IN THE MATTER OF

TERASEN GAS INC.
TERASEN GAS (VANCOUVER ISLAND) INC.

AND

ENERGY EFFICIENCY AND CONSERVATION APPLICATION

DECISION

April 16, 2009

Before:

A.W.K. Anderson, Commissioner
A.A. Rhodes, Commissioner

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ORDER NO. G-36-09

APPENDIX 1 – LIST OF EXHIBITS

1.0 BACKGROUND AND REGULATORY PROCESS

1.1 The Application

On May 28, 2008 Terasen Gas Inc. ("TGI") and Terasen Gas (Vancouver Island) Inc. ("TGVI") (collectively "Terasen") filed its Energy Efficiency and Conservation ("EEC") Programs Application ("Application") with the British Columbia Utilities Commission ("the Commission").

In the Application, Terasen requested an order or orders approving the following:

- Increases of EEC expenditures in the period 2008-2010 to $46.944 million for TGI and $9.667 million for TGVI, a combined total of $56.6 million;
- Capitalisation of incremental EEC expenditures as a regulatory asset deferral account on an after tax basis and amortisation of the account over 20 years;
- An increase in the amortisation period to 20 years for incentive amounts that are added to deferral accounts for 2008 and 2009 as part of the 2008-2009 extension of the 2004-2007 TGI PBR Settlement Agreement ("TGI PBR Extended Settlement") approved by Order G-33-07 and the 2008-2009 extension of the 2006-2007 TGVI Revenue Requirements Settlement Agreement ("TGVI RR Extended Settlement") approved by Order G-34-07;
- Changes to the benefit-cost analysis undertaken to evaluate EEC measures as outlined below:
    - Implementation of a portfolio approach to benefit-cost analysis such that the Total Resource Cost ("TRC") test for all programs combined must return an overall combined result of one or more;
    - Elimination of the requirement to include free-riders in benefit-cost tests;
    - Inclusion of the benefits of savings associated with implementation of a regulation as a result of EEC programs aimed at preparing the marketplace for the introduction of regulation of minimum efficiency levels in equipment, buildings or energy systems
    - Inclusion of the impact of carbon-pricing as one of the inputs to the benefit-cost tests;

- A requirement that Terasen submit annually to the Commission, by the end of the first quarter following year-end, for each year of the funding period, a report on all EEC initiatives and activities, expenditures and results for TGI and TGVI.

The Commission directed that the Application would follow a written hearing process after hearing submissions from intervenors and interested parties.

Intervenors registered for the hearing were:

- British Columbia Hydro and Power Authority ("BC Hydro"),
- British Columbia Old Age Pensioners' Organization et. al. ("BCOAPO"),
- B.C. Sustainable Energy Association and the Sierra Club of Canada (British Columbia Chapter) (collectively, "BCSEA-SCBC"),
- The Ministry of Energy, Mines and Petroleum Resources ("MEMPR"),
- The Rental Owners and Managers Society of B.C. ("ROMS"),
- FortisBC Inc.,
- Pacific Northern Gas Ltd. ("PNG"),
- The Commercial Energy Consumers Association of BC ("CEC") and
- Direct Energy Marketing Limited

In addition to parties registering as intervenors, numerous letters of comment were received.

Two rounds of Information Requests were conducted.

Intervenors BC Hydro and BCSEA-SCBC also filed evidence.

The process was complete on December 5, 2008 with the filing of Terasen's reply submission.

1.2 Legal and Regulatory

1.2.1 The Utilities Commission Act

The Application is made pursuant to Section 44.2 of the Act, which states, in part:

> "(1) A public utility may file with the commission an expenditure schedule containing one or more of the following:
>
> (a) a statement of the expenditures on demand-side measures the public utility has made or anticipates making during the period addressed by the schedule;…"

and:

> "(3) After reviewing an expenditure schedule submitted under subsection (1), the commission, subject to subsections (5) and (6), must
>
> (a) accept the schedule, if the commission considers that making the expenditures referred to in the schedule would be in the public interest, or
>
> (b) reject the schedule.
>
> (4) The commission may accept or reject, under subsection (3), a part of a schedule.
>
> (5) In considering whether to accept an expenditure schedule, the commission must consider
>
> (a) the government's energy objectives,
>
> (b) the most recent long-term resource plan filed by the public utility under section 44.1, if any,
>
> (c) whether the schedule is consistent with the requirements under section 64.01 or 64.02, if applicable,
>
> (d) if the schedule includes expenditures on demand-side measures, whether the demand-side measures are cost-effective within the meaning prescribed by regulation, if any, and
>
> (e) the interests of persons in British Columbia who receive or may receive service from the public utility.
>
> (6) If the commission considers that an expenditure in an expenditure schedule was determined to be in the public interest in the course of determining that a long-term resource plan was in the public interest under section 44.1 (6),

(a) subsection (5) of this section does not apply with respect to that expenditure, and

(b) the commission must accept under subsection (3) the expenditure in the expenditure schedule."

1.2.2 The Long Term Resource Plan

The Commission Panel notes that, with respect to subsection 44.2 (5) (b) and subsection 44.2(6), Terasen filed its consolidated 2008 Resource Plan (on behalf of TGI, TGVI and Terasen Gas (Whistler) Inc.) on June 27, 2008, which was accepted as described in Order G-194-08 and its accompanying Reasons. As noted in the Reasons, the Commission Panel specifically excluded any consideration or determination with respect to whether the EEC expenditures included in the instant Application were in the public interest. Accordingly, the Commission Panel considers that subsection 5 of s. 44.2 is applicable to the Application, whereas subsection 44.2(6) is not.

1.2.3 'Cost effectiveness' and the Demand Side Measures (DSM) Regulation

Subsection 44.2 (5)(d) requires the Commission to consider whether the EEC expenditures are ". . . cost-effective within the meaning prescribed by regulation, if any, . . .".

On November 7, 2008, the Government issued Ministerial Order M271/2008 which attached B.C. Reg. 326/2008 - Demand-Side Measures Regulation. Section 3 of the DSM Regulation deals with the "adequacy" of a demand-side measures "plan portfolio" and section 4 of the DSM Regulation sets forth certain requirements with respect to the determination of whether such expenditures are "cost effective". Section 2 of the DSM Regulation provides that the regulation applies only to 'the authority' (BC Hydro) until June 1, 2009, at which time the regulation will become more generally applicable. Accordingly the requirements of sections 3 and 4 are not applicable to Terasen's current EEC Application.

1.2.4 BC Government's Energy Objectives

Subsection 44.2 (5)(a) of the Act requires the Commission to consider the "government's energy objectives" in considering whether to accept an expenditure schedule. The "government's energy objectives" are defined in section 1 of the Act as follows:

> "(a) to encourage public utilities to reduce greenhouse gas emissions;
>
> (b) to encourage public utilities to take demand-side measures;
>
> (c) to encourage public utilities to produce, generate and acquire electricity from clean or renewable sources;
>
> (d) to encourage public utilities to develop adequate energy transmission infrastructure and capacity in the time required to serve persons who receive or may receive service from the public utility;
>
> (e) to encourage public utilities to use innovative energy technologies
>
> (i) that facilitate electricity self-sufficiency or the fulfillment of their long-term transmission requirements, or
>
> (ii) that support energy conservation or efficiency or the use of clean or renewable sources of energy;
>
> (f) to encourage public utilities to take prescribed actions in support of any other goals prescribed by regulation…"

2.0 TERASEN'S PROPOSED EEC EXPENDITURES

Terasen is applying for approval of an increase in allowed expenditures for EEC activity for TGI and TGVI to a total of approximately $56.6 million over the three year Program Period 2008 to 2010, an increment of $48.062 million over currently approved DSM spending for the two utilities. (Exhibit B-1, p. 8)

The proposed EEC Expenditures, by Program Area, by Utility, are set out in the table below.

Table 1

($000)

Spend by Program Area 2008 -2010	**TGI**	**TGVI**	**Total**
Residential Energy Efficiency	8,552	734	9,286
Commercial Energy Efficiency	19,592	2,199	21,791
Residential Fuel Switching	1,332	2,367	3,699
Conservation Education and Outreach	11,068	2,767	13,835
Joint Initiatives	2,400	600	3,000
Trade Relations	1,200	300	1,500
Conservation Potential Review	400	100	500
Innovative Technologies, NGV and Measurement	2,400	600	3,000
Total	46,944	9,667	56,611

(Source: Exhibit B-1, p. 9)

Terasen states that it is most efficient for the Commission to approve the overall expenditure level, by utility, for the funding period rather than by approving the funding by program area or by individual program initiative. Terasen submits that this approach will allow it to respond quickly to changes within initiatives and to new opportunities that might arise, and will reduce the administrative burden related to EEC activity. (Exhibit B-1, pp. 50-51)

Terasen also submits that the energy savings from the EEC expenditures will result in savings with a present value of almost 10 million gigajoules ("GJs") over the lives of the various measures proposed, while fuel switching activity is estimated to result in approximately 2.3 million GJs of additional load. The anticipated present value of net energy savings is approximately 7.7 million GJs, not including potential savings arising from Conservation Education and Outreach, Joint Initiatives or Innovative Technologies, NGV and Measurement program areas. (Exhibit B-1, p. 10) Terasen further states that DSM expenditures at current levels would result in cumulative annual savings of 1.3 million (nominal, rather than present value) GJs by 2016, whereas the proposed expenditures would result in cumulative annual savings of approximately 6.4 million nominal GJs in the same time period. (Exhibit B-1, p. 11)

2.1 Residential and Commercial Energy Efficiency

Terasen developed its budget estimates for Residential Energy Efficiency, Commercial Energy Efficiency and Residential Fuel Switching based on work done in 2006 in its Conservation Potential Review ("CPR"). Those estimates were refined by Habart and Associates Consulting Inc. ("Habart") as described in Habart's September 2007 Report ("Habart Report") provided in Appendix 9 of the Application. (Exhibit B-1, p. 52) The Habart Report concluded that total DSM funding of approximately $35 million over the three-year period would be required. (Exhibit B-1, Appendix 9, p. 23)

