC include electricity programs, and programs focused on improving
21 the energy efficiency of other energy sources." (see page 2-12).
22

23 DSM activities historically undertaken by Yukon Energy and YECL were discussed in the
24 20-Year Resource Plan (see pages 2-17 to 2-22 of Chapter 2). Programs that have been
25 developed and tested by Yukon Energy and ESC since 1992 are discussed in detail in
26 Section 2.4: Bulk Power Planning Since 1992. It is also noted at page 2-10 that more
27 recently DSM activities have been undertaken and coordinated by ESC.
28

29 **2. Role of DSM in Yukon's 20-Year Resource Plan**
30

31 The 20-Year Resource Plan notes that with regard to meeting capacity requirements
32 "major new DSM initiatives or various other potential new generation technologies are
33 not typically considered by utilities to provide reliable capacity towards meeting near
34 term capacity shortfalls of the type forecast in Yukon" (see page 4-38).

1 However, with regard to longer term bulk planning issues the Resource Plan notes that
2 Yukon Energy would possibly need to give greater consideration to DSM (in particular
3 where industrial load scenarios provide for sustained 10 MW mine loads extending past
4 2016). At page 12 of the 20-Year Resource Plan it was noted in particular that, "If loads
5 of this scale and duration develop, further consideration will be given to DSM
6 programming focused primarily on reduction of system peak demand." (This is also
7 discussed in chapter 5 pages 5-52 and 5-53).

8
9 **3. Board Order 2009-2 and DSM**

10
11 In respect of DSM, the Board has set out its expectations in Appendix A of Order 2009-2
12 which notes as follows at page 44:

13
14 The Board views DSM as another critical issue for Yukon. The Board
15 directs YECL in conjunction with YEC, to consult with stakeholders and
16 develop a policy paper with respect to DSM initiatives and include this
17 policy paper as part of YECL's and YEC's next GRA. To be clear, YEC
18 and YECL are to jointly lead these processes and jointly submit the policy
19 papers (IPP and DSM) in their next GRA. The DSM policy papers are to
20 provide DSM initiatives developed through negotiations with Intervenor
21 and communities in its service territory and YEC's service territory.

22
23 Yukon Energy has reviewed the Board's decision on this matter but has not yet had an
24 opportunity to meet with YECL in this regard.

25
26 However, with regard to matters currently under review it is noted that Yukon Energy has
27 not in its current GRA contemplated or budgeted for these activities. Further direction
28 from the Board would be required related to the following:

- 29
30 (a) The scale of activities anticipated to be undertaken by the utilities.
31 (b) Confirmation that some form of deferral account for expenditures, presumably
32 targeted for disposition at the next GRA.

1 **REFERENCE: October 6, 2008 Application, Sales and Generation, Page 2-5**

2
3 YEC states that its "2009 load forecasts are markedly higher than the YECL forecasts in
4 their GRA reflecting Yukon Energy's analysis of wholesale load growth, including the
5 WAF load growth analysis for the 2001-2004 period (averaging 2.2% per year), as
6 reviewed in the Yukon Energy 20-Year Resource Plan 2006-2025 ("Resource Plan") and
7 the more recent experienced growth rate in WAF wholesales from 2004 to 2007 actuals,
8 at 2.5% per year. Yukon Energy has utilized a growth rate in this range (2.39%) as the
9 basis for estimating load increases from 2008 to 2009 based on this evidence of the
10 experienced longer-term load trends".

11
12 **QUESTION:**

- 13
14 a) Please provide an update to Table 2-1 which includes actual 2008 sales for the
15 full year.
16
17 b) Please provide a table showing the total actual monthly kWh usage in 2005,
18 2006, 2007 and 2008 of all residential customers in each Yukon community and
19 the average Yukon residential monthly usage. Please identify the source of the
20 information provided.
21
22 c) Please provide a table for 2005, 2006, 2007 and 2008 showing:
23 • the number of customers in each community at or below 1000 kWh usage for
24 each month during the year;
25 • the number of customers in each community using between 1000 and 1300
26 kWh for each month during the year;
27 • the number of customers in each community using between 1300 and 1500
28 kWh for each month during the year; and
29 • the number of customers in each community using more than 1500 kWh for
30 each month during the year.
31
32 d) Please identify the source of the information provided.

1 **ANSWER:**

2

3 **(a)**

4

5 Preliminary actuals for 2008 primary sales to YECL (in MW.h) are as follows:

6

| | 2008 prel. actual |
|---------------------------------------|----------------------|
| Total | 263,820 |
| less: Pelly Crossing | <u>(225)</u> |
| Ongoing WAF and MD sales (excl Pelly) | 263,595 |

7

8

9 **(b), (c) and (d)**

10

11 Yukon Energy does not have access to the necessary data by community required to
12 complete the response. Most communities in Yukon are served at the retail level by
13 YECL.

1 **REFERENCE: October 6, 2008 Application, Sales and Generation, Page 2-8**

2

3 YEC states that "Firm residential retail sales have grown from 10,169 MW.h in actual
4 2005 to 11,155 MW.h in forecast 2008 and 11,183 MW.h in forecast 2009. This reflects
5 ongoing modest growth in the number of customers, and basically consistent use per
6 customer over the period".

7

8 **QUESTION:**

9

10 a) Please provide monthly details of firm residential retail sales for 2005, 2006,
11 2007 and 2008.

12

13 b) Please provide monthly details of the number of firm residential customers for
14 2005, 2006, 2007 and 2008.

15

16 c) Please provide monthly details of the number of residential customers using
17 electricity for space heating for 2005, 2006, 2007 and 2008.

18

19 d) Please provide a table showing revenue requirement per customer for 2005,
20 2006, 2007 and 2008. Please include details of the calculation of these averages.

1 **ANSWER:**

2

3 **(a) and (b)**

4

Firm Residential Customers and Retail Sales

| | 2005 | | 2006 | | 2007 | | 2008* | |
|---------------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|
| | Customers | Sales (MWh) | Customers | Sales (MWh) | Customers | Sales (MWh) | Customers | Sales (MWh) |
| January | 1,305 | 1,154 | 1,322 | 1,108 | 1,363 | 1,246 | 1,388 | 1,273 |
| February | 1,304 | 1,046 | 1,323 | 972 | 1,361 | 1,070 | 1,392 | 1,226 |
| March | 1,309 | 882 | 1,334 | 938 | 1,355 | 1,080 | 1,393 | 1,062 |
| April | 1,319 | 839 | 1,352 | 859 | 1,372 | 960 | 1,414 | 959 |
| May | 1,332 | 702 | 1,372 | 809 | 1,391 | 740 | 1,438 | 803 |
| June | 1,338 | 729 | 1,375 | 753 | 1,401 | 777 | 1,451 | 747 |
| July | 1,354 | 712 | 1,383 | 758 | 1,411 | 718 | 1,447 | 740 |
| August | 1,372 | 711 | 1,391 | 703 | 1,410 | 672 | 1,449 | 732 |
| September | 1,366 | 788 | 1,403 | 771 | 1,426 | 743 | 1,467 | 778 |
| October | 1,361 | 769 | 1,385 | 849 | 1,409 | 851 | 1,443 | 801 |
| November | 1,340 | 894 | 1,371 | 930 | 1,394 | 934 | 1,417 | 979 |
| December | 1,334 | 933 | 1,365 | 1,177 | 1,389 | 1,038 | 1,416 | 1,048 |
| Year-end Adjustment | | 9 | | 38 | | 79 | | 210 |
| Annual | 1,336 | 10,169 | 1,365 | 10,665 | 1,390 | 10,908 | 1,426 | 11,359 |

5 *Preliminary actual

6

7 **(c)**

8

9 This information is not available to Yukon Energy and cannot be provided.

10

11 **(d)**

12

13 The requested table is provided below.

14

Revenue requirement per customer

| | Actual 2005 | Actual 2006 | Actual 2007 | Forecast 2008 | Forecast 2009 |
|--|----------------|----------------|----------------|------------------|------------------|
| Revenue requirement (\$000) per Tab & Sch 5 | 26,124 | 27,398 | 27,899 | 29,217 | 31,599 |
| Total firm customers (excluding secondary) | 1,787 | 1,813 | 1,841 | 1,867 | 1,890 |
| Average revenue requirement per customer (\$000) | 14.62 | 15.11 | 15.15 | 15.65 | 16.72 |

15

16

17 Average revenue requirements per customer are provided as requested. However, YEC
18 has YECL as its major customer, which accounts for the largest share of its load and
19 operational commitments. Therefore, the un-weighted average revenue requirements,
20 provided as requested, are in YEC's view of limited value.

1 **REFERENCE: October 6, 2008 Application, Sales and Generation, Page 2-8**

2
3 YEC states that "Firm general service retail sales were 18,438 MW.h, in actual 2005,
4 and are forecast at 18,193 MW.h in 2008 and 19,543 MW.h in 2009. Lower general
5 service sales starting in 2006 and 2007 compared to 2005 can be attributed to a decline
6 in total Faro load, related to the varying load for dewatering activities at the Faro mine
7 site. Total Faro general service load dropped from 7,091 MW.h in 2005 to 5,488 MW.h in
8 2006 and 5,398 MW.h in 2007. This change in load is fundamentally due to changes at
9 the Faro Mine site".

10
11 **QUESTION:**

- 12
13 a) Please provide monthly details of firm general service retail sales for 2005, 2006,
14 2007 and 2008.
15
16 b) Please provide monthly details of the number of firm general service customers
17 for 2005, 2006, 2007 and 2008.
18
19 c) Please provide monthly details of the number of general service customers using
20 electricity for space heating.

1 **ANSWER:**

2

3 **(a) and (b)**

4

Firm General Service Customers and Retail Sales

| | 2005 | | 2006 | | 2007 | | 2008* | |
|---------------------|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|
| | Customers | Sales (MWh) | Customers | Sales (MWh) | Customers | Sales (MWh) | Customers | Sales (MWh) |
| January | 407 | 1,290 | 409 | 1,390 | 408 | 1,517 | 410 | 1,495 |
| February | 412 | 1,383 | 411 | 1,263 | 409 | 1,328 | 405 | 1,384 |
| March | 408 | 1,269 | 409 | 1,321 | 409 | 1,429 | 406 | 1,355 |
| April | 425 | 1,308 | 427 | 1,293 | 437 | 1,340 | 430 | 1,364 |
| May | 473 | 1,113 | 471 | 1,185 | 481 | 1,310 | 476 | 1,371 |
| June | 480 | 1,688 | 479 | 1,318 | 481 | 1,653 | 480 | 1,746 |
| July | 486 | 2,067 | 484 | 1,733 | 486 | 1,658 | 487 | 1,858 |
| August | 488 | 2,254 | 487 | 1,749 | 484 | 1,595 | 495 | 2,183 |
| September | 528 | 2,188 | 514 | 1,848 | 507 | 1,649 | 525 | 2,072 |
| October | 448 | 1,357 | 435 | 1,330 | 491 | 1,494 | 446 | 1,176 |
| November | 423 | 1,149 | 424 | 1,192 | 392 | 1,172 | 416 | 1,230 |
| December | 416 | 1,254 | 412 | 1,412 | 414 | 1,294 | 413 | 1,277 |
| Year-end Adjustment | | 120 | | 5 | | 68 | | 13 |
| Annual | 450 | 18,438 | 447 | 17,037 | 450 | 17,507 | 449 | 18,523 |

5 *Preliminary actual

6

7 **(c)**

8

9 This information is not available to Yukon Energy and cannot be provided.

1 **REFERENCE: October 6, 2008 Application, Sales and Generation, Page 2-11**

2
3 YEC states “Yukon Energy produces power on two independent systems – the
4 Whitehorse – Aishihik – Faro (“WAF”) system and the Mayo-Dawson (“MD”) system. For
5 both systems the predominant source of generation forecast for the test period is hydro,
6 supplemented as necessary by a small amount of diesel for peaking or maintenance
7 purposes. There is also a small amount of wind generation on the WAF system”.

8
9 **QUESTION:**

- 10
11 a) Please provide monthly data for WAF diesel use and price per litre for 2005,
12 2006, 2007, 2008 and 2009 (forecast).
13
14 b) Please provide the average cost per kWh of generation on the WAF system for
15 2005, 2006, 2007, 2008 and 2009 (forecast). Please provide all relevant
16 calculations.
17
18 c) Please provide the average cost per kWh of transmission on the WAF system for
19 2005, 2006, 2007, 2008 and 2009 (forecast). Please provide all relevant
20 calculations.
21
22 d) Please provide the average cost per kWh of distribution on the WAF system for
23 2005, 2006, 2007, 2008 and 2009 (forecast). Please provide all relevant
24 calculations.
25
26 e) Please provide monthly data for MD diesel use and price per litre for 2005, 2006,
27 2007, 2008 and 2009 (forecast).
28
29 f) Please provide the average cost per kWh of generation on the MD system for
30 2005, 2006, 2007, 2008 and 2009 (forecast). Please provide all relevant
31 calculations.
32
33 g) Please provide the average cost per kWh of transmission on the MD system for
34 2005, 2006, 2007, 2008 and 2009 (forecast). Please provide all relevant
35 calculations.

- 1 h) Please provide the average cost per kWh of distribution on the MD system for
2 2005, 2006, 2007, 2008 and 2009 (forecast). Please provide all relevant
3 calculations.
4
- 5 i) Please provide monthly diesel use data for individual communities served by
6 diesel-fuelled generation and price per litre for 2005, 2006, 2007, 2008 and 2009
7 (forecast).
8
- 9 j) Please provide the average cost per kWh of generation in the diesel communities
10 for 2005, 2006, 2007, 2008 and 2009 (forecast). Please provide all relevant
11 calculations.
12
- 13 k) Please provide the average cost per kWh of distribution in the diesel
14 communities for 2005, 2006, 2007, 2008 and 2009 (forecast). Please provide all
15 relevant calculations.
16
- 17 l) Please provide monthly data on generation from each of the two wind turbines for
18 2005, 2006, 2007, 2008 and 2009 (forecast).
19
- 20 m) Please provide annual revenue requirement (by component) for each of the two
21 wind turbines for 2005, 2006, 2007, 2008 and 2009 (forecast).
22
- 23 n) Please provide the average cost per kWh of generation from each of the two
24 wind turbines for 2005, 2006, 2007, 2008 and 2009 (forecast).
25

26 **ANSWER:**

27
28 **(a)**

29
30 WAF diesel use and price information for 2005 – 2008 actuals are provided in the table
31 below. Note the monthly diesel volumes for YEC, where very little fuel is consumed in
32 most months, can be an imprecise measurement. This is because tank level
33 measurements (fuel dips) have a certain degree of imprecision, and further because
34 there is a temperature volume adjustment calculation required that may not reflect
35 temperatures in the tank at the time the measurement is taken. These variances resolve
36 themselves over time, and solely relate to individual monthly measurements.

