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Dear Mayor and Council,

I am writing to you today about Emissions caused by buildings in Whistler. I recently learned that Whistler has lost its position as a leader in BC Energy Step Code implementation. The City of North Vancouver (CNV) and the District of West Vancouver (DWV) both adopted Step Code 5 earlier this year. Whistler is currently at Step 3 and does not have plans to increase its step code until 2023. Given the worsening Climate Crisis, this is too long. Step 3 is not a solution to climate change. For reference, a Step 3 house uses 4x more energy than Passivehouse. It's like we are currently building 4 houses, for every house we build!

Also, many of the new houses being built in Whistler right now are being heated using natural gas, which multiplies the emissions further. This means that a brand-new house in Whistler will directly emit CO2 through every winter. That is... until the Municipality and the Province mandate that all gas heated houses undergo low-energy zero-emissions retrofits. Which raises a question - is the RMOW acting in the best interests of the owners of new homes built in Whistler, by allowing them to build to Step 3? Knowing that you are going to make them undergo an energy retrofit possibly in just a decade? What is this going to do to the future value of the houses you are permitting to build today?

Put simply, all the Step 3 houses that are being built right now, all of them, will be required by the government to be energy retrofitted prior to 2050 if Canada is to meet its 2050 Net Zero target, which has now been legislated at the federal level [1]. And that 2050 date could easily be pushed forward given the latest IPCC report which states that we should be aiming closer to a decade to reach Zero Emissions [2]. And if you don't believe this is actually going to happen, look at the European Union's Green Deal released just last month. It mandates member states "to renovate 3 percent of their building stock to Net Zero every year, or about 35 million buildings by 2030".[3]

If I take just one example of a project we recently consulted on. Designed by a local Architect, and currently under construction by a local Builder. It is a Step 3 house, heated with Natural Gas. It has 2x6 insulated walls with 1.5" of mineral wool outsulation. In order to get to Net Zero, in the future, you will have to remove the gas heating, and add another 4"-6" outsulation. This house by the way, has just this month had the 1.5" of outsulation installed. You can see the exposed mineral wool from the street today. The absolute best time for it to get the outsulation upgrade is therefore... today! Instead, this house will emit many metric tons of CO2 on site, until sometime in the future you tell them to undergo the upgrades. Which will involve removing the cladding and roofing, adding more outsulation, then putting on new cladding and roofing. At the same time, they will also have to replace the heating system. This implies lots of cost, emissions and waste to say the least.

As stated in the RMOW 'Big Moves Climate Action Strategy', Whistler has committed to reducing GHG emissions by 50% below 2007 levels by 2030 [4]. But right now, you are still allowing emissions to be increased at a rapid rate just with new builds. Achieving your stated emissions cut implies that you will:

1. Prevent the construction of new high-emissions buildings immediately and;
2. Mandate that the existing building stock undergo energy upgrades.

By the way, please do more to catalyze the energy retrofitting of the existing building stock. Because right now there are no energy upgrades 'required' for renovations. Implying that homes being renovated today, will also have to undergo future energy retrofits.

Also, look at the rising costs of construction, it is never going to be as cheap to build Net Zero as it is right now. As with all things, construction costs are only going to rise further with time. So this implies that the best time to build Net Zero houses is right now. And the ongoing and sustained building boom through Covid has shown that adding a little extra insulation is not going to be the cause of a building slowdown in Whistler. I have talked with both the CNV and DWV, and both report no slowdown since their implementation of Step 5. In fact, they report that many applicants are taking advantage of their 'Reduced Permit Processing Time' for Passivehouse applicants.

My company, GNAR Inc, is branded as 'Sustainable Building Design'. And we are passionate about Sustainability. But right now, the RMOW is making it very difficult for us to deliver on that. There is so much to sustainability; sustainable materials, indoor air quality, fire proof and durable, beautiful (so it doesn't get knocked down), etc, and I could go on. But right now we are just having the same battle over and over, trying to convince homeowners to put a little more insulation in their homes. We have been successful in that we have so far convinced all our clients to target either Step 4 or Step 5. But we have so far been unable to convince a client to build Passive in Whistler. It is such a shame, I had every one of my staff trained in Passivehouse, and I watch all their certificates fade upon the wall. While at the same time, I am seeing many of our competitors designing 'Cheaper' Step 3 houses. But as noted above, these Step 3 houses will end up costing their owners much more in the future.

So in lieu of government action, I find myself literally handing out printed copies of the latest IPCC report to clients to try to convince them not to put gas in their homes. Or in the case of one of my clients, he would like to install a gas-heated driveway at his property. How is it that you can install a gas heated driveway in Whistler in 2021?? Well, I know you can, because there was another gas heated driveway just installed in White Gold and posted to Instagram!

And for reference, Step 5 requires an air tightness of 1.0 ACH. The Passivehouse Standard requires air tightness of 0.6 ACH. Just last month an owner builder, a lay homeowner, building their first house, achieved the exceptional air tightness of 0.21 ACH with one of our designs! I am happy to share the knowledge of how to do so. The secret? Keep it simple, correct solar orientation of windows, right materials in the right place, and avoid a multitude of odd joints and thermal bridges. So there you have it, designing sustainable buildings is simple, and can in fact be cheaper than many of the designs being built presently in Whistler. Our ability to increase the sustainability of buildings in Whistler is simple. Bring Whistler to Step 5 immediately so that we can begin focusing on the much more difficult task of retrofitting the existing building stock. Please stop adding new houses to the list that will require these retrofits! We have a lot of work to do if we are going to keep our planet habitable, let alone Protect our Winters. Its time to make an actual 'Big Move' please!

Thank you for reading this letter. If I could end with my one core request; Please implement Step 5 at your earliest possible convenience. This is something that council can do simply by a majority vote. Step 5 is part of the BC Building Code, and it is the most responsible and easiest thing you can do to make reduce emissions in Whistler. Thank you in advance for leading our community, taking action and helping Whistler reclaim our position as a climate leader.

Yours sincerely,

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Co-founder & CEO

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## **REFERENCES:**

[1] Canadian Net-Zero Emissions Accountability Act

<https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/net-zero-emissions-2050.html>

[2] Intergovernmental Panel on Climate Change - 2021 Summary for Policymakers

<https://www.ipcc.ch/report/ar6/wg1/#SPM>

[3] Sweeping “Green Deal” promises to revamp EU economy, slash carbon pollution

<https://arstechnica.com/tech-policy/2021/07/sweeping-green-deal-promises-to-revamp-eu-economy-slash-carbon-pollution/>

[4] Resort Municipality of Whistler 2020 Climate Action Big Moves Strategy

[https://www.whistler.ca/sites/default/files/2020/Dec/related/26702/climate\\_action\\_big\\_moves\\_strategy\\_final.pdf](https://www.whistler.ca/sites/default/files/2020/Dec/related/26702/climate_action_big_moves_strategy_final.pdf)