MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HIKINA WHAKATUTUKI

Submission Form

Building for Climate Change

1. Contact details (optional)

Name:	Brett Francis
Company/organisation	Window & Glass Association
Email address:	Brett.francis@wganz.nz

2. Are you making this submission on behalf of a business or organisation?

☐ No
☒ Yes (please tell us which Company/Organisation you are making this submission on behalf of)

Window & Glass Association

3. Would you like to:

Remain anonymous in the published consultation summary report ☒ No ☐ Yes
Receive a copy of your own submission ☒ No ☐ Yes
Receive future updates on Building for Climate Change programme ☐ No ☒ Yes

4. Are you willing to be contacted in relation to your submission if MBIE has questions about your response?

☐ No ☒ Yes

5. The best way to describe your role is:

☐ Architect ☐ Building owner ☐ Geotechnical Engineer
☐ Building Consent Authority/Officer ☐ Electrician ☐ Structural Engineer
☐ Builder ☐ Engineer – other ☐ Plumber/Gasfitter/Drainlayer
☐ Building product/material supplier ☐ Fire Engineer
☒ Other: Association of building product/material suppliers_____

To submit this form via email:
Once you have completed the form, you can email it to BfCC@mbie.govt.nz, with "Submission" in the subject line.

To submit a print copy of this form:
You can post or courier your submission to:

Via Courier:

Building System Performance
Ministry of Business, Innovation and Employment
Building for Climate Change Submission
15 Stout Street,
Wellington 6011

Via Post:

Building System Performance
Ministry of Business, Innovation and Employment
Building for Climate Change Submission
PO Box 1473
Wellington 6140

Overarching approach of the Building for Climate Change programme

6. Do you agree or disagree that the Building and Construction Sector needs to take action to reduce emissions?

☐ Strongly disagree ☐ Disagree ☐ Neither ☐ Agree ☒ Strongly agree

Please tell us why.

7. What support do you think you or your business would need to deliver the changes proposed in the frameworks?

1. Alignment of changes with updated building code
2. Agreement re measurement methodology
3. Make it easier to achieve compliance. Ensure projects do not need to do twice the calculations/documentation.

8. Are there any barriers that are currently preventing (or discouraging) you, or your business, taking action to reduce emissions?

☐ No ☒ Yes

Please identify the main challenges.

- Lack of agreement re measurement methodology
- Concern about the additional cost/overhead to implement.
- Lack of certainty re timelines/framework
- Wasted effort as Governments change and change timetable/focus/requirements

9. Do you think the Building for Climate Change work programme should include the following building classifications?

	No	Yes
Housing	☐	☒
Communal Residential	☐	☒
Communal Non-Residential	☐	☒
Commercial	☐	☒
Industrial	☐	☒

If you have indicated that you believe one, or more, building classifications **should not** be included, please tell us why

Framework: Transforming Operational Efficiency

10. Do you agree or disagree that the Building for Climate Change work programme should include measures to improve the operational efficiency of buildings in New Zealand?

Strongly disagree	Disagree	Neither	Agree	Strongly agree
☐	☐	☐	☐	☒

Please tell us why.

11. The Framework proposes that operational efficiency requirements tighten in a series of steps to reduce emissions in the Building and Construction Sector, with the requirements for each step published at the outset and the final step being reached by 2035.

Do you support a gradual introduction of operational efficiency requirements, using a stepped approach?

☐ No ☒ Yes

12. Do you think the timeframe is appropriate?

☐ Yes ☐ No, it's too short ☒ No, it's too long

Please tell us your ideal timeframe if it's not by 2035.

We strongly support a stepped approach. However a drawn out implementation risks procrastination and delays to upskilling and capacity building. It risks penalising early adopters. It means there will be thousands of buildings built below the standard we need. We believe the timeframe should be 2030. We accept the challenge

13. The Framework proposes that a number of building types will be exempt from operational emission reduction requirements.
Do you agree or disagree with the proposal to exclude the following from operational efficiency emission reduction requirements?

