

# **HYDRO OTTAWA**

## **Conditions of Service**

### **Version 7 (April 2019)**

#### **APPENDIX F**

##### **Table A**

**Underground Primary Service Connection –  
Overhead Primary Line (Radial, Dual Radial and Loop)**

##### **Table B**

**Underground Primary Service Connection –  
Underground Feeder (Loop)**

# Appendix F: Table A – Underground Primary Service Connection – Overhead Primary Line (Radial, Dual Radial and Loop)

	Distribution Voltage (kV)						
	4.16 <sup>GW</sup>	8.32 <sup>GW</sup>	13.2 <sup>GW</sup>	13.2 <sup>Δ</sup>	27.6 <sup>GW</sup>	44 <sup>Δ</sup>	
Maximum 3Ø Primary Circuit Service Entrance Supply (kVA)	300 (Note 1)	1,000 (Note 1)	1,500 (Note 1)	8,000 (Note 1)	9,000 (Note 1)	15,000 (Note 1)	
Maximum 1Ø Primary Circuit Service Entrance Supply (kVA) (Note 8)	100	167	167	N/A	167	N/A	
Type of Supply (radial, dual radial or looped) (Note 3)	Radial	Radial	Radial	Dual Radial/ Loop	Radial/ Loop	Radial	<b>Secondary Voltage (V)</b>
Max Size of Hydro Ottawa Supplied 3Ø Vault Transformer Bank per Customer per Primary Circuit (kVA) (Note 1, 5, 6, 7 & 11)	300	1,000	1,500	1,500	750	N/A (Note 5)	<b>120/208</b> (Note 9)
	300	1,000	1,500	4,500	2,250	N/A (Note 5)	<b>347/600</b>
Max Size of Hydro Ottawa Supplied 1Ø Vault Transformer per Customer per Primary Circuit (kVA) (Note 5, 7 & 8)	100	167	167	N/A	167	N/A	<b>120/240</b>
Max Size of Hydro Ottawa Supplied 3Ø Pad-mounted Transformer per Customer per Primary Circuit (kVA) (Note 1, 4, 5, 7 & 11)	300	500	500	N/A	500	N/A (Note 5)	<b>120/208</b> (Note 9)
	300	1,000	1,500	N/A	2,500		<b>347/600</b>
Max Size of Hydro Ottawa Supplied 1Ø Pad-mounted Transformer per Customer per Primary Circuit (kVA) (Note 4, 5, 7 & 8)	100	167	167	N/A	167	N/A	<b>120/240</b>

**Notes:**

1. The provision of three-phase Service from an overhead feeder shall only be allowed in areas where the Distribution System can accommodate the proposed Service. Contact Hydro Ottawa to discuss your requirements.
2. GW = 4 wire grounded wye primary configuration and Δ = 3 wire delta primary configuration.
3. Dual radial and loop supplies are defined as two supplies to one or more devices.
4. Availability of pad-mounted transformers is restricted within specific areas of the urban core.
5. The Customer shall own non-Hydro Ottawa standard size transformers.
6. For installations greater than the maximum vault bank specified, multiple banks are required.
7. A Hydro Ottawa owned sectionalizing protection device (fused switch/switchgear) must be installed prior to transformation equipment.
8. Up to a maximum of 100% rated 600A @ 120/240V for a single Service entrance main switch supplied from a pad-mounted transformer.
9. 120/208V primary service connections are limited to pad-mounted and vault transformer configurations.
10. Maximum motor size for starting current on each primary circuit is determined by Hydro Ottawa Power Quality Guideline ECG0008 (applicable to each Service).
11. Three-phase pad-mounted and vault transformers are only available on customer property.

# Appendix F: Table B – Underground Primary Service Connection – Underground Feeder (Loop)

	Distribution Voltage (kV)					Secondary Voltage (V)
	4.16 <sup>GW</sup>	8.32 <sup>GW</sup>	13.2 <sup>GW</sup>	13.2 <sup>Δ</sup>	27.6 <sup>GW</sup>	
Maximum 3Ø Primary Circuit Service Entrance Supply (kVA)	300 (Note 1)	1,000 (Note 1)	1,500 (Note 1)	8,000 (Note 1)	9,000 (Note 1)	
Maximum 1Ø Primary Circuit Service Entrance Supply (kVA) (Note 8)	100	167	167	N/A	167	
Type of Supply (radial, dual radial or looped) (Note 3)	Loop	Loop	Loop	Loop	Loop	
Max Size of Hydro Ottawa Supplied 3Ø Vault Transformer Bank per Customer per Primary Circuit (kVA) (Note 1, 5, 6, 7 & 11)	300	1,000	1,500	1,500	750	120/208 (Note 9)
	300	1,000	1,500	4,500	2,250	347/600
Max Size of Hydro Ottawa Supplied 1Ø Vault Transformer per Customer per Primary Circuit (kVA) (Note 5, 7 & 8)	100	167	167	N/A	167	120/240
Max Size of Hydro Ottawa Supplied 3Ø Pad-mounted Transformer per Customer per Primary Circuit (kVA) (Note 1, 4, 5, 7 & 11)	300	500	500	N/A	500	120/208 (Note 9)
	300	1,000	1,500	N/A	2,500	347/600
Max Size of Hydro Ottawa Supplied 1Ø Pad-mounted Transformer per Customer per Primary Circuit (kVA) (Note 4, 5, 7, & 8)	100	167	167	N/A	167	120/240

**Notes:**

1. The provision of three-phase Service from an underground feeder shall only be allowed in areas where the Distribution System can accommodate the proposed Service. Contact Hydro Ottawa to discuss your requirements.
2. GW = 4 wire grounded wye primary configuration and Δ = 3 wire delta primary configuration.
3. Dual radial and loop supplies are defined as two supplies to one or more devices.
4. Availability of pad-mounted transformers is restricted within specific areas of the urban core.
5. The Customer shall own non-Hydro Ottawa standard size transformers.
6. For installations greater than the maximum vault bank specified, multiple banks are required.
7. A Hydro Ottawa owned sectionalizing protection device (fused switch/switchgear) must be installed prior to transformation equipment.
8. Up to a maximum of 100% rated 600A @ 120/240V for a single Service entrance main switch supplied from a pad-mounted transformer.
9. 120/208V primary service connections are limited to pad-mounted and vault transformer configurations.
10. Maximum motor size for starting current on each primary circuit is determined by Hydro Ottawa Power Quality Guideline ECG0008 (applicable to each Service).
11. Three-phase pad-mounted and vault transformers are only available on customer property.