1

WAF Diesel Generation 2005-2008 Actuals

| WAF Diesel Generation | | Diesel - Litres | | | Diesel - Price | | |
|-----------------------|-----|-----------------|---------|---------|----------------|-----------|------------|
| | | Whse L | Faro L | Total L | Whse \$/L | Faro \$/L | Total \$/L |
| 2005 | JAN | 3,375 | 1,127 | 4,502 | 0.4703 | 0.5671 | 0.4945 |
| | FEB | 4,382 | 1,108 | 5,490 | 0.5115 | 0.5672 | 0.5228 |
| | MAR | 2,975 | 325 | 3,300 | 0.5117 | 0.5671 | 0.5171 |
| | APR | 1,216 | 151 | 1,367 | 0.5114 | 0.5671 | 0.5176 |
| | MAY | -2,179 | 145 | -2,034 | 0.5116 | 0.5672 | 0.5076 |
| | JUN | 371 | 73 | 444 | 0.5116 | 0.5671 | 0.5207 |
| | JUL | -3 | -128 | -131 | 0.4433 | 0.5671 | 0.5643 |
| | AUG | 47 | 3,598 | 3,645 | 0.5138 | 0.5671 | 0.5665 |
| | SEP | 1,329 | 172 | 1,501 | 0.5115 | 0.5672 | 0.5178 |
| | OCT | 1,456 | 381 | 1,837 | 0.5116 | 0.5671 | 0.5231 |
| | NOV | -559 | 468 | -91 | 0.5115 | 0.5671 | 0.2253 |
| | DEC | 979 | 1,395 | 2,374 | 0.5116 | 0.5671 | 0.5442 |
| 2006 | JAN | 88,574 | 113,889 | 202,463 | 0.6205 | 0.6701 | 0.6484 |
| | FEB | 15,156 | -1,217 | 13,939 | 0.6332 | 0.7192 | 0.6257 |
| | MAR | 3,798 | 273 | 4,071 | 0.6332 | 0.7192 | 0.6390 |
| | APR | 17 | 1,971 | 1,988 | 0.6329 | 0.7192 | 0.7184 |
| | MAY | 26,978 | 37,727 | 64,705 | 0.6773 | 0.7599 | 0.7254 |
| | JUN | 1,251 | 4,075 | 5,326 | 0.6553 | 0.7599 | 0.7353 |
| | JUL | 614 | 257 | 871 | 0.6550 | 0.7585 | 0.6855 |
| | AUG | 1,732 | 561 | 2,293 | 0.6554 | 0.7599 | 0.6809 |
| | SEP | 12,906 | -473 | 12,433 | 0.6553 | 0.7599 | 0.6513 |
| | OCT | 14,158 | 26,208 | 40,366 | 0.6675 | 0.7599 | 0.7275 |
| | NOV | 18,447 | 19,652 | 38,099 | 0.6675 | 0.7475 | 0.7087 |
| | DEC | 2,181 | 771 | 2,952 | 0.6688 | 0.7475 | 0.6894 |
| 2007 | JAN | 2,593 | 17,347 | 19,940 | 0.6688 | 0.7475 | 0.7373 |
| | FEB | 20,928 | 1,202 | 22,130 | 0.6688 | 0.7646 | 0.6740 |
| | MAR | 0 | 2,177 | 2,177 | - | 0.7646 | - |
| | APR | 4,221 | -60 | 4,161 | 0.6689 | 0.7647 | 0.6675 |
| | MAY | 5,660 | 892 | 6,552 | 0.6688 | 0.7646 | 0.6819 |
| | JUN | 0 | 625 | 625 | - | 0.7645 | - |
| | JUL | 0 | 937 | 937 | - | 0.7646 | - |
| | AUG | 25,727 | 739 | 26,466 | 0.6927 | 0.7646 | 0.6947 |
| | SEP | 26,578 | 499 | 27,077 | 0.6927 | 0.7648 | 0.6941 |
| | OCT | 1,029 | 3,394 | 4,423 | 0.7278 | 0.7646 | 0.7561 |
| | NOV | 9,505 | 1,204 | 10,709 | 0.7278 | 0.7646 | 0.7320 |
| | DEC | 3,129 | 285 | 3,414 | 0.7279 | 0.7646 | 0.7310 |
| 2008 | JAN | 9,233 | 965 | 10,198 | 0.7278 | 0.7646 | 0.7313 |
| | FEB | 21,727 | 138 | 21,865 | 0.7668 | 0.7646 | 0.7668 |
| | MAR | 132 | 210 | 342 | 0.7668 | 0.7646 | 0.7655 |
| | APR | 2,046 | 0 | 2,046 | 0.7668 | - | 0.7668 |
| | MAY | 46,710 | 2,826 | 49,536 | 0.8458 | 0.8426 | 0.8456 |
| | JUN | 358 | 3 | 361 | 0.9477 | 0.8433 | 0.9469 |
| | JUL | -349 | 0 | -349 | 0.9477 | - | 0.9477 |
| | AUG | 67 | 1,127 | 1,194 | 0.9749 | 0.8426 | 0.8500 |
| | SEP | 677 | 0 | 677 | 0.9483 | - | 0.9483 |
| | OCT | 47,767 | 11,933 | 59,700 | 0.9971 | 0.8426 | 0.9662 |
| | NOV | 1,371 | 5,901 | 7,272 | 0.9974 | 0.8426 | 0.8718 |
| | DEC | 179,554 | 2,911 | 182,465 | 0.9728 | 0.8728 | 0.9712 |

2

1 Note that diesel fuel prices in the above table reflect inventory average blended values
2 at time of use and not current costs to secure new fuel at such times.

3

4 **(b), (c) and (d)**

5

6 Yukon Energy cannot provide this information as a substantial component of YEC's
7 costs are not functionalized and separated by system.

8

9 **(e)**

10

11 MD diesel use and price information for 2005 – 2008 actuals are provided in the table
12 below.

13

14 Note that diesel fuel prices in the table reflect inventory average blended values at time
15 of use and not current costs to secure new fuel at such times.

1

Mayo Dawson Diesel Generation 2005-2008 Actuals

| Mayo Dawson Diesel Generation | | Diesel - Litres | | | Diesel - Price | | |
|-------------------------------|-----|-----------------|--------|---------|----------------|-----------|------------|
| | | Dawson L | Mayo L | Total L | Dawson \$/L | Mayo \$/L | Total \$/L |
| 2005 | JAN | 0 | -643 | -643 | - | 0.4914 | 0.4914 |
| | FEB | 4,295 | 4,963 | 9,258 | 0.6221 | 0.4914 | 0.5521 |
| | MAR | 16,985 | -3 | 16,982 | 0.6546 | 0.5667 | 0.6547 |
| | APR | 23,648 | 278 | 23,926 | 0.6615 | 0.5671 | 0.6604 |
| | MAY | 2,120 | 1 | 2,121 | 0.6615 | 0.5700 | 0.6614 |
| | JUN | 2,460 | -51 | 2,409 | 0.6615 | 0.5671 | 0.6635 |
| | JUL | 8,720 | 40 | 8,760 | 0.6615 | 0.5673 | 0.6610 |
| | AUG | 2,200 | 117 | 2,317 | 0.6615 | 0.5671 | 0.6567 |
| | SEP | 753 | 125 | 878 | 0.6615 | 0.5671 | 0.6480 |
| | OCT | 58,380 | 980 | 59,360 | 0.7761 | 0.5671 | 0.7726 |
| | NOV | 11,361 | 8 | 11,369 | 0.7761 | 0.5675 | 0.7759 |
| | DEC | 597 | 86 | 683 | 0.7761 | 0.5671 | 0.7498 |
| 2006 | JAN | 230 | 161 | 391 | 0.7761 | 0.5671 | 0.6901 |
| | FEB | 2,400 | -133 | 2,267 | 0.7691 | 0.5671 | 0.7810 |
| | MAR | 607 | 430 | 1,037 | 0.7691 | 0.5671 | 0.6854 |
| | APR | 1,762 | -115 | 1,647 | 0.7691 | 0.5671 | 0.7832 |
| | MAY | 1,794 | 58 | 1,852 | 0.7691 | 0.5671 | 0.7628 |
| | JUN | 6,829 | -75 | 6,754 | 0.7963 | 0.5672 | 0.7989 |
| | JUL | 0 | 0 | 0 | - | - | - |
| | AUG | 1,775 | 808 | 2,583 | 0.7963 | 0.5671 | 0.7246 |
| | SEP | 482 | -17 | 465 | 0.7963 | 0.5671 | 0.8047 |
| | OCT | 46,500 | 125 | 46,625 | 0.7874 | 0.5671 | 0.7869 |
| | NOV | 539 | 249 | 788 | 0.7874 | 0.5671 | 0.7178 |
| | DEC | 4,388 | 70 | 4,458 | 0.7874 | 0.5671 | 0.7840 |
| 2007 | JAN | 37,021 | 322 | 37,343 | 0.8560 | 0.5671 | 0.8535 |
| | FEB | 975 | 264 | 1,239 | 0.8562 | 0.5671 | 0.7946 |
| | MAR | 1,673 | 77 | 1,750 | 0.8560 | 0.5671 | 0.8433 |
| | APR | 11,245 | -1,283 | 9,962 | 0.8596 | 0.5671 | 0.8973 |
| | MAY | 0 | 1,336 | 1,336 | - | 0.5671 | 0.5671 |
| | JUN | 3,525 | 46 | 3,571 | 0.8596 | 0.5672 | 0.8558 |
| | JUL | 74,824 | 0 | 74,824 | 0.8537 | - | 0.8537 |
| | AUG | 14,360 | 40 | 14,400 | 0.8321 | 0.5673 | 0.8314 |
| | SEP | 13,502 | 2,178 | 15,680 | 0.8321 | 0.5671 | 0.7953 |
| | OCT | 33,190 | 0 | 33,190 | 0.8321 | - | 0.8321 |
| | NOV | 0 | 170 | 170 | - | 0.6256 | 0.6256 |
| | DEC | 7,410 | 3,307 | 10,717 | 0.8636 | 0.6256 | 0.7902 |
| 2008 | JAN | 2,219 | -733 | 1,486 | 0.8636 | 0.6262 | 0.9808 |
| | FEB | 4,537 | 0 | 4,537 | 0.8866 | - | 0.8866 |
| | MAR | 65 | 70 | 135 | 0.8866 | 0.6256 | 0.7513 |
| | APR | 28,175 | -312 | 27,863 | 0.9505 | 0.6250 | 0.9542 |
| | MAY | 1,614 | 0 | 1,614 | 0.9505 | - | 0.9505 |
| | JUN | 10,801 | 105 | 10,906 | 0.9505 | 0.6256 | 0.9474 |
| | JUL | 950 | 28 | 978 | 0.9505 | 0.6257 | 0.9412 |
| | AUG | 900 | 0 | 900 | 0.9505 | - | 0.9505 |
| | SEP | 6,450 | 246 | 6,696 | 0.9505 | 0.6256 | 0.9386 |
| | OCT | 28,450 | 548 | 28,998 | 0.9505 | 0.6259 | 0.9444 |
| | NOV | 6,002 | -502 | 5,500 | 1.0493 | 0.6255 | 1.0879 |
| | DEC | 29,540 | 178 | 29,718 | 1.0493 | 0.6256 | 1.0467 |

2

1 **(f), (g) and (h)**

2

3 Yukon Energy cannot provide this information as a substantial component of YEC's
4 costs are not functionalized and separated by system.

5

6 **(i), (j) and (k)**

7

8 Yukon Energy does not serve any primary power diesel-generation communities.

9

10 **(l)**

11

12 Monthly actual data on generation from each of the two wind turbines from 2005 to 2008
13 is provided in the table below.

1

Wind generation 2005 – 2008 Actuals

| Wind Generation | | 150 kW KWh | Vesta 660 KWh | Combined KWh |
|-----------------|-----|---------------|------------------|-----------------|
| 2005 | JAN | 0 | 0 | 0 |
| | FEB | 39,750 | 98,611 | 138,361 |
| | MAR | 44,590 | 68,849 | 113,439 |
| | APR | 140 | 59,394 | 59,534 |
| | MAY | 0 | 74,087 | 74,087 |
| | JUN | 10,950 | 47,542 | 58,492 |
| | JUL | 10,360 | 35,013 | 45,373 |
| | AUG | 16,450 | 84,137 | 100,587 |
| | SEP | 20,680 | 100,833 | 121,513 |
| | OCT | 17,460 | 87,430 | 104,890 |
| | NOV | 0 | 0 | 0 |
| | DEC | 0 | 73,552 | 73,552 |
| 2006 | JAN | 0 | 0 | 0 |
| | FEB | 0 | 29,297 | 29,297 |
| | MAR | 0 | 0 | 0 |
| | APR | 0 | 70,919 | 70,919 |
| | MAY | 0 | 120,820 | 120,820 |
| | JUN | 0 | 26,405 | 26,405 |
| | JUL | 0 | 15,439 | 15,439 |
| | AUG | 22,260 | 69,430 | 91,690 |
| | SEP | 0 | 136,740 | 136,740 |
| | OCT | 53,870 | 32,330 | 86,200 |
| | NOV | 0 | 9,010 | 9,010 |
| | DEC | 0 | 18,260 | 18,260 |
| 2007 | JAN | 0 | 0 | 0 |
| | FEB | 0 | 0 | 0 |
| | MAR | 0 | 0 | 0 |
| | APR | 96,400 | 14,840 | 111,240 |
| | MAY | 23,360 | 63,070 | 86,430 |
| | JUN | 10,900 | 30,740 | 41,640 |
| | JUL | 12,600 | 29,680 | 42,280 |
| | AUG | 0 | 0 | 0 |
| | SEP | 26,930 | 36,040 | 62,970 |
| | OCT | 0 | 0 | 0 |
| | NOV | 0 | 0 | 0 |
| | DEC | 1,220 | 15,900 | 17,120 |
| 2008 | JAN | 0 | 0 | 0 |
| | FEB | 0 | 0 | 0 |
| | MAR | 44,710 | -19,610 | 25,100 |
| | APR | 0 | 0 | 0 |
| | MAY | 51,300 | 123,490 | 174,790 |
| | JUN | 9,550 | 30,210 | 39,760 |
| | JUL | 29,070 | 41,430 | 70,500 |
| | AUG | 12,540 | 6,360 | 18,900 |
| | SEP | 0 | 0 | 0 |
| | OCT | 0 | 0 | 0 |
| | NOV | 60,050 | 41,340 | 101,390 |
| | DEC | 8,040 | -1,590 | 6,450 |

2

- 1 **(m)** and **(n)**
- 2
- 3 Please see PWP/HML-YEC-1-18(a).

