

# Climate Action Plan Consultation Phase 2 – Verbatim Input

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## Questionnaire Responses

### Question 1a. What comments do you have regarding the proposed energy supply options UBC is considering pursuing to further reduce GHG emissions? | Renewable Natural Gas

#	Response
1.	I am not an expert but it sounds like a good idea
2.	Too prone to fluctuations of price and still not as renewable as it ought to be
3.	Fully supportive
4.	Too expensive and too easy to switch back to Natural Gas if prices diverge. Good option for peak capacity requirements.
5.	Not a bad option, however it does require fuel to get to campus. I think this could be an option to supplement the Biomass option, but should not be the main solution
6.	I don't really understand how this is different and better than "regular" Natural Gas.
7.	Go for it!
8.	Renewable Natural Gas as an energy supply option for UBC involves burning fossil fuels and the creation of Greenhouse gas emissions, airborne particulate matter and possibly noxious odors. Other problems include the uncertainty of available fuel supply, fuel price fluctuations, future carbon cost levies and the uncertainty of price increases over time as gas price, in the long term, is linked to global pricing. This is not a good option for UBC, especially with the availability of other truly renewable and clean energy sources, like hydro energy, in BC.
9.	This option is good for continuing the steady growth of UBC, but may be unfavourable should carbon pricing increase. With a more environmentally-conscious federal government we may see shifts towards more carbon pricing at the national level so projecting a small increase in carbon pricing should go into the ROI calculations for the biomass option.
10.	Why not use renewable natural gas to burn in internal combustion engine, the engine flue gas to heat recovery boiler to produce steam or hot water similar as BRDF. Or use renewable natural gas burn in boiler to produce superheat steam to back pressure steam turbine and produce electricity, the exhaust steam can heat building or heat exchanger. Both way can increase whole plant thermal efficient and reduce GHG emissions. I do not know why new CEC did not use one of these cogeneration to reduce GHG emissions.
11.	No opinion

12.	Though this may be considered as 'better than natural gas' it is still not a big enough leap toward non-emissions producing energy sources like solar or wind. Why cant UBC make it a rule that all new builds on the campus have solar panels....there are a lot of new builds going up all the time, surely this is a more sustainable option? Or perhaps a wind farm instead of building and selling new housing on the south Campus would be a great idea!
13.	The use of a biodigester might be an option. When looking at ways to reduce the cost of animal bedding and food scrap disposal this could be put at south campus and reduce this cost. The bio gas greated would not be great but it would show environmental stewardship and divert waste from the landfill saving costs there.
14.	I fail to see how Natural Gas is renewable. If this is describing "bio" gas, it is not a viable solution given the amount of agricultural resources required that might otherwise be devoted to growing food.
15.	I think this doesn't put us far enough ahead on conservation and will result in a future need to transition from natural gas to another energy source anyway. This seems shortsighted and although simple at the outset resulting in longer term problems again.
16.	No Comment
17.	It's great in theory, but BC's supply is questionable. It's extremely effective in reducing GHG emissions, but is not particularly cost-effective if we're just purchasing it from Fortis.  *IF* UBC can secure its own supply, then it might make sense, but not otherwise.
18.	I'm not sure about natural gas - even if renewable - it still has potential hazards in being shipped to campus and I'm uncertain about the carbon footprint of its extracting process. It's also not ideal that its subject to market vagaries. The biomass idea seems more win-win in that campus and nearby communities get rid of a form of waste they don't want and UBC gets to make use of it...
19.	how in the world do you define "renewable natural gas"?
20.	A stop gap measure... Is their sufficient supply to achieve this goal?
21.	It is a good idea to diversify the energy supply, especially to reduce GHG emissions, but the first action should be to reduce consumption.
22.	The money used to pay for more expensive "renewable" natural gas should rather be invested in energy efficiency measures on campus.
23.	no comment
24.	I am not familiar enough with either supply option to provide comment, but I think either is a good start and I trust the infrastructure is being planned such that it will accommodate new research and the ability to deploy and switch over to options we haven't even thought of yet.
25.	Natural gas is not renewable and should be renamed,  It's incorrect to call any fossil fuel renewable no matter how "clean" it may be. I'm surprised UBC is engaged in this type of greenwashing, and also embarrassed.