	No	Yes
Outbuildings	☐	☒
Ancillary buildings	☐	☒

Please tell us why.

Approach

14. The Framework proposes that operational efficiency requirements will only apply to new buildings initially with further work to look at requirements for existing buildings being undertaken at a later date.
Do you support this approach?

☐ No ☒ Yes

Please tell us why.

15. Do you support a limit on emissions from fossil fuel combustion to operate buildings (e.g. for space and water heating)?

☐ No ☒ Yes

Please tell us why.

16. Do you think that new Thermal Performance requirements based on heating and cooling demand should be introduced to support increased operational efficiency of buildings?

☐ No ☒ Yes

Please tell us why.

17. Detailed requirements for the efficiency of fixed services (such as heating and cooling systems, artificial lighting, hot water systems and appliances, ventilation systems etc) are not currently set out in the Building Code.
Do you think that Services Efficiency performance requirements should be introduced to support increased operational efficiency of buildings?

☐ No ☒ Yes

Please tell us why.

Improved indoor environmental quality

18. The framework proposes that there are requirements for the plug loads for large buildings*, but not small buildings. Do you support this approach?
(*Large and small buildings as defined in the framework scope section)

☐ No ☒ Yes

Please tell us why.

19. The Framework proposes that new buildings will not be required to include onsite renewable energy generation or energy storage capacity. Do you agree or disagree with this proposal?

Strongly disagree	Disagree	Neither	Agree	Strongly agree
☐	☐	☒	☐	☐

Please tell us why.

20. The Framework currently proposes to exclude the following elements from the Building for Climate Change work programme. Which do you think should be included or excluded?

	Should be included	Should be excluded
Electrical appliance efficiency	☒	☐
On-site collection and storage of water	☒	☐
On-site waste water treatment	☒	☐

Please tell us why.

21. Buildings need to provide suitable indoor environmental quality (IEQ) for good occupant health and wellbeing outcomes. The Framework identifies the following critical IEQ parameters:

- Air temperature
- Relative or absolute humidity
- Ventilation rates
- Surface temperature
- Hygienic surface temperature (avoidance of mould)
- Daylight provision

If there are any additional elements that you think should be considered, please record them in the comment box below.

Acoustics. As we build/live closer together sound is a key parameter of indoor environmental quality

22. The Framework proposes that the Thermal Performance energy use intensity and services energy use intensity are considered during the consent application process, and when a Code Compliance Certificate is applied for.
Do you think this would impact you or your business/organisation?
☐ No ☒ Yes
Please tell us why.

Window Manufacturers would need to provide Window Energy Efficiency Ratings (WEERS) at the time of Consenting and then when the project is completed, taking account of any changes up to Code of Compliance Certificate application.

23. If there are any additional tools or support that you think you would need to implement this requirement, please tell us in the comment box below.

Framework: Whole of Life Embodied Carbon Emissions Reduction

24. Do you agree or disagree that the Building for Climate Change work programme should include initiatives to reduce whole-of-life embodied carbon in New Zealand buildings?

Strongly disagree	Disagree	Neither	Agree	Strongly agree
☐	☐	☐	☐	☒

Please tell us why.

To meet our emission reduction goals, a key objective of the framework is to increase building material efficiency, and reduce construction waste.
25. What measures, if any, do you think should be put in place to increase building material efficiency? (Select all that apply)
☒ Update regulatory performance requirements to ensure they are appropriate

☐ Incentivise ‘lean design’
☐ Remove barriers to the reuse of construction materials
☐ Other (please specify)

26. What measures, if any, do you think should be put in place to reduce construction waste?

Delivery of a nationwide approach/infrastructure

27. Using low carbon construction materials and products is identified as another option to reduce whole-of-life embodied carbon emissions.
How could we encourage the use of low carbon construction materials?

The Framework proposes introducing reporting requirements for whole-of-life embodied carbon in buildings, followed by a cap on whole-of-life embodied carbon for new building projects.

