

## UNA Response to Proposed Changes to the Residential Environmental Assessment Program (REAP)

May 1, 2023

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The Residential Environmental Assessment Program (REAP) is the regulatory mechanism for achieving UBC's climate, sustainability, and ecological goals for development in the UNA neighbourhoods. It does this through a combination of mandates and incentives (involving a certification system akin to [LEED](#)). The UNA's Land Use Advisory Committee (LUAC) offers the following feedback on the proposed updates to REAP.

In sum, the [proposed REAP 3.3 amendments](#) do not fully reflect UBC's Climate Action Plan goals and need further revision. UBC should complete a Neighbourhood Climate Action Plan (NCAP) first, in order to set specific climate, sustainability, and ecological targets for neighbourhood development. UBC should then update REAP to calibrate the mix of mandates and incentives to achieve the NCAP targets.

NCAP targets and subsequent REAP requirements will have financial and infrastructural implications for land-use planning. UBC should not adopt a new Land Use Plan until it has clear NCAP targets and consequent REAP requirements in place. We are concerned that the draft Land Use Plan under consideration is premised on older environmental and financial assumptions that are not compatible with the University's current climate and sustainability priorities.

Prior to updating REAP standards, UBC should answer the following questions:

- What are UBC's climate, sustainability, and ecological targets for the neighbourhoods?
- What combination of mandates and incentives is needed to achieve those targets?
- How should the incentives be weighted in order to achieve UBC's environmental targets?
- In the case of non-compliance with REAP mandates and certification requirements, what penalties and mitigation measures should be required of developers?
- What data need to be collected in order to measure the effectiveness of REAP?

## Targets

Given the lack of an updated Neighbourhood Climate Action Plan (NCAP) and available reporting or monitoring of REAP, it's not clear what targets the REAP 3.3 guidelines aim to achieve, nor how it performs. NCAP targets are necessary to set the appropriate REAP mix of mandates and incentives, and to determine how incentives should be weighted.

With the UBC general Climate Action Plan (CAP) as a guide, there should be specific targets in the following areas:

- Greenhouse Gas (GHG) operational emissions
  - Heating & cooling systems
  - Heating & cooling energy sources
  - Heating & cooling efficiency
- GHG extended emissions
  - Embodied carbon & building materials
  - Life cycle construction standards
  - Vehicle emissions
  - Commercial operations (food service, retail)
- Biodiversity metrics
  - Reflecting how specific projects should relate to broader biodiversity targets for the neighbourhoods
- Climate adaptation
  - Climate Ready Building Requirements (heat, air quality)
- Waste management
  - Reductions in consumption
  - Circular economy
  - Recycling
  - Education and compliance

## **Recommendations**

- **Reverse the order of the various plans:**
  - 1. Complete NCAP first, so specific targets are in place before REAP updates and neighbourhood planning proceed;**
  - 2. Update REAP to set up a framework for achieving targets;**
  - 3. Determine financial and infrastructural implications of NCAP and REAP requirements;**
  - 4. Update the Land Use Plan so that it locks in NCAP targets and reflects accurate financial assumptions.**



## **Mandates**

REAP mandates should ensure that neighbourhoods meet UBC CAP targets. Mandates should include, among other things: energy efficiency standards, low-carbon energy sources, and unit-level metering for energy and water usage.

## **Recommendations**

- **Energy systems: no new natural gas appliances; District Energy and/or electricity for heating and cooling;**
- **Water usage: unit level metering for hot and cold water usage.**

## **Incentives**

The incentives (points earned towards REAP Gold or Platinum certification) should reflect the relative priority UBC puts on the CAP's climate, sustainability, and ecological targets. The proposed incentives for embodied carbon reductions (5pts) and mass timber construction (2pts) seem low relative to potential benefits and to construction costs involved. We are not convinced that any developer would choose to reduce embodied carbon and/or build with mass timber at these incentive levels.

## **Recommendations**

- **Complete the NCAP so that targets and the relative priority of REAP incentives are clear--points should be set to reflect those priorities;**
- **Model cost of achievement vs. market value of certification levels above REAP Gold to determine likelihood of developers pursuing levels higher than Gold;**
- **Commission an external evaluation to determine probable uptake and outcomes (progress toward targets) of REAP certification/incentive system;**
- **Recalibrate the points for embodied carbon reductions and mass timber construction to increase the likelihood of adoption.**

## **Compliance**

Non-compliance can come in two forms: 1) developer does not achieve mandated and/or incentivized goals in the construction process; 2) constructed buildings do not achieve operational targets. In general, compliance measures should combine incentives and offsets sufficient to ensure that the neighbourhoods meet climate, sustainability, and ecological targets of the NCAP.

## Recommendations

- **Set penalties sufficiently high to incentivize compliance and invest penalty revenues in offsets to compensate for carbon implications of non-compliance;**
- **Use NCAP to set carbon caps for neighbourhood development, and revise REAP mandates and compliance measures to guarantee the achievement of cap targets;**
- **Set a fee (carbon tax) for embodied carbon in new builds and use revenue to fund carbon reduction retrofits within the existing UBC rental property portfolio.**

## Monitoring

REAP should mandate monitoring and reporting of key indicators, including embodied carbon, GHG emissions, and energy and water-use efficiency. Future REAP updates should remedy gaps between targets and outcomes.

## Recommendations

- **Set up criteria for modeling the effectiveness of the mandatory and incentivized elements of REAP for achieving NCAP goals;**
- **Monitor compliance and effectiveness of mandated and incentivized practices;**
- **Publish results of monitoring and compliance annually, along with progress towards targets set in the NCAP.**

The Residential Environmental Assessment Program is the single most important regulatory mechanism for setting and enforcing climate and sustainability goals in UBC's neighbourhoods. Its mandates and incentives should reflect a precise set of environmental targets, which have yet to be detailed for the neighbourhoods. We urge UBC to complete a Neighbourhood Climate Action Plan with the same rigour as the Climate Action Plan for the academic campus, and then revise REAP accordingly.