

July 25, 2013

To: All Lonsdale Energy Corporation Customers

**Re: Lonsdale Energy Corporation (LEC)
Application for 2013 and 2014 Rate Increases
September 23, 2013 Public Meeting and Opportunity to Comment**

Mesdames/Sirs:

LEC has applied to its regulator, the City of North Vancouver, for permission to increase its rates in both the fall of 2013 and summer of 2014. While the increase is to be applied at a later date than first anticipated, the 2013 increase is in line with the forecast that was provided to you in a letter dated December 14, 2012. At that time we suggested that you provide for the increase in your 2013 budget process. By including a 2014 increase in the application to the City, we aim to provide more certainty to building owners for the purpose of preparing their 2014 budget.

LEC's rate structure includes three components:

- 1) The Meter Charge, which is constant from month to month and similar for each customer, at \$150 per month, per service connection.
- 2) The Capacity Charge, which is constant from month to month, but different for each customer. Basically, the charge is for ensuring that LEC's generating capacity is sufficient to meet LEC's system capacity requirement. The monthly charge is currently set at \$2.93 per kilowatt multiplied by the energy capacity nominated by a customer.
- 3) The Commodity Charge, which varies from month to month and is based on the amount of energy consumed. This charge essentially covers the cost of the energy purchased by LEC to provide heat to the buildings. The total charge is based on the amount of heat consumed in a month and the unit cost is adjusted in line with FortisBC gas price fluctuations.

More information with regard to these charges is available on our website at www.LonsdaleEnergy.ca under the heading "How Rates Are Calculated" or also directly available at <http://www.cnv.org/City-Services/Lonsdale-Energy/About-LEC-Rates>.

The application aims at increasing the Capacity Charge by 5% effective October 1, 2013 and 5% effective July 1, 2014. The Meter Charge and Commodity Charge are to remain unchanged. That is, the charges will be as follows:

- 1) The Meter Charge is to remain unchanged at \$150 per month, per service connection.
- 2) The Commodity Charge will continue to be adjusted in line with FortisBC rate fluctuations as per the rate that was established in 2007.

- 3) Based on the application, the Capacity Charge would increase from \$2.93 per kilowatt to \$3.077 per kilowatt on October 1, 2013, and to \$3.231 per kilowatt on July 1, 2014.

Total impact on an average customer:

As the Capacity Charge accounts for approximately 48% of an average customer invoicing, assuming constant natural gas prices, the net increase is estimated at 2.5% of the total amount invoiced to an average customer at each of the two above-mentioned dates.

While the increase exceeds the rate of inflation, the following factors should be considered:

- The Capacity Charge has remained constant since LEC started operations in 2003.
- The meter charge was reduced from \$299.34 per month to \$150 per month in December 2009. At that time, the supporting documentation noted that a review of the Capacity Charge would be completed in 2010 and this review has been deferred until now.
- Due to market pricing decrease of the price of natural gas, the Commodity Charge that was set at \$0.0458/Kw.hr in 2007 is currently at \$0.03832/Kw.hr; a 16.3% decrease.
- As shown in the report, LEC's average cost is currently the lowest of comparable Lower Mainland district energy providers. It is also lower than the cost of using stand-alone in-building boilers or electric baseboards.

The attached report provides additional information and I invite you to review it. The recommendation contained in the report was adopted by the Council of the City of North Vancouver at its regular Council meeting of July 22, 2013. Due to its length, attachment 5 of the report is not enclosed, but may be forwarded upon request or viewed at:

<http://www.cnv.org/attach/2013%2007%2022%20item%2017%20attach%2005.pdf>

Any member of the public may forward comments to LEC's regulator, the City of North Vancouver, as per the following:

- 1) Written submissions referring to "LEC rate increase" may be forwarded prior to the Public Meeting attention of the City Clerk, City of North Vancouver, 141 West 14th Street, North Vancouver, BC, V7M 1H9, fax 604.985.9417, email: kgraham@cnv.org.
- 2) In person, at the Public Meeting to be held at 7:00 pm on September 23, 2013 in the Council Chamber, City Hall, 141 West 14th Street, North Vancouver, BC.

My contact information is noted at the bottom of this letter. Please do not hesitate to contact me with any questions or requests for information. Finally, with sufficient notice, I would be happy to meet with building Strata Councils, if deemed appropriate.

Sincerely,



Ben Themens, MBA, P.Eng. CGA
Director
Phone: 604-983-7312
Email: bthemens@LondaleEnergy.ca

c.c. City Council of the City of North Vancouver



REPORT

To: Mayor Darrell Mussatto and Members of Council

From: Ben Themens, Director, LEC

SUBJECT: LONSDALE ENERGY CORP. – RATE REVIEW AND BYLAW AMENDMENT

Date: July 16, 2013

RECOMMENDATION

PURSUANT to the report of the Director of Lonsdale Energy Corp., dated July 16, 2013 entitled "Lonsdale Energy Corp. – Rate Review and Bylaw Amendment":

THAT this report and proposed amendments to "City of North Vancouver Hydronic Heat Energy Service Bylaw, 2004, No. 7575, Amendment Bylaw, 2013, No. 8321" be forwarded to LEC customers for information and comment;

AND THAT "City of North Vancouver Hydronic Heat Energy Service Bylaw, 2004, No. 7575, Amendment Bylaw, 2013, No. 8321" be considered and referred to a Public Meeting on September 23, 2013, to receive input from LEC customers and the public.

ATTACHMENTS

1. City of North Vancouver Hydronic Heat Energy Service Bylaw, 2004, No. 7575, Amendment Bylaw, 2013, No. 8321
2. Letter to LEC customers from the Director of LEC dated December 14, 2012 entitled "LEC Potential 2013 Rate Increase and Impact of the Re-introduction of the PST"
3. Summary of LEC revenue and expenses 2004 – 2012

4. Report of the Deputy City Engineer and Deputy Director of Finance entitled "Lonsdale Energy Corp. – Rate Review and Bylaw Amendment" dated January 17, 2007
5. City of North Vancouver Consolidated Hydronic Heat Energy Service Bylaw, 2004, No. 7575

PURPOSE

This report provides an overview of the rate setting work that was done in the past, explains how LEC has managed to maintain its current rates for almost 10 years and provides the rationale for recommending that the Capacity Charge be increased by 5% in fall 2013 as well as a further 5% in summer 2014. The report also provides a pricing comparison with other Lower Mainland district energy providers.

BACKGROUND

The City of North Vancouver (CNV) owned district energy utility, Lonsdale Energy Corp. (LEC), has been in operation since 2004 following the signing of an operating agreement with Terasen Utility Services (now known as Corix Utilities), the acquisition of external funding from FCM, and the enactment of Bylaw 7575, creating the energy service.

Since inception, several buildings have been connected to the LEC system and currently LEC has over 40 customers which include approximately 2,500 households or 2.9 million sq. ft. of properties including commercial and institutional premises.

Early Customer Rates

The original (2003) rate structure was deemed too high and during the first couple of years of operations staff and strata representatives of the early adopters formed a customer focus group to facilitate open communication between system users and the energy utility.

The issues raised by the customer group concerned the cost of the service, the quality of the service, and the issue of financial equity for those 'early adopters' onto the system where the positive future financial impact of more system users was not recognized in the current rate structure. Issues regarding the quality of service seem to have been resolved and the present report discusses the cost of service.

