

## Submission to Updated Annual Plan post *Covid-19*: *‘between the Devil and the deep blue sea’*.

Thank you for this opportunity to submit. This submission is on behalf of The Brighton Observatory of Environment and Economics. Our comments refer principally to adapting to climate change and harnessing the advantages of *Covid-19* in Christchurch with respect to Carbon and Transport. Central government have identified that significant investment is required to restart the economy, our feeling is that this should also be the approach in this city, notwithstanding that we accrue debt, we also get more activity and early paybacks. This is not about Business as Usual (BAU), in fact this about beginning the definition of a realistic new BAU. Accordingly, it may seem radical, but in reality so are the changes and timescale of climate change. This also demonstrates the types, timescales and magnitudes of the changes needed.

1. Mitigation of and Adaptation to Climate Change: Climate change is happening now, and the effects are intensifying, accelerating and becoming more widespread. This is urgent, not a back-burner issue. The Government 2050 net zero emissions target for non-methane Green House Gas (nmGHG) emissions<sup>1</sup> is not ambitious, Wellington has already declared itself as the country’s first city to reach carbon neutrality. It is certainly not fast enough for Christchurch. If the City were to move more quickly it would increase the city’s competitiveness and resilience, increase the health and wellbeing of the City and save lives<sup>2</sup>. A serious but more useful challenge for Christchurch might be net zero emissions target for nmGHGs by 2035. Although the emissions of NZ alone are very small and are unlikely to impact significantly on progress to global GHG emissions, nonetheless we need to deliver these changes to be able to increase the resilience of our own economy, as well as more effectively lobby other nations to reduce their GHG emissions and ultimately reduce the impact of climate change on us all. Alongside the targets above, there needs to be a detailed implementation plan facilitated by The Council, see below (5).
2. The City: Christchurch is a ‘city of villages’ (the CBD is one of those villages), and the central government led redesigned city has failed to grasp the opportunities that the post-quake recovery offered. Research shows that the current central city development plans are not creating the city that Christchurch residents want or feel is theirs, and this is one of the drivers of why people do not want to live in the central city<sup>3</sup>. Therefore, it is proposed that the central city residential development rebate scheme be ended: this generates savings to fund the example implementation below (5).
3. The City: The proposed arena build plus the decontamination of associated land has a cost of \$16M. This massive project proposed in a residentially zoned area, itself a mismatch, came from central government not the people of Christchurch. There are serious questions being asked about the rationale, size, location and running costs of

<sup>1</sup> Climate Change Response (Zero Carbon) Amendment Act, 2019

<sup>2</sup> With the implementation of the type of plan outlined under (5)

<sup>3</sup> Davidson, C. Discussed by Steven Walton (2020) [Survey finds just 29 per cent of people prefer post-quake Christchurch](#). Stuff 5 June 2020.

the proposed behemoth outside of the occasional Rugby final or international megagig. Crucially in terms of capital it is not more urgent than our response to climate change. Post *Covid-19* this is the opportunity to re-negotiate from current contractual commitment and instead re-plan for a smaller Arena in the *The Specific Purposes (Flat Land Recovery) Zone* which meets the financial, growth and carbon needs of the City better than the current project. With a will, work could still proceed within the next year or so if essential, but it is proposed the delay of the last 7 years allows a slight further delay while the City identifies the right project and location and could result in other benefits (e.g. development of a resilient (to earthquakes, land damage and climate) building. This will generate savings to fund the example implementation below (5).

4. Mitigation of/Adaptation to Climate Change: apart from a ~40% drop in transport carbon emissions, the enforced working from home of the Covid-19 lockdown generated a number of advantages for many of the workforce<sup>4</sup>. Without the need to commute (estimated at between 5 and 10 hours per week), and with greater control of their work environment many 'found' an extra day or more of time that could become their own, rather than their employers'. In addition to this full-time productivity (taking up only 4 days), it is suggested that the productivity of workers in most cases was at least equal to that over 5 days prior to the epidemic<sup>5</sup>. Moreover, this lack of commuting increases resilience against certain and further epidemics<sup>6</sup> and improves work-life-family balance and reduces transport emissions and personal stress. All of these things improve health, social and wellbeing outcomes<sup>7</sup>.
5. There will always be a need for FtF meetings, and also staff who prefer working in 'the office' rather than at home, but Post Covid-19, although most businesses are likely to still need an office, it could probably be smaller and a more agile affair. Hence, facilitation of the private and public sectors to retain working from home as widely as possible in The City is low hanging fruit for both the Council and the Private sector. It does raise (more) questions about the need for the CBD *per se* or at least in its current form, and begs questions about whether the monetary, carbon and health costs accruing to those who commute to work in the CBD are exceeded by the benefits accruing to businesses based there. Further to the Finance Minister last week admitting the reasons his ministry needed their staff in work was not related to productivity, but rather to keep the Wellington CBD "alive", it would be alarming if the existence of the CBD *per se*. was the reason that organizations required their staff to commute.
6. Mitigation of/Adaptation to Climate Change: As a demonstrative example only, the following example shows the scale of the types of changes that are likely to be needed

<sup>4</sup> The notable exception to this was families with children dependent on dual incomes. Latest available census figures (2018) indicate that about 60% of Christchurch households have no children.