1 **REFERENCE: October 6, 2008 Application, Sales and Generation, page 2-15**

2

3 YEC states "One capacity-related matter was noted in the Resource Plan in respect of
4 the hydro systems. At that time, Yukon Energy established a reliable firm output for its
5 Whitehorse Hydro plant at 24 MW in winter, but noted that investigations were required
6 to determine if further revisions were needed, or possible, based on ice conditions on the
7 Yukon River. Further investigation into Yukon River icing indicate that the 24 MW value
8 remains valid for planning the system as a reliable winter peak output for this plant".

9

10 **QUESTION:**

11

12 a) Please provide all internally generated reports or documents prepared for or by
13 senior management or otherwise related to the "further investigation" that
14 concluded that 24 MW remains a valid winter peak output.

15

16 **ANSWER:**

17

18 **(a)**

19

20 Please see YUB-YEC-1-34(h).

1 **REFERENCE: October 6, 2008 Application, Revenue Requirement, Page 3-3**

2

3 YEC states "The 2005 revenue requirement was based on fuel prices forecast in the 60
4 cent per litre range (the 2005 forecast prices) rather than the more recent forecast price
5 of approximately \$1.11 per litre in 2008 and \$1.15 per litre in 2009".

6

7 **QUESTION:**

8

9 a) Please provide the actual cost of fuel in 2008 and a more current update of the
10 price for 2009 for all Yukon locations. Please provide the source of data used to
11 develop the forecast for 2009.

12

13 **ANSWER:**

14

15 **(a)**

16

17 Please see CW-YEC-1-16.

1 **REFERENCE: October 6, 2008 Application, Revenue Requirement, Page 3-3**

2
3 YEC states "The forecast Non-Fuel Operating and Maintenance cost increase from 2005
4 to 2009 of \$1.995 million (18% increase) accounts for the largest share (about 38%) of
5 the overall revenue requirement change from 2005 to 2009. As noted in Table 3.3, over
6 60% of this Non-Fuel Operating and Maintenance cost increase is related to increased
7 Labour costs and requirements for administration and other company operations, with
8 80% of this increase occurring by 2007".

9
10 **QUESTION:**

- 11
12 a) Please explain the increase in labour costs and the amount of labour costs that
13 have been transferred to capital and deferred cost projects.
14
15 b) Please provide position titles and total compensation amounts for all positions
16 that were compensated at more than \$100,000 annually in 2005, 2006, 2007,
17 2008 and 2009 (forecast).
18
19 c) Please provide a table showing non-fuel operating and maintenance costs per
20 customer for 2005, 2006, 2007 and 2008. Please include details of the
21 calculation of these averages.
22
23 d) Please provide a comparison of YEC's forecast revenue requirement in 2008 and
24 2009 had the conditions and cost levels within the previous management
25 services agreement with Yukon Electrical Company Limited / Canadian Utilities
26 been maintained.

27
28 **ANSWER:**

29
30 **(a)**

31
32 Details with respect to the increase in labour costs and the amount of labour costs
33 transferred to capital projects are provided in the table below.

1 **Labour cost increases and labour charged capital and deferred projects**

2

| | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|--------------|--------------|--------------|--------------|--------------|
| O&M labour | 2,945 | 3,237 | 3,343 | 3,178 | 3,275 |
| Admin labour | 2,691 | 2,846 | 3,288 | 3,498 | 3,605 |
| Labour expense | 5,636 | 6,083 | 6,631 | 6,676 | 6,880 |
| Labour charged to Capital/ Deffered Cost Projects | 1,304 | 1,674 | 1,672 | 2,044 | 2,106 |
| Labour charged to YDC/3rd Parties | 186 | 91 | 92 | 113 | 116 |
| Total Labour Charged to Other Areas: | 1,490 | 1,765 | 1,764 | 2,158 | 2,222 |
| Total | 7,126 | 7,848 | 8,395 | 8,834 | 9,102 |
| Yearly Increase as a % | | 10% | 7% | 5% | 3% |
| Economic increase January 1st each year | | 3% | 3% | 3.75% | 3.5% |
| Number of new positions added | | 4.0 | 3.0 | 3.2 | 0.0 |
| Number of positions cancelled | | | | (1.0) | |
| | | 4.0 | 3.0 | 2.2 | 0.0 |

3

4

5 Specific information on the new positions added is provided in LE-YEC-1-32.

6

7 **(b)**

8

9 Salary information for identifiable staff is protected by privacy legislation and cannot be
10 provided.

11

12 **(c)**

13

14 The requested table is provided below.

15

Non-Fuel Operating, Maintenance and Administration Expenses per customer

| | Actual 2005 | Actual 2006 | Actual 2007 | Forecast 2008 |
|---|----------------|----------------|----------------|------------------|
| Total OM&A (\$000) | 11,233 | 11,293 | 12,116 | 12,362 |
| Total customers* | 1,786 | 1,812 | 1,840 | 1,866 |
| Average OM&A costs per customer (\$000s)* | 6.29 | 6.23 | 6.59 | 6.62 |

16

1 * Average OM&A costs per customer are provided as requested. However, YEC has
2 YECL as its major customer, which accounts for the largest share of these costs.
3 Therefore, the un-weighted average costs, provided as requested, are in YEC's view of
4 limited value.

5

6 **(d)**

7

8 The response to McMahon-YEC-1-6(c) (provided during the 2005 Required Revenues
9 and Related Matters hearing), in respect of revenue requirement impacts in 2005 related
10 to Yukon Energy assuming direct management of its assets in 1998, noted that "Yukon
11 Energy cannot hypothetically determine 'the conditions and cost levels' that would arise
12 today based on a now expired management services agreement with Canadian Utilities."
13 The same situation applies today.

1 **REFERENCE: October 6, 2008 Application, Revenue Requirement, Page 3-6;**
2 **Table 3-3 – Non-Fuel Operating, Maintenance and**
3 **Administration Expenses**

4
5 **QUESTION:**

- 6
7 a) Please update this table by adding columns for 2005 Allowed and 2008 Actual.
8
9 b) Please confirm that without Board approvals since 2005, the revenue
10 requirement approved for 2005 remained the approved amount for 2006 and
11 2007.
12
13 c) Please provide an explanation for any variances between the 2008 actual and
14 2009 forecast and the Non-Fuel Operating, Maintenance and Administration cost
15 level last approved by the YUB for 2005.
16
17 d) Please explain what is meant by using columns labeled “existing” and “proposed”
18 for 2008; in particular, explain the significance the reader is supposed to draw
19 when the existing and proposed values in the same year are identical.
20

21 **ANSWER:**

22
23 **(a)**

24
25 Updated Table 3.3 from the 2008/2009 General Rate Application is provided below.

Table 3.3
Non-Fuel Operating and Maintenance Expenses
(\$000)

| | Approved 2005 | Actual 2005 | Actual 2006 | Actual 2007 | Forecast | | Forecast | |
|---|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | | | | | Existing 2008 | Proposed 2008 | Existing 2009 | Proposed 2009 |
| Labour | \$ 5,371 | \$ 5,636 | \$ 6,084 | \$ 6,632 | \$ 6,676 | \$ 6,676 | \$ 6,880 | \$ 6,880 |
| Production | 906 | 797 | 761 | 793 | 657 | 657 | 798 | 798 |
| Transmission | 333 | 340 | 354 | 470 | 507 | 507 | 612 | 612 |
| Distribution | 171 | 163 | 310 | 97 | 148 | 148 | 178 | 178 |
| General O&M | 526 | 592 | 644 | 732 | 807 | 807 | 858 | 858 |
| Administration | 2,167 | 2,450 | 1,978 | 2,223 | 2,347 | 2,347 | 2,544 | 2,544 |
| Insurance and Reserve for Injuries/Damages | 100 | 1,009 | 913 | 914 | 964 | 964 | 1,002 | 1,102 |
| Property Taxes | 250 | 246 | 249 | 256 | 256 | 256 | 256 | 256 |
| Total OM&A | \$ 9,824 | \$ 11,233 | \$ 11,293 | \$ 12,116 | \$ 12,362 | \$ 12,362 | \$ 13,128 | \$ 13,228 |

26

1 Data for 2008 Actuals will be provided as part of the update process.

2

3 **(b)**

4

5 Not confirmed. There was no Board approved revenue requirement for 2006 and 2007,
6 as they were not GRA test years.

7

8 Note, however, that YEC was ordered by the Board (in Order 2005-12) to file its financial
9 forecast for each of 2006 and 2007 with the Board to confirm the need for the \$292,000
10 drawdown of the Faro Dewatering Account in each year. In this regard, contrary to the
11 suggestion in the question, there were "Board approvals" in respect of each year.

12

13 **(c)**

14

15 Please see responses to UCG-YEC-1-40(c), UCG-YEC-1-41(c), UCG-YEC-1-42(c),
16 UCG-YEC-1-43(c), UCG-YEC-1-44(c), UCG-YEC-1-45(c), and UCG-YEC-1-46(c) which
17 detail the underlying factors driving variances between 2005 GRA and 2009 forecast
18 costs in relation to employee complement history, Transmission costs, Distribution
19 Costs, General Operating and Maintenance Costs, Administration Costs, RFID Costs
20 and Property Tax Costs.

21

22 **(d)**

23

24 As in past GRA filings provided by Yukon Energy, columns labeled "existing" refer to
25 revenue requirement costs that would exist absent a General Rate Application, while
26 columns labeled "proposed" refer to revenue requirement costs with a General Rate
27 Application.

28

29 Where values between "existing" and "proposed" columns are identical in the same year
30 it means that the General Rate Application has no impact on these particular cost items.

1 **REFERENCE: October 6, 2008 Application, Revenue Requirement, Page 3-6**

2

3 YEC states "Increases in labour expense make up the remainder of the increase totaling
4 \$1.244 million, or 62%. Most of this increase occurred between 2005 and 2007 (\$0.996
5 million). This reflects additional positions, as well as negotiated and step increases. A
6 further \$0.248 million is the forecast increase in labour expenses over 2007-2009 (about
7 1.9% per year)".

8

9 **QUESTION:**

10

11 a) Please provide details of total remuneration by component (i.e., base salary,
12 overtime, profit sharing or incentive payments, etc.) for each of the YEC
13 employee groupings for 2005 (allowed), 2005 (actual), 2006 (actual), 2007
14 (actual), 2008 (actual) and 2009 (forecast).

15

16 b) Please provide individual amounts paid by YEC to each member of the Board of
17 Directors for 2005 (allowed), 2005 (actual), 2006 (actual), 2007 (actual), 2008
18 (actual) and 2009 (forecast).

19

20 c) Please explain how YEC and YDC-related costs are tracked and allocated within
21 YEC's revenue requirement.

22

23 **ANSWER:**

24

25 **(a)**

26

27 See below.

1

Labour Expenses by component

| \$000s | 2005 Actuals | 2006 Actuals | 2007 Actuals | 2008 Forecasts | 2009 Forecasts |
|----------------------|-----------------|-----------------|-----------------|-------------------|-------------------|
| Production | | | | | |
| Overtime | 216 | 140 | 153 | 125 | 129 |
| Standby | 80 | 72 | 63 | 74 | 76 |
| Labour | 1,230 | 1,428 | 1,441 | 1,245 | 1,282 |
| Fringe | 634 | 778 | 830 | 671 | 692 |
| Total | 2,161 | 2,418 | 2,488 | 2,114 | 2,179 |
| Transmission | | | | | |
| Overtime | 25 | 42 | 53 | 34 | 35 |
| Standby | 21 | 16 | 2 | 5 | 5 |
| Labour | 164 | 161 | 151 | 278 | 286 |
| Fringe | 85 | 88 | 87 | 150 | 156 |
| Total | 295 | 307 | 293 | 466 | 482 |
| Distribution | | | | | |
| Overtime | 17 | 20 | 31 | 27 | 28 |
| Standby | 89 | 89 | 81 | 91 | 93 |
| Labour | 164 | 170 | 212 | 252 | 260 |
| Fringe | 84 | 93 | 122 | 136 | 141 |
| Total | 354 | 372 | 446 | 505 | 522 |
| General | | | | | |
| Overtime | 4 | 7 | 4 | 3 | 3 |
| Standby | - | - | - | - | - |
| Labour | 87 | 86 | 71 | 58 | 60 |
| Fringe | 45 | 47 | 41 | 31 | 31 |
| Total | 135 | 139 | 116 | 92 | 94 |
| Administation | | | | | |
| Overtime | 48 | 49 | 40 | 41 | 42 |
| Standby | - | - | 2 | 0 | 0 |
| Labour | 1,744 | 1,811 | 2,060 | 2,247 | 2,314 |
| Fringe | 899 | 987 | 1,187 | 1,210 | 1,247 |
| Total | 2,691 | 2,846 | 3,288 | 3,498 | 3,604 |

2

3

4 There are no profit sharing or incentive plans in the GRA revenue requirement.

1 **(b)**

2

3 Information regarding payments to individual Board Members is protected by Privacy
4 legislation.

5

6 **(c)**

7

8 YEC costs are budgeted by position based on function. There are no YDC-related costs
9 in YEC's revenue requirement.

1 **REFERENCE: October 6, 2008 Application, Revenue Requirement, Page 3-7;**
 2 **Table 3-4 – Employee Complement History**

3
 4 **QUESTION:**

- 5
 6 a) Please update this table by adding columns for 2005 Allowed and 2008 Actual.
 7
 8 b) Please confirm that without Board approvals since 2005, the employee
 9 complement included in the revenue requirement approved for 2005 remained
 10 the approved complement for 2006 and 2007.
 11
 12 c) Please provide an explanation for any variances between the 2008 actual and
 13 2009 forecast and the Employee Complement level last approved by the YUB for
 14 2005.

15
 16 **ANSWER:**

17
 18 **(a)**

19
 20 Updated Table 3.4 from the 2008/2009 General Rate Application is provided below.
 21

**Table 3.4
 Employee Complement History**

| | Approved 2005 | Actual 2005 | Actual 2006 | Actual 2007 | GRA 2008 | GRA 2009 |
|------------------------------------|--------------------------|------------------------|------------------------|------------------------|---------------------|---------------------|
| President | 1.60 | 1.60 | 1.50 | 2.50 | 2.50 | 2.50 |
| Communications | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Human Resources & Info. Mgmt. | 6.00 | 6.06 | 6.01 | 6.00 | 7.00 | 7.00 |
| Business Development | 1.00 | 1.08 | 1.00 | 1.00 | 1.00 | 1.00 |
| Finance, Cust. Acctg. & Purchasing | 9.96 | 11.05 | 11.49 | 11.63 | 12.81 | 12.81 |
| Operations | 33.28 | 34.82 | 39.43 | 38.60 | 40.20 | 40.10 |
| Engineering Services | 13.23 | 13.21 | 13.58 | 14.00 | 12.67 | 12.00 |
| Health, Safety & Environment | 1.00 | 1.00 | 1.00 | 3.00 | 3.33 | 3.33 |
| Total | 67.07 | 69.82 | 75.01 | 77.73 | 80.51 | 79.74 |

22
 23
 24 Data for 2008 actuals has not yet been compiled.

