1	1.1.0	Reference: Exhibit B-1, p.1
2	Q1.1.1	Please provide a map of the FortisBC service area showing transmission lines,
3		terminal stations and substations.
4	A1.1.1	The map attached at Appendix A1.1.1 includes all items requested with the exception
5		of substations. FortisBC does not have a map that includes all substations in the service
6		area. The amount of detail required would not be easily discernible on a single map.
7		
8	Q1.1.2	Please provide a map showing the existing Naramata Substation, transmission
9		lines and distribution lines in the Naramata area.
10	A1.1.2	Please see the map attached as Appendix A1.1.2 titled Existing Transmission and
11		Distribution.
12		
13	Q1.1.3	Please provide ten years of historical annual peak load data for the Naramata
14		Substation, and the most recent forecast of annual peak load for the Naramata
15		Substation.
16	A1.1.3	Please see the response to BCUC IR1 Q4.2.2 for the period 2002-2009.
17		
18	Q1.1.4	Please discuss how the mobile transformer is used to mitigate problems with the
19		existing Naramata substation. When the mobile transformer is in use is the
20		existing substation completely out of service? When the mobile transformer is
21		positioned at the Fire Hall site is it always in service, or is it on standby? What has
22		been the experience with use of the mobile transformer at the Fire Hall site in the
23		recent past? When has it been positioned there? For how long? Is it expected that
24		the mobile transformer will be at the Fire Hall site throughout the 2007-2008
25		winter?
26	A1.1.4	The mobile transformer is used as a replacement in the event of transformer failure at
27		the Naramata Substation. When the mobile transformer is positioned at the Fire Hall
28		site and in service the existing substation is completely out of service. The last time the
29		mobile transformer was at the Fire Hall site was in 1996 for approximately 4-6 weeks.
30		The mobile transformer will not be located at the Fire Hall site except in the case of
31		failure of the Naramata Substation transformer.

1		
2	1.2.0	Arawana Road site
3	Q1.2.1	Please provide a copy of the certificate of title and plans for the Arawana Road
4		site property.
5	A1.2.1	The requested information is attached as Appendix A1.2.1.
6		
7	Q1.2.2	Please provide a detailed plan of the proposed substation at the Arawana Road
8		site.
9	A1.2.2	Please refer to BCUC Appendix A4.1.3.
10		
11	Q1.2.3	Please provide a contour map of the Arawana Road site and adjacent roads and
12		properties within 100 meters, showing topographical lines at one meter intervals.
13	A1.2.3	Please see attached Appendix A1.2.3 titled Arawana Road Site Topography.
14		
15	Q1.2.4	Please provide an outline plan of the proposed substation at the Arawana Road
16		site superimposed on the map provided in response to the previous information
17		request. Show the shortest distances between the substation fence line and the
18		residences at 3018 Debeck Road and 3034 Debeck Road.
19	A1.2.4	Please see BCUC Appendix A6.1. Appendix A1.2.4 attached shows that the shortest
20		distance between the proposed substation fence and 3018 Debeck Road residence is 33
21		meters and 3034 Debeck Road is 75 meters.
าา		
22		
23	Q1.2.5	Please provide an elevation diagram of the Arawana Road site perpendicular to
24		the slope (a) existing and (b) with the proposed substation.
25	A1.2.5	Please refer to the response to BCUC IR1, Q4.1.3. The proposed Arawana Substation
26		layout drawing includes sections through the proposed site illustrating the existing and
27		proposed grades.

1	1.3.0	Disposal of the Arawana Road site
2	Q1.3.1	Please state what zoning restrictions or limitations apply to the Arawana Road
3		site.
4	A1.3.1	As described in Exhibit B-1, Section D, page 4, the Agricultural Land Commission
5		("ALC") has approved FortisBC's application for a Permit of Non-farm Use of Land
6		within the Agricultural Land Reserve. A rezoning application has been submitted for
7		the Arawana Road site. The Regional District's Naramata Advisory Planning
8		Committee (the "APC") reviewed the application in an open meeting on October 11,
9		2006 and the APC voted in favour of changing the zoning to allow the substation to be
10		constructed and operated on Arawana Road if the Fire Hall site is determined to be
11		unsuitable. FortisBC been advised that no height variance is required.
12		
13	Q1.3.2	Please confirm that if the Arawana Road site was not used for a substation the site
14		would not revert to being in the Agricultural Land Reserve.
15	A1.3.2	This property has not been removed from the Agricultural Land Reserve.
16		
17	Q1.3.3	Please confirm that if the Arawana Road site was not used for a substation
18		FortisBC would sell the property.
19	A1.3.3	Confirmed.
20		
21	Q1.3.4	Please provide an appraisal report on the fair market value of the Arawana Road
22		site based on highest and best use.
23	A1.3.4	FortisBC has not commissioned an appraisal report based on highest and best use for
24		the Arawana Road site.
25		
26	1.4.0	Reference: Exhibit B-1, p.2 "C. A Total Cost Estimate, Including a Summary of
27		Expenditure to Date," para.7
28	Q1.4.1	In what year dollars is the table at para.7 expressed?
29	A1.4.1	Table 7 is expressed in 2007 dollars. Please also see the response to BCUC IR1 Q2.4.
30		

1	Q1.4.2	For each line in the table, please provide a detailed breakdown of the figures for								
2		both Arawana Road and Fire	Hall.							
3	A1.4.2	Please see the response to BCUC IR1 Q2.3.								
4										
5	Q1.4.3	Please provide a revised version of the table adding a column showing cost								
6		estimates for the Arawana Ro	oad site with the	'via Arawana	ı Road' TL ro	oute.				
7	A1.4.3	Please refer to the response to I	BCUC IR1, Q2.5.	.6 for a compa	rison of the lin	e access				
8		options.								
9										
10	Q1.4.4	Please provide a version of th	e table (includin	g the Arawan	a Road site v	ia				
11		Arawana Road TL option) on	a net present va	alue basis, spe	cifying the di	scount				
12		rate applied.								
13	A1.4.4	FortisBC uses a real discount ra	ate of 8% in its ca	apital analyses	Based on the	timing of				
14		unescalated capital expenditures, the following table shows the net present value								
15		("NPV") of capital expenditures for the three options.								
16 17 18		Year of expenditure	to 2007 (\$ millio	2008 on)	2009	Total				
19		Fire Hall Site	3,200	1,815	2,257	7,272				
20 21		NPV	3,200	1,681	2,090	6,970				
22		Arawana Road Site	2,577	3,612		6,189				
23 24		NPV	2,577	3,344		5,921				
25		Arawana Road Site & Line	2,577	3,712		6,289				
26 27		NPV	2,577	3,437		6,014				
28										
29	Q1.4.5	Please provide the rate impac	t of the Arawan	a Road (direc	t cross-count	ry TL)				
30		option, of the Arawana Road	(Arawana Road	TL) option, a	and of the Fir	e Hall				
31		option.								
32	A1.4.5	On a one-time equivalent basis	, the rate impacts	of the three of	otions identifie	d are				
33		0.16%, 0.16%, and 0.17%, resp	ectively.							
34		-								

1	Q1.4.6	In addition, please provide a narrative explanation of why Future Project Costs:
2		Substation are \$2,650,000 for Arawana Road and \$3,850,000 for Fire Hall.
3	A1.4.6	There are several factors that contribute to the higher estimated cost to construct at the
4		Fire Hall site. These factors are listed below.
5		
6		a) The available footprint for the substation is much smaller than the Arawana Road
7		site, resulting in higher costs for:
8		• re-engineering to design non-standard layout;
9		• site preparation, due to limited work space, additional trucking and storage
10		costs due to lack of room to store earth spoil, mitigation of traffic impacts
11		during construction; and
12		• equipment grounding in limited space, including the requirement for a
13		geotechnical study.
14		b) There is a possible requirement to pave the substation site to mitigate grounding
15		issues.
16		c) The natural gas main located in the center of site will have to be relocated.
17		d) The contour of the property combined with limited area will require the
18		construction of retaining walls on the Fire Hall and Debeck Road sides and
19		distribution egress through the retaining wall and natural grade.
20		
21	Q1.4.7	Please reconcile the Expenditure to Date: Acquisition of Arawana Road Site figure
22		of \$525,000 with the figure of \$407,000 for Property Gibbard Site in table A6.1,
23		Exhibit B-2, Appendix D.
24	A1.4.7	The purchase price for the Arawana Road property was \$407,000. The figure of
25		\$525,000 includes this purchase price plus all other costs associated with identifying
26		and acquiring site land for the substation, including, but not limited to, staff time and
27		expenses, legal fees, land agents, option fees and surveys of other properties
28		considered, dating back to 2005.

1	Q1.4.8	Please provide an accounting report or whatever other evidence FortisBC wishes
2		to rely upon to support the claim that "Financing Costs Capitalized (AFUDC)"
3		would be \$339,000 for the Arawana Road option and \$912,000 for the Fire Hall
4		option. If construction of the substation at the Fire Hall site did not begin until
5		February 2009, would FortisBC borrow the construction funds at the same time as
6		it would borrow the construction funds for constructing the substation at the
7		Arawana Road site beginning in April 2008? In making this AFUDC calculation,
8		what assumptions were made regarding the timing of disposition of the Arawana
9		Road site?



13	Fire Hall														
			2006 2007 Capital Expenditures					2008 Ca		TOTAL					
		PRE	Current	1ST	2ND	3RD	4TH		1ST	2ND	3RD	4TH			ALL
		2006	Estimate	QTR	QTR	QTR	QTR	TOTAL	QTR	QTR	QTR	QTR	TOTAL	2009	YEARS
		ncludes AFUDC	incurred to date												
	Capital Expenditures	584	1,525	21	320	300	300	941	1,300	50	100	100	1,550	1,900	6,500
	AFUDC			32	34	39	44	149	58	68	69	70	265	358	772
14	TOTAL	584	1,525	53	354	339	344	1,090	1,358	118	169	170	1,815	2,258	7,272
15															

1	6	
1	7	

		2006		2007 Capital Expenditures				2008 Capital Expenditures						TOTAL
	PRE	Current	1ST	2ND	3RD	4TH		1ST	2ND	3RD	4TH			ALL
	2006	Estimate	QTR	QTR	QTR	QTR	TOTAL	QTR	QTR	QTR	QTR	TOTAL	2009	YEARS
	includes AFUDC	incurred to date												
Capital Expenditures	584	1,525	21	320	200	250	791	418	1,400	1,232	0	3,050	0	5,950
AFUDC			32	34	38	42	146	49	62	82	0	193	0	340
TOTAL	584	1,525	53	354	238	292	937	467	1,462	1,314	0	3,243	0	6,289

Arawana Road

FortisBC would not acquire financing for the project until needed for construction. It is assumed that the sale of the Arawana Road site would occur in the fourth quarter of 2007.

