

1 **INFORMATION REQUEST NO. 1 - APRIL 19, 2007**

2

3 **Q4a. Please state the numbers of properties of each transmission line and substation**
4 **location option (including sub-options) including alternative site options that will be**
5 **totally and/or partially affected from the highest reading milliGauss AC magnetic**
6 **field down to a reading of 0.3 milliGauss.**

7 A4a. All facilities proposed as part of this project will be compliant with the exposure
8 guidelines of the World Health Organization (“WHO”) and the International Commission
9 on Non-Ionizing Radiation Protection (“ICNIRP”).

10

11 **Q4b. Please provide names, address, phone- and fax numbers of residents/tenants and**
12 **owners of these affected properties (max mG – 0.3 milliGauss AC magnetic field).**

13 A4b. All facilities proposed as part of this project will be compliant with the exposure
14 guidelines of WHO and ICNIRP.

15

16 **Q4c. Please provide aerial orthophotos map of all options (incl. sub-options) with the**
17 **proposed options marked into these orthophotos. These orthophotos in a scale of 1:**
18 **750 or 1:1000.**

19 A4c. Please see BCUC Appendix A6.1.

20

21 **Q4d. Please provide list of landowner and residents contact, indicating Locations (a**
22 **special map (1:1000) to be provided with numbers indicating contacted property**
23 **tenants and owner), construction to occur including hydro posts and transformers,**
24 **legal status, date of all notices (whether via letters, phone or direct contact), land**
25 **owner and residents’ comment/position, mitigation). Please indicate whether tenants**
26 **or owners or both of them have been contacted.**

27 A4d. This question is not relevant to the decision to locate the substation at either the Arawana
28 Road or Fire Hall site, which is the subject of this regulatory proceeding.

1 **Q4e. Please provide facility maps, scale 1: 500, with all indicated options marked into.**
2 **Property lines should be able to be identified.**

3 A4e. Please see BCUC Appendix A6.1.

4
5 **Q4f. Please provide facility maps and 1: 500 with the extending 0.3 milliGauss, and 2.0**
6 **mG and 4.0mG lines drawn into it. Property lines should be able to be identified.**

7 A4f. All facilities proposed as part of this project will be compliant with the exposure
8 guidelines of WHO and ICNIRP.

1 **INFORMATION REQUEST NO. 2 - MAY 23, 2007**

2
3 **Q1. Ref. Exhibit B-2 Appendix A Appendix C Sites Evaluated or Naramata Substation**
4 **project Field View-Map:**

5 **Please provide aerial orthophotos in the scale of 1:750 with marked in FortisBC**
6 **Right-of Ways and/or FortisBC owned properties located east from Naramata Road**
7 **at the stretch from Penticton's Reservoir Road to about 2 km north of the existing**
8 **substation.**

9 A1. This question is not relevant to the decision to locate the substation at either the Arawana
10 Road or Fire Hall site, which is the subject of this regulatory proceeding.

11
12 **Q2. Please state whether Transmission Line 45 (TL45) is to be upgraded. If so please**
13 **provide all common technical details, along with magnetic field profiles and tables**
14 **as far down to the 0.1-0.3 milliGauss border.**

15 A2. There is no work scheduled on 45 Line as part of this project, aside from the connection
16 into the new substation.

17
18 **Q3. Please state all TL 45 pole locations that are less than 5.0 meters from the white**
19 **shoulder lane mark of Naramata Road. Please state the number of the TL 45 poles**
20 **and their individual distances from the white shoulder lane.**

21 A3. This question is not relevant to the decision to locate the substation at either the Arawana
22 Road or Fire Hall site, which is the subject of this regulatory proceeding.

23
24 **Q4a. Please provide for TL 45 along Naramata Road the required minimum clear zone as**
25 **per clear zone standards of Ministry of Transportation and Highways and provide**
26 **the technical bulletin.**

27 A4a. This question is not relevant to the decision to locate the substation at either the Arawana
28 Road or Fire Hall site, which is the subject of this regulatory proceeding.