In 2007 Council adopted bylaw 7843 that reduced customer costs. The new rates were applied retroactively to when each developer-built building transferred control to the building's strata corporation. Consequently, the rates adopted in 2007 can be

considered as the cost that has been charged to LEC's customers since LEC's started operations in 2004. Those rates are provided in the following table:

Charge	Description	Original Bylaw 7575 adopted in 2004	Bylaw 7843 adopted in 2007	Increase (Decrease)
Meter Charge	Monthly charge for each Service Connection serving the Premises	\$491 00 / month	\$299 34 / month	-39 0%
Capacity Charge	Monthly charge per kilowatt multiplied by the energy capacity of the Premises in kilowatts	\$3 920 / Kw	\$2 930 / Kw	-25 3%
Commodity Charge	Charge per kilowatt hour of Hydronic Energy provided to the Premises	\$0 0430 / Kw hr	\$0 0458 / Kw hr *	6 5%

* The commodity charge is adjusted to follow Fortis BC gas pricing fluctuation

With the exception of pricing adjustments to follow Fortis BC gas prices, the capacity and commodity charge have remained unchanged since the adoption of bylaw 7843. The meter charge was further reduced in December 2009 (bylaw 8059) to \$150 / month. The decrease aimed at enhancing LEC's competitiveness to connect smaller buildings to its network.

Developers' Cost / Service Connection Installation Fee

Initially, the amount charged to developers for a service connection fee was set at only \$500. At the outset, the development community viewed LEC or its concept with either reluctance or apprehension. LEC came through an initial implementation period with a track record of meeting builder's needs for service and the service connection fee was soon deemed insufficient compared against the financial, operational, and marketing advantages that the LEC system offers to the development community.

Furthermore, LEC's early customers believed that the developers were not paying their fair share of the service and that too much of the initial capital cost was recovered from them through monthly charges. Some customers mentioned that when purchasing a new high-end apartment, it would be reasonable to expect that at least some of the hydronic heating capital cost was included in the purchase price set by the developer as it would be the case if the building came equipped with an in-building stand-alone hydronic heating system.

Bylaw 7843 significantly increased the service connection fee to \$20,000 per service connection plus \$30/Kw of required capacity. Subsequent bylaws adjusted this rate to \$60/Kw of required capacity. The abolishment of the fix cost component was to further encourage developers to build energy efficient buildings and to reduce the impact on smaller buildings connecting to the LEC. A 50% reduction is also available to building areas that are set aside for rental purposes or that have had a certificate of occupancy for more than 5 years.

This translate into a service connection fee of \$50,000 to \$100,000 per residential high-rise multi-unit building of 100 suites or more, but in most cases, it still translates into savings to the developers who do not have to spend in excess of \$100,000 for a full-service boiler room in new buildings.

DISCUSSION

Rationale for the proposed rate increase

The January 17, 2007 report that recommended the above-mentioned rate adjustment also stipulated that LEC would continue to monitor the financial and operating performance of its system in order to determine needed rate modifications in the future. It also stated that the 2007 financial model considered that the applicable rates would increase with inflation.

Fortunately, LEC has been able to delay rate increases until now. Good and efficient management and operation practices have kept costs under control. For instance, LEC constantly monitors and adjusts the performance of its system. In 2007, using the information available from 2 years of data, LEC was able to determine that buildings could be heated with less LEC equipment than originally presumed. This knowledge provided savings to LEC customers. Since then, LEC has continued to monitor system performance and has been able to defer some of its capital purchases by further reducing its estimate of the amount of equipment required to heat buildings. In addition to this, LEC has taken advantage of the fact that mini-plants are inter-connected and serviced by distinct gas meters. LEC can arrange to purchase gas from different sources at each of the mini-plants and use in priority the sources that provide the best pricing opportunity. Finally, LEC has reduced the use of third party project management and financing in the Central Lonsdale and Marine Drive service areas, which has also provided some savings.

Part of the savings was passed to customers under the form of a reduction of the monthly Meter Charge. The charge was reduced from \$299.34 to \$150 as of December 2009. Based on the fact that \$55,400 was collected under the Meter Charge in 2012 and that the charge was reduced by 50%, the total saving provided by this reduction in 2012 was \$55,400. While no increase of the Capacity Charge was recommended at the time of the Meter Charge decrease, the December 2009 report suggested that the possibility of increasing the Capacity Charge be reviewed in mid-2010. Such an increase has yet to occur.

By now, it is becoming evident that those opportunities have been exploited as much as possible. Equipment to meet increasing demand now needs to be added to the system. In 2012, it also became obvious that LEC's staffing needs could no longer be satisfied by assigning CNV staff on a part-time basis to LEC. Given the volume of its operation

and the opportunities that were increasingly being identified to incorporate renewable energy to its system, LEC hired two full-time staff members in 2012. LEC anticipates hiring a third staff member in the coming months. This being said, the cost of these hiring is somewhat offset by decreasing the amounts paid in consulting fees and various external service providers.

While LEC is still profitable, the 2012 year-end return was lower than 2011. Several reasons explain this decrease:

- 1) As it is the case in every other sector, capital costs of equipment and construction have increased over the past 10 years while LEC's rates have remained constant.
- 2) As mentioned previously, LEC has hired permanent staff, the cost of which will be somewhat offset by reducing the need to hire external service providers. As some of the services are provided under long-term contracts that are in place until 2013, part of the offset will be available only in 2014.
- 3) LEC has started operating in a third, less dense, service area (Marine Drive/Fell Avenue) where several future development projects have been identified and which will, by its location, facilitate the access to energy at the future Metro Vancouver North Shore waste water treatment plant. The depreciation of the distribution system is over a period of 40 years and the expense is reasonable. However, some of the anticipated density will take a few years to be completed and revenue at this location may be lagging for a few years.
- 4) LEC is increasingly diversifying its energy sources to include environmentally-friendly alternative energy. For instance, LEC is now using a geo-exchange system at the new School District office building. LEC has also been using solar energy since 2009 in its system. Those sources are more expensive to use than conventional natural gas boiler technology.
- 5) LEC has used several senior government grants and contributions to fund some of its equipment and network. Those sources are currently unavailable. LEC will continue to apply for funding whenever it identifies an opportunity to access such funding, particularly to fund alternative technologies. In the meantime, LEC is fully funding the cost of its distribution network and energy generation equipment.

In recognition of the fact that some of the above issues are deemed to be temporary, LEC is not suggesting to recover the full cost of the above increases through an immediate rate increase. However, LEC recommends that only the Capacity Charge be increased at this time by 5% to \$3.077 per kilowatt of capacity nominated by each building. The Meter Charge and Commodity Charge adequately cover the cost associated with energy metering and gas purchases. Furthermore, an increase of the Meter Charge which is a fix monthly fee per building would adversely affect smaller buildings. It should be noted that the Capacity Charge represents slightly less than 50% of the total amount invoiced to customers and that consequently, while LEC recognizes that part of the customer charge may also fluctuate with the price of natural gas, this increase still translates into a 2.5% increase of the total amount invoiced to customers.

In term of net amount, the increase being recommended translates in approximately \$40,350 per year based on the fact that \$807,000 was invoiced under the Capacity Charge for the year ending December 31, 2012. This is still less than the saving of \$55,400 provided by the 2009 reduction of the Meter Charge discussed above.

To be clear, the proposed rate structure, would translate in the following:

Charge	Description	Current Rates	Proposed Bylaw	Increase (Decrease)
Meter Charge	Monthly charge for each Service Connection serving the Premises	\$150 / month	\$150 / month	0.0%
Capacity Charge	Monthly charge per kilowatt multiplied by the energy capacity of the Premises in kilowatts	\$2.930 / Kw	\$3.077 / Kw	5.0%
Commodity Charge	Charge per kilowatt hour of Hydronic Energy provided to the Premises	\$0.03832 / Kw hr *	\$0.03832 / Kw hr *	0.0%

* Commodity Charge as of July 1st, 2013 is adjusted to follow Fortis BC gas pricing fluctuation.

Cost of Service

The following table provides a comparison of the cost of service of other Lower Mainland district energy providers as well as the equivalent cost of natural gas or electricity used for heating purposes. In 2012, LEC has delivered 23,945,719 kWh of heat and invoiced \$1,681,470.14. This translates in an average energy cost of \$70.22 / MW.hr.