Terasen states that "[t]he key finding of the CPR was the Achievable Potential" which is a measure of savings which could realistically be achieved within the study period. (Exhibit B-1, p. 45) The Achievable Potential from the CPR is outlined in the table below:

Table 2

CPR Findings

By 2015/2016, GJ per year	TGVI	Lower Mainland	Interior	Total
Residential EE	-369,000	-5,298,000	-1,847,000	-7,514,000
Commercial EE	-385,000	-1,396,000	-431,000	-2,212,000
Industrial EE	-32,430	-933,064	-924,210	-1,889,704
Subtotal	**-786,430**	**-7,627,064**	**-3,202,210**	**-11,615,704**
Residential Fuel Subsitution				1,453,000
Potential Annual Impact				**-10,162,704**

(Exhibit B-1, Table 4.1, p. 45)

Terasen states that "[t]he strategies outlined in this Application, and the expenditures for which approval is being sought, are based to a significant degree on the findings of the CPR and the subsequent work undertaken with Habart." (Exhibit B-1, p. E-3)

In discussing estimation of new dwelling heating loads, the 2006 CPR states that: "[d]iscussions with provincial government staff indicated that a number of changes to residential buildings are under consideration that could affect the thermal performance of British Columbia's new housing over the study period." The changes being considered include targets for new construction, including residential buildings and all commercial buildings (including apartments) and strategies to achieve improved thermal performance in related residential equipment and products, including furnaces, fireplaces, and windows. (Exhibit B-1, Appendix 1, p. 33)

2.1.1 Residential Energy Efficiency

Terasen proposes spending $9.286 million on Residential Energy Efficiency for both TGI and TGVI over the Program Period (Exhibit B-1, p. 55, Table 6.2b). The Residential Energy Efficiency program area includes both new construction and retrofit initiatives.

2.1.1.1 New Construction

For new construction, Terasen is proposing EnerChoice Fireplace and Energy Star Appliance initiatives. The EnerChoice Fireplace program will provide an incentive to customers who purchase and install an EnerChoice rated fireplace, insert or free-standing stove. The Energy Star Appliance program provides incentives for customers who use natural gas for domestic hot water ("DHW") heating to install Energy Star clothes washers and/or dishwashers. (Exhibit B-1, p. 59)

Terasen states "[t]he key decision makers in this market for the [new construction] programs . . . are builders and developers who build single family homes and row-houses" and ". . . new construction EEC portfolio in the residential market will include programs that encourage customers, whether they be individuals building a new home, or builders and developers, to install energy efficient appliances." (Exhibit B-1, p. 58) (emphasis in original)

2.1.1.2 Retrofit

For the residential retrofit market Terasen is proposing an Energy Star Heating System Upgrade program that will reprise earlier versions of this program, and will provide customers who install an Energy Star heating system a credit on their Terasen bill for gas service. Terasen's Application is based on funding for incentives for gas furnace upgrades in single family dwellings ("SFDs") and duplexes in the Terasen service territory. Terasen estimates upgrades to 5.3 percent of the stock of pre-1976 SFDs and duplexes or 8,180 furnace upgrades to the end of 2009. Terasen notes that due to expected new Federal government regulations requiring all furnaces sold in Canada to meet a minimum standard of 90 percent efficiency after December 31, 2009, this program will conclude prior to that date. (Exhibit B-1, pp. 59-60)

Terasen is also proposing EnerChoice Fireplace and Energy Star Appliance programs for the retrofit market as for the new construction market. The Hearth, Patio & Barbeque Association of Canada will provide assistance in promotional and educational aspects of the EnerChoice Fireplace program. (Exhibit B-1, p. 60)

The residential sector expenditures proposed by Terasen, by utility and program area are as follows:

Table 3

TGI and TGVI Energy Efficiency ($000)		**2008**	**2009**	**2010**	**Total**
TGI	New Construction	411	566	1,056	2,033
	Retrofit	2,495	2,658	1,367	6,520
	Sub total, TGI	2,906	3,224	2,423	8,553
TGVI	New Construction	130	156	232	518
	Retrofit	53	66	97	216
	Sub total, TGVI	183	222	329	734
	Total	3,089	3,446	2,752	9,287

Source: BCUC IR No. 1 Attach 56.2A

2.1.1.3 Commercial Energy Efficiency

Terasen is proposing to spend $21.7 million on commercial sector new construction and retrofit programs (Exhibit B-1, p. 60). The expenditure proposals were based on refinements of the following initial recommendations from the Habart report:

Table 4

TGI and TGVI Commercial Programs	Spending 2008-2010 ($000)	
	TGI	TGVI
New Construction		
Efficient New Construction	5,297	727
Boilers	1,928	224
Water Heating	1,118	103
Subtotal - New Construction	**8,343**	**1,055**
Retrofit		
Boilers	7,395	1,074
Building Recommissioning	3,095	354
Next Generation Building Automation Systems	968	95
Demand Control Ventilation	1,795	-
High Efficiency Rooftop Units	239	17
Water Heat	2,032	254
Subtotal - Retrofit	**15,524**	**1,794**
Total Commercial Energy Efficiency	**23,867**	**2,849**

Source: Exhibit B-2, Attachment 56 2A TGVI and 56 2A TGI

2.1.1.4 New Construction

The commercial new construction program is aimed at all new construction "…which might use natural gas space and water heating." Terasen states that "…the immediate opportunities are likely to be Multifamily Dwellings ("MFDs") and Commercial office space" and may also include some institutional buildings. (Exhibit B-1, p. 61) Terasen lists some potential areas for activity in the commercial new construction sector, and notes that program design in this sector is complex, so the program activities listed in the Application are merely summaries.

Terasen states "[t]he key decision makers in this market are owners including: governments; builders/developers; architects; engineers; interior designers; mechanical consultants; and contractors." (Exhibit B-1, p. 61)

The new construction energy efficiency program areas include initiatives aimed at:

- Efficient New Construction Design and High Insulation Technology for windows;
- Condensing and near condensing boilers; and
- Instantaneous and condensing DHW heaters and drain water heat recovery.

(Exhibit B-1, Table 6.3.2, p. 61)

2.1.2.5 Retrofit

Terasen's commercial retrofit program is aimed at all commercial and industrial buildings with existing natural gas space and water heating equipment. Terasen again notes that, due to the complexity of programs in this sector, it has merely summarized areas of program activity and states "[m]ore detailed program development work must be completed by [Terasen] in conjunction with industry groups before these programs are rolled out." (Exhibit B-1, p. 62)
Commercial retrofit energy efficiency program area activity includes initiatives for:

- Condensing and near condensing boilers
- Building Recommissioning
- Next Generation Building Automation Systems ("BAS")
- High Efficiency ("HE") Rooftop Units
- Instantaneous and condensing DHW boilers and heaters
- For TGI only, Terasen is proposing to add: demand control ventilation for large and medium commercial buildings and drainwater heat recovery.

(Exhibit B-1, p. 62, Table 6.3.2a)

Terasen states that commercial sector programs are intended to offer qualified customers a menu of programs from which to choose and that Terasen staff will work with participants in selecting the most appropriate program and/or component. (Exhibit B-1, p. 63)

Intervenor Positions

BCOAPO takes issue with the relative allocation of spending as between proposed residential and commercial customer groups. BCOAPO notes that residential customers make up 90 percent of Terasen's total customers and 38 percent of its total volume, whereas commercial customers represent only 9.7 percent of its customer base and 26 percent of its total volume. (BCOAPO Argument, p. 12)

Commission Determination

The Commission Panel notes BCOAPO's comments as well as the CPR evidence indicating that some 70 percent of the Achievable Potential savings are associated with the residential sector. Terasen has included residential market MFDs in its Commercial EE program, which, in the view of the Commission Panel, may also have significant potential for low income housing initiatives. Terasen indicates that it will re-direct funding amongst programs based on customer response, thus enabling funding balancing between Residential and Commercial programs as appropriate.

The Commission Panel finds the design of Terasen's Residential and Commercial EE programs to be reasonable, flexible and in the public interest, and accepts the expenditure proposals for these program areas.

2.2 Residential Fuel Switching

Reduction in Greenhouse Gas ("GHG") emissions is advanced by Terasen as a benefit in support of residential fuel switching for TGI. The stated premise is that the substitution of natural gas for electricity will reduce overall GHG emissions in the short term, by increasing the amount of electricity available to BC Hydro to meet domestic load, thereby reducing its dependence on imported power or, alternatively, allowing it to increase exports of clean power, thus enabling a reduction in the regional use of gas or coal-fired power. Terasen submits, over the longer term, to the extent BC Hydro is able to meet its load requirements, excess clean generation could be exported, displacing the use of gas and/or coal-fired generation in the region (Western Interconnection). (Exhibit B-1, p. 63; Terasen Reply, p. 5)

Terasen states that "[t]he primary objective of the fuel-switching offers is to promote the most optimal balance in energy share between electricity and natural gas, preserving BC Hydro's generation and transmission systems for its [sic] highest value – in running lights, computers and other technology." (Exhibit B-1, p. 64)

Terasen proposes to spend $3.7 million in the residential fuel switching program area. It is proposing that only new construction fuel switching programs be offered in the TGI service area but that both new construction and retrofit fuel switching programs be offered in the TGVI service area.

Terasen proposes to spend the following amounts on fuel switching programs annually, over the Funding Period.

