



General Purposes Committee

- Date: Monday, November 4, 2024
- Place: Anderson Room
Richmond City Hall
- Present: Mayor Malcolm D. Brodie, Chair
Councillor Chak Au
Councillor Carol Day
Councillor Laura Gillanders
Councillor Kash Heed
Councillor Andy Hobbs
Councillor Alexa Loo
Councillor Bill McNulty
Councillor Michael Wolfe
- Call to Order: The Chair called the meeting to order at 4:00 p.m.

MINUTES

It was moved and seconded

That the minutes of the meeting of the General Purposes Committee held on October 15, 2024, be adopted as circulated.

CARRIED

FINANCE AND CORPORATE SERVICES DIVISION

1. **AWARD OF CONTRACT 8337P - DATABASE ENCRYPTION PROJECT**

(File Ref. No. 04-1370-01) (REDMS No. 7803709)

In response to a query from the Committee, staff noted that security is multi-layered, with many different options to be applied to minimize risk, which provides a further level of control and protection to ensure the City's information cannot be breached.

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It was moved and seconded

- (1) *That Contract 8337P - Database Encryption Project be awarded to Eclipsys Solutions Inc., for a value of \$662,249.16, excluding taxes, for a contract term of five years as described in the report titled "Award of Contract 8337P - Database Encryption Project" dated October 3, 2024, from the Director, Information Technology; and*

- (2) *That the Chief Administrative Officer and the General Manager, Finance and Corporate Services be authorized to execute the contracts and all related documentation with Eclipsys Solutions Inc.*

CARRIED

2. **AWARD OF CONTRACT 8350Q – SUPPLY AND DELIVERY OF MICROSOFT SUBSCRIPTION LICENSING**

(File Ref. No. 04-1300-01) (REDMS No. 7793657)

It was moved and seconded

- (1) *That Contract 8350Q – Supply and Delivery of Microsoft Subscription Licensing be awarded to NetraClouds Inc. for a three-year term for an estimated value of \$2,180,995.50, excluding taxes as described in the report titled "Award of Contract 8350Q – Supply and Delivery of Microsoft Subscription Licensing" dated October 3, 2024, from the Director, Information Technology; and*

- (2) *That the Chief Administrative Officer and the General Manager, Finance and Corporate Services be authorized to execute the contracts and all related documentation with NetraClouds Inc.*

CARRIED

3. **DRAFT COMMUNITY WAYFINDING STRATEGY**

(File Ref. No. 08-4150-04-06) (REDMS No. 7823529)

Staff provided a brief PowerPoint presentation as a short introduction and overview of the Community Wayfinding initiative and strategic recommendations, core to the strategy (copy on file, City Clerk's office). The two family of signage options (Richmond brand signage and logo) were provided noting two colour options for each of the gateway entry signs (deployed depending on location) and the directional and directory signage. Next steps include public engagement on the Draft Strategy to invite feedback on the draft itself, design and colour options, and input on opportunities for implementation, with the Final Strategy and Implementation Framework to Council, winter 2024/25

In response to queries from the Committee, staff noted (i) the two colour options, as presented, will be taken back to the public for their input, (ii) there are localization opportunities that are built into the Strategy, so there will be

2.

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opportunities through implementation, both on the signs but also through non-signage wayfinding elements to further develop pride of place and that sense of localization in the various communities, (iii) the blue colour of Option 1 is the City's brand blue, deepened to enhance the contrast to 80% for greater accessibility and the yellow there is the City's brand yellow, (iv) staff are aware of the six locations where signs are currently, and would anticipate that before implementing new entry signs there would be consultation with the community to assess those locations and to look at whether there would be any changes to that, and (v) in terms of whether the larger sign or taller sign, there would be a number of considerations location specific in terms of engineering and public works consideration, so space allowance would be part of the community consultation as well.

It was moved and seconded

That the draft Community Wayfinding Strategy, as detailed in the staff report titled "Draft Community Wayfinding Strategy", dated October 11, 2024, from the Director, Business Services, be endorsed for public consultation.

CARRIED

PLANNING AND DEVELOPMENT DIVISION

4. PROPOSED UPDATES TO THE RICHMOND COMMUNITY HOMELESSNESS TABLE TERMS OF REFERENCE

(File Ref. No. 07-3000-00) (REDMS No. 7787794)

In response to queries from the Committee, staff noted (i) the Richmond Community Homelessness Table is intended to provide strategic oversight into the Homelessness Strategy and the implementation of that strategy has not had any elected official participation on it, (ii) the Richmond Poverty Reduction Coalition is an information and advocacy group and the members of the table currently are either government entities, Ministry of Social Development and Poverty Reduction, Vancouver Coastal Health, City of Richmond, or are service providers delivering services to individuals who are currently or have recently experienced homelessness in Richmond, so there is some challenge with including advocacy activities and some of the strategic conversations that are taking place related to policy, service provision and service implementation, (iii) currently this group is meeting quarterly and that has been seasonally very effective (e.g., often seasonal changes to service delivery, seasonal changes to demographics), so currently ensuring that the right people are at the table has been well achieved on a quarterly basis, and (iv) there is a statement in the Terms of Reference that provides the committee the authority to invite outside agencies or critical staff from various government organizations to attend a meeting.

3.

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It was moved and seconded

That the amended Terms of Reference for the Richmond Community Homelessness Table as outlined in the staff report titled "Proposed Updates to the Richmond Community Homelessness Table Terms of Reference", dated October 15, 2024, from the Director, Community Social Development, be endorsed.

CARRIED

DEPUTY CAO'S OFFICE

5. AWARD OF CONTRACT 8300Q – ON-CALL REFRIGERATION CONTRACTOR SERVICES

(File Ref. No. 10-6000-01) (REDMS No. 7780627)

It was moved and seconded

- (1) *That Contract 8300Q – On-Call Refrigeration Contractor Services be awarded to Cimco Refrigeration, a Division of Toromont Industries Inc. (Cimco Refrigeration) for a three-year term for an aggregate value of \$750,000.00, excluding taxes, as described in the report titled "Award of Contract 8300Q – On-Call Refrigeration Contractor Services," dated October 7, 2024 from the Director, Facilities and Project Development;*
- (2) *That the Chief Administrative Officer and Deputy Chief Administrative Officer be authorized to extend the initial three-year term, up to a maximum of five years, for an additional value of \$506,250.00 excluding taxes; and*
- (3) *That the Chief Administrative Officer and Deputy Chief Administrative Officer be authorized to execute the contracts and all related documentation with Cimco Refrigeration over the maximum five-year term.*

CARRIED

ENGINEERING AND PUBLIC WORKS DIVISION

6. UPDATED ENERGY STEP CODE AND ZERO CARBON STEP CODE COMPLIANCE OPTIONS FOR NEW SINGLE DETACHED AND DUPLEX HOMES

(File Ref. No. 10-6125-01) (REDMS No. 7763319)

Staff provided a brief PowerPoint summary presentation (copy on file City Clerk's office) to give an overview of the updated Energy Step Code and Zero Carbon Step Code compliance options for new single detached homes and duplex homes.

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It was moved and seconded

That the remote participants be permitted to enter the meeting via Zoom to speak on Item 6.

CARRIED

Cathy Yan, Richmond resident, spoke in support of the City to stay on course by maintaining the current Richmond Zero Carbon Energy Step Code timeline.

Bill Tieleman, BC Coalition for Affordable Dependable Energy, provided an overview of the Coalition, expressing support for Option 3 as outlined in the staff report, noting that Options 1 and 2 effectively ban renewable natural gas and natural gas choices.

Mike McNeice, Director of Public Affairs, Hearth, Patio and Barbecue Association of Canada, spoke on behalf of the members in favour of Option 3 of the staff report. Mr. McNeice provided a brief background of the Association, noting that members already comply with extensive existing environmental regulations that are committed to addressing the reality of climate change, noting that addressing climate change effectively should include increasing renewable natural gas as part of the solution. Mr. McNeice further noted that Option 3 follows Provincial guidelines and locally it will simplify Step Code adoption, giving residents and businesses more time to adapt.

Naomi Leung, Richmond resident, spoke to global climate responsibility and encouraged the City to continue to invest in the future, be a climate leader and noted preference for the City to continue status quo or Option 1 of the proposed three options be selected if a change to the current Zero Carbon Energy Step Code timeline is determined.

Judith Brook, Metro Vancouver resident, spoke in support for the City to continue its Zero Carbon Energy Step Code implementation timeline of 2025 without delay, to support a healthy and sustainable environment that offers many renewable energy choices.

Steve Kemp, Richmond resident and qualified net zero builder since 1981, spoke to the perceived obstacle of knowledge when building net zero, noting it can be taught very effectively and should not hinder moving forward in an accelerated timeline together with policies backed up by the proper program(s) internally.

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Vanessa Connolly, Director of Community and Indigenous Relations, Fortis BC, provided a brief PowerPoint presentation (copy on file, City Clerks office) and to speak in support of Option 3 of the staff report, which allows Richmond residents to have the flexibility in how they heat their homes by choosing energy use and access to the gas system while ensuring those who prefer electricity continue to have that option available. An overview of the Fortis BC Climate Action Plan and commitment to decarbonizing the gas system was provided, noting that Fortis BC is the largest energy provider in BC, delivering natural gas, renewable natural gas, electricity and propane to 1.2 million people, including nearly 50,000 homes and businesses in the City of Richmond. It was further noted that restricting access to the gas system not only limits customer choices but also removes another path for achieving a reduction in greenhouse gas emissions in the City moving forward.

Olga Ilich, former Richmond resident, spoke to the perceived financial impact and absence of sufficient infrastructure resulting from an expedited timeline of the Richmond Zero Carbon Energy Step Code, and requested the City select Option 3 outlined in the staff report.

Stephanie Sy, Richmond resident, urged the City to maintain the current Richmond Zero Carbon Energy Step Code timeline or to accelerate it and allow some exceptions for builders who are having trouble with compliance.

Eva Jin, Richmond resident, spoke to the many health concerns related to climate change and pollution and the need to protect the environment to ensure clean air for future generations, and urged the City to maintain the current Richmond Zero Carbon Energy Step Code timeline without delay or alteration.

Dana Westermarck, Richmond resident, spoke to his experience as the owner of an energy company serving thousands of customers in the lower mainland and the BC interior, the challenges faced for electric only homes to ensure reliable and safe heating and cooling systems (particularly in the interior where there are extreme weather related power outages), the associated risks in not having a natural gas back up and future concerns for capacity and distribution of electricity. Mr. Westermarck requested the City consider adopting Option 3 of the proposed three options for the Richmond Zero Carbon Energy Step Code timeline going forward.

Rosalyn C. RainDancer, holistic realtor, spoke to the benefits of building more energy efficient homes from the perspective of consumer demand and economics, and urged the City to prioritize and accelerate energy efficiency in new developments.

Bruce Murdoch, professional home builder, spoke to his experience and the resulting affordability and efficiency of building electric single family and small multi-family homes.

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Sunil Singal, spoke on behalf of Stand Earth, in favour of the City maintaining leadership in its current Zero Carbon Energy Step Code timeline, noting that keeping with the original timeline ensures new homes built in 2025 will have safer and more sustainable alternatives like heat pumps that not only provide heating but also air conditioning, which is becoming so important.

Sharon Dodd, Richmond resident, spoke to pollution related health and well-being concerns for all and the immediate need to enact strict standards to protect the environment to ensure clean air for future generations. Ms. Dodd urged the City to maintain the current Richmond Zero Carbon Energy Step Code timeline or Option 1 of the proposed three options under consideration.

Shaena Furlong, President and CEO, Richmond Chamber of Commerce, spoke to climate change, home affordability and keeping Richmond liveable for future generations by making zero carbon readiness more affordable, efficient and accessible.

Barry Penner, member of the public and former BC Minister of Environment, spoke to the introduction of BC's first carbon tax, and noted that many people overlook that on an average basis annually, electricity itself accounts for only 17% of BC's actual energy consumption, with 83% coming from other sources; to keep our economy going (hospitals, schools, transportation, etc.) takes a lot of energy besides electricity. Mr. Penner further noted that trying to displace that other 83% with electricity only is unfortunately not possible as, despite best efforts, BC has become dependent on its neighbours for electricity imports for that 17% of energy demand. Mr. Penner expressed concern about being dependent on other sources, and that despite Site C, will still be in a situation to import electricity. Further concern was expressed regarding increasing pressure on the electricity system impacting the future of supply.

30 pieces of correspondence were received and distributed on table (attached to and forming part of these minutes as **Schedule 1**).

In response to queries from Committee, staff noted (i) the information about 17% of BC's energy coming from electricity is true, but it is a measure of energy consumption, not a measure of useful energy, so there isn't the need to generate five times as much electricity to meet energy needs; the energy needed to consume to produce the needed energy goes down dramatically because it is a measurement of consumption including the inefficient use of energy as opposed to energy needs, (ii) the administrative change the City made in June to allow back up gas if desired in a system that is primarily electric heat pump based, largely came as a request from some builders that wanted to have in-floor radiant heat in single detached and duplex homes, (iii) in most cases, categorically heat pumps are 300% more efficient and models are getting more and more efficient over time; heating and cooling in

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buildings is largely heat pump based, (iv) the \$425 per sq. ft. noted as an average total of construction costs is a median value of construction as of 2024 that was taken from a number of customer facing sites on the cost of new housing in the lower mainland, and the costing increment of building to of Steps 3, 4 and 5 were taken directly from the most recent Energy Step Code costing report that was commissioned by the Province and done in 2022, and (v) a statistic derived from looking at the average number of service interruptions indicated the number of hours without power have been one-third below the average BC Hydro has.

