

# Swedish-Canadian collaboration C40 competition Montreal, Canada

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**Key Challenge**

**Mandatory**

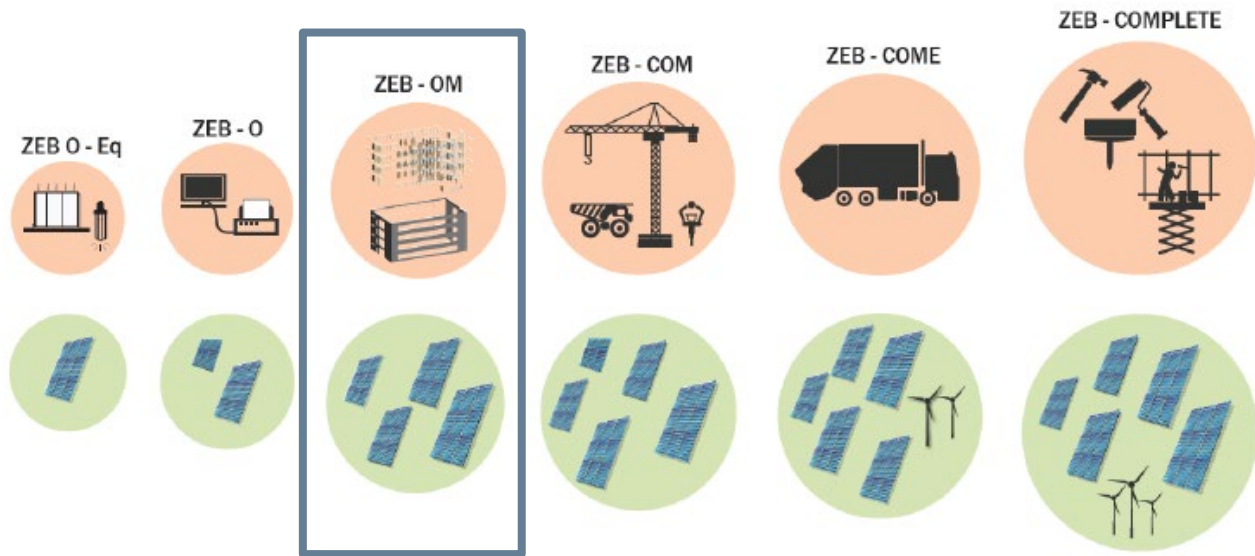
**10**

**1/10**

**C40 Reinventing Montreal**



## STARTING GOALS



## GOALS ACHEIVED

# ZEB-0

C40  
CITIES

CLIMATE<sup>+</sup>  
Climate Positive  
Development Program



canoe:



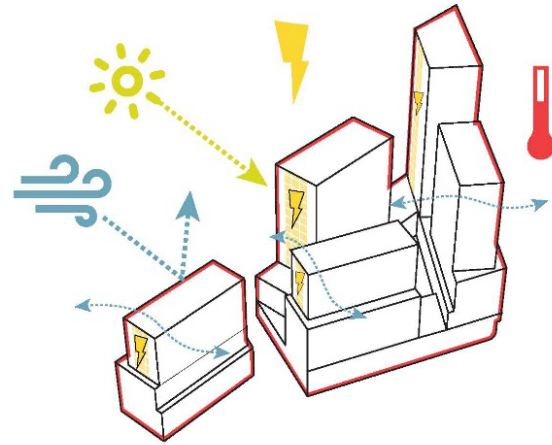
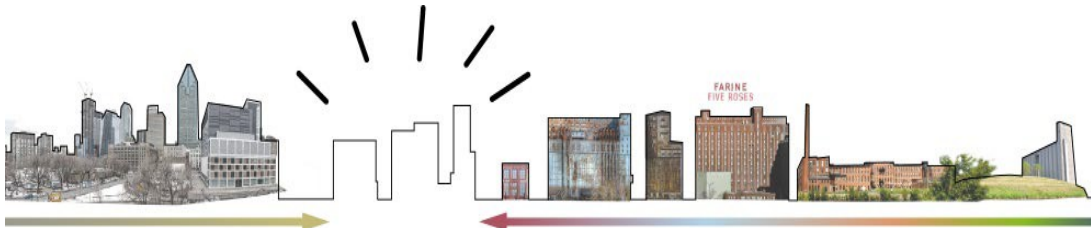
# CIRCULAR COMMUNITY