28. Would you support a cap on whole-of-life embodied carbon for new building projects?
☒ Yes ☐ No
Please tell us why.

29. Do you think a data repository of embodied carbon from buildings should be established?
☒ Yes ☐ No
Please tell us why.

Fairness and certainty:

- Must include imported products (manufacture and delivery)
- Must manage product substitution

30. If a data repository was established, do you think this information should be able to be accessed by the public?
☒ Yes ☐ No
Please tell us why.

Full transparency

31. Which, if any, of the following factors would make it difficult for people to report the whole-of-life embodied carbon of new buildings, and why?
☒ Lack of an agreed methodology ☒ Inadequate data quality and availability
☒ Lack of appropriate tools or software ☒ Administrative burden on businesses
☐ Other (please specify)

32. What support, if any, do you think will be needed to make reporting embodied carbon a standard part of the design and construction process for every new building project in New Zealand?

Industry training, education, tools, engagement

The framework proposes that reporting of whole-of-life embodied carbon for buildings would be carried out as part of the building consent application process.

33. What impact do you think this proposal will have on the Building and Construction sector?

Risk that what is consented is different to what is built – substitution of produce

34. What additional tools or support would be needed to implement this requirement?

35. Do you think that requirements for embodied carbon calculations should only include the initial building life cycle stages (product and construction stage)?

☒ No ☐ Yes

Please tell us why.

At a product level, not considering cradle to cradle will disadvantage some products, eg windows with aluminium frames- given the opportunity for the aluminium and glass to be recycled.

In NZ in 2019 31,000+ tonnes of glass was diverted from landfill and turned into bottles and pink batts.

In NZ there are Remelt Casthouse facilities which use mainly recyclable aluminium scrap from New Zealand extruders. The energy consumed to make extrusion from recycled aluminium is 10 times less than the energy required to make an equivalent amount of extrusion from virgin aluminium sourced from the aluminium smelters.

Where recycling within New Zealand is not available the impact of shipping goods (if allowed) back to place of origin should be taken into consideration. If products can be recycled overseas, but not in NZ, then in reality they cannot be recycled.

Not being bold and constraining the calculation is only delaying the necessary. Half-truths are dangerous – you never know which half you have…..

36. The Framework proposes limiting the type of building components that would be included in an embodied carbon assessment, <u>excluding</u> components with lower emissions (such as internal fittings).

Do you agree with this proposal?

☐ No ☒ Yes

Please tell us why.

37. Do you think that reporting on, and ultimately capping, embodied carbon should apply to new building projects only, not refurbishment or demolition projects?

☒ No ☐ Yes

Please tell us why.

38. The Framework proposes that a simplified embodied carbon calculation tool could be used for small buildings but more detailed calculations would need to be provided for large buildings*.

(* Large and small buildings as defined in the framework scope section)

Do you agree with this proposal?

☐ No ☒ Yes

Please tell us why.

How will the tool account for imported products:

- the cost in CO2 terms importing (form plant to port and then by sea to NZ).
- the input costs in CO2 terms, aluminium ex Asia has very high CO2 cost because power used in mostly from coal. Same for products if they were to come in from Australia.
- If products are imported from Europe where Nuclear power is used does that get the ”Green” stamp of approval because it lowers the cost of construction. We expect EPD is the only way to cover this.

39. Any other comments on the proposed frameworks?

Like ALENZ we would like to see a systems approach which:

- is focused on whole of life, cradle to cradle methodology which includes accounting for
  - the operation/maintenance of our buildings,
  - end of life deconstruction, reuse/repurpose/recycle or landfill
- is integrated into the performance clauses of the Building Code
- is referenced against international best practice
- all buildings should be included, given that we currently have over 65% of the buildings likely to be here in 2050
- includes the incentivising onsite energy generation/storage and rainwater capture/reuse to reduce energy demand/operational emissions while creating resilience
- provides a pathway that acknowledges some key locally made construction materials, already bear a carbon charge through the ETS
- includes clarity as to how carbon off set instruments will be included