Table - Comparison of LEC rate with other providers

Energy Provider	Type of Service	Year of rate	Rate (\$ / MW.hr)	Difference with LEC
LEC	Hot Water	2012	\$70.22	-
BC Hydro	Electricity	2013	\$90.51	29%
Fortis BC	Stand-alone NG Boiler	2012	\$84	20%
River District Energy (East Fraserlands)	Hot Water	2013	\$96	37%
South East False Creek (SEFC)	Hot Water	2013	\$94	34%
SFU UniverCity Energy	Hot Water	2013	\$146	108%

Notes

LEC cost based on 2012 revenue and heat deliveries

BC Hydro cost based on purchase of 50% residential step 1 and 50% residential step 2 electricity price as of April 1, 2013 and a 5% rate rider.

Cost of Fortis BC, River District Energy, SEFC and SFU UniverCity taken from CoV report dated November 19, 2012

Central Heat Distribution Ltd. has been omitted due to the fact that the system is steam based

As per the table, LEC is the most competitive, hot water based, district energy provider in the Lower Mainland. For users, LEC rates are more economical than using baseboard electric heat. The bylaw and recommendation accompanying this report aims at providing an immediate 5% increase of the Capacity Charge and further recommends that a second similar increase be implemented mid-2014. Assuming a fix natural gas cost, the proposed net increases of 2.5% would translate into an average energy cost of \$71.98 as of October 2013 and \$73.75 as of July 2014. Both amounts are still much lower than the cost of other alternatives.

In 2003, when LEC was first created, it was envisioned that the utility would aim at providing heat at a rate that would not exceed the cost of electricity by more than 15%. Electric baseboard heating is one of the cheapest alternatives in terms of construction costs and is often preferred by developers. The cost of electricity being estimated at \$90.21 / MW.hr, a 15% target would translate in rates averaging \$104 / MW.hr for LEC.

While LEC is certainly not contemplating to raise its rates by such an extent, the amount is significant and demonstrates that LEC has some latitude to provide a return to CNV or to finance and implement carbon neutral technologies. LEC endeavor to have rates that are fair to both, LEC users as well as City residents as CNV invested in LEC and is funding some of the initial system costs. LEC is also constantly reviewing the implementation of greener technologies and is targeting diversifying its heat sources in a way that will provide reasonable rate increases to its customers.

Impact on Customers

In a letter dated December 14, 2012 (attachment 2), LEC informed its customers that it would apply to its regulator, CNV, for a rate increase to the amount recommended in this report. Property managers were invited to include a provision for the increase in their 2013 budget. Considering that the letter forecasted for the increase to be in place as early as April 1st, 2013 and that the current request would see the increase implemented only in October 2013, building owners are expected to have budgeted an amount to cover the increase. Furthermore, the inclusion of the 2014 increase in the bylaw will provide building owners with additional certainty when preparing their 2014 budgets.

Financial Modeling

The 2007 rate adjustment was based on a 20-year financial model. The model covered the Lower Lonsdale service area only. Considering the fact that the model was based on information and knowledge accumulated during only the first two years of operation, it has proven to be extremely accurate and reliable for the planning of LEC. The model provided sufficient information to support the decision to expand in Central Lonsdale. While the expansion and development significantly differed from the original

assumptions, the model and rate structure proved to be sufficiently robust to provide fair and predictable rates to LEC customers.

At this time, given the uncertainty concerning the future rate of real estate development in the city as well as the rate of implementation and cost of alternative energy generation technology, staff consider that it would be futile to try to generate a 20-year model. The current rate structure seems sufficiently fair, reasonable and accurate to support increasing the Capacity Charge assuming that LEC continues providing heating service predominantly using natural gas boiler technology.

The recommendation to increase the capacity charge is based on past performance, a decrease of LEC's net income as well as the fact that the current rate structure is significantly lower than any other alternatives. LEC needs to generate more revenue to reimburse outstanding amounts to CNV and/or to implement alternative energy sources.

In the immediate, staff suggest that planning and decision-making be based on comparing alternatives and opportunities with the business-as-usual scenario that considers heat generation using natural gas boiler technology.

In 2014, LEC will undertake a review of its system and potential alternative energy options. LEC will be reporting on alternative energy source opportunities and assess their impact on the financial planning of the organization. The need and benefit of building a long-term financial model will be assessed at that time.

British Columbia Utility Commission

During the last municipal election, some residents and consultants have suggested that LEC submit itself to the review of the British Columbia Utility Commission (BCUC). At the time, LEC raised the issue that such a review would be costly for all LEC's customers, as the LEC would need to hire staffing and/or consultants to prepare a submission to the BCUC. Furthermore, LEC could be required to compensate the BCUC for the review.

The BC Utilities Commission Act stipulates that the following is not included in the definition of a public utility: "a municipality or regional district in respect of services provided by the municipality or regional district within its own boundaries". As such, to date, CNV has been the regulator of LEC and staff recommends that it continues to act as such.

As a matter of fact, a request for BCUC to be the regulator of LEC would go against BCUC's attempt to reduce regulations with regard to Thermal Energy Systems. On December 27, 2013, BCUC issued its Report on the Inquiry into the Offering of Products and Services in Alternative Energy Solutions and Other New Initiatives (AES Report) available in the Orders and Decisions listing on the BCUC website. In that report the Commission found that Thermal Energy Systems (TES) are regulated under the Utilities

Commission Act but that the market conditions and monopoly characteristics of some of these systems warrant "light-handed" forms of regulation such as exemptions, regulation by complaint or market-based pricing.

In fact, the AES Report went as far as stipulating that the least amount of regulation to protect the ratepayer should be used for Thermal Energy Systems (TES). Specifically the Commission stated:

"The Commission Panel has serious reservations about the applicability of the regulated cost of service model across the entire regulated TES market and reiterates the comments of the Commission in the Delta School District Decision that full cost of service regulation is the "method of last resort"...The presence of market-based pricing or the protection of consumer interests through the execution of long-term contracts may result in a better alignment and balance of risks and incentives between ratepayers and the thermal provider. Regulation by complaint may also provide the appropriate level of consumer protection."(AES Report, page 77)

The AES Report went on to task BCUC staff with conducting consultation on a "scaled regulatory framework", which is to establish the form of regulation required for TES. LEC staff has been invited to collaborate in the review of the BCUC proposal aimed at initiating stakeholder consultation for the form of regulation required for TES.

Other adjustments

The current bylaw does not provide a rate for cases where LEC provides monthly meter reading/invoicing services for meters that are paid in full and maintained by customers. The proposed bylaw includes a monthly fee of \$25 per meter to cover the cost of the service.

Future Work

The rate increase contained in this report is based on a review of the revenue and expenses contained in LEC's income statements including depreciation. Depreciation is deemed to be representing fairly the use of capital assets over time. As such, the review is considered to be done on an accrual-basis rather than a cash-basis form of accounting. That is, this information does not consider when cash disbursements occur. Further work is required in the coming weeks/months to evaluate the cash flow requirements of the organization and evaluate various financing scenarios. Once more information is available in this regard, the rate structure may be re-evaluated to confirm its appropriateness.

SUMMARY

As mentioned in the 2007 report:

“LEC is owned by the City and ultimately the City benefits from profits made by LEC. However LEC’s main objective is not to generate excessive or extraordinary profits, but rather to ensure that the community heating system achieves an appropriate balance of environmental, social, and economically sustainable benefits to the City.”

LEC has always conveyed the message that it aimed to be cost neutral to both system users and city residents. Since the start of its operations, LEC has tried to compare its rates with those of BC Hydro to ensure that the amount paid by its customers would not exceed the cost of using electric baseboard by more than 15%. Similarly, one could consider that if rates were significantly lower than the cost of using electric baseboards, LEC customers would be benefiting at the expense of the community. The income generated by LEC should be used to provide CNV with a return on investment or to further diversify LEC’s heating sources to include alternative energy which will benefit the whole community.

On that basis, LEC staff consider that the proposed rate increase is fair and reasonable to both LEC customers and CNV residents.


FINANCIAL IMPLICATIONS

The financial implications are addressed throughout the report.


STRATEGIC PLAN IMPLICATIONS

The community energy system implemented by LEC is consistent with the goals of the City Strategic Plan concerning the enhancement of the natural and built environment.