focused on climate  
and  
social resilience

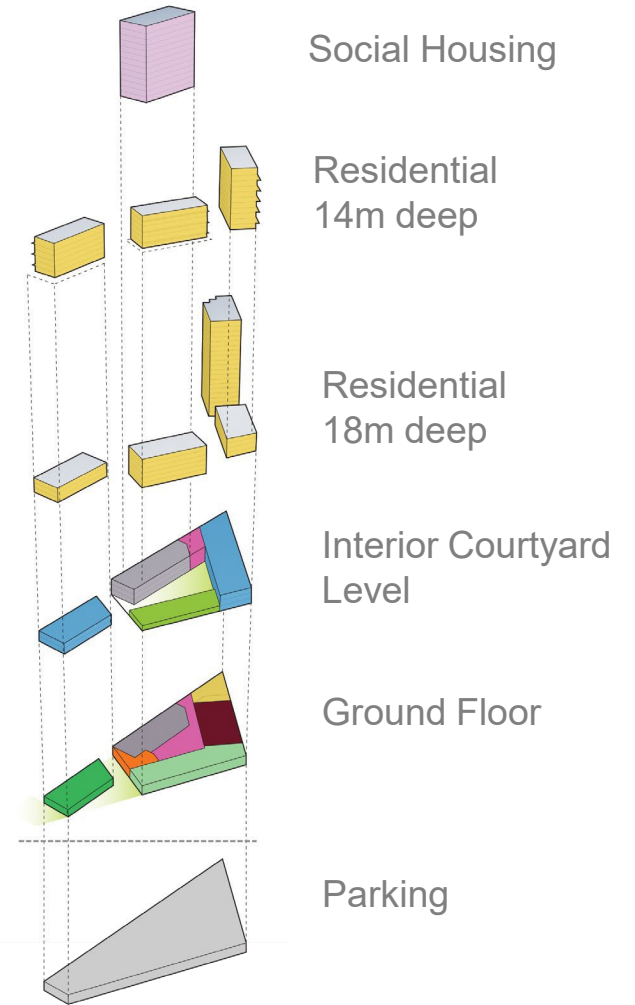




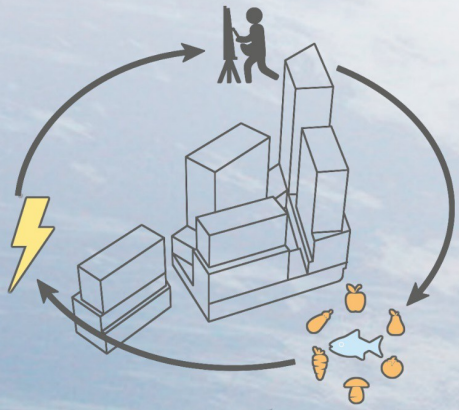
# SUSTAINABLE DESIGN



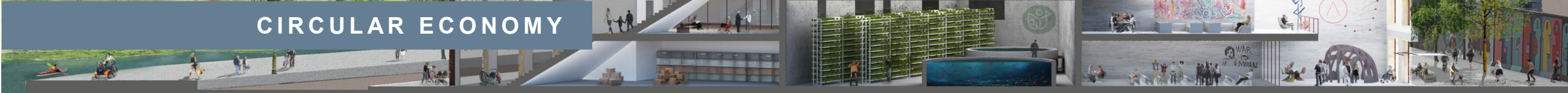
- Résidentiel
- Habitations communautaires
- Bureaux
- Garderie
- Commerce
- Ateliers / centre de diffusion / espace collectif / Fab Lab
- Aquaponie
- Marché
- Espaces communs
- Cour de voirie
- Stationnement





