

NO: R156

COUNCIL DATE: July 22, 2019

REGULAR COUNCIL

TO: **Mayor & Council**

DATE: **July 16, 2019**

FROM: **Acting General Manager, Engineering**

FILE: **5514-102**

SUBJECT: **Appointment of District Energy Expert Rate Review Panel Members**

RECOMMENDATION

The Engineering Department recommends that Council:

1. Receive this report for information;
2. Appoint Fong Kwok as Chair of the District Energy Expert External Rate Review Panel for one year; and
3. Appoint Melissa Davies as a member of the District Energy Expert External Rate Review Panel for three years.

INTENT

The purpose of this report is to obtain approval for the appointment of the District Energy Expert Rate Review Panel Chair and the appointment of a new Panel member.

BACKGROUND

At its Regular meeting on December 16, 2013, Council adopted the recommendations in Corporate Report No. R246; 2013 (Resolution R13-2605), attached as Appendix "I". The recommendations in the report included that a District Energy Expert Rate Review Panel (the "Panel") be formed and the Panel be made up of four members appointed by Council, with one member being appointed as the Chair. The Panel members would have expertise in the context of the Panel's responsibilities. The Panel would be tasked with providing objective, expert advice to the City regarding the rates that should be charged by Surrey City Energy ("SCE") in relation to a set of Council-approved rate-setting principles for SCE.

Corporate Report No. R246; 2013 (Appendix "I") Resolution R13-2605 authorized the principles and a related methodology to regulate the rates and the rate structure to be used by SCE and the City's District Energy ("DE") utility in relation to its business operations. Staff were also authorized to proceed with a public Request for Expressions of Interest for the purpose of establishing the Panel.

At its Regular meeting on September 17, 2018, Council adopted the recommendations in Corporate Report No. R190; 2018, and by resolution R18-1852, appointed Fong Kwok as a member of the Panel for a two-year period and appointed Christopher Oakley as a member of the Panel for a three-year period.

These Panel members completed an annual rate review in 2018. The review included:

- City staff update of the financial model for SCE, which included proposed rates, a rate escalation factor, and any other changes to the financial structure of SCE considered necessary by staff;
- Review of the updated financial model and proposed rates and rate structure, submission of an information request for staff, and review of staff responses to the information request; and
- Preparation of a letter of endorsement for the rates and rate structure, as proposed in the updated financial model.

Through this process, SCE has been held to a high level of accountability in its stewardship of the utility and related reporting.

DISCUSSION

The previous Panel Chair's three-year term was complete in 2018, and as such, a new Chair is required before the Panel's first meeting convenes in September 2019. In addition, a new Panel member will be appointed to a three-year term each year from 2019 onwards. Current Panel members are eligible to re-apply when their term is completed.

Panel Review and Selection

In May 2019, Request for Expressions of Interest and Statement of Qualifications ("RFEOI") No. 1220-050-2019-007 was issued seeking submissions for consideration as a Panel member. In total, four submissions were received from strong candidates with extensive relevant experience. All four of the submissions received were from individuals who have not yet served on the Panel.

In making recommendations for appointments to the Panel, staff are seeking to balance the interest of having a broad and evolving range of experience with maintaining continuity of Panel members. Based on the objectives of the Panel and the response to the RFEOI, the following appointments are recommended:

- Fong Kwok, CPA, CGA, as Chair of the Panel for the remaining year of her two-year term; and
- Melissa Davies as a member of the Panel for a three-year term.

A brief summary of each of the recommended appointees' qualifications and experience is attached as Appendix "II".

Panel Compensation

Given the unique qualifications and experience of Panel members, it is recommended that an honorarium be provided, consistent with the honorarium provided to Panel members since 2014. It is recommended that the Chair be compensated \$3,000.00 per year, and the remaining members be compensated \$2,000.00 per year.

Next Steps

The Panel will be convened in the coming months in order to commence their review, which will be completed later this Fall and will result in a letter of endorsement for the rates and rate structure. As in previous years, staff will invite members of the Urban Development Institute and representatives from developers with active development applications in each Service Area within the Surrey City Centre to submit questions for the Panel's consideration.

