



City of Richmond

Report to Committee

To: Public Works and Transportation Committee

Date: May 25, 2017

From: John Irving, P.Eng., MPA
Director, Engineering

File: 10-6125-01/2017-Vol
01

Re: Oval Village District Energy Utility Bylaw No. 9134, Amendment Bylaw No. 9725

Staff Recommendation

That the Oval Village District Energy Utility Bylaw No. 9134, Amendment Bylaw No. 9725 be introduced and given first, second and third readings.

John Irving, P.Eng., MPA
Director, Engineering
(604-276-4140)

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Development Applications	<input checked="" type="checkbox"/>	
Law	<input checked="" type="checkbox"/>	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 	APPROVED BY CAO

Staff Report

Origin

In 2014, Council adopted the Oval Village District Energy Utility Bylaw No. 9134 (Bylaw) establishing the service area for Phase 1 development of the Oval Village District Energy Utility (OVDEU).

The purpose of this report is to recommend expansion of the service area to include one new development site adjacent to an existing interim energy plant.

This report supports Council's 2014-2018 Term Goal #4 Leadership in Sustainability:

Continue advancement of the City's sustainability framework and initiatives to improve the short and long term livability of our City, and that maintain Richmond's position as a leader in sustainable programs, practices and innovations.

4.1. Continued implementation of the sustainability framework.

4.2. Innovative projects and initiatives to advance sustainability.

Background

In 2013, under Council direction, the Lulu Island Energy Company (LIEC) was established as a wholly-owned corporation of the City for the purposes of managing district energy utilities on the City's behalf. A District Energy Utilities Agreement between the City and the LIEC was executed in 2014, assigning the LIEC the function of providing district energy services on behalf of the City.

In April 2014, Council approved the material terms of a Concession Agreement ("Agreement") for the purpose of endorsing LIEC and Corix entering into the Agreement. Subsequently, LIEC and Corix executed the Agreement whereby LIEC would own the OVDEU and its infrastructure, and Corix would design, construct, finance, operate and maintain the OVDEU, subject to the City, as the sole shareholder of LIEC, setting rates for customers.

Also in April 2014, Council adopted the Oval Village District Energy Utility Bylaw No. 9134 establishing the service area for Phase 1 of the OVDEU. The Phase 1 service area defined in the bylaw included all active developments in the Oval Village area at the time of the Bylaw adoption. Staff indicated in the accompanying report that as other developments emerge in the neighbourhood, staff would bring options to Council for the expansion of the OVDEU service area boundary.

In October 2015, following a recommendation from the LIEC Board, Council expanded the service area to include two new developments, in order to secure their commitment to connect to OVDEU.

Under LIEC's oversight, Corix has been successful in delivering Phase 1 of the OVDEU project. Phase 1 for the first six connections (Onni Riva 1 and Riva 2, Polygon Carrera, Amacon Tempo, Cressey Cadence and Intracorp River Park Place) and associated infrastructure was completed on time and under budget. Corix will continue construction on the infrastructure necessary to connect more developments in the current year. All work is projected to be completed on time and within budget.

Analysis

In order to leverage economies of scale and realize the long-term social, economic and environmental benefits of the DEU, expansion to service future development is a key opportunity. Direct benefits from expansion are:

- Maintaining low rates to OVDEU customers
- Increasing distribution piping efficiency
- Balancing energy demand and load requirements across a broader customer base
- Maximizing potential for introducing waste heat as an energy source
- Maximizing potential for greenhouse gas emissions reduction

A new development, Park Residences at 6351 Minoru Boulevard (Attachment 1), directly adjacent to the Carrera building and LIEC's interim energy plant near the Bowling Green, is now in the process of preparing a Development Permit submission. This 28,300 m² development will be connected to the district energy through the current Concession Agreement with Corix. The DP application is expected to be submitted in the near future.