26.	I think it would be an interesting idea but an curious as to where it would come from.
27.	Depends on pricing. Maximizing biomass capacity would reduce dependency on outside utility (lack of control over supply and pricing).
28.	Plan to replace the natural-gas fired hot water plant with an alternate energy source ASAP. Natural-gas is not "renewable" and it's a dangerous GHG -- partially because of the CO2 it emits but especially because of CH4 leakage in its extraction/distribution network before it's burned. Replacement will be expensive since you've already built the CEC with gas heaters but if you're serious about reducing emissions it is necessary because natural gas is responsible for higher GHG emissions than is coal (when leakage is accounted for). i.e. natural-gas is a fossil fuel and is NOT 'clean'.  Consider replacing the natural-gas heating units with geothermal sources and biogas (although there probably isn't sufficient biogas for UBC's purposes). Retrofit existing buildings with more thermal barriers so student body heat will also become a partial source of space heating within structures. i.e. greater energy efficiency is space heating.
29.	with less/ no capital investment, this will free up more resources to deal with the price volatility. neither of these options seem great

**Question 1b. What comments do you have regarding the proposed energy supply options UBC is considering pursuing to further reduce GHG emissions? | Biomass (increased capacity for Bioenergy Research and Demonstration Facility)**

#	Response
1.	I am not an expert but it sounds like a good idea
2.	Excellent idea. This should be a priority.
3.	Do this.
4.	Fully supportive
5.	Better option but UBC must maximize investment in energy efficiency to minimize required capacity.
6.	I find it a worthwhile initiative.
7.	This is the best option in my opinion, and is a good future investment
8.	Nice to see the campus using our own research innovations. Presumably expanded capacity also equals increased student and faculty research opportunities.  How is this demonstration facility serving the wider community?
9.	Go for it!
10.	Biomass/ syngas as an energy supply option for UBC involves burning of organic matter, the creation of Greenhouse gas emissions, airborne particulate matter and possibly noxious odors. Other issues with Biomass are the requirement for numerous daily loads of fuel to be

transported by truck to UBC – with the attendant added traffic congestion and pollution from these large diesel trucks. There is also the other waste matter from the syngas production and burning process that needs management and more truck trips. This is not a good option for UBC, especially with the availability of other truly renewable and clean energy sources, like hydro energy, in BC.

11. The ROI for this option should be weighed against other options for reducing GHGs and be treated as any other investment. If campus is expected to experience a sudden expansion or more rapid growth then the capital cost of this facility may become justified. The effects of changes to carbon pricing should be accounted for by projecting changes to environmental public opinion.

12. Makes sense to pursue this option of economically feasible and will not impact the operating budgets of faculties and departments

13. In order to really assess this I would like to see some of the numbers and predictions of exactly how much GHG reduction this and the RNG would provide. They may be 'cleaner' but how much? Also in the proposed energy supply document there is not much information about the emissions from these processes and what carbon capture technology might also be used.

14. Based on the information provided, I am in favour of this option.

15. The utilization of Viessman type boilers which are proven in Europe or wellands boilers might be a feasible option. With half the BRDF not being used there would be an opportunity for growth here. The ash could be used in the landscape to help reduce water usage over the summer period(this would be a great project to bring the living lab back into the plant).

16. If this is energy derived from bio-waste, this should be the preferred solution. Natural Gas is not renewable or 'green'.

17. I think this is my preferred option for UBC. I do worry about the capital costs resulting in funds being taken away from students and faculty at UBC so would want to see a clear picture of where we would find the initial spend to fun such a project on the outset. However, despite this concern, I still would support this direction for a longer term sustainable solution.

18. No comment

19. Great idea! Lower LCOE than other alternatives, and fairly fuss-free.

20. Seems like it's got less of a carbon footprint to produce than extracting natural gas.

21. Is this really reducing emissions..? The 'significant' capital investment to achieve this could possibly be better spent elsewhere - new building performance and upgrades.

22. That is not such a good idea, unless biomass waste can be used.

23. Biomass only makes sense if used to power co-generation.

24. no comment

25. What would this be combined with to achieve the 67% target.

26. Encourage increased usage and integration with City of Vancouver waste disposal, if

possible.
27. I believe this is a preferable option as UBC already operates the plant on campus.
28. Better option, assuming the economics support it, but a mix of RNG and biomass is also reasonable. As per comment above, I support maximizing biomass, since this gives UBC the greatest control over supply availability and pricing.
29. This seems like the best option to me -- builds on our strength and has a research/demonstration focus.
30. If this means that more biomass will be burned for energy this is not a great option in my opinion. If it just increases the amount of energy that can be extracted from the same amount of biomass, that will be better, but still not as good as natural gas. I don't support a large capital investment for this. Neither of these options seem great.