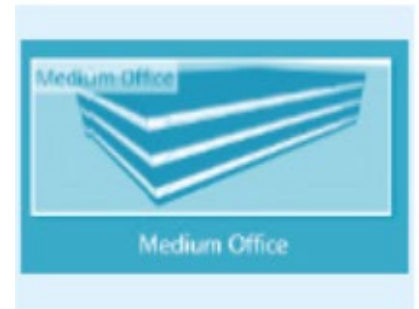
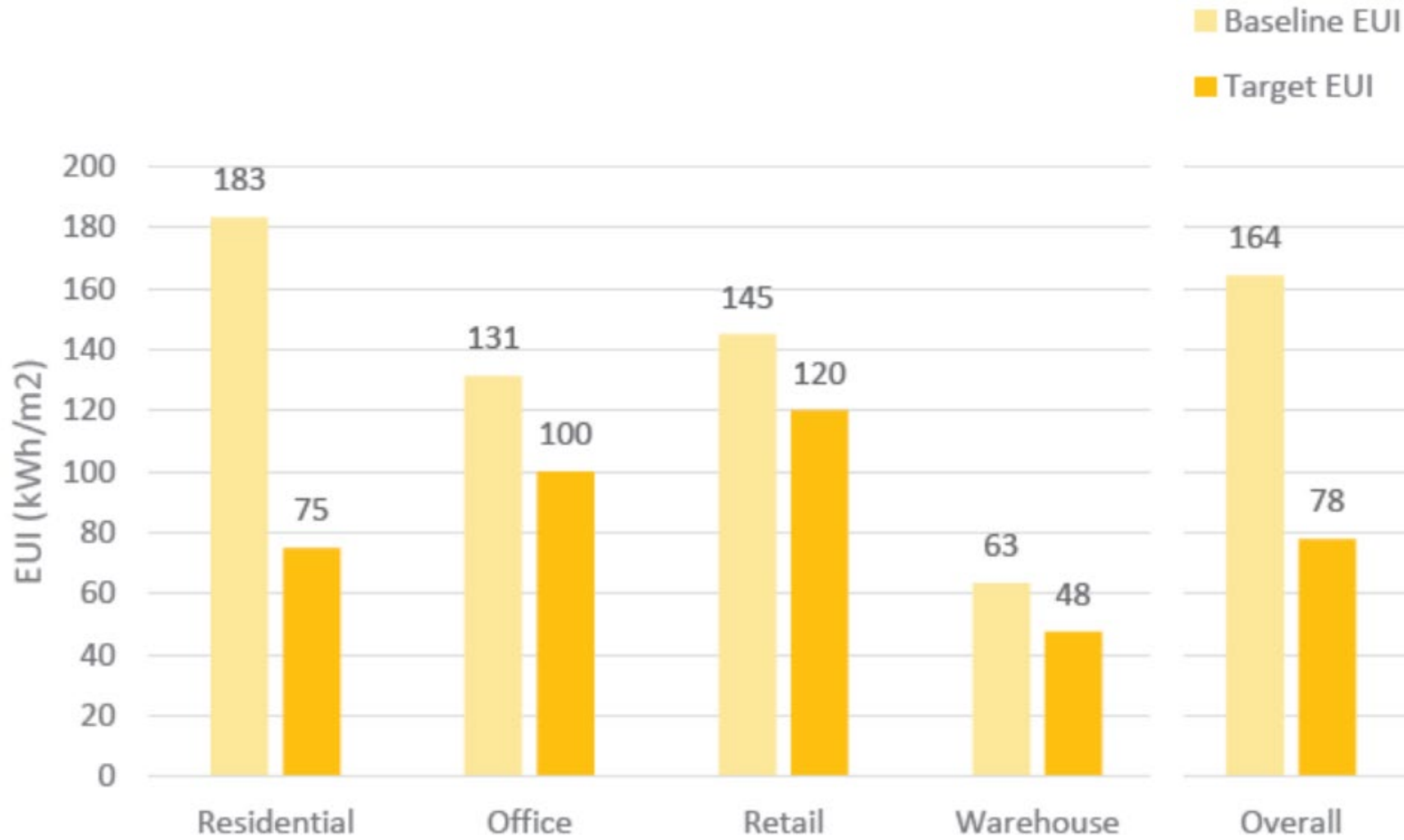