22 23

18 19 20



1	• Fire Hall site – The estimated cost includes the cost to excavate, compact and
2	install fill, construct the retaining wall and relocate the existing gas main. Not
3	included is the cost to install station grounding or station fence. The estimated cost
4	is approximately \$650,000.
5	• Arawana Road site – The estimated cost includes the cost to excavate, compact and
6	install fill, and construct the access road. Not included is the cost to install station
7	grounding or the station fence. The estimated cost is approximately \$200,000.
8	
9	Q1.4.10 For the "Future Project Costs: Transmission Line" Arawana Road figure of
10	\$300,000, please provide the assumptions used to derive this figure. Does the figure
11	represent the higher of estimates based on the "Before and After" approach and
12	the "Unit Value" approach? Which was higher? What was the lower estimate
13	figure? On the Unit Value basis, what is the dollar per square meter figure after
14	application of the 50% discount? Please provide copies of any appraisals on which
15	this estimate was based.
16	A1.4.10 Assumptions: 10 meter wide corridor (greenway); statutory right of way would be
17	required from two-to-four landowners.
18	• "Before and After" approach or "Unit Value" approach to be determined upon
19	negotiations with landowners.
20	• Higher/lower estimate figure not applicable at this time.
21	• Dollar per square meter figure undetermined.
22	• No appraisals were done.
23	
24	Q1.4.11 For "Future Project Costs: Disposal of Arawana Road Site" Fire Hall figure of
25	(\$500,000), please provide the appraisal report, or if no appraisal report, the
26	assumptions used to derive this figure. What is the dollar per square meter figure?
27	A1.4.11 The FortisBC property is 12,500 square meters; therefore the dollar per square meter
28	figure is \$40.
29	
30	Q1.4.12 Please provide a figure for the value of the Arawana Road site calculated
31	according to the area of the site in square meters times the deemed undiscounted

1		unit value of the right-of-way properties used to determine the value of \$300,000
2		for "Future Project Costs: Transmission Line" Arawana Road.
3	A1.4.12	Arawana Road Site size is 1.25 hectares (12,500 square meters). \$40 per square meter
4		is estimated as the undiscounted unit value.
5	Q1.4.13	Please provide a graph and associated table showing the various estimates of total
6		cost of the Naramata Substation Project in constant dollars by year starting with
7		the estimate presented in the original Capital Expenditure Plan and ending with
8		the most recent estimate.
9	A1.4.13	Please see the following table and graph. Dollar figures are provided as given in the

year of the estimate. Attempting to present the figures in constant dollar terms would
be misleading as most of the variation is due to changes in project scope rather than the
passage of time.

13

Original Document	Date	Estimate (\$millions)	Year of Dollars	Note
2005 CEP	26-Nov-04	3.25	2004	Page 28, line 26
2006 CEP	16-Aug-05	3.70	2005	Page 26
Exhibit B-2	15-Sep-06	5.162	2006	Appendix D, page 6
Exhibit B-2	15-Mar-07	6.089	2007	Appendix H
Exhibit B-1	30-Apr-07	6.289	2007	Page 2



1	Q1.4.14	What degree of confidence does FortisBC put on the cost estimates for (a) the
2		project at the Fire Hall and (b) the project at the Arawana Road site?
3	A1.4.14	Cost estimates at both sites are presented at a plus/minus 10% level in 2007 dollars.
4		
5	1.5.0	Reference: Exhibit B-1, p.5 "E. Project Schedule for the Substation and
6		Transmission and Distribution Line Connections"
7	Q1.5.1	How long would construction of the transmission line between 45 Line and the
8		Arawana Road site along the 'direct cross-country' route take from start to
9		completion?
10	A1.5.1	It is anticipated that the construction of 45 Line for this option would take
11		approximately 3-4 weeks.
12		
13	Q1.5.2	Does FortisBC acknowledge that this route is located on well established small
14		agricultural and residential acreages?
15	A1.5.2	FortisBC is aware that the land over which the "direct cross country" route is proposed
16		is currently in use as agricultural and residential acreages.
17		
18	Q1.5.3	Does FortisBC acknowledge that construction of the proposed transmission and
19		underbuilt distribution line would cause substantial disruption to the landowners'
20		use and enjoyment of their property during construction?
21	A1.5.3	FortisBC anticipates that the construction of the proposed transmission and underbuilt
22		distribution line would cause minimal disruption to the landowner during construction.
23		FortisBC makes every effort to ensure that any line construction it undertakes is
24		completed with full regard for landowners and the environment.
25		
26	Q1.5.4	Does FortisBC acknowledge that the ongoing presence of the proposed
27		transmission and underbuilt distribution line on these private properties would be
28		a substantial negative aesthetic factor?
29	A1.5.4	FortisBC does not consider the presence of a transmission line to have a substantial
30		negative aesthetic impact.
31		

Q1.5.5	Does FortisBC acknowledge that there is no existing zoning, community plan
	designation, utility right of way, road allowance or any other official public
	indication that could have allowed the owners of the private property in question
	to have anticipated that FortisBC would propose to expropriate a transmission
	line right of way across their properties?
A1.5.5	FortisBC is not proposing to expropriate any property.
Q1.5.6	Please confirm that at the time FortisBC supported the application for removal of
	the Arawana Road proposed substation site from the Agricultural Land Reserve
	FortisBC's understanding was that transmission line access to the substation
	would be via Arawana Road.
A1.5.6	At the time of submission of FortisBC's application for a Permit of Non-farm use of
	land in the Agricultural Land Reserve the route for the transmission line was not
	determined.
Q1.5.7	At the time FortisBC supported the application for removal of the Arawana Road
	proposed substation site from the Agricultural Land Reserve did FortisBC, or
	anyone else to FortisBC's knowledge, provide information to the Agricultural
	Land Commission to the effect that FortisBC might later change the proposed
	transmission line access route from the 'via Arawana Road' route to a 'direct
	cross-country' route? If the answer is 'yes,' please provide documentation.
A1.5.7	There have been several options to provide transmission line access to the Arawana
	Road site. To the best of FortisBC's knowledge information beyond the various
	options that were being evaluated were not provided to the ALC.
	Q1.5.5 A1.5.5 Q1.5.6 A1.5.6 Q1.5.7 A1.5.7

1	Q1.5.8	Please describe all recent examples in which FortisBC has acquired a right of way
2		across private property for a new transmission line route. For each, please
3		indicate whether Agricultural Land Commission approval was required, whether
4		expropriation procedures were initiated, and whether the line was built above-
5		ground or underground and if underground at whose expense.
6	A1.5.8	The most current example would be the Big White 138 kV transmission line. An
7		application for a Permit of Non-Farm Use application has been submitted to the ALC
8		for a small portion of private land. No expropriation was involved for this above
9		ground line. Prior to this, an example would be the Kootenay 230 kV Project in which
10		there were approximately 50 properties that were subject to an ALC application that
11		was approved again without expropriation. All lines were built above ground.
12		
13	Q1.5.9	Please provide whatever information FortisBC has from RDOS that leads
14		FortisBC to believe that for the Arawana Road site FortisBC would have RDOS
15		Rezoning Approved in October 2007, only one month following a September 2007
16		BCUC Decision.
17	A1.5.9	As explained in the response to NAFS IR1 Q1.3.1 above, the Naramata APC is in
18		favour of granting the rezoning application for the Arawana Road site if the Fire Hall
19		site is determined to be unsuitable. FortisBC is not in receipt of any specific
20		information from the RDOS, however, there is nothing to indicate that the Application
21		will take any longer than would normally be expected.
22		
23	Q1.5.10	What would be the disadvantages of having the mobile transformer at the Fire
24		Hall site as emergency backup during the winter peak of 2008/2009?
25	A1.5.10	The disadvantages are 1) the costs to mobilize and demobilize the mobile transformer
26		and 2) that the mobile is then not available to provide emergency backup to other areas
27		in the FortisBC service territory. In addition, FortisBC requires its mobile transformers
28		to provide backup for construction activities as it strives to improve its overall
29		reliability through the execution of its approved capital plan.
30		

1	1.6.0 Re	eference: Exhibit B-2, Appendix A, "FortisBC Inc. Report to the BCUC on the
2		Status of the Naramata Substation Project, July 21, 2006,"
3	Q1.6.1	Regarding p.3, para.1, please provide FortisBC's position regarding exactly what
4		aspects of the Naramata Substation Project were approved by Order G-52-05.
5	A1.6.1	FortisBC relies upon the following statement from the Commission's Reasons for
6		Decision accompanying Order G-8-06 (Appendix A, page 9 of 20):
7		"The Commission notes that this project was approved by Order No. G-52-05."
8 9	170 R4	aference: Exhibit B-2 Annendix A "FortisBC Inc. Report to the BCUC on the
10	1.7.0 K	Status of the Naramata Substation Project July 21 2006 "n 5 nara 5
11	0171	What was the date of the meeting between a FortisBC representative and Mr
12	Q1.//1	Tom Chanman?
13	A1.7.1	This question is not relevant to the decision to locate the substation at either the
14		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding
15		
16	Q1.7.2	What is the name(s) of the FortisBC representative(s)?
17	A1.7.2	This question is not relevant to the decision to locate the substation at either the
18		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
19		
20	Q1.7.3	What are the names of the members of the RDOS's Advisory Planning Committee
21		who toured the area with the FortisBC representative and Mr. Chapman?
22	A1.7.3	This question is not relevant to the decision to locate the substation at either the
23		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
24		
25	Q1.7.4	Who else was present?
26	A1.7.4	This question is not relevant to the decision to locate the substation at either the
27		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
28		
29	Q1.7.5	Was Mr. Bob Gibbard a member of the APC at the time?
30	A1.7.5	This question is not relevant to the decision to locate the substation at either the
31		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.

Q1.7.6	Please confirm that Mr. Bob Gibbard is the son of Violet Gibbard, the owner of
	the Gibbard property, a portion of which was later purchased by FortisBC and
	referred to as the Arawana Road site.
A1.7.6	This question is not relevant to the decision to locate the substation at either the
	Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
Q1.7.7	At the time of the referenced meeting and area tour was FortisBC aware of Mr.
	Gibbard's connection to the owner of the Gibbard property?
A1.7.7	This question is not relevant to the decision to locate the substation at either the
	Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
1.8.0	Reference: Exhibit B-2, Appendix A, "FortisBC Inc. Report to the BCUC on the
	Status of the Naramata Substation Project, July 21, 2006," p.6, para.1.
Q1.8.1	When did these discussions occur?
A1.8.1	This question is not relevant to the decision to locate the substation at either the
	Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
Q1.8.2	Who were the members of the referenced ad hoc community committee?
A1.8.2	This question is not relevant to the decision to locate the substation at either the
	Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
Q1.8.3	For what site or sites was the committee enlisting support?
A1.8.3	This question is not relevant to the decision to locate the substation at either the
	Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
Q1.8.4	What sites near the existing substation were considered? Who were the
	landowners FortisBC met with or spoke to?
A1.8.4	This question is not relevant to the decision to locate the substation at either the
	Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
	Q1.7.6 A1.7.6 Q1.7.7 A1.7.7 A1.7.7 A1.7.7 Q1.8.1 A1.8.1 Q1.8.2 A1.8.2 Q1.8.3 A1.8.3 A1.8.3

1	1.9.0 Re	eference: Exhibit B-2, Appendix A, "FortisBC Inc. Report to the BCUC on the
2		Status of the Naramata Substation Project, July 21, 2006," p.6, para.2.
3	Q1.9.1	Please provide a copy of the option to purchase property from "the Gibbard
4		family."
5	A1.9.1	This question is not relevant to the decision to locate the substation at either the
6		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
7		
8	Q1.9.2	On what date was the option to purchase property from the Gibbard family
9		entered into?
10	A1.9.2	This question is not relevant to the decision to locate the substation at either the
11		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
12		
13	Q1.9.3	Was the option to purchase registered in the Land Title Office?
14	A1.9.3	This question is not relevant to the decision to locate the substation at either the
15		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
16		
17	Q1.9.4	Did Mr. Bob Gibbard act as spokesman for the Gibbard family in discussions with
18		FortisBC regarding the option to purchase?
19	A1.9.4	This question is not relevant to the decision to locate the substation at either the
20		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
21		
22	Q1.9.5	Does the referenced option to purchase relate to exactly the same property as is
23		now owned by FortisBC and referred to as the Arawana Road site? If not, please
24		explain the differences.
25	A1.9.5	This question is not relevant to the decision to locate the substation at either the
26		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
27		
28	1.10.0	Reference: Exhibit B-2, Appendix A, "FortisBC Inc. Report to the BCUC on the
29		Status of the Naramata Substation Project, July 21, 2006," p.6, para.3.