It was moved and seconded

That Option 2, as outlined in the report titled “Updated Energy Step Code and Zero Carbon Step Code Compliance Options for New Single Detached and Duplex Homes”, from the Director, Climate and Environment, dated September 19, 2024, to continue the existing approach and delay next steps to match Provincial timelines, including extending the next two increments in Step Code requirements for single-detached houses and duplexes to 2027, 2030 and 2032; providing three full years between each increment, be endorsed.

The question on the motion was not called as discussion ensued with respect to the merits of Option 2.

In response to queries from the Committee, staff noted (i) the base comparator calculation was centred on the City maintaining status quo requirements into 2025 and the intentions of each bylaw, (ii) Step Code 5 does not restrict the ability for natural gas heating for homes, and (iii) Step Code 5 is not as high of energy efficiency as passive house, but is a high level and includes the air tightness test.

The question on the motion was then called and it was **DEFEATED** with Cllrs. Day, Gillanders, Heed, Hobbs, Loo, McNulty and Wolfe opposed.

It was moved and seconded

- (1) *That the report titled “Updated Energy Step Code and Zero Carbon Step Code Compliance Options for New Single Detached and Duplex Homes”, from the Director, Climate and Environment, dated September 19, 2024, be received for information; and*
- (2) *That staff create policies that allows Council to consider exceptions on a case-by-case basis to allow new homes to have gas hook-up if BC Hydro cannot provide the electric service that is required.*

There was agreement to deal with Parts (1) and (2) of the motion separately.

The question on Part (1) of the motion was then called and it was **CARRIED** with Mayor Brodie and Cllrs. Au, Hobbs and Loo opposed.

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The question on Part (2) of the motion was not called as a brief discussion ensued with respect to the rationale for exemptions.

The question on Part (2) of the motion was then called and it was **CARRIED**.

The following **referral motion** was then introduced:

It was moved and seconded

That staff consider a policy for exceptions/conditions to the status quo for step code requirements.

The question on the referral motion was not called as further discussion ensued with respect to the parameters for exceptions.

The question on referral motion was then called and it was **DEFEATED** with Mayor Brodie and Cllrs. Day, Gillanders, Heed, Hobbs and Wolfe opposed.

ADJOURNMENT

It was moved and seconded

That the meeting adjourn (7:00 p.m.).

CARRIED

Certified a true and correct copy of the Minutes of the meeting of the General Purposes Committee of the Council of the City of Richmond held on Monday, November 4, 2024.

Mayor Malcolm D. Brodie
Chair

Lorraine Anderson
Legislative Services Associate

On-Table Correspondence

General Purposes Committee

November 4, 2024

Item #6

Biason, Evangel

From: Emily Boston <Emily.Boston@cfib.ca>
Sent: November 1, 2024 4:09 PM
To: MayorandCouncillors
Cc: Jairo Yunis
Subject: CFIB letter to Richmond: Nov. 4th Zero Carbon Step Code vote
Attachments: 2024-11-04- CFIB letter to Richmond Zero Carbon Step Code.pdf

Categories: - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE

City of Richmond Security Warning: This email was sent from an external source outside the City. Please do not click or open attachments unless you recognize the source of this email and the content is safe.

Good afternoon, Mayor and council,

Please find attached a letter from the Canadian Federation of Independent Business's (CFIB) for consideration ahead of the Monday, November 4th vote regarding Richmond's timeline for implementing the BC government's Zero Carbon Step Code regulations.

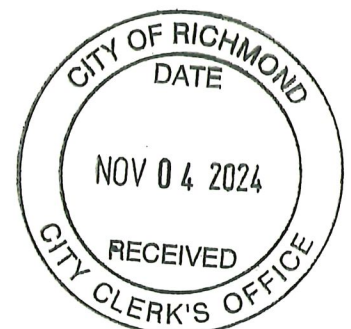
CFIB appreciates your attention to this important matter. If you wish to discuss it further, please do not hesitate to contact us at directly at (236)-878-3818 or email us at emily.boston@cfib.ca.

Kind regards,

Emily Boston
Senior Policy Analyst
Email: emily.boston@cfib.ca
Phone: 236-878-3818
[BC Twitter](#)

CFIB - In business for your business.

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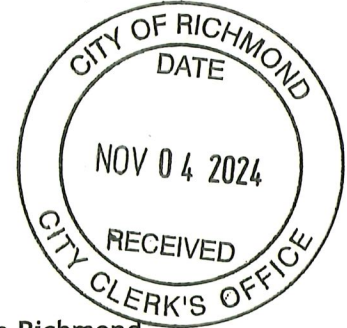
**CANADIAN FEDERATION
OF INDEPENDENT BUSINESS**

In business for your business.

625 Howe Street, Suite 1430
Vancouver, British Columbia V6C 2T6

November 4, 2024

Richmond City Hall
6911 No. 3 Road
Richmond, British Columbia
V6Y 2C1 Canada



Subject: Call to halt implementation of Zero Carbon Step Code regulations in Richmond

Dear Mayor and Councillors,

As you may know, the Canadian Federation of Independent Business (CFIB) is a non-profit, non-partisan organization representing the interests of 97,000 small- and medium-sized businesses across Canada, including 9,700 in BC. We are reaching out to urge council to revert the City's current approach to provincial timelines for adopting the BC government's Zero Carbon Step Code.

Small businesses recognize the importance of working to decarbonize our economy by enhancing energy efficiency and replacing high-emitting energy sources. They also recognize the importance of protecting our environment; 75% of BC small businesses believe it is possible to grow the economy and protect the environment at the same time. However, hastening the implementation of the provincial government's already rushed transition plan fails to properly balance the wellbeing of local small businesses with a greener future. The proposed restrictions, and their fast-paced rollout timeline, are unrealistic and will negatively impact key sectors and businesses that power Richmond's communities and its economy.

Put simply, imposing strict emission standards to the point that it effectively bans natural gas in new builds poses major challenges for many small businesses. To start, businesses involved in the sale, installation, and maintenance of natural gas equipment will face immediate revenue losses with little time to prepare, adapt, or pivot. In addition, given the province's challenging economic environment, many small businesses do not have the financial capacity to absorb the high cost of purchasing and installing new and more expensive equipment.

In the context of an affordability crisis, this transition will also raise energy costs for the average Richmond household, and though the BC government claims switching to hybrid dual fuel systems or heat pumps will lower household heating bills, these savings won't even cover the cost of installing new equipment.

The cold winter this year underscored the need for reliable and affordable heating for British Columbians. Considering BC's limited power capacity, experts have questioned whether electricity alone will be able to meet the demands of every community. While the BC government's Roadmap to 2030 outlines a plan to

advance BC Hydro's Electrification plan, there are significant gaps that need to be filled in a very short timeline. We have heard many concerns that relying on electricity alone for home heating will constrain our options when it comes to extreme cold.

In closing, access to reliable and affordable energy sources is essential for British Columbians and especially for small businesses that contribute so much to our local economies. Mandating regulations that favour or penalize specific energy sources can jeopardize these goals, undermining the ability of businesses to manage costs and ensure consistent energy supply. Striking a balance between environmental objectives and economic realities is critical to ensure that energy remains both affordable and reliable for all.

CFIB urges council to revert the City's current approach to provincial timelines for detached and duplex houses that minimizes energy efficiency requirements within the BC Building Code increase from Step 3 to Step 4 in 2027, to ZCSC EL-4 in 2030 and from Step 4 to Step 5 in 2032. We hope that council will consider a more balanced approach that allows businesses to transition sustainably, without compromising economic stability and energy resilience.

Thank you for your attention to the important matter. If you have any questions, or would like to discuss this further, please contact Jairo Yunis at jairoyunis@cfib.ca.

Sincerely,



Jairo Yunis
Director for BC and Western Economic Policy



Emily Boston
BC Senior Policy Analyst

Biason, Evangel

From: margaret and Ian Brown <themargians@gmail.com>
Sent: November 2, 2024 12:15 PM
To: MayorandCouncillors
Cc: Paulin,Chad
Subject: Zero Carbon Step Code

Categories: - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE

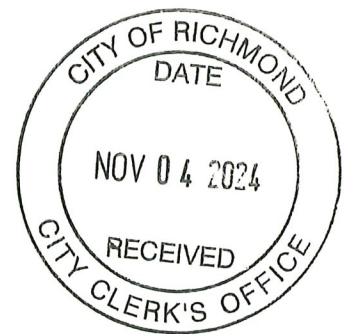
City of Richmond Security Warning: This email was sent from an external source outside the City. Please do not click or open attachments unless you recognize the source of this email and the content is safe.

Dear Mayor and Council,

I am writing you to urge you to keep your present Zero Carbon Step Code to begin in 2025. You know that it will be cheaper and much cleaner to heat buildings and hot water with electricity than with gas. It will be healthier for the future inhabitants of these buildings. As for climate change, the latest science will tell you that gas is not a clean fuel at all, in fact dirtier than coal.

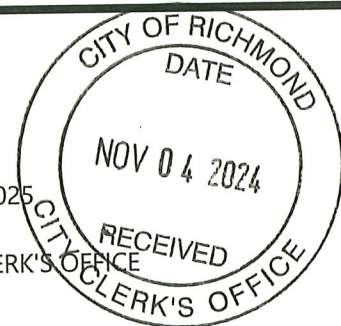
You likely know that Burnaby, New Westminster, Victoria and Saanich already have Zero Carbon Step Codes in action or ready to begin next year. Why put Richmond back in the last century when you can save so many of your future citizens from the expensive refits that will be needed to combat climate change.

Sincerely,
Ian D.Brown



Biason, Evangel

From: Jane Devonshire <janedev.lee@gmail.com>
Sent: November 2, 2024 12:26 PM
To: MayorandCouncillors
Cc: Paulin,Chad
Subject: SUPER URGENT: Please keep your ZCSC timeline for 2025
Categories: - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE



City of Richmond Security Warning: This email was sent from an external source outside the City. Please do not click or open attachments unless you recognize the source of this email and the content is safe.

Dear Richmond Mayor and Council,

For the sake of your own health and for all future generations, I urge you to stick to your original timeline for bringing in the ZCSC in 2025.

Cooking with gas is really detrimental to your health as I can personally attest to. Before I knew how toxic gas was to have in your home, we had a gas cooktop installed in 2012. Fast forward to 2020 and I started getting chronic lung infections and was on round after round of antibiotics for 2 years. A doctor friend from CAPE, the Canadian Association of Physicians for the Environment said I really needed to get rid of the gas cooktop. Expensive as it was, I did and am so grateful that I followed her advice as I have not had any lung infections since.

Now that I am soon to become a first-time grandparent, I was really worried about my daughter and son-in-law living with a gas range in their rental apartment. I felt so strongly about it that I was prepared to replace it with an induction range. As fate would have it, it ended up that they have to move out of their rental but have happily found a place in one of those all-electric new builds in Vancouver so I will not have to face any of those costly retrofits. I will also not have to worry about the baby during our increasingly more frequent heat domes as these wonderful high efficiency electric heat pumps (2x-6x more efficient than gas furnaces/boilers) will provide life-saving cooling and will also filter out toxic outdoor air pollutants like wildfire smoke. Astute builders and contractors that get on board now will do well as these buildings are much more desirable for health reasons and for huge cost savings on energy bills and no costly retrofits down the road.

Check out: <https://heatcookbreathe.ca/>

Please do your fiduciary duty and govern with the best interests of your residents' health and well being in mind and implement EL4 of the ZCSC in 2025. You will be leaving them a wonderful legacy to be truly proud of. I live in the CRD on Southern Vancouver Island and we are so immensely proud of and grateful to our 7 out of 13 local councils who have implemented EL4 so far with others working on it as we speak. Industry is ready, willing and able and their only ask is for regional consistency which we are giving them!

Respectfully yours,

Jane Devonshire

Victoria V9B1K3

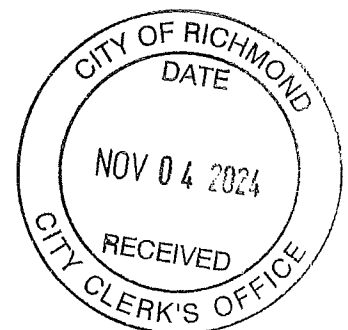
Biason, Evangel

From: joanne jarvis <jojarmur@gmail.com>
Sent: November 2, 2024 1:19 PM
To: MayorandCouncillors
Subject: Keep up your effort to stop global warming

Categories: - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE

City of Richmond Security Warning: This email was sent from an external source outside the City. Please do not click or open attachments unless you recognize the source of this email and the content is safe.

Hello,
Many municipalities have realized their responsibilities when it comes to climate change and the future and current health of their children.
Clean alternatives to fossil fuels are available.
I urge you to please keep your current Zero Carbon Stop Code timeline for 2025.
Scientists' are worried we are going to surpass 1.5 and may reach catastrophic 2.5 -3 degrees of warming.
I hope your my kids, your kids and everyone's kids this will not be the case.
Regards,
JoAnne Jarvis
Sent from my iPad



Biason, Evangel

From: Shuswap Climate Action <shuswap.climate@telus.net>
Sent: November 2, 2024 6:13 PM
To: Mayor and Councillors
Cc: Paulin, Chad
Subject: Step Up to the Zero Carbon Step Code January 2025!

Categories: - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE



City of Richmond Security Warning: This email was sent from an external source outside the City. Please do not click or open attachments unless you recognize the source of this email and the content is safe.