**Question 2a. What comments do you have regarding the proposed actions to further reduce GHG emissions? | New and existing buildings**

#	Response
1.	Better capture and reuse of waste heat.
2.	Should consider development of "core facilities" for academic/research equipment to better maximize the return on investment of the taxpayers' monies that are contributed to UBC. There is a large wastefulness in having individual PIs/Researchers all going out individually for equipment that will not achieve 100% utilization. This also would reduce UBC's energy and space demands.
3.	Agree. This is the first priority and has by far the best return on investment
4.	Stop cutting down areas of trees to build new buildings, that completely defeats the point of what you are trying to do. If you look at what the campus looked like only 10 or 20 years ago, it is scary how much green space has been cut down to create new buildings (and many of these buildings are not proper green buildings). You need to invest into making buildings properly green (not just green washing them). So many resources are spent on creating new buildings, but from my perspective very little of this goes into making sure these buildings are sustainable. Even small changes can make a big difference
5.	Great to see older buildings being refurbished.  It concerns me to see more open and forested spaces being used to build new buildings.  How are decommissioned spaces being handled (eg. old SUB, old aquatic centre)?
6.	I agree that more efficient use of space is key. I do not believe that the destruction of old buildings and replacement with new concrete and steel towers can be seen as a sustainable way forward given the amount of waste produced and the new materials and resources required.
7.	All good.
8.	Going well, looks like energy efficiency has been a major goal for a while now.
9.	- insulate existing bulidings better (e.g., Geography building): replace existing windows by better insulating windows! additional step: better insulating of outer-walls. There is a

constant cold air flow from outside of the building through the non-insulating windows and a lot of heat is wasted! A lot of additional heating necessary to compensate for non-insulating windows.

- automatic light regulation at least in classrooms and hallways (e.g., Geography building), lights that will automatically switch off after some minutes (movement sensors). A lot of classroom and hallway lights are turned on all the time (incl. nights).

10. Looks good

11. Looks good - making things more energy efficient should always be our goal.

New buildings should be the most energy efficient they can, and have solar panels where able

12. fine tuning or re commissioning of buildings to improve their efficiency. Education regarding keeping windows closed in the winter would also help. A lot of windows are open and the heat on.

13. Updating older buildings seems more cost-effective and is likely to have broader impact (although less flashy and visible) than new building projects no matter how 'green' they are. That said, a 'net positive' mandate for (inevitable) future construction projects would be a great idea.

14. Tear 'em down!

But seriously, routine maintenance, and even deferred maintenance, just isn't enough. There needs to be fairly drastic action to some key buildings in order to move the dial on building energy use on campus.

15. Seem reasonable though I would question the policy of building, building, building. We could probably do more "make do and mend" I'm a bit shocked by the amount of demolition (with all the attendant waste) and rebuilding that's going on here at UBC -V frankly - especially when campus is in the middle of nowhere kms and kms away from remotely affordable housing. Maybe now's the time to consider making better use of our Robson Square facilities and leasing space in Surrey to create a new campus so as to bring the work to more places where our students and staff actually live. This would have a better impact on emissions than continuing to raze greenspace here and penalize students and staff for driving to west point grey everyday when many have no realistic alternative.

16. great approach - we are way behind, even with our current building standards with respect to what is actually achievable.

17. Too much research and not enough action. Capacity is now within the BC Construction industry to deliver Passive House levels or performance. UBC should mandate now that all new UBC building projects (new build and refurbishment) should be design, delivered and certified to meet the PHI Passive House standard. This could be implemented today without the need for further research.

18. I like the using existing spaces more efficiently bit. Automatic lights (using sensors) in classrooms and washrooms would be beneficial I think, or even advertising the light switch and encouraging lights to be turned off when the room is not in use.