RESPECTFULLY SUBMITTED BY:


Ben Themens, MBA, P.Eng., CGA
Director, LEC

REVIEWED BY:


A.K. Tollstam, B.Comm, CA
President, LEC

FOR

Attachment No. 1

THE CORPORATION OF THE CITY OF NORTH VANCOUVER

BYLAW NO. 8321

A bylaw to amend the City of North Vancouver Hydronic Energy Service Bylaw, 2004, No. 7575

WHEREAS the *Community Charter* empowers the municipality to provide any service that the Council considers necessary or desirable.

WHEREAS the City of North Vancouver ("City") established a service for the purpose of providing hydronic heat energy for space heating and domestic hot water ("Heating Service") and the service of providing hydronic cooling energy for space cooling ("Cooling Service") to properties with multi-family residential, commercial, institutional and industrial buildings thereon and adopted in respect of such service the City of North Vancouver Hydronic Energy Service Bylaw 2004, No.7575 and amendments thereto ("Bylaw 7575").

NOW THEREFORE the Council of The Corporation Of The City Of North Vancouver in open meeting assembled, enacts as follows:

1. This bylaw may be cited as the "City of North Vancouver Hydronic Energy Service Bylaw, 2004, No. 7575, Amendment Bylaw, 2013, No. 8321".
2. Effective October 1st, 2013, the "Standard Fees and Charges Schedule" attached to Bylaw 7575 is amended by adding the following paragraph:

"Meter Reading and Invoicing Fee	\$25 per month
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In cases where the Service Provider reads and invoices a Customer on the basis of more than one meter on the Premises; and provided that the secondary meter or Meter Set has been fully paid and maintained by the Customer, the Customer shall be invoiced a Meter Reading and Invoicing Fee for each secondary meter or Meter Set."

3. Effective October 1st, 2013, the "Capacity Charge" for the Provision of Heating to Premises in the Fees, Rates and Charges Schedule included in Schedule "C" is amended by deleting "\$2.93" and replacing it by "\$3.077" in both the Residential Service and Commercial Service sections of the Schedule.
4. Effective July 1st, 2014, the "Capacity Charge" for the Provision of Heating to Premises in the Fees, Rates and Charges Schedule included in Schedule "C" is amended by deleting "\$3.077" and replacing it by "\$3.231" in both the Residential Service and Commercial Service sections of the Schedule.

READ a first time by the Council on the day of , 2013.

READ a second time by the Council on the day of , 2013.

READ a third time and passed by the
Council on the day of , 2013.

RECONSIDERED and finally adopted by
the Council, signed by the Mayor and City
Clerk and sealed with the Corporate Seal on
the day of , 2013.

MAYOR

CITY CLERK



604.985.7761 • 604.985.9417 • info@cnv.org
141 West 14th Street, North Vancouver BC V7M 1H9

Attachment No. _____

2

December 14, 2012

To: all Lonsdale Energy Corporation Customers

**Subject: Lonsdale Energy Corporation (LEC)
Potential 2013 Rate Increase and
Impact of the Re-introduction of the PST**

Mesdames/Sirs:

This letter follows our letter of November 6, 2012 that provided information concerning LEC's energy pricing for 2013. The original letter followed the request by some building owners who wished to receive updated information for 2013 budgeting purposes. Our previous letter suggested that you provide for a Capacity Charge increase of 5% and that you forecast the Commodity Charge price fluctuation to be in line with forecasted natural gas price fluctuations.

The review of the new Provincial legislation regarding the re-introduction of the Provincial Sales Tax (PST) (ref. Bill 54 – 2012 Provincial Sales Tax Act) leads us to believe that our earlier forecast, which did not consider the impact of the PST, could be misleading. Considering that this is a complex subject, this letter will discuss the potential 2013 LEC rate increase in its entirety rather than add to the information of our previous letter. Consequently, you may want to disregard our previous letter on this subject and consider the following.

LEC's rate structure is made up of three components:

- 1) The Meter Charge, which is constant from month to month and similar for each customer, at \$150 per month, per service connection.
- 2) The Capacity Charge, which is constant from month to month but different for each customer. Basically, the charge is for ensuring that LEC's generating capacity is sufficient to meet LEC's system capacity requirement. The monthly charge is currently set at \$2.93 per kilowatt multiplied by the energy capacity nominated by a customer.
- 3) The Commodity Charge, which varies from month to month and is based on the amount of energy consumed. This charge essentially covers the cost of the energy purchased by LEC to provide heat to the buildings. The total charge is based on the amount of heat consumed in a month and the unit cost is adjusted in line with FortisBC gas price fluctuations.

More information with regard to these charges is available on our website at www.LonsdaleEnergy.ca under the heading "How LEC Rates Are Calculated" and also directly available at <http://www.cnv.org/server.aspx?c=2&i=249>.

Considering the above pricing structure, for 2013 budgeting purposes, LEC is suggesting that the following information be taken into consideration:

- 1) The Meter Charge is expected to remain unchanged at \$150 per month, per service connection.
- 2) LEC is planning to apply to its regulator the City of North Vancouver, in early 2013, for a Capacity Charge increase. For budgeting purposes, LEC is recommending that an increase of 5% be included in your forecasts. More information regarding the application for an increase and an opportunity to provide comments to the regulator will be forwarded to you in the coming weeks/months. Note that this is the first time that LEC is suggesting increasing this charge since 2003. For forecasting purposes, we recommend that you take the amount under the heading Capacity Charge on your invoice and add 5% while also considering that this monthly charge is constant over a period of 12 months. The capacity charge is subject to taxes but may be eligible for the BC Energy Credit in some situations. However, there is uncertainty with regard to how/if such a credit will be available following the re-introduction of the PST.
- 3) The Commodity Charge will continue to be adjusted in line with FortisBC rate fluctuations and the tax treatment that LEC's natural gas and electricity purchases receive. Please visit our website for more details on the commodity charge adjustment and a complete history of the rates. LEC recommends that you forecast the Commodity Charge price fluctuation in line with forecasted natural gas price fluctuations. LEC further recommends that you allow for a 7% increase of the Commodity Charge following the re-introduction of the PST set for April 1, 2013.

Total impact on an average customer

For simplicity, the forecasted increase of the amount expected to be invoiced to an average customer for the year 2013, is estimated at approximately 4.4% of the total amount paid in 2012. This amount excludes the impact of natural gas prices fluctuations.

This estimate is for a typical building and is based on the following assumptions. Property Managers should consider if their buildings fall outside the following parameters.

The average LEC customer is invoiced at the following pro-rata on an annual basis:

3% Meter Charge, 47% Capacity Charge and 50% Commodity Charge.

Based on this assumption, the impact of the increases may be estimated at $47\% \times 5\%$ increase + $50\% \times 7\%$ increase = 5.85%. Since the increases are expected to be in place only on April 1st, 2013, only 75% of this increase or approximately 4.4% should be budgeted for 2013.

This increase does not provide for natural gas prices fluctuations. Since 50% of an average LEC customer invoice is for the Commodity Charge which is directly related to the cost of natural gas, we recommend that you budget a 0.5% increase of the total LEC invoice for each 1% increase in the cost of natural gas that you include in the budget of the other properties of your management portfolio.

This information is provided for budgeting purposes only. LEC is currently reviewing its pricing model and the allocation of the increase may vary. We will forward more information with regard to LEC's application to modify its rate structure when it becomes available.

A report to the Council of the City of North Vancouver dated December 5, 2012 and entitled "Return to the PST" is attached to this letter. The report provides additional information on the impact of the PST and discusses the efforts that are being made to bring forward these issues to the attention of the provincial government. While the report mentions an increase of 5% of LEC's rates due to PST, this is a long-term forecast and in the short-term, the impact is expected to be roughly 7% of the Commodity Charge or 3.5% of the total invoice of an average customer.