Dear Richmond Mayor and Council,

The Shuswap Climate Action Society has looked up to communities like Richmond that are showing leadership in climate action. Therefore, we are calling on Richmond to maintain the current Zero Carbon Step Code (ZCSC) timeline for 2025, which will be a big step forward in phasing out fossil fuels and accelerating the clean energy transition.

If you delay this commitment to adopt the ZCSC, Richmond would be seen as a climate laggard compared to neighbouring municipalities like Burnaby, New Westminster, and Port Moody.

As your own staff report shows, implementing the ZCSC is one of the most cost-effective climate tools within the city's authority to help Richmond reach its greenhouse gas emission reduction targets.

Powering buildings with clean electricity is one of the most affordable and effective climate actions that municipal governments can take. Electric heat pumps provide savings on energy bills, are better for the environment, and are safer for our health. And heat pumps quite literally save lives by providing cooling during extreme heat events. Heat pumps also protect community members living in precarious and low-income housing are the most vulnerable to these impacts.

As well, indoor gas appliances release toxic chemicals including nitrogen dioxide, formaldehyde, and carbon monoxide. The impact of this on human health was highlighted in a recent study by researchers in Spain who linked 40,000 premature deaths annually in the EU and the UK with exposure to pollutants from gas stoves.

With the devastating consequences of climate change at all of our doorsteps, it's never been clearer that we need to get fossil fuels out of our communities now.

Emissions from buildings are responsible for approximately 12% of climate pollution across our province and as high as 40% in cities like Richmond.

We have the technology to affordably heat, cool and power our homes with clean electricity rather than polluting methane gas. And as the staff report indicates, homeowners would see considerable cost savings on their energy bills compared to heating with fossil fuels.

Buildings constructed today will still be standing in 2050 so it's important to build them right the first time. Homes built with gas connections will face costly retrofit challenges in the near future and requiring electrified construction now could give local businesses a competitive advantage when it becomes the required standard province wide.

A recent survey of over 100 building professionals in BC found that the construction industry is ready for the transition to energy efficient buildings and is either already meeting or will be able to meet the highest level of the ZCSC requirements.

We have outlined the many reasons to hold fast to the ZCSC implementation date and hope that industry lobbyists do not sway you from an evidence-based decision to phase out gas hookups in new homes in Richmond.

Thank you for the opportunity to comment as your city makes this important decision.

Julia Beatty, Chair
Shuswap Climate Action Society
www.shuswapclimate.org

We gratefully acknowledge we are on the unceded and unsurrendered traditional territory of the Secwépemc Nation.

Biason, Evangel

From: Sharon Cross <sharoncross11@gmail.com>
Sent: November 3, 2024 9:11 AM
To: MayorandCouncillors
Cc: Paulin,Chad
Subject: City of Richmond - Zero Carbon Step Code timeline

Categories: - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE

City of Richmond Security Warning: This email was sent from an external source outside the City. Please do not click or open attachments unless you recognize the source of this email and the content is safe.

Dear Mayor & Members of Richmond City Council:

We are residents of B.C., living in Cranbrook. A few years ago we installed a heat pump to help us reduce our gas consumption and to reduce our heating and cooling bills. We are *very* happy with our decision.

We understand that Richmond City Council will be deciding how to proceed on a critical piece of climate policy on Monday.

It's disturbing to read that indoor gas appliances negatively affect our health through the release of nitrogen dioxide, formaldehyde and carbon monoxide. A recent study by scientists in Spain has linked 40,000 premature deaths across Europe every year, associated with exposure to pollutants from gas stoves. Meanwhile, Fortis BC is busy greenwashing it's gas and lobbying municipalities to keep gas flowing into new homes/buildings. BC Hydro has the capacity to accommodate increased electrification and solar panels are becoming more affordable. The cumulative decisions made in Richmond and elsewhere, will impact people around the planet.

With the growing number of extreme weather events caused by escalating greenhouse gas emissions, it is incumbent upon all of us to curb our fossil fuel emissions. The technology exists to do it with clean electricity, rather than polluting methane gas, while homeowners see considerable cost savings on their energy bills. Heat pumps save lives. Community members living in precarious and low income housing bear the brunt of these impacts. Heat pumps also help keep indoor air clean during wildfire events.

A healthy community is dependent upon the municipal policies that will ensure that all our citizens are not adversely affected by fossil fuels inside and outside the home. This is why your decision on Monday is so important.

We ask that Richmond City Council vote to keep your current Zero Carbon Step code timeline for 2025. It will be yet another step forward in transitioning from fossil fuels and escalating clean energy.

Respectfully submitted,

Sharon & Joseph Cross
2112 - 5 St. N.
Cranbrook, BC V1C 4Y3
250-489-4412

cc: Chad Paulin, Director of Climate & Environment, City of Richmond

Living, working and playing on the ancestral and unceded homelands of the Ktunaxa people. In particular, I honour the ʔaʔam and Yaʔit ʔa-knuq̓ti'it. In some way, I hope that the work I do in this area is respectful and beneficial to all living things.



Biason, Evangel

From: Sharon Dodd <maddoc98@hotmail.com>
Sent: November 3, 2024 12:00 PM
To: MayorandCouncillors
Subject: Vote on Energy Step Code for Single-Detached and Duplex Residential Buildings - The opinion of a family doctor and climate advocate

Categories: - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE

City of Richmond Security Warning: This email was sent from an external source outside the City. Please do not click or open attachments unless you recognize the source of this email and the content is safe.

Dear Mayor Brodie and Council Members,

As a family doctor serving the Richmond community for over 24 years and a lifelong resident, I am writing to express my strong support for a bold vote on the Zero Carbon Step Code timeline this Monday. I urge you and your fellow council members, including the mayor, to vote in favour of **Option 1** (with the shortest delay for next set of Step Code requirements).

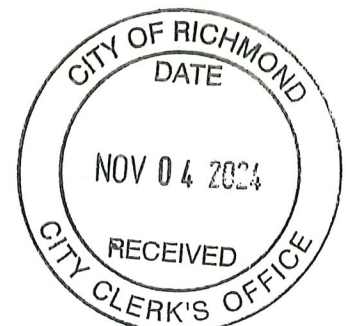
I commend our city's staff for their tremendous efforts in advancing an ambitious timeline for climate action. During the 2023 Youth Climate Conference at Burnett Secondary, city staff enthusiastically presented several of Richmond's climate commitments, including the adoption of the BC Energy Step Code. My daughter volunteers with the City's Youth Ambassadors because she shares our city's values for climate action. New residents are drawn to Richmond for its safety, convenience, and picturesque environment, and they recognize the responsibility that comes with living in such a community—to lead by example globally. As Richmond residents, we take pride in our achievements and are willing to make short-term sacrifices for a sustainable future. We are a community that genuinely cares.

Climate change is disrupting our planet's weather systems and causing more frequent natural disasters. Since the council meeting on October 1, we have witnessed two deadly floods, one locally in North Vancouver, and the other in Valencia, Spain. We must remember that Richmond is particularly vulnerable, situated between two arms of the Fraser River. Our residents, especially the youth, are increasingly concerned about the rising global temperatures. While there is growing awareness of the climate and health impacts of using natural gas, many lack a clear understanding of how to take effective action. People look to their leaders to make decisive and bold commitments.

As a climate advocate and dedicated community member, I sincerely hope you will support **Option 1** and continue the course set by our diligent staff. Voting for this option will send a powerful message to the world that Richmond is committed to meaningful climate action. We must remain steadfast in our commitments and not allow the short-sighted interests of a few to undermine our collective efforts.

Thank you for your time and consideration.

Dr. Sharon Dodd, BSc, MD, CCFP
Family Physician, Medical Director, Live Well Medical Centre, Richmond, BC
Clinical Instructor, University of British Columbia, Faculty of Medicine
Representative, CAPE (Canadian Association of Physicians for the Environment) Toxics Program



Biason, Evangel

From: Marianne Rev <mariannerev@gmail.com>
Sent: November 3, 2024 12:13 PM
To: MayorandCouncillors
Subject: For the health of Richmond citizens, keep your current Zero Carbon Step Code timeline for 2025

Categories: - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE

City of Richmond Security Warning: This email was sent from an external source outside the City. Please do not click or open attachments unless you recognize the source of this email and the content is safe.

Dear Councillors and Mayor of Richmond,

For the health of Richmond citizens, keep your current Zero Carbon Step Code timeline for 2025. It will be a big step forward in phasing out fossil fuels and accelerating the clean energy transition. With the devastating consequences of climate change at all of our doorsteps (eg the death of 2 Coquitlam residents during our most recent atmospheric river, on B.C. Election Day), it's never been more clear that we need to get fossil fuels out of our communities now.

As a retired family physician, mother and grandmother, I'm very concerned about the health harms of LNG/methane gas. Emissions from buildings are responsible for up to 40% of air/climate pollution in **cities** such as Richmond and Vancouver. I live right across from Richmond, at the southern foot of Victoria Drive, by the Fraser River. We share air.

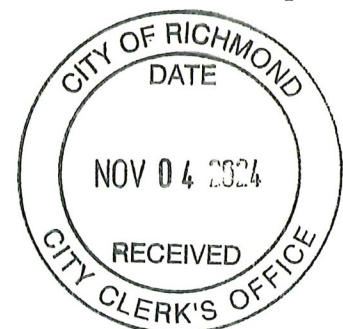
Indoor gas appliances hurt our health by releasing toxic chemicals including nitrogen dioxide, formaldehyde, carbon monoxide and benzene. Children living in homes with gas stoves have a 42% higher risk of developing asthma than children growing up in homes without gas stoves. These toxic chemicals also increase the risk of respiratory and cardiac events in adults especially in people with underlying conditions. A recent study from scientists in Spain further highlighted the harm to health by linking 40,000 premature deaths across Europe every year associated with exposure to pollutants from gas stoves. This study is in keeping with earlier studies in the United States with similar findings.

Keeping to your current Zero Carbon Step Code timeline for 2025 would allow heat pumps to save lives earlier by providing cooling during extreme heat events. Heat exchangers would have saved the lives of many of the 619 persons who died during the 2021 heat dome in BC. Community members living in precarious and low income housing bear the brunt of these impacts.

Thank you for all the good work you do! It's crucial that Richmond continues its climate leadership, joining more than 2 dozen municipalities from Langley to Nanaimo that have passed low carbon construction policies.

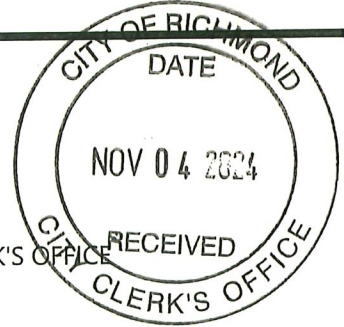
Sincerely yours,

Marianne Rev, MD, CCFP, FCFP
Retired family physician, focusing on Care of the Elderly
Clinical Associate Professor, Faculty of Medicine, UBC



Biason, Evangel

From: ajitsthalawal@gmail.com
Sent: November 3, 2024 6:30 PM
To: MayorandCouncillors
Subject: Energy Step Code Meeting 4th Nov 2024



Categories: - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE

City of Richmond Security Warning: This email was sent from an external source outside the City. Please do not click or open attachments unless you recognize the source of this email and the content is safe.

Attn: Mayor & Council

We as the Richmond Builders Group were not made aware of this Referral as this affects our local group of Richmond Builders. We would like to provide some feedback on the City's Policies which are affecting our single family developments and there increased costs.

Under Current Step Code 3 with - Zero Carbon option – (this being the lowest Step Code Option Currently available on a Single Family Development)

The Following upgrades are required to meet the code:

- Window & Glazed Doors – 0.97 U Value in order to Achieve this the windows are required to be upgraded to Triple Glazed Casement Windows – Increase of **40%** compared to Double Glazed Windows
- 2 x 8 Exterior Walls – Increased costs for Lumber Materials of approx. **25%** - Compared with regular 2 x 6 Frame
- Upgraded Insulation – as the Exterior walls increase in size so does the amount of Insulation and its value at R28 – Increased cost of **30%**

The Introduction of Zero Carbon – (No GAS)

- Heat Pump Electric Hot water tank – Increase cost of the Tank is nearly **50%** compared with a regular hot water tank run on Gas
- Electric Boiler to run the floor heating – The Electric Boiler is very hard to source and costly approx. **25%** more than regular Gas Boiler
- A/C, HRV & Heat Pump – Another heat and cooling source required to meet the code requirements. Adding Heat Pump Unit adds additional **15%** cost.
- BC Hydro Service upgrade to 400 Amp Service – Electrical Contractor cost increase of **30%** compared with 200 Amp Service – Electrical Service.

To Meet these **Zero Carbon requirements** BC Hydro Service has to be upgraded to 320 Amp or 400 Amp Service – **As per Staff Memo Dated Oct 22 2024** – BC Hydro does not offer 320 Amp Service in the Lower Mainland and to Apply for **400 Amp service it takes 5 – 9 Months** to Design & Install. This stalls our projects and increases our Financing costs for the projects. This cost is again passed on to the end user.

The Staff Memo dated Oct 22 2024 – **does not assess the additional costs for Zero Carbon Step Code Compliance.**

We Calculated the additional cost of meeting Step Code 3 with Zero Carbon option which is the minimum standard currently, on an Average 3000 Sq ft home in Richmond it is costing **\$70,000** extra to build these homes.

We support the Energy Step code program and staff have always been very accommodating to help guide the building community. However the pace of this initiative needs to be more align with the BC Building code and its timing. We strongly advise that **Option 3** be considered. This will allow the building community to be prepared with technological new advances and even explore cost effective **Solar Panel Energy Sources** for future homes.