**CIRCULAR ECONOMY**

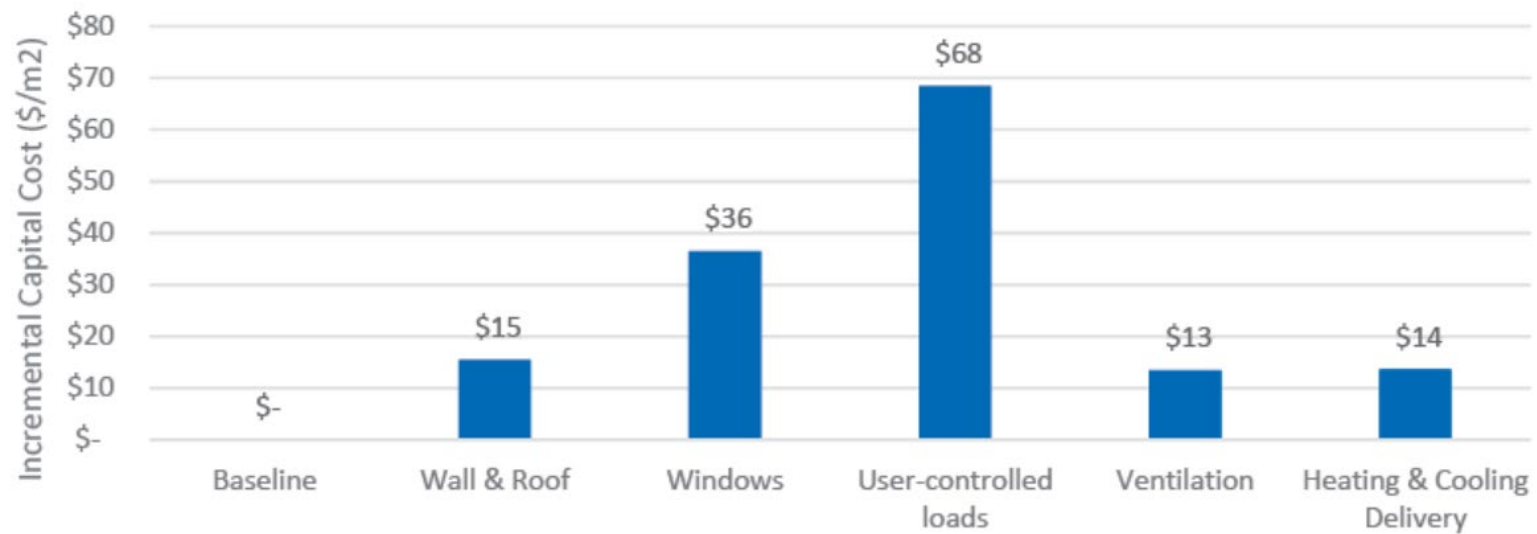
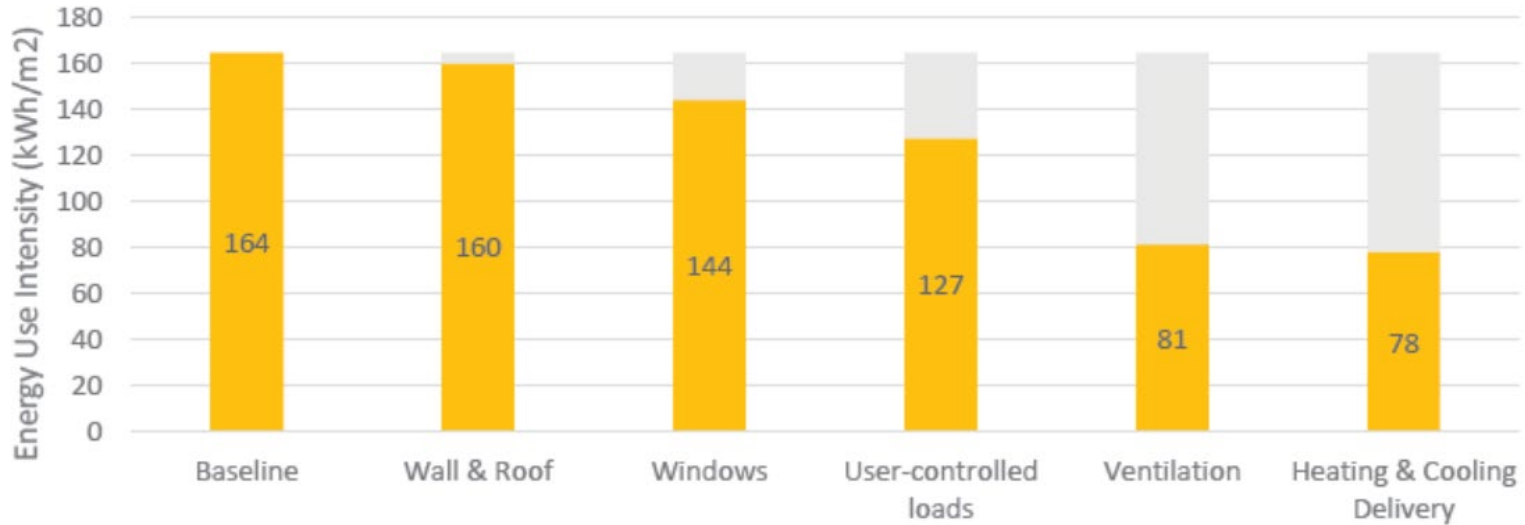