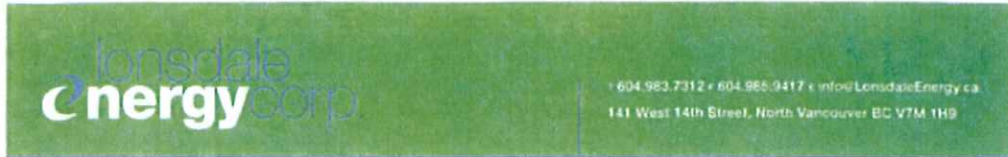
My contact information is at the bottom. Please do not hesitate to contact me with any questions or requests for information. I am also available to provide assistance if you would like to voice your concerns to the provincial government regarding the re-introduction of the PST. Finally, with

sufficient notice, I would be happy to meet with your building strata Council, if you deem it appropriate.

Sincerely,

A handwritten signature in blue ink, appearing to read "Ben Themens".

Ben Themens, MBA, P.Eng. CGA
Director
Phone: 604-983-7312
Email: bthemens@LondaleEnergy.ca



REPORT

To: Mayor Darrell Mussatto and Members of Council
From: Ben Themens, Director, LEC
SUBJECT: RETURN TO THE PST
Date: December 5, 2012

RECOMMENDATION:

PURSUANT to the report of the Director of Lonsdale Energy Corp., dated December 5, 2012, entitled, "Return to the PST":

WHEREAS the City of North Vancouver, through its wholly-owned district energy corporation, Lonsdale Energy Corp. (LEC), has been providing heat to various buildings located in its municipality since 2003;

WHEREAS when the former British Columbia Social Service Tax (PST) was in place, the City and LEC made representations to various British Columbia ministers to request that the Social Service Tax Act be amended to provide a level playing field to energy providers throughout British Columbia;

WHEREAS the implementation of the Harmonized Sales Tax (HST) provided for an equitable taxation of energy that allowed energy providers to compete and be evaluated on the basis of their technical merits;

WHEREAS the province is set to return to a PST system on April 1, 2013;

AND WHEREAS the new PST could increase LEC's rates by 5% which would negatively impact existing customers as well as reduce LEC's cost advantage to incite existing, less energy efficient, buildings to connect to its system;

THEREFORE BE IT RESOLVED THAT the City of North Vancouver requests that the PST be implemented in a way that will ensure that all energy providers

are treated equitably so that they may compete on the basis of their respective system efficiencies, technical merit and carbon emissions;

THAT this goal be achieved by including provisions in the future PST that will:

- 1) Provide for the exemption or the reimbursement of PST charges on energy (gas, electricity) purchased for the purpose of generating energy for resale;
- 2) Make available the former exemption on Production Machinery and Equipment to equipment purchased by district energy systems; and
- 3) Maintain, as per the former PST regulation, the PST exemption on the sale of Heat to residential district energy customers;

AND THAT copy of this resolution and report be forwarded to the Premier of the province of British Columbia; the Minister of Finance and House Leader of the province of British Columbia; the Members of the Legislative Assembly of North and West Vancouver; all UBCM municipalities; and LEC customers.

ATTACHMENTS:

1. Summary of Past Activities – Application of the PST on LEC

PURPOSE:

This report provides a review of the impact of the proposed PST on the rates and competitiveness of Lonsdale Energy Corp. (LEC). LEC believes that it is not the intention of the government to introduce a taxation system that will influence the competitiveness of energy systems that might otherwise contribute to reaching the province sustainability objectives. It proposes that a resolution be sent to government representatives requesting that they re-examine the issues concerning the application of the PST on energy processing utilities.

BACKGROUND:

The BC government has introduced legislation on May 14, 2012, to meet the government's commitment to return to the Provincial Sales Tax on April 1, 2013. As committed during the referendum leading to this decision, the PST is being re-implemented with all its former permanent exemptions.

The former PST was prejudicial to District Energy (DE) systems and the implementation of the HST did provide an opportunity to level the playing field of DE systems vis-à-vis other energy providers.

This report provides some background regarding the application of the PST and recommends that the PST be amended to ensure that it is equitable to all energy providers. The issues surrounding the application of the PST have been of concern to

LEC since it first started to produce heat. Attachment 1 provides a short summary of the efforts and results that have been achieved regarding these issues.

DISCUSSION:

It is now widely recognized that DE systems contribute to the economic, social and environmental sustainability of British Columbia.

Originally, the City of North Vancouver created LEC in large part to reduce the City's demand for hydro-electricity as a space heating energy source. At that time, the City's view was, and still is, that the Province's hydro-electric resource is of extraordinary high value, especially in an e-commerce age, but continues to be consumed in very low grade applications such as space heating in our developing and densifying urban centres. LEC has successfully met this initial goal of ensuring that hydro-electricity is not used as a direct heating source in North Vancouver's real estate developments.

Since then, LEC has connected more than 2.4 million square feet of properties to its network and the City and LEC have expended LEC's role and goal toward ensuring that the most appropriate source of energy is used whenever available. Furthermore, LEC is not only connecting new projects, as it has successfully integrated existing building for the purpose of enhancing their heating system performance and efficiency.

However, to achieve such a goal, it is important that all energy providers be compared on the basis of energy efficiency rather than the incentives or tax treatment that they receive. Failure to do so is seriously detrimental to the long-term viability of LEC and other alternative energy providers. In addition, it will frustrate federal and provincial green house gas reduction objectives, national and provincial energy efficiency objectives, and the development of a community energy industry in the Province of BC.

The recommendation included in this report aims at fostering a business environment that will encourage the development and implementation of various energy generation technologies in British Columbia. More specifically with regard to DE systems, the purpose is to place LEC energy consumers on the same cost level as non-LEC consumers of energy, and to ensure that LEC's energy is available to potential new customers on the same terms as other energy providers.

LEC's Approach to DE System Implementation

LEC believes that the issues that are being brought to the attention of the government are of great importance for British Columbians. LEC is playing an important role in reducing the environmental footprint associated with space and domestic hot water heating. Presently, LEC provides heat to nearly 2,200 residential units as well as various commercial and institutional premises. New customers are constantly being added to the system.

The City of North Vancouver through LEC has successfully ensured that these residential suites are not heated using electric baseboard heating. To date, LEC has used natural gas to generate energy. However, LEC's system of high efficiency

interconnected boilers has proven to be at least 15% more energy efficient than standard stand-alone boilers installed in each building. Far more important, LEC's current gas boilers are being supplemented and replaced with alternative technology energy sources as they become available. For instance, heat from 120 solar panels is used in priority in LEC's system when available. LEC has also completed the construction of a geo-exchange and heat pump system that can produce heating and cooling simultaneously which enhances the overall efficiency of this energy source. In this case while one institutional building requires cooling, the heat generated during the process is provided to the residential buildings of the neighbourhood. LEC is also constantly investigating other energy sources such as the use of biomass and ocean-source energy generation.

The strategy LEC has followed is to get the district heating system up and running with available technology, and then bring renewable sources of energy as fast as possible, so that each building constructed, may be immediately supplied by the DE system. A high-rise building constructed today, using electric baseboard heating, will be drawing electricity from the grid for the next 50 years. District heating must be a viable alternative now to avoid that future.

Impact of the former PST on DE Systems

LEC has been a supporter of the new Harmonized Sales Tax (HST). The previous PST was prejudicial to DE systems in two ways, first, by forcing DE suppliers to pay PST on energy acquired to create heat for residential customers, when residential customers who acquired energy directly and created their own heat did not pay PST, and secondly, by providing an exemption on the purchase of production machinery or equipment to energy providers but denying it to LEC due to the fact that it is municipally owned. By preventing such inequities, the implementation of the HST provided an opportunity to level the playing field of DE systems vis-à-vis other energy providers.

Issues surrounding the application of the PST were a concern for the City of North Vancouver and LEC since it first started its operations in 2004. As summarized in attachment 1, the City and LEC spent significant resources to meet with government representatives, prepare briefing notes and suggest amendments to the legislation for the purpose of minimizing the impact of the PST on DE system providers. At the time of the HST implementation, the two sources of inequity mentioned in the preceding paragraph were still pending and being reviewed by the BC government.