1 **(b)**

2

3 Not confirmed. There was no Board approved revenue requirement for 2006 and 2007,
4 as they were not GRA test years.

5

6 Note, however, that YEC was ordered by the Board (in Order 2005-12) to file its financial
7 forecast for each of 2006 and 2007 with the Board to confirm the need for the \$292,000
8 drawdown of the Faro Dewatering Account in each year. In this regard, contrary to the
9 suggestion in the question, there was "Board approvals" in respect of each year.

10

11 **(c)**

12

13 Please see LE-YEC-1-32.

1 **REFERENCE: October 6, 2008 Application, Revenue Requirement, Page 3-7;**
2 **Table 3-5 – Production Costs**

3
4 **QUESTION:**

- 5
6 a) Please update this table by adding columns for 2005 Allowed and 2008 Actual.
7
8 b) Please confirm that without Board approvals since 2005, the production costs
9 included in the revenue requirement approved for 2005 remained the approved
10 amounts for 2006 and 2007.
11
12 c) Please provide an explanation for any variances between the 2008 actual and
13 2009 forecast and the Production cost level last approved by the YUB for 2005.
14
15 d) Please explain what is meant by using columns labelled “existing” and
16 “proposed” for 2008 and 2009; in particular, explain the significance the reader is
17 supposed to draw when the existing and proposed values in the same year are
18 identical.

19
20 **ANSWER:**

21
22 **(a)**

23
24 Updated Table 3.5 from the 2008/2009 General Rate Application is provided below.
25

Table 3.5
Production Costs
(\$000)

| | Approved 2005 | Actual 2005 | Actual 2006 | Actual 2007 | Forecast | | Forecast | |
|-------------------------|------------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|------------------|
| | | | | | Existing 2008 | Proposed 2008 | Existing 2009 | Proposed 2009 |
| Labour | \$ 2,039 | \$ 2,161 | \$ 2,418 | \$ 2,488 | \$ 2,114 | \$ 2,114 | \$ 2,179 | \$ 2,179 |
| Diesel | 293 | 173 | 189 | 147 | 191 | 191 | 194 | 194 |
| Hydro | 555 | 602 | 551 | 602 | 423 | 423 | 560 | 560 |
| Wind | 58 | 22 | 5 | 21 | 8 | 8 | 8 | 8 |
| Operation Supervision | 0 | 0 | 16 | 23 | 35 | 35 | 36 | 36 |
| Total Production | \$ 2,945 | \$ 2,958 | \$ 3,179 | \$ 3,281 | \$ 2,771 | \$ 2,771 | \$ 2,977 | \$ 2,977 |

26

27

28 Data for 2008 Actuals will be provided as part of the update process.

1 **(b)**

2

3 Not confirmed. There was no Board approved revenue requirement for 2006 and 2007,
 4 as they were not GRA test years.

5

6 Note, however, that YEC was ordered by the Board (in Order 2005-12) to file its financial
 7 forecast for each of 2006 and 2007 with the Board to confirm the need for the \$292,000
 8 drawdown of the Faro Dewatering Account in each year. In this regard, contrary to the
 9 suggestion in the question, there was "Board approvals" in respect of each year.

10

11 **(c)**

12

13 Material variances in Production Costs are as follows:

14

| | 2005 Approved | 2009 Forecast | Variance |
|-----------------------|------------------|------------------|----------|
| Labour | \$ 2,039 | \$ 2,179 | \$ 139 |
| Diesel | 293 | 194 | \$ (99) |
| Hydro | 555 | 560 | \$ 5 |
| Wind | 58 | 8 | \$ (50) |
| Operation Supervision | | 36 | \$ 36 |
| Total Production | \$ 2,945 | \$ 2,977 | \$ 31 |

15

16

17 • **Increase in Labour Costs:** The 2005 Application included Operations
 18 Supervisors costs in other functions. This change in allocation accounts for
 19 \$84,000 of the labour cost change from 2005 approved levels to 2009 forecast.
 20 Other than this change, the increase in labour costs is only \$54,000, or less than
 21 3% over the period.

22

23 • **Decrease in Diesel Costs:** The diesel component of Production Cost from 2005
 24 actuals to 2009 forecasts is stable. The 2005 forecast levels, however, included
 25 budgets for materials and small tools that were not sustained into the actual
 26 values for the intervening years.

- 1 • **Hydro:** The costs forecast for hydro in 2005 are approximately equal to the costs
2 forecast for 2009.
3
- 4 • **Wind Cost Decrease:** Wind costs are down from 2005 forecast levels due
5 primarily to no new wind monitoring being budgeted in O&M expense for 2009.
6
- 7 • **Operations Supervision:** These costs were not included in Production costs in
8 the 2005 Application and were instead included in other operations and
9 maintenance functions.

10

11 **(d)**

12

13 As in past GRA filings provided by Yukon Energy, columns labeled “existing” refer to
14 revenue requirement costs that would exist absent a General Rate Application, while
15 columns labeled “proposed” refer to revenue requirement costs with a General Rate
16 Application.

17

18 Where values between “existing” and “proposed” columns are identical in the same year
19 it means that the General Rate Application has no impact on these particular cost items.

1 **REFERENCE: October 6, 2008 Application, Revenue Requirement, Page 3-8;**
 2 **Table 3-6 – Transmission Costs**

3
 4 **QUESTION:**

- 5
 6 a) Please update this table by adding columns for 2005 Allowed and 2008 Actual.
 7
 8 b) Please confirm that without Board approvals since 2005, the transmission costs
 9 included in the revenue requirement approved for 2005 remained the approved
 10 amounts for 2006 and 2007.
 11
 12 c) Please provide an explanation for any variances between the 2008 actual and
 13 2009 forecast and the Transmission cost level last approved by the YUB for
 14 2005.
 15
 16 d) Please explain what is meant by using columns labeled “existing” and “proposed”
 17 for 2008 and 2009; in particular, explain the significance the reader is supposed
 18 to draw when the existing and proposed values in the same year are identical.
 19

20 **ANSWER:**

21
 22 **(a)**

23
 24 Updated Table 3.6 from the 2008/2009 General Rate Application is provided below.
 25

Table 3.6
Transmission Costs
 (\$000)

| | Approved 2005 | Actual 2005 | Actual 2006 | Actual 2007 | Forecast | | Forecast | |
|---------------------------|------------------|----------------|----------------|----------------|------------------|------------------|------------------|------------------|
| | | | | | Existing 2008 | Proposed 2008 | Existing 2009 | Proposed 2009 |
| Labour | \$ 430 | \$ 295 | \$ 307 | \$ 293 | \$ 466 | \$ 466 | \$ 482 | \$ 482 |
| Brushing | 100 | 158 | 117 | 239 | 257 | 257 | 377 | 377 |
| Other Non-Labour | 233 | 182 | 237 | 231 | 250 | 250 | 235 | 235 |
| Total Transmission | \$ 763 | \$ 635 | \$ 661 | \$ 763 | \$ 973 | \$ 973 | \$ 1,094 | \$ 1,094 |

26
 27
 28 Data for 2008 actuals will be provided as part of the update process.

1 **(b)**

2

3 Not confirmed. There was no Board approved revenue requirement for 2006 and 2007,
4 as they were not GRA test years.

5

6 Note, however, that YEC was ordered by the Board (in Order 2005-12) to file its financial
7 forecast for each of 2006 and 2007 with the Board to confirm the need for the \$292,000
8 drawdown of the Faro Dewatering Account in each year. In this regard, contrary to the
9 suggestion in the question, there was “Board approvals” in respect of each year.

10

11 **(c)**

12

13 Material variances in Transmission Costs are as follows:

14

| | 2005 | | 2009 | | Variance |
|--------------------|-----------------|----|-----------------|----|-----------------|
| | Approved | | Forecast | | |
| Labour | \$ 430 | \$ | 482 | \$ | 51 |
| Brushing | \$ 100 | | 377 | \$ | 277 |
| Other Non-Labour | \$ 233 | | 235 | \$ | 2 |
| Total Transmission | \$ 763 | \$ | 1,094 | \$ | 330 |

15

16

17 The variance of \$277,000 is due to brushing costs for L169 and L170. The brushing
18 program requirements and costs to be incurred in the test years are discussed in
19 responses to YUB-YEC-1-37(d) and (e), and LE-YEC-1-33.

20

21 **(d)**

22

23 As in past GRA filings provided by Yukon Energy, columns labeled “existing” refer to
24 revenue requirement costs that would exist absent a General Rate Application, while
25 columns labeled “proposed” refer to revenue requirement costs with a General Rate
26 Application.

27

28 Where values between “existing” and “proposed” columns are identical in the same year
29 it means that the General Rate Application has no impact on these particular cost items.

1 **REFERENCE: October 6, 2008 Application, Revenue Requirement, Page 3-8;**
 2 **Table 3-7 – Distribution Costs**

3

4 **QUESTION:**

5

- 6 a) Please update this table by adding columns for 2005 Allowed and 2008 Actual.
 7
 8 b) Please confirm that without Board approvals since 2005, the distribution costs
 9 included in the revenue requirement approved for 2005 remained the approved
 10 amounts for 2006 and 2007.
 11
 12 c) Please provide an explanation for any variances between the 2008 actual and
 13 2009 forecast and the Distribution cost level last approved by the YUB for 2005.
 14
 15 d) Please explain what is meant by using columns labeled “existing” and “proposed”
 16 for 2008 and 2009; in particular, explain the significance the reader is supposed
 17 to draw when the existing and proposed values in the same year are identical.

18

19 **ANSWER:**

20

21 **(a)**

22

23 Updated Table 3.7 from the 2008/2009 General Rate Application is provided below.

24

Table 3.7
Distribution Costs
 (\$000)

| | Approved 2005 | Actual 2005 | Actual 2006 | Actual 2007 | Forecast | | Forecast | |
|--------------------|------------------|----------------|----------------|----------------|------------------|------------------|------------------|------------------|
| | | | | | Existing 2008 | Proposed 2008 | Existing 2009 | Proposed 2009 |
| Labour | \$ 395 | \$ 354 | \$ 372 | \$ 446 | \$ 505 | \$ 505 | \$ 521 | \$ 521 |
| Brushing | 31 | 14 | 72 | 1 | 40 | 40 | 46 | 46 |
| Other Non-Labour | 140 | 149 | 238 | 96 | 108 | 108 | 132 | 132 |
| Total Distribution | \$ 566 | \$ 517 | \$ 682 | \$ 543 | \$ 653 | \$ 653 | \$ 699 | \$ 699 |

25

26

27 Data for 2008 actuals will be provided as part of the update process.

1 **(b)**

2
3 Not confirmed. There was no Board approved revenue requirement for 2006 and 2007,
4 as they were not GRA test years.

5
6 Note, however, that YEC was ordered by the Board (in Order 2005-12) to file its financial
7 forecast for each of 2006 and 2007 with the Board to confirm the need for the \$292,000
8 drawdown of the Faro Dewatering Account in each year. In this regard, contrary to the
9 suggestion in the question, there was "Board approvals" in respect of each year.

10
11 **(c)**

12
13 Material variances in Distribution Costs are as follows:

| | 2005 | 2009 | Variance |
|--------------------|----------|----------|----------|
| | Approved | Forecast | |
| Labour | \$ 395 | \$ 521 | \$ 126 |
| Brushing | \$ 31 | 46 | \$ 15 |
| Other Non-Labour | \$ 140 | 132 | \$ (8) |
| Total Distribution | \$ 566 | \$ 699 | \$ 133 |

14
15
16
17 The material variance in 2009 forecast compared to 2005 approved related to labour is
18 explained in LE-YEC-1-32, and relates primarily to the addition of apprentices.

19
20 **(d)**

21
22 As in past GRA filings provided by Yukon Energy, columns labeled "existing" refer to
23 revenue requirement costs that would exist absent a General Rate Application, while
24 columns labeled "proposed" refer to revenue requirement costs with a General Rate
25 Application.

26
27 Where values between "existing" and "proposed" columns are identical in the same year
28 it means that the General Rate Application has no impact on these particular cost items.

1 **REFERENCE: October 6, 2008 Application, Revenue Requirement, Page 3-8;**
 2 **Table 3-8 – General Operating and Maintenance Costs**

3
 4 **QUESTION:**

- 5
 6 a) Please update this table by adding columns for 2005 Allowed and 2008 Actual.
 7
 8 b) Please confirm that without Board approvals since 2005, the General Operating
 9 and Maintenance costs included in the revenue requirement approved for 2005
 10 remained the approved amounts for 2006 and 2007.
 11
 12 c) Please provide an explanation for any variances between the 2008 actual and
 13 2009 forecast and the General Operating and Maintenance cost level last
 14 approved by the YUB for 2005.
 15
 16 d) Please explain what is meant by using columns labeled “existing” and “proposed”
 17 for 2008 and 2009; in particular, explain the significance the reader is supposed
 18 to draw when the existing and proposed values in the same year are identical.
 19

20 **ANSWER:**

21
 22 **(a)**

23
 24 Updated Table 3.8 from the 2008/2009 General Rate Application is provided below.
 25

Table 3.8
General Operating and Maintenance
 (\$000)

| | Approved 2005 | Actual 2005 | Actual 2006 | Actual 2007 | Forecast | | Forecast | |
|--|------------------|----------------|----------------|----------------|------------------|------------------|------------------|------------------|
| | | | | | Existing 2008 | Proposed 2008 | Existing 2009 | Proposed 2009 |
| Labour | \$ 92 | \$ 135 | \$ 139 | \$ 116 | \$ 92 | \$ 92 | \$ 94 | \$ 94 |
| Transportation | 274 | 291 | 321 | 370 | 386 | 386 | 394 | 394 |
| Maintenance of Company Owned Properties | 177 | 230 | 242 | 290 | 342 | 342 | 384 | 384 |
| SCADA Communication and Special Projects | 75 | 71 | 81 | 72 | 79 | 79 | 80 | 80 |
| Total General O&M | \$ 618 | \$ 727 | \$ 783 | \$ 848 | \$ 899 | \$ 899 | \$ 952 | \$ 952 |

26
 27
 28 Data for 2008 actuals will be provided as part of the update process.

1 **(b)**

2

3 Not confirmed. There was no Board approved revenue requirement for 2006 and 2007,
4 as they were not GRA test years.

5

6 Note, however, that YEC was ordered by the Board (in Order 2005-12) to file its financial
7 forecast for each of 2006 and 2007 with the Board to confirm the need for the \$292,000
8 drawdown of the Faro Dewatering Account in each year. In this regard, contrary to the
9 suggestion in the question, there was "Board approvals" in respect of each year.