Table 5

Residential Fuel Switching Programs

Program	Initiatives		TGI	TGVI
New Construction				
Natural Gas Water Heating	NG DHW		319	693
Natural Gas Appliances	NG Range		1,013	50
		Sub Total	1,332	743
Retrofits	NG Dryer			38
Natural Gas Appliances	FS Range		-	247
	FS Dryer		-	247
Furnace Fuel Substitution	Furnace		-	766
Fireplace Fuel Substitution	EnerChoice Fireplace		-	326
		Sub-total		1624
		Totals	1332	2367

Source: Exhibit B-2, Attachments 56.2A 2 (TGI) and 56.2A 4 TGVI

New Construction

All new construction expenditures involve fuel switching from electricity. Only the Retrofit programs, which are limited to Vancouver Island, involve potential fuel switching from propane, oil or wood in addition to electricity. Terasen states: "[i]t is very challenging to separate out proposed expenditures for fuel switching from electricity to natural gas from vs. [sic] proposed expenditures for fuel switching from non-electric sources to natural gas, as there are a number of potential energy sources for the proposed TGVI residential retrofit program, and …[it] cannot predict the proportion of participants switching from each energy source." (Exhibit B-5, BC Hydro 1.1.1)

Terasen proposes fuel substitution incentive programs to encourage the use of natural gas in new construction projects for installation of natural gas domestic hot water heaters in the TGVI service area and to install a natural gas range and/or dryer in both the TGI and TGVI service areas. (Exhibit B-1, p. 64)

Retrofit

Incentive funding for fuel substitution retrofits is only contemplated for TGVI, as many households in its service territory still use wood, propane or fuel oil for space heating and fireplaces.

The proposed programs include incentive payments for:

- Switching to natural gas for space heating and for installing Energy Star equipment. Terasen states that "the current regulatory regime for TGVI does not allow Terasen to offer customers who switch to natural gas an incentive to install Energy Star equipment." (Terasen proposes that it be able to offer both, but also advises that it would restrict the incentive to furnaces and boilers rated Energy Star.);
- Installation of an EnerChoice-rated fireplace, insert or free-standing stove; and
- Replacement of existing electric or propane ranges and dryers with gas appliances.

(Exhibit B-1, p. 65)

Intervenor Positions

BCOAPO strongly opposes the inclusion of any expenditures associated with fuel switching away from electricity to natural gas in Terasen's EEC portfolio. BCOAPO argues that there is no evidence as to an "optimal balance" as between electricity and natural gas and suggests that a movement away from (clean) electricity to a fossil fuel would not be part of such optimal balance. (BCOAPO Argument, p. 10)

BC Hydro filed the evidence of Randy Reimann, P. Eng., its manager of Resource Planning, wherein he contradicted Terasen's assertion that fuel switching away from electricity to natural gas would reduce the need for BC Hydro to import electricity from other jurisdictions which rely on coal or natural gas for generation. Mr. Reimann stated: "[t]here is no medium to long term linkage between fuel switching from electricity to natural gas and a change in BC Hydro's need for importing electric energy or ability to export such energy." (Exhibit C2-6, Direct Testimony of Randy Reimann, p. 2, Q.7)

BC Hydro also filed the evidence of Patrice Rother, its manager of Environmental Strategy in the Safety, Health and Environmental group. Ms. Rother reviewed recent GHG-related legislative and policy developments including the B.C. Greenhouse Gas Reduction Targets Act ("GGRTA"), the B.C. Climate Action Plan and the joinder of British Columbia into the Western Climate Initiative and highlighted a number of areas of uncertainty surrounding how the WCI GHG trading scheme will align with the GGRTA legislated targets and other Chinook Action Plan action items on a regional basis. (Exhibit C2-6, Direct Testimony of Patrice Rother pp. 2-3, Q. 8, 11)

Commission Determination

While the Commission Panel notes the comments of Terasen regarding potential GHG benefits of fuel switching, particularly away from fossil fuels with a higher carbon content than natural gas, the Commission Panel is not convinced that expenditures on fuel switching and load building away from electricity can be properly considered in a portfolio of EEC programs at this time. The Commission Panel agrees with the comments of the BCOAPO that the "optimal balance" as between natural gas and electricity has not been established. The Commission Panel also finds that the efficiency of other energy sources over and above that of electricity has not been adequately established.

The Commission Panel also notes that natural gas does have a GHG impact which is not present in clean domestic electricity and that one of the government's energy objectives is "to encourage public utilities to reduce GHG emissions." The Commission Panel accepts the evidence of

Ms. Rother that there is considerable uncertainty, at this time, surrounding how various government initiatives will align on a regional basis. The Commission Panel finds that Terasen has not provided sufficient evidence to persuade the Panel, on a balance of probabilities, that a regional approach should be adopted as a justification for EEC expenditures aimed at substituting natural gas as a fuel to replace electricity.

The Commission Panel accepts EEC expenditures directed at fuel switching from fossil fuels with a higher carbon content than that of natural gas. Expenditure programs specifically directed at encouraging fuel switching away from electricity are rejected, as are Incentive payments for appliances for which an Energy Star rating is not available. However, expenditures are accepted for incentives to install Energy Star and EnerChoice equipment and appliances for customers who, at their own initiative, wish to switch to natural gas as the fuel of choice.

2.3 Conservation Education and Outreach

This proposal is in addition to program-specific education and outreach funding, and relates to non-program-specific activities, as set out below.

- Terasen's proposed budget for Conservation Education and Outreach (CEO) was developed in consultation with Wasserman + Partners Advertising ("Wasserman"). Terasen proposes a total CEO expenditure of $13.835 million in the 2008 to 2010 period which is 24 percent of the total EEC proposed expenditures of $56.611 million. The Wasserman proposal states that the planned messaging will educate the public about Terasen's EEC program and related activities.

(Exhibit B-1, Appendix 8)

Terasen was requested to describe the specifics of the CEO programs and responded that these initiatives ". . . have not yet been fully developed, however, as outlined on page 65 of the Application, they are projected to include:

- Stakeholder industry group activities, such as first time homebuyers seminars
- Public outreach by "Team Terasen"
- Support for conservation education within the school system
- Energy Forum
- Conservation communications, as outlined in Appendix 8 in the Application."

(Exhibit B-2, BCUC 1.28.1)

The entire proposed $13.835 expenditure for the CEO Program Area is taken by the Conservation communications initiative of the CEO Program. $11.550 million or 83 percent of the $13.835 million is allocated to Mass Media Advertising and Production over the three year expenditure period. (Exhibit B-1, Appendix 8)

Terasen did not submit any details or expenditure estimates for the first four program initiatives described above.

Terasen proposes to attribute the CEO expenditures in each year equally between the Residential and Commercial Energy Efficiency programs, with none of the CEO expenditures being attributed to other Program Areas such as Fuel Switching or Trade Relations. (Exhibit B-1, p. 54)

Terasen states: "EEC expenditures will be efficient, with non-incentive costs not exceeding 50% of the expenditure in a given year." (Exhibit B-1, p. 47, #3) Terasen does not provide any further evidence supporting the implication that, merely by not exceeding 50 percent of the total, non-incentive, expenditures, the balance represents efficiency in expenditures.

Intervenor Positions

BCOAPO submitted that "The Application's education and outreach component is disproportionately large, and inappropriately treated as an asset to be amorti[s]ed over 20 years." (BCOAPO Argument, p. 14)

BCSEA-SCBC submitted the evidence of John J. Plunkett of Green Energy Economics Group, Inc. The Commission Panel reviewed Mr. Plunkett's qualifications and experience and accepts him as an expert with respect to the matters his testimony addresses in this Application.

Mr. Plunkett proposes that the CEO should be reduced by 50 percent, and the amount by which the funding is reduced be redirected to the residential and commercial efficiency programs.
Mr. Plunkett notes that while building a conservation 'ethic' in British Columbia is laudable, the primary purpose of the CEO expenditures should be to support the efficiency programs.
(Exhibit C5-5, pp. 18, 19)

Commission Determination

The Commission Panel finds that Terasen has not provided sufficient evidence to support either the $13.835 million total proposed EEC expenditures, or the allocation of some 84 percent of that amount to mass media advertising and production. The Commission Panel notes that the Commercial component comprises some 70 percent of the total expenditures in the combined Residential and Commercial Energy Efficiency program areas, to which the CEO costs have been attributed equally. The Commission Panel also notes Terasen's comments, quoted above, with respect to the key decision makers in both the new and retrofit commercial markets. The Commission Panel considers both these markets to be significantly more narrow and focused than markets which may warrant the use of mass media approaches to communication.

The Commission Panel also notes that Terasen's evidence did not include any discussion of bill stuffers or other communication methods.

The Commission Panel agrees in part with Mr. Plunkett's proposal, and considers that, while public education is an appropriate activity in support of the EEC objectives, the evidence is not sufficient to support either the full amount proposed or the allocation of the proposed CEO expenditures. The Commission panel does not agree with Mr. Plunkett's suggestion that the funding reduction of

the CEO expenditures be redirected to the energy efficiency programs. The Commission Panel finds the evidence sufficient to establish that there is a benefit to some CEO expenditures and accepts 50 percent, $6.918 million, as reasonable.

Terasen is directed to review the CEO program with a view to:

- altering the program to allocate funds away from the mass media campaign and to include other initiatives, with particular attention paid to conservation education within the school system and affordable housing initiatives;
- addressing the apparent imbalance of the residential to commercial expenditure ratio, approximately 30:70, in comparison to the ratio of residential to commercial Achievable Potential GJ impact of approximately 77:23 (Exhibit B-1, p. 45);
- reconsidering the apparent lack of communication expenditures directed in a focused manner to the Commercial Energy Efficiency program,
- reconsidering appropriate attribution of CEO costs to Program Areas and initiatives, and any related impact on Total Resource Cost calculations and rate impacts.

