GUIDING PRINCIPLES

- Prioritize Carbon Emissions Reductions
- Ensure Energy Efficient Design
- Encourage Good Grid Citizenship
- Encourage Reductions in Embodied Carbon
- Keep it Simple and Accessible

PERFORMANCE METRICS

- Thermal Energy
- Embodied Carbon
- Total Energy
- Operational Carbon
- Peak Demand
THERMAL ENERGY (CLIMATE ZONE 4)

<table>
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<th>Square</th>
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<td>VFAR</td>
<td>0.49</td>
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<td>TEDI (kWh/m²)</td>
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<td>TEDI (kBtu/ft²)</td>
<td>4.8</td>
<td>6.4</td>
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Source: Guide to Low Thermal Energy Demand for Large Buildings
BC Housing / Morrison Hershfield, April 2018

PILOT FOCUS – THERMAL ENERGY

MacKimmie Project Redevelopment  
Owner: University of Calgary  
Designer: DIALOG

evolv1  
Owner: The Cora Group  
Designer: Stantec
GEO-EXCHANGE AND THE PEAK RE-BALANCING ACT

Source: Making the Case for Building to Zero Carbon, CaGBC / WSP 2019

PILOT FOCUS – ARTHUR MEIGHAN BUILDING

Arthur Meighan Building
Owner: Government of Canada
Designer: DIALOG

Photo Credit: On-Site Magazine
TIME OF DAY EMISSIONS - ONTARIO

Marginal Emissions Factors (gCO2-e/kwh)

- Peaking power is supplied by a mix of fossil fuels and hydropower
- Significant variability by time of day in Fall, Winter, and Spring

Source: A Clearer View on Ontario's Emissions – The Atmospheric Fund

EMBODIED CARBON

REPORTING REDUCTIONS
KEEPING AN EYE ON REFRIGERANTS

![Bar chart showing Refrigerant Global Warming Potential (CO2-e) for HFC-134a, HFC-32, HFC-125, and R410a.]

Source: IPCC 4th Assessment Report

SUMMARY OF KEY REQUIREMENTS

<table>
<thead>
<tr>
<th></th>
<th>Version 1</th>
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<td>TEDI Target + one of:</td>
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<td>- Lower TEDI target</td>
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<td>- Non-contractual GHGI target</td>
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TRANSFORMATION GOALS

- Carbon Neutrality
- Efficiency
- Reduce Demand