1	Q1.10.1	Please provide a copy of the option to purchase property on the north portion of
2		the Kato property.
3	A1.10.1	This question is not relevant to the decision to locate the substation at either the
4		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
5		
6	Q1.10.2	On what date was an option to purchase property on the north portion of the
7		Kato property entered into?
8	A1.10.2	This question is not relevant to the decision to locate the substation at either the
9		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
10		
11	Q1.10.3	Was the option to purchase registered in the Land Title Office?
12	A1.10.3	This question is not relevant to the decision to locate the substation at either the
13		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
14		
15	Q1.10.4	At the time the Kato site became FortisBC's preferred site did FortisBC have an
16		option to purchase the property from the Gibbard family?
17	A1.10.4	This question is not relevant to the decision to locate the substation at either the
18		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
19		
20	Q1.10.5	At the time the north Kato site became FortisBC's preferred site was FortisBC
21		aware that the Kato site was in the Agricultural Land Reserve?
22	A1.10.5	This question is not relevant to the decision to locate the substation at either the
23		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
24		
25	Q1.10.6	Please provide a copy of the application prepared for submission to the
26		Agricultural Land Commission (ALC) for non-farm use.
27	A1.10.6	This question is not relevant to the decision to locate the substation at either the
28		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
29		

1	Q1.10.7	Please provide copies of all subsequent ALC memos, minutes and letters
2		regarding the north Kato site, the south Kato site, the Gibbard property, and
3		any other property in connection with siting a new Naramata substation.
4	A1.10.7	This question is not relevant to the decision to locate the substation at either the
5		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
6		
7	1.11.0	Reference: Exhibit B-2, Appendix A, "FortisBC Inc. Report to the BCUC on the
8		Status of the Naramata Substation Project, July 21, 2006," p.6, para.4.
9	Q1.11.1	Who were the several members of the community who organized opposition to
10		the Kato site?
11	A1.11.1	This question is not relevant to the decision to locate the substation at either the
12		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
13		
14	Q1.11.2	Please provide a copy of the "third option to purchase," regarding the south
15		portion of the Kato property.
16	A1.11.2	This question is not relevant to the decision to locate the substation at either the
17		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
18		
19	Q1.11.3	What was the date of the option to purchase regarding the south portion of the
20		Kato property?
21	A1.11.3	This question is not relevant to the decision to locate the substation at either the
22		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
23		
24	Q1.11.4	Was the option to purchase registered in the Land Title Office?
25	A1.11.4	This question is not relevant to the decision to locate the substation at either the
26		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.

1	Q1.11.5	At the time FortisBC acquired the option to purchase the south portion of the
2		Kato property was the south portion of the Kato property FortisBC's preferred
3		site for the substation?
4	A1.11.5	This question is not relevant to the decision to locate the substation at either the
5		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
6		
7	Q1.11.6	Did any members of the community express opposition to the south portion of
8		the Kato property as the substation site? If so, what were their names?
9	A1.11.6	This question is not relevant to the decision to locate the substation at either the
10		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
11		
12	Q1.11.7	Please provide copies of any letters, meeting minutes or notes concerning
13		opposition to the south portion of the Kato property.
14	A1.11.7	This question is not relevant to the decision to locate the substation at either the
15		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
16		
17	Q1.11.8	On what date did the ALC representatives visit the Kato site?
18	A1.11.8	This question is not relevant to the decision to locate the substation at either the
19		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
20		
21	Q1.11.9	Who was present when the ALC representatives visited the Kato site?
22	A1.11.9	This question is not relevant to the decision to locate the substation at either the
23		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
24		
25	Q1.11.10	Please confirm that the ALC representatives who visited the Kato site were not
26		told that the Arawana Road site might require a new transmission line right of
27		way across land within the Agricultural Land Reserve.
28	A1.11.10	This question is not relevant to the decision to locate the substation at either the
29		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
30		

1	Q1.11.11	Please confirm that the reference to the "Gibbard location" is to the Arawana
2		Road site.
3	A1.11.11	Confirmed.
4		
5	Q1.11.12	On what date did the ALC representatives visit the "Gibbard location"?
6	A1.11.12	This question is not relevant to the decision to locate the substation at either the
7		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
8		
9	Q1.11.13	Who was present?
10	A1.11.13	This question is not relevant to the decision to locate the substation at either the
11		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
12		
13	Q1.11.14	Please confirm that no residents of the community adjacent to the Gibbard
14		location were present when the ALC representatives visited the Gibbard
15		location. Alternatively, please give the names and addresses.
16	A1.11.14	This question is not relevant to the decision to locate the substation at either the
17		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
18		
19	Q1.11.15	Please confirm that no residents adjacent to the Gibbard location were notified
20		of the application for removal of the Gibbard property from the ALR for the
21		purpose of a substation.
22	A1.11.15	This question is not relevant to the decision to locate the substation at either the
23		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
24		
25	1.12.0	Reference: Exhibit B-2, Appendix A, "FortisBC Inc. Report to the BCUC on the
26		Status of the Naramata Substation Project, July 21, 2006," p.6, para.5.
27	Q1.12.1	Please confirm that the amended application for exclusion of the Gibbard
28		property from the ALR did not include exclusion of land from the ALR for the
29		purpose of a new transmission line right of way.
30	A1.12.1	The Gibbard property has not been excluded from the ALR.
31		

1	Q1.12.2	On what date did FortisBC execute the Gibbard site option?
2	A1.12.2	August 5, 2005.
3		
4	Q1.12.3	Was the option to purchase, or the purchase agreement, registered in the Land
5		Title Office?
6	A1.12.3	No.
7		
8	Q1.12.4	Please provide a list of the documents that were filed in the LTO concerning
9		FortisBC's purchase of the Gibbard location.
10	A1.12.4	Freehold Transfer, Statutory Right of Way and Statutory Right of Way Plan.
11		
12	Q1.12.5	Please provide copies of the documents that were filed in the LTO concerning
13		FortisBC's purchase of the Gibbard location.
14	A1.12.5	The requested information is attached as Appendix A1.12.5.
15		
16	1.13.0	Reference: Exhibit B-2, Appendix A, "FortisBC Inc. Report to the BCUC on the
17		Status of the Naramata Substation Project, July 21, 2006," p.6, para.6.
18	Q1.13.1	Please confirm that the "neighbourhood meeting" on June 1, 2006, was the first
19		opportunity for residents in the vicinity of the Arawana Road site to provide
20		input to FortisBC regarding the selection of the Arawana Road site.
21	A1.13.1	This question is not relevant to the decision to locate the substation at either the
22		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
23		
24	Q1.14.0 I	Reference: Exhibit B-2, Appendix A, "FortisBC Inc. Report to the BCUC on the
25		Status of the Naramata Substation Project, July 21, 2006," p.7, para.2.
26	Q1.14.1	In the report dated July 21, 2006, FortisBC states that it "is investigating a direct
27		cross-country line route west of the substation to 45 Line." [underline added] At
28		what point in time did FortisBC begin investigating a 'cross-country' TL route?
29	A1.14.1	This question is not relevant to the decision to locate the substation at either the
30		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
31		

1	Q1.14.2	Please provide, or identify in the filed materials, a 1:1000 scale map showing the
2		alignment of the "direct cross-country line route west of the substation to 45
3		Line" referred to in this paragraph.
4	A1.14.2	A map of the proposed alignment is found in Exhibit B-2, Appendix C, Appendix 2,
5		pg 16. In addition, refer to the response to BCUC IR1 Q2.5.6 and BCUC Appendix
6		A6.1.
7		
8	Q1.14.3	Please provide a copy of the FortisBC policy referred to in this paragraph.
9	A1.14.3	It is more accurate to state that negotiation of fair compensation is FortisBC standard
10		practice.
11		
12	Q1.14.4	Does FortisBC's policy and practice make a distinction between expropriating
13		fee simple property for a substation and expropriating a right of way for a new
14		transmission line? If so, please explain.
15	A1.14.4	FortisBC makes every effort to work with affected landowners to develop a solution
16		that is both technically feasible and provides the minimal impact to the landowner.
17		Expropriation is only considered as a last resort in any project.
18		
19	1.15.0	Reference: Exhibit B-2, Appendix A, "FortisBC Inc. Report to the BCUC on the
20		Status of the Naramata Substation Project, July 21, 2006," p.7, para.3.
21	Q1.15.1	Please explain the statement "A third distribution feeder will exit the substation
22		in the opposite direction." Does this apply only in the 'via Arawana Road'
23		transmission line route scenario? Please provide a map showing the location of
24		this third distribution line. Please indicate any portions that would be on new
25		right of way.
26	A1.15.1	A third future feeder would likely exit in a direction other than towards Naramata
27		Road depending on the location of the development.
28		
29		A third distribution feeder would likely follow existing right of way or road
30		allowance. Please see Appendix A1.15.1 attached.
31		

1	Q1.15.2	Does FortisBC currently take the position that a transmission line along the
2		Arawana Road route between 45 Line and the proposed Arawana Road
3		substation site is technically feasible?
4	A1.15.2	The transmission line along Arawana Road to the substation site is technically
5		feasible. Please also see the response to BCUC IR1 Q2.5.6.
6		
7	1.16.0	Reference: Exhibit B-2, Appendix A, "FortisBC Inc. Report to the BCUC on the
8		Status of the Naramata Substation Project, July 21, 2006," p.7, para.4.
9	Q1.16.1	Please explain the statement that "the parcel of land is transected by both
10		Naramata Road and Debeck Road."
11	A1.16.1	This can more accurately be stated as "bordered on the east and south sides by
12		Naramata Road and Debeck Road."
13		
14	1.17.0	Reference: Exhibit B-2, Appendix A, "FortisBC Inc. Report to the BCUC on the
15		Status of the Naramata Substation Project, July 21, 2006," p.7, para.5.
16	Q1.17.1	In making its evaluation of the aesthetic impacts of the Fire Hall site what
17		information or assumptions does FortisBC rely on regarding what future use
18		would be made of the Fire Hall site in the event that it is not used for a
19		substation?
20	A1.17.1	FortisBC has no knowledge as to what the Fire Hall site may be utilized for if it is not
21		used for a substation.
22		
23	Q1.17.2	Does FortisBC take the position that locating a substation on the Fire Hall site
24		would reduce value of any neighbouring properties?
25	A1.17.2	It is FortisBC's position that there would be no quantifiable negative impact on
26		property values.
27		
28	Q1.17.3	Please confirm that a portion of the Fire Hall site is now enclosed by a chain-link
29		fence and used at various times for a mobile transformer by FortisBC.
30	A1.17.3	FortisBC can confirm that a portion of the Fire Hall site is now occupied by a fenced
31		area for the mobile transformer and is used occasionally by FortisBC for the

- installation of the mobile transformer during emergency outage or maintenance situations.
 Q1.17.4 Please provide a photo or rendering showing the mobile transformer at the Fire Hall site and a rendering showing a substation at the Fire Hall site.
 A1.17.4 Please see the artist renderings shown below.
- 7

Artist rendering of mobile transformer at Fire Hall site.





1	Q1.18.0	Reference: Exhibit B-2, Appendix A, "FortisBC Inc. Report to the BCUC on the
2		Status of the Naramata Substation Project, July 21, 2006," p.8, para.3.
3	Q1.18.1	Does this mean that FortisBC is proposing a 6/8/10 MVA transformer for the
4		Naramata Substation Project?
5	A1.18.1	Yes, a 6/8/10 MVA class transformer is proposed for the Naramata Substation
6		project.
7		
8	Q1.18.2	Is it correct to infer from this paragraph that a 6/8/10 MVA transformer is an
9		appropriate size for a 10.4 MVA ultimate station loading?
10	A1.18.2	The projected winter peak of 10.4 MVA, which is of short duration, would be within
11		the emergency rating of this transformer.
12		
13	1.19.0	Reference: Exhibit B-2, Appendix A, "FortisBC Inc. Report to the BCUC on the
14		Status of the Naramata Substation Project, July 21, 2006," p.8, para.4.
15	Q1.19.1	Please update the information in this paragraph.
16	A1.19.1	FortisBC is not able to identify any information in the paragraph referenced that
17		requires updating.
18		
19	1.20.0	Reference: Exhibit B-2, Appendix A, "FortisBC Inc. Report to the BCUC on the
20		Status of the Naramata Substation Project, July 21, 2006," p.9, para.1.
21	Q1.20.1	Please confirm that "the substation site" here refers to the Arawana Road site.
22	A1.20.1	That is correct.
23		
24	Q1.20.2	Please provide a copy of the rezoning application referred to in the statement
25		that "the substation site is the subject of a rezoning application before RDOS.
26	A1.20.2	The rezoning application is attached as Appendix A1.20.2.