19. Good options.
The key here though is not to put people's health at risk. For instance, in our building, they stop the ventilation at 5 PM and as a result, people in the building have respiratory issues, skin reactions, etc ....
20. UBC should put more emphasis on the building envelope rather than building systems.
UBC should follow other organizations lead (e.g. see Cornell University in NYC) and require new and existing buildings to comply with the Passive House standard.
Addressing the Performance Gap between a new building's 'designed' or modelled performance and the actual performance -- experience over the last 25 years has shown that Passive House projects do not have a performance gap
21. Implement passive house requirements with architect and engineering design fees to suit. Increase building construction budgets to allow for the reality that passive house will initially cost more to construct until such time as UBC, AHJs, architects, engineers, builders, suppliers, etc. have sufficient familiarity and products and systems are readily available in the market place to have a meaningful impact that would see construction costs reduce over time. Do not buy into Pollyanna-type claims/promotion that passive house can be done at no extra cost. It took Europe 20 years to see such realizations. Be realistic. Set projects up for success.
22. Explore and spend money on passive energy, don't shy away from adding additional costs now to save costs later.
Allow for more natural light and air flow not dependent on HVAC
Don't allow ANY staff to work in basements without access to light or air.
Reduce use of air conditioning to cool, it doesn't really ever get hot in BC and buildings can easily be designed to self-cool
23. Nothing exciting, but certainly efficient.
24. I support all of the proposed options. Identifying the most aggressive pathway for increasing building performance that can be economically justified (on a life cycle basis!) is key, as savings from new buildings will be easier to achieve than existing buildings, which have limited upgrade opportunities.
25. We should do everything we can do with new and existing buildings -- let's push harder.
26. Agree with the proposed actions. But don't be conservative in actions -- push the envelope of enhancement.
27. These sound like great actions, there are a lot of benefits to increasing efficiency

**Question 2b. What comments do you have regarding the proposed actions to further reduce GHG emissions? | UBC-owned vehicles**

# Response

1.	Incentives for grant holders to purchase hybrid or electric vehicles.
2.	Go hybrid and electric.
3.	Fully supportive of the proposed action to adopt a more centralized model of UBC vehicles. Building Operations has done an excellent job of addressing their fleet which should be implemented more broadly at the Faculty-level.
4.	Good signal due to visibility but low priority in terms of GHG reductions
5.	I like this initiative, especially the part about bringing in more bicycles
6.	Nice to see increasing "eco" vehicles around campus.
7.	Move to electric fleet. Electric works well for slow moving, short distances of travel such as those required by on-campus vehicles.
8.	All good.
9.	Going ok. Maybe smaller vehicles for smaller maintenance jobs which don't require a lot of equipment? This is a difficult question since the maintenance of campus is rarely seen by students.
10.	Looks good. Go all electric and make charging stations readily accessible, not only in parkades but other areas of campus.  Shared bike program would be excellent, would really reduce the time spent traveling to other buildings on campus during the day
11.	On campus use of electric vehicles, bikes and walking is a good way forward. Encouraging (and allowing time) for people to get across campus by walking or biking is not only healthy for them but for the environment too.
12.	more electric vehicles or hybrids
13.	Reducing the number of large Plant Ops trucks driving around campus would not only make it appear more 'green', it would make it a far nicer environment for everyone. Other campuses I've studied/worked at use golf carts and small EVs instead and are able to maintain gorgeous landscaping (UCLA).
14.	Should be an emphasis on purchasing replacement vehicles that are electricity-driven, when possible.
15.	I think this is a smart idea. I also know that fleet maintenance would be a costly undertaking. I would like to see UBC explore the possibility of partnerships with car-sharing organizations already doing this work. Why do we need to open our own fleet when there exists already organizations with fleets on campus. Could we not have car2go manage the fleet and have a number of vehicles (or many varieties) that remain on UBC campus? I feel this is a duplication of efforts and we are not leveraging what exists in Vancouver already.
16.	Electrify the lot of 'em. If they're heavy-duty vehicles, then change to CNG.
17.	Who has a
18.	great approach - the University can be leading here as well.