Based on information found on the BC government website, it seems that the regulations are still being prepared. However, Bill 54 "Provincial Sales Tax Act" has received third reading on May 31st, 2012 and the terms of this legislation will clearly be prejudicial to DE system providers.

The legislation defines heat, electricity and natural gas as being tangible personal property. Subsection 141(1) of the legislation stipulates that tangible personal property that is used for the purpose of being processed, fabricated or manufactured into other tangible personal property for the purpose of retail sale is exempt from tax. However,

subsection 141(3) specifies that if the tangible personal property is used to produce energy or is used as a source of energy, the exemption does not apply.

LEC has requested to be contacted by a government representative to obtain more details but has yet to receive a reply. However, based on the information received to date, it seems that the issues identified in the former PST legislation are included in the new PST legislation.

Recommendations

LEC maintains its contention that the legislation should ensure that all energy providers are compared on the basis of energy efficiency, carbon emissions and technical merit rather than the tax treatment that they receive. Consequently, this report recommends three specific provisions that should be considered while reintroducing the PST.

- 1) Provide for the exemption or the reimbursement of PST on energy (gas, electricity) purchased for the purpose of generating energy for resale.

Under the former PST, LEC had to pay PST on its natural gas purchases. When natural gas was directly purchased by a residential customer, no PST was paid. While LEC is using high-efficiency boilers, the PST charge would put the DE system at a competitive disadvantage. This created an incentive for customers to use stand-alone systems with potentially less efficient technologies. The same incentive existed for commercial users since in their case; LEC had not only to pay PST on its natural gas purchases but had to also charge PST on the heat purchased by commercial users, resulting in a double taxation of commercial users. Note that LEC pays the carbon tax on its gas purchases which is then passed on to its customers.

- 2) Make available the former exemption on Production Machinery and Equipment to equipment purchased by community energy systems.

Under the former PST regulations, BC Hydro, Terasen Gas (now Fortis Gas) and several other privately owned companies were provided a PST exemption on the purchase of their production machinery or equipment. LEC being municipally owned was not allowed this exemption.

- 3) Maintain, as per the former PST regulation, the PST exemption on the sale of Heat to residential DE customers.

Until 2006, heat sold to residential customers was subject to PST while other types of energy such as natural gas and electricity were exempt. The new legislation should maintain this exemption implemented in 2006 to include all types of energy.

Conclusion

These measures would ensure that all energy providers are compared on the basis of energy efficiency and technical merit rather than the tax treatment that they receive. For instance, LEC generates some of the energy that it distributes from high-efficiency boilers and solar panels. Under the current scenario, this energy with lower carbon

content would end up including a PST charge, while the heat provided by potentially less efficient stand-alone in-building gas furnaces would be tax exempt. Such a scenario would defeat the purpose of the Carbon Tax by providing an incentive for owners to implement their own stand-alone system. Overall, providing the same provincial rebate (as well as applying the same Carbon Tax) on the energy provided by DE systems will contribute to the success of the BC Energy Plan.

The rate structure of LEC is such that a PST/HST reduction/exemption translates into a direct reduction of the rates charged to LEC's customers. An important consequence of the HST implementation was that a level playing field further enhanced the attractiveness for existing older buildings that may be equipped with heating systems of poor efficiency, to connect to LEC as well as to other DE systems. Under the proposed PST it seems that LEC's competitiveness in this regard will be greatly reduced.


FINANCIAL IMPLICATIONS:

LEC has attempted to quantify the impact of the PST on its competitiveness. LEC estimates that the application of the PST on its energy as well as machinery and equipment purchases has an impact of approximately 5% on the amount invoiced to its customers. Gas purchases currently accounts for approximately 50% of the amount invoiced by LEC to its customers. A 7% tax on gas purchases implies that customers will be impacted by an amount of approximately 3.5% on their total invoices. Current natural gas prices being extremely low and considering that LEC's invoicing is adjusted to follow gas pricing increases, this impact could easily increase to 4% if gas prices were to increase in the future.

The tax on Production Machinery and Equipment applies to equipment only and contractual services are exempt. Without an exemption, PST applies to the purchase of boilers, distribution pipes, heat exchangers, etc. LEC is still a capital intensive organization as it continues expanding its distribution system and heat generation installations. LEC estimates that the net impact of the tax on machinery and equipment will impact its customers by approximately 1%.

A LEC rate increase of 4.5% to 5% has significant implications for LEC. While such an increase is significant for LEC's existing customers, it also reduces LEC's cost advantage to incite existing less energy efficient buildings to connect to its system.

RESPECTFULLY SUBMITTED BY:


Ben Themens, MBA, P.Eng., CGA
Director, LEC

REVIEWED BY:


A.K. Tollslam, B.Comm, CA
President, LEC

Attachment 1

Summary of Past Activities – Application of the PST on LEC

The issues surrounding the application of the PST have been of concern to Lonsdale Energy Corp. (LEC) since it first started to produce heat. The following provides a short summary of the efforts and results regarding this issue.

- July 2004: LEC requests a ruling from the Ministry of Provincial Revenue on the application of the PST on its sales and purchases.
- September 2005: Meeting with the Honourable Rick Thorpe, Minister of Provincial Revenue to discuss the draft rulings received from the ministry and the impact of the draft ruling on district energy systems competitiveness.
- October 2005: LEC receives the official ruling of the Ministry of Provincial Revenue. The ruling stipulates that LEC must charge PST on the sale of its heat and pay PST on the purchase of its energy (gas and electricity) resulting in a double taxation to LEC customers. When compared to the option of installing stand-alone boilers in each building, the decision results in increasing the cost of heat by twice the amount of the PST for residential premises and once for commercial locations. While PST is exempt on gas and electricity directly purchased by residential premises, the PST must be paid by LEC on its gas and electricity purchases and LEC must also charge PST on the heat that it delivers. For commercial users, while they are not PST exempt on their gas and electricity purchases, they are now paying the PST twice via the tax paid by LEC on its purchases and the tax charged to them on heat.
- February 2006: The Provincial Budget clarifies the definition of tangible personal property to include Heat. The Budget also introduces an exemption from the PST for heat purchased for residential use. This exemption may be applied retroactively to February 21, 2000. The result of this amendment to the Social Service Tax Act is that the differential between the stand-alone boiler and district energy option is reduced, since PST is only paid once on LEC's purchases of gas and electricity.
- October 2006: Meeting with the Honourable Carole Taylor, Minister of Finance to request that the Social Service Tax Act and Regulations be amended to:
- 1) remove the PST charges on gas purchased for the purpose of generating energy for resale;
 - 2) allow the exemption on Production Machinery and Equipment on equipment purchased by Lonsdale Energy Corp. by including Lonsdale Energy Corp. in the list of companies exempted from

the exclusion under Section 13.10 (e) of the regulations. The list already included the British Columbia Hydro and Power Authority as well as the Columbia Power Corporation. The exemption was also available to privately owned energy providers and this step was required to provide a level playing field to LEC.

- September 2007: Meeting with the Honourable Richard P. Neufeld, Minister of Energy, Mines and Petroleum Resources to ask his support to amend the Social Service Tax Act to remove PST charges on gas purchased for the purpose of generating energy for resale and allow the exemption on Production Machinery and Equipment on equipment purchased by community energy systems.
- March 2008: Meeting with Mr. Chris Trumpy, Deputy Minister, Ministry of Finance to discuss the issues brought forward to the Minister of Finance in October 2006.
- July 2009: BC government announces that it will combine the PST with the federal Goods and Services Tax (GST) in a single HST.
- September 2009: BC Minister of Finance announces in the provincial budget a new HST exemption consisting in "a provincially administered point-of-sale rebate for residential energy – similar to the existing PST exemption". The Minister added that "That means the HST will not increase consumers' costs for oil, electricity, natural gas, or propane used to heat or power homes."

Lonsdale Energy Corp.