1	Q1.20.3	Does the rezoning application (for the Arawana Road substation site) specify
2		that the project includes the 'direct cross-country' new transmission line and
3		underbuilt distribution line?
4	A1.20.3	The application states "Routing options for the transmission lines are still being
5		investigated."
6		
7	Q1.20.4	Does the statement that a "typical schedule for a similar substation requires
8		approximately 19 weeks for construction" still apply regarding the proposed
9		Arawana Road site? Please provide, or identify in the filed materials, a current
10		construction duration estimate.
11	A1.20.4	The estimate of time for construction is still valid at approximately 19 weeks.
12		
13	Q1.20.5	Please confirm that construction of the substation at the Arawana Road site has
14		not commenced to date.
15	A1.20.5	Construction has not commenced at the Arawana Road site.
16		
17	Q1.20.6	Regarding the reference to "a temporary solution will be required to meet the
18		2006/2007 winter load," was such a temporary solution used to meet the
19		2006/2007 winter load? Please provide details.
20	A1.20.6	A temporary supply solution was not required to meet the winter 2006/2007 peak
21		load.
22		
23	Q1.20.7	What is the size, in MVA, of the mobile transformer?
24	A1.20.7	FortisBC owns a number of mobile transformers with two located in the Okanagan
25		area. Of these two, only the 32 MVA mobile is suitable for installation at Naramata.

1	Q1.20.8	If neither the Arawana Road site nor the Fire Hall site received zoning approval
2		prior to the Fall of 2008, would a temporary solution be required to meet the
3		2008/2009 winter load? If so, would such a solution be a mobile transformer at
4		the Fire Hall site?
5	A1.20.8	Based on forecast, a temporary solution would likely be required to meet the 2008/09
6		winter load. The new water pumping station added to the Naramata load represents
7		approximately 15% of the transformer capacity alone and when added to growth may
8		cause a failure of the existing transformer. The mobile transformer would be
9		considered as a temporary solution in that event.
10		
11	1.21.0	Reference: Exhibit B-2, Appendix A, "FortisBC Inc. Report to the BCUC on the
12		Status of the Naramata Substation Project, July 21, 2006," p.9, para.2.
13	Q1.21.1	Please confirm that FortisBC did not receive the concerns of the residents in
14		proximity to the Arawana Road site until after FortisBC had purchased the site
15		and obtained exemption of the site from the ALR.
16	A1.21.1	This question is not relevant to the decision to locate the substation at either the
17		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
18		
19	1.22.0	Reference: Exhibit B-2, Appendix A, "FortisBC Inc. Report to the BCUC on the
20		Status of the Naramata Substation Project, July 21, 2006," p.9, para.3.
21	Q1.22.1	Please confirm that in terms of proximity to system facilities the Fire Hall site is
22		superior to the Arawana Road site.
23	A1.22.1	The Fire Hall site is closer to the existing distribution and transmission facilities than
24		the Arawana Road site.
25		
26	Q1.22.2	Please confirm that in terms of municipal zoning, neither the Arawana Road site
27		nor the Fire Hall site would be acceptable unless and until there is an
28		amendment of the OCP and rezoning.
29	A1.22.2	Please see the response to NAFS IR1 Q1.3.1 above.
30		

1	1.23.0	Reference: Exhibit B-2, Appendix A, "FortisBC Inc. Report to the BCUC on the
2		Status of the Naramata Substation Project, July 21, 2006," p.9, para.4.
3	Q1.23.1	Regarding the reference to transmission and distribution lines "particularly if
4		routed along Arawana Road," please confirm that FortisBC's position at the
5		time proposed the direct cross-country route between 45 Line and the proposed
6		Arawana Road substation.
7	A1.23.1	There have been several options to provide transmission line access to the Arawana
8		Road site. The "direct cross country" route has been identified as the technically
9		preferred alternative. Please also see the response to BCUC IR1 Q2.5.6.
10		
11	Q1.23.2	Does FortisBC acknowledge that the transmission and distribution lines entering
12		and exiting the substation at the Arawana Road site would have significant
13		visual impact if the transmission line was routed along the direct cross-country
14		route?
15	A1.23.2	FortisBC does not consider the presence of a transmission line with underbuilt
16		distribution to have significant visual impact.
17		
18	1.24.0	Reference: Exhibit B-2, Appendix A, "FortisBC Inc. Report to the BCUC on the
19		Status of the Naramata Substation Project, July 21, 2006," p.9, para.5.
20	Q1.24.1	Please confirm that "the facilities proposed in this project" refers to a substation
21		at the Arawana Road site and a transmission line along a new right of way
22		directly cross-country from 45 Line to the Arawana Road site. If the facilities
23		also include distribution line changes, please identify them.
24	A1.24.1	The "facilities proposed in this project" do refer to a substation at Arawana Road and
25		a transmission line tie to the existing 45 Line along Naramata Road. Also included in
26		the project is the construction of two distribution feeders to tie into the existing
27		distribution feeder along Naramata Road.
28		
29		As noted in the response to BCUC IR1 Q2.5.6, there have been several options to
30		provide transmission line access to the Arawana Road site. The "direct cross
31		country" route has been identified as the technically preferred alternative. This

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1		alternative includes the construction of one distribut	ion circuit underbuilt on the
2		transmission line, and upgrading the existing distrib	ution line along Arawana Road to
3		meet current day standards.	
4			
5	Q1.24.2	Please provide the best evidence that FortisBC w	ould like the Commission to
6		consider in support of FortisBC's assertion that t	the proposed substation at the
7		Arawana Road site and a direct cross-country tra	ansmission line from 45 Line to
8		the Arawana Road site would not materially affe	ct the value of adjacent
9		properties.	
10	A1.24.2	Please see the response to BCUC IR1 Q4.4.1.	
11			
12	Q1.24.3	Please confirm that FortisBC is not proposing an	y visual mitigation regarding
13		the proposed direct cross-country new transmiss	ion line route between 45 Line
14		and the Arawana Road substation site.	
15	A1.24.3	FortisBC has evaluated the cost to construct the tran	smission line and one distribution
16		feeder underground from Naramata Road to the Ara	wana Road site. This option is
17		identified in the response to BCUC IR1 Q2.5.6. This	is option has not been identified
18		as a preferred option due to its higher cost.	
19			
20		FortisBC is not proposing any mitigation regarding	the overhead transmission or
21		distribution lines for this project other than minimiz	ing the amount of infrastructure to
22		the extent practical.	

1	Q1.24.4	Does FortisBC take the position that the compensation it would pay to the
2		owners of property required for an easement or right of way for the proposed
3		direct cross-country new transmission line between 45 Line and the Arawana
4		Road substation would be fully equal to the detrimental effect of such an
5		easement or right or way on the value of those properties?
6	A1.24.4	The compensation provided to landowners in return for the rights granted to FortisBC
7		through a transmission line easement is intended to reflect the loss of unmitigated use
8		of the property.
9		
10	1.25.0	Reference: Exhibit B-2, Appendix A, "FortisBC Inc. Report to the BCUC on the
11		Status of the Naramata Substation Project, July 21, 2006," p.10, para.2.
12	Q1.25.1	Please confirm that the most effective way to reduce the number of new poles
13		would be to select the Fire Hall not the Arawana Road site.
14	A1.25.1	The Fire Hall site would result in the fewest number of new poles installed.
15		
16	1.26.0	Reference: Exhibit B-2, Appendix A, "FortisBC Inc. Report to the BCUC on the
17		Status of the Naramata Substation Project, July 21, 2006," p.10, para.3.
18	Q1.26.1	Please confirm, or identify confirmation in the filed materials, that individuals
19		residing near the Arawana Road prospective substation site were not informed
20		that FortisBC was considering the Arawana Road site until after FortisBC had
21		made and executed an option to purchase the property.
22	A1.26.1	This question is not relevant to the decision to locate the substation at either the
23		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
24		
25	1.27.0 Re	ference: Exhibit B-2, Appendix A, "FortisBC Inc. Report to the BCUC on the
26		Status of the Naramata Substation Project, July 21, 2006," "Appendix A –
27		Regulatory History – Naramata Substation Project," p.11, para.2.

1	Q1.27.1	Please confirm that the quote from the description of the Naramata Substation
2		Project in the FortisBC 2005-2024 System Development Plan does not mention
3		either relocating the substation to a new location or building a $63~\mathrm{kV}$
4		transmission line along a new route.
5	A1.27.1	The project description contained in the 2005 SDP does not specify whether the
6		substation will be rebuilt on the existing or a new site. The accompanying 2005
7		Capital Plan, for which approval was sought and granted, was clear that a new
8		location would be required. The need for a new site was also the subject of cross
9		examination during the March 2005 oral hearing associated with the disposition of the
10		2005 Capital Plan. The 2006 SDP update also referred to a new site for the
11		substation.
12		
13	1.28.0	Reference: Exhibit B-2, Appendix A, "FortisBC Inc. Report to the BCUC on the
14		Status of the Naramata Substation Project, July 21, 2006," "Appendix A –
15		Regulatory History – Naramata Substation Project," p.11, para.3.
16	Q1.28.1	Please confirm that the quote from the FortisBC 2005 Revenue Requirements
17		Application, Volume 1, mentions the rebuild of the Naramata Substation at a
18		new site, but does not mention a requirement of any new transmission line route.
19	A1.28.1	This section of the Application deals with the substation and terminations. The need
20		for new transmission lines required to connect the new substation to the existing
21		transmission system is not explicitly mentioned therein.
22		
23	1.29.0	Reference: Exhibit B-2, Appendix A, "FortisBC Inc. Report to the BCUC on the
24		Status of the Naramata Substation Project, July 21, 2006," "Appendix A –
25		Regulatory History – Naramata Substation Project," p.11, para.4 to p.15.
26	Q1.29.1	Please confirm that the extract from the FortisBC 2005 Capital Expenditure
27		Plan (2005 RRA, Vol. 1) lists the "major project components" (on p.13) but does
28		not include in that list or elsewhere any new transmission line right of way
29		required.
30	A1.29.1	Please see the response to NAFS IR1 Q1.28.1 above.
31		