2.4 Joint Initiatives, Trade Relations, 2009 CPR, and Innovative Technologies, NGV and Measurement

2.4.1 Joint Initiatives

Terasen is requesting that $1.0 million per year be approved for the development of Joint Initiatives as they arise. Initiatives that Terasen states it will, or may pursue if the funding is approved, include: support for audits for a Provincial Home Retrofit Program, DSM for affordable housing, building labeling, and community action on energy efficiency. (Exhibit B-1, pp. 66-68)

2.4.1.1 Audits

The "audit" joint initiative involves providing financial assistance to customers by paying for the cost of a pre or post upgrade audit, both of which are necessary for participation in the federal government's "Eco-Energy" program. This initiative would support the provincial government's expressed intention to implement a province-wide home retrofit program, "LiveSmartBC", to complement the federal government initiative. The provincial program does not contemplate paying the cost of post-retrofit audits, and Terasen sees an opportunity to provide full or partial funding to enable more of its customers to participate in the programs. (Exhibit B-1, pp. 43, 67)

2.4.1.2 Affordable Housing

Terasen states that "[t]he Ministry of Energy Mines and Petroleum Resources has asked that the Terasen Utilities lead a working group on DSM for Affordable Housing, the goal of which is to find ways and means to deliver Energy Efficiency to the Affordable Housing sector in B.C. and that such group has been convened. Terasen proposes to fund its participation in any resulting DSM incentive program from the Joint Initiatives Program allocation. (Exhibit B-1, p. 67)

2.4.1.3 Labeling

A further joint initiative which Terasen proposes is to co-fund a pilot project to label homes and buildings with an energy consumption/efficiency rating. Terasen states that this will assist in informing the public and promoting energy conservation and will enable comparisons as between different gas-heated homes.

2.4.1.4 Community Action

Terasen also proposes to make a financial contribution to the pool of funds to which municipalities can apply under the "Community Action on Energy Efficiency" initiative for financial and research support to advance energy conservation and efficiency in their areas, through policy action and

public outreach. (Exhibit B-1, p. 68; The BC Energy Plan 2007- Policy Action #9)

Intervenor Positions

BC Hydro supports the Joint Initiatives funding requested. (BC Hydro Argument, p. 5)

BCOAPO argues that this area of the EEC is "drastically under-funded if any meaningful [low-income energy efficiency program ("LIEEP")…is to be developed." (BCOAPO Argument, p. 7)

BCSEA-SCBC argues: ". . . while the four initiatives under the Join Initiatives program area may be worthwhile" they do not satisfactorily address the need for better integration of Terasen's programs with electrical DSM programs as identified by the BCSEA-SCBC expert, Mr. Plunkett. (BCSEA-SCBC Argument, pp. 12-13) Mr. Plunkett recommends that Terasen should be directed to redesign programs by streamlining them and better integrating them with electric efficiency programs. (Exhibit C5-5, p. 5)

Commission Determination

The Commission Panel accepts the expenditures requested for the Joint Initiatives Program area. The Commission Panel notes the comments of the BCOAPO and agrees that the Affordable Housing Initiative appears to be under-funded, particularly given that no portion of the requested global amount for Joint Initiatives is specifically dedicated to Affordable Housing. The Commission Panel also notes that the DSM Regulation which does not yet, but will, apply to Terasen requires that a public utility's plan portfolio include "a demand-side measure intended specifically to assist residents of low-income households to reduce their energy consumption". The Commission Panel therefore directs Terasen to proceed with its Joint Initiative relating to Affordable Housing and encourages Terasen to consider re-allocating funding from other approved areas of its overall spending as may be suitable.

The Commission Panel concurs with Mr. Plunkett's recommendation, and considers the Joint Initiatives Program to be an appropriate area from which funds should be used to aggressively pursue integrating Terasen's EEC programs with those of the electric utilities in British Columbia. The Commission Panel's view is that integrating the efforts of gas and electric utilities will better encourage customers to take advantage of the programs by eliminating unnecessary duplication in communication, applications, audits and similar time consuming activities.

2.4.2 Trade Relations

The Trade Relations program area is aimed at the support and education of skilled trades, equipment manufacturers, distributors, suppliers and retailers, appliance and equipment salespeople and Realtors. The $1.5 million in funding being requested for Trade Relations with this Application is to support the activities of a Terasen Utilities staff member focused on Trade Relations as it relates to energy efficiency.

Commission Determination

The Commission Panel takes note of Terasen's descriptions of the key decision makers in each of the Residential and Commercial EE programs, referred to previously, as well as the references to the complexity of the commercial new construction and retrofit sector programs and resulting paucity of detail for those program areas. (Exhibit B-1, p. 61)

The Commission Panel considers that the Trade Relations program area expenditures represent a significant duplication of the Residential and Commercial Energy Efficiency programs' non-incentive costs. As noted in the Application, the Energy Efficiency programs will significantly increase the interactions as between Terasen and its customers, and therefore increase "the opportunities for [Terasen] to communicate general conservation information in addition to program-specific information..." (Exhibit B-1, p. 46) The Commission Panel finds the evidence with respect to the details of the Trade Relations program area to be insufficient, and accordingly, this area of expenditure is rejected.

2.4.3 Innovative Technologies, NGV and Measurement

Terasen states that it is in a unique position to foster and further the deployment of forward-looking low carbon technologies, including measurement technologies, and is therefore seeking funding with this Application, specific to this arena. (Exhibit B-1, p. 69)

Terasen states that "[t]he amount for Innovative Technologies, NGV and measurement will need to be refined – if an effective program in Innovative Technologies, NGV and Measurement can be developed over the funding timeframe, the Companies wish to have the ability to fund such a program over the funding timeframe." (Exhibit B-1, pp. 53, 69) Terasen states that the activity in this area would be in the nature of pilot programs, with limited time frames, geographic areas and numbers of installations. The Companies indicate that they would pursue technologies with the same underlying characteristics:

- Each promotes the efficient use of natural gas through sustainable design;
- None are currently a mainstream technology;
- Each offers the potential for at least a 10 percent GHG benefit.

Energy efficiency technologies the Companies would intend to pursue include:

- Residential
  - hydronic based heating systems;
  - Integrated energy systems providing both space heat and DHW;
  - Solar thermal assisted space or DHW systems;

- Commercial
    - hydronic based heating systems;
    - Solar thermal assisted space or DHW systems.

(Exhibit B-1, p. 73)

Terasen states that it would aim fuel-substitution initiatives at both new construction and retrofit markets in both the TGI and TGVI service areas, and notes that fuel-substitution in this category refers to the displacement of natural gas using cleaner renewable technologies. The Companies state that more detailed program development work must be completed by Terasen in conjunction with industry groups before programs are rolled out or funding is allocated. (Exhibit B-1, p. 74)

Commission Determination

The Commission Panel considers that Innovative Technologies, NGV and Measurement programs can be appropriate vehicles for encouraging commercial development of technologies to reduce or replace natural gas consumption and related GHG emissions.

However, as noted above, Terasen acknowledges that further refinement of this program is required and indicates uncertainty as to whether an effective program can be developed over the funding timeframe. The Commission Panel finds that there is insufficient evidence with respect to the nature and scope of the proposed program, and accordingly rejects the Innovative Technologies, NGV and Measurement program expenditures at this time. Terasen may wish to bring forward projects in this program area for consideration as they become more fully developed.

2.5 Conservation Potential Review Update

The Terasen Gas April 2006 Conservation Potential Review (CPR) was a comprehensive planning document prepared for TGI to use for:

- Developing a long range energy efficiency and fuel choice strategy;
- Designing and implementing energy efficiency and fuel choice programs;
- Assessing the impact of energy efficiency and fuel choice programs on both peak and annual loads; and
- Setting annual efficiency and fuel choice targets and budgets.

(Exhibit B-1, Appendix 1, page E-1)

The 2009 CPR estimate of $0.5 million is based on the cost to perform the previous CPR, approximately $300,000, plus an allowance for the kind of work done by Habart to refine the CPR results into a DSM program. (Exhibit B-1, p. 53) The updated CPR would be received in 2010 and would form the basis for an application to the Commission for EEC funding for the period 2011 to 2014. (Exhibit B-1, p. 69) It also includes an allowance of $100,000 for cost inflation from the last CPR. (Exhibit B-2, BCUC 1.21.1)

The CPR Program is discussed at Section 4 of the Application, including an illustration of the CPR Process Flow, and a table summarising the potential annual impact identified by the 2006 CPR. The 2006 CPR identifies a gross impact [consumption reduction] by 2015/2016 of 11.615 million GJs, and a Potential Annual Impact of 10.163 million GJs after adding back 1.453 million GJs of additional load attributed to the residential fuel switching program. The gross impact number includes 1.890 million GJs for Industrial Energy Efficiency (EE). Separate programs for Industrial EE are not specifically included as part of the Application. (Exhibit B-2, pp. 44-46)

The detailed 2006 CPR report is included in the Application. (Exhibit B-2, Appendix 1)

Intervenor Positions

BCSEA-SCBC supports Terasen's proposal for approval of expenditures for an update of the CPR to form the basis for Terasen's "next tranche of EEC funding for the period 2011 to 2014." (BCSEA-SCBC Argument, p. 15)

BC Hydro supports Terasen's evidence with respect to the CPR and also the program element in the Application for additional funding for a 2009 update of the CPR. (BC Hydro Argument, p. 5)

Commission Determination

The Commission Panel considers the CPR to be an important tool for use in developing, supporting and assessing this and future EEC/DSM expenditure Applications. The Commission Panel accepts the Application's CPR update expenditure proposal.

The Commission Panel anticipates that Terasen will be able to develop a stronger and more transparent linkage between the CPR, the development of programs arising from the CPR and their proposed costs in any future EEC/DSM Applications.

2.6 The Industrial Sector

Terasen has not included energy efficiency (EE) initiatives for industrial customers in the Application. Terasen discusses its rationale for not planning for EE programs specifically for the industrial sector at Section 6.10 of its Application, Exhibit B-1, p. 78.

The CPR study conducted by Marbek Resource Consultants Ltd. and Willis Energy Services Ltd. (Marbek) concluded that:

> "The study findings confirm the existence of significant potential cost-effective natural gas efficiency improvements in B.C.'s manufacturing sector. In the "most likely" and "upper" achievable scenarios those energy efficiency improvements would provide between about 1,900 and 2,600 thousand GJ/yr. of savings in FY 2015/16. The same energy efficiency improvements would also provide reduced GHG emissions of approximately 80,000 to 112,000 tonnes per year as well as peak day load reductions of approximately 20 to 20.5 thousand GJ.
>
> Two particularly significant opportunities are identified in the study results:
>
> - Energy efficient boilers for the greenhouse and food processing facilities in the Lower Mainland.
> - Energy efficient kilns for sawmills and planer mills in the Interior."
>
> (Exhibit B-1, Appendix 1, p. 75)

Intervenor Positions

MEMPR provided a Letter of Comment stating: ". . .the Ministry has an interest in seeing Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc. ("the Companies") expand their demand-side management activities. The Ministry notes the absence of specific demand-side measures for the industrial sector in the Application. The Companies may be missing significant conservation and efficiency gains." (MEMPR Letter of Comment, Exhibit C1-4, p. 1)

The Ministry also submitted that the Commission should include a number of determinations in its Decision with respect to the processes and timing of development of DSM measures for the manufacturing sector.