# ENERGY INTENSITY (KWH/M2YR)



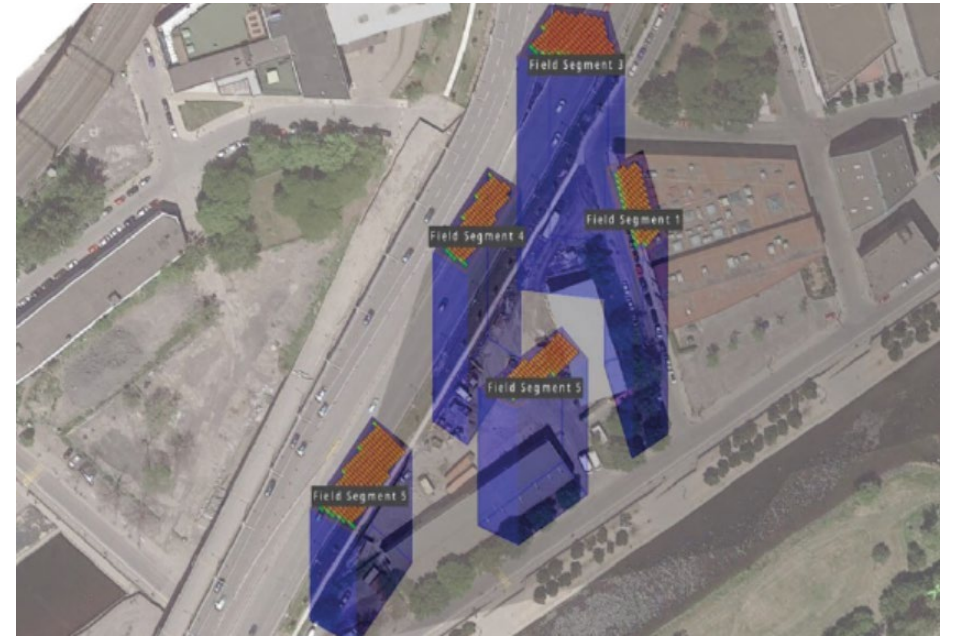
## ENERGY SAVINGS MEASURES



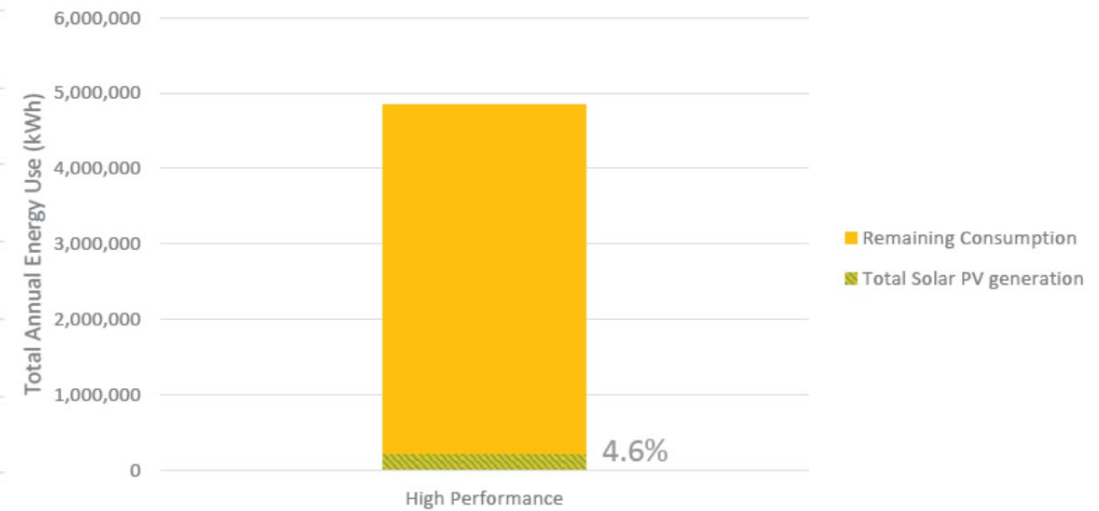
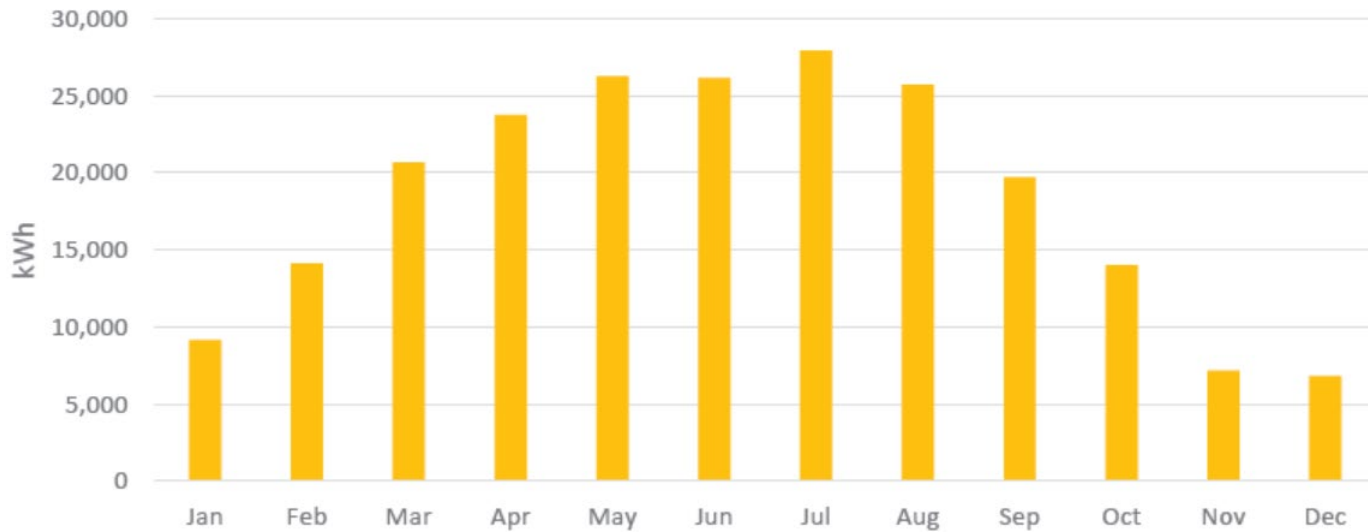
	U-values W/m <sup>2</sup> K	
	CANOE	Minimum building code 2015, 9.36.2.6
Roof	0,09	0,21
Ext. Walls	0,14	0,32
Ground slab	0,19	0,51
Windows	0,8	1,6