10

11 **(c)**

12

13 Material variances in General Operating and Maintenance Costs are as follows:

14

| | 2005 Approved | 2009 Forecast | Variance |
|--|------------------|------------------|----------|
| Labour | \$ 92 | \$ 94 | \$ 1 |
| Transportation | \$ 274 | 394 | \$ 120 |
| Maintenance of Company Owned Properties | \$ 176 | 384 | \$ 208 |
| SCADA Communication and Special Projects | \$ 76 | 80 | \$ 4 |
| Total General O&M | \$ 618 | \$ 952 | \$ 333 |

15

16

17 Variances in General Operating and Maintenance Costs are due to the following factors:

18

- 19 • **Transportation:** key factors underlying the variance from 2005 GRA include:
- 20 1. **Gasoline/Heating Fuel:** \$131,000 Increase (from \$140,000 to \$271,000)
21 due to increase in the cost of fuel and number of vehicles in the fleet.
- 22 2. **Vehicle O&M Capital Credits:** \$34,000 decrease (from \$-64,000 to \$-
23 98,000) due to higher vehicle costs resulting in a larger transfer to capital.

- 1 • **Maintenance of Company Owned Properties:** Main drivers underlying the
2 variance from 2005 GRA include:

- 3 1. **Gasoline/Heating Fuel:** \$0 forecast in 2005 and \$56,000 have been
4 allocated in 2009 GRA, fuel for company owned or arranged houses in
5 the communities.
6 2. **Materials:** \$0 forecast in 2005 and \$31,000 in 2009 GRA due to required
7 maintenance on the house at Aishihik.
8 3. **Office Rent / Yard Rent:** \$0 forecast in 2005 and \$29,000 forecast in
9 2009 GRA due to requirement for rental of office space for file storage.
10 4. **Snow Removal:** Increase costs from \$13,000 in 2005 to \$57,000 in
11 2009.

12
13 **(d)**

14
15 As in past GRA filings provided by Yukon Energy, columns labeled “existing” refer to
16 revenue requirement costs that would exist absent a General Rate Application, while
17 columns labeled “proposed” refer to revenue requirement costs with a General Rate
18 Application.

19
20 Where values between “existing” and “proposed” columns are identical in the same year
21 it means that the General Rate Application has no impact on these particular cost items.

1 **REFERENCE: October 6, 2008 Application, Revenue Requirement, Page 3-**
2 **10; Table 3-9 – Administration**

3
4 **QUESTION:**

- 5
6 a) Please update this table by adding columns for 2005 Allowed and 2008 Actual.
7
8 b) Please confirm that without Board approvals since 2005, the administration costs
9 included in the revenue requirement approved for 2005 remained the approved
10 amounts for 2006 and 2007.
11
12 c) Please provide an explanation for any variances between the 2008 actual and
13 2009 forecast and the Administration cost level last approved by the YUB for
14 2005.
15
16 d) Please provide details and explanations of the cost incurred to operate the fish
17 hatchery that were included in the approved 2005 revenue forecast, 2008 actual
18 and 2009 forecast.
19
20 e) Please provide an explanation and details of the spending on training in 2005,
21 2006, 2007 and 2008. Was any of this training available and / or taken within the
22 Yukon? Why or why not?
23
24 f) Please provide details of the training forecast for 2009.
25
26 g) For what positions were staff recruited in 2005, 2006, 2007 and 2008? What
27 were the compensation levels for these positions?
28
29 h) For what positions are staff anticipated to be recruited in 2009? What are the
30 anticipated compensation levels for these positions?
31
32 i) Please provide the amount of cost for the Board of Directors included in the YUB-
33 approved revenue requirement for 2005.
34
35 j) Please provide details of costs identified under regulatory affairs for 2005, 2006,
36 2007, 2008 and 2009 (forecast).

k) Please explain what is meant by using columns labeled “existing” and “proposed” for 2008 and 2009; in particular, explain the significance the reader is supposed to draw when the existing and proposed values in the same year are identical.

ANSWER:

(a)

Updated Table 3.9 from the 2008/2009 General Rate Application is provided below.

Table 3.9
Administration
 (\$000)

| | Approved 2005 | Actual 2005 | Actual 2006 | Actual 2007 | Forecast | | Forecast | |
|-----------------------------|------------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|------------------|
| | | | | | Existing 2008 | Proposed 2008 | Existing 2009 | Proposed 2009 |
| Labour | \$ 2,414 | \$ 2,691 | \$ 2,846 | \$ 3,288 | \$ 3,498 | \$ 3,498 | \$ 3,605 | \$ 3,605 |
| Resource Planning | 17 | 1 | 6 | 21 | 17 | 17 | 17 | 17 |
| Communications | 0 | 72 | 87 | 118 | 87 | 87 | 105 | 105 |
| Customer Accounting | 168 | 164 | 170 | 189 | 201 | 201 | 206 | 206 |
| Environmental Mgmt | 47 | 46 | 7 | 30 | 35 | 35 | 52 | 52 |
| General | 899 | 873 | 805 | 597 | 745 | 745 | 734 | 734 |
| Information Systems | 189 | 213 | 265 | 341 | 351 | 351 | 425 | 425 |
| Fish Hatchery | 143 | 126 | 106 | 132 | 130 | 130 | 136 | 136 |
| Fish Ladder | 17 | 18 | 33 | 11 | 25 | 25 | 26 | 26 |
| Safety | 39 | 38 | 54 | 133 | 59 | 59 | 162 | 162 |
| Training | 174 | 177 | 139 | 142 | 201 | 201 | 211 | 211 |
| Recruitment | 165 | 170 | 19 | 181 | 165 | 165 | 169 | 169 |
| Board of Directors | 156 | 156 | 91 | 166 | 145 | 145 | 148 | 148 |
| Union | 26 | 54 | 27 | 32 | 25 | 25 | 26 | 26 |
| Regulatory Affairs | 0 | 0 | 6 | 106 | 93 | 93 | 57 | 57 |
| Material Management | 87 | 300 | 155 | 14 | 42 | 42 | 43 | 43 |
| Contracting | 25 | 26 | 8 | 6 | 11 | 11 | 11 | 11 |
| Professional Development | 15 | 16 | 0 | 4 | 15 | 15 | 15 | 15 |
| Total Administration | \$ 4,581 | \$ 5,141 | \$ 4,824 | \$ 5,511 | \$ 5,845 | \$ 5,845 | \$ 6,148 | \$ 6,148 |

Data for 2008 Actuals will be provided as part of the update process.

1 **(b)**

2

3 Not confirmed. There was no Board approved revenue requirement for 2006 and 2007,
4 as they were not GRA test years.

5

6 Note, however, that YEC was ordered by the Board (in Order 2005-12) to file its financial
7 forecast for each of 2006 and 2007 with the Board to confirm the need for the \$292,000
8 drawdown of the Faro Dewatering Account in each year. In this regard, contrary to the
9 suggestion in the question, there was "Board approvals" in respect of each year.

10

11 **(c)**

12

13 Material variances in Administration Costs from 2005 actuals to 2009 GRA forecasts are
14 provided in CW-YEC-I-23(a). The only notable differences between the 2005 approved
15 levels and the 2005 actuals is related to 3 categories:

16

17 • Labour: 2005 actual labour was above 2005 approved levels by \$0.275 million
18 due primarily to the addition of FTEs compared to the 2005 forecast levels, one
19 procurement and contract administrator, one network administrator and one
20 powerline technician, as well as somewhat higher level of casuals used in
21 operations.

22

23 • Materials management: 2005 actual materials management included substantial
24 one-time write downs above the levels forecast for 2005 at the time of the YUB
25 hearing.

26

27 • Communications: The 2005 forecasts did not separately track communications,
28 as these amounts were previously included in Administration-General.

29

30 **(d)**

31

32 Please see table provided below.

| \$000s | 2005 Approved | 2009 Forecast |
|------------------------|------------------|------------------|
| Consultants | 32 | 5 |
| Contractors | 180 | 263 |
| Materials(Small Tools) | 1 | |
| Outside Service | 10 | |
| Total Cost | 223 | 268 |
| less: Grant / Funding | -80 | -133 |
| Net Cost | 143 | 136 |

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 15

The main difference in the 2005 and 2009 GRA forecasts for hatchery operations is that the hatchery management contract was renewed in 2008. A value driven open tender process was carried out in order to hire a new hatchery management company. The new management contract that came into effect on July 1, 2008 resulted in a significant increase in contractor costs due mostly to higher salary costs.

A funding agreement with Government of Yukon Department of Environment is still currently in place and runs until 2010. This funding agreement stipulates the amount and composition of the grant/funding.

(e) and (f)

Please see response to YECL-YEC-1-43(a).

1 **(g)**

2

3 Employees were recruited for the following positions in the following compensation
 4 ranges between 2005 and 2008:

5

January 1, 2005 to December 31, 2005

| Position | Salary Range | |
|---------------------------------|---------------------|----------------|
| | Minimum | Maximum |
| CFO | 108,622 | 124,915 |
| Powerline Technician Mayo | 54,279 | 61,176 |
| Sr. Powerline Technician Mayo | 65,590 | 72,488 |
| Supervisor, Electrical Engineer | 83,066 | 95,527 |
| Assistant Buyer | 48,210 | 55,107 |
| IT Technical Support | 49,726 | 56,624 |
| Land Technician | 55,382 | 62,280 |
| SCC Operator - 3 yr term | 56,899 | 63,798 |

6

January 1, 2006 to December 31, 2006

| | | |
|---|--------|---------|
| Maintenance Electrician | 60,386 | 71,042 |
| Buyer | 55,482 | 62,586 |
| Coordinator, Captial Projects | 66,325 | 78,030 |
| Financial Administrator | 51,985 | 61,159 |
| Plant Operator | 53,208 | 60,311 |
| Procurement & Contract Administrator | 51,985 | 61,159 |
| Supervisor, Financial & Risk Management | 70,000 | 105,000 |
| CFO | 95,520 | 143,280 |
| Admin Assistant/Receptionist - Term | 38,785 | 45,629 |
| Floater PLT | 60,386 | 71,042 |
| Floater PLT/SCC Operator | 60,386 | 71,042 |
| Engineer-in-Training | 53,680 | 80,520 |

Apprentice PLT Whs

Apprentices are paid a % of the base salary of a journey position based on the training term the apprentice is in.

Apprentice PLT Mayo

Apprentices are paid a % of the base salary of a journey position based on the training term the apprentice is in.

7

January 1, 2007 to December 31, 2007

Position

| | | | |
|---|------------------------------------|---------|---------|
| | Admin Assistance/Receptionist | 39,949 | 46,998 |
| | Draftsperson | 53,545 | 62,994 |
| | Financial Administrator | 53,545 | 62,994 |
| | Maintenance Electrician | 62,198 | 73,173 |
| | PLT Whs - was Floater | 62,198 | 73,173 |
| | PLT Dawson | 62,198 | 73,173 |
| | Supervisor, Electrical Engineering | 72,100 | 108,150 |
| | Finance Administrator Term | 53,545 | 62,994 |
| | VP Operations & Engineering | 107,038 | 160,556 |
| | Manager, Operations | 72,100 | 108,150 |
| | Manager, Health & Safety | 63,920 | 95,880 |
| | Manager, Environment | 63,920 | 95,880 |
| 1 | Documentation Specialist | 53,545 | 62,994 |

2

January 1, 2008 to December 31, 2008

Position

| | | | |
|---|------------------------------------|--------|---------|
| | Financial Administrator | 55,553 | 65,356 |
| | Finance Administrator Term | 55,553 | 65,356 |
| | PLT Mayo | 64,530 | 75,917 |
| | Director, Engineering Services | 84,162 | 126,243 |
| | Supervisor, Electrical Engineering | 74,804 | 112,206 |
| | Director, Operations | 84,162 | 126,243 |
| | Manager, Operations | 74,804 | 112,206 |
| | Electrical Engineer | 62,408 | 93,612 |
| | Leadhand, Mechanical Maintenance | 78,776 | 92,678 |
| | PLT Dawson | 64,530 | 75,917 |
| | Maintenance Mechanic | 64,530 | 75,917 |
| | Buyer | 64,530 | 75,917 |
| 3 | PLT Whitehorse | 65,530 | 75,917 |

4

5 **(h)**

6

7 YEC will run recruitments for all vacant positions. As of the date of this response, the
 8 Corporation is actively running competitions for a Supervisor, Electrical Engineering
 9 position and two Power Line Technician positions. For the remainder of the year,
 10 management cannot predict which positions will become vacant.

11

12 **(i)**

13

14 See **(c)** above which notes \$156,000 approved in the 2005 YUB hearing.

1 **(j)**

2

3 Please see table provided below.

4

| \$000s | 2005 Actuals | 2006 Actuals | 2007 Actuals | 2008 Forecasts | 2009 Forecasts |
|----------------------------------|-----------------|-----------------|-----------------|-------------------|-------------------|
| Consultants | | 4 | 35 | 60 | 26 |
| Legal | | 1 | 63 | 27 | 26 |
| Small items routinely under \$5k | | 1 | 8 | 6 | 6 |
| Total | | 6 | 106 | 93 | 57 |

5

6

7 The reduction in 2009 regulatory affairs compared to 2008 reflects the completion of the
8 YECL GRA process, which was budgeted in 2008.

9

10 **(k)**

11

12 As in past GRA filings provided by Yukon Energy, columns labeled “existing” refer to
13 revenue requirement costs that would exist absent a General Rate Application, while
14 columns labeled “proposed” refer to revenue requirement costs with a General Rate
15 Application.

16

17 Where values between “existing” and “proposed” columns are identical in the same year
18 it means that the General Rate Application has no impact on these particular cost items.

1 **REFERENCE: October 6, 2008 Application, Revenue Requirement, Page 3-**
 2 **13; Table 3-10 – Insurance and Reserve for Injuries &**
 3 **Damages**

4
 5 **QUESTION:**

- 6
 7 a) Please update this table by adding columns for 2005 Allowed and 2008 Actual.
 8
 9 b) Please confirm that without Board approvals since 2005, the insurance and
 10 reserve for injuries & damages costs included in the revenue requirement
 11 approved for 2005 remained the approved amounts for 2006 and 2007.
 12
 13 c) Please provide an explanation for any variances between the 2008 actual and
 14 2009 forecast and the Insurance and Reserve for Injuries & Damages cost level
 15 last approved by the YUB for 2005.
 16
 17 d) Please provide all internally generated reports or documents prepared for or by
 18 senior management or otherwise related to the determination of the two-part
 19 “solution to the Reserve account”.