1	1.30.0	Reference: Exhibit B-2, Appendix A, "FortisBC Inc. Report to the BCUC on the
2		Status of the Naramata Substation Project, July 21, 2006," "Appendix A –
3		Regulatory History – Naramata Substation Project," p.16, para.2.
4	Q1.30.1	Please confirm that the quote from the FortisBC 2006 System Development Plan
5		Update does not mention any requirement of new transmission line right of way
6		for the Naramata Substation replacement project.
7	A1.30.1	Please see the response to NAFS IR1 Q1.28.1 above.
8		
9	1.31.0	Reference: Exhibit B-2, Appendix A, "FortisBC Inc. Report to the BCUC on the
10		Status of the Naramata Substation Project, July 21, 2006," "Appendix B –
11		Arawana Substation Site" p.19.
12	Q1.31.1	Please provide a map to the same level of detail showing the area to the north,
13		including the Fire Hall site.
14	A1.31.1	Please refer to BCUC Appendix A6.1.
15		
16	Q1.31.2	Please provide a copy of the map showing the proposed transmission line route
17		and with labels showing the residences or property of:
18		• Mr. and Mrs. Frank and Margaret Focken at 3034 Debeck Road,
19		• Mrs. Anne Reid at 3018 Debeck Road,
20		• Mrs. June & Mr. Dan Stewart at 3005 Debeck Road,
21		• Mr. and Mrs. Edward and Elizabeth McLean at 3010 Debeck Road,
22		• Mr. and Mrs. David and Donna Andrew at 2905 Arawana Road,
23		• Mr. and Mrs. Bliss and Hellen Thompson at 2955 Arawana Road,
24		• Mr. Howard Wright at 2965 Gammon Road,
25		 Mr. and Mrs. Joe and Gayle Schnitzer at 2940 Naramata Road,
26		• Mr. and Mrs. Erik and Suzanne Pedersen 3032 Spruce Drive,
27		 Mr. Michel Coton at 3010 Ponderosa Drive,
28		• Mr. Jeffrey Reynolds and Ms. Christine Brennan at 3045 Debeck Road, and
29		• Ms. Carolyn King at 3015 Spruce Drive.
30	A1.31.2	Please refer to BCUC Appendix A6.1.
31		

1	1.32.0	Reference: Exhibit B-2, Appendix A, "FortisBC Inc. Report to the BCUC on the
2		Status of the Naramata Substation Project, July 21, 2006," "Appendix C – Sites
3		Evaluated for Naramata Substation Project" p.20.
4	Q1.32.1	Please confirm that the size of the indicated sites on this map is the size of the
5		subject property, not necessarily the size of the final site or the size of the fenced
6		area within the final site.
7	A1.32.1	This question is not relevant to the decision to locate the substation at either the
8		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
9		
10	Q1.32.2	Please proved a map showing the 63 kV transmission line route for each of the
11		Naramata Development Corp. Property site, the Elliot Property site, the
12		Shannon Property site, the Bloomfield Property site, the Shaske Property site
13		and the Brownlee Property site.
14	A1.32.2	This question is not relevant to the decision to locate the substation at either the
15		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
16		
17	Q1.32.3	If the new Naramata substation was located close to 73 Line (230 kV) would it be
18		feasible to supply the substation with a 63 kV transmission line along the existing
19		73 Line right of way?
20	A1.32.3	This question is not relevant to the decision to locate the substation at either the
21		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
22		
23	Q1.32.4	Please provide, or identify in the filed materials, a map showing the Naramata
24		substation distribution lines, existing and proposed. Please indicate on the map
25		the centre of the load.
26	A1.32.4	Please refer to the response to NAFS IR1 Q1.1.2 above.
27		
28	1.33.0	Reference: Exhibit B-2, Appendix A, "FortisBC Inc. Report to the BCUC on the
29		Status of the Naramata Substation Project, July 21, 2006," "Appendix D –
30		Rendition of Substation at Kato Site" p.22.

1	Q1.33.1	Please confirm that the rendition shown in both photos is on the <i>north</i> portion of
2		the Kato property.
3	A1.33.1	This question is not relevant to the decision to locate the substation at either the
4		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
5		
6	Q1.33.2	Please provide equivalent renditions showing the substation in the south portion
7		of the Kato property, where it was at one time FortisBC's preferred site.
8	A1.33.2	This question is not relevant to the decision to locate the substation at either the
9		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
10		
11	1.34.0	Reference: Exhibit B-2, Appendix A, "FortisBC Inc. Report to the BCUC on the
12		Status of the Naramata Substation Project, July 21, 2006," "Appendix D –
13		Rendition of Substation at Gibbard (Selected) Site" p.23.
14	Q1.34.1	For both photos, please provide a map showing the location from which the
15		photo was taken and the direction.
16	A1.34.1	These are preliminary artist renderings of the proposed facilities. Current artist
17		renderings are shown in the response to BCUC IR1 Q6.1.
18		
19	Q1.34.2	Is the location of the substation shown in the photo accurate in relation to the
20		current proposal?
21	A1.34.2	These are preliminary artist renderings of the proposed facilities. Current artist
22		renderings are shown in the response to BCUC IR1 Q6.1.
23		
24	Q1.34.3	If the orange shape in the top photo is a marker flag, please indicate its location
25		on the map.
26	A1.34.3	These are preliminary artist renderings of the proposed facilities. Current artist
27		renderings are shown in the response to BCUC IR1 Q6.1.
28		

1	Q1.34.4	Please show on the map the fenced area of the proposed substation, the locations
2		of new and existing transmission and distribution lines and poles, and the
3		location of the access road.
4	A1.34.4	These are preliminary artist renderings of the proposed facilities. Current artist
5		renderings are shown in the response to BCUC IR1 Q6.1.
6		
7	Q1.34.5	Are the superimposed transmission and distribution lines and poles intended to
8		be in the same locations in the two photos?
9	A1.34.5	These are preliminary artist renderings of the proposed facilities. Current artist
10		renderings are shown in the response to BCUC IR1 Q6.1.
11		
12	Q1.34.6	In the bottom photo, are the transmission lines shown according to the 'via
13		Arawana Road' route or the 'direct cross-country' route?
14	A1.34.6	These are preliminary artist renderings of the proposed facilities. Current artist
15		renderings are shown in the response to BCUC IR1 Q6.1.
16		
17	1.35.0	Reference: Exhibit B-2, Appendix A, "FortisBC Inc. Report to the BCUC on the
18		Status of the Naramata Substation Project, July 21, 2006," "Appendix D –
19		Photographs of Fire Hall Site on Crown Land" p.24.
20	Q1.35.1	For both photos, please provide a map showing the location from which the
21		photo was taken and the direction.
22	A1.35.1	These are preliminary artist renderings of the proposed facilities. Current artist
23		renderings are shown in the response to BCUC IR1 Q6.1.
24		
25	Q1.35.2	Please show on the map the fenced area of the potential substation, the locations
26		of new and existing transmission and distribution lines and poles, and the
27		location of the access.
28	A1.35.2	These are preliminary artist renderings of the proposed facilities. Current artist
29		renderings are shown in the response to BCUC IR1 Q6.1.
30		

1	1.36.0	Reference: Exhibit B-2, Appendix A, "FortisBC Inc. Report to the BCUC on the
2		Status of the Naramata Substation Project, July 21, 2006," "Appendix E – Letter
3		to participants at June 1, 2006 Neighbourhood Meeting" pp.25-27
4	Q1.36.1	Please provide copies of all written material provided by FortisBC at the June 1,
5		2006, public meeting (as distinct from the referenced letter that was circulated
6		after the meeting.)
7	A1.36.1	This question is not relevant to the decision to locate the substation at either the
8		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
9		
10	Q1.36.2	Please provide copies of speaking notes for FortisBC's presentation at the June
11		1, 2006, public meeting.
12	A1.36.2	This question is not relevant to the decision to locate the substation at either the
13		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
14		
15	Q1.36.3	What was the date on which the referenced letter was sent out?
16	A1.36.3	The letter was sent out on June 24, 2006.
17		
18	Q1.36.4	Noting that the referenced letter states that "The meeting was held to inform
19		local residents and to discuss the line routing options", [underline added]:
20		please confirm that at the June 1, 2006, public meeting FortisBC was proposing
21		that the transmission line from 45 Line to the proposed Arawana Road site
22		would be located along Arawana Road. Alternatively, please provide
23		documentation of FortisBC having publicly raised the possibility of a 'direct
24		cross-country' TL route at the June 1, 2006, public meeting.
25	A1.36.4	This question is not relevant to the decision to locate the substation at either the
26		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
27		
28	Q1.36.5	Please confirm that approximately two weeks or less prior to the June 1, 2006,
29		public meeting FortisBC representatives asked landowners on the 'direct cross-
30		country' route if they would be willing to sell a right of way for a transmission

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1		line, that they were told 'no,' and that they said	to the landowners words to the
2		effect that 'we had to ask.'	
3	A1.36.5	This question is not relevant to the decision to locat	te the substation at either the
4		Arawana Road or Fire Hall site, which is the subject	et of this regulatory proceeding.
5			
6	Q1.36.6	Please confirm that in a side conversation at the	meeting, a FortisBC
7		representative told a landowner that FortisBC d	id <i>not</i> intend to put the new
8		transmission line on the private property that w	as later called the 'direct cross-
9		country' route.	
10	A1.36.6	This question is not relevant to the decision to locat	te the substation at either the
11		Arawana Road or Fire Hall site, which is the subject	et of this regulatory proceeding.
12			
13	Q1.36.7	Re p.25, para.4, please confirm that the reference	ed comments by the residents at
14		the meeting were focused on the Arawana Road	site; and there was no Fire Hall
15		site being publicly discussed at the meeting.	
16	A1.36.7	This question is not relevant to the decision to locat	te the substation at either the
17		Arawana Road or Fire Hall site, which is the subject	et of this regulatory proceeding.
18			
19	Q1.36.8	Re p.25, para.5, please list all of the elements of	uncertainty regarding the
20		Arawana Road site that caused FortisBC not to	notify adjacent residents prior to
21		FortisBC's exercise of the option to purchase the	e site. In this context, please
22		reconcile the fact that residents in proximity to t	he Kato sites were notified prior
23		to FortisBC having entered option to purchase a	greements regarding those sites,
24		whereas residents in proximity to the Arawana l	Road site were not notified prior
25		to FortisBC having entered (and executed) an op	otion to purchase that site.
26	A1.36.8	This question is not relevant to the decision to locat	te the substation at either the
27		Arawana Road or Fire Hall site, which is the subject	ct of this regulatory proceeding.

1	Q1.36.9	Re p.25, para.5, please give examples of the situations referred to in the
2		statement "Often FortisBC is able to present a number of firm options to the
3		public for information and comment as part of a project."
4	A1.36.9	This question is not relevant to the decision to locate the substation at either the
5		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
6		
7	Q1.36.10	Re p.25, para.5, and the statement "In the case of Naramata, only one potential
8		substation site of six that were examined proved possible for substation
9		construction and met necessary environmental, BCUC, and engineering criteria
10		and was available for sale": what environmental, BCUC or engineering criteria
11		did the south Kato site not meet? Was the right of way for the new transmission
12		line for the Arawana site available for sale?
13	A1.36.10	This question is not relevant to the decision to locate the substation at either the
14		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
15		
16	Q1.36.11	In the statement quoted in the preceding IR, what are the environmental criteria
17		that are referred to? What are the BCUC criteria that are referred to?
18	A1.36.11	This question is not relevant to the decision to locate the substation at either the
19		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
20		
21	Q1.36.12	Re p.25, para.5, and the statement "We are acutely aware that local residents
22		need to know what is happening in their neighbourhoods, and would like any
23		project planning process to consider your views and comments": Please confirm
24		that FortisBC did not disclose to residents in the vicinity of the Arawana Road
25		site that the site was being considered for a substation prior to the exercise of the
26		option to purchase the site.
27	A1.36.12	This question is not relevant to the decision to locate the substation at either the
28		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
29		
30	Q1.36.13	Re p.25, para.5, and the statements "FortisBC is committed to keeping you
31		informed. The neighbourhood meeting held in Naramata on June 1, 2006 was

	precisely for that purpose": Please confirm that attendees at the meeting were
	told that selection of the Arawana Road site was a "done deal."
A1.36.13	This question is not relevant to the decision to locate the substation at either the
	Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
Q1.36.14	Re p.25, para.6, please provide, or identify in the file materials, details of the
	dates and names and copies of the written confirmation of occasions in which
	FortisBC kept local government informed of each of the "key points during
	project planning, including when any given site is up for consideration for a
	substation or other electrical system infrastructure project." Please include
	FortisBC's information to local government regarding the routing of a new
	transmission line from 45 Line to the proposed Arawana Road substation both
	direct cross-country and via Arawana Road.
A1.36.14	This question is not relevant to the decision to locate the substation at either the
	Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
Q1.36.15	Re p.26, para.4, please provide copies of any reports upon which FortisBC relies
	to support the claim that "Experience of qualified property experts familiar with
	past transmission and substation projects indicates that proximity of a
	substation is not a significant factor in a buyer's decision to purchase or not
	purchase a home, particularly if a substation is built with visual quality in mind,
	using vegetation and/or a wall as a buffer."
A1.36.15	This is a general statement based on verbal communications with consulting land
	agents on various projects.
Q1.36.16	Has FortisBC reviewed the evidence regarding property value impacts of
	transmission line proximity in the B.C. Utilities Commission proceeding
	concerning B.C. Transmission Corporation's application for a Certificate of
	Public Convenience and Necessity for the Vancouver Island Transmission
	Project? If so, what conclusions does FortisBC draw in relation to the impact of
	the proposed new transmission line right of way from 45 Line to the proposed
	A1.36.13 Q1.36.14 Q1.36.15 A1.36.15 Q1.36.15