Thank you for taking the time to consider this from the Richmond Home Builders Group.

Biason, Evangel

From: Katie Bertram <kczudy@hotmail.com>
Sent: November 3, 2024 8:12 PM
To: MayorandCouncillors
Subject: energy step code and zero carbon step code options for City of Richmond

Categories: - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE

City of Richmond Security Warning: This email was sent from an external source outside the City. Please do not click or open attachments unless you recognize the source of this email and the content is safe.

Hello Richmond Mayor and Counsellors,

My name is Katie Bertram. I am a family physician who has worked in the Richmond Community for over 20 years. As someone who has focused my career trying to support the most vulnerable and marginalized people in the city, I feel compelled to advocate on their behalf, as they so often suffer the worse direct effects of climate change, while contributing the least.

I am writing to endorse my strong support for voting for **Option 1** in your upcoming meeting on energy step code and zero carbon step code options for new single detached and duplex homes.

The impacts of climate change are undeniable and require urgent, concrete action, not half measures or kicking the can further down the road. We are already dangerously close to atmospheric CO2 tipping points which will make the impacts of climate change much worse than what has been predicted to date. Given that Richmond is particularly vulnerable to the effects of climate change given it's geography, it is imperative that the city act as a leader in supporting strong, decisive action. This vote is such an opportunity.

Thank you for your consideration.

Yours truly,

Dr. Katherine Bertram
Family Physician



Biason, Evangel

From: M. Kaviani <kaviani@shaw.ca>
Sent: November 3, 2024 9:41 PM
To: MayorandCouncillors
Subject: Vote OPTION 1 on the Zero Carbon Step Code timeline on Monday Nov 4th

Categories: - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE

City of Richmond Security Warning: This email was sent from an external source outside the City. Please do not click or open attachments unless you recognize the source of this email and the content is safe.

Dear Mayor and Richmond councillors,

As a physician who lived and has been working in Richmond for many years I would like to urge you to vote in favor of option1.

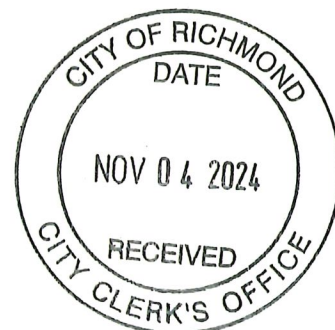
Lets together take a positive step towards the health of our planet and the people living on it.

Thank you for your consideration.

Regards,

Mandana Kaviani
MD, FRCPC

I acknowledge living and working on unceded territories of the xwməθkwəy̓əm (Musqueam), Skwxwú7mesh (Squamish), Stó:lō and Selilweta?/Selilwitulh (Tsleil- Waututh) Nations.



Biason, Evangel

From: Sue Kirschmann <skirsch00@gmail.com>
Sent: November 3, 2024 10:18 PM
To: MayorandCouncillors
Cc: Paulin,Chad
Subject: Zero Carbon Step Code

Categories: - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE

City of Richmond Security Warning: This email was sent from an external source outside the City. Please do not click or open attachments unless you recognize the source of this email and the content is safe.

November 3, 2024

mayorandcouncillors@richmond.ca



Dear Mayor & Members of Richmond City Council:

I understand you are considering delaying your implementation of the Zero Carbon Step Code (ZCSC). I urge you not to do so.

Please consider the impact your decision will have on your constituents. Pushing implementation of the ZCSC down the road would risk burdening citizens with new housing inventory that is hooked on gas and will need to be retrofitted (often a complicated and expensive undertaking), whereas keeping to your original timeline of 2025 will benefit everyone.

The ZCSC is a small change but it has big benefits for homeowners and renters. Electric heat pumps provide comfortable, low-cost heating and cooling, with none of the negative health effects that are associated with burning methane gas indoors.

My husband and I installed an electric heat pump after suffering through the heat dome in 2021. We are very pleased with our heat pump's efficiency and the way it maintains a comfortable temperature year round.

Many builders are already building low carbon homes and have found it is no more work to do so. In fact, in many cases it is less work and less expensive since a separate air conditioning system is not needed, nor is ductwork if the building is designed with a ductless heat pump system.

Voting to fast track the ZCSC will not only help Richmond achieve its emissions reduction targets, it will help us all in the transition away from fossil fuels to a safer future. Implementing the ZCSC is a win-win for everyone.

Sincerely,

Sue Kirschmann

1420 Smethurst Rd

Naramata, BC

cc: Chad Paulin, Director of Climate and Environment chad.paulin@richmond.ca

Dear Mayor and Councillors,

I write to you as an individual somewhat familiar with construction from the electrical perspective. As we continue to see incredible development in greater Vancouver – compounded by the ever increasing demand for electric vehicle charging - I can tell you that I do not see the grid as it exists nor the projection of demand coming anywhere close to aligning.

Last year alone BC was s a net importer. Moreover, Site C will not move the needle enough. In short our current electrical grid is challenged to keep up with the demand of power and labour to accommodate today's and tomorrow's needs. The current estimate of up to 9 months for a 400 amp service design in your own report highlights that between affordability and timing where does the need for more homes receive a practical nod or wink to recognize the importance of balance in the rush to a new world?

In other words what's the rush to be the first to zero carbon. Perhaps we should learn from those more anxious, to avoid unintended challenges for all those on the inside of this world including but not limited to: developers, manufacturers, BCH, Contractors and most importantly your constituents!

When you breakdown the costs of construction, taxes, DCCs, and **on I believe if we believe in affordable housing all levels must do a better job of factoring in the practicality of what will make sense.** That's what leaders do !

In regards to the above commentary I speak as a private citizen with a recent history and a decent memory. Lastly, I would be remiss not to concluded by stating that if you are one whom implores a rushed zero crusade, please do not eat in a natural gas fuelled restaurant, even for a special occasion!

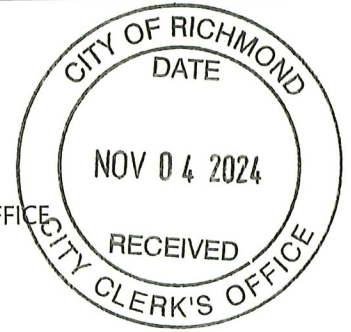
Respectfully,

Dan Mott



Biason, Evangel

From: mayorea
Sent: November 4, 2024 8:15 AM
To: MayorandCouncillors
Subject: FW: Zero Carbon Step Code



Categories: - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE

GP – Item 6

From: Alex Jamieson <ajamieson31@yahoo.ca>
Sent: November 2, 2024 4:55 PM
To: Day,Carol <CDay@richmond.ca>; mayorea <mayorea@richmond.ca>; Loo,Alexa <ALoo@richmond.ca>; McNulty,Bill <BMcNulty@richmond.ca>; Au,Chak <CAu@richmond.ca>; Hobbs,Andy <AHobbs@richmond.ca>; Heed,Kash <KHeed@richmond.ca>; Gillanders,Laura <LGillanders@richmond.ca>; Wolfe,Michael <MWolfe@richmond.ca>
Cc: CityClerk <CityClerk@richmond.ca>
Subject: Zero Carbon Step Code

City of Richmond Security Warning: This email was sent from an external source outside the City. Please do not click or open attachments unless you recognize the source of this email and the content is safe.

Dear Mayor and Council,

The main point of this email is to remind you that **Richmond is not going to win any awards for going backward on the Step Code.** In the past, the Richmond slogan "Island City by Nature" inspired us to earn awards for the district heating systems, trails, and I was personally involved in an award for our Environmentally Sensitive Area Bylaw, when I worked as a planner for 29 years. There have been other awards over the years.

The reasons for even considering this retrograde step are not valid:

Affordability: This is short- term argument. Gas heating may be affordable now, but when it comes to new construction, gas furnaces do not provide cooling. Electric heat pumps are the most efficient way of providing air conditioning. There is no guarantee that gas heating will always be cheaper than other options. The Zero Carbon Step Code results in better building construction, Passive Houses, etc.

Energy supply concerns: I do not understand why the statement that only 19% of our building heating is currently supplied by electricity is valid. I thought we were talking about the future. BC hydro has many options for increasing supply, such as wind, geothermal, or solar. In fact they have recently introduced a subsidy of \$10,000 for rooftop solar.

Transition Fuel is not a valid term. I think it is a term invented by the gas industry. Any way you look at it "Natural Gas" is simply methane usually produced by fracking. It is as bad as coal. It is contributing to greenhouse warming and health concerns related to local pollution and indoor pollution (gas stoves are a dangerous source of indoor pollution, according to CAPE (Canadian Association of Physicians for the Environment)).

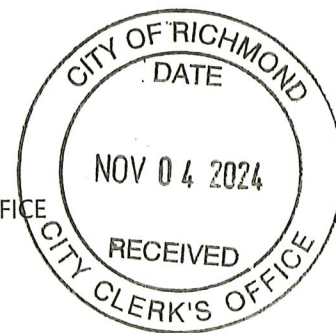
Choices: People should not be given the choice of buying a new building which is polluting our environment. It is the job of government to protect us and our environment. If people really want gas heating they can still buy an old unit. Finally, the choices we make today will affect the outcome of sea level rise in the long run (think dykes).

Please maintain your resolve to stick with the accelerated adoption of the Zero Carbon Step Code.

Alex Jamieson, former Richmond resident. 604-998-1045

Biason, Evangel

From: mayorea
Sent: November 4, 2024 8:16 AM
To: MayorandCouncillors
Subject: FW: Please don't delay your Zero Carbon Step Code!



Categories: - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE

GP – item 6

From: Laurie PARKINSON <lauriepar@shaw.ca>
Sent: November 3, 2024 10:34 AM
To: Day,Carol <CDay@richmond.ca>; mayorea <mayorea@richmond.ca>; Loo,Alexa <ALoo@richmond.ca>; McNulty,Bill <BMcNulty@richmond.ca>; Au,Chak <CAu@richmond.ca>; Hobbs,Andy <AHobbs@richmond.ca>; Heed,Kash <KHeed@richmond.ca>; Gillanders,Laura <LGillanders@richmond.ca>; Wolfe,Michael <MWolfe@richmond.ca>
Cc: Paulin,Chad <CPaulin@richmond.ca>; CityClerk <CityClerk@richmond.ca>
Subject: Please don't delay your Zero Carbon Step Code!

City of Richmond Security Warning: This email was sent from an external source outside the City. Please do not click or open attachments unless you recognize the source of this email and the content is safe.

Hello Mayor and Council,

Richmond has been an environmental leader in the past, and has received awards. Now, in terms of the Zero Carbon Step Code: Burnaby, New Westminster, and Port Moody are ahead of you. They will be more ahead of you if you delay your ZCSC implementation.

Public Health: Heat pumps give residents all-important cooling, saving lives. Over 600 vulnerable BC residents died in the 2021 heat dome.

Also, **new research** has shown that air pollution from gas use, especially gas stoves, **shaves 2 years off the lives of 40,000 citizens of Europe and Britain per year.** Residents are **twice as likely to die prematurely from exposure to gas stove pollutants compared to dying from a car crash.** And we all fear car crashes.

Gas stoves lead to more than a million cases of asthma per year. These children's asthma cases cost about \$4.3 billion in additional health spending in Europe and Britain.

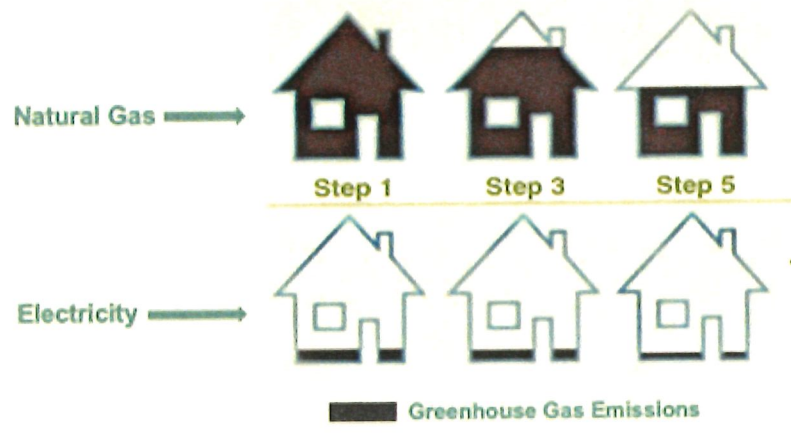
Let's build right the first time: Houses built now will still be standing in 2050, when Richmond plans to be at net zero. Houses with gas produce around 40% of Richmond's carbon pollution; fully electrified houses are a simple way to achieve net zero. Building with gas heat will also result in costly heat pump retrofits later (I've gone through this).

Electrified buildings cost little more to build: According to BC government figures, a medium sized Part 9 building in our climate zone costs under 1% more to build at EL-4. These buildings cost less to operate than those heated with gas. From Cranbrook builder Bruce Murdoch: Every house needs electricity. In general, if a heat pump is installed in a new house, it's either at no extra cost or it's a minor extra cost (about \$1k extra to go from 100 amps to 200 amps). We can do an all-electric SFD (no secondary suite) with the standard 100 amps as long as we install a splitter for the EV charger. Upscale luxury homes will require 200 amps or more, but that category is usually not as concerned about affordability. Only 7% of connections are for 400 amps or higher.

The construction industry is ready for the ZCSC: A recent survey of over 100 building professionals in BC said the industry is either already meeting or will be able to meet ZCSC EL-4 requirements.