19.	Nice to have but this is only 3% of UBC GHG emissions. Low value expenditure when the real money should be spent on building performance. Leave this action till after 2020, concentrate on the big problems now, i.e. building heating. By 2020 and beyond more than likely this GHG emitter will resolve itself and federal/provincial regulations will address these emissions?
20.	Always an advocate of bikes and car sharing.
21.	Good idea.  Also reduce circulation on campus (i.e. no need to drive a UBC vehicle to the coffee place - walk).
22.	no comment
23.	Use bicycles for staff transport around campus, including cargo bikes where tools and equipment needed.
24.	Don't go overboard with green vehicles that project a certain image; UBC's fleet is not hindering it's GHG reductions goals very much, the focus should be more in buildings and less on vehicles.
25.	I feel that UBC already has a good plan here but the more the better.
26.	Procurement of low and (ideally) zero emission vehicles should be a high priority.
27.	All actions important. But let's get the bike share program happening! That would be a great step to recognize and brand the importance of sustainability on the campus. It is visible -- and not many sustainability related actions are!
28.	Electrify the entire fleet of UBC-owned vehicles. It's the only sensible option -- natural-gas powered vehicles is a step backwards. Listen to the science!
29.	also sounds like a good idea. Innovation has to start somewhere so it should start with UBC. Charging stations in particular sounds great

**Question 2c. What comments do you have regarding the proposed actions to further reduce GHG emissions? | Behaviour change**

#	Response
1.	DIVEST FROM FOSSIL FUEL INVESTMENTS!!!
2.	Green Lab / Lab Sustainability Coordinators are a key activity to ensure the theme of sustainability/CAP are instilled at all levels of the organization and across all business (academic; research; administration) units.
3.	Important to measure impact.
4.	This is a very important goal, but you need to plan this wisely. Trying to educate people on these issues and change their behaviour is not an easy task. I recommend speaking to professionals in the environmental education industry (even within your own faculty of education) to start working on this issue
5.	This one always seems to be the most difficult. Even things like turning off lights in the

<p>evening in offices/labs might be better handled as an automated system than by behavioural change.</p>
<p>6. Your Actions claim a desire to “Focus on ways to reduce energy consumption within buildings”, through vectors such as “lighting and high efficiency fans”. These are commendable actions, but UBC has to set an example. For example, the Djavad Mowafaghian Centre for Brain Health leaves the lights on 24/7. This highly visible building on Wesbrook Mall would make a statement that UBC doesn’t care about energy efficiency. Other examples; the Pharmaceutical Sciences Building (also on Wesbrook Mall), and the Life Sciences Centre (2350 Health Sciences Mall) operate a multitude of noisy and inefficient rooftop fans 24/7.</p>
<p>7. This is where you can probably get the biggest change for the lowest capital cost. Encourage energy saving from the students and try and form habits which reduce their energy footprint. How many students enjoy having the hour-shower? Probably a lot.</p>
<p>8. Turn screens and computers and office lights completely off after work.</p>
<p>9. Give units an incentive to encourage telecommuting (which reduces vehicle use etc). This could be fiscal (X dollars back or matched for every Y days spent working from home) or other.</p>
<p>10. Looks good</p>
<p>11. Its been working with the waste and recycling....so I hope it works with energy usage too.</p>
<p>12. create more bike-friendly facilities for faculty and staff. offer cash incentives for alternative means of transportation.</p>
<p>13. Signage and incentives for behavioral change are one of the most important components. It would be wise to read up on change management theory, and focus on showing people how small changes can have a positive impact rather than the sudden introduction of new 'rules'.</p>
<p>14. Divestment from fossil fuel companies.</p>
<p>15. These could use MUCH more development. Seems like a very slim and not well defined set of behaviours for change and doesn't full draw on the full community well. I think with any behaviour change there needs to be targets and people need to see how their own individual meeting of a target impacts the larger target. I also think that offices on campus don't have access to data about their areas for behaviour change or saving. Do we know which offices result in greatest heat/energy loss? Could we not challenge all offices to do something large and impactful. I think the small changes sometimes get lost in the large work of saving energy through buildings but in fact the behavioural changes have much larger ripples and result in people who think differently about the environment which is significantly more impactful in the long run.</p>
<p>16. Great in theory, but not all that effective in practice. Honestly, the biggest behaviour change piece on campus is probably in convincing people to not drive here, but that requires a better transit link (with the 99 at capacity) and is in our scope 3 emissions anyway. Most building energy use (which accounts for the majority of UBC's GHG emissions) isn't controlled by users anyhow.</p>
<p>17. Must be enforced. It is for example mind boggling that we are green, yet use 1-3 papercups per day for our all important coffee - and the list goes on. The same holds for packaging -</p>

and the fact that in every store people get handed plastic bags - to be thrown away after a single use.