FUNDING

Funding for these appointments is available within the Utility's Operating Budget in the 5-Year (2019-2023) Financial Plan.

SUSTAINABILITY CONSIDERATIONS

The operation of a DE system in the City Centre supports the objectives of the City's Sustainability Charter 2.0. In particular, these appointments relate to the Sustainability Charter 2.0 themes of Built Environment and Neighbourhoods, and Infrastructure. Specifically, these appointments support the following Desired Outcomes ("DO") and Strategic Direction ("SD"):

- Buildings and Sites DO₁₁: Surrey is at the forefront of sustainable and restorative building design and technology;
- Buildings and Sites DO₁₃: Buildings are healthy and energy and resource efficient;
- Buildings and Sites SD₁₃: Continue to support low carbon district energy networks; and
- Energy and Climate DO₉: Energy is produced locally, using distributed and renewable sources when economically feasible.

CONCLUSION

Based on the above discussion, the Engineering Department recommends that Council endorse the appointment of Fong Kwok as Chair of the Panel for one year and the appointment of Melissa Davies as a member of the Panel for three years.

Scott Neuman, P.Eng.
Acting General Manager, Engineering

YY/JO/cc

Appendix "I" – Corporate Report No. R246; 2013
Appendix "II" – Biographical Information on Recommended Panel Appointees

CORPORATE REPORT

NO: *R246*

COUNCIL DATE: *December 16, 2013*

REGULAR COUNCIL

TO: **Mayor & Council**

DATE: **December 12, 2013**

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

PROJECT FILE: **5511-104**

SUBJECT: **District Energy System Utility (Surrey City Energy) – Policy on Utility Rate
Setting and Regulation**

RECOMMENDATION

The Engineering Department recommends that Council:

1. Receive this report as information; and
2. Approve, for use in setting the rates and the rate structure for Surrey City Energy (SCE), the policy attached to this report as Appendix B, which is titled "District Energy (DE) Rate-setting Policy" (the "Policy");
3. Authorize staff to proceed with a public Request for Expressions of Interest for the purpose of establishing the Expert External Rate-Review Panel (the "Panel") as generally described in this report; and
4. Approve the Terms of Reference that are attached to this report as Schedule 1 of Appendix B in relation to the Panel and its function.

INTENT

The purpose of this report is to obtain approval of the principles and a related methodology that are proposed as the means to regulate the rates and the rate structure that will be used by SCE, the City's City Centre District Energy utility, in relation to its business operations.

BACKGROUND

At its Regular meeting on January 24, 2011 Council adopted the recommendations of Corporate Report No. R013;2011, that authorized staff to establish a DE Utility for the purpose of designing, constructing and operating a DE system in Surrey City Centre. As part of that report, staff committed to forward further reports to Council, complete with recommendations regarding the design, financial strategy, operating strategy, tendering process, construction and other matters related to the implementation of the DE system in the City Centre area.

At its Regular meeting on May 3, 2011, Council adopted the recommendations of Corporate Report No. R069;2012, that authorized staff to establish a District Energy Utility under the brand name of Surrey City Energy(SCE) operating as a business unit within the Engineering Department.

