

Schedule 1 to the Minutes of the Regular meeting of Richmond City Council held on Monday, November 23, 2020.

**TO: MAYOR & EACH COUNCILLOR**  
**FROM: CITY CLERK'S OFFICE**



# City of Richmond

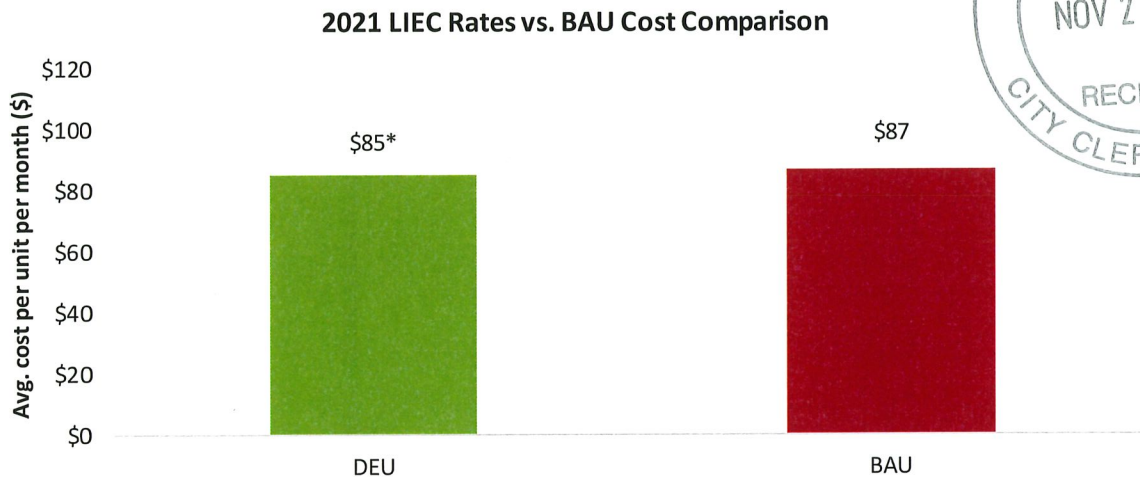
## Memorandum Engineering and Public Works Sustainability

**To:** Mayor and Councillors  
**From:** Peter Russell  
Director, Sustainability and District Energy  
**Date:** November 17, 2020  
**File:** 01-0060-20-LIEC1/2020-  
Vol 01  
**Re:** LIEC District Energy Rates vs. Business As Usual Cost Comparison

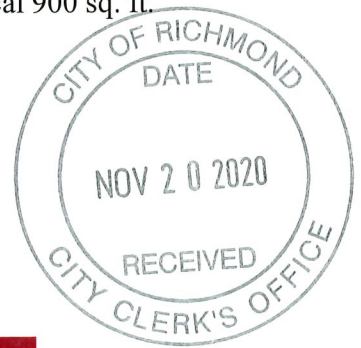
The purpose of this memorandum is to respond to an inquiry that arose at the November 16, 2020 Finance Committee meeting, regarding a comparison of LIEC district energy rates vs. business as usual (BAU) cost to residents.

Every year before developing district energy rate recommendations to Council, Lulu Island Energy Company (LIEC) staff review all costs residents would otherwise pay for using conventional energy systems (the BAU cost). The BAU cost model used as a benchmark was developed by an independent third party and is adjusted every year to account for inflation and changes in conventional utility costs (FortisBC and BC Hydro). LIEC rates include commodity costs, day-to-day maintenance and operating costs, and all equipment replacement costs which would be otherwise paid through strata fees in a BAU scenario. The rate that LIEC charges is lower than what a resident would be paying in a heating and cooling BAU scenario when all costs are considered. A cost comparison of LIEC rates vs. BAU costs for a typical 900 sq. ft. residential unit is presented in Graph 1 below.

Graph 1: 2021 LIEC Rates vs. Business As Usual (BAU) Cost Comparison



\* Doesn't include benefits of reduced GHG emissions (~\$45 per tonne of CO<sub>2e</sub>)



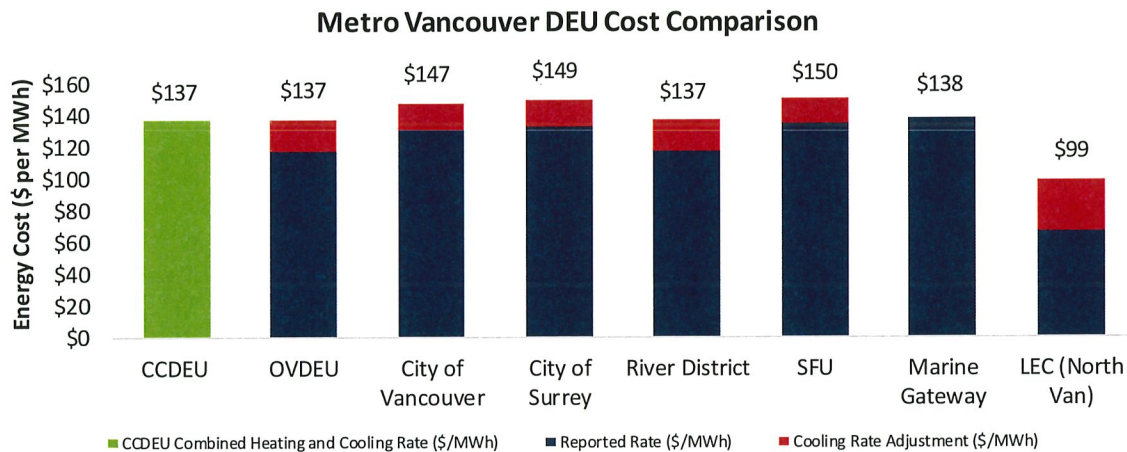
In 2021, customers using energy from a conventional utility system will see a BAU rate increase of 2.5% in 2021, which is below the eight-year average BAU rate increase of 4.0% (see Table 1 below).