18. Focus on behaviour change in building occupants is misguided. Real behaviour change is needed in those at UBC who commission and maintain the building stock. The largest proportion of emissions are 'locked in' when buildings are constructed or refurbished. If buildings aren't designed to be 'efficiently' occupied in the first place the occupant behaviour will have little impact over the lifecycle of the building. All UBC Project Services / Properties Trust staff should receive focused and further education on current and future best practice so all GHG reduction opportunities are maximized. Life cycle analysis of cost should be first and foremost to any building decision making process.

Finally, UBC Board of Governors should show leadership and divest from all fossil fuel assets. It is a bit difficult to request behaviour change in the community when the BoG is not actively pursuing the same goals.

19. Behavioural changes are often the easiest way to have an impact. I think educating on what can go in each bin would be beneficial, so that something compostable doesn't accidentally end up in the garbage. The pictures are not always clear, and I remember reading about even though coffee cups could go in the compost many of them were still ending up in the garbage.

20. Any action under that topic is good. This implies proper information

21. Stop coddling people. Make people have to actually change their behaviour. Figure out how to realistically change people's behaviour.

22. UBC employees working in buildings not owned by UBC are sometimes left unsupported by campus initiatives because the crossover in contracted third-party labour and UBC employees sometimes leaves gaps. For example, another sustainability initiative, composting, is unavailable to employees in the Hospital because composting falls under the purview of VCH and their contractor, and is not offered on floors inhabited solely by UBC employees. Nor is UBC's composting program. So on the 3rd floor of UBC Hospital, no composting occurs. Ensure the same doesn't happen with supporting behaviours to reduce GHG.

23. Force staff to turn off computer displays when not in use after hours, instead of allowing them to go to sleep.

Create accountability for all staff to participate in sustainability initiatives on a monthly basis (can be large or small items)

Build sustainability practices into workflows (e.g. hold fewer meetings to reduce resource use across the board)

Include sustainability components into job descriptions, and potentially overhaul all job descriptions to allow for things such as telecommuting (currently not allowed for unionized employees, for example).

24. I believe this is the most important as individuals use are the ones using the most power. If we can educate them in a manner where they willingly change their habits, it will have a big

	impact.
25.	Should be focused on areas that are quantitatively shown to have significant impact (i.e., labs). Improving building operation procedures (a type of behaviour) to make sure buildings are optimally run should also be a priority.
26.	This is probably one of the most important areas on which to focus our efforts. With students especially -- because so much of all this is "habit". Harder for us older folks. But we all need incentives and reminders!
27.	Implement a carbon tax on campus. Any purchase of a product or service made / provided by fossil fuels would be more expensive than an alternate product or service made by clean energy. The funds raised from the tax could be directed toward more C.A.P. infrastructure. Setting the tax will be tricky but it can be done with some effort.  The tax alone will have more effect on behavioral change than any number of 'educational programs'.
28.	another important action I support it

**Question 2d. What comments do you have regarding the proposed actions to further reduce GHG emissions? | Other ways that UBC could reduce GHG emissions (e.g. commuting, business travel etc)**

#	Response
1.	Light rail sure would be nice.
2.	DIVEST FROM FOSSIL FUEL INVESTMENTS!!!
3.	UBC Parking has removed the parkade gates which substantially reduces vehicle idling wait time. Our records show that on average, vehicles waited 40 seconds per day at gates. Given that between 5,000 and 7,000 vehicles per day use the parkades, eliminating that wait time / idling time (by our estimate) has removed 250,000 lbs of GHG emissions annually  As far as I know, nobody has taken this into account at UBC Sustainability.
4.	Use of air transportation for goods and services should be eliminated on a reasonable timeline.
5.	These are all good plans and should continue being worked on
6.	Push for a train connection by Translink. The car traffic going in/out of UBC is tremendous and must be a factor when looking at the big picture of UBC's environmental footprint.
7.	Reduce student's need to commute to campus so much by replacing much of the three-classroom-lectures-a-week model with a MOOC format, i.e. online videos/course content, virtual meetings, forums and peer discussion groups.
8.	Push for improved transit access to campus and encourage more people to leave their cars behind. The money is on the table from the federal government and provincial government but I haven't heard anything from UBC and not much from the City of Vancouver on this regard. If you want to get people out of their cars, travel times to and from campus must be