City and LIEC staff met with the developer's representative and discussed the opportunity to connect the development to the district energy. The original building mechanical design is already compatible and able to be connected to the district energy system. Staff presented the following benefits of connecting to the district energy system:

- Floor Area Ratio exemption for compatible in-building heating systems
- Buildable space in the penthouse that results from not having to place a boiler on the rooftop
- Reduced construction costs since an in-building boiler is not needed

The developer raised some concerns about connecting to the OVDEU system which staff have addressed in Table 1.

Table 1: Summary of developer’s input

	Staff Response
District energy is unproven technology and risky.	Staff presented facts during the meeting and also via a follow up email, clearly indicating that district energy is a tried-and-tested technology. Staff also pointed out that LIEC and its partner (Corix) have been successfully implementing district energy systems in the OVDEU service area, including the servicing the Carrera building near the site.
District energy requirements will add to the already existing requests from other City departments and the infrastructure does not exist yet.	Staff indicated that they would guide the developer through the specific district energy requirements, so that the process runs smoothly, and the district energy implementation will not delay the development.

Another consideration relates to feedback from other developers at the inception of OVDEU. Ultimately, developers wanted the City and LIEC to maintain a ‘level playing field’ whereby all developers had the same district energy connection requirements in the same market area.

Staff are confident that the developer’s concerns have been addressed with the information presented during and after the meeting. It is important to expand the service area to include this site in order to secure their commitment to connect to OVDEU.

The LIEC Board of Directors has reviewed this opportunity and recommends expanding the Oval Village District Energy Utility (OVDEU) service area to include the development located at 6351 Minoru Blvd (Attachment 2 and Attachment 3).

Financial Impact

None. If approved, the established process is that Corix will present a capital plan to LIEC to consider and approve. Costs will be recovered through customer rates which, per Council’s objective, will be competitive with conventional utility customer rates for the same level of service.

Conclusion

The expansion of the service area creates an opportunity for the City to further its sustainability goals. Furthermore, by leveraging economies of scale, this opportunity would help maintaining the utility rates for the end users competitive with conventional energy costs, based on the same level of service.



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Senior Manager Sustainability and District Energy
(604-276-4130)

Attachment 1: Proposed Expansion of the Oval Village Service Area

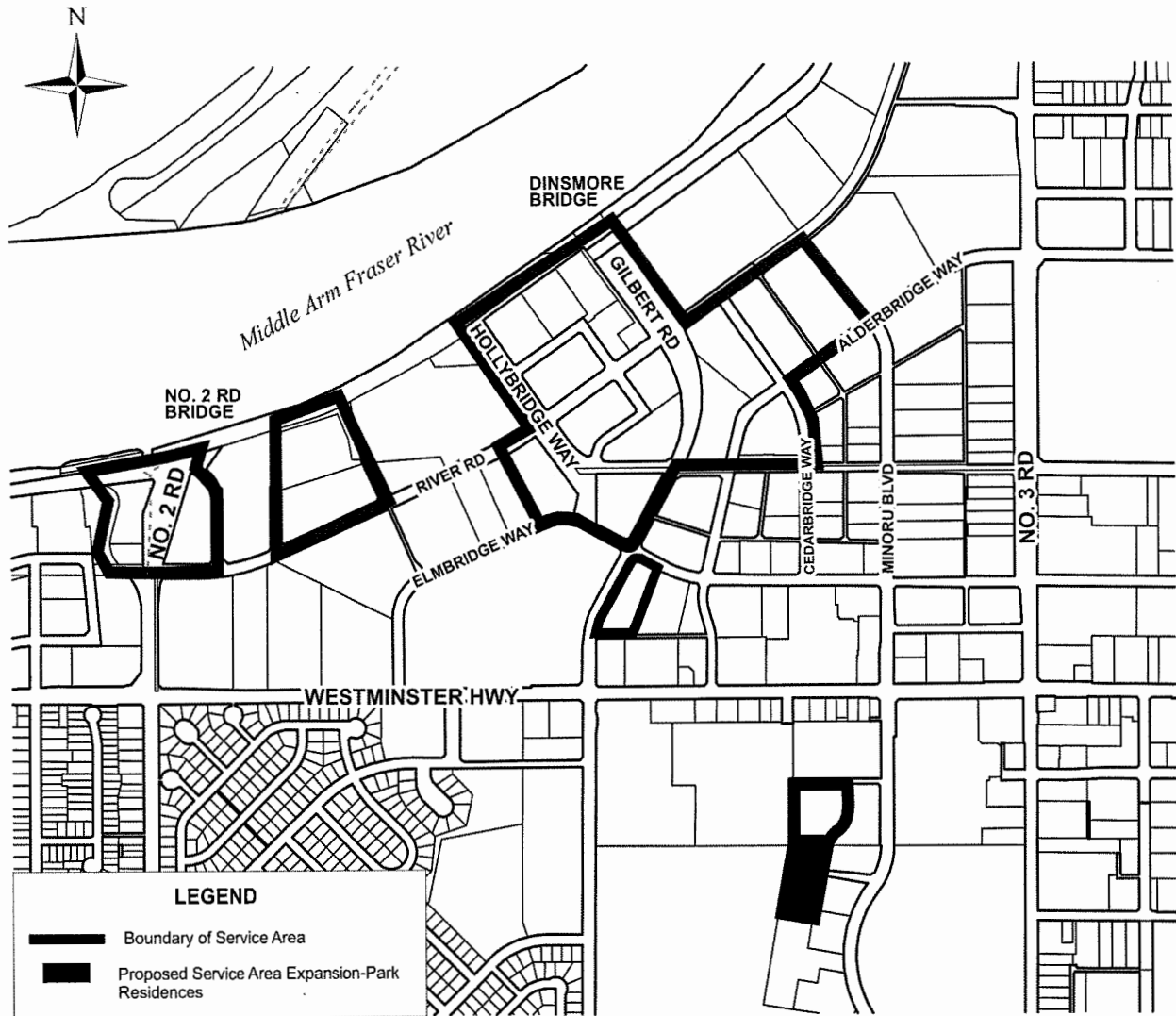
Attachment 2: Excerpt from the Minutes of LIEC's Board

