**ORDINANCE 24-10**

**AN ORDINANCE ADOPTING AN IMPACT FEE FACILITIES PLAN AND IMPACT FEE ANALYSIS PURSUANT TO THE UTAH CODE; PROVIDING FOR REPEALER; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.**

**WHEREAS,** Morgan City is authorized by the Utah Impact Fees Act, Utah Code Ann. § 11-36a-101 et seq. (hereinafter the "Act"), to prepare and adopt an Impact Fee Facilities Plan and Impact Fee Analysis; and

**WHEREAS,** the Active Power Engineering, LLC, has prepared an Impact Fee Facilities Plan and Impact Fee Analysis in compliance with the Act, which identify the infrastructure improvements needed to serve new development and the proportionate share of those costs attributable to new development; and

**WHEREAS,** the Impact Fee Facilities Plan and Impact Fee Analysis have been prepared by qualified professionals and reviewed by the City Council in accordance with the requirements of the Act; and

**WHEREAS,** the City has made the Impact Fee Facilities Plan and Impact Fee Analysis available to the public and has held a public hearing as required by the Act; and

**WHEREAS,** the City Council of Morgan City deems it to be in the best interest of the citizens of Morgan City to formally adopt the Impact Fee Facilities Plan and Impact Fee Analysis to guide future infrastructure planning and development decisions.

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF MORGAN, UTAH:**

**SECTION 1** **Repealer.** If any provisions of the Morgan City Code heretofore adopted are inconsistent herewith they are hereby repealed.

**SECTION 2** **Adoption of Impact Fee Facilities Plan.** The Council hereby adopts the Impact Fee Facilities Plan - 2024, attached hereto as Exhibit "A" and incorporated herein by reference. The Impact Fee Facilities Plan outlines the necessary infrastructure improvements to serve future development and the methodologies for determining the proportionate share of costs attributable to new development.

**SECTION 3** **Adoption of Impact Fee Analysis.** The Council hereby adopts the Impact Fee Analysis, attached hereto as Exhibit "B" and incorporated herein by reference. The Impact Fee Analysis provides a detailed examination of the costs of infrastructure improvements and the methodology for calculating the impact fees necessary to fund those improvements.

**SECTION 4** **Enactment of Impact Fees at Future Date.** This ordinance does not enact any impact fees at this time. The City Council reserves the right to consider and potentially enact impact fees at a future date, based on the adopted Impact Fee Facilities Plan and Impact Fee Analysis, and in accordance with applicable state law.

**SECTION 5** **Severability.** If any section, subsection, sentence, clause or phrase of this ordinance is declared invalid or unconstitutional by a court of competent jurisdiction, said portion shall be severed and such declaration shall not affect the validity of the remainder of this ordinance.

**SECTION 6** **Effective Date.** This ordinance shall become effective immediately upon posting.

**PASSED AND ADOPTED by the City Council of Morgan, Utah, this 23rd day of July, 2024.**

SGale
STEVE GALE, Mayor

ATTEST:

Denise Woods
DENISE WOODS, City Recorder

MORGAN CITY, UTAH
CORPORATE SEAL

**CITY COUNCIL VOTE AS RECORDED:**

| | Aye | Nay | Excused |
|---|---|---|---|
| Councilmember London | X | ___ | ___ |
| Councilmember Wardell | X | ___ | ___ |
| Councilmember Turner | ___ | ___ | X |
| Councilmember Richins | X | ___ | ___ |
| Councilmember Alexander | X | ___ | ___ |

**(In the event of a tie vote of the Council):**

| | | |
|---|---|---|
| Mayor Gale | ___ | ___ |

**EXHIBIT "A"**

# MORGAN CITY
# Impact Fee Facilities Plan, and Impact Fee Analysis

## 2024

Prepared by: Active Power Engineering, LLC

Michael R. Anderson, P.E.