20
 21 **ANSWER:**

22
 23 **(a)**

24
 25 Updated Table 3.10 from the General Rate Application is provided below.
 26

Table 3.10
Insurance and Reserve for Injuries & Damages
 (\$000)

| | Approved 2005 | Actual 2005 | Actual 2006 | Actual 2007 | Forecast | | Forecast | |
|--------------------------------------|------------------|-----------------|----------------|----------------|------------------|------------------|------------------|------------------|
| | | | | | Existing 2008 | Proposed 2008 | Existing 2009 | Proposed 2009 |
| Insurance | \$ - | \$ 909 | \$ 813 | \$ 814 | \$ 914 | \$ 914 | \$ 952 | \$ 952 |
| Reserve Appropriation | 100 | 100 | 100 | 100 | 50 | 50 | 50 | 150 |
| One-time Transfer | 744 | 744 | | | | 463 | | |
| Less: Application of fire gain funds | (744) | (744) | | | | (463) | | |
| Total RFID | \$ 100 | \$ 1,009 | \$ 913 | \$ 914 | \$ 964 | \$ 964 | \$ 1,002 | \$ 1,102 |

27

1 Data for 2008 actuals will be provided as part of the update process.

2

3 **(b)**

4

5 Not confirmed. There was no Board approved revenue requirement for 2006 and 2007,
6 as they were not GRA test years.

7

8 Note, however, that YEC was ordered by the Board (in Order 2005-12) to file its financial
9 forecast for each of 2006 and 2007 with the Board to confirm the need for the \$292,000
10 drawdown of the Faro Dewatering Account in each year. In this regard, contrary to the
11 suggestion in the question, there was "Board approvals" in respect of each year.

12

13 **(c)**

14

15 Please see response to YECL-YEC-1-29.

16

17 **(d)**

18

19 Please see Tab 3, pages 3-12 to 3-15.

1 **REFERENCE: October 6, 2008 Application, Revenue Requirement, Page 3-**
 2 **15; Table 3-12 – Property Taxes**

3

4 **QUESTION:**

5

6 a) Please update this table by adding columns for 2005 Allowed and 2008 Actual.

7

8 b) Please confirm that without Board approvals since 2005, the property tax
 9 provision included in the revenue requirement approved for 2005 remained the
 10 approved amounts for 2006 and 2007.

11

12 c) Please provide details of the property tax paid by community for 2005 (allowed),
 13 2005 (actual), 2006 (actual), 2007 (actual), 2008 (actual) and 2009 (forecast).

14

15 d) Please provide an explanation for any variances between the 2008 actual and
 16 2009 forecast and the Property Tax cost level last approved by the YUB for 2005.

17

18 e) Please provide documentation outlining YEC's requirement to make payments in
 19 lieu of property taxes to municipalities.

20

21 **ANSWER:**

22

23 **(a)**

24

25 Updated Table 3.12 from the 2008/2009 General Rate Application is provided below.

26

Table 3.12
 Property Taxes
 (\$000)

| | Approved 2005 | Actual 2005 | Actual 2006 | Actual 2007 | Forecast | | Forecast | |
|----------------|------------------|----------------|----------------|----------------|------------------|------------------|------------------|------------------|
| | | | | | Existing 2008 | Proposed 2008 | Existing 2009 | Proposed 2009 |
| Property Taxes | \$ 250 | \$ 246 | \$ 249 | \$ 256 | \$ 256 | \$ 256 | \$ 256 | |

27

28

29 Data for 2008 actuals will be provided as part of the update process.

1 **(b)**

2

3 Not confirmed. There was no Board approved revenue requirement for 2006 and 2007,
4 as they were not GRA test years.

5

6 Note, however, that YEC was ordered by the Board (in Order 2005-12) to file its financial
7 forecast for each of 2006 and 2007 with the Board to confirm the need for the \$292,000
8 drawdown of the Faro Dewatering Account in each year. In this regard, contrary to the
9 suggestion in the question, there was "Board approvals" in respect of each year.

10

11 **(c)**

12

13 For 2005 through 2007 actuals please refer to the table below. 2005 approved values
14 are not available by community. YEC forecasts for 2008 and 2009 were based on 2007
15 historical cost.

16

Property Taxes by Community (\$000)

| | 2005 | 2006 | 2007 |
|--------------|------------|------------|------------|
| | Actual | Actual | Actual |
| Dawson City | 82 | 80 | 80 |
| Faro | 35 | 36 | 37 |
| Mayo | 3 | 3 | 3 |
| Whitehorse | 126 | 130 | 136 |
| Total | 245 | 249 | 256 |

17

18

19 **(d)**

20

21 There has been basically no variance in property tax costs.

22

23 **(e)**

24

25 Yukon Energy is owned by the YTG and therefore it makes payment in lieu of property
26 taxes to municipalities instead of actually paying property taxes.

1 **REFERENCE: October 6, 2008 Application, Rates, Page 4-12**

2
3 YEC states “In summary, runoff rates no longer conform with the 1996/97 GRA
4 principles and OIC 1995/90, and as a result it is now actually cheaper to heat with
5 electricity at current runoff rates (even including all riders) than it is with oil, which has
6 the effect of encouraging inefficient and inappropriate use of electric heating in Yukon
7 homes”.

8
9 **QUESTION:**

- 10
11 a) Please provide YEC’s understanding of the reasons why Yukon homeowners
12 have installed electricity over the years as a source for space heating including
13 any incentives that have been made available over the years.
14
15 b) Please describe what efforts YEC has taken to encourage Yukoners,
16 construction companies and land developers to move away from electric heating
17 systems as a primary source of space heating since the Yukon government’s
18 Cabinet Commission on Energy identified this issue as part of its
19 recommendations in 1998 and the Yukon government accepted all of the
20 Commission’s recommendations in November 1998 with its *Implementation Plan*
21 *for the Final Report on the Cabinet Commission on Energy*.
22
23 c) Please describe efforts being undertaken by other Yukon government
24 departments and agencies to either lessen the burden on ratepayers using
25 electricity for space heating or to assist these ratepayers to shift to another fuel
26 source.
27
28 d) Please explain why YEC has not proposed / considered other pricing structures
29 to discourage consumption overall, or to shift demand to less costly periods. In
30 particular, please describe YEC’s evaluation of alternatives such as stepped
31 rates for rate classes, critical period rates, tariffs focused on promoting energy
32 efficient new construction, and the consideration of the benefits of ‘smart’ or
33 advanced metering technology which offer potential for greater consumption
34 information and control being available to the consumer.

1 **ANSWER:**

2

3 **(a)**

4

5 Yukon Energy is not aware of the reasons why customers made those choices and
6 Yukon Energy is not aware of any incentives being made available to homeowners to
7 encourage the installation of electric space heating.

8

9

10 **(b)**

11

12 Yukon Energy has no direct contact with construction companies in the Whitehorse area
13 as Yukon Energy is not the retail power supplier in this area.

14

15 Yukon Energy notes that the closer second block electricity rates are set to conform with
16 the “economy and efficiency” direction of OIC 1995/90, the more efficient the market
17 price signal is to existing and potential customers to conserve their energy usage. YEC's
18 proposal to increase the second block rate for residential customers is a step to send the
19 right price signal to customers so they are making informed decisions on their use and
20 choice of heating systems

21

22 **(c)**

23

24 Yukon Energy cannot answer for Yukon government departments and agencies.

25

26 Yukon Energy is aware that the Energy Solution Center (ESC) and Yukon Housing
27 deliver a number programs aimed at improving energy efficiency in your home or
28 business. Information and details on the programs that they provide is available on the
29 ESC and Yukon Housing websites at the following address:

30

31 <http://www.emr.gov.yk.ca/energy/aboutesc.html>

32

33 <http://www.housing.yk.ca/index.html>

1 **(d)**

2

3 On ***stepped rates***, this rate structure which is now being pursued in other jurisdictions
4 such as BC and Manitoba, has been in place in Yukon since at least the early 1990s.
5 Yukon Energy is proposing in this application to enhance the stepped rate price signal.

6

7 On ***critical period rates***, Yukon Energy manages the secondary sales rate program to
8 interrupt loads in “critical” periods, defined by the need for diesel generation. There is no
9 practical application of a similar rate structure to firm rates.

10

11 On ***tariffs focused on promoting energy efficient new construction***, see part (a)
12 above. This matter is not presently under consideration by Yukon Energy.

13

14 On ***consideration of the benefits of ‘smart’ or advanced metering technology***
15 ***which offer potential for greater consumption information and control being***
16 ***available to the consumer***, Yukon Energy notes that it is not the retailer of power for
17 most Yukoners, and as such is not in control of the metering technologies being put into
18 service in Yukon.

1 **REFERENCE: October 6, 2008 Application, Rates, Page 4-12**

2
3 YEC states "...current run out rates in all rate zones simply are not in keeping with the
4 conservation principles of OIC 1995/90 nor are such rates consistent with the overriding
5 principles outlined in the YTG's climate change policy".

6
7 **QUESTION:**

8
9 a) Please confirm that by "overriding principles", YEC is referring to the Guiding
10 Principles referenced on page 5 of the referenced Climate Change Strategy
11 document.

12
13 b) Please explain how current run out rates are not consistent with these Guiding
14 Principles.

15
16 c) Please provide YEC's rationale for keeping 1000 kWh as the year-round size of
17 the first energy block.

18
19 **ANSWER:**

20
21 **(a)**

22
23 The comment is in general relation to the overarching principles of Yukon's climate
24 change policies.

25
26 **(b)**

27
28 Current run-out rates do not encourage efficient use of energy to the same degree as
29 was achieved during 1997 when the current run out rates were set.

30
31 **(c)**

32
33 Yukon Energy is not proposing general rate redesign at this time. The 1000 kW.h per
34 month cutoff is a component of the existing rates, and is consistent with OIC 1995/90.

1 **REFERENCE: October 6, 2008 Application, Capital Projects, Page 5-3**

2
3 YEC states “The Stage One CSTP involves a new 138 kV transmission line of
4 approximately 98 km between the WAF grid at Carmacks and Pelly Crossing, and a new
5 switching station at Carmacks. It has been developed in conjunction with the 25 kV
6 transmission line and related YEC substations (the “Minto Spur”) required to connect
7 Stage One of the CSTP in the Minto Landing area to the copper-gold project operated by
8 Minto Explorations Ltd. (“Minto Explorations”). This stage is scheduled for completion by
9 October, 2008”.

10
11 **REFERENCE: October 6, 2008 Application, Capital Projects, Page 5-7**

12
13 YEC states “Currently, the net capital cost to Yukon Energy of the Stage One CS/MS
14 development being brought into service in fall 2008, after all customer and other capital
15 contributions, is forecast at \$3.744 million (as compared to zero net cost as forecast in
16 the Part 3 hearing). Since the Part 3 hearing, forecast Stage One CSTP costs have
17 increased by approximately \$5.8 million (from \$22.60 million (2007\$) to approximately
18 \$28.394 million)...”

19
20 **REFERENCE: April 30, 2007 Reasons for Decision on the Power Purchase**
21 **Agreement between YEC and Minto exploration (Board Order**
22 **2007-5)**

23
24 The Board states on page 5 that it “agrees with Intervenor concerns regarding the lack of
25 a complete COS study. The Board is of the view that due to the articulating nature of a
26 COS study, rates cannot be developed in isolation. Therefore, the Board reiterates its
27 earlier direction that YEC and YECL must provide a complete COS study and rate
28 design with their next GRA. The COS is to include updated studies on allocators, and
29 will look at the feasibility of direct assigning assets, where applicable to certain rate
30 classes. Further, the Board expects to see justification on the allocation of transmission
31 assets. In addition, the Board questions the rationale of defining the CSTP project as
32 one of diesel displacement in light of YEC’s comments that the project is to serve system
33 requirements. The Board would like to explore the COS evidence in this regard when it
34 is filed in YEC’s next GRA”.

1 **QUESTION:**

- 2
- 3 a) Please confirm that your references to “Stage One CS/MS” and “Stage One
4 CSTP” refer to the same project.
- 5
- 6 b) Please provide an update on the in-service dates of Stage One CSTP and the
7 Minto (Capstone) spur.
- 8
- 9 c) Please provide a breakdown of all budgeted and actual costs (i.e., project
10 development, preliminary engineering, surveying, regulatory costs, clearing right-
11 of-way, construction, etc.) associated with the Stage One CSTP and the Minto
12 (Capstone) spur. Please provide an explanation of variances from budget and
13 clearly identify the specific costs that will be paid by Minto Explorations.
- 14
- 15 d) Please describe what YEC has done in response to the Board’s recommendation
16 (on page 13 of its Report on the CSTP Part 3 review) that YEC was to consult
17 with the Minister before making any decision to proceed if the tendering process
18 results in a capital cost that is materially above the high end of the estimate of
19 \$25.9 million.
- 20
- 21 e) Please provide a schedule showing the timing of rate base additions for Stage
22 One CSTP and the Minto (Capstone) spur and the associated calculations of
23 how these rate base addition amounts have been determined.
- 24
- 25 f) Please provide a calculation of any revenue requirement impact of this project in
26 2008 and 2009.
- 27
- 28 g) Please comment on how the response to part (f) compares to YEC’s testimony at
29 the Part 3 review hearing that at a simple level, the project will bring \$3-to \$4
30 million in additional revenues with absolutely no capital costs and insignificant
31 operating costs (Transcript, page 219).
- 32
- 33 h) Please explain why YEC ignored the Board’s specific direction in Board Order
34 2007-5 that “YEC and YECL must provide a complete COS study and rate
35 design with their next GRA. The COS is to include updated studies on allocators,
36 and will look at the feasibility of direct assigning assets, where applicable to
37 certain rate classes”.

1 **ANSWER:**

2

3 **(a)**

4

5 Stage One CSTP is the H-frame transmission line running from the existing WAF grid at
6 Carmacks to the community of Pelly Crossing. Stage One CS/MS includes the above
7 line, plus the 25kV spur line to the Minto Mine (connects to CSTP Stage One at Minto
8 Landing).

9

10 **(b)**

11

12 The project was deemed to be in service November 22, 2008.

13

14 **(c)**

15

16 Please see response to LE-YEC-1-46 & 47. In accordance with the terms and conditions
17 of the Power Purchase Agreement, Minto Explorations Ltd. is responsible for paying the
18 cost of the Spur, as well as a \$7.2 million contribution to the Main Line.

19

20 **(d)**

21

22 Please see YUB-YEC-1-39(b).

23

24 **(e)**

25

26 The GRA reflects a CSTP capital cost of \$38.383 million, as shown in Table 5.2.
27 Offsetting this amount is \$34.639 million in contributions, made up of \$10.450 million
28 from the Yukon Government, \$7.000 million from YDC, \$7.200 million from Minto for the
29 main line, and \$9.989 million from Minto for the spur. Consequently the net addition is
30 \$3.744 million.