Table 2: Annual Percent Increase and 8-Year Average Comparison of Blended Fortis BC and BC Hydro (BAU) Rates

	2014	2015	2016	2017	2018	2019	2020	2021 Proposed	8 Year Avg.
<b>ADEU Rate</b>	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	0.0%	3.5%
<b>OVDEU Rate</b>	-	-	4.0%	4.0%	4.0%	4.0%	4.0%	2.5%	3.8%
<b>CCDEU Rate</b>	-	-	-	-	-	-	4.0%	2.5%	3.3%
<b>Blended BAU Rate</b>	6.5%	3.3%	4.5%	7.1%	2.4%	3.3%	2.5%	2.5%	4.0%

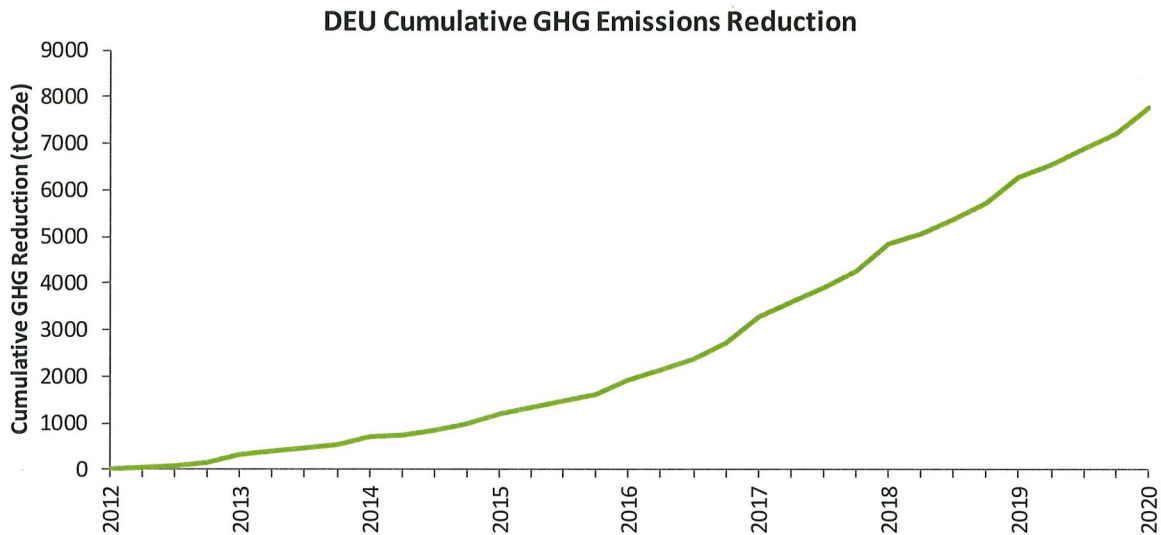
LIEC rates are also lower than the majority of other private and municipally owned district energy utilities in Metro Vancouver. Graph 2 shows a comparison of the projected energy cost in \$ per MWh for different systems.

Graph 2: Metro Vancouver DEU Cost Comparison



The City identified district energy as a leading strategy to achieve the City’s GHG reduction goals, and incorporated LIEC for the purposes of carrying out the City’s district energy initiatives. As shown in Graph 3, LIEC’s utilities have avoided more than 7,750 tonnes of CO<sub>2e</sub> from being emitted to the atmosphere to date, equivalent to removing 2,350 cars from City of Richmond roads for one year. Once the service areas are fully developed, GHG reductions are expected to increase exponentially and become a major contributor to meeting Richmond’s GHG reduction targets.

Graph 3: DEU Cumulative GHG Reductions



The recommended 2021 district energy rates support Council’s objectives to reduce GHG emissions while keeping the annual energy costs for LIEC customers competitive with conventional energy costs based on the same level of service. Staff will continuously monitor energy costs and review the rate to ensure fairness for consumers.

Peter Russell  
Director, Sustainability and District Energy  
(604-276-4130)

cc: SMT  
LIEC Board of Directors  
Alen Postolka, Manager, District Energy