ACTIVE POWER ENGINEERING

Spanish Fork, UT

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# TABLE OF CONTENTS

EXECUTIVE SUMMARY ..... i
1 IMPACT FEE STUDY--GENERAL ..... 1
1.1 INTRODUCTION ..... 1
1.2 IMPACT FEE STATUTE REQUIREMENTS ..... 1
2 IMPACT FEE FACILITIES PLAN (IFFP) FOR MORGAN CITY POWER SYSTEM ..... 2
2.1 GENERAL ..... 2
2.2 POPULATION AND GROWTH ..... 3
2.2.1 POPULATION FORECAST ..... 4
2.2.2 ELECTRIC CUSTOMERS ..... 4
2.2.3 GROWTH AREAS ..... 4
2.2.4 PEAK POWER DEMNAD/LOAD FORECAST ..... 5
2.3 EXISTING INFRASTRUCTURE CAPACITIES ..... 6
2.3.1 POWER SYSTEM SOURCE—TRANSMISSION AND DISTRIBUTION MAINLINES ..... 6
2.3.2 DISTRIBUTION SYSTEM ..... 7
2.4 LEVEL OF SERVICE ..... 7
2.5 DEMANDS ON CURRENT SYSTEM ..... 9
2.6 THEORETICAL REMAINING CAPACITY ON CURRENT SYSTEM AND LIMITATIONS ..... 9
2.7 DEMANDS WITH GROWTH (LOAD GROWTH FORECAST) ..... 9
2.8 CAPITAL FACILITY ANALYSIS ..... 10
2.8.1 SYSTEM IMPROVEMENTS ..... 11
2.8.2 EQUITY AND NECESSITY OF IMPACT FEES ..... 12
2.8.3 IMPACT FEE FACILITY PLAN ..... 12
2.9 CERTIFICATION OF THE IFFP ..... 15
3 IMPACT FEE ANALYSIS (IFA) ..... 1
3.1 GENERAL ..... 1
3.1.1 IMPACT FEE RATE CALCULATION ..... 1
3.1.2 POWER DEMAND AND IMPACT FEE CALCULATION ..... 3
3.2 CERTIFICATION OF THE IFA ..... 7

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# EXECUTIVE SUMMARY

**General:**

This report documents the study performed by Active Power Engineering, LLC, for Morgan City Power to document an Electric Impact Fee Analysis.

The Utah impact fee statute Title 11 Chapter 36a "Impact Fee Act" requires the city imposing impact fees to (1) prepare an Impact Fee Facilities Plan, (2) perform an Impact Fee Analysis, (3) calculate the Impact Fee(s), and (4) certify the Impact Fee Facilities Plan and Impact Fee Analysis.

This report includes an Impact Fee Facilities Plan, Impact Fee Analysis, calculated Impact Fees, and certification of the Impact Fee Facilities Plan and Impact Fee Analysis.

This report provides the background, requirements, basis, projects, and analysis for new customer electric impact fees that must be collected for new electric service to be connected. The impact fee applies to new services and upgraded services. The 10-year period 2023 to 2032 was used in this impact fee analysis.

**Impact Fee Facilities Plan (IFFP):**

According to the Statute, the "Impact Fee Facilities Plan ("IFFP") shall identify (a) demands placed upon existing public facilities by new development activity; and (b) the proposed means by which the political subdivision will meet those demands."

The IFFP is included in this analysis, and references and is consistent with the Morgan City 10-year Capital Facility Plan (CFP) 2023-2032, February 2024. The projected demand placed upon the Morgan City electric power system is directly tied to the forecasted population growth. Morgan's population growth is estimated to grow at 1% per year, according to Morgan City General Plan information. Population from the 2020 census was 4,071. Power demand growth rate has averaged about 2.3% and is projected to continue 2.3% per year going forward. Morgan City power system load was 6,148 kW in 2022. Morgan City is forecast to add 5,330 kW to 5,550 kW of new development power demand (above the 6,148 kW all-time system peak) between 2024 and 2032, reaching about 11,700 kW in 2032.

To serve the projected power demand Morgan City Power needs to make some capital facility improvements in the existing power system. Projects to increase capacity to meet the projected power demand include reconductor of mainlines, installing capacitors, and providing generation. These facilities maintain the level of service for customers of the Morgan City Power system as the growth contributes to increased electric load. The total estimated cost of these projects assigned to the IFFP is about $3,185,440. These projects add about 5,844 kilovolt-amps (kVA) of system capacity.

**Impact Fee Analysis (IFA):**
The Impact Fee Analysis ("IFA") portion of the Statute states that (1) "each local political subdivision or private entity intending to impose an impact fee shall prepare a written analysis of each impact fee:" and (2) "shall also prepare a summary of the impact fee analysis designed to be understood by a lay person."

Electric impact fees in Morgan City are calculated using incremental costs. This method determines what new developments pay for improvements or a portion of the improvements needed to serve them. This is a "capacity-based" fee structure. In this way existing customers are not burdened by the new growth.

The Impact Fee Analysis involves three basic steps or sub-analyses: (1) determining an Impact Fee rate that applies a cost per each kVA of new power demand from development; (2) determining the kVA power demand for the typical customer types and service levels; and (3) calculating the proposed Impact Fee.

The Impact Fee rate was calculated by dividing the IFFP total project cost (adjusted for construction cost escalation, and any interest earned on collected impact fees) by the added system capacity. The Impact Fee rate has been calculated to be $545.08/kVA.