BCSEA-SCBC concurs with MEMPR's recommendation. (BCSEA-SCBC Argument, p. 16)

Terasen submits that "a cautious approach is warranted in considering delivering incentives to industrial customers at a high enough dollar level to spur participation adequate to ensure a positive TRC. Both of these options expose customers to risk. The Terasen Utilities will continue to

explore opportunities for industrial DSM and will bring forward a proposal if they regard expenditures as being warranted and in the interests of customers." (Terasen Reply, p. 17)

Commission Determination

The Commission Panel considers that the omission of an industrial sector program in Terasen's EEC Application is a significant and unfortunate shortcoming in Terasen's stated efforts to support the BC Energy Plan ("Energy Plan") Policy Actions (Exhibit B-1, Appendix 6) with respect to Energy Efficiency in the industrial sector. The Commission Panel takes particular note of Terasen's specific exclusion of EEC Policy Action 8, which addresses the development of an "Industrial Energy Efficiency Program". (Exhibit B-1, p. 40; Energy Plan, p. 39)

The Commission Panel takes note of the MEMPR Letter of Comment, and directs Terasen to commence the planning process for the development of an industrial EE program and to file a report outlining the process contemplated and scheduling of the development plan with the Commission for review within 90 days of this Decision. The matters addressed in the report should include those raised by MEMPR in Exhibit C4-1.

3.0 ASSESSMENT CRITERIA AND ACCOUNTABILITY

Terasen believes that the benefit-cost ". . . results for the proposed EEC expenditure in this Application are under-stated, because the benefits used in the calculations include free-riders, effectively reducing the net energy savings, and exclude attribution effects, as well as excluding savings from the proposed expenditure on Joint Initiatives, Trade Relations, Conservation Education and Outreach and Innovative Technologies, Measurement and NGV. However, even with this approach, which could be considered conservative, the Total Resource Cost test result for the EEC portfolio as a whole is positive, with a ratio of 2.9., and a net financial benefit of $139.4 million. If free rider effects are excluded, as the Companies are proposing, the EEC portfolio has a TRC ratio of 3.1 and a net financial benefit of $165.1 million." (Exhibit B-1, pp. 87, 88)

3.1 Portfolio Approach

Terasen proposes a "portfolio approach" to the benefit-cost analysis which involves assessing the cost effectiveness of the EEC portfolio as a whole, "on an overall combined basis, rather than on individual initiatives or program areas." (Exhibit B-1, p. 82) Terasen proposes that the portfolio as a whole maintain a TRC ratio of 1.0 or better to allow it to include programs which, on an individual basis, may not have such a ratio in the short term, but have longer term potential to achieve the ratio. This approach would also allow Terasen to offer programs to customers in service areas which would otherwise not have sufficient customer usage to support the necessary TRC ratio. (Exhibit B-1, pp. 11-12)

Intervenor Positions

Mr. Plunkett indicates that judging economic performance at the portfolio level only is "problematic". (Exhibit C5-5, p. 14) He recommends that Terasen establish the cost-effectiveness of each measure and project. (Exhibit C5-5, p. 15)

Terasen states in reply that it is not proposing that economic performance be judged only at the portfolio level and that Mr. Plunkett has mischaracterized its proposal.

Terasen states that "[t]he energy efficiency and fuel switching programs would be planned and evaluated on the TRC, the RIM test, the Utility Cost ("UC") test and the Participant test, and the overall portfolio TRC test results would have to be greater than 1.0 to proceed." (Exhibit B-1, p. 83)

However, Terasen also states that it is "not proposing any thresholds with respect to the RIM test, the UC test and the Participant test. In the absence of such thresholds, [it is] not comfortable stating that an activity would proceed or not based on RIM, UC and Participant test results." Rather, Terasen proposes that "the overall portfolio level TRC must be maintained at 1.0 or greater." (Exhibit B-4, BCUC 2.19.1)

Commission Determination

The Commission Panel accepts the portfolio level approach based on achieving a portfolio TRC level, discussed below, of 1.0 or greater provided that program areas, initiatives or measures with an individual TRC of less than 1.0 are proactively designed and sufficiently support social or environmental objectives. Consequently, it is important for the components of any portfolio to be capable of analysis on an individual basis. The Commission Panel directs that Terasen include in its annual EEC Report to the Commission the results of the RIM, UC, TRC and Participant tests for each proposed DSM in its portfolio, and provide justification for continuing with any measures or groups of measures which have a TRC of less than 1.0.

Total Resource Cost Test

Terasen proposes that the benefit-cost tests be used to evaluate its programs as outlined in the "California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects", which is included in Exhibit B-1 as Appendix 12 ("the California Standard Practice Manual"). (Exhibit B-1, p. 82)

The California Standard Practice Manual describes the Total Resource Cost Test as a cost-effectiveness test which "measures the net cost of a demand-side management program as a resource option based on the total costs of the program, including both the participants' and the utility's costs." (Exhibit B-1, Appendix 12, p. 18)

The "benefits" portion of the TRC test is made up of the avoided supply costs, valued at their marginal cost, for periods when a load reduction results. These costs are "calculated using net program savings, savings net of changes in energy use that would have happened in the absence of the program. For fuel substitution programs, benefits include the avoided device costs and avoided supply costs for the energy, using equipment not chosen by the program participant." (Exhibit B-1, Appendix 12, p. 18)

The "costs" portion of the TRC test is made up of the program costs paid by the utility and the participants plus any increase in supply costs for periods when load is increased. This is a broad category, and includes all equipment costs, installation, operation and maintenance costs, cost of removal (less any salvage value), and administration costs, regardless of who pays, less any tax credits. For fuel substitution programs, costs also include any increase in the supply costs of the utility providing the chosen fuel. (Exhibit B-1, Appendix 12, p. 18)

The benefit-cost ratio is the ratio of discounted total program benefits to discounted total program costs over a specified period of time. A benefit-cost ratio greater than one indicates the program is beneficial, on the basis of the TRC test. (Exhibit B-1, Appendix 12, p. 19)

Intervenor Positions

BCOAPO prefers the "Societal test" over other cost-benefit tests which it argues "do not capture the non-economic benefits of DSM programs". (BCOAPO Argument, p. 4)

According to the California Standard Practice Manual, the "Societal test" is a variant of the TRC test. It differs in that it looks at society as a whole as opposed to the utility's service territory and includes the effects of externalities, such as environmental implications. It also excludes tax credit benefits and uses a "societal" discount rate.

Mr. Plunkett notes in his evidence that: "[i]ncluding external social and environmental benefits in calculating DSM cost-effectiveness would be to apply the societal test, not the total resource cost (TRC) test. Other jurisdictions such as Vermont and New York apply the societal test as the threshold determinant of DSM cost-effectiveness. Explicitly valuing social and environmental externalities in DSM cost-effectiveness will lead to more efficient resource allocation – and greater societal net benefits – than the economically inferior policy of pursuing a portfolio benefit/cost ratio under the TRC test of 1.0." (Exhibit C5-7, BCUC 1.5.2)

Commission Determination

The Commission Panel acknowledges the Societal test as one which addresses a broader spectrum of factors not included in the TRC test. While recognising that societal factors have significance, the Commission Panel views many of these factors as being rather subjective and difficult to measure. The Commission Panel also takes note of the DSM Regulation which will apply to Terasen as of June 01, 2009 requiring the Commission to use, in addition to any other test it considers appropriate, the TRC test in determining whether a demand-side measure is cost-effective. While the DSM Regulation is not in effect for the purposes of this Decision, the Commission Panel does consider the TRC test to be appropriate and adequate for the purposes of this Application and accepts it as such.

3.2 Free Riders

Terasen seeks certain changes to the cost-benefit analysis undertaken in respect of EEC expenditures, including a proposal to ". . . eliminate the requirement to include free riders in cost-benefit tests, as the energy and emissions reduction goals of the government are absolute goals and do not consider free ridership effects." (Exhibit B-1, p. 16)

The Application defines free riders as ". . . customers who participate in a program, but would have undertaken the same conservation actions even if the program were not offered". Terasen's proposal with respect to free riders includes two tables illustrating an estimated TRC benefit for the EEC Portfolio of $165.149 million, excluding the effects of free riders, and of $139.448 million, including the effects of free riders, a difference of $27.701 million. Terasen's discussion concludes with the view that ". . . the inclusion of the effects of free riders in the cost-benefit test for EEC programs distorts the value of EEC programs and is counter to the objectives of the energy plan." (Exhibit B-1, pp. 85-86)

Terasen responded in some detail to Information Requests concerning Free Riders, including the statements that "[f]ree riders are one of the most-debated aspects of DSM cost-benefit tests as they are challenging to establish" and "[e]stimating free rider rates . . . is more of an art than a science." (Exhibit B-2, BCUC 1.3.1)

It is Terasen's view that "it should be the outcome [energy consumption reduction] that matters, not the way in which it was achieved." (Exhibit B-1, p. 86) Terasen states: ". . . . [Government] GHG reduction goals make no mention of net-to-gross ratios – in fact they could be considered "gross" GHG reduction goals, and presumably it is gross energy savings that will be counted towards achieving those goals. It makes sense to align gross estimations of energy savings from utility DSM programs with government's gross GHG reduction goals." (Exhibit B-2, BCUC 1.3.1)

Terasen notes that "[w]hile it is possible that estimated free rider rates may be higher than forecast, it is also possible that free rider rates may be lower than forecast." (Exhibit B-2, BCUC 1.46.1)