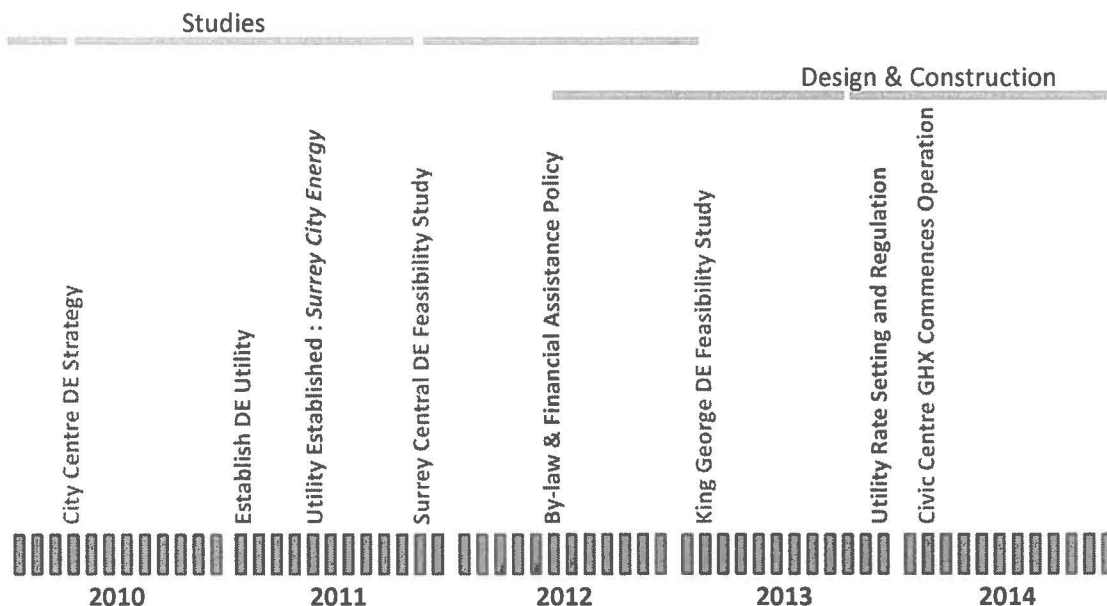
At its Regular meeting on June 7, 2012, Council adopted the recommendations of Corporate Report No. R123;2012 that resulted in the adoption of the District Energy System By-law, 2012, No. 17667. This By-law established the DE requirements for new development in each of two distinct areas within Surrey City Centre, being Service Area A and Service Area B, respectively. A copy of this report is attached this report as Appendix A.

The boundary of Service Area A encompasses those lands within the City Centre that are designated for high density development with a Floor Area Ratio (FAR) greater than 3.5. Each new development within Service Area A with a build-out FAR equal to or greater than 1.0 is required to incorporate in its design domestic hot water, make-up air units, and in-suite hydronic heating that is connectable to the DE system prior to occupancy of the development.

Service Area B primarily includes land designated for low to medium density development at an FAR less than 3.5. Each new development in Service Area B with a build-out FAR greater than 1.0 and less than 2.5 will be required to incorporate in its design domestic hot water and make-up air units that are connectable to a DE system. Each development in this area with a build FAR equal to or greater than 2.5 will be required to install a hydronic heating system in addition to domestic hot water and make-up air units in such a manner as to be fully compatible for connection to the DE system when it is available.

Staff has been working with a committee (the “Committee”) comprised of representatives of the Urban Development Institute and representatives of developers who have active development applications in each Service Area within the Surrey City Centre area. The Committee is identifying and addressing concerns related to the implementation of the City’s DE system in the City Centre.

The following graph is a timeline of activities that have taken place, are taking place or are planned in relation to the implementation of the DE system in City Centre.



DISCUSSION

The meetings of the Committee have been a valuable opportunity to exchange information regarding the implementation of the DE system in City Centre and to work collaboratively to address concerns. One of the primary concerns expressed by the Committee relates to how the rates and rate structure will be established and regulated. This report relates to this specific concern.

With a view to providing the development community and future customers with an understanding of how the rates will be established and charged, staff has developed a draft policy titled “District Energy Rate-Setting Policy”, a copy of which is attached as Appendix B to this report. The following sections of this report discuss the substantive elements of the proposed Policy.

1. Cost Recovery

The cost-of-service model is a well-accepted accounting structure for energy utilities operating in a regulated environment. Rates charged to customers of SCE will be calculated such that all costs-of-service associated with financing, operating, and administering the delivery of thermal energy by way of SCE are fully recovered.

A 30-year financial pro-forma has been developed for the purpose of rate setting. The pro-forma projects out over a 30-year period the forecasted revenue requirements necessary to fund the costs of the system. The pro-forma will be updated on an annual basis to reflect actual conditions in each year of operation.

2. Rate Stability

Although capital intensive, DE systems allow for a variety of fuel sources to be used in the delivery of energy and offer long-term price stability that is not available to customers of single source conventional heating systems. There is expected to be much less variability in the year-to-year SCE rates in comparison to conventional systems.