	reduced.
9.	Having readily accessible car2go, modo and Evo cars and parking available on campus is very progressive. Maybe an incentive program for UBC business use of these resources instead of personal cars
10.	Subsidies for people to help buy commuter bikes?  Showing on the receipt for any parking ticket the 'carbon tax'  Better/more frequent transit during peak times.....busses are often full making people frustrated, and potentially turning to their cars.
11.	Reduce air conditioning use in buildings, especially in the winter. Install a mechanism that would allow people to be able to turn off the AC in meeting rooms, or library study rooms, etc. It doesn't make sense to have both the AC and the heater on at the same time because it is too cold. The cold air coming from the ceiling year-round is especially problematic for people with allergies, or sinus problems. It is completely unnecessary and people should be able to turn it off.
12.	The cost of housing here is great and bussing to work is not feasible in most cases. Improve transportation to and from UBC and look for incentives to buy electric vehicles. Free parking for electric vehicles or the option to purchase electric at reduced rates through fleet discounts.
13.	One area of focus should be improving alternate modes of transportation to campus: UBC is primarily a commuter school, and while the prohibitive cost of parking already discourages many from driving to campus, other means of arrival to campus is also a discouraging experience: Walking from the bus loop into campus is a nightmare of crowded sidewalks, cracked pavements, puddles, and mud-pits. Cycling on campus could also be greatly improved by including dedicated bike lanes or paths on campus roadways and promenades.
14.	Invest in better public transit. Ensure that the Broadway corridor sky train goes ALL THE WAY TO UBC. I will commit to stop driving to UBC if rapid transit can be brought to campus!
15.	"Explore opportunities to address carbon reduction related to food" does not commit to anything. How about something more concrete, such as establishing Meatless Mondays university-wide, implementing it for all food vendors across campus, in awareness of the meat industry's significant contribution to climate change?
16.	A housing plan that actually works for STAFF (not faculty) to reduce commuting by vehicles.
17.	We need to find travel options for staff and faculty that are not airplanes. Do we offer discounts for multi-day trips with car2go? Can we get discounts on train travel instead of airplanes? Do we promote remote work within all units?
18.	Transit to campus. That investment's gotta get made sooner or later...
19.	Lobby harder for rapid transit to come to UBC. If taking current transit options (i.e., the bus) didn't more than double my commute I'd prefer transit over driving. I just don't have 3+ hours to devote to commuting when the drive both ways is less than an hour. A light rail or "sky" train line extension to UBC (especially if it served southern communities like South Van, Richmond, Delta etc) would be a terrific way to get thousands of students and staff members out of their cars and onto campus for a fraction of the emissions/carbon

	footprint.
20.	on business trips - not to reimburse taxi's to and from YVR - but only public transport.
21.	Changes to semester dates and durations longer vacations in the winter when more energy is consumed. Shorter summer vacations when less energy is needed.
22.	It would be good to have a public transportation to UBC other than bus - this is a city decision though, but UBC should do everything it can to support it.
23.	UBC must discourage the use of personal vehicles. Personal vehicles account for 2/3 of household greenhouse gas emissions ( <a href="http://www.statcan.gc.ca/pub/16-001-m/2010012/part-partie1-eng.htm">http://www.statcan.gc.ca/pub/16-001-m/2010012/part-partie1-eng.htm</a> ). The fact that staff no longer receive discounted bus passes is ridiculous - UBC must change this. Parking is the same price as a bus pass - UBC must change this. The new renovations to Money Square were done with no thought of bikes entering campus - UBC must change this. There need to be more showers, change rooms, and lockers for undergraduates to change in after biking to campus. Personal cars kill and pollute and are a archaic form of travel. Bikes and buses are the future, and it would be great to see UBC leading the way there.
24.	Educate staff and faculty about energy efficient buildings.
25.	no comment
26.	Build a network of separated bike lanes around campus to allow ALL residents (including elderly and elementary school children) can get to schools, shops and work on and around campus.
27.	Increase videoconferencing for e.g. professional development events.
28.	Allow telecommuting for all employees,  Install a few windmills: \$5 million will get you 2-3 MW; consider then also using these for educational purposes (e.g. joint ventures between trade schools and university sustainability departments to educate well-rounded students in the theories and applications of wind energy).
29.	Moving forward, UBC should begin to incorporate high impact scope 3 items into CAP objectives + targets. Commuting habits and business travel would seem to be two high impact areas worthy of focus. Sourcing, supply chain impacts (including food) is another area worth investigating.
30.	Where are we with negotiating staff and faculty U-passes? We all need incentives to change -- making things easier. For some, the bus loop is "miles" away. Thus the importance of the bike share for some -- could be a good incentive.
31.	Carbon reduction related to food is a great area to explore and research options