- 1 **Q4b. Please provide info how clear zones are established**
- 2 A4b. This question is not relevant to the decision to locate the substation at either the Arawana
3 Road or Fire Hall site, which is the subject of this regulatory proceeding.
4
- 5 **Q4c. Please provide speed and traffic volume of Naramata Road on 5 different locations**
6 **of Naramata Road, starting from existing substation as far south where TL 45 is**
7 **joining Naramata Road coming down from the hills (near Red Rooster Winery).**
- 8 A4c. FortisBC does not have the information requested.
9
- 10 **Q5. Please state all accidents that hit and/or destroyed TL 45 poles; state date and**
11 **location/ number of TL poles, where poles have been replaced due to accident, and**
12 **date and duration of power outage**
- 13 A5. FortisBC does not have the information requested.
14
- 15 **Q6. Please state whether in case of accidental power outage of TL 45, a back up loop is**
16 **provided. If there is no back-up loop, will FortisBC consider a back-up loop, if so,**
17 **please give details.**
- 18 A6. At this time there is no backup transmission supply for Naramata. FortisBC is currently
19 reviewing the criteria for backup transmission sources to radial load areas such as
20 Naramata, Summerland, Kaslo and other similar communities.
21
- 22 **Q7. Please state whether it is technically possible to construct TL 45 lines under or next**
23 **to TL 73 (230 kV),**
- 24 **a. please give details in case that it is not technical possible to built under TL 73**
25 **b. please give details how wide additional Right of Way would be required to**
26 **construct TL 45 beside TL 73**
- 27 **c. Please provide cost of TL 45 built under of TL 73, and**
28 **d. TL45 built next to/along TL 73**
- 29 A7. This question is not relevant to the decision to locate the substation at either the Arawana
30 Road or Fire Hall site, which is the subject of this regulatory proceeding.
31

1 **Q8a. Please provide an aerial orthophoto in the scale of 1:500 with TL 73 visible around**
2 **the Naramata Development Corp. Property (also called the “gravel pit”, as**
3 **indicated red of Appendix A / Appendix C- “Site Evaluated for Naramata Substation**
4 **Project, Field View” and please have the TL 73 clearly marked running through the**
5 **“gravel pit”.**

6 A8a. This question is not relevant to the decision to locate the substation at either the Arawana
7 Road or Fire Hall site, which is the subject of this regulatory proceeding.

8
9
10 **Q8b. Please provide info why FortisBC has never given an explanation why the “gravel**
11 **pit” site has never gotten an explanation why this site is not suitable for a**
12 **substation. Please provide comments at this time.**

13 A8b. This question is not relevant to the decision to locate the substation at either the Arawana
14 Road or Fire Hall site, which is the subject of this regulatory proceeding.

15
16 **Q9. Assuming the Naramata Development Corp Property would be suitable for the new**
17 **substation site, please provide 2-3 possible routes of new connecting distribution**
18 **lines (DL) to the Naramata service grid and give details of impacts.**

19 A9. This question is not relevant to the decision to locate the substation at either the Arawana
20 Road or Fire Hall site, which is the subject of this regulatory proceeding.

21
22 **Q10. Please state dates and names of persons of the Naramata Development Corp.**
23 **Property FortisBC has contacted because of the “gravel pit” site. Please provide**
24 **details of the discussions.**

25 A10. This question is not relevant to the decision to locate the substation at either the Arawana
26 Road or Fire Hall site, which is the subject of this regulatory proceeding.

27
28 **Q11. In case of objectionable expropriation, would FortisBC consider offering a buy-out**
29 **of properties as was offered and done by BC Hydro in their 1989 BC Hydro 230 kV**
30 **transmission line application from Dunsmuir to Gold River , see BCUC Public**
31 **Inquiry Decision, page 34 -38 , link:**

32 <http://www.bcuc.com/Documents/Decisions/MiscDec/BCH230KVInquiry.pdf> ,

1 **Please give details.**

2 A11. FortisBC intends to acquire property only for the substation site itself and to acquire
3 rights of way as necessary for its transmission and distribution lines.