In the short term, as the DE system is maturing, SCE rates will not necessarily fully cover the debt servicing and operating costs of the system; however, the rate structure will allow for the recapturing of the early years deficits while remaining competitive with the costs that customers would incur if they were using other thermal energy options that are available in the market, such as electricity and natural gas.

This rate-setting approach is commonly used by privately-owned utilities regulated by the British Columbia Utilities Commission (BCUC), including FortisBC. This approach has also been applied to the SFU UniverCity District Energy system and River District Energy located in southeast Vancouver as well as the City of Vancouver’s DE utility that services Southeast False Creek. This approach ensures that the DE infrastructure financing costs are more equitably distributed between the initial customers of the system and those that connect in later years.

3. Accountability/Transparency

BCUC is a regulatory agency that was established by the Province for the purpose of administering the Utilities Commission Act (the "Act"). BCUC's mandate includes regulation of the sale of energy by BC "public utilities". Two examples of "public utilities" that are regulated by BCUC are FortisBC and BC Hydro. The Act explicitly states that a "public utility" does not include a municipality or regional district in respect of services provided by the municipality or regional district within its own boundaries.

SCE has been established as a municipally-owned utility and, as such, is exempt from the regulatory oversight of BCUC. Similar to the City's water, sewer, drainage and solid waste utilities, Council is tasked with the responsibility of regulating the sale of energy services by SCE and ensuring that the public interest is served.

While the City is exempt from the regulatory oversight of BCUC, there is merit in establishing an external rate review panel to assist Council in the oversight of SCE's rates. The City of Vancouver has established such a panel as part of the DE utility that services development in the Southeast False Creek community. The formation and operation of such a panel is discussed in more detail in the following section.

Expert External Rate-Review Panel

It is proposed that the Panel be made up of 4 members appointed by Council, with one member being appointed as the Chair. The Panel members would have expertise in the context of the Panel's responsibilities. The Panel would be tasked with providing objective, expert advice to the City regarding the rates that should be charged by SCE in relation to a set of Council-approved rate-setting principles for SCE. A draft Terms of Reference for the Panel is attached to this report as Schedule 1 of Appendix B.

4. Low-Carbon/Renewable Energy Targets

One of the fundamental benefits of a DE system lies in its ability to reduce emissions of GHG's by replacing consumption of fossil fuels with renewable, low-carbon fuel sources on a neighborhood-scale. Upfront infrastructure costs of DE systems are high and a significant customer demand is required to support the related necessary investments. The typical approach to implementing DE systems is to commence the development of the system using low-cost conventional natural gas combustion equipment until a sufficient level of customer demand has been achieved to support the large scale investment that is needed to introduce alternative renewable energy sources.

Privately-owned utilities regulated by BCUC are allowed a set rate of return on their investment equity, which is commensurate with the level of assessed risk associated with the related investment. For DE utilities in BC this is typically in the range of 9% to 10% of the equity portion of the total financing.

The SCE rate structure will seek to include a similar level of return on investment, which will allow for some reserves to be established over time for equipment replacement and unexpected occurrences. These reserves will also be used to fund low-carbon, renewable energy generation capacity. In this way, SCE will be re-investing energy expenditures into the local economy while reducing GHG emissions. The rate of return on the City's investment in the DE system will be no less than the City's cost of borrowing to finance the development of the DE system and no more than the rate of return that is established for the private utilities that are regulated by the BCUC.

5. Rate Competitiveness

The BC Hydro electricity rate for residential electricity service (i.e., based on 50% of the energy being drawn at the step 1 electricity rate and 50% at the step 2 rate) is considered to be a suitable benchmark against which SCE rates should be compared. This statement is based on the observation that most high-rise residential dwelling units not serviced by DE are generally provided with heating service by electricity. SCE's objective will be for its rates to not exceed this benchmark. To provide certainty for the utility and its initial customers it is recommended that SCE rates be set to this benchmark for the first three years of operations. This is also consistent with a number of private utilities that are regulated by BCUC which have set their initial energy rates for service based on this benchmark. It is also recommended that the Panel regularly review opportunities to continue this rate assurance.

SCE energy rates over time will likely become less than the BC Hydro benchmark, as the efficiencies of the DE system are realized. These efficiencies primarily relate to economies of scale and, in the longer term, the flexibility that DE systems have in relation to changing energy sources over time. This divergence will depend on a number of factors including, among others, the rate at which buildings connect to the DE system and the rate of increase for the BC Hydro benchmark.

