

## Current Part 9 Residential Targets – CZ6, CZ7A, CZ7B and CZ8

<b>Table 9.36.6.3.C</b> <b>Requirements for Buildings Located Where the Degree-Days Below 18°C Value is greater than 3999<sup>(1)</sup></b> Forming part of <a href="#">Sentence 9.36.6.3.(1)</a>			
Step	Airtightness (Air Changes per Hour at 50 Pa Pressure Differential)	Performance Requirement of <i>Building</i> Equipment and Systems	Performance Requirement of <i>Building</i> Envelope
1	N/A	EnerGuide Rating % lower than EnerGuide Reference House: not less than 0% lower energy consumption or conform to <a href="#">Subsection 9.36.5</a> .	
2	≤ 3.0	EnerGuide Rating % lower than EnerGuide Reference House: not less than 10% lower energy consumption or mechanical energy use intensity ≤ 100 kWh/(m <sup>2</sup> -year)	thermal energy demand intensity ≤ 70 kWh/(m <sup>2</sup> -year) or peak thermal load ≤ 55 W/m <sup>2</sup>
3	≤ 2.5	EnerGuide Rating % lower than EnerGuide Reference House: not less than 20% lower energy consumption or mechanical energy use intensity ≤ 85 kWh/(m <sup>2</sup> -year)	thermal energy demand intensity ≤ 60 kWh/(m <sup>2</sup> -year) or peak thermal load ≤ 50 W/m <sup>2</sup>
4	≤ 1.5	EnerGuide Rating % lower than EnerGuide Reference House: not less than 40% lower energy consumption or mechanical energy use intensity ≤ 55 kWh/(m <sup>2</sup> -year)	thermal energy demand intensity ≤ 50 kWh/(m <sup>2</sup> -year) or peak thermal load ≤ 45 W/m <sup>2</sup>
5	≤ 1.0	mechanical energy use intensity ≤ 25 kWh/(m <sup>2</sup> -year)	thermal energy demand intensity ≤ 15 kWh/(m <sup>2</sup> -year) or peak thermal load ≤ 10 W/m <sup>2</sup>

## Proposed Part 9 Residential Targets – CZ7A to CZ8

Climate Zone 7A

Step		Energy Model	Airtightness		Systems and Equipment			Building Envelope
			Blower Door Test	ACH <sub>50</sub>	% better than ERS reference house	MEUI <sup>(1)(2)</sup>		TEDI (kWh/m <sup>2</sup> -year)
1	✓	✓	Report Score	0%	Report Score		Report Score	
2	✓	✓	≤ 3.0	10%	OR	See Below	80	
3	✓	✓	≤ 2.5	20%	OR	See Below	70	
4	✓	✓	≤ 1.5	40%	OR	See Below	55	
5	✓	✓	≤ 1.0	n/a		See Below	35	

MEUI Target for Buildings Designed and Constructed with NO Cooling System (kWh/m <sup>2</sup> -year)						
Step	Floor Area					
	<50	<75	<120	<165	<210	≥210
2	185	170	140	125	115	110
3	165	145	120	108	98	95
4	120	110	90	78	70	70
5	95	85	70	60	55	55

MEUI Target for Buildings Designed and Constructed with Cooling System (kWh/m <sup>2</sup> -year)						
Step	Floor Area					
	<50	<75	<120	<165	<210	≥210
2	220	198	158	135	123	115
3	200	173	138	118	105	100
4	155	138	108	88	78	75
5	130	113	88	70	63	60

Climate Zone 7B



Climate Zone 7B (Fort Nelson, Southwestern Parts of Northern Rockies, Northern Peace River Region, Dease Lake)

Proposed MEUI and TEDI targets

Step	Energy Model	Airtightness		Systems and Equipment			Building Envelope
		Blower Door Test	ACH <sub>50</sub>	% better than ERS reference house	MEUI <sup>(1)(2)</sup>		TEDI (kWh/m <sup>2</sup> -year)
1	✓	✓	Report Score	0%	Report Score		Report Score
2	✓	✓	≤ 3.0	10%	OR	See Below	100
3	✓	✓	≤ 2.5	20%	OR	See Below	90
4	✓	✓	≤ 1.5	40%	OR	See Below	65
5	✓	✓	≤ 1.0	n/a		See Below	50

Step	Floor Area					
	<50	<75	<120	<165	<210	≥210
2	205	190	160	145	135	130
3	185	165	140	128	118	115
4	135	125	105	93	85	85
5	105	95	80	70	65	65

Step	Floor Area					
	<50	<75	<120	<165	<210	≥210
2	240	218	178	155	143	135
3	220	193	158	138	125	120
4	170	153	123	103	93	90
5	140	123	98	80	73	70

Climate Zone 8



Climate Zone 8 (Smith River and Northeast Corner of Northern Rockies, beyond Fort Nelson)  
Proposed MEUI and TEDI targets

Step	Energy Model	Airtightness		Systems and Equipment			Building Envelope
		Blower Door Test	ACH <sub>50</sub>	% better than ERS reference house	MEUI <sup>(1)(2)</sup>		TEDI (kWh/m <sup>2</sup> -year)
1	✓	✓	Report Score	0%	Report Score		Report Score
2	✓	✓	≤ 3.0	10%	OR	See Below	120
3	✓	✓	≤ 2.5	20%	OR	See Below	105
4	✓	✓	≤ 1.5	40%	OR	See Below	80
5	✓	✓	≤ 1.0	n/a		See Below	60