Intervenor Positions

With respect to the free rider issue, BCSEA-SCBC's expert Mr. Plunkett states:

> "[Terasen's] proposal would depart from well-established Commission practice of accounting for savings from program free riders. This not only distorts economic assessment but is also inconsistent with resource planning, since it will overstate how much Terasen should expect to reduce energy supply requirements. It will also distort program design, especially in appliance and equipment replacement markets where the high-efficiency market penetration can change rapidly. Ignoring free ridership would tend to prevent adjustments in minimum qualifying efficiency levels due to a higher-efficiency market baseline." (Exhibit C5-5, pp.15, 16)

Mr. Plunkett's concluding recommendation included directing Terasen to modify its plan to "[d]evelop market net-to-gross ratios for programs based on estimates of free-ridership and spillover effects incorporated into program planning and design." (Exhibit C5-5, p. 23)

BCSEA-SCBC does, however, agree with Terasen that "the inclusion or exclusion of free riders from the analysis makes no practical difference in evaluating the acceptability of this specific EEC plan on an overall basis" although it notes that "failing to incorporate the free-rider factor can distort program design." (BCSEA-SCBC Argument, p. 19)

BCOAPO expresses the view that ". . . free ridership has the effect of over-crediting EEC programs. BCOAPO agrees that measuring free ridership is difficult, but this difficulty does not mean that it is appropriate to set it to zero." BCOAPO concurs with Mr. Plunkett's views with respect to the free rider issue. (BCOAPO Argument, p. 13)

Commission Determination

The Commission Panel notes the position of Terasen, and the acknowledgements of BCOAPO and BCSEA-SCBC that, in the case of the Application, the free rider issue has no immediate practical impact, as the portfolio level TCR results calculated either with or without inclusion of the free rider effect is well above the 'break-even' threshold of 1.0. However, the Commission Panel does consider that this issue is likely to become a factor as the DSM initiatives of Terasen become more fully developed and refined, and therefore should be addressed in this Decision.

The Commission Panel does not agree with Terasen's position that ". . . the inclusion of the effects of free riders in the cost-benefit test for EEC programs distorts the value of EEC programs and is counter to the objectives of the energy plan." (Exhibit B-1, pp. 85-86) The Commission Panel considers that it would be an unacceptable distortion to measure the effectiveness DSM programs by giving credit to the programs for consumption reductions which, based Terasen's own definition (quoted above), would have taken place absent the incentive program.

The Commission Panel rejects Terasen's proposal to exclude the free rider factor from program effectiveness (TRC) calculations.

3.3 Attribution to Regulatory Changes

Terasen submits that once a proposed regulation and implementation date for minimum efficiency standards for an appliance, building or energy system is announced by a regulating body, it be permitted to attribute savings to market transformation programs for that particular appliance, building or energy system in its cost benefit tests at that time. The proposal involves attributing the savings to the program over a five year span, with adjustment for the level of Terasen's support for the market transformation and the level of financial contribution by others.

Terasen submits that it is reasonable to include attribution savings in a cost-benefit test, particularly in light of the newly issued DSM Regulation. The Regulation permits the Commission to include in the benefit of measures proposed a proportion of the savings resulting from the increased market share of a regulated item because of the commencement and application of a specified standard with respect to the regulated item. (Terasen Argument, p. 39; Exhibit B-1, p. 12; Exhibit B-1, p. 16)

The attribution rates proposed by the Company, for which it is seeks approval with this Application, for any such future regulation are outlined below.

Table 6
Attribution Rates

Regulation Year	Percentage of Savings Attributed to Program
1	50
2	40
3	30
4	20
5	10

Source: Exhibit B-1, p. 87

Intervenor Positions

BCSEA-SCBC's concern with respect to the attribution concept is based on Mr. Plunkett's evidence that it can distort program design. As with the free-rider factor, BCSEA-SCBC favours the use of net-to-gross ratios. (BCSEA-SCBC Argument, p. 20)

BC Hydro submits that "Terasen Utilities' position on attribution of savings from codes and standards to utility DSM programs is arbitrary and will result in an unrepresentative view of the benefits (higher or lower) associated with some programs." BC Hydro further submits that

"[a]ttribution of savings from codes and standards should be evaluated on a case-by-case basis" and that "the attribution rate should reflect the level of support for market transformation", arguing that Terasen's "position on attribution goes against this approach." (BC Hydro Argument, p. 17)

BCOAPO states ". . . the DSM regulation 4(7) allows for the Commission to include a proportion of the benefit that, in the Commission's opinion (not the Applicant's) will increase market share only between the time that a specified standard has been announced, and the time that it commences. Any attribution beyond that will, predictably, distort program design." (BCOAPO Argument, p. 13) (emphasis in original)

In its Reply, Terasen notes that "BCOAPO and BCSEA-SCBC have made submissions on attribution of benefits. This issue is not relevant to the assessment of the proposed portfolio, as the assessment does not include any attribution of benefits. With respect to the assessment of future portfolios, the Terasen Utilities repeat and rely on the submissions made in paragraphs 109 to 111 of the Initial Submissions" (which argue for the inclusion of attribution savings.)
(Terasen Reply, p. 20)

Commission Determination

The Commission Panel notes Terasen's comment that the attribution issue is not relevant to this Application as the assessment does not include any attribution of benefits. However, as in the case of free riders, the Commission Panel does consider that this issue is likely to become a factor as the DSM initiatives of Terasen become more fully developed and refined, and therefore should be addressed in this Decision.

The Commission Panel accepts the position of BC Hydro that attribution of savings from codes and standards should be evaluated on a case-by-case basis and that the attribution rate should reflect the level of support for market transformation. The Commission Panel shares the BCSEA-SCBC's

concern, as detailed in Mr. Plunkett's evidence, that the attribution concept can distort program design.

The Commission Panel rejects the Attribution to Regulatory Change proposal made in the Application and refers this issue back to Terasen to redesign and resubmit with its next annual EEC report to the Commission, giving consideration to a modified version of the Application's attribution proposal reflecting the provisions of the DSM Regulation which come into effect for Terasen on June 1, 2009. The Commission Panel directs Terasen to address, in the modified version, the matters raised by BC Hydro and BCSEA-SCBC, and also to give consideration to factors such as the length of time a particular program element has been operative at the time any applicable regulation is introduced and how compatible the program initiative is with the new regulation (e.g. if a regulation is introduced with a higher or lower threshold or standard than the program design).

3.4 Carbon Pricing

As part of the Application, Terasen seeks an order approving certain changes to the benefit-cost analysis undertaken in respect of EEC expenditures, including recognizing the impact of carbon pricing as one of the inputs to the benefit-cost tests. (Exhibit B-1, pp. 15-16)

Terasen proposes that additional customer bill savings from the implementation of the tax should be included in the benefit-cost analysis for EEC programs. Terasen proposes that the activities supported by the EEC Application will contribute to consumer education and provide consumers with tools to help them reduce the impact of the proposed carbon tax on their energy expenditures. (Exhibit B-1, p. 41)

Terasen summarises its position with respect to the carbon tax matter in Argument as follows: "The customers will also enjoy a benefit associated with reduced Carbon Tax costs. Customers that install an efficient appliance or design a more efficient building as a result of Terasen's EEC initiatives will use less gas, and will therefore pay less Carbon Tax. Therefore, the avoided Carbon

Tax was included in the participant benefits, as noted in Appendices 11A and 11B of the Application" [Terasen Argument, p. 21)

Commission Determination

The Commission Panel accepts Terasen's proposal for the carbon tax reduction as an appropriate factor to be included in computing the EEC cost-benefit analysis.

3.5 Accountability Mechanisms

Terasen summarises its proposal for accountability mechanisms as follows:

> "In this Application the Companies have recognized the need for accountability for the funds approved for EEC programs. First, any funds not spent will not be charged to the regulatory asset deferral account. Second, the Companies intend to monitor the portfolio TRC on a monthly basis, and have proposed to file an Annual EEC Report with the Commission by the end of the first quarter every year. The Report will detail program activity, expenditures, and cost-benefit results for the previous year, as well as describe program activity and provide forecasts for the upcoming year. Third, in the event that the relief sought is granted, the Companies would form and engage an EEC stakeholder group with membership representing a broad cross section of stakeholders identified in the Application. Fourth, the Companies have indicated their intention to hold annual EEC workshops with stakeholders, at which the Companies would present updates on program progress and obtain stakeholder input on new programs and refinements to existing programs. Fifth, the Companies are proposing to develop many of the programs for the commercial sector and the DSM for Affordable Housing sector in conjunction with stakeholder advisory groups." (Terasen Argument, p. 39)

<u>Intervenor Positions</u>

BCSEA-BCSC states that they: ". . . support this [funding] approach, noting that the proposed accountability mechanisms are designed to be more effective and efficient than having on-going Commission involvement in decision-making within the portfolio during the Funding Period" and "BCSEA-SCBC acknowledge and support the additional accountability mechanisms proposed by Terasen in [Terasen Argument] paragraph 112." (BCSEA-SCBC Argument, pp. 5, 20)

BCOAPO argues that, should the Application be approved, an independent audit process should be required with respect particularly to free ridership, attribution and redirection of funds. (BCOAPO Argument, p. 14)

Commission Determination

The Commission Panel accepts Terasen's accountability undertakings, and considers that, while the proposal to evaluate the EEC project using the TRC test at the Portfolio level has been accepted, TRC calculations for each program area, initiative and measure should also be included in the accountability reporting as a means of assessing the components of the Project and their ongoing effectiveness.

Commission Panel directs that the annual EEC Report include the following:

- TRC, RIM, UC, and Participant test calculations of DSM at the Program Area initiative and individual measure levels in addition to the total Portfolio level reporting. Reporting of the Residential & Commercial EE program areas should also be made at the New Construction and Retrofit levels.
- any inter and intra Program Area initiative funding transfers, with supporting rationale, and the impact of such transfers on the transferor and transferee Program areas, initiatives, and measures as the case may be.
- data for fuel switching programs should be tracked in a manner which allows for reporting types of fuels replaced by natural gas, including estimated GHG impacts.