### Question 3. Other comments |

#	Response
1.	Any chance for tidal power generation around the Point Grey campus? Or other

	renewables?
2.	DIVEST FROM FOSSIL FUEL INVESTMENTS!!!
3.	Rather than Natural Gas and Biomass energy supply options for UBC - your efforts would be better spent on supporting BC Hydro's Site C project, or other truly clean and renewable energy sources.
4.	Do not drop the UPass program. It is one thing that builds habits for a lifetime where the real energy efficiency will come in. Yes, campus can become more sustainable, but it's how people act after leaving which will make the greatest impact.
5.	<p>Would be nice to see some other forms of energy generation such as solar be considered as well. There are so many buildings with flat roofs on campus this would be minimally disruptive and I believe the panels are reaching the price point where they make sense economically.</p> <p>There are a large number of cars on campus belonging to residents of the UNA. If UBC could get a bulk buying price from dealers to promote an electric/alternate energy car program on campus that would be an incentive for UNA members to switch to a more sustainable vehicle</p>
6.	The cost of housing around UBC has become unaffordable for most employees who work here. people are constantly caught in traffic creating greater GHG. Staggering work hours or allowing for more flexible work times might help. Working longer hours for less days. By working a 9 day pattern you reduce the GHG by the number of cars that do not drive in for that day.
7.	<p>My first engagement with this consultation process - so a little late to the party, however while the Climate Action Plan website is very transparent I can find little evidential basis or record of the decision criteria for some of these recommendations. Some seem a little more than 'ideas' with no real scientific(!) evaluation or testing as to the value of the proposal. Should not an absolute figure in terms of tonnes of carbon reduction be stated for each goal? This way, the cost to implement can be actually valued and efforts best directed.</p> <p>Just need to reiterate again the big problem seems to me to be reducing demand for heating in buildings. Address this problem now and aggressively! 2020 will be too late.</p> <p>The IPCC recommendations for mitigation should be closely studied...  <a href="https://www.ipcc.ch/report/ar5/wg3/">https://www.ipcc.ch/report/ar5/wg3/</a></p>
8.	I like the idea of getting rid of plastic bags and one-use drink containers. It may seem optimistic and unrealistic to some people, but I think a minor inconvenience is worth reducing negative impacts on our planet.
9.	<p>It has been very nice recently to see the sorting waste options. That is great progress, and way overdue on campus.</p> <p>Each office, class room and lab should be equipped with sensor for the light.</p> <p>Room temperature does not have to be above 20 C.</p>

10. no comment
<p>11. What about solar power? seems that alternative energies are left by the wayside in this discussion and UBC is being sucked into still using fossil fuels. Why??</p> <p>Has UBC considered looking at what other countries are doing? There are a lot of best practices and success stories out there but it seems that we have a very cavalier West Coast attitude that somehow UBC is special and rather than looking abroad we keep our heads down and reinvent the wheel, which is often behind the curve instead of ahead of it.</p>
12. It's really great to be working for an organization showing such a significant commitment to reducing emissions.
13. Encourage faculty & staff to use electric vehicles by increasing the number of charging stations in all parking lots. Also the electric charging stations in front of the Nest & Alumni centre need to allow parking for at least 2 hours for meaningful charging of an electric vehicle, at the present time they are only 20 minutes.
14. Thanks for keeping pushing ahead with the Climate Action Plan. Your efforts are much appreciated.
15. I understand the need to keep these posters short but the benefits/ drawbacks of renewable natural gas vs. biomass expansion should be better described (particularly in regards to their GHG emissions)

## Letter Submission

Hi

Please send this to the responsible person.

referring to your UBC Climate action plan 2020, please note the following : an easy catch is to turn off the lights automatically when nobody is in the building or after a certain time of the day.

In the Economics building across my condo, (the previous Theological building ) the lights in a number of rooms and college auditoria is on WHOLE night.

I do not know about other UBC buildings but such low hanging fruit is easy to catch.

In the Total building (big Oil) in La defense Paris, the lights



switch off every day automatically at 6 pm in ALL rooms, and if you want to work later you have to switch it back on with a moving sensor.

Such installation is not costly and can save lots of energy.

regards

*[personal information removed]*