While the BC Hydro rate is a suitable benchmark based on equivalence of service and customer understanding, rate comparisons will not be limited to BC Hydro. SCE rates will also be compared against the long-term capital and operating costs of natural gas as well as other lower mainland DE systems.

6. Fairness

SCE rates will be structured such that the rates charged to different types of users (i.e., residential, retail commercial, office, institutional, etc.) are fair and equitable. All customers of the utility should be subject to rates that reflect the cost of the level of service that is provided to the user type and at no point should rates charged to one user type act to subsidize the rates of another user type.

Next steps

Subject to adoption of the recommendations of this report, a Request for Expressions of Interest will be structured and advertised for the purpose of selecting suitable candidates to serve on the Panel. This REOI will be based on the attached draft Terms of Reference. Staff will undertake a process to evaluate the responses including appropriate interviews and in due course will recommend to Council individuals who are considered appropriate to appoint to the Panel. This process should be completed by the spring of 2014.

Following the appointment of the Panel, staff will present information to the Panel with a view to the Panel overseeing the establishment of the initial utility rate structure for SCE. This will ultimately result in a further report to Council on the results of the Panel's work.

Legal Services Review

This report and the proposed Policy, which is attached as Appendix B, have been reviewed by Legal Services.

SUSTAINABILITY CONSIDERATIONS

The implementation of a DE system in the City Centre supports the Economic and Environmental Pillars of the City's Sustainability Charter under the following specific 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 DE system.*

CONCLUSION

Based on the above discussion, the Engineering Department recommends that Council:

1. Approve, for use in setting the rates and the rate structure for Surrey City Energy (SCE), the policy attached to this report as Appendix B, which is titled "District Energy (DE) Rate-setting Policy" (the "Policy");
2. Authorize staff to proceed with a public Request for Expressions of Interest for the purpose of establishing the Expert External Rate-Review Panel (the "Panel") as generally described in this report; and
3. Approve the Terms of Reference that are attached to this report as Schedule 1 of Appendix B in relation to the Panel and its function.



for Vivienne Wilke, CGA
General Manager,
Finance & Technology



Vincent Lalonde, P.Eng.
General Manager, Engineering

JA/JO/brb

Appendix A - Corporate Report R123;2012
Appendix B - Draft District Energy Rate Setting Policy

Biographical Information on Appointees to the District Energy System Utility (Surrey City Energy) Appointment of Expert External Rate Review Panel

Fong Kwok, CPA, CGA

Ms. Kwok is a Chartered Professional Accountant and Principal of Red Phoenix Consulting Services Inc., providing consulting services for the utility industry in project management, regulatory strategy, capital planning, and rate forecasting, along with financial evaluation and consultation. Ms. Kwok held the role of Regulatory Specialist with the BC Utilities Commission and has served 10 years with BC Hydro in varying capacities, including Business Systems Consultant, Financial Services Accountant and Project Accountant. Most recently, Ms. Fong served as Commissioner and Chair for the City of New Westminster Electric Utility Commission. In this capacity, she provided oversight and guidance for the municipality’s proposed District Energy System for the Sapperton neighbourhood. Ms. Kwok served on Surrey City Energy’s Expert External Rate Review Panel in 2016, 2017 and 2018.

Melissa Davies

As an Associate with InterGroup Consultants, Ms. Davies specializes in utility rate regulation, including electricity, natural gas, water, wastewater, sanitary sewer and storm water. Her experience includes working for utilities (including Crown-owned, municipally-owned and privately-owned), regulatory boards, industrial customer groups and residential customer groups. She has assisted these clients in rate applications, with a focus on revenue requirement, cost of service, rate design and integrated resource planning. She has worked in jurisdictions across Canada (including BC, Alberta, Saskatchewan, Manitoba, Northwest Territories, and Newfoundland & Labrador) and in the U.S. In addition, she has experience with socio-economic and economic impact assessment, public engagement programs (including workshops, open houses, and stakeholder interviews) and with energy and policy-related research and outreach.