Attachment 3: Oval Village District Energy Utility Bylaw No. 9134, Amendment Bylaw No. 9725

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Attachment 1 – Proposed Expansion of the Oval Village Service Area



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Attachment 2 – Excerpt from the Minutes of LIEC’s Board



LULU ISLAND ENERGY COMPANY
Excerpt from the Minutes of the Board of Directors meeting of the Company
held in the Richmond City Hall on May 18, 2017

Agenda Item 5. Oval Village DEU Service Area Expansion (6351 Minoru Blvd)
Staff presented a report dated May 18, 2017 titled “Oval Village DEU Service Area Expansion (6351 Minoru Blvd)” to the Board (5369247) and recommended that the Board recommend to Council expanding the Oval Village District Energy Utility (OVDEU) service area to include the development located at 6351 Minoru Blvd. The Board instructed staff to continue to consult the developer to ensure that the requirement for DEU will not delay the developer.

BE IT RESOLVED THAT the Board recommend to Council expanding the Oval Village District Energy Utility (OVDEU) service area to include the development located at 6351 Minoru Blvd.

CARRIED UNANIMOUSLY



City of Richmond

Bylaw 9725

Oval Village District Energy Utility Bylaw No. 9134 Amendment Bylaw No. 9725

The Council of the City of Richmond enacts as follows:

1. The **Oval Village District Energy Utility Bylaw No. 9134** is amended by deleting **Schedule A (Boundaries of Service Area)** of the Bylaw in its entirety and replacing it with a new Schedule A as attached as Schedule A to this Amendment Bylaw.
2. This Bylaw will come into force and take effect on the date of adoption shown below.
3. This Bylaw is cited as "**Oval Village Energy Utility Bylaw No. 9134, Amendment Bylaw No. 9725**".

FIRST READING

SECOND READING

THIRD READING

ADOPTED

CITY OF RICHMOND
APPROVED for content by originating dept. <i>M</i>
APPROVED for legality by Solicitor <i>BOS</i>

MAYOR

CORPORATE OFFICER

Schedule A to Amendment Bylaw No. 9725

SCHEDULE A

Boundaries of Service Area