Historical Data for 2004 - 2012 Years of Operations

Income Statement line description	2004	2005	2006	2007	2008	2009	2010	2011	2012
Revenue	\$ 176,707	\$ 409,108	\$ 415,741	\$ 630,088	\$ 1,016,118	\$ 1,158,110	\$ 1,434,108	\$ 1,562,007	\$ 1,693,413
Cost of Sales	\$ 66,777	\$ 187,089	\$ 245,839	\$ 299,299	\$ 479,519	\$ 469,707	\$ 722,351	\$ 752,254	\$ 747,330
Gross profit	\$ 109,930	\$ 222,019	\$ 169,902	\$ 330,789	\$ 536,599	\$ 688,403	\$ 711,757	\$ 809,753	\$ 946,083
Plant Operation and Maintenance	\$ 19,087	\$ 91,585	\$ 95,244	\$ 98,149	\$ 114,689	\$ 138,289	\$ 143,305	\$ 191,350	\$ 212,842
Depreciation	\$ 68,531	\$ 114,823	\$ 127,777	\$ 146,220	\$ 212,246	\$ 293,444	\$ 273,586	\$ 309,667	\$ 430,542
General and Administrative	\$ 98,268	\$ 145,543	\$ 172,968	\$ 140,987	\$ 173,957	\$ 146,916	\$ 185,574	\$ 188,783	\$ 309,926
Total - Operating Expenses	\$ 185,886	\$ 351,951	\$ 395,989	\$ 385,356	\$ 500,892	\$ 578,649	\$ 602,465	\$ 689,800	\$ 953,310
Income (loss) before other expenses	\$ (75,956)	\$ (129,932)	\$ (226,087)	\$ (54,567)	\$ 35,707	\$ 109,754	\$ 109,292	\$ 119,953	\$ (7,227)
Contributions	\$	\$ 60,136	\$ 259,458	\$ 38,804	\$ 63,416	\$ 117,389	\$ 120,875	\$ 146,532	\$ 174,480
Finance income	\$	\$ 23,432	\$ 22,037	\$ 24,530	\$ 17,321	\$ 5,111	\$ 11,171	\$ 15,742	\$ 25,121
Finance costs	\$ (111,951)	\$ (207,481)	\$ (194,850)	\$ (34,141)	\$ (123,277)	\$ (125,421)	\$ (128,876)	\$ (131,322)	\$ (139,585)
Subtotal	\$ (111,951)	\$ (123,913)	\$ 86,645	\$ 29,193	\$ (42,540)	\$ (2,921)	\$ 3,170	\$ 30,952	\$ 60,016
Net Income and Comprehensive Income	\$ (487,907)	\$ (253,845)	\$ (139,442)	\$ (25,374)	\$ (6,833)	\$ 106,833	\$ 112,462	\$ 150,905	\$ 52,789
Total Net Accumulated Surplus (loss)	\$ (277,787)	\$ (531,632)	\$ (671,074)	\$ (696,448)	\$ (703,281)	\$ (596,449)	\$ (483,987)	\$ (333,082)	\$ (280,293)
Sales (kW.hr)	1,175,900	3,630,109	4,981,300	6,828,400	11,063,030	14,120,569	18,737,975	22,847,087	23,945,719

Attachment No. 3

Attachment No. 4



The Corporation of THE CITY OF NORTH VANCOUVER
ENGINEERING, PARKS & ENVIRONMENT / FINANCE
REPORT

To: Mayor Darrell Mussatto and Members of the Council

From: William J Susak, Deputy City Engineer
Ben Themens, Deputy Director of Finance

SUBJECT: LONSDALE ENERGY CORP. – RATE REVIEW AND BYLAW AMENDMENT

File: 1600-01

Date: January 17, 2007

RECOMMENDATION

PURSUANT to the report of the Deputy City Engineer and Deputy Director of Finance, dated January 17, 2007 entitled "LONSDALE ENERGY CORP. – RATE REVIEW AND BYLAW AMENDMENT":

THAT "City of North Vancouver Hydronic Heat Energy Service Bylaw, 2004, No. 7575, Amendment Bylaw, 2007, No. 7843" be brought forward for consideration by Council;

AND THAT the revised rate structure be applied retroactively so that rebates dating back to when each developer-built building transferred control to the building's strata corporation be provided;

AND THAT the late payment charge be applied retroactively from the due date of any outstanding amount not paid by March 1, 2007.

ATTACHMENTS

1. City of North Vancouver Hydronic Heat Energy Service Bylaw, 2004, No. 7575, Amendment Bylaw, 2007, No. 7843
2. City of North Vancouver Hydronic Heat Energy Service Bylaw, 2004, No. 7575

PURPOSE & BACKGROUND

Lonsdale Energy Corp. (LEC), the City's district energy utility, has been in operation since early 2004 with the signing of an operating agreement with Terasen Utility Services (now known as Corix Utilities), the acquisition of external funding from FCM, and the enactment of Bylaw 7575 (Attachment 2), creating the energy service.

Since inception, several building customers have connected to the LEC system and several more are expected during 2007 with the completion of developments on the north side of Esplanade and further building developments on the west side of the Lower Lonsdale service area.

Staff and strata representatives of current customer buildings formed a customer focus group last year in order to facilitate open communication between system users and the energy utility. From the meetings several issues for resolution came to the forefront that required efforts during the past year by both the customer group and the energy utility.

The issues raised by the customer group are the cost of the service, the quality of the service, and the issue of financial equity for those 'early adopters' onto the system where the positive future financial impact of more system users is not recognized in the current rate structure.

This report proposes bylaw changes that will reduce customer costs commencing in 2007. Furthermore, rebates for initial buildings will be processed dating back to when each developer-built building transferred control to the building's strata corporation.

DISCUSSION

Cost of Service

Currently, an "average" suite pays \$50 to \$65 per month for space heating and domestic hot water heating services provided by LEC, although there is a building with an average suite cost above this range. The new proposed 2007 tariff will bring the average suite LEC cost generally down to the \$45 to \$55 range. It is important to note that this is for LEC service only. Suites are often equipped with other heat appliances such as electric or gas fireplaces which generate their own usage costs.

Cost of service is dependent on capacity needs (i.e.: how much capacity of LEC's system is required for a building) and quantity of energy consumed. Cost of service is also dependent on the cost structure of natural gas (more on this later) which is LEC's current prime fuel, and the electricity to run utility system pumps.

An individual building's capacity requirements and building energy consumption patterns, which directly translate into building energy costs, are highly dependent on any given building's design, construction, commissioning, and operating characteristics. Normally, a utility agency delivers a service to a property line and an owner distributes the service from that point. A utility generally does not participate in the in-building works (engineering design, construction, commissioning... performed by private consultants and contractors) necessary to internally distribute a service. Reviews of initial buildings' performance, both operationally and cost-wise, led LEC to publish in-building design guidelines over a year ago that are assisting with more operationally and financially efficient building performance.

Cost is also dependent on the actual operating performance of the utility system. The actual efficiency of LEC's system has been reviewed by the system engineers. Observed system performance over the past 2 years indicates that buildings can be heated with less LEC equipment than originally presumed. This knowledge and ongoing review directly translates into cost savings for system users. Simply put, if more buildings can be heated with the same amount of equipment, then unit costs will decrease as more buildings come on line. This cost saving is being passed on to current customers and future engineering reviews of system efficiency may lead to even further cost reductions.

Costs are also dependent on applicable taxes. While LEC earlier in 2006 won a part of the 'PST battle' with the Province over unexpected application of PST charges on LEC invoices, PST is still applied on LEC commodity inputs. When LEC buys natural gas, the Province still imposes a PST charge that would otherwise not apply if a residential building were buying the natural gas directly from Terasen Gas. This extra tax on LEC's cost structure must be passed on to the customers, and this has a negative impact on LEC's competitive position with respect to a comparative stand-alone boiler heating system. Staff will be continuing their efforts in this matter to completely level the playing field for LEC customers.