# PHOTOVOLTAICS ON ROOFS



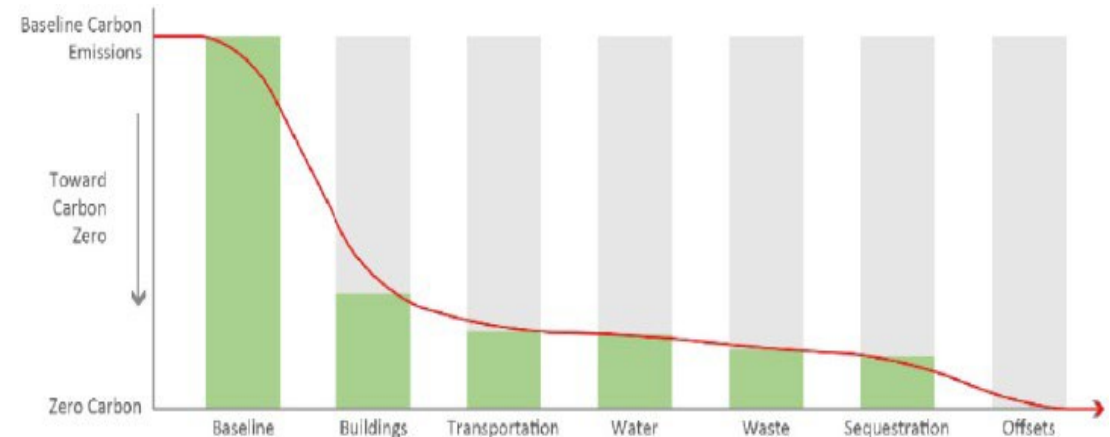
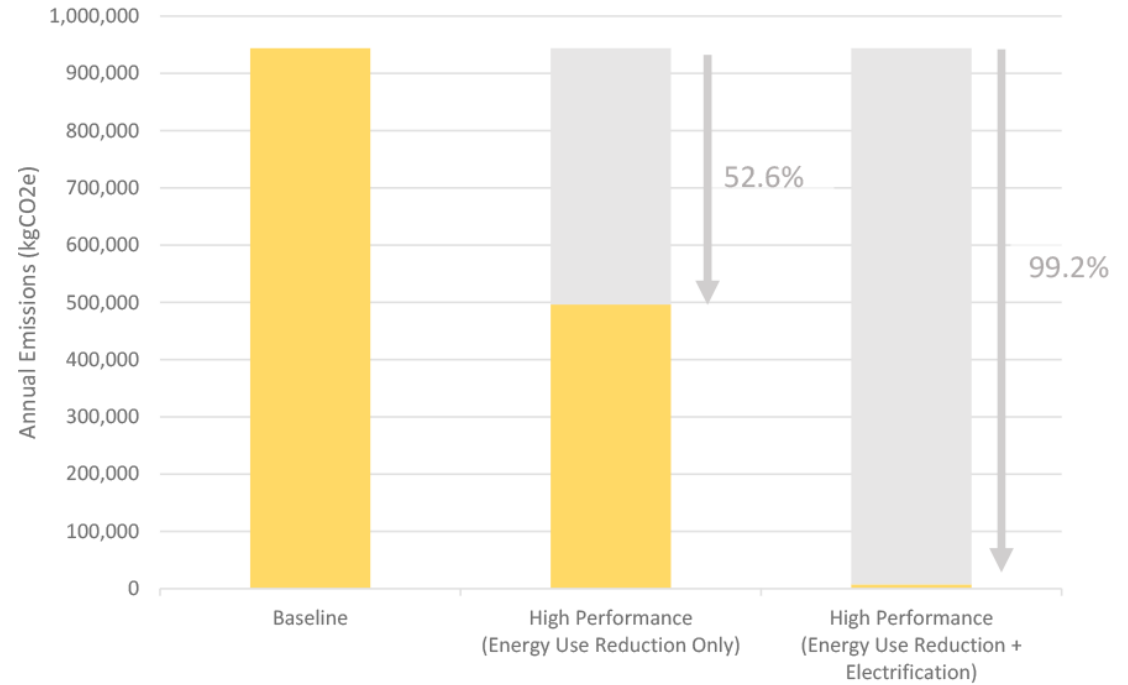
### Monthly Solar PV Production



# OVERALL CARBON BALANCE

	Baseline	High performance + electrification	Total reduction
Total electricity consumption (MWh)	5051	4847	
Total gas consumption (MWh)	5174	0	
Total energy consumption	10 225	4847	53%
Total emissions from electricity (T)	8,1	7,8	
Total emissions from gas (T)	936,2	0	
Total emissions (T)	944,2	7,8	99,2%
Offset from PV (T)	0,354	0,354	
Remaining emissions (T)	943,8	7,4	99,2%
Percent offset by PV	0,04%	4,57%	

### Annual Site Emission Reductions





# GWP OF BUILDING MATERIALS

## Structural Material impacts on GWP (kgCO2e)







”If you lose,  
don’t lose the lesson.” *Dalai Lama*

Tack

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