1 The date of in-service in the GRA is October 1, 2008, or 91 days in 2008. Over this 91
2 days, the calculated net depreciation is \$0.030 million, for a net book value at year-end
3 of \$3.714 million.

4

5 The typical approach to capital additions is to include them in ratebase at a “mid-year”
6 value, which based on the above number, would have included CSTP in ratebase at
7 \$1.857 million (half of \$3.714 million closing balance). However, given the specific in-
8 service date in question, the more appropriate carrying amount in 2008 ratebase is
9 \$0.929 million (\$3.729 average balance over 3/12 of the year). In order to reflect this
10 adjustment, Yukon Energy adjusted rate base down in 2008 by the difference (\$0.928
11 million) as shown in Tab 7, Schedule 1 row 20.

12

13 **(f)**

14

15 Please see YUB-YEC-1-36(a) and UCG-YEC-1-3(b).

16

17 **(g)**

18

19 As noted in the Application, S5.2.1.1 page 5-7, costs are higher than previously
20 expected. See LE-YEC-1-46 and LE-YEC-1-47 for details of cost changes since original
21 budgets. Please see YUB-YEC-1-36 (a) for benefits of CSTP at the current cost levels.

22

23 **(h)**

24

25 Please see response to YUB-YEC-1-20.

1 **REFERENCE: October 6, 2008 Application, Capital Projects, Page 5-7**

2
3 YEC states "Since the PPA and Part 3 hearings, forecast Minto Spur capital costs have
4 increased by \$6.159 million (from the PPA estimated in-service costs of \$3.83 million to
5 current forecast costs of \$9.989 million). This increase reflects higher substation costs
6 as well as higher line costs. Minto Explorations is responsible for the entire cost increase
7 for the Minto Spur capital costs pursuant to the PPA. Section 5.4 of the PPA provides for
8 an adjustment to the time period within which Mine Spur capital cost financing must be
9 paid by Minto Explorations if the Mine Spur Capital Costs exceed \$4.8 million" and
10 "Under Section 5.4, a two year extension will be provided for payments under Section
11 5.2(b)(i) where (a) Minto has provided confirmation by December 31, 2008 under section
12 5.2(d) regarding its ability and commitment to process Additional Reserves at the Mine
13 prior to December 31, 2017, sufficient to sustain an additional three years of processing
14 at the Mine at the Daily Processing Level, and (b) the extension of the payments will not
15 go beyond the date which Minto confirms in writing to the satisfaction of YEC that ore
16 reserves at the Mine are planned to be processed at the Mine, provided the processing
17 level planned is not less than the Daily Processing Level. Any extension of such
18 payment period is now also limited under the provisions of the May 25, 2007 PPA
19 amendment".

20
21 **QUESTION:**

- 22
23 a) Please provide a copy of any correspondence received from Minto (Capstone)
24 regarding a commitment to process additional reserves at the mine.
25
26 b) Please provide a calculation of the carrying costs associated with the higher cost
27 of the Minto (Capstone) spur project. Please confirm that all carrying and
28 administrative costs of financing will be recovered from Minto (Capstone) and
29 explain how YEC will be tracking these costs.
30

31 **ANSWER:**

32
33 **(a)**

34
35 Please see response provided to PWP/HML-YEC-1-24(a) which notes that YEC is
36 currently in discussions with Minto regarding this issue. Minto is currently in the process

1 of firming up its estimate of reserves and filing required documentation with the
2 regulator.

3

4 **(b)**

5

6 Under the current PPA, Minto is required to pay the capital cost of the Mine Spur Capital
7 Costs plus interest at 7.5% per annum (i.e., the “carrying cost” for Minto). The risks for
8 this loan are now borne by YDC, not YEC. By arrangement with YDC, the carrying costs
9 for YEC’s corresponding debt obligation mirror the carrying costs borne by Minto.

1 **REFERENCE: October 6, 2008 Application, Capital Projects, Page 5-10**

2
3 YEC states “In short, the costs per MW for the Minto diesels (\$0.498 million/MW) remain
4 fully competitive with the Mirrlees refurbishment costs (\$0.482 million / MW), and well
5 below costs for 6.4 MW of new diesel generation at the mine site (estimated at \$6.6
6 million, or \$1.035 million per MW). Purchase of the Minto diesels adds additional low
7 cost options for YEC to augment its winter peaking diesel capacity to meet growing WAF
8 loads”.

9
10 **QUESTION:**

- 11
12 a) Please provide detailed calculations of the \$6.6 million cost for new diesel
13 generation.
14
15 b) Please identify the advantages / disadvantages from an operational and cost
16 perspective between the Minto (Capstone) diesels and new diesels.
17
18 c) Please provide details of all other options considered in YEC’s efforts to justify
19 the purchase of the Minto (Capstone) units as the least cost option.
20
21 d) Please provide a schedule showing the timing of rate base additions for the
22 acquisition of the Minto (Capstone) diesels and the Mirrlees refurbishment
23 projects and the associated calculations of how these rate base addition amounts
24 have been determined.
25
26 e) Please provide a calculation of any revenue requirement impact of these projects
27 in 2008 and 2009.
28

29 **ANSWER:**

30
31 **(a)**

32
33 Yukon Energy received proposed pricing in 2008 for a 6.4 MW plant comprised of 4 new
34 3516 engines, with generator enclosures and switchgear for \$6.627 million (\$1.04
35 million/MW) in a format that could be deployed at a greenfield location (but without costs
36 yet included for new common infrastructure, such as transmission or fuel tanks). This is
37 generally consistent, if not lower than, the estimate prepared as part of the Resource

1 Plan that new diesel units at a developed (non-greenfield) site would cost in the \$0.8
2 million/MW to \$0.9 million/MW range in 2005\$, plus additional costs for buildings and
3 common systems in the event the units were to be developed at a greenfield site.

4
5 **(b)**

6
7 First and foremost, the acquisition of the Minto diesels is a term of the PPA Yukon
8 Energy signed with the Minto Mine, which was necessary to secure the material benefits
9 for ratepayers shown in YUB-YEC-1-36(a).

10
11 The Minto diesels entail a resource that is already developed and as such can be
12 secured at a very low risk to YEC and ratepayers. The units are installed and operable at
13 the present time, and provide significant other benefits as noted at section 5.2.1.2 of the
14 Application. Operationally, some investment is required by Yukon Energy to ensure that
15 the units are capable of operating appropriately in a standby format, to utility standards,
16 but even with this cost included the units are considerably lower cost (less than half) the
17 cost of new diesel capacity.

18
19 There are very limited if any benefits to new units compared to the Minto units, with the
20 exception of condition.

21
22 **(c)**

23
24 Yukon Energy's least cost options for new capacity were the subject of major review at
25 the 20 Year Resource Plan hearing in 2006. In particular, this topic formed the entire
26 basis for Chapter 4 of the Resource Plan, and review of various options to address
27 capacity issues from Mirrlees refurbishments to new transmission, to new diesels, to
28 other new resources (such as Marsh Lake Fall/Winter Storage) and including CSTP.
29 That review confirmed that the lowest cost source of capacity (as required to meet
30 system winter peak load reliability requirements) to Yukon Energy was the Whitehorse
31 Mirrlees refurbishment, now estimated at \$0.482 million/MW, as well as the Faro
32 Mirrlees (which was already the subject of immediate commitment prior to the Minto
33 diesels being acquired). In this regard, no further review of "least cost options" was
34 required in respect of the Minto diesels, as no other options have been identified since
35 the Resource Plan, and there are no expected material changes to the relative costs or
36 feasibility of the options reviewed in 2006.

1 Given this, the Minto diesels were compared to the Whitehorse Mirrlees life extension
2 project, to which the Minto diesels were determined to be favourable (including in light of
3 the matters noted in part (b) above).

4
5 **(d)**

6
7 The GRA includes the Minto diesels and related costs added to ratebase as follows:

- 8
9
 - 2008: \$2.440 million
 - 2009: \$0.750 million

10
11
12 For the Whitehorse Mirrlees Life Extension Project additions to ratebase, please see
13 page 5-9 of the Application.

14
15 **(e)**

16
17 Each of the Whitehorse Mirrlees capital additions and the Minto diesels are forecast to
18 occur at a depreciation rate of 2.182% (the normal composite generation depreciation
19 rate for YEC). Assuming all additions occur at mid-year, for simplicity, the revenue
20 requirement impact is shown in the following table. The table does not address the
21 alternative higher costs that would have to be incurred to secure the same amount of
22 capacity from other sources were the Minto diesels not acquired and WD3 retired
23 instead of refurbished.

1 **Whitehorse Mirrless and Minto Diesels – Additions to Ratebase and**
 2 **Revenue Requirement Impact 2007, 2008 and 2009**
 3

| \$000s | 2007 | 2008 | 2009 |
|--|-----------------|-----------------|-----------------|
| Minto diesels | | | |
| opening | | 0 | 2413 |
| addition | | 2440 | 750 |
| depreciation | | 27 | 61 |
| closing | | 2413 | 3103 |
| mid-year | | 1207 | 2758 |
| return | | 83 | 189 |
| <i>per Tab 7 Sch 5</i> | | <i>at 6.86%</i> | <i>at 7.17%</i> |
| total cost | | 109 | 250 |
| Whitehorse Mirrlees (common systems plus WD3) | | | |
| opening | 0 | 463 | 1986 |
| addition | 468 | 1550 | 0 |
| depreciation | 5 | 27 | 43 |
| closing | 463 | 1986 | 1943 |
| mid-year | 231 | 1224 | 1964 |
| return | 16 | 84 | 135 |
| <i>per Tab 7 Sch 5</i> | <i>at 7.07%</i> | <i>at 6.86%</i> | <i>at 7.17%</i> |
| total cost | 21 | 111 | 178 |

4

1 **REFERENCE: October 6, 2008 Application, Capital Projects, Page 5-11**

2

3 YEC states "The diesel units are located near key major loads at the end of long
4 transmission line. At times when WAF diesel generation is required, having these units
5 at this location reduces line losses in addition to providing greater grid support".

6

7 **QUESTION:**

8

9 a) Please provide YEC's calculations related to the reduction in line losses.

10

11 b) Please provide more explanation of what is meant by grid support provided by
12 the Minto (Capstone) diesels and under what circumstances this support would
13 be provided.

14

15 c) Please describe the support provided by the Minto (Capstone) diesels during
16 outages on the YEC system during 2007 and 2008.

17

18 **ANSWER:**

19

20 **(a)**

21

22 No detailed calculation of line losses has been performed. In general terms, Yukon
23 Energy's transmission level losses on WAF approximate 7%-8%, which would be largely
24 avoided in the event Minto load was supplied by diesels located at the mine site rather
25 than from Whitehorse generation.

26

27 **(b)**

28

29 Grid support refers to the use of distributed diesel units to help supply loads during
30 supply constraints, in a manner that lessens the load to be served from centralized
31 generation such as in Whitehorse.

32

33 **(c)**

34

35 The Minto Diesels were not connected to the grid system until November 22, 2008. They
36 were not used for grid support or YEC peaking requirements during 2008.

1 **REFERENCE: October 6, 2008 Application, Capital Projects, Pages 5-12 and**
2 **5-13**
3

4 YEC states “This near term project was identified in Yukon Energy’s 20-Year Resource
5 Plan. During the Part 3 hearing process for CSTP, the implications of the relationship
6 between Stage One of the CSTP and the need for and timing of the Aishihik 3rd Turbine
7 was reviewed. In the YUB report to the Minister regarding the Part 3 Review of the
8 CSTP, the YUB recommended that, “if Stage One of the CSTP were to go forward, then
9 by implication, there is an accelerated need for the third turbine at Aishihik. The Board
10 accepts the submissions that on an opportunity basis for diesel displacement, with
11 connection of new mine loads, there is economic justification to accelerate the
12 construction of the Aishihik third turbine. This view and recommendation is consistent
13 with the view expressed by the Board in its 20-Year Resource Plan Report. The addition
14 of a seven megawatt turbine installed at the existing Aishihik generation station at a cost
15 of approximately \$8.5 million will help to reduce future diesel generation through both
16 more efficient use of water at Aishihik, as well as better ability to use the plant to meet
17 short-term peak loads (as an alternative to diesel generation)”.

18
19 **REFERENCE: Yukon Utilities Board Report on Yukon Energy Corporation**
20 **20-Year Resource Plan, January 15, 2007, Page 30**
21

22 “It should be noted, however, that the addition of the third turbine under YEC’s plan is
23 not a capacity requirement determined by the planning criteria, but rather a requirement
24 driven strictly by economic reasons, namely to offset future diesel generation that is
25 expected to increase under the base-case load forecast. However, should the actual
26 loads turn out higher or lower than the loads under the base-case forecast, the optimal
27 timing of the third turbine would move earlier or later than 2013. Therefore, to minimize
28 the uncertainty around timing of the third turbine, the final decision to proceed with this
29 project should be made closer to the date when economic reasons indicate that the
30 turbine is needed. Therefore, the Board recommends that this project not proceed until
31 that time unless YEC can justify an earlier in-service date.”

32
33 **QUESTION:**
34

- 35 a) Please provide a comparative chart of the Aishihik 3rd turbine project’s \$8.5
36 million budget (7 MW) in the current application against the \$3.5 million budget (5
37 MW) in the 1992 Resource Plan and the \$7 million budget (7 MW) in YEC’s 20-

1 year Resource Plan 2006-2026. Please provide descriptions of the variances in
2 project scope and budget as well as the drivers of these variances.

3

4 b) Please provide a schedule showing the timing of rate base additions for the
5 Aishihik 3rd turbine project and the associated calculations of how these rate
6 base addition amounts have been determined.

7

8 c) Please provide a calculation of any revenue requirement impact of this project in
9 2008 and 2009.

10

11 **ANSWER:**

12

13 **(a)**

14

15 Yukon Energy does not have the data from the 1992 Resource Plan readily available. It
16 is noted that at that time the project was expected to be a 5 MW turbine, while the
17 present project is for 7 MW (pursuant in part to a YUB recommendation).

18

19 The 20 Year Resource Plan May Update noted that the cost at that time was estimated
20 at \$7.155 million in 2005\$ (approximately \$7.9 million in 2010\$). The current project was
21 forecast in the GRA at \$8.5 million for a 2010 in-service; however, note that this estimate
22 remains a projection without the benefit of tendered prices.

23

24 The main reason for the cost updates are better definition of what is required to
25 complete the project.

26

27 **(b) and (c)**

28

29 Aishihik 3rd Turbine will not be complete and in service until 2010 therefore any spending
30 will remain in Work in Progress until that time and will not affect the revenue requirement
31 in 2008 or 2009.