The Zero Carbon Step Code is more powerful than the Energy Step Code for reducing emissions:

Greenhouse Gas Emissions by Heating Type

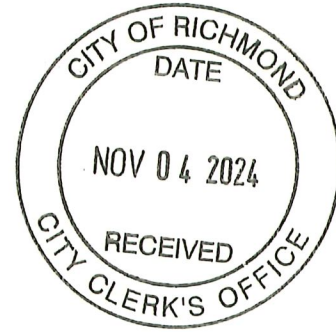


Please stay a climate leader and keep your Zero Carbon Step Code plans!

Laurie Parkinson
634 E 4th St
North Van, BC V7L 1J8
604-617-2364
Happy to give you the source of any info mentioned in this email.



North Shore Community Action Team



Mayor & Council
City of Richmond, BC

Re: Back-peddalling on Building Emission standards

- via email to CoR

Mayor & Council:

We at Force of Nature (North Shore) have become aware of the referral to staff of your Council’s concerns about early adoption of the BC Government’s Zero Carbon Step Code (ZCSC). We urge you not to do so, as relaxing your efforts to combat climate change is decidedly not in the public interest. Given the sea-level rise threat - to Richmond especially- neither is it in the interest of your citizens and neighbours.

Below are the arguments advanced for this referral by some Councillors, and our counter to them.

Councillor Argument	FoNA Counter-Argument
Building to ZCSC standards will make (new) home-ownership even less affordable	Not so. According to a recent BC Government report , the small (~1%) incremental capital costs of building to ZCSC standards are far outweighed by lower energy costs. https://energystepcode.ca/app/uploads/sites/257/2024/06/StepCodes_Guidebook_v3.pdf?mc_cid=5e77407709&mc_cid=a356e9b349
CoR should follow the herd on implementing ZCSC	The City of Richmond has always taken pride in being a municipal leader. There is no good reason to except ZCSC from this worthy ambition, which is shared by most Metro Vancouver and Southern Vancouver Island municipalities.
Homebuyers deserve a choice of heating fuels	They do. But enticing prospective homeowners to purchase homes with gas appliances – that will subsequently have to be retrofitted or replaced to comply with emission standards – isn’t doing them any affordability favours.
BCHydro may not be able to supply sufficient power	BCHydro regularly accesses the Mid-Columbian (“Mid C”) trading hub to acquire market-priced power as needed. This is currently priced at ~\$45/Megawatt-hour (MWh). This affords a healthy margin for Hydro’s residential rate of ~ \$110-\$140/MWh. BCHydro is currently starting up the 5,100 Gigawatt-hour(GWh) Site C dam, augmenting its total capacity by ~ 8%. Also, it has launched a 3,000 GWh power call for utility-scale solar and wind generation, and instituted



North Shore Community Action Team

	<p>a rebate program for homeowners interested in generating, storing and using their own solar power.</p> <p>Adding to BC’s electricity supply is the 3-5 times energy efficiency advantage of heat pumps over gas boilers/furnaces and baseboard heaters. Over time, baseboard-to-heat pump switching by up to 1 million homeowners represents a large backstop of reserve power for the provincial grid.</p> <p>In summary- there is little likelihood the Utility will run out of power.</p>
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Other arguments we would ask Council to consider in its decision include:

<p>Health Impacts of Gas</p>	<p>A <u>new study</u> by researchers at <u>Jaume I University</u> in Castelló de la Plana, Spain, found that residents of the European Union and Britain are twice as likely to die prematurely from exposure to gas <u>stove</u> pollutants than from a car crash.</p> <p>According to the researchers, gas stoves are estimated to lead to 40,000 premature deaths each year in the European Union and Britain, shaving off roughly two years of an average person’s life span. In the same region, gas stoves have led to more than a million annual asthma cases. Those cases in children alone cost an estimated \$4.3 billion in additional health spending.</p> <p>In 2021, BC experienced a severe heat dome which led to over 600 deaths from heat-stroke. Gas furnaces do not offer cooling / air conditioning.</p> <p>We believe that CoR has a responsibility to protect its citizens from projects and appliances which would incur such damage to their health.</p>
<p>Cost of Gas as a heating and cooking fuel</p>	<p>By 2030, BC’s carbon tax on fossil gas will exceed \$8.20/Gigajoule (GJ), adding over \$400 to an average annual gas bill. If, as stated in FortisBC’s 2022-25 Long Range Gas Resource Plan, it blends 11% RNG into the gas supply, the bill will increase by another ~\$160 annually (RNG costs ten times what fossil gas does). Both impacts essentially <u>double</u> the average householder’s energy tab – for gas.</p> <p>Gas is a world-traded commodity, whose price fluctuations have ranged from \$2-\$14/GJ over the preceding two decades. This volatility can be expected to continue, adding stress for gas customers. FortisBC passes the cost of gas it acquires directly through to its customers.</p>

We urge Council to stay the course on ZCSC.



North Shore Community Action Team

Sincerely,

Original signed by

Eoin Finn B.Sc., Ph.D., MBA
Chair, Force of Nature Alliance (North Shore Team); Finneo64@gmail.com; Phone: 604-715-7991
cc. FoNA (North Shore Team)

Biason, Evangel

From: mayorea
Sent: November 4, 2024 8:18 AM
To: MayorandCouncillors
Subject: FW: Zero Carbon Step Code Motion



Categories: - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE

GP – Item 6

From: S S <steph.sy@gmail.com>
Sent: November 3, 2024 11:01 PM
To: Day,Carol <CDay@richmond.ca>; mayorea <mayorea@richmond.ca>; Loo,Alexa <ALoo@richmond.ca>; McNulty,Bill <BMcNulty@richmond.ca>; Au,Chak <CAu@richmond.ca>; Hobbs,Andy <AHobbs@richmond.ca>; Heed,Kash <KHeed@richmond.ca>; Gillanders,Laura <LGillanders@richmond.ca>; Wolfe,Michael <MWolfe@richmond.ca>; CityClerk <CityClerk@richmond.ca>
Subject: Zero Carbon Step Code Motion

City of Richmond Security Warning: This email was sent from an external source outside the City. Please do not click or open attachments unless you recognize the source of this email and the content is safe.

To Mayor and Councillors,

My name is Stephanie Sy, and I'm a Richmond teacher. I am also a member of the Advisory Committee for the Environment, though I am not writing on their behalf. I spoke at the October 1 meeting urging you to preserve and strengthen our Zero Carbon Step Code (ZCSC) to keep up with other districts, and today I'm asking for your support once again.

As a city that has declared a climate emergency and endorsed the Fossil Fuel Non-Proliferation Treaty, Richmond needs to continue to act like a leader. In terms of our Zero Carbon Step Code, we lag behind districts like Burnaby (<https://www.burnaby.ca/services-and-payments/development-permits-construction/green-building-and-land-development>) and Port Moody (<https://www.portmoody.ca/en/city-hall/bc-energy-step-code.aspx>). If some Richmond builders are finding it difficult to comply, I urge you to consider adopting a policy similar to Port Moody's, which also allows exemptions when deemed appropriate (https://www.pentictonherald.ca/spare_news/article_49fb6dc4-29b8-5168-8238-6a07d92211ba.html). This would give a bit of leeway to builders who are having difficulties with compliance.

In addition, gas dependency is costly and harmful. While Fortis BC's rebates make gas seem cheap (thus incentivizing gas hookups in new homes), this cost is not truly discounted. Rather, existing Fortis customers pay through high delivery charges that make up nearly half of our bills. I'll remind you of my parents' 30-year-old house, which I spoke about at the Oct. meeting. It has steep winter gas bills exceeding \$200, and sometimes even hitting \$400. If the house had been built with a low-carbon, airtight design with a heat pump from the start, we would have avoided these high costs, and had efficient air conditioning to boot.

Gas systems are costly to the public tax purse too. Research confirms that gas contributes to many health issues, which ultimately becomes a public health burden for taxpayers (https://cape.ca/press_release/hundreds-of-

[healthcare-workers-across-canada-send-open-letter-urging-prime-minister-trudeau-to-cap-oil-and-gas-pollution-immediately-citing-its-health-harms/](#)). I know that my parents' drafty, gas-powered home is not great for my respiratory issues. Gas lines also have the potential to cause explosive damage during an earthquake, which could cost the city a great deal.

There's a reason most of the world is turning toward renewables, and it's not just because they are cleaner; they are cheaper than fossil fuels too (<https://www.un.org/en/climatechange/renewables-cheapest-form-power>) Globally, Canada's approach to climate action lags far behind countries like Portugal, Iceland, Uruguay, Costa Rica, and Kenya, which generate over 90% of their energy from renewables (<https://www.climatecouncil.org.au/11-countries-leading-the-charge-on-renewable-energy/>). Across the world, low-carbon, energy-efficient standards are not only possible but are becoming the norm. Richmond has a chance to become a local leader in this global trend, setting an example by mandating that new homes be built with resilient, low-carbon technology.

In preserving the ZCSC, Richmond protects public interests, aligns with global standards, and prepares for a sustainable future. I trust you'll consider the benefits and choose the right path for Richmond.

Sincerely,
Stephanie Sy, Advisory Committee for the Environment

Also signed by CJ Jimenez Schneider, Advisory Committee for the Environment

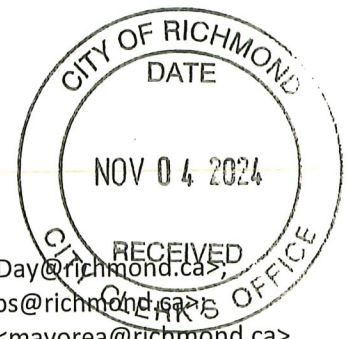
Biason, Evangel

From: mayorea
Sent: November 4, 2024 8:19 AM
To: MayorandCouncillors
Subject: FW: ZCSC - please think of the future

Categories: - DISTRIBUTED ON TABLE, - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE

GP – Item 6

From: Maureen Curran <jmocurran@icloud.com>
Sent: November 4, 2024 7:24 AM
To: Wolfe,Michael <MWolfe@richmond.ca>; Loo,Alexa <ALoo@richmond.ca>; Day,Carol <CDay@richmond.ca>; McNulty,Bill <BMcNulty@richmond.ca>; Au,Chak <CAu@richmond.ca>; Hobbs,Andy <AHobbs@richmond.ca>; Heed,Kash <KHeed@richmond.ca>; Gillanders,Laura <LGillanders@richmond.ca>; mayorea <mayorea@richmond.ca>
Cc: CityClerk <CityClerk@richmond.ca>
Subject: ZCSC - please think of the future



City of Richmond Security Warning: This email was sent from an external source outside the City. Please do not click or open attachments unless you recognize the source of this email and the content is safe.

Dear Mayor and Council,

A number of years ago I attended your council meeting with a group of young people to bring forward the Fossil Fuel Non Proliferation Treaty for you to endorse. The hope there was that, not only would you join a worldwide movement to push for fast and fair transitions off fossil fuels, but that you'd look for small but effective ways to support this ideal right here at home. The kids that spoke that day told you what was at stake and I honestly thought you listened and cared. We were so excited to know we had had the chance to make a real difference. Please, do not prove me wrong.

Implementation of the zero carbon step code levels is the cheapest, most efficient and effective option we presently have to lower our emissions, now and into the future. While it would be catastrophic to suddenly "turn off the taps" we CAN stop adding to the problem as we slowly make sure future infrastructure is built so that it IS possible to turn those taps off, eventually.

We are honestly frustrated, because delaying it is in no one's interest - well, except for Fortis BC CEOs.

Electric heat pumps save us money - any affordability cost savings by building with gas are tiny and dwarfed by the long term savings of having cheap heat AND cooling. The Zero Carbon Step Code results in better building construction too, saving home owners money and offers modern construction options. Most of all it avoids costly retrofitting when methane gas is phased out. If the carbon tax stays and subsidies for fracked gas end (as they should) being stuck with gas will be very expensive. BCHydro is expanding electric grids and offering rebates to get more solar panels up so

customers will be able to draw less, plus adding in features to have smart charging of EVs at off peak hours and much more - this is a problem that's already solved by many countries (like in Denmark) and we will see them implemented over the next decade.

Methane is a fossil fuel - it is NOT a "Transition Fuel" and as a scientist I am constantly teaching about how this nothing but propaganda by fossil fuel corporations to repackage and sell their high emissions product ; please do not fall for this greenwash. 'Natural Gas' is methane, a fossil fuel usually produced by fracking. Fracking is a brutally polluting process and both it and LNG are horribly energy inefficient and cause a horrific amount of GHG emissions that contribute to greenhouse warming. It's 80x more potent than CO2 over a short term (20 years) and was only touted as better if we look at the fact that it does it's damage fast and then is gone faster than CO2 (after 100 years). We don't have the time to play with that timeline! Add to that the many health concerns related to local pollution and indoor pollution and we need to cut the gas, anyway and where we can.

We don't let people choose to use lead paint or asbestos or leaded gas anymore. We know they're too harmful. It is the job of government to protect us and our environment, but of course we know it's hard here in Canada where the fossil fuel production industry has such a huge influence on our politics (even though they only contribute 3% of our economy and have been reducing jobs at a regular pace while worldwide the renewable energy sector is booming).

I echo the many others who are hoping you will hold firm and not give in to Fortis BC lobbying . Please think of our kids and maintain your resolve to stick with the accelerated adoption of the Zero Carbon Step Code.