<sup>5</sup> Barnes, A. Discussed by Matt Burrows (2020) [Four-day work week: A silver bullet for New Zealand's economy post-COVID-19 or an idealist fantasy?](#) Newshub22 June 2020.

<sup>6</sup> IPCC

<sup>7</sup> IPCC and Pihl, E., Martin, M.A., Blome, T., Hebden, S., Jarzebski, M.P., Lambino, R.A., Köhler, C., Canadell, J.G., Ebi, K.L., Edenhofer, O., Gaffney, O., Rockström, J., Roy, J., Srivastava, L., Payne, D.R., Adler, C., Watts, S., Jacobsson, L., Sonntag, S. [10 New Insights in Climate Science 2019](#), Future Earth & The Earth League, Stockholm, 2019.

(on a decade timescale) in The City to be able to benefit from silver linings of climate change (and also respect the ‘build-back-better’ idiom). It would become a pedestrian safe walkable all-weather city, and also ease the transition of the new 60-100,000 people likely to be part of CHC in the next 10-30 years. This type of proposal also requires planning controls to prevent continuing sprawl of either Christchurch or its satellite towns. It is slightly naive and is focused on transport. Transportation is the source of the majority of non-methane GHGs in Christchurch. Improvement of public and active transport<sup>8</sup> in the city is imperative to reducing those emissions, improving health and re-growing the local economy provided:

- a) The heavy freight rail network has to come into Christchurch, and there needs to be a rail link between Rolleston and Belfast<sup>9</sup>.
- b) In the interest of adaptation and mitigation of climate change, as well as the economic recovery of the City, ECan and CCC agree to fully collaborate on the services and ownership of vehicles on the routes/services below
- c) The village nature of the city is recognized
- d) In collaboration with ECan fast electric powered high capacity regional transport systems (6 stops maximum) are developed between a central CHC hub and each of Rangiora, Darfield, Rolleston and Lincoln with park-and-ride facilities at each of the non CHC nodes, these may be light rail or on-road solutions. The Metrocard system is expanded to include the regional services and park and ride operations and charging facilities for the electric powered network rolled out.
- e) In collaboration with ECan fast electric powered local (on-road) services (maximum of 6 stops) are provided from New Brighton, Lyttleton, Sumner, Airport, Hornby, Hallswell, Hillmorton, Cashmere<sup>10</sup> and these services interconnect with the each other and the regional services at more points than the Central Hub. Additionally, charging facilities for the electric powered network rolled out as the network becomes a reality. Existing ‘stopping’ bus services will also need to be electrified, but the suggested fast services additions are likely to mean the existing services could be rationalized (*e.g.* operated at lower frequency).
- f) In tandem with the provision of these services, city and central city parking is removed, bus-lanes increased with low delay bus traffic control systems and off-road cycle lanes with tree-cover are introduced.
- g) Using our local heavy engineering capacity and Council workshops, an immediate programme of converting diesel buses to electric buses is commenced. It may also be when economic environmental and health externalities are considered, our local heavy engineering base will be the most favourable place to provide the high capacity regional transport units.
- h) We have not discussed things like overhead all-weather walkways, modern, livable, high efficiency houses, with air bridges and rooftop gardens<sup>11</sup> *etc...*as this submission focusses on one part of the matrix: transport.

<sup>8</sup> McCrone, J. (2020) [A trip back to the future for Christchurch public transport.](#)

<sup>9</sup> Dann, J. (2018) A New plan for Christchurch rail. [The Spinoff.](#)

<sup>10</sup> Harre, B. (2018) [Christchurch’s future is a bendy banana](#)

<sup>11</sup> For example modern Singaporean HDBs and the underground walkways and market places that connect them

7. Finally, we propose that to meet the challenges of mitigation and adaptation to climate change in this city, The Council need sustained and in-depth research capacity and support. The Council has many officers, but very little research capacity. The Observatory and other organizations with whom we collaborate are prepared to jointly discuss this proposal with Council, and seek funding to provide such capacity, whether it be a retained Technical Advice Group (TAG) or a formal research support unit. With great respect, this lack of research capacity and capability<sup>12</sup> has (and is likely to continue) to result in inefficient targeting and utilization of resources and continuing loss of opportunity, *i.e.* this is wasteful of human and financial resources.

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<sup>12</sup> For example, The Observatory notes that the climate change adaptation specialist that was to have been recruited has not materialized and instead this post has been filled with a non specialist.