Step	Floor Area					
	<50	<75	<120	<165	<210	≥210
2	225	210	180	165	155	150
3	200	180	155	143	133	130
4	150	140	120	108	100	100
5	115	105	90	80	75	75

Step	Floor Area					
	<50	<75	<120	<165	<210	≥210
2	260	238	198	175	163	155
3	235	208	173	153	140	135
4	185	168	138	118	108	105
5	150	133	108	90	83	80

## Costing data

### Climate Zone 7A

Original Lowest Incremental Capital Cost (2017)

Archetype	Step	CZ7A	Archetype	Step	CZ7A
		Original			Original
10 Unit MURB	1	0.1%	Large SFD	1	0.1%
	2	0.2%		2	-0.2%
	3	0.1%		3	-0.1%
	4	0.7%		4	2.4%
	5	--		5	15.4%
6 Unit Row House	1	0.2%	Medium SFD	1	0.3%
	2	0.4%		2	-0.2%
	3	0.6%		3	0.9%
	4	2.3%		4	2.7%
	5	--		5	12.1%
Quadplex	1	0.3%	Small SFD	1	0.6%
	2	1.4%		2	6.7%
	3	2.4%		3	12.5%
	4	5.8%		4	16.2%
	5	--		5	--

Updated Lowest Incremental Capital Cost (2018)

Archetype	Step	CZ7A	Archetype	Step	CZ7A
		Updated			Updated
10 Unit MURB	1	0.1%	Large SFD	1	0.2%
	2	0.6%		2	-0.2%
	3	0.5%		3	0.4%
	4	0.5%		4	0.9%
	5	1.0%		5	4.6%
6 Unit Row House	1	0.2%	Medium SFD	1	0.3%
	2	0.4%		2	-0.2%
	3	0.3%		3	0.8%
	4	1.5%		4	1.7%
	5	2.5%		5	3.4%
Quadplex	1	0.3%	Small SFD	1	0.6%
	2	0.5%		2	0.9%
	3	1.9%		3	1.5%
	4	3.2%		4	4.2%
	5	7.4%		5	11.8%

### Climate Zone 7B

Original Lowest Incremental Capital Cost (2017)

Archetype	Step	CZ7B	Archetype	Step	CZ7B
		Original			Original
10 Unit MURB	1	0.1%	Large SFD	1	0.2%
	2	0.4%		2	0.3%
	3	0.1%		3	1.6%
	4	1.4%		4	4.4%
	5	7.7%		5	17.4%
6 Unit Row House	1	0.2%	Medium SFD	1	0.3%
	2	1.2%		2	0.4%
	3	1.3%		3	2.1%
	4	3.6%		4	5.1%
	5	--		5	20.5%
Quadplex	1	0.3%	Small SFD	1	0.6%
	2	2.1%		2	11.7%
	3	4.2%		3	12.5%
	4	--		4	33.2%
	5	--		5	--

Updated Lowest Incremental Capital Cost (2018)

Archetype	Step	CZ7B	Archetype	Step	CZ7B
		Updated			Updated
10 Unit MURB	1	0.1%	Large SFD	1	0.2%
	2	0.5%		2	0.2%
	3	0.2%		3	0.4%
	4	0.2%		4	0.9%
	5	1.0%		5	3.6%
6 Unit Row House	1	0.2%	Medium SFD	1	0.3%
	2	0.4%		2	-0.2%
	3	0.0%		3	0.4%
	4	1.4%		4	1.5%
	5	2.7%		5	3.8%
Quadplex	1	0.3%	Small SFD	1	0.6%
	2	0.2%		2	0.8%
	3	1.7%		3	2.6%
	4	3.1%		4	5.2%
	5	7.4%		5	13.1%

Climate Zone 8

**Original Lowest Incremental Capital Cost (2017)**

Archetype	Step	CZ8	Archetype	Step	CZ8
		Original			Original
<b>10 Unit MURB</b>	1	0.1%	<b>Large SFD</b>	1	0.2%
	2	0.8%		2	1.5%
	3	0.6%		3	2.8%
	4	2.1%		4	10.3%
	5	8.7%		5	--
<b>6 Unit Row House</b>	1	0.2%	<b>Medium SFD</b>	1	0.3%
	2	2.0%		2	2.6%
	3	1.7%		3	3.3%
	4	5.7%		4	9.5%
	5	13.0%		5	20.5%
<b>Quadplex</b>	1	0.3%	<b>Small SFD</b>	1	0.6%
	2	--		2	12.1%
	3	--		3	32.7%
	4	--		4	33.1%
	5	--		5	--

**Updated Lowest Incremental Capital Cost (2018)**

Archetype	Step	CZ8	Archetype	Step	CZ8
		Updated			Updated
<b>10 Unit MURB</b>	1	0.1%	<b>Large SFD</b>	1	0.2%
	2	0.7%		2	1.2%
	3	0.2%		3	0.3%
	4	0.2%		4	0.5%
	5	1.2%		5	3.5%
<b>6 Unit Row House</b>	1	0.2%	<b>Medium SFD</b>	1	0.3%
	2	0.2%		2	-0.1%
	3	0.2%		3	0.0%
	4	1.0%		4	1.1%
	5	2.6%		5	3.5%
<b>Quadplex</b>	1	0.3%	<b>Small SFD</b>	1	0.6%
	2	0.2%		2	4.4%
	3	1.8%		3	2.7%
	4	3.0%		4	4.9%
	5	7.3%		5	12.3%