Sincerely
Maureen Curran
MSc nuclear physics
Mother, scientist and educator

Biason, Evangel

From: CityClerk
Sent: November 4, 2024 8:37 AM
To: MayorandCouncillors
Subject: FW: About clean energy proposal.
Attachments: tessa.pdf

Categories: - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE

From: Tessa Lai <laioilok770@gmail.com>
Sent: November 3, 2024 3:46 PM
To: CityClerk <CityClerk@richmond.ca>
Subject: About clean energy proposal.

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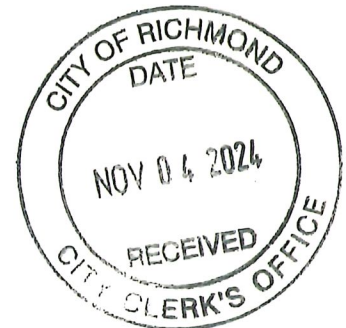
Dear Richmond City Council,

Hello! My name is Tessa Lai. I am an international student. I care a lot about climate change and how it affects our community and the world. I made a poster to remind people to lower carbon emissions and protect the environment.

I know that you will vote on the clean energy proposal on November 4th. As a young person and student, I believe the actions we take now will impact the future. I hope we can make the environment cleaner and healthier.

Thank you very much for your time and help with this important issue.

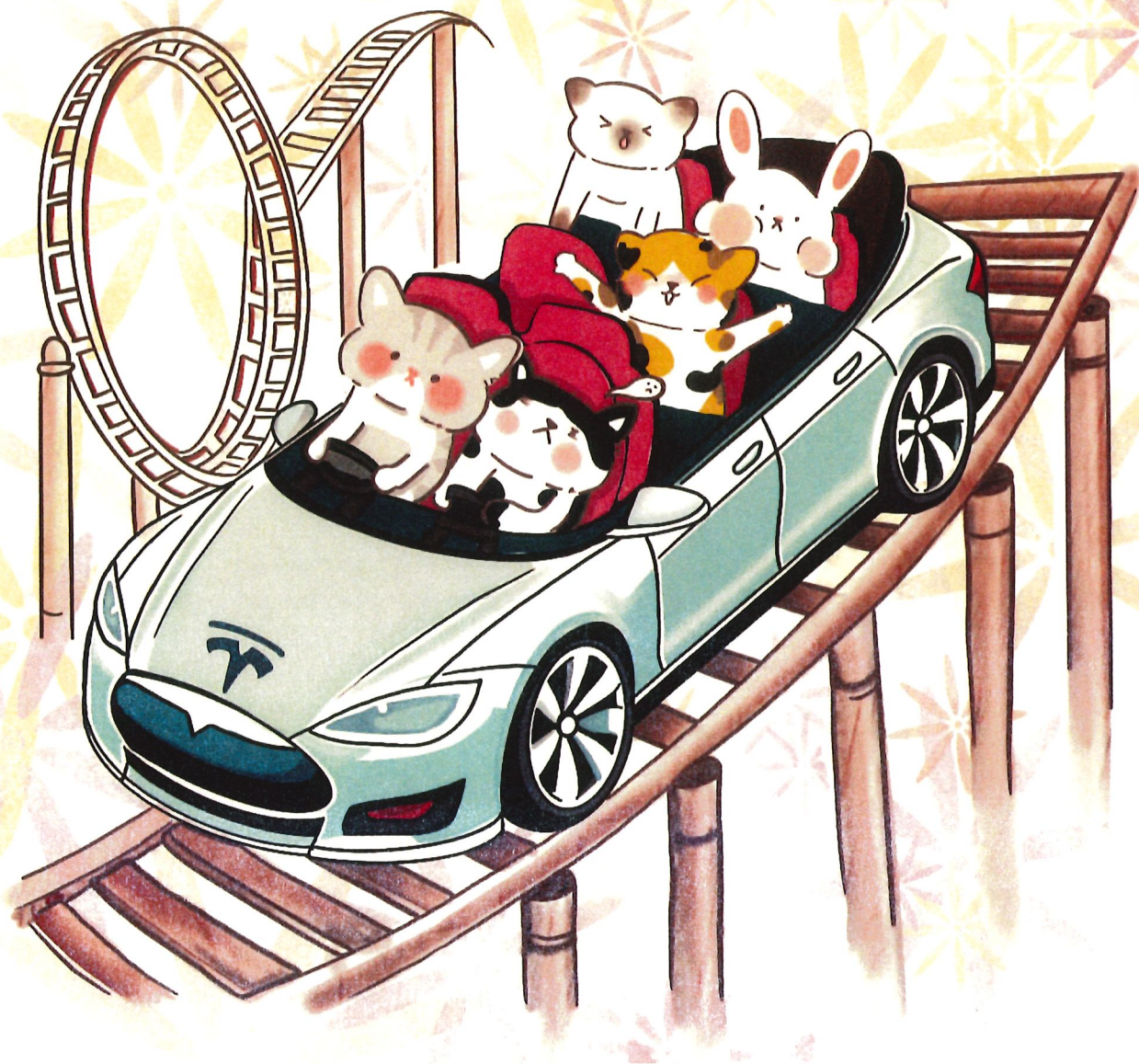
Best,
Tessa Lai





← 不是哥们儿，长得这么帅不看看吗？

*Use renewable energy
for
a future that's
pollution-free*





FortisBC
16705 Fraser Highway
Surrey, B.C. V4N 0E8
www.fortisbc.com

November 1, 2024

Mayor and Council
City of Richmond
6911 No. 3 Road
Richmond, B.C. V6Y 2C1

Re: City of Richmond – Updated Energy Step Code and Zero Carbon Step Code Compliance Options for New Single Detached and Duplex Homes

FortisBC appreciates the opportunity to provide input into the update of the City of Richmond's (City) Energy Step Code (ESC) and Zero Carbon Step Code (ZCSC) Compliance Options for New Single Detached and Duplex Homes.

FortisBC is the province's larger energy provider, delivering renewable energy, natural gas, electricity and propane to 1.2 million customers, which includes over 47,000 homes and businesses in the City. We know that our customers value options for heating their homes and businesses.

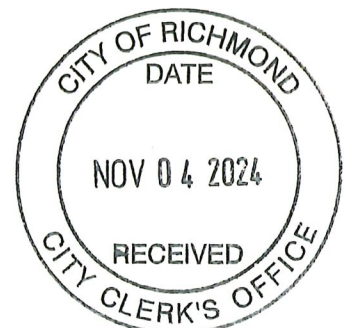
We have reviewed the staff report outlining compliance options for new single detached and duplex homes. Our feedback centres on providing multiple pathways for space and water heating that will support energy choice and affordability in the City.

For reference, the City's current tiered building requirements for single-detached and duplexes are as follows:

Single Family and Duplexes	Step 5 (a) + EL-2 OR
	Step 4 (b) + EL-3 OR
	Step 3 (b) + EL-4

*natural gas back-up heating is not permitted

FortisBC supports Council adoption of **option 3** in the staff report, which will enable residents and builders to choose electricity or gas to meet their specific heating and budget needs. The table below summarizes our analysis of the three options presented in the staff report. We have also clarified the role of natural gas in heating in each option and provided our recommendations.



Proposed Options	Role of Natural Gas for Space Heating and Domestic Hot Water	Recommendation
<p><i>Option 1:</i></p> <p><i>Continue with City's existing regulatory approach and delay next set of Step Code requirements for detached and duplex houses that is scheduled to occur as early as January 2025.</i></p>	<p>The City's existing regulatory approach already significantly exceeds Provincial timelines for both ESC and ZCSC</p> <p>The City currently has a tiered approach as noted above, offering leniency on ESC for eliminating gas from homes through higher levels of the ZCSC.</p> <p>All three tiers restrict gas space heating, including eliminating gas for back-up space heating. Of the three tiers, two tiers eliminate access to gas water heating while the third makes it very difficult for gas water heating.</p>	<p>Align with Provincial timelines for Energy Step Code and Zero Carbon Step Code.</p>
<p><i>Option 2:</i></p> <p><i>Continue with the City's existing approach and delay next steps to match Provincial timelines, including extending the next two increments in Step Code requirements for single-detached houses and duplexes to 2027, 2030, and 2032; providing three full years between each increment.</i></p>	<p>The City's existing regulatory approach already significantly exceeds Provincial timelines for both ESC and ZCSC.</p> <p>This option does not align with Provincial timelines for ZCSC.</p> <p>The City's existing approach incorporates ZCSC in all tiers. This option will continue to restrict the use of gas for space and water heating.</p>	<p>Align with Provincial timelines for Energy Step Code and Zero Carbon Step Code.</p>

<p><i>Option 3:</i></p> <p><i>Revert the City's current approach to Provincial timelines for detached and duplex houses that minimizes energy efficiency requirements within the BC Building Code. Increase from Step 3 to Step 4 in 2027, to ZCSC EL-4 in 2030 and from Step 4 to Step 5 in 2032.</i></p>	<p>This option aligns with Provincial timelines and allows for builders and customers to access gas for space and hot water heating.</p>	<p>This option is the recommended pathway, as it aligns with Provincial timelines for ESC and ZCSC.</p> <p>This recommendation should also be considered for all new residential construction in the City of Richmond, including all Part 9 and Part 3 buildings (and not limited to only single-detached and duplexes)</p>
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Additional Considerations:

Affordable Choices for Heating:

Housing affordability is a priority for British Columbians. Providing multiple energy options, including allowing access to the gas system, provides builders with more choices to meet the needs of residents in the City.

In BC's recent provincial election, the Premier announced the BC NDP's intention to repeal the retail carbon tax, in the event there is no federal mandate to have one in place. Removing the carbon tax will lower residential gas bills by approximately 25%¹, which would make natural gas less than 1/3 the cost of electricity² for an average residential customer. It's important to consider this new policy update when assessing the affordability considerations of gas and electric heating.

Cost Implications for Gas Connection Solely for Cooking:

We also wish to clarify the cost implications of providing gas only for cooking purposes. With no allowance for space and water heating, the associated cost to connect to the gas system will become prohibitive.

FortisBC's cost of infrastructure is shared amongst all of our customers. There is an economic test for connecting new customers which relies on the volume of gas used by the customer which determines how much a customer must pay FortisBC toward to the cost of their connection. This test is used so that existing customers are not bearing the cost of new customers connecting to FortisBC's system.

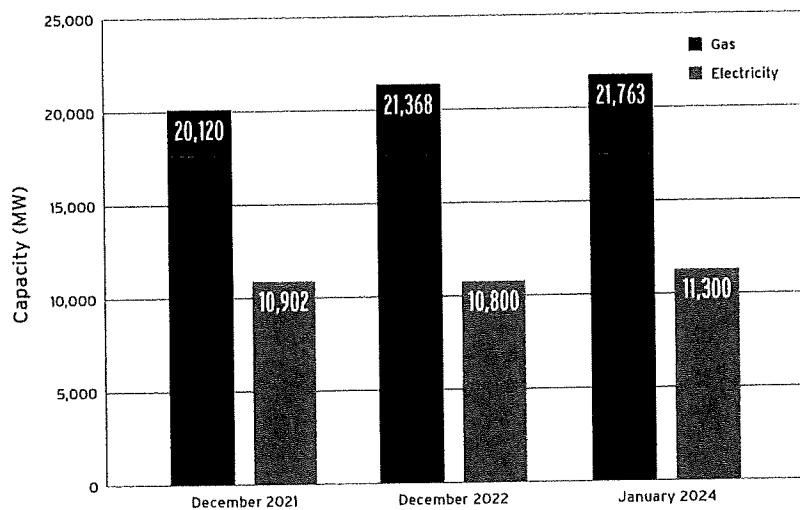
¹ Calculations are based on current FortisBC residential natural gas rates for Mainland and Vancouver Island as of November 2024 of \$10.89/GJ based on gas usage of 90 GJ/year. Calculations include applicable carbon tax rate as of November 2024 of \$3.99/GJ

² Calculations are based on a comparison of FortisBC residential natural gas rates for Mainland and Vancouver Island as of November 2024 of \$10.89/GJ, based on gas usage of 90 GJ/year and BC Hydro residential tiered rate (Tier 2) as of November 2024 of \$0.1408kWH

A customer seeking gas for only cooking would have minimal gas usage volume and would need to make a higher contribution, making it prohibitively costly for them to connect. As a result, permitting gas use for cooking only in new buildings, creates a financial barrier for customers looking to connect to the system.

Gas System Provides BC with Much-Needed Energy Resiliency:

Annual cold snaps over the past three winters demonstrate that B.C.'s gas and electricity systems are both needed to provide resiliency, so residents and businesses have access to energy when they need it most. It is important to note that the gas system delivers double the energy of BC Hydro's electric system during peak energy use, which occurs on the coldest days, as illustrated in the graph below.



Further, while this motion addresses new single-detached and duplex homes, we encourage Council to consider similar direction for all new housing being built in the City.

In closing, we appreciate the opportunity to review the proposed options. We urge Council to adopt option three to align with provincial timelines for ESC and ZCSC, and support energy choice for homes and businesses in the City. We remain committed to collaborating with the City of Richmond.

Sincerely,

Vanessa Connolly
Director, Community & Indigenous Relations
FortisBC Energy Inc.

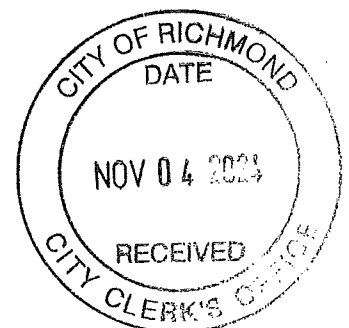
November 4, 2024

Dear Mayor Brodie and Richmond Council Members,

Thank you for taking the time to gather public interest in council business. I appreciate the work you do to make our city a wonderful place to live. My comments today are about building step codes.