Based on this premise, the adoption of proposed bylaw 7843 (Attachment 1) would modify LEC's rates as per the following:

Charge	Description	Existing Bylaw 7575	Proposed Bylaw 7843	Increase (Decrease)
Meter Charge	Monthly charge for each Service Connection serving the Premises.	\$491.00 / month	\$299.34 / month	-39.0%
Capacity Charge	Monthly charge per kilowatt multiplied by the energy capacity of the Premises in kilowatts	\$3.920 / Kw	\$2.930 / Kw	-25.3%
Commodity Charge	Charge per kilowatt hour of Hydronic Energy provided to the Premises.	\$0.0430 / Kw.hr	\$0.0458 / Kw.hr	6.5%

Quality of Service

Customers have expressed concerns that insufficient or no heat service sometimes occurs. Investigation by LEC indicates that specified system delivery temperatures have been maintained by LEC since inception. Problems have arisen from time to time with in-building distribution systems that have exhibited less than optimal performance characteristics. The most recent example occurred during a very cold period in late November where one building reported no heat service. Upon notification LEC's own system operator, Chapman Burner and Heating, quickly diagnosed and remedied the problem, a failed building-side hydronic heat distribution pump. LEC will be looking into how to educate and serve customer concerns that are 'building side' distribution issues as opposed to utility service delivery issues. From LEC's perspective, it is important that we offer assistance to remedy any interruption or degradation of service, notwithstanding whether an issue is a building-side problem that normally falls to the responsibility of a strata management company.

Retroactive Application of Proposed Charges

Bylaw 7843 reduces significantly some of the rates that have been charged to date to LEC's customers. This is largely due to knowledge and expertise acquired since the start of LEC's operations. The rates included in bylaw 7575 were established more than two and a half years ago and were based on conceptual knowledge at the time. Since then, LEC's management has been able to compile a significant amount of data that has been used in the preparation of the latest company's forecasts and proposed rate structure.

While a privately owned company would likely keep all or part of the extra revenue generated in the past to compensate for risk associated with launching a new product/process, LEC is recommending that the proposed rate be applied retroactively. Rebates for initial buildings will be processed dating back to when each developer-built building transferred control to the building's strata corporation. The strata corporation will be refunded in full the difference between the current rate and the proposed rate as if the proposed rate had been in place since inception of operations.

LEC recognizes that a significant portion of the risk associated with the start of operations was borne by the early customers. Furthermore, LEC wishes to recognize the support of its customers as well as their patience while a very complex rate review process was underway. Finally, LEC is owned by the City and ultimately the City benefits from profits made by LEC. However LEC's main objective is not to generate excessive or extraordinary profits, but rather to ensure that the community heating system achieves an appropriate balance of environmental, social, and economically sustainable benefits to the City.

Future Commodity Charge Adjustments

The existing bylaw 7575 does not provide LEC sufficient flexibility to adjust the commodity charge in line with gas prices fluctuations. The current commodity charge which has remained constant since LEC's inception is based on early 2004 gas prices. Gas prices have fluctuated greatly over the past three years.

The proposed bylaw 7843 will allow for adjustments to be made to the Commodity charge so that it follows the market pricing fluctuations. The proposed Commodity charge is based on a direct recovery of Terasen Gas charges in force in July, 2006. It is being proposed that in the future, LEC adjusts the Commodity charge at the pro-rata of Terasen Gas fees fluctuations. As LEC commodity charge is a blended rate that includes Terasen Gas monthly fee, delivery charge and cost of gas as well as system efficiency, LEC's Board intends to base the adjustment on the price equivalent of buying 1,000 GJ/month under Terasen Gas rate schedule 3. The adjustment criteria may be adjusted by LEC's Board in the future if it is determined that another quantity and rate schedule is more in line with LEC's purchase price.

Service Connection Installation Fee

The amount currently charged to developers for a service connection fee is set at only \$500. At the outset, the development community viewed LEC or its concept with either reluctance or apprehension. LEC has come through an initial implementation period with a track record of meeting builder's needs for service and the service connection fee is deemed insufficient compared against the financial, operational, and marketing advantages that the LEC system offers to the development community.

Bylaw 7843 proposes to significantly increase the service connection fee to \$20,000 per service connection plus \$30/Kw of required capacity. This would translate into a service connection fee of \$41,000 to \$71,000 per building but it still translates into significant savings to the developers who do not have to spend in excess of \$100,000 for a full-service boiler room in new buildings.

An appropriate connection fee will assist customer costs in the long run as well as motivate developers to design and construct more energy efficient buildings on the LEC system. There are no intentions of applying this revised service connection fee retroactively to developments which have already received a building permit. Furthermore, to minimize the entry cost to existing buildings wishing to convert/connect to LEC's system, LEC's Board may at its discretion waive partly or totally such service connection fees to potential customers if deemed appropriate.

Other adjustments

The initial bylaw includes in section 17.1 of the General Terms and Conditions a provision for late payment charges. The section mentions that the amount is to be based on "the late payment charge specified in the Standard Fees and Charges Schedule". Unfortunately, due to an oversight, bylaw 7575 did not include any amount for that purpose in the said schedule. Bylaw 7843 corrects this situation by specifying

that the late payment charge will be based on the Scotiabank Prime Rate in effect at the time of invoicing of the charge plus 2%. Furthermore, as one of the developers has not been responding to several requests concerning an outstanding amount, Council resolution is to provide LEC with the authority to invoice a late payment charge retroactively based on the due date of each invoice if payment is not received by March 1, 2007.

Bylaw 7843 also amends Schedule A which provides the location of Class One properties. The amendment aims at including all City properties on the north side of East First Street between Lonsdale Avenue and St. Georges.

Future Work

LEC will continue to monitor the financial and operating performance of its system in order to determine the modifications in the future. Furthermore, LEC's financial models consider that the applicable rates will increase with inflation. It is the intention of LEC to bring forward for Council consideration regular rate adjustments. While LEC hopes to be able to identify further cost savings and efficiencies, it is not expected that future rate adjustments will be of the magnitude of the present adjustment.

As mentioned above, LEC will continue to work on obtaining a PST exemption so that its customers receive the same tax treatment whether they are buying the natural gas directly from Terasen Gas or purchasing heat from LEC. This exemption is an important factor in ensuring that LEC provides competitive services.

Another cost saving that LEC is contemplating to pass to its customers if appropriate, is a Commodity charge rebate. The Commodity charge in the latest financial model is based on the direct cost of gas purchased by LEC. With its interconnected mini-plants each serviced by a distinct gas meter, LEC can arrange to purchase gas from different sources at each of the mini-plants. Since all the Lower Lonsdale mini-plants will be inter-connected in 2007 via the heat distribution system, LEC has the flexibility, as long as the total capacity of all the mini-plants is not required simultaneously, to generate heat from a plant that has access to the most economical gas provider.

While minimizing risks, this redundancy has allowed LEC to enter into a contract for the purchase of gas from a broker at one of its mini-plants since November 1st, 2006. While savings may not be available each year, LEC hopes to reimburse partly or entirely the difference between the Commodity charges invoiced to its customers and the costs of its gas purchase if savings are realized.

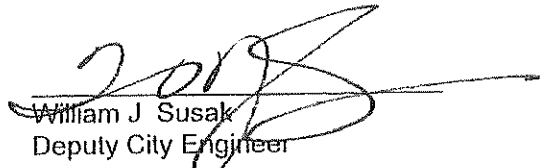
FINANCIAL IMPLICATIONS

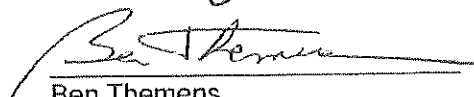
The financial implications are addressed throughout the report.

STRATEGIC PLAN IMPLICATIONS

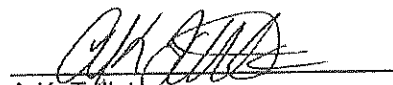
The community energy system implemented by LEC is consistent with the goals of the City Strategic Plan concerning the enhancement of the natural and built environment. The measures contemplated in this report are responsive to community needs as some of LEC's customers have voiced some concerns with regard to the rate charged by LEC.

RESPECTFULLY SUBMITTED BY:


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