The Commission Panel also directs Terasen to include in its annual EEC Report to the Commission a discussion of its internal data gathering, monitoring and reporting control processes. The discussion should include a description of how these processes ensure that funds expended and the statistical results of the programs implemented are completely and accurately recorded and monitored, including any related internal check and audit processes. The report should also discuss how Terasen has measured or estimated the results of the EEC expenditure initiatives.

4.0 CAPITALISATION OF INCREMENTAL EEC EXPENDITURES

Terasen's proposed EEC expenditures are summarised and discussed in Section 2.0. Terasen proposes to capitalise the approved incremental expenditures as a regulatory deferral account in the year in which the expenditures are incurred, with amortisation over 20 years commencing the year after the expenditures are made. The proposed amortisation period is addressed in Section 5.0 of this Decision.

Terasen's total EEC expenditures for 2008 to 2010 include operating and maintenance (O&M) expenditures for its previously approved DSM programs for 2008 and 2009. Terasen proposes to charge those O&M costs to operations in those years, with the balance of the total EEC expenditures being added to a new EEC deferral account. This method accounts for the impact of the legacy DSM Operating & Maintenance expenditures having been considered in the PBR and RR Extended Settlements for TGI and TGVI respectively. The reconciliation of the Total EEC expenditures and the amounts expensed and deferred is illustrated in the following table.

Table 7

Deferral Reconciliation	TGI			TGVI		
	2008	2009	2010	2008	2009	2010
Total EEC Expenditures	13,996	15,752	17,196	2,830	3,043	3,793
Expensed per Extended Settlements	1,624	1,624	-	500	500	-
Proposed Deferral Addition	12,372	14,128	17,196	2,330	2,543	3,793

Source: Exhibit B-1, pp. 49, 95, 97

Terasen points out that its proposed accounting treatment to capitalize the EEC expenditures is permitted under current Canadian Institute of Chartered Accountants (CICA) accounting standards. Terasen also notes that, effective 2011, all publicly accountable entities, including it will be required to comply with International Financial Reporting Standards (IFRS). Terasen is of the view

that: ". . . the proposed financial treatment of EEC funding also meets the requirements of IFRS" and goes on to state that "[i]f, however, after further discussion and closer examination in conjunction with auditors and other utilities, the EEC funding failed to pass these [IFRS] tests, then [Terasen] will revisit the program to ensure that it continues in a fashion which maintains an alignment on interests between customers, investors and government policy." (Exhibit B-1, pp. 81-82)

Intervenor Positions

BCSEA-SCBC comments on Terasen's ". . . proposal to capitalize incremental EEC expenditures amortised over 20 years. BCSEA-SCBC supports this concept, including the 20 year amortisation period due to the life-expectancy of gas DSM measures." (BCSEA-SCBC Argument, p. 17)

Commission Determination

The Commission Panel accepts Terasen's proposal to capitalize the approved EEC expenditure to a regulatory deferral account, and to amortitse the deferral account balances over an appropriate time period. The related issues of the quantum of the expenditures approved and the appropriate amortisation period(s) for the program areas are addressed in other sections of this Decision.

5.0 AMORTISATION OF EEC EXPENDITURES

Terasen proposes to amortise its EEC expenditures, including both program, and incentive and rebate costs, over a 20 year period, based on a calculation of the 22.5 years as the weighted average measurable life of the proposed appliance and energy system installations. Terasen's weighted average calculation is based on achieving estimated volumes, mix and lives of installations for the various measures being proposed. (Exhibit B-1, p. 80, and Appendix 40.2) FortisBC and BC Hydro each use 10 year amortisation periods. (Exhibit B-2, p. 95) Terasen states: "…research failed to uncover any examples where utilities are using or proposing amortisation periods as long as 20 years" for DSM programs. (Exhibit B-2, p. 97)

Commission Determination

The Commission Panel rejects the 20 year amortisation period proposed by Terasen. The Commission panel considers the underlying forecast assumptions on which the Terasen methodology is based to be inherently uncertain, and deserving little weight. The Commission Panel does consider that a ten year amortisation period provides a reasonable balance, considering both the DSM objectives and customer impact. Terasen is directed to base its amortisation of approved EEC expenditures over periods not to exceed 10 years.

DATED at the City of Vancouver, in the Province of British Columbia, this 16th day of April 2009.

Original signed by:

A.W. KEITH ANDERSON
COMMISSIONER

Original signed by:

ALISON A. RHODES
COMMISSIONER

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BRITISH COLUMBIA UTILITIES COMMISSION

ORDER NUMBER G-36-09

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IN THE MATTER OF
the Utilities Commission Act, R.S.B.C. 1996, Chapter 473

and

Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc.
Energy Efficiency and Conservation Programs Application

BEFORE: A.W.K. Anderson, Commissioner
A.A. Rhodes, Commissioner

April 16, 2009

O R D E R

WHEREAS:

A. On May 28, 2008 Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc. (collectively "Terasen") filed an application for approval of various concepts and expenditures in support of an expanded energy efficiency and conservation ("EEC") strategy, and to capitalize incremental EEC expenditures by charging the expenditures to a regulatory asset deferral account and amortising the balance over 20 years (the "Application"); and

B. On June 3, 2008 the British Columbia Utilities Commission ("Commission") issued a letter requesting that interested parties register and file comments on Terasen's proposed timetable before June 11, 2008; and

C. By Order G-102-08 dated June 19, 2008, the Commission issued a Preliminary Regulatory Timetable which included two rounds of Commission Information Requests and one round of Intervenor Information Requests, and requested comments from all parties on further process for reviewing the Application; and

D. In response to Order G-102-08, the Commission received replies from Terasen and the following Intervenors: B.C. Ministry of Energy Mines and Petroleum Resources ("MEMPR"), British Columbia Hydro and Power Authority ("BC Hydro"), B.C. Sustainable Energy Association and the Sierra Club of British Columbia ("BCSEA-SCBC"), the Commercial Energy Consumers Association of British Columbia ("CEC"), B.C. Old Age Pensioners' Organization et al. ("BCOAPO"); and

E. Following its review of comments from Terasen and Intervenors, the Commission issued Letter L-39-08 dated September 8, 2008 ordering a second round of Intervenor Information Requests; and

F. By Order G-130-08 dated September 18, 2008 the Commission established a Written Hearing Process and Regulatory Timetable for its review of the Application; and

G. The Written Hearing Process concluded on December 5, 2008 with the filing of Terasen's reply submission; and

H. The Commission has reviewed and considered the evidence and submissions of Terasen and Registered Intervenors.

NOW THEREFORE pursuant to section 44.2 of the Utilities Commission Act, and subject to the specific determinations, qualifications and directions set out in the Decision issued concurrently with this Order, the Commission orders as follows:

1. The following proposed expenditures are accepted:

   (a) $31.077 million for the combined Residential Energy Efficiency and Commercial Energy Efficiency programs;

   (b) Expenditures for programs or initiatives directed at fuel switching away from fossil fuels with a higher carbon content than that of natural gas to natural gas;

   (c) $6.918 million for the Conservation Education and Outreach program;

   (d) $3 million for Joint Initiatives; and

   (e) $0.5 million for Conservation Potential Review.

2. Expenditures in the sum of $3 million for Innovative Technologies, Natural Gas Vehicles and Measurement and $1.5 million for Trade Relations are rejected.

3. The proposed portfolio approach is accepted.

4. The Total Resource Cost test is accepted as the appropriate test for cost effectiveness.

5. The proposal to exclude the free rider factor from benefit-cost analyses is rejected.

6. The proposal for Attribution of Regulatory Changes is rejected.

7. The proposal to include carbon tax reductions in computing benefit-cost analyses is accepted.

8. Terasen is to commence the planning process for development of an Industrial EEC program and file a report with the Commission within 90 days of the date of the Decision.

9. The proposal for accountability mechanisms is accepted and Terasen is to file an annual report on its EEC activities as described in the Commission's Decision.

10. Subject to paragraph 11 below, the proposal to capitalise the approved EEC expenditure to a regulatory deferral account and to amortise the deferral account balances is accepted.

11. The proposal to amortise EEC expenditures over a 20 year period is rejected. Terasen is directed to base its amortisation of approved EEC expenditures over periods not to exceed 10 years.

DATED at the City of Vancouver, in the Province of British Columbia, this 16th day of April 2009.

BY ORDER

Original signed by:

A.W.K. Anderson
Commissioner

IN THE MATTER OF
the Utilities Commission Act, R.S.B.C. 1996, Chapter 473

and

Terasen Gas Inc. and Terasen Gas (Vancouver Island) Inc.
Energy Efficiency and Conservation Programs Application

EXHIBIT LIST

Exhibit No.	Description
COMMISSION DOCUMENTS	
A-1	Letter dated June 3, 2008 issuing request for comments on process and proposed timetable
A-2	Letter dated June 19, 2008 issuing Order No. G-102-08 establishing the Regulatory Timetable
A-3	Letter dated June 20, 2008 issuing Commission Information Request No. 1
A-4	Letter dated July 25, 2008 issuing Commission Information Request No. 2
A-5	Letter dated September 8, 2008 establishing a Second Round of Information Requests
A-6	Letter dated September 12, 2008 issuing Commission Information Request No. 3
A-7	Letter dated September 18, 2008 and Order No. G-130-08 establishing a Written Hearing and Regulatory Timetable
A-8	Letter dated October 22, 2008 issuing Information Request #1 to BC Hydro
A-9	Letter dated October 24, 2008 filing Information Request No. 1 to BCSEA
APPLICANT DOCUMENTS	
B-1	Letter dated May 28, 2008 filing Energy Efficiency and Conservation Programs Application
B-2	Letter dated July 11, 2008 filing response to the Commission's Information Request No. 1