1		Arawana Road substation site, either direct cross-country or via Arawana
2		Road? If not, why not?
3	A1.36.16	FortisBC has reviewed the BCUC's decision in VITR but has not reviewed the
4		evidence filed in that proceeding except to note that virtually all of the real property
5		in issue was encumbered with existing rights of way for utilities prior to the
6		application for the CPCN by BCTC. FortisBC does not believe that a conclusion as
7		to impacts to property values can be drawn from VITR in regard to property in
8		Naramata either for the cross country or Awarana Road options, especially as these
9		impacts may be said to arise from EMF concerns.
10		
11	Q1.36.17	Please provide copies of any available written records concerning
12		communication between FortisBC and the Ministry of Transport or other
13		government agency concerning acquisition of the Fire Hall site for the purpose
14		of a substation.
15	A1.36.17	FortisBC has corresponded by email with representatives of the Ministry of
16		Transportation, Okanagan-Shuswap District, with regard to the possible acquisition of
17		the Fire Hall site. The purpose of the correspondence was to confirm that its
18		preliminary design for a substation at the Fire Hall site would not impact traffic
19		safety, and to obtain information regarding the process by which FortisBC would
20		make application to purchase the property. FortisBC has not received permission
21		from MoT to release this correspondence. If requested by the BCUC, FortisBC will
22		provide the correspondence, in confidence, to the BCUC.
23		
24	1.37.0	Reference: Exhibit B-2, Appendix A, "FortisBC Inc. Report to the BCUC on the
25		Status of the Naramata Substation Project, July 21, 2006," "Appendix ${f E}$ –
26		Information
27		Provided at Neighbourhood Meeting, attached to Letter to participants at June
28		1, 2006 Neighbourhood Meeting" pp.28-29

1	Q1.37.1	Re p.28, bullet 3, please confirm that the BCUC approval of FortisBC's 2005
2		capital plan did not imply approval of one particular new site for the Naramata
3		substation.
4	A1.37.1	Confirmed.
5		
6	Q1.37.2	Re p.28, bullet 13, please confirm that the Fire Hall site is on the existing 45 Line
7		transmission line and that the proposed Arawana Road site is approximately
8		half a kilometer away from the existing transmission line.
9	A1.37.2	The Fire Hall site is situated to the immediate east of 45 Line, and the Arawana Road
10		site is located approximately 550 meters from Naramata Road.
11		
12	Q1.37.3	Re p.29, bullet 2, please confirm that in applying the "land availability" criteria
13		to the Arawana Road site FortisBC did not apply the criteria to the new
14		transmission line right of way that would be required.
15	A1.37.3	FortisBC considers the land availability criteria when considering line routes as well
16		as substation sites.
17		
18	Q1.37.4	Re p.29, bullet 2, and the reference to the "number of directly impacted
19		residents or landowners in the immediate area": Please provide the number of
20		directly impacted residents or landowners in the immediate area of (a) the
21		Arawana Road site and the required new transmission line right of way and (b)
22		the Fire Hall site.
23	A1.37.4	"Direct impact" is defined as limiting land use or having a direct invasive effect to a
24		resident. This includes the requirement for easements and rights of way as well as
25		facilities immediately adjacent to residents, such as a new or larger pole on the street
26		in front of their home. This is in contrast to an "indirect impact", which is where a
27		resident can perhaps see new facilities from a further distance but do not have their
28		property physically impacted. Please see BCUC Appendix A6.1.
29		
30	Q1.37.5	Re p.29, bullet 4, and the reference to FortisBC having consulted with the
31		Naramata Advisory Planning Committee (APC) of the Regional District of

1		Okanagan Similkameen: please confirm that at the time FortisBC consulted with
2		the APC regarding the siting of the substation Mr. Bob Gibbard, the son of the
3		owner of the Gibbard property and representative of the Gibbard family in the
4		sale of the portion of the Gibbard property to FortisBC, and Mr. Tom Hoenish,
5		owner and resident of property immediately adjacent to the north Kato site and
6		vocal opponent of the north Kato site, were members of the APC.
7	A1.37.5	This question is not relevant to the decision to locate the substation at either the
8		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
9		
10	Q1.37.6	Re p.29, bullet 5, and the statement "FortisBC is aware from past meetings with
11		residents across its Service Territory that few people want a substation near
12		their neighbourhood or place of business, and that given the choice many
13		residents would rather not see substations or power lines at all": Please reconcile
14		that statement with FortisBC's statement that "Experience of qualified property
15		experts familiar with past transmission and substation projects indicates that
16		proximity of a substation is not a significant factor in a buyer's decision to
17		purchase or not purchase a home" (Exhibit B-2, p.26, para.4.)
18	A1.37.6	FortisBC does not believe that these statements need to be reconciled as they are not
19		necessarily in conflict. It does not follow from the acknowledgement that people
20		would rather not see a substation, given the choice, that its presence is a significant
21		factor in the buying decision.
22		
23	1.38.0	Reference: Exhibit B-2, Appendix C, "August 11, 2006, FortisBC response to
24		BCUC IR1" BCUC IR A1.1, p.1, bullet 2
25	Q1.38.1	Please confirm that in evaluating the land parcels FortisBC did not apply the
26		'land availability' parameter to any required new transmission or distribution
27		line rights of way associated with a particular substation site.
28	A1.38.1	FortisBC considers the land availability criteria when considering line routes as well
29		as substation sites.
30		

1	1.39.0	Reference: Exhibit B-2, Appendix C, "August 11, 2006, FortisBC response to
2		BCUC IR1" BCUC IR A1.1
3	Q1.39.1	Re p.1, bullet 6, please confirm that in evaluating the land parcels FortisBC did
4		not apply the 'impact on other landowners' parameter to any required new
5		transmission or distribution line rights of way associated with a particular
6		substation site.
7	A1.39.1	FortisBC considers the impact on landowners for all its projects, including
8		substations, transmission and distribution lines.
9		
10	Q1.39.2	Re p.1, lines 19-25, p.2, lines 1-9: Why does the list of sites provided in the IR
11		response not include the Naramata Development Corporation property, which is
12		shown on the map Appendix 1, p.17?
13	A.39.2	This question is not relevant to the decision to locate the substation at either the
14		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
15		
16	Q1.39.3	Please provide Property Investigated information for the Naramata
17		Development Corporation property.
18	A1.39.3	This question is not relevant to the decision to locate the substation at either the
19		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
20		
21	Q1.39.4	Re p.3, para.1, please provide, or identify in the filed material, a map showing
22		the Fire Hall site, the adjacent roadways and Ministry of Transport minimum
23		setback distances.
24	A1.39.4	Please refer to BCUC Appendix A4.1.3. The sketch plan shows the map of the Fire
25		Hall site with the preliminary station general arrangement, and property lines as
26		identified by the Ministry of Transportation. Setback distances have been identified
27		by the Ministry of Transportation as 12.5 meters from the centerline of Naramata
28		Road, and 10 meters from the centerline of Debeck Road
29		

1	Q1.39.5	Re p.3, para.2, please identify on the map the location of the portion of the Fire
2		Hall site owned by MOT and leased to RDOS.
3	A1.39.5	Please refer to BCUC Appendix A4.1.3. The area currently leased to RDOS is
4		identified on the sketch plan.
5		
6	Q1.39.6	Re p.3, para.2, please confirm that until the existing Naramata substation is
7		replaced FortisBC's contingency plan is to use a mobile transformer at the Fire
8		Hall site.
9	A1.39.6	That is correct for emergency purposes only.
10		
11	Q1.39.7	Re p.4, para.1, and the statement that "at least one local landowner who lives
12		adjacent to the [Vukelich, existing substation] property is adamantly opposed to
13		siting a new substation near his land": Please provide the name of this
14		landowner. Please reconcile the inclusion of this observation as a factor going
15		toward rejection of the Vukelich site with FortisBC's failure to obtain input
16		from landowners and residents adjacent to the Arawana Road site prior to
17		purchase of the site by FortisBC.
18	A1.39.7	This question is not relevant to the decision to locate the substation at either the
19		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
20		
21	Q1.39.8	Re p.4, Shannon, Bloomfield, Shaske and Brownlee properties: Please confirm
22		that these sites are closer to the existing right of way for 73 Line (230 kV) than to
23		45 Line (63 kV). Would it be technically feasible to relocate 45 Line to the 73
24		Line right of way? What would be the cost? What potential substation sites (for
25		the Naramata area) would be suitable if the 63 kV transmission line from
26		Penticton was routed along the 73 Line right of way?
27	A1.39.8	This question is not relevant to the decision to locate the substation at either the
28		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
29		

1	Q1.39.9	Re pp.4-5, "Kato (initial preferred location)": Please confirm that the discussion
2		of the Kato site with representatives of the Agricultural Land Commission
3		included discussion of the Gibbard property as an alternative location.
4	A1.39.9	This question is not relevant to the decision to locate the substation at either the
5		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
6		
7	Q1.39.10	Re p.5, "Gibbard (subsequent preferred site)" and the statement "there is some
8		local public concern about the installation of the substation": Please confirm
9		that the "public concern" could be accurately described as 'adamant
10		opposition,' using the terminology FortisBC used regarding a neighbour's
11		opinion of the Kato site.
12	A1.39.10	This question is not relevant to the decision to locate the substation at either the
13		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.
14		
15	Q1.39.11	Please confirm that the "local public concern" extends to the siting of a new
16		transmission line either direct cross-country or via Arawana Road, as well as to
17		the substation itself.
18	A1.39.11	It is not possible to infer from the referenced material whether or not the concern
19		extends to the transmission line. The comment reflects a general sentiment.
20		
21	1.40.0	Reference: Exhibit B-2, Appendix C, "August 11, 2006, FortisBC response to
22		BCUC IR1" BCUC IR A2.1
23	Q1.40.1	Please provide, or identify in the filed materials, detailed maps showing the
24		dimensions of the Fire Hall site, the Arawana Road site, the Kato site and the
25		Vukelich (existing) site. Indicate nominal property dimensions, construction
26		setbacks requirements, and drainage and slope constraints.
27	A1.40.1	Please refer to BCUC Appendix A4.1.3. Note that the maps requested are shown
28		only for the subject properties, namely the Arawana Road site and the Fire Hall site.
29		Also see the response to Andrew Q1.1 and Q1.2.
30		