4
5 **Q12. Please state the establishment of the WHO and ICNIRP EMF exposure guidelines.**
6 **Please state in layman’s language (“dummies’ language”) what the EMF exposure**
7 **guidelines mean.**

8 A12. The World Health Organization (“WHO”) and the International Commission on Non-
9 Ionizing Radiation Protection (“ICNIRP”) weblinks are provided for reference.

10 <http://www.who.int/en/>

11 <http://www.icnirp.de/what.htm>

12
13 **Q13. Please state whether these exposure guidelines refer to short term exposure and**
14 **what biological effects have been used as threshold limitation for the guidelines.**
15 **Please also elaborate on the term “short-term exposure”**

16 A13. Please see the response to Karow IR1 Q12 above.

17
18 **Q14. Please state whether these exposure guidelines refer to long term exposure and**
19 **whether any biological effects have been used as threshold limitation for the**
20 **guidelines. Please also elaborate on the term “long-term exposure”.**

21 A14. Please see the response to Karow IR1 Q12 above.

22
23 **Q15 Please state all to FortisBC known long-term magnetic field exposures’ biological**
24 **effects.**

25 A15. This question is not relevant to the decision to locate the substation at either the Arawana
26 Road or Fire Hall site, which is the subject of this regulatory proceeding.

1 **Q16. Please state whether it is correct, that an electric field can affect something that is**
2 **"electrically conductive", and a magnetic field can affect something that is**
3 **"magnetically permeable or has electrical charge".**

4 A16. This question is not relevant to the decision to locate the substation at either the Arawana
5 Road or Fire Hall site, which is the subject of this regulatory proceeding.
6

7 **Q17. Would FortisBC agree, that an electric and/or an magnetic field is to be defined an**
8 **“agent”?**

9 A17. This question is not relevant to the decision to locate the substation at either the Arawana
10 Road or Fire Hall site, which is the subject of this regulatory proceeding.
11

12 **Q18. Please state objects of certain properties that power line magnetic fields**
13 **a. can not penetrate, and**
14 **b. which objects can be penetrated.**

15 A18. This question is not relevant to the decision to locate the substation at either the Arawana
16 Road or Fire Hall site, which is the subject of this regulatory proceeding.
17

18 **Q19. Does FortisBC agree, when power line magnetic fields are penetrating any objects,**
19 **including human bodies, that can legally also be defined as “trespassing”, in a**
20 **microscopic level?**

21 A19. This question is not relevant to the decision to locate the substation at either the Arawana
22 Road or Fire Hall site, which is the subject of this regulatory proceeding.
23

24 **Q20. Please state if it is correct to say, that when power line magnetic fields are**
25 **penetrating on human bodies and due to molecular changes in human bodies those**
26 **power line magnetic fields are causing biological affects?**

27 A20. This question is not relevant to the decision to locate the substation at either the Arawana
28 Road or Fire Hall site, which is the subject of this regulatory proceeding.

1 **Q21. Please state who is peer-reviewing and independently auditing FortisBC CPCN**
2 **applications' calculations of financial and technical nature?**

3 A21. All aspects of CPCN applications are subject to a review process as determined by the
4 BCUC.

6 **Q22a. Does FortisBC agree, that Naramata Road itself is already a well known touristy**
7 **attraction, similar to the German well known "Weinstrasse" (wine street/route)?**

8 A22a. FortisBC is not aware of such designation being applied to Naramata Road but
9 acknowledges the importance of tourism to the Okanagan Valley.

11 **Q22b. Please state whether by relocating TL 45 up in the hills under/along the TL 73**
12 **FortisBC would automatically greatly contribute enhancing much more the**
13 **Penticton-Naramata "Weinstrasse" compared to as it is presently?**

14 A22b. Please see the response to Karow IR1 Q7.

15