Exhibit No.	Description
B-2-1	**CONFIDENTIAL** - Letter dated July 11, 2008 filing response to the Commission's Information Request No. 1, Questions 9.2 and 22.1
B-3	Letter dated August 15, 2008 filing response to the Commission's Information Request No. 2
B-4	**CONFIDENTIAL** - Letter dated August 15, 2008 filing response to the Commission's Information Request No. 2
B-5	Letter dated August 15, 2008 filing response to BC Hydro's Information Request No. 1
B-6	Letter dated August 15, 2008 filing response to BCOAPO's Information Request No. 1
B-7	Letter dated August 15, 2008 filing response to BC Sustainable Energy Assoc & Sierra Club of Canada Information Request No. 1
B-8	Letter dated August 15, 2008 filing response to the Commercial Energy Consumers Association of BC's Information Request No. 1
B-9	Letter dated August 15, 2008 filing response to the Ministry of Energy, Mines & Petroleum Resources' Information Request No. 1
B-10	Letter dated August 15, 2008 filing response to the Rental Owners & Managers Society of BC's Information Request No. 1
B-11	Letter dated August 27, 2008 filing comments on submissions from Intervenor and on the further procedural process
B-12	**WITHDRAWAL ORIGINAL B-11, AMENDED AND REPOSTED** - Letter dated October 6, 2008 filing response to the Commission's Information Request No. 3
B-13	**WITHDRAWAL ORIGINAL B-12, AMENDED AND REPOSTED -** Letter dated October 6, 2008 filing response to the BCOAPO's Information Request No. 2
B-14	**WITHDRAWAL ORIGINAL B-13, AMENDED AND REPOSTED -** Letter dated October 6, 2008 filing response to the BCSEA's Information Request No. 2
B-15	Letter dated October 24, 2008 issuing Information Request No. 1 to BC Hydro and Power Authority
B-16	Letter dated October 24, 2008 issuing Information Request No. 1 to BCSEA and SCBC

Exhibit No.	Description

INTERVENOR DOCUMENTS

C1-1 **MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES (MEMPR) –** Letter dated June 10, 2008 from Duane Chapman, Senior Regulatory Advisor, requesting participation in the proceedings

C1-2 Letter dated July 24, 2008 filing MEMPR's Information Request No. 1

C1-3 Letter dated August 27, 2008 filing comments on further procedural process

C1-4 Letter dated October 24, 2008 filing comment for consideration

C2-1 **BRITISH COLUMBIA HYDRO & POWER AUTHORITY (BC HYDRO) –** Online web registration received June 10, 2008 filing request for Intervenor status

C2-2 Letter dated June 11, 2008 filing comments on the regulatory review process and timetable

C2-3 Letter dated July 25, 2008 filing Information Request No. 1 to Terasen

C2-4 Letter dated August 27, 2008 filing comments on further procedural process

C2-5 Letter dated September, 2008 filing request for an extension for filing Intervenor Evidence

C2-6 Letter dated October 14, 2008 filing BC Hydro's Evidence

C2-7 Letter dated November 7, 2008 filing responses to the Commission's and Terasen Utilities' Information Request No. 1

C3-1 **RENTAL OWNERS AND MANAGERS SOCIETY OF BC (ROMS) –** Letter dated June 10, 2008 from Al Kemp, CEO, requesting Intervenor status

C3-2 Letter dated July 21, 2008 filing Information Request No. 1 to Terasen

C4-1 **BRITISH COLUMBIA OLD AGE PENSIONERS ORGANIZATION (BCOAPO)** - Letter dated June 11, 2008 request for Registered Intervenor status for Leigha Worth, Eugene Kung, and James Wightman of Econalysis Consulting

C4-2 Letter dated June 11, 2008 filing comments on procedural matters

Exhibit No.	Description
C4-3	Letter dated July 25, 2008 filing Information Request No. 1 to Terasen
C4-4	Letter dated August 27, 2008 filing comments on further procedural process
C4-5	Letter dated September 15, 2008 filing Information Request No. 2 to Terasen
C5-1	**BC SUSTAINABLE ENERGY ASSOCIATION (BCSEA) AND THE SIERRA CLUB OF CANADA (BRITISH COLUMBIA CHAPTER) (SCCBC)** - Letter dated June 11, 2008 request for Registered Intervenor status
C5-2	Letter dated July 25, 2008 filing Information Request No. 1 to Terasen
C5-3	Letter dated August 27, 2008 from William J. Andrews, legal counsel, filing comments on further procedural process
C5-4	Letter dated September 15, 2008 filing Information Request No. 2 to Terasen
C5-5	Letter dated October 14, 2008 filing BCSEA et al Evidence
C5-6	Letter dated October 16, 2008 filing Errata to Evidence (Exhibit C5-5)
C5-7	Letter dated November 7, 2008 filing response to the Commission's Information Request
C5-8	Letter dated November 7, 2008 filing response to Terasen's Information Request with worksheet
C6-1	**FORTISBC INC.** - Letter dated June 12, 2008 from Joyce Martin, filing request for Registered Intervenor status
C7-1	**PACIFIC NORTHERN GAS LTD. (PNG) –** Online web registration received June 18, 2008 from Craig Donohue filing request for Intervenor status
C8-1	**COMMERCIAL ENERGY CONSUMERS ASSOCIATION OF BC (CECBC)** - Letter dated June 18, 2008 from Christopher Weafer, Owen Bird, legal counsel, filing request for Registered Intervenor status and comments
C8-2	Letter dated July 25, 2008 filing Information Request No. 1 to Terasen
C8-3	Letter dated August 27, 2008 from Christopher Weafer, Owen Bird, legal counsel, filing comments on further procedural process

Exhibit No.	Description
C9-1	**DIRECT ENERGY MARKETING LIMITED (DEML)** - Online web registration dated June 25, 2008 from Chad Painchaud, filing request for Registered Intervenor status
LETTERS OF COMMENT	
E-1	**CANADIAN MORTGAGE AND HOUSING CORPORATION (CMHC – SCHL)** - Letter of Comment dated June 16, 2008, faxed from Lance Jakubec, Senior Research Consultant, in support of the application
E-2	**CITY GREEN SOLUTIONS** – Letter of Comment received June 17, 2008 from Peter Sundberg, Executive Director
E-3	**LIGHT HOUSE SUSTAINABLE BUILDING CENTRE** - Letter of Comment received June 17, 2008 from Helen Goodland
E-4	**CANADIAN HOME BUILDERS' ASSOCIATION (VICTORIA) (CHBA)**- Letter of Comment received June 18, 2008 from Casey Edge, Executive Officer
E-5	**HEARTH, PATIO & BARBECUE ASSOCIATION OF CANADA (HPBAC)** - Letter of Comment received June 18, 2008 from Tony Gottschalk, Manager
E-6	**FRASER BASIN COUNCIL** – Letter of Comment received June 20, 2008 from Bob Purdy, Director, Corporate Development & Communications
E-7	**PACIFIC RESOURCE CONSERVATION SOCIETY** – Letter of Comment received June 24, 2008 from Darla Simpson, Executive Director
E-8	**CANADIAN HOME BUILDERS' ASSOCIATION (KAMLOOPS) (CHBA)** - Letter of Comment dated June 25, 2008 from Patsy Bourassa, Executive Officer
E-9	**URBAN DEVELOPMENT INSTITUTE – PACIFIC REGION (UDI) -** Letter of Comment dated July 3, 2008 from Jeff Fisher, Deputy Executive Director
E-10	**FRASER VALLEY HOME BUILDERS ASSOCIATION (FVHBA) -** Letter of Comment dated July 8, 2008 from Jan Field, Executive Officer
E-11	**CANADIAN MANUFACTURERS & EXPORTERS – BC DIVISION -** Letter of Comment dated July 5, 2008 from Craig Williams, Vice President
E-12	**NATURAL RESOURCES CANADA -** Letter of Comment dated July 9, 2008 from John Cockburn, Director, Office of Energy Efficiency

Exhibit No.	Description
E-13	**CANADIAN HOME BUILDERS ASSOCIATION OF BC (CHBA BC) -** Letter of Comment dated July 8, 2008 from M.J. Whitemarch, Chief Executive Officer
E-14	**CITY OF NANAIMO -** Letter of Comment dated July 10, 2008 from Gary Korpan, Mayor
E-15	**CITY OF VICTORIA -** Letter of Comment dated July 15, 2008 from Alan Lowe, Mayor
E-16	**CITY OF LANGFORD -** Letter of Comment dated July 22, 2008 from Rob Buchan, Clerk-Administrator
E-17	**TOWN OF LADYSMITH –** Letter of Comment dated July 24, 2008 from Mayor Robert Hutchins
E-18	**CORPORATION OF THE VILLAGE OF CUMBERLAND -** Letter of Comment dated July 18, 2008 from Christine Makarowski, Corporate Services Manager
E-19	**THE CORPORATION OF THE CITY OF NORTH VANCOUVER -** Letter of Comment dated July 29, 2008 from Darrell Mussatto, Mayor
E-20	**THE CORPORATION OF THE DISTRICT OF WEST VANCOUVER -** Letter of Comment dated July 30, 2008 from Clay Nelson, Manager
E-21	**BROOK + ASSOCIATES INC. -** Letter of Comment dated July 2, 2008 from Blair Chisholm, Planning Manager
E-22	**CITY OF POWELL RIVER -** Letter of Comment dated July 30, 2008 from Mair Claxton, City Clerk
E-23	**CORPORATION OF DELTA -** Letter of Comment dated July 30, 2008 from Lois E. Jackson, Mayor
E-24	**BC CHAMBER OF COMMERCE -** Letter of Comment dated August 11, 2008 from John R. Winter, President & CEO
E-25	**CANADIAN GAS ASSOCIATION -** Letter of Comment dated August 14, 2008 from Michael Cleland, President & CEO
E-26	**CITY OF SURREY -** Letter of Comment dated August 11, 2008 from Dianne L. Watts, Mayor
E-27	**BUSINESS COUNCIL OF BRITISH COLUMBIA -** Letter of Comment dated August 15, 2008 from Virginia Greene, President & CEO