1	1.41.0	Reference: Exhibit B-2, Appendix C, "August 11, 2006, FortisBC response to
2		BCUC IR1" BCUC IR A2.2 and A2.1
3	Q1.41.1	Please confirm that the statement "The area required for the proposed
4		substation is approximately 40 meters by 50 meters including the required safety
5		zone" (A2.2) refers to the same measurements (i.e., 'apples to apples') as are
6		given in A2.1 "Fire Hall site dimensions: 35 meters by 45 meters."
7	A1.41.1	As stated in Exhibit B-2, Appendix C page 6 A2.1, the 35 meters x 45 meters
8		dimensions reference the estimated size of the land parcel at the Fire Hall site to
9		construct a substation. Provided in the same answer is the Arawana Road site
10		dimensions (Gibbard Property) of 80 meters x 150 meters. Q2.2 in Appendix C of
11		Exhibit B-2 outlines the proposed size of a substation including a perimeter safety
12		zone, not the useable space available at a particular site.
13		
14	1.42.0	Reference: Exhibit B-2, Appendix C, "August 11, 2006, FortisBC response to
15		BCUC IR1" BCUC IR A3.4.
16	Q1.42.1	Re the statement that "Right of way expropriation for the 63 kV line from 45
17		Line to the Gibbard site would only require a statutory right of way ("SR/W") to
18		be acquired, and would still allow the present and existing land use (agriculture)
19		to continue with minimal impact (pole and anchor installation) to that use": Is it
20		FortisBC's position that from its perspective the difference between
21		expropriating a right of way interest and expropriating a fee simple interest is
22		solely due to the difference in the effect of the taking on existing use of the
23		property? Does FortisBC consider that a difference in the cost of expropriating a
24		right of way and expropriating a fee simple interest is also relevant?
25	A1.42.1	Yes, to both questions. Please also see the response to NAFS IR1 Q1.14.4 above.
26		
27	Q1.42.2	If FortisBC were to acquire a right of way and construct a transmission line with
28		underbuilt distribution line along the 'direct cross-country' route, would
29		FortisBC require ongoing provision for vehicle access to the poles? Specifically,
30		would FortisBC commit to allowing the right of way to be used for growing

1		grape vines (after construction had been completed) if it was understood that
2		growing grape vines was incompatible with vehicle access to the poles?
3	A1.42.2	FortisBC would require an access agreement to facilitate maintenance of its plant.
4		This can be achieved in several ways, and would be part of the negotiations with the
5		affected landowners.
6		
7	Q1.42.3	Would compensation for expropriation of additional land adjacent to the
8		existing substation site be determined by the greater of the "Before and After"
9		approach and the "Unit Value" approach, as set out for compensation for an
10		SR/W?
11	A1.42.3	The cost of either approach would be dependent on market value at the time of
12		expropriation.
13		
14	Q1.42.4	For expropriation of additional land adjacent to the existing substation site,
15		please provide, or identify in the filed materials, the area (size) of land required,
16		the cost under the ''Before and After'' approach and the cost under the ''Unit
17		Value" approach.
18	A1.42.4	The area of land required would be approximately 2.5 acres. The cost of either
19		approach would be dependent on market value at the time of expropriation.
20		
21	Q1.42.5	For expropriation of an SR/W direct cross-country between 45 Line and the
22		proposed Arawana Road site, please provide, or identify in the filed materials,
23		the area (size) of land required, the cost under the "Before and After" approach
24		and the cost under the "Unit Value" approach.
25	A1.42.5	The corridor width would be 10 meters. The cost of either approach would be
26		dependent on market value at the time of expropriation.

1	Q1.42.6	Does FortisBC acknowledge that the market value of the properties on which
2		rights of way would have to be expropriated is substantially higher than the
3		value of the properties on the basis of agricultural income-producing potential?
4	A1.42.6	It is FortisBC's understanding that the market value of these properties may exceed
5		the value based on agricultural income-producing potential.
6		
7	1.43.0	Reference: Exhibit B-2, Appendix C, "August 11, 2006, FortisBC response to
8		BCUC IR1" BCUC IR A4.1.
9	Q1.43.1	Please confirm that FortisBC understood this IR to refer to rebuilding the
10		substation at the existing site without expansion of the size of the existing site.
11	A1.43.1	The substation described in this project cannot be located on the existing site and as
12		such, this option was not considered when responding to the referenced IR.
13		
14	1.44.0	Reference: Exhibit B-2, Appendix C, "August 11, 2006, FortisBC response to
15		BCUC IR1" BCUC IR A4.2.
16	Q1.44.1	What is the cost of decommissioning the existing Naramata Substation site,
17		assuming it is not to be used in the future for electrical infrastructure?
18	A1.44.1	The cost to decommission the existing Naramata Substation is approximately
19		\$150,000.
20		
21	Q1.44.2	What would be the cost of building a new substation on an expanded version of
22		the existing site? Please specify the cost of decommissioning the existing site,
23		assuming it would be used for the new substation.
24	A1.44.2	This question is not relevant to the decision to locate the substation at either the
25		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.

1	Q1.44.3	Please provide, or identify in the filed material, a map showing the location of		
2		the "load in the southeast part of the community" that would be met by a future		
3		third feeder. Please show the options for routing this third feeder where the		
4		substation is located at the existing site, the Fire Hall site, the Kato site, and the		
5		Arawana Road site.		
6	A1.44.3	Please refer to the response to NAFS IR1 Q1.1.2.		
7				
8	1.45.0	Reference: Exhibit B-2, Appendix C, "August 11, 2006, FortisBC response to		
9		BCUC IR1" BCUC IR A4.5.		
10	Q1.45.1	If the substation were constructed at the Fire Hall site, what would be done with		
11		the segment of 45 Line between the Fire Hall site and the existing substation site		
12		(Vukelich)?		
13	A1.45.1	The segment of 45 Line between the Fire Hall site and the existing substation site		
14		would be left in place for future use as a distribution circuit.		
15				
16	Q1.45.2	If the substation were constructed at the Arawana Road site, what would be		
17		done with the segment of 45 Line between the tap off 45 Line and the existing		
18		substation site (Vukelich)?		
19	A1.45.2	The segment of 45 Line between Arawana Road and the existing substation site		
20		would be left in place for future use as a distribution circuit.		
21				
22	1.46.0	Reference: Exhibit B-2, Appendix C, "August 11, 2006, FortisBC response to		
23		BCUC IR1" BCUC IR A5.1.		
24	Q1.46.1	Please confirm that neither Option 1 nor Option 2 includes land costs either for		
25		anchoring easements or expropriation.		
26	A1.46.1	That is correct.		
27				
28	1.47.0	Reference: Exhibit B-2, Appendix C, "August 11, 2006, FortisBC response to		
29		BCUC IR1" BCUC IR A5.2.		

1	Q1.47.1	Regarding Transmission Line Route Option 1 (via Arawana Road), please		
2		provide the street addresses of properties on which anchor locations would		
3		require land rights to be obtained.		
4	A1.47.1	The proposed alignment via Arawana Road has not had detailed design completed.		
5		As a result, the exact location of anchors and land right determination has not been		
6		completed.		
7				
8	Q1.47.2	Regarding Transmission Line Route Option 2 (direct cross-country), please		
9		provide the street addresses of the properties on which rights of way would have		
10		to be obtained.		
11	A1.47.2	The property owners adjacent to the transmission line route Option 2 are 2965		
12		Gammon Road and/or 2975 Gammon Road and 2955 Arawana Road and/or 2905		
13		Arawana Road.		
14				
15	Q1.47.3	For each property, please provide FortisBC's most current information on		
16		whether the owner is a willing vendor.		
17	A1.47.3	FortisBC is not in negotiations with property owners.		
18				
19	Q1.47.4	For each property please indicate whether FortisBC has informed the owner in		
20		writing of its intentions regarding the lands in question. If not, why not?		
21	A1.47.4	Discussions regarding the acquisition of lands or rights of way are preliminary in		
22		nature at this time as a site for the substation has not yet been determined.		
23				
24	Q1.47.5	Why did FortisBC use the phrase "from <u>at least two</u> property owners"		
25		[underline added]?		
26	A1.47.5	Based on the preliminary review, FortisBC only identified two property owners		
27		affected by the proposed line route. Further review has revealed there may be four		
28		property owners affected by the proposed construction depending on the final line		
29		routing.		
30				

1	1.48.0	Reference: Exhibit B-2, Appendix C, "August 11, 2006, FortisBC response to	
2		BCUC IR1" BCUC IR A5.3.	
3	Q1.48.1	Please confirm that in terms of the aesthetic impact of new transmission line	
4		routes, the Fire Hall site would be superior to either of the two TL route options	
5		to the Arawana Road substation site.	
6	A1.48.1	The Fire Hall site will result in less infrastructure to connect the substation to the	
7		adjacent transmission and distribution lines.	
8			
9	Q1.48.2	Does FortisBC acknowledge that the construction of a new 63 kV transmission	
10		line with underbuilt distribution line along a new right of way over several	
11		bucolic small acreages with notable views of the southern end of Okanagan Lake	
12		would have a negative aesthetic impact?	
13	A1.48.2	FortisBC acknowledges that there may be some aesthetic impact, however there is no	
14		quantifiable material impact on the land.	
15			
16	1.49.0	Reference: Exhibit B-2, Appendix C, "August 11, 2006, FortisBC response to	
17		BCUC IR1" BCUC IR A5.4.	
18	Q1.49.1	Please provide, or identify in the filed material, the minutes of the August 15,	
19		2006, meeting of the Naramata Advisory Planning Committee.	
20	A1.49.1	FortisBC does not have access to the minutes as this meeting, if held. Please see the	
21		response to Q1.53.1 and Appendix A1.53.1 for the October 11, 2006 minutes.	
22			
23	1.50.0	Reference: Exhibit B-2, Appendix D, "September 15, 2006, FortisBC letter to	
24		BCUC and further response to BCUC IR1" BCUC IR A2.1	
25	Q1.50.1	Please provide, or identify in the filed material, a copy of the engineering review	
26		of the Fire Hall site undertaken to determine if it the site was suitable.	
27	A1.50.1	The suitability of the Fire Hall site is discussed in the following filed documents	
28		Exhibit B-2, Appendix C to H.	
29			
30		A formalized engineering report has not been compiled.	
31			

1	1.51.0	Reference: Exhibit B-2, Appendix D, "September 15, 2006, FortisBC letter to	
2		BCUC and further response to BCUC IR1" BCUC IR A4.3.	
3	Q1.51.1	Re p.3, bullet 1, if the only practical way to achieve a flat footprint for the	
4		substation at the existing site as well as access for service vehicles and the mobile	
5		substation would be the excavate to road grade, does the same apply to the	
6		proposed Arawana Road site? If not, why not?	
7	A1.51.1	It is anticipated that the Arawana Road site can be leveled with a cut/fill balance	
8		(refer to BCUC IR1, Q4.1.3 - The sketch plan for the Arawana Road site includes	
9		proposed civil work). At the existing substation location, it is anticipated that the	
10		entire area required for a new substation would require excavation to bring it to an	
11		elevation that could be accessed from Naramata Road.	
12			
13	Q1.51.2	Re p.3, bullet 1, please explain why achieving a level footprint for an	
14		approximately 40 meters by 50 meters substation (Exhibit B-2, Appendix C,	
15		BCUC IR1 A2.2) would require a prepared site of approximately 80m x 80m	
16		inclusive of access and the proper soil sloping.	
17	A1.51.2	The required area of 80 meters by 80 meters anticipates the impact on the land once	
18		cut and fill operations have been completed to achieve the level substation area on	
19		sloped land. Further review indicates that this area may increase to approximately 80	
20		meters by 100 meters based on the final fenced area of the substation.	
21			
22	Q1.51.3	Does the approach contemplated in this IR response involve using ground	
23		sloping rather than a retaining wall? What would be the size of the required	
24		prepared site at the existing location if a retaining wall approach was used?	
25	A1.51.3	At this time, it is anticipated that the construction would utilize ground sloping rather	
26		than a retaining structure. A retaining structure adds significant cost to the project but	
27		can be considered to increase the useable flat area on the site. The actual size of the	
28		area required if a retaining wall was used varies according to the type of wall, height	
29		of wall and the amount of excavation required to install it. It can be stated that the	
30		impact on the land would be less if a retaining structure were to be used.	
31			

