



CITY OF SURREY – ELECTRICAL SECTION

May 2021

Electrical Demand Load Calculation

Single Family Dwelling & Detached Dwelling Unit

This form will not be collected from site and must be submitted with a CAF at the time of a service connection request to e.inspections@surrey.ca. Current BC Electrical Code and BCSA Bulletin IB-EL 2014-01 Take Precedence

Permit # : _____ Address : _____ Date : _____

Contractor : _____ FSR : _____ FSR # : _____ Signature: _____

❖	
Basic load plus each 90m ² of remainder or portion of x 1000w	(House) 5000 + _____ w
1 st Range _____ kw (up to 12 kw remainder @40%)	(House) 6000+ _____ w
Electric Heating	(House) _____ w
All Air Conditioning Loads	(House) @ 100% _____ w
Any Electric Vehicle Charging equipment	(House) @ 100% _____ w
Other loads (100% demand for tank-less water heaters, steamers, swimming pools, hot tubs and spas)	
House Feeder Conductor Type <input type="checkbox"/> (CU) <input type="checkbox"/> (AL)	
House Feeder Conductor Size _____ (kcmil/AWG)	

House (minimum 24 000w or calculated) (House) _____ w

❖	
Detached Dwelling Unit - Basic load plus each 90m ² of remainder or portion of x 1000w	(Suite) 5000 + _____ w
Range _____ kw (up to 12 kw remainder @40%)	(Suite) 6000 + _____ w
Any Electric Heating	(Suite) _____ w
Other loads	
Suite Feeder Conductor Type <input type="checkbox"/> (CU) <input type="checkbox"/> (AL)	
Suite Feeder Conductor Size _____ (kcmil/AWG)	

Detached Dwelling Unit (minimum 14 400w, Greater than 80 m² 24 000w or calculated) (Suite) _____ w

❖	
House (subtract heating load if used) = _____ w	@ 100% _____ w
Detached Dwelling Unit (subtract heating load if used) = _____ w	@ 65 % _____ w

Total Demand with Heating = _____ Amp
(Electric Heating 1st 10KW@100% remainder @75%)

Service Conductor Type (CU) (AL)
 Service Conductor Size _____ (kcmil/AWG)