

EXHIBIT "A"

RESIDENTIAL IMPACT FEES

POWER DEMAND AND IMPACT FEE CALCULATION

The methods used to determine the estimated power demand--kW impact--on the power system of residential customers and commercial customers are different as shown in the following sections. The power demand calculations shown in sections 3.1.2.1 and 3.1.2.3 are used in calculating the Impact Fee in sections 3.1.2.2 and 3.1.2.4. A summary of recommended Impact Fee charges for the Residential and Commercial customer classes is provided in Table 7 and in Table 8.

RESIDENTIAL POWER DEMAND

The estimated power demand--kW impact--of residential customers is based on typical usage rather than on electric panel size. There are two residential service levels recognized by Hyrum City Power & Light—200-amp service and 400-amp service. Typical historic power demand seen in the experience of Hyrum City Power & Light has been about 5 kW on average for a 200-amp residential service and about 10 kW on average on a 400-amp residential service. Power factor on residential services is typically about 95%.

RESIDENTIAL IMPACT FEE CALCULATION

Recommended residential Impact Fee is calculated based on Equation 1:

Equation 1

Single Phase Residential Calculation

$$\frac{\text{Typical Residential Demand (kW)}}{\text{Power Factor}} \times \text{Impact Fee Rate (\$/kVA)} = \text{Incurred Fee}$$

Example 200A 120/240V Single Phase Residential Service

For 200A Residential Service: $\frac{5\text{kW}}{0.95} \times \$240.39/\text{kVA} = \$1,265$

Table 7 shows the recommended Impact Fee charge for the two residential service levels.

Table 7. RESIDENTIAL IMPACT FEES

Residential Service Level	Typical Power Demand (kW Impact)	Power Factor	Est. kVA Impact	Recommended Impact Fee
0 - 200 Amp	5	95.0%	5.3	\$1,265
201 - 400 Amp	10	95.0%	10.5	\$2,530

COMMERCIAL IMPACT FEES

COMMERCIAL POWER DEMAND

Commercial customers should be assessed an impact fee amount that is based on their estimated load placing power demand on the system. The estimated power demand for commercial customer classes have been calculated using the service panel size, voltage, and panel utilization. Typical panel utilization seen in the experience of Hyrum City Power & Light has been about 40% on average. Table A in the Appendix shows the estimated power demand (column 2) for commercial customers with various typical service panel sizes (column 1).

COMMERCIAL IMPACT FEE CALCULATIONS

The calculation of the Impact Fee charges for commercial customer classes are based on the following Equation 2 and Equation 3:

Equation 2

Single Phase Calculation

$$\frac{\text{Main Panel Size} \times \text{Line to Line Voltage} \times \text{Panel Utilization}}{1000} \times \text{Impact Fee Rate} = \text{Incurred Fee}$$

Example 200A 120/240V Single Phase Service

$$\text{For 200A Single Phase Service: } \frac{200A \times 240V \times 0.4}{1000} \times \$240.39/kVA = \$4,615$$

Equation 3

3 Phase Calculation

$$\sqrt{3} \times \frac{\text{Main Panel Size} \times \text{Line to Line Voltage} \times \text{Panel Utilization}}{1000} \times \text{Impact Fee Rate} = \text{Incurred Fee}$$

Example 600A 120/208V Three Phase Service

$$600A \text{ Three Phase Service: } \sqrt{3} \times \frac{600A \times 208V \times 0.4}{1000} \times \$240.39/kVA = \$20,785$$

A selected sample of recommended Impact Fee charges for commercial class customers is shown in Table 8. A complete table of recommended Impact Fee charges for commercial class customers is included in Table A in the Appendix.

Table 8. SELECTED COMMERCIAL IMPACT FEES

Type of Commercial Service	Typical Power Demand (kW Impact)	Power Factor	Est. kVA Impact	Recommended Impact Fee
Single Phase 120/240 V 200 Amp Panel	17.3	90.0%	19.2	\$4,615
Three Phase 120/208 V 200 Amp Panel	25.9	90.0%	28.8	\$6,928
Three Phase 277/480 V 200 Amp Panel	59.9	90.0%	66.5	\$15,989

COMMERCIAL IMPACT FEES -- Panel Utilization assumed 40%						
	Est. Power Demand (kW Impact)	Power Factor		Est. kVA Impact	Recommended Impact Fee	
Single Phase 120/240 V 200 Amp Panel	17.3	0.90		19.2	\$4,615	
Single Phase 120/240 V 400 Amp Panel	34.6	0.90		38.4	\$9,231	
Three Phase 120/208 V 200 Amp Panel	25.9	0.90		28.8	\$6,928	
Three Phase 120/208 V 400 Amp Panel	51.9	0.90		57.6	\$13,857	
Three Phase 120/208 V 600 Amp Panel	77.8	0.90		86.5	\$20,785	
Three Phase 120/208 V 800 Amp Panel	103.8	0.90		115.3	\$27,713	
Three Phase 120/208 V 1200 Amp Panel	155.6	0.90		172.9	\$41,570	
Three Phase 120/208 V 1600 Amp Panel	207.5	0.90		230.6	\$55,427	
Three Phase 277/480 V 200 Amp Panel	59.9	0.90		66.5	\$15,989	
Three Phase 277/480 V 400 Amp Panel	119.7	0.90		133.0	\$31,977	
Three Phase 277/480 V 600 Amp Panel	179.6	0.90		199.5	\$47,966	
Three Phase 277/480 V 800 Amp Panel	239.4	0.90		266.0	\$63,954	
Three Phase 277/480 V 1200 Amp Panel	359.2	0.90		399.1	\$95,931	
Three Phase 277/480 V 1600 Amp Service	478.9	0.90		532.1	\$127,908	
Three Phase 277/480 V 2000 Amp Service	598.6	0.90		665.1	\$159,885	
Three Phase 277/480 V 2500 Amp Service	748.2	0.90		831.4	\$199,857	
Three Phase 277/480 V 3000 Amp Service	897.9	0.90		997.7	\$239,828	