1 **REFERENCE: October 6, 2008 Application, Capital Projects, Page 5-14**

2
3 YEC states that customer extensions are budgeted to cost \$475,000 in each of 2008
4 and 2009 (offset by customer contributions of \$400,000 in each year). YEC states that it
5 “is required to provide service to new customers coming onto the system, and
6 consequently, customer extensions are forecast and budgeted as a capital items without
7 identifying specific projects. Most costs of customer extensions are covered by customer
8 contributions pursuant to the Electrical Service Regulations”.

9
10 **QUESTION:**

- 11
12 a) Please provide details of the budgeted and actual costs of customer extensions
13 in 2005, 2006, 2007 and 2008 as well as the number of customers connected.
14
15 b) Please confirm that the budgets for customer extensions would be less of a
16 contributor to YEC’s revenue requirement if this budgeted amount was removed
17 and a deferral account was established to collect actual customer extension
18 costs as they are incurred for disposition in a subsequent year.

19
20 **ANSWER:**

21
22 **(a)**

23
24 Page 5-25 in the application, which shows customer extension spending for 2005 to
25 2007, contains an error in the categorization of certain elements of distribution spending.
26 A corrected version will be provided once available.

27
28 The total spending on customer extensions, from 2005 to 2007 actuals, is set out in the
29 following table:

30
31 **Yukon Energy Actual Spending on Customer Extensions 2005-2007**

| | 2005 | 2006 | 2007 |
|------------------------|-------------|-------------|-------------|
| Budget | 400,000 | 400,000 | 400,000 |
| Actual Spending | 476,043 | 422,200 | 290,089 |

1 Total customers added in each year are as follows:

2

3 2005 – 56 new customers

4

5 2006 – 52 new customers

6

7 2007 – 40 new customers

8

9 2008 – 42 new customers

10

11 **(b)**

12

13 Not confirmed. The amounts are already capital and consequently depreciated over
14 time.

1 **REFERENCE: October 6, 2008 Application, Capital Projects, Page 5-16**
2

3 YEC states that the budget for an Off-Road Maintenance Vehicle Purchase (\$150,000 in
4 2008 plus \$300,000 in 2009) is to replace a leased 1979 Nodwell from Arctic Power that
5 is at end of life.
6

7 **QUESTION:**
8

9 a) Please provide details of budget actually spent in 2008.
10

11 b) Please provide details of the analysis performed that concludes that it is more
12 economical for YEC to purchase a new unit and boom than to lease it.
13

14 c) Please confirm that the budget for this vehicle purchase would be less of a
15 contributor to YEC's revenue requirement if this budgeted amount was removed
16 and a deferral account was established to collect actual vehicle purchase costs
17 as they are incurred for disposition in a subsequent year.
18

19 **ANSWER:**
20

21 **(a)**
22

23 The actual budget expenditures for 2008 are \$0.099 million.
24

25 **(b)**
26

27 Please see payback table provided as Attachment 1 to this response. The purchase
28 produces positive value after 5 years under simple payback analysis and positive after 7
29 years under discounted payback versus lease.
30

31 **(c)**
32

33 Not confirmed. The amounts are already capital and consequently depreciated over
34 time.

YUKON ENERGY Simple Payback Analysis

Project

Date 26-Nov-07

| | | | | |
|------------------------|-----------|---------------------------|---|-------|
| Capital Cost | \$485,000 | Simple Payback | 5 | years |
| Discount Rate | 7.00% | Discounted Payback | 7 | years |
| Base Year | 2009 | | | |
| In-service Year | 2009 | | | |

| <u>Year</u> | <u>Capital Expense</u> | <u>Project Savings</u> | <u>Simple Cash Flow</u> | <u>Cumulative Cash flow</u> | <u>Year from In-service</u> | <u>Discounted Cash Flow</u> | <u>Cumulative DCF</u> | <u>Year from In-service</u> |
|-------------|------------------------|------------------------|-------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------|-----------------------------|
| 2009 | -\$485,000 | \$96,000 | -\$389,000 | -\$389,000 | 0 | -\$485,000 | -\$485,000 | 0 |
| 2010 | | \$96,000 | \$96,000 | -\$293,000 | 1 | \$89,720 | -\$395,280 | 1 |
| 2011 | | \$96,000 | \$96,000 | -\$197,000 | 2 | \$83,850 | -\$311,430 | 2 |
| 2012 | | \$96,000 | \$96,000 | -\$101,000 | 3 | \$78,365 | -\$233,066 | 3 |
| 2013 | | \$96,000 | \$96,000 | -\$5,000 | 4 | \$73,238 | -\$159,828 | 4 |
| 2014 | | \$96,000 | \$96,000 | \$91,000 | 5 | \$68,447 | -\$91,381 | 5 |
| 2015 | | \$96,000 | \$96,000 | \$187,000 | 6 | \$63,969 | -\$27,412 | 6 |
| 2016 | | \$96,000 | \$96,000 | \$283,000 | 7 | \$59,784 | \$32,372 | 7 |
| 2017 | | \$96,000 | \$96,000 | \$379,000 | 8 | \$55,873 | \$88,245 | 8 |
| 2018 | | \$96,000 | \$96,000 | \$475,000 | 9 | \$52,218 | \$140,462 | 9 |
| 2019 | | \$96,000 | \$96,000 | \$571,000 | 10 | \$48,802 | \$189,264 | 10 |
| 2020 | | \$96,000 | \$96,000 | \$667,000 | 11 | \$45,609 | \$234,873 | 11 |
| 2021 | | \$96,000 | \$96,000 | \$763,000 | 12 | \$42,625 | \$277,498 | 12 |
| 2022 | | \$96,000 | \$96,000 | \$859,000 | 13 | \$39,837 | \$317,334 | 13 |
| 2023 | | \$96,000 | \$96,000 | \$955,000 | 14 | \$37,230 | \$354,565 | 14 |
| 2024 | | \$96,000 | \$96,000 | \$1,051,000 | 15 | \$34,795 | \$389,360 | 15 |
| 2025 | | \$96,000 | \$96,000 | \$1,147,000 | 16 | \$32,519 | \$421,878 | 16 |
| 2026 | | \$96,000 | \$96,000 | \$1,243,000 | 17 | \$30,391 | \$452,269 | 17 |
| 2027 | | \$96,000 | \$96,000 | \$1,339,000 | 18 | \$28,403 | \$480,672 | 18 |
| 2028 | | \$96,000 | \$96,000 | \$1,435,000 | 19 | \$26,545 | \$507,217 | 19 |
| 2029 | | \$96,000 | \$96,000 | \$1,531,000 | 20 | \$24,808 | \$532,025 | 20 |

- Notes:** 1/Discount Rate to be used is the Blended Cost of Capital Rate for Yukon Energy
 2/ The simple payback period in years is the first year the the cumulative cash flow is positive in column E
 3/ The discounted cash flow payback period is the first year that the Cumulative discounted cash flow (DCF) is positive in column H
 4/ As the capital cost is a negative cash flow it should entered as a negative number
 5/ For paybacks exceeding 5 years the discounted payback should be used as the time value of money becomes more significant

1 **REFERENCE: October 6, 2008 Application, Capital Projects, Page 5-16**

2
3 YEC states that the budget for SCADA Replacement (\$150,000 in 2008 and \$118,000 in
4 2009) is to replace the existing VMS-based SCADA system that has been in service
5 since 1997.

6
7 **QUESTION:**

- 8
9 a) Please provide details of budget actually spent in 2008.
10
11 b) Please provide details of the analysis performed to establish the budget for this
12 system.
13
14 c) Please identify if any of the referenced lower annual maintenance costs are
15 included in the proposed revenue requirements for 2008 and 2009.
16

17 **ANSWER:**

18
19 **(a)**

20
21 Details on amounts spent in 2008 are provided in the table below.
22

| Cost Type | Total (\$000) |
|------------------------------|---------------|
| Computer Hardware & Software | 144 |
| Contractors | 9 |
| Labour | 6 |
| Materials | 93 |
| Travel | 4 |
| AFUDC | 1 |
| ES&G | 13 |
| Grand Total | 270 |

23
24
25 The project was completed in 2008.

1 **(b)**

2

3 The budget was established based on quotations from the vendor of the existing system
4 for the upgrade to the SQL platform. Additional furniture and operator controls were also
5 purchased to handle the upgraded system.

6

7 **(c)**

8

9 No reduction in maintenance cost for the SCADA system was included in the 2008 or
10 2009 budgets.

1 **REFERENCE: October 6, 2008 Application, Capital Projects, Page 5-25 to**
2 **5-32**

3
4 **QUESTION:**

- 5
6 a) Please provide details of YEC's project management policy.
7
8 b) Has YEC had its contracting and purchasing practices reviewed by a consultant?
9 If yes, please provide the results of that review and the actions taken by YEC as
10 a result.
11
12 c) Please confirm that YEC uses an internal Project Review Committee to review
13 and assess capital projects.
14
15 d) Please confirm that \$100,000 has been established as a limit whereby projects
16 forecast above this limit require more detailed scope and costing within YEC.
17
18 e) Please provide the project identification / cost-benefit worksheets used by the
19 Project Review Committee for all projects with costs greater than \$300,000
20 proposed to have expenditures in 2008 and 2009 and / or are being added to
21 rate base in 2008 and 2009.

22
23 **ANSWER:**

24
25 **(a)**

26
27 YEC does not currently maintain a policy called "project management". For description of
28 the Corporate capital project approval process, see YECL-YEC-1-11(a).

29
30 **(b)**

31
32 YEC contracting and purchasing practices were prepared with the assistance of a
33 consultant – no report separate from the actual policies was produced.

1 **(c)**

2
3 Confirmed.

4
5 **(d) and (e)**

6
7 Not confirmed. Yukon Energy does not use dollar limits in determining the process for
8 review of projects. Projects are reviewed under various approaches depending on their
9 nature, such as the following:

- 10
- 11 • Strategic projects: Projects that tend to be (but not necessarily) of a larger dollar
12 value that are dealt with by senior management. These projects tend to have less
13 flexibility in terms of scheduling within the overall capital program, as schedules
14 are often driving by other external factors (such as CSTP to capture the benefits
15 of serving Minto load at the earliest opportunity).
16
 - 17 • Core capital: This is made up of projects that comprise the overall capital plan,
18 and must be managed in light of overall capital spending targets, available staff
19 and contractor resources, and system operating constraints (such as ensuring an
20 overhauls of one unit is coordinated with other required work to the same unit,
21 and at the same time does not coincide with other planned work that, in
22 combination, may excessively reduce the capacity resources available to operate
23 the system). Within this core capital, there are also certain categories of review:
 - 24 - Required or blanket projects: This comprises spending that is effectively non-
25 discretionary or standardized, such as work to meet the terms of a Water
26 Licence, or standard annual budgets for purchasing computers. There is
27 typically very little room to move or re-schedule these type of requirements,
28 but they do comprise one component of capital spending that must be
29 accommodated within overall spending targets
 - 30 - Other projects: The remainder of the capital plan typically has room to adapt,
31 either in terms of timing, or scale, or in determinations as to the ultimate need
32 for the project.
- 33

34 The particular \$100,000 threshold value cited is used in the GRA to determine which
35 projects receive detailed write-up in the Application document. Projects over \$50,000 are
36 specifically noted on the tables in Tab 5, and the numerous smaller projects are noted as

1 a line item “other projects under \$50k”. This is the same approach that was used by YEC
2 in its 2005 filing.

3
4 The only projects over \$300,000 in the test years are either (a) major strategic projects
5 as noted in Table 5.2, page 5-25 (which are projects over \$1 million) or (b) the JDE
6 software replacement.

7
8 For the JDE software replacement, please see YUB-YEC-1-37(c) and LE-YEC-1-57.

9
10 As noted in part (d), the projects that meet the definition of strategic project do not go
11 through the Project Review Committee. Only limited information on these projects
12 provided to the Project Review Committee, solely related to coordination or budgets and
13 resources. Detailed project justification and cost/benefit related reviews has been
14 completed for all of these projects, involving key senior managers, the Board of Directors
15 and the regulator, as appropriate. The table below provides cross references to detailed
16 needs analysis in other responses.

17

| Project | Project identification/Cost-benefit |
|--------------------------------------|--|
| CSTP I/Minto Spur | See CW-YEC-1-29; YUB-YEC-1-36(a) and (b) |
| Minto Diesels | See CW-YEC-1-29; YUB-YEC-1-36 (c) |
| FD-1 rebuild | See CW-YEC-1-29; YUB-YEC-1-36(d) |
| WD3 rebuild | See CW-YEC-1-29 |
| AH3 Construction | See CW-YEC-1-29; YUB-YEC-1-36(h) |
| Financial Information System | See YUB-YEC-1-37(c) |
| P126 Mirrlees Cooling System Upgrade | See CW-YEC-1-29; YUB-YEC-1-37(b) |

18

1 **REFERENCE: October 6, 2008 Application, Board Directives, Page 6-2;**

2
3 YEC states that "Yukon Energy has recorded all further project-related costs, including
4 all costs associated with the claims process, outside of rate base and revenue
5 requirement. The claims process with Chant Construction is now complete, and there
6 were no recoveries to Yukon Energy. Accordingly, no interest bearing account has been
7 established".

8
9 **QUESTION:**

- 10
11 a) Please confirm that the out of court settlement related to the Mayo-Dawson
12 transmission line resulted in YEC paying Chant Construction \$3 million.
13
14 b) Please provide details of the total cost associated with this claim process. Please
15 identify how much in costs internal to YEC (e.g., labour, overhead, general plant,
16 etc.) have been incurred for this process and the amount allocated to this
17 process.
18
19 c) Please identify where these capitalization transfers are reflected in the
20 Application.
21
22 d) Please confirm that YEC's parent, Yukon Development Corporation is paying the
23 full cost of this dispute.
24
25 e) Please provide details of the payments / transfers made by YEC to YDC
26 (dividends and other) for 2005, 2006, 2007 and 2008.
27

28 **ANSWER:**

29
30 **(a)**

31
32 The net amount paid by YEC, and funded by YDC, to settle the litigation arising from the
33 construction of the Mayo Dawson Transmission Line was \$3 million.

1 **(b)**

2

3 Please see the table provided below:

4

Costs Associated with Claims Process

| | |
|------------------|---------------------|
| Internal Labour | 17,758 |
| Travel | 12,689 |
| Office Exepenses | 15,614 |
| Legal | 1,545,374 |
| Other Consultant | 295,703 |
| Total | \$ 1,887,137 |

5

6 **(c)**

7

8 As directed by the YUB, these costs are not allowed in regulated operations and so are
9 excluded from this application.

10

11 **(d)**

12

13 All costs of this dispute are to the Shareholder's account.

14

15 **(e)**

16

17 Please see response provided to YECL-YEC-1-30.