I am a grandmother of two wonderful girls ages thirteen and nine. They worry about climate change and their future. They have climate anxiety like so many of our youth because they are aware of record wildfires, heat waves, and disasters. One of the ways that I reassure them is to share how climate change is being mitigated and addressed. We can walk around our city and look at climate mitigation through our dike system. They can see that adults, leaders in their community care and take action to protect them through the declarations and goals that our city has committed to in preserving our planet, their future. Their future is why our city must do everything possible to mitigate climate change and get to zero emissions. If we can; we should. Based on the reports from BC Hydro, there are resources to move at the urgency that reflects the climate emergency statement made by the council and mayor in 2019. Building with natural gas options, creates structure that requires fossil fuel use beyond a short transition period. The planet is warming at record rates. Urgent action is required. So please, I implore you to continue to take bold actions and take pride in being leaders in climate action.

Sincerely,
Jeanée Reichert
Richmond Resident
jeaneereichert@gmail.com



Biason, Evangel

From: AceWest Construction Ltd. <AceWestCanada@hotmail.com>
Sent: November 4, 2024 9:00 AM
To: MayorandCouncillors
Subject: Letter of Support for Aligning Richmond's Zero Carbon Step Code and Energy Step Code to Provincial Standards

Categories: - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE

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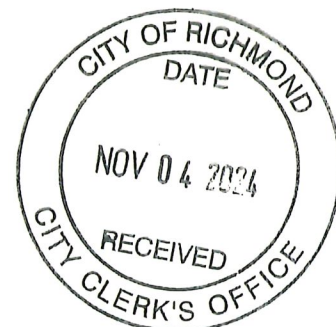
Dear Mayor and Council members,

I am writing on behalf of AceWest Construction Ltd. to support City of Richmond's motion to review the implementation timeline of the Zero Carbon Step Code and Energy Step Code to Provincial Standards. Standardizing these timelines across municipalities provides much-needed consistency, allowing builders like us to plan more effectively and adapt to the changes with confidence.

In addition to streamlining timelines, we believe that ensuring flexibility in energy choices, including the use of Natural Gas and Renewable Natural Gas (RNG), would benefit the construction community and Richmond residents alike. RNG is a sustainable energy option that aligns with climate goals while allowing us to build efficient, cost-effective homes that meet diverse energy needs. It also helps us provide resilient energy solutions, keeping homes comfortable and safe without relying solely on one energy source.

Aligning with provincial standards while preserving options like Natural Gas and RNG will support Richmond's housing needs, enhance affordability, and contribute to Richmond's sustainability goals. We appreciate the city's efforts to balance environmental responsibility with practical solutions for the building community and future homeowners.

Best regards,
Andy Wu
AceWest Construction



Biason, Evangel

From: K Irani <kai.irani01@gmail.com>
Sent: November 4, 2024 9:08 AM
To: MayorandCouncillors
Cc: Paulin,Chad
Subject: Vote on banning gas in new builds

Categories: - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE

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Dear Mayor and Council Members,

I am a psychiatrist in private practice in Vancouver who was quite dismayed by the steps back that the Vancouver city council had taken in allowing gas connections in new construction.

I see the I.pacy of the climate crisis in terms of anxiety and PTSD in my work.

Numerous studies show that gas stoves affect indoor health and cause death.

https://www.theguardian.com/environment/2024/oct/28/pollutants-from-gas-stoves-kill-40000-europeans-each-year-report-finds?CMP=Share_AndroidApp_Other

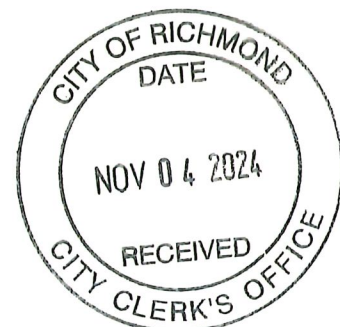
Gas is worse than coal in terms of its greenhouse effect when you include its production and transportation.

https://www.theguardian.com/us-news/2024/oct/04/exported-liquefied-natural-gas-coal-study?CMP=Share_AndroidApp_Other

Please make the right and forward thinking choice in selecting Option 1. Let's meet our targets to protect the environment and emissions.

Sincerely,

Kai Irani, MBBS, FRCPC



Biason, Evangel

From: CityClerk
Sent: November 4, 2024 9:27 AM
To: MayorandCouncillors
Subject: FW: Item 6 ZCSC, November4/24 general purposes meeting

Categories: - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE



From: Bruce Murdoch <bgmurdoch@gmail.com>
Sent: November 4, 2024 9:20 AM
To: Day,Carol <CDay@richmond.ca>; mayorea <mayorea@richmond.ca>; Loo,Alexa <ALoo@richmond.ca>; McNulty,Bill <BMcNulty@richmond.ca>; Au,Chak <CAu@richmond.ca>; Hobbs,Andy <AHobbs@richmond.ca>; Heed,Kash <KHeed@richmond.ca>; Gillanders,Laura <LGillanders@richmond.ca>; Wolfe,Michael <MWolfe@richmond.ca>
Cc: CityClerk <CityClerk@richmond.ca>; Paulin,Chad <CPaulin@richmond.ca>
Subject: RE: Item 6 ZCSC, November4/24 general purposes meeting

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Dear Mayor and Council:

I spoke to Council in September from a homebuilder's perspective about affordability of constructing an all-electric home and its subsequent affordable operating costs.

Today, I want to address two electrical questions that frequently come up:

1. Do I need to install a large service such as 325amp-400amp service when going all-electric plus an EV?
2. How is BC Hydro going to supply the increased demand?

Re: Question 1 on Electrical Service:

As we build new homes more energy efficient and move up to Energy Step Codes 4 and 5, the heating and cooling loads decline. That means a smaller heat pump. The heat pump in my own home runs off a maximum 25-amp circuit, a small circuit.

Here is a rough rule of thumb: if you built a house a few years ago with air conditioning, the size of electrical service used then would be roughly the same today for a home using a heat pump. So really no change there. And if you use a heat pump for hot water, you will need even less than 5 years ago with an electric hot water tank. Similarly, there is a huge decline in electrical demand when using a condensing/heat pump dryer. What about providing for the EV? There is a technique that requires no additional circuit for the EV charger. This is popular in retrofits where panel upgrades are difficult or expensive. It is called a circuit splitter which shares the clothes dryer circuit with the EV charger. So the EV is charging at any time but when the clothes dryer is turned on, the power automatically switches to the dryer for the 40 minutes or so that it needs. When the cycle is over, the power switches back to the EV charger.

Bottom line, an all-electric home could actually be serviced by 100 amps if carefully designed in an energy efficient home. We install 200 amps in all single-family homes, including homes with a secondary suite, which is quite popular these days and that provides plenty of electrical capacity.

Re: #2. sufficient electrical supply from BC Hydro

I cannot speak to what BC Hydro is doing to increase generation and transmission capacity, but I can speak to the strategies we are deploying at the house construction level that reduces electrical loads and shifts electrical loads from peak times to off-peak times.

Reducing loads

- More energy efficient design.
 - Heat pump hot water tanks
 - Energy efficient heat pumps
 - Condensing or heat pump clothes dryers
 - Induction cooktops
 - Solar panels
- All of these reduce power consumption by a lot, exponentially in some cases.

Shifting Loads

For about 20 hours of the day, BC Hydro has a huge amount of excess capacity in both generation and transmission. The challenge is the peak hours, around 4-9pm. So the entire system revolves around meeting those peak demand hours.

BC Hydro has introduced a Time of Day option where the peak hours are charged \$.05/kWh more and the hours of 11pm –7am are charged \$.05/kWh less. There are several strategies a homeowner can use to shift their loads to off-peak hours and save money but also reduce the peak loads for BC Hydro:

- Run the clothes dryer in off peak times, especially between 11pm and 7am.
 - Charge the EV between 11 and 7.
 - Turn the hot water heater off from 4-9, and heat it up at night time.
- BC Hydro has a rebate for solar and batteries, \$5000 for each. Fill the battery up from solar, then run the house from the battery between 4-9 and pay no premium electrical prices at all.

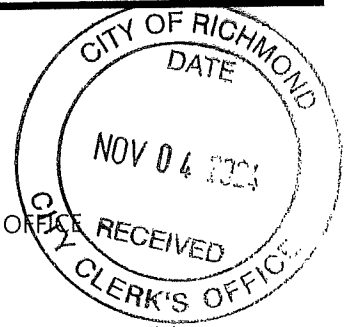
I hope that addresses some of the concerns about electrical loads for all-electric homes. We are finding that new all-electric homes have demand loads similar to existing homes with gas appliances when the right strategies are deployed.

Bruce Murdoch
K-Country Homes
Cranbrook, BC
250-417-6681

Biason, Evangel

From: Lorne S <salchootchkin@gmail.com>
Sent: November 4, 2024 9:38 AM
To: Mayor and Councillors; Paulin, Chad
Subject: Methane (unnatural) gas in new buildings

Categories: - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE



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cc: Director of Climate and Environment at

Dear Mayor & Members of Richmond City Council:

Admittedly, I live on Gabriola, but I am deeply concerned about the commitment of nearby cities, Nanaimo and the Greater Vancouver area to rapidly phase out fossil fuels, to protect the climate and prevent thousands upon thousands of unnecessary deaths and costly hospitalizations from respiratory problems. Legislation like this, banning methane natural gas in new buildings is infinitely more effective than personal choices and greenwashing half measures. As a published former criminology and health policy researcher, I agree wholeheartedly with the following:

I hear that Richmond City Council will be deciding how to proceed on a critical piece of climate policy on Monday.

It's disturbing to read that indoor gas appliances negatively affect our health through the release of nitrogen dioxide, formaldehyde and carbon monoxide. A recent study by scientists in Spain has linked 40,000 premature deaths across Europe every year, associated with exposure to pollutants from gas stoves. Meanwhile, Fortis BC is busy greenwashing its gas and lobbying municipalities to keep gas flowing into new homes/buildings. BC Hydro has the capacity to accommodate increased electrification and solar panels are becoming more affordable.

The cumulative decisions made in Richmond and elsewhere, will impact people around the planet.

With the growing number of extreme weather events caused by escalating greenhouse gas emissions, it is incumbent upon all of us to curb our fossil fuel emissions. The technology exists to do it with clean electricity, rather than polluting methane gas, while homeowners see considerable cost savings on their energy bills. Heat pumps save lives. Community members living in precarious and low income housing bear the brunt of these impacts. Heat pumps also help keep indoor air clean during wildfire events.

A healthy community is dependent upon the municipal policies that will ensure that all our citizens are not adversely affected by fossil fuels inside and outside the home. This is why your decision on Monday is so important.

We ask that Richmond City Council vote to keep your current Zero Carbon Step code timeline for 2025. It will be yet another step forward in transitioning from fossil fuels and escalating clean energy.

Respectfully submitted,

Lorne Salter, MA (Criminology, U of Toronto)
604-352-6463

Biason, Evangel

From: Tim Takaro <ttakaro@sfu.ca>
Sent: November 4, 2024 9:51 AM
To: MayorandCouncillors
Cc: Paulin,Chad
Subject: gas in homes



Categories: - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE

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Mayor and Council
City of Richmond
Richmond, BC

Dear Mayor & Members of Richmond City Council:

I understand that Richmond City Council will be deciding how to proceed on a critical piece of climate policy on Monday. I am a physician-scientist and professor emeritus at SFU. My career has been in the human health effects of air pollution and climate change. A good part of my career has been spent studying the developmental origins of asthma in children through the Canadian Healthy Infant Longitudinal Development cohort (CHILD)

We know that indoor gas appliances negatively affect our health through the release of nitrogen dioxide, formaldehyde and particulate matter. A recent study by scientists in Spain has linked 40,000 premature deaths across Europe every year, associated with exposure to pollutants from gas stoves. Fortis BC does not want you to know this information, and is busy greenwashing, lobbying municipalities to keep gas flowing into new homes/buildings. They also don't want you to know that BC Hydro has the capacity to accommodate increased electrification and solar panels are a large part of this transformation of our energy system.

This is not only about individuals in their homes. The cumulative decisions made in Richmond and elsewhere, will impact people around the planet because gas systems like Fortis release large amounts of methane, a greenhouse gas more potent than carbon dioxide. With the growing number of extreme weather events caused by escalating greenhouse gas emissions, it is incumbent upon all of us to curb our fossil fuel emissions. The technology exists to do it with clean electricity, rather than polluting methane gas, while homeowners see considerable cost savings on their energy bills. Heat pumps save lives. Community members living in precarious and low income housing bear the brunt of these impacts. Heat pumps also help keep indoor air clean during wildfire events.

A healthy community is dependent upon the municipal policies that will ensure that all our citizens are not adversely affected by fossil fuels inside and outside the home. This is why your decision on Monday is so important.

We ask that Richmond City Council vote to keep your current Zero Carbon Step code timeline for 2025. It will be yet another step forward in transitioning from fossil fuels and escalating clean energy.

Respectfully submitted,

Tim Takaro, MD, MPH, MS.

I respectfully acknowledge SFU is on unceded Coast Salish Territory; the traditional lands of the X̱məθḵəy̱'əm (Musqueam), ƙw̱x̱w̱ú7mesh Úxwumixw (Squamish), Səl'ilw'ətaʔi (Tsleil-Waututh), Qiqéyt (Qayqayt), ḵw̱iḵəʔə́'əm (Kwkwetlem) and other Hul'q'umi'num' speaking First Peoples.