1	Q1.51.4	The proposed Arawana Road site is described as 80 by 155 meters (Exhibit B-2,		
2		Appendix C, BCUC IR1 A2.1). What is the size of the prepared site required to		
3		achieve a level footprint on the proposed Arawana Road site?		
4	A1.51.4	The prepared site including site sloping due to cut and fill would be approximately 80		
5		meters x 100 meters.		
6				
7	Q1.51.5	What is the shortest distance between the substation fence at an expanded		
8		existing site and the nearest residence? What is the shortest distance between the		
9		substation fence at the proposed Arawana Road site and the nearest residence?		
10	A1.51.5	Future expansion at the Arawana Road site is planned to occur to the east. Therefore,		
11		the distances from the substation fence to the nearest residence would remain		
12		unchanged.		
13				
14	1.52.0	Reference: Exhibit B-2, Appendix D, "September 15, 2006, FortisBC letter to		
15		BCUC and further response to BCUC IR1" BCUC IR A6.1.		
16	Q1.52.1	Would an appropriate comparison of the two site options express the purchase		
17		price of the Arawana Road property as an expense associated with both site		
18		options, the resale value of the Arawana Road property as an unknown		
19		associated with the Fire Hall site option, the purchase price of the Fire Hall		
20		property as an unknown associated with the Fire Hall site option, and the		
21		purchase price of new TL right of way as an unknown associated with the		
22		Arawana Road site option?		
23	A1.52.1	FortisBC believes that its comparison of options which includes its best estimates of		
24		the cost of each component is the appropriate method.		
25				
26	1.53.0	Reference: Exhibit B-2, Appendix E, "October 26, 2006, FortisBC letter to		
27		BCUC"		
28	Q1.53.1	Please provide a copy of the minutes of the October 11, 2006, meeting of the		
29		Naramata Advisory Planning Committee.		
30	A1.53.1	The minutes are attached as Appendix A1.53.1.		
31				

1	Q1.53.2	Please provide a copy of the October 11, 2006, RDOS Referral memo from M.	
2		Horton, Planner, to J. Johnson, Chief Administrative Officer, regarding the	
3		Arawana Road site.	
4	A1.53.2	FortisBC can find no mention of the requested memo in the referenced material.	
5			
6	1.54.0	Reference: Exhibit B-2, Appendix F, "November 16, 2006, FortisBC letter to	
7		BCUC"	
8	Q1.54.1	Please provide copies of the exit questionnaires completed by 100 attendees of	
9		the November 1, 2006, public meeting.	
10	A1.54.1	The requested questionnaires contain personal information collected from meeting	
11		participants with the expectation that they would remain confidential. Without the	
12		express consent of each individual, FortisBC will not provide them.	
13			
14	Q1.54.2	Please provide a copy of the petition received by FortisBC in conjunction with	
15		the November 1, 2006, public meeting, stating "We/I, the undersigned	
16		owner(s)/resident(s) are opposed to the FortisBC proposed substation site to be	
17		located on Arawana Road."	
18	A1.54.2	The petition was been filed with the BC Utilities Commission by Ms. A. Reid under	
19		cover letter dated November 8, 2006.	
20			
21	Q1.54.3	Regarding the statement that "Aesthetic impact was the primary concern	
22		expressed at the recent public information session which may have a dramatic	
23		effect on FortisBC's decision": Please confirm that the dominant sentiment of	
24		members of the public at the meeting was opposition to the Arawana Road site	
25		and insistence that the a substation at the Fire Hall site be properly visually	
26		screened.	
27	A1.54.3	The statement is intended to reflect concern for aesthetic impact at any potential	
28		substation site.	
29			

1	Q1.54.4	Please provide, or identify in the filed material, a copy of the Ministry of	
2		Transport's review of the Fire Hall substation plans.	
3	A1.54.4	Please refer to the response to NAFS IR1 Q1.36.17	
4			
5	Q1.54.5	Please provide, or identify in the filed material, a copy of the scope statement	
6		and cost estimate from Telus as requested by FortisBC.	
7	A1.54.5	Please refer to the response to BCUC IR1, Q6.2	
8			
9	Q1.54.6	Please provide, or identify in the filed material, a copy of the third party opinion	
10		sought by FortisBC regarding the potential of the substation at the Fire Hall site	
11		to interfere with the Fire Department's communications.	
12	A1.54.6	FortisBC does not have the permission of the third party to distribute the requested	
13		information.	
14			
15	Q1.54.7	Please provide, or identify in the filed material, a copy of any written records	
16		concerning FortisBC's communications with MOT regarding the process for	
17		acquiring the Fire Hall site.	
18	A1.54.7	Please refer to the response to NAFS IR1 Q1.36.17	
19			
20	1.55.0	Reference: Exhibit B-2, Appendix G, "February 14, 2007, FortisBC letter to	
21		BCUC"	
22	Q1.55.1	Assuming that either option would be visually screened as much as possible	
23		within FortisBC's tariff without third party financial contribution, does	
24		FortisBC take a position regarding whether the negative aesthetic impacts of the	
25		substation at the Fire Hall site would be <i>worse</i> than the negative aesthetic	
26		impacts of the substation at the Arawana Road site and the new transmission	
27		line right of way between 45 Line and the Arawana Road site?	
28	A1.55.1	In Exhibit B-1, the Report comparing Siting Alternatives for the Substation,	
29		FortisBC compared the sites on a non-financial basis. As a result, the Arawana site	
30		was considered superior when considering aesthetic impact. This comparison	
31		involved the substation sites only and did not involve the transmission line.	

1		
2	Q1.55.2	If FortisBC does take a position, please confirm the position and discuss what
3		criteria FortisBC used to arrive at that position.
4	A1.55.2	The inclusion of the transmission line in the analysis would not change the ranking of
5		the alternate sites. Factors to consider include the ability to provide screening and
6		impact on people in the area, which includes the number of affected people in
7		proximity to the infrastructure. Given the prominent location of the Fire Hall site,
8		and the difficulty with screening, the Arawana site is still the preferred option.
9		
10	1.56.0	Reference: Exhibit B-2, Appendix H, "March 15, 2007, FortisBC letter to
11		BCUC"
12	Q1.56.1	Re p.3, para.1, please reconcile FortisBC's February 14, 2007, position that "all
13		the technical issues related to constructing the substation at the Fire Hall site can
14		be addressed by modifying the site layout" (Exhibit B-2, Appendix G, p.1) with
15		FortisBC's March 15, 2007, position that emphasizes technical deficiencies of the
16		Fire Hall site.
17	A1.56.1	A more detailed review of the Fire Hall site with FortisBC operations and engineering
18		groups identified several issues that were not anticipated at the time the initial opinion
19		was provided.
20		
21		It should be noted that technical issues can be addressed by modifying the station
22		layout, however, these modifications have the unfortunate side effect of affecting
23		operations.

1	Q1.56.2	Re p.3, para.2, please reconcile FortisBC's February 14, 2007, position that "If		
2		the cost of construction at the two sites is determined to be comparable,		
3		FortisBC will request input from the Regional District of Okanagan		
4		Similkameen as to the location and screening options for the substation" with		
5		FortisBC's March 15, 2007, position that the Fire Hall is aesthetically inferior to		
6		the Arawana Road site.		
7	A1.56.2	FortisBC does not believe that a reconciliation of these two statements is required.		
8		As stated in the March 15, 2007 submission, the costs are not comparable.		
9				
10	Q1.56.3	Re p.3, para.2, please confirm that at the November 1, 2006, public meeting a		
11		majority of the approximately 200 participants disagreed that the Arawana		
12		Road site is the most appropriate site for a substation.		
13	A1.56.3	This question is not relevant to the decision to locate the substation at either the		
14		Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.		
15				
16	Q1.56.4	Re p.3, para.3, and the statement "Situated on Arawana Road, the substation		
17		will be shielded by the property's natural grade": please provide a line of sight		
18		diagram between the top of the visible portion of the substation and eye level at		
19		(a) Arawana Road, (b) the side deck of the Reid residence at 3018 Debeck Road,		
20		(c) 3034 Debeck Road, (d) 3005 Debeck Road.		
21	A1.56.4	Line of site diagrams are provided below.		

Arawana Road



Arawana Road





3034 Debeck Road







13 has not been considered within the context of the Pine Beetle specifically, however,

1		trees selected for planting would be at the stage of development most resistant to
2		infestation.
3		
4	Q1.56.6	Re p.3, paras.4-6, please provide, or identify within the filed materials, a copy of
5		the most recent forecast peak load growth forecast for the Naramata area.
6	A1.56.6	Please see the response to BCUC IR1 Q4.2.2
7		
8	Q1.56.7	Re p.4, para.1, is FortisBC saying that at the Fire Hall site there would not be
9		space to accommodate a second transformer in the future?
10	A1.56.7	Please see the response to BCUC IR1 Q4.1.8.1.2.
11		
12	Q1.56.8	Re p.4, para.3, please provide an updated Project Schedule.
13	A1.56.8	At this time, it is expected that the project schedule outlined on page 5 of Exhibit B-1,
14		Part E is still valid.
15		
16	1.57.0	References: Exhibit B-2, Appendix A, "Transmission Line Route," p.7;
17		Appendix C, BCUC IR1 A5.1, A5.2, A5.3,
18	Q1.57.1	For each of TL Option 1 (Arawana Road) and TL Option 2 (direct cross-
19		country) please provide the following:
20		(a) detailed estimated costs of construction,
21	A1.57.1a)	Please see the response to BCUC IR1 Q2.5.6, items iii. and viii.
22		
23		(b) a detailed map of the route and alignment, indicating pole locations,
24		rights of way, easements, and anchors,
25	A1.57.1b)	Please see BCUC Appendix A6.1, Option C and Option D.
26		
27		(c) a cross-section of a typical pole, showing dimensions, phasing, etc.,
28	A1.57.1c)	A cross section of a typical pole is attached as Appendix A1.57.1c.

	Naramata NAFS In:	Substation Project formation Request No. 1	Request date: May 23, 2007 Response date: June 7, 2007	
1		(d) engineering concerns,		
2	A1.57.1d) TL Option 1 – The primary concern with the r	oute up Arawana Road is the large	
3		line angles and the associated anchoring require	rements. In addition, there are	
4		existing underground utilities that may pose a	conflict.	
5				
6		(e) safety issues,		
7	A1.57.1e) There are no safety issues anticipated with eith	ner option.	
8				
9		(f) reliability issues, and		
10	A1.57.1f)	There is the potential that constructing up Ara	wana Road could result in an	
11		unplanned outage due to a motor vehicle accid	lent.	
12				
13		(g) FortisBC's estimate of the aesthetic imp	act.	
14	A1.57.1g) FortisBC estimates the aesthetic impact of all	lines to be equal.	
15				
16	Addition	al IRs submitted May 25, 2007		
17				
18	1.58.0	Reference: Arawana Road site		
19	Q1.58.1	Please provide the date on which the Arawana	Road site was first surveyed on	
20		behalf of FortisBC.		
21	A1.58.1	Topographic surveys for site evaluation began Ma	y 13, 2005. Legal survey began	
22		June 16, 06 and finished June 19, 2006.		
23				
24	Q1.58.2	Please provide the date on which the "McElhar	nney Associates" survey stake was	
25		placed adjacent to 3034 Debeck Road (property	y of Mr. Frank Focken).	
26	A1.58.2	The new iron pin on the north-east corner of the su	ubstation site was placed June 19,	
27		2006.		

1	Q1.58.3	Please provide copies of documentation by which FortisBC first notified (a) the
2		Regional District of Okanagan Similkameen and (b) the Ministry of
3		Transportation and Highways that the Arawana Road site had been surveyed
4		for possible use as substation.
5	A1.58.3	This question is not relevant to the decision to locate the substation at either the

6 Arawana Road or Fire Hall site, which is the subject of this regulatory proceeding.