

NO: **R030**

COUNCIL DATE: **February 18, 2013**

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## REGULAR COUNCIL

TO: **Mayor & Council**

DATE: **February 12, 2013**

FROM: **General Manager, Engineering  
General Manager, Finance & Technology**

FILE: **5500-15**

SUBJECT: **Impacts to District Energy Systems Related to the Reintroduction of the  
Provincial Sales Tax**

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## RECOMMENDATION

The Engineering Department and the Finance & Technology Department recommend that Council:

1. Receive this report as information;
2. Endorse the requests being made of the Province related to the reintroduction of the PST and its applicability to district energy systems as contained in the Lonsdale Energy Corporation report titled "Return the PST", a copy of which is attached to this report as Appendix I;
3. Authorize staff to forward a copy of this report and the related Council resolution to the Premier, the Minister of Finance, the House Leader, the Surrey Members of the Legislative Assembly and the Union of BC Municipalities; and
4. Authorize staff to continue to work with other district energy system operators and Provincial officials toward implementing the referenced changes to the Provincial Sales Tax legislation so as to support the continued implementation and expansion of district energy systems in the Province.

## INTENT

The purpose of this report is to provide information about the impact that the reintroduction of the Provincial Sales Tax (PST) system will have on the competitiveness of district energy systems in the Province and to advise of actions that are being taken in relation to this matter.

## BACKGROUND

The former PST system had an unfavourable impact on the viability of district energy systems, making district energy less competitive in comparison to conventional residential heating systems that use oil, natural gas or electricity. This related firstly to the fact that PST was payable on energy acquired by district energy system operators to create heat to sell to residential customers, while energy supplied directly to residential customers to create heat was not subject to PST. Secondly, the purchase of production machinery and equipment by energy providers was PST exempt while equipment purchased for municipally-owned district energy systems was subject to PST.

This unfavourable tax circumstance was alleviated with the introduction of the Harmonized Sales Tax (HST). Prior to the introduction of the HST, the Lonsdale Energy Corporation, which is a wholly-owned district energy system of the City of North Vancouver and which has been operating since 2004, had been working with Provincial officials on possible amendments to PST legislation to minimize the impact of the PST on district energy system operations.

### *Reintroduction of PST*

The *Provincial Sales Tax Act* (the “Act”) to reintroduce the PST takes effect on April 1, 2013. Based on the current wording of the Act, the unfavourable conditions related to district energy systems that existed under the former PST legislation will once again come into effect under the new Act.

Staff has met with representatives of other district energy utilities in the lower mainland to discuss the impacts of the Act on district energy systems and possible actions to mitigate such impacts. The City of North Vancouver has made significant efforts to have this issue addressed through amendments to the legislation. Their efforts are detailed in a report titled “Return to the PST”, a copy of which is attached as Appendix I to this report. That report estimates that the reintroduction of the PST will result in district energy rate increases of between 4.5% and 5.0%. The Council of the City of North Vancouver has requested that the Province consider the following in relation to the reintroduction of the PST:

1. Provide for an exemption from or the reimbursement of PST on energy (gas, electricity) purchased for the purpose of generating energy for resale through a district energy system;
2. Make available to community (district) energy systems an exemption from PST on the purchase of energy production machinery and equipment; and
3. Maintain, in accordance with the former PST regulations, the PST exemption on the sale of district energy heat to residential customers.

City staff concurs with the above-listed requests that the City of North Vancouver has forwarded to the Province. Surrey’s district energy system, known as *Surrey City Energy*, the first phase of which is currently under construction in City Centre, will be significantly hampered from a financial perspective by the reintroduction of the PST as currently proposed.

It is clear that district energy systems are an environmentally-responsible approach to providing heat energy to high-density residential development. The Province should be doing all it can to encourage the introduction of and expansion of district energy systems across the Province in

support of its Climate Action Charter for BC. The reintroduction of the PST as currently proposed is contrary to the Provincial Charter objectives.

## **SUSTAINABILITY CONSIDERATIONS**

The successful implementation of a district energy system in the Surrey City Centre supports the objectives of the City's Sustainability Charter; more particularly the following action items:

- EC8: Energy security by promoting the use of low-impact, renewable energy sources and promoting community energy solutions;
- EN1: Energy efficiency by incorporating alternative energy systems such as geo-exchange and solar heating systems as potential heat sources; and
- EN10: Integrated Community Energy Master Plans by developing an Integrated Community Energy Master Plan for the City Centre and by working with property owners to promote and increase building energy efficiency through implementation of a district energy system.

## **CONCLUSION**

Based on the above discussion, it is recommended that Council:

- Endorse the requests being made of the Province related to the reintroduction of the PST and its applicability to district energy systems as contained in the Lonsdale Energy Corporation report titled "Return the PST", a copy of which is attached to this report as Appendix I;
- Authorize staff to forward a copy of this report and the related Council resolution to the Premier, the Minister of Finance, the House Leader, the Surrey Members of the Legislative Assembly and the Union of BC Municipalities; and
- Authorize staff to continue to work with other district energy system operators and Provincial officials toward implementing the referenced changes to the Provincial Sales Tax legislation so as to support the continued implementation and expansion of district energy systems in the Province.

Vivienne Wilke, CGA  
General Manager,  
Finance & Technology

Vincent Lalonde, P.Eng.  
General Manager,  
Engineering

JA/JO/brb

Appendix I: Lonsdale Energy Corporation report dated December 5, 2012 and titled "Return to the PST"

**APPENDIX I****REPORT**

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To: Mayor Darrell Mussatto and Members of Council

From: Ben Themens, Director, LEC

SUBJECT: RETURN TO THE PST

Date: December 5, 2012

*File: 5500-06-01*

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**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 expanded 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 31<sup>st</sup>, 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.

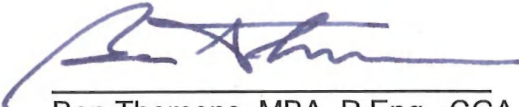
**FINANCIAL IMPLICATIONS:**

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:**



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