I acknowledge my responsibility in furthering action on reconciliation.

Dear Members of the Richmond City Council,

We are high school students of Richmond. We write to express our deep concern regarding the escalating impacts of climate change on our community and the broader region of British Columbia. Recent events, including unprecedented wildfires and severe flooding, underscore the urgent need for proactive measures to safeguard our city.

Wildfires: The frequency and intensity of wildfires in British Columbia have increased significantly, with the 2023 wildfire season being the most severe on record, burning over 1.8 million hectares of land. This not only endangers lives and properties but also degrades air quality, posing health risks to our residents.

Source: ici.radio-canada.ca

Extreme Heat: Extreme Heat:

British Columbia's 2021 heat dome was a devastating event that set record-high temperatures across the province, with Lytton, BC, reaching a scorching 49.6°C, the highest temperature ever recorded in Canada. The heatwave resulted in over 600 heat-related deaths, strained healthcare resources, and exposed vulnerabilities in our infrastructure. Vulnerable populations, including seniors, low-income residents, and those with pre-existing health conditions, were disproportionately affected.

Source: wmo.int

Flooding: Richmond is uniquely vulnerable to flooding due to its low-lying geography, surrounded by water on multiple sides. In recent years, climate change has contributed to more frequent and intense rainfall events, overwhelming existing drainage systems and causing severe property damage. The Insurance Bureau of Canada highlights that flooding has become the most expensive natural disaster for Canadian homeowners, with annual losses now exceeding \$1 billion.

Source: ici.radio-canada.ca

Drought and Water Scarcity: Extended periods of drought have led to water restrictions and adversely affected local agriculture, threatening food security and the livelihoods of farmers. According to CBC News, over 70% of British Columbia experienced abnormal dryness in recent years, highlighting the urgent need for water conservation measures.

Source: [CBC B.C. warns of summer drought and asks people to conserve water](#)

Sea Level Rise and Coastal Erosion: Richmond's low-lying geography makes it particularly susceptible to sea-level rise, leading to coastal erosion and increased flood risk. A report from The Vancouver Sun emphasizes that rising sea levels could significantly impact infrastructure and homes along the coast, posing serious risks to our community's future.

Source: [Vancouver Sun Richmond](#)



Recommendations:

Strengthen Building Codes: Update building regulations to improve energy efficiency and resilience against extreme weather events.

Promote Renewable Energy: Facilitate the transition to renewable energy sources by providing incentives for solar panel installations and supporting community energy projects.

Invest in Green Infrastructure: Implement nature-based solutions such as wetland restoration and urban green spaces to mitigate flooding and reduce heat island effects.

Enhance Emergency Preparedness: Develop comprehensive emergency response plans for wildfires, heatwaves, and floods, ensuring timely communication and evacuation procedures.

Thank you for your attention to this critical matter.

Sincerely,

Zach

Jerry Zhang

Josephine Shen

Mike Huang

Ricky Li

Sam Leung

Junwei Zhang

Iris Kang

Jacky Wang

Jimmy Zhou

Tian Zhang

Tessa Lai

Ethan Zhang

Betty He

Ran Li

Tim Lee

Enoch He

Jasmine Yu

Joshua He

Kyle Deng

Tony Chan

Jesson, Claudia

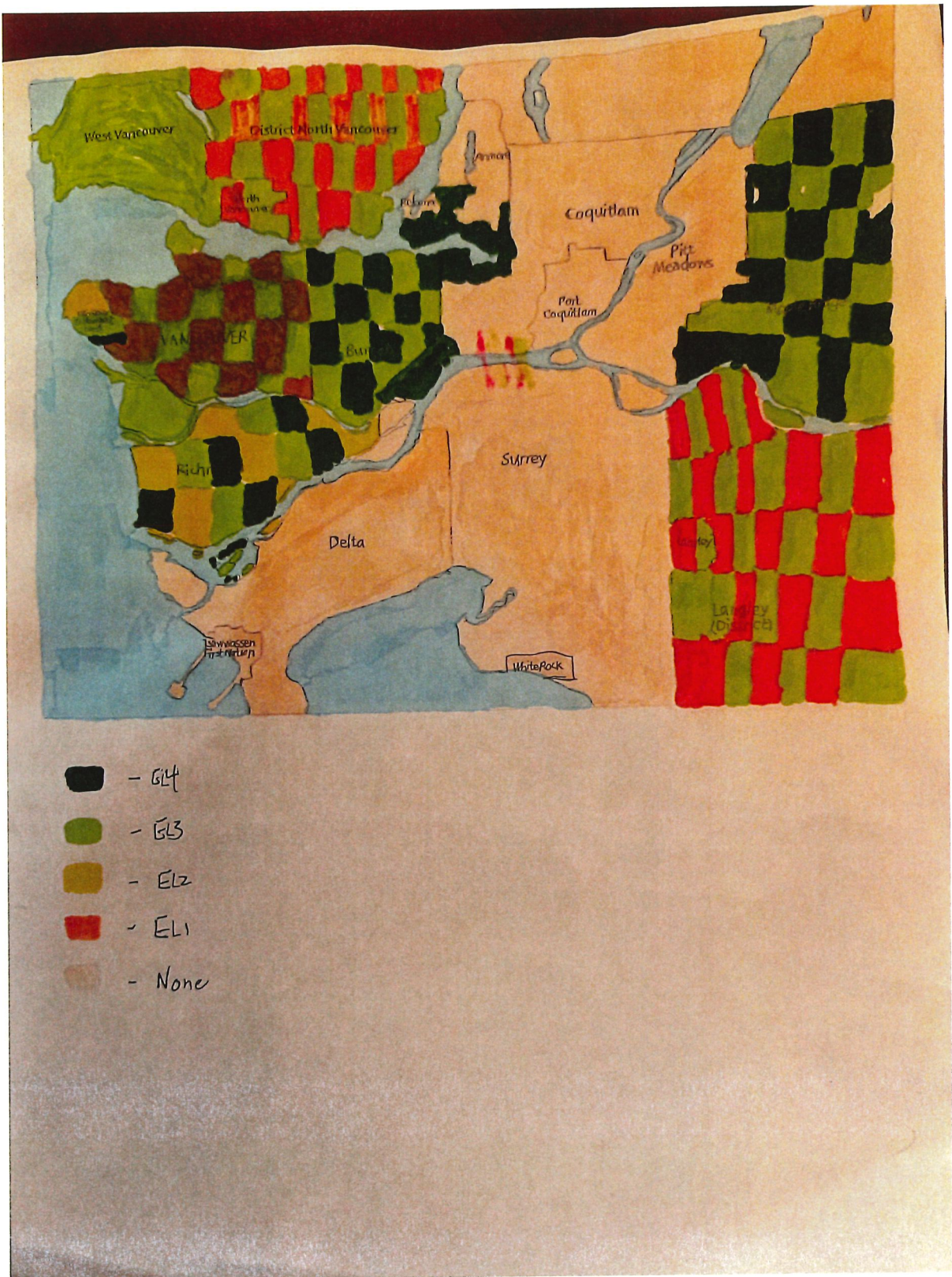
From: zcui2022 <zcui2022@gmail.com>
Sent: November 4, 2024 12:39 PM
To: CityClerk
Subject: Zero Carbon Step Code Map

City of Richmond Security Warning: This email was sent from an external source outside the City. Please do not click or open attachments unless you recognize the source of this email and the content is safe.

Dear Mayor and Councillors,

Please see the map I made. I am a high school student.





Richmond City Council
6911 No. 3 Road
Richmond, BC V6Y 2C1

Dear Richmond City Council,

I am a high school student. I am writing to express concern about the potential policy reversal of the energy efficiency bylaw for new houses in Richmond.

I hope we can continue to vote in favor of Richmond's energy efficiency regulations (Zero Carbon Step Code).

I feel that it may not be wise to withdraw the City of Richmond's energy efficiency regulations because these standards directly support reducing carbon emissions and improving energy efficiency, which are important steps in combating climate change. Maintaining the Zero Carbon Step Code ensures that new buildings meet higher environmental standards, reducing long-term energy consumption and carbon emissions, which is positive for the climate and public health. Moreover, from an economic perspective, the long-term benefits of energy efficiency regulations often outweigh the initial costs, as energy-efficient buildings offer better value in terms of reducing energy bills and improving the quality of living.

While withdrawing these standards may reduce developers' construction costs in the short term, it will expose residents to higher energy bills in the future and make communities more vulnerable to extreme weather from climate change. For example, the increased frequency of heat waves in summer and extreme cold in winter can adversely affect residents' quality of life and health.

Secondly, once this policy is canceled, I think it is extremely unfair to young people because it will increase the cost of living in the future if we lose the zero-carbon rating standard. For example, if the energy efficiency of new buildings is reduced, young residents may face higher utility bills and winter and summer heating costs in the future. Young people may bear the increasing energy costs in the future, which will greatly increase the pressure on young people.

To further illustrate the long-term benefits of maintaining energy efficiency standards, we can reference Vancouver's Green Buildings Program. According to studies from Vancouver's "Greenest City Action Plan," the city has saved millions of dollars in energy costs and significantly reduced greenhouse gas emissions by implementing



high-efficiency standards in new buildings. For example, Vancouver's use of efficient insulation materials and advanced heating systems has lowered residents' average annual energy costs by 20-30%. This suggests that if Richmond maintains similar standards, it could also achieve comparable energy savings and environmental benefits. (<https://www.greentechmedia.com/articles/read/vancouver-leapfrogs-energy-efficiency-adopts-zero-emissions-building-plan>)

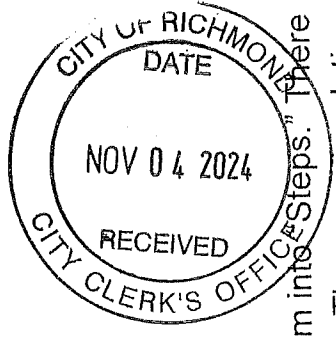
Therefore, in the long term and overall perspective, withdrawing these standards may be detrimental to Richmond's sustainability goals.

Thank you for your attention to this critical matter.

Sincerely,
YuFei Li

Comparing Richmond’s ESC and ZCSC policy for Single Family Dwellings, Duplexes and Multiplexes, including Town homes and Apartments

Reminder:



1. Energy Step Code (Energy-use focused):

The BC Energy Step Code sets energy use targets for new construction and groups them into “Steps.” There are a number of Steps in the Energy Step Code; the top Step has the thickest insulation, air tightness, etc that is required, the higher the Step. This means the house loses less heat, is less drafty, & heat bills could be lower.

2. Zero Carbon Step Code (ZCSC) (GHG emissions focused): The Zero Carbon Step Code allows municipalities to control building emissions for new construction.

The Zero Carbon Step Code has four Steps (also referred to as levels):

- o Measure-only (GHG Emission Level 1) - requires measurement of a building’s emissions without reductions
- o Moderate carbon (GHG Emission Level 2) - in most cases, will require electrification of either space heating or domestic hot water systems
- o Strong carbon (GHG Emission Level 3) - in most cases, will require electrification of both space heating and domestic hot water systems
- o Zero Carbon (GHG Emission Level 4) - in most cases, will require the full electrification of a building.

Most buildings at the Zero Carbon Emission Level-4 will use electricity for all building systems (dependent upon design). There are 29 communities that have passed the Zero Carbon Step Code since the policy was introduced by the provincial government in May 2023.

What is Richmond Council's current timeline for 2025 that was proposed in October 2023 and how does it compare to the 3 options being discussed today?

RICHMOND OPTIONS					
Current Proposed Timeline		Option 1	Option 2	Option 3	
TIMELINE	January 1, 2025	2026	2027	2030	ESC Step 4 + ZCSC EL-4
	January 1, 2027	2028	2030	2032	ESC Step 5 + ZCSC EL-4
	ESC Step 5 + ZCSC EL-3 -or- ESC Step 4 + ZCSC EL-4	ESC Step 5 + ZCSC EL-3 -or- ESC Step 4 + ZCSC EL-4	ESC Step 5 + ZCSC EL-3 -or- ESC Step 4 + ZCSC EL-4	ESC Step 5 + ZCSC EL-4 -or- ESC Step 4 + ZCSC EL-4	ESC Step 4 + ZCSC EL-4

How does Richmond compare to other leading municipalities in the Lower Mainland for similar building types?

LOCAL GOVERNMENTS IN LOWER MAINLAND					
Burnaby		Township of Langley	Squamish	Port Moody	Maple Ridge (proposed)
TIMELINE	January 1, 2025	April 1, 2025	June 2024	January 1, 2025	January 1, 2025
	ESC Step 3 + ZCSC EL-4	ESC Step 4 + ZCSC EL-3	ESC Step 4 + ZCSC EL-4	ESC Step 4 + ZCSC EL-4	ESC Step 4 + ZCSC EL-3

Other communities include Whistler, New Westminster, the three North Shore municipalities, University Endowment Lands, and Tsleil-Waututh Nation.

How does Richmond compare to other leading municipalities outside the Lower Mainland for similar building types?

LOCAL GOVERNMENTS OUTSIDE THE LOWER MAINLAND						
Saanich		Nelson	Victoria	Nanaimo	Roseland	North Cowichan
TIMELINE	November 1, 2023	August 31, 2023	July 1, 2024	July 1, 2024	May 1, 2024	July 1, 2024
	ZCSC EL-4	ESC Step 3 + ZCSC EL-3	ZCSC EL-4	ZCSC EL-4	ESC Step 3 + ZCSC EL-4	ZCSC EL-4