The kVA power demand for residential customers was determined from typical service panel utilization factors experienced by Morgan City on 100-amp to 400-amp services. The kVA power demand for commercial customers was calculated using the service panel size, type (i.e., single phase or three phase), voltage, and the panel utilization factors typical for two categories of commercial customers. Two categories of commercial customers are used because some commercial customers, such as industrial, heavy manufacturing, data centers, electric vehicle chargers, quarries, and crushers, are more energy intensive and have been determined to have higher panel utilization factors.

The recommended Impact Fees calculated using the Impact Fee rate and typical customer power demand are shown below. Table A shows recommended residential impact fees. Table B shows recommended commercial customer impact fees for typical commercial customers. Table C shows recommended impact fees for energy intensive commercial customers.

*Table A--Residential Customer Power Demand and Recommended Impact Fee*

| RESIDENTIAL IMPACT FEES -- *Panel Utilization assumed 12.5%* | | | | | | |
|---|---|---|---|---|---|---|
| | Est. kW Impact | Power Factor | Est. kVA Impact | Recommended Impact Fee | Prior Impact Fee | % Change |
| 100 Amp Panel | 2.9 | 0.95 | 3.0 | $1,635 | $538.02 | 204% |
| 125 Amp Panel | 3.6 | 0.95 | 3.8 | $2,044 | $672.51 | 204% |
| 150 Amp Panel | 4.3 | 0.95 | 4.5 | $2,453 | $807.00 | 204% |
| 200 Amp Panel | 5.7 | 0.95 | 6.0 | $3,270 | $1,076.00 | 204% |
| 225 Amp Panel | 6.4 | 0.95 | 6.75 | $3,679 | $1,210.51 | 204% |
| 320 Amp Panel | 9.1 | 0.95 | 9.6 | $5,233 | n/a | n/a |
| 400 Amp Panel | 11.4 | 0.95 | 12.0 | $6,541 | $2,152.03 | 204% |

*Table B--Commercial Customer Power Demand and Recommended Impact Fee*

| COMMERCIAL IMPACT FEES -- *Panel Utilization assumed 25%* | Est. Power Demand (kW Impact) | Power Factor | Est. kVA Impact | Recommended Impact Fee | Prior Impact Fee | % Change |
|---|---|---|---|---|---|---|
| Single Phase 120/240 V 200 Amp Panel | 10.8 | 0.90 | 12 | $6,541 | $1,076.00 | 508% |
| Single Phase 120/240 V 400 Amp Panel | 21.6 | 0.90 | 24 | $13,082 | $2,152.03 | 508% |
| Three Phase 120/208 V 200 Amp Panel | 16.2 | 0.90 | 18.0 | $9,819 | $1,681.28 | 484% |
| Three Phase 120/208 V 400 Amp Panel | 32.4 | 0.90 | 36.0 | $19,637 | $3,362.55 | 484% |
| Three Phase 120/208 V 600 Amp Panel | 48.6 | 0.90 | 54.0 | $29,456 | $5,043.84 | 484% |
| Three Phase 120/208 V 800 Amp Panel | 64.8 | 0.90 | 72.1 | $39,275 | $6,725.12 | 484% |
| Three Phase 120/208 V 1200 Amp Panel | 97.3 | 0.90 | 108.1 | $58,912 | $11,208.52 | 426% |
| Three Phase 120/208 V 1600 Amp Panel | 129.7 | 0.90 | 144.1 | $78,550 | $16,812.77 | 367% |
| Three Phase 120/240 V 100 Amp Panel | 9.4 | 0.90 | 10.4 | $5,665 | n/a | n/a |
| Three Phase 120/240 V 200 Amp Panel | 18.7 | 0.90 | 20.8 | $11,329 | $1,681.28 | 574% |
| Three Phase 120/240 V 400 Amp Panel | 37.4 | 0.90 | 41.6 | $22,659 | $3,362.55 | 574% |
| Three Phase 240/480 V 100 Amp Panel | 18.7 | 0.90 | 20.8 | $11,329 | $1,681.28 | 574% |
| Three Phase 240/480 V 200 Amp Panel | 37.4 | 0.90 | 41.6 | $22,659 | $3,362.55 | 574% |
| Three Phase 240/480 V 400 Amp Panel | 74.8 | 0.90 | 83.1 | $45,317 | $6,725.12 | 574% |

*Table B--Commercial Customer Power Demand and Recommended Impact Fee (cont.)*

| COMMERCIAL IMPACT FEES -- *Panel Utilization assumed 25%* | Est. Power Demand (kW Impact) | Power Factor | Est. kVA Impact | Recommended Impact Fee | Prior Impact Fee | % Change |
|---|---|---|---|---|---|---|
| Three Phase 277/480 V 200 Amp Panel | 37.4 | 0.90 | 41.6 | $22,659 | $3,362.55 | 574% |
| Three Phase 277/480 V 400 Amp Panel | 74.8 | 0.90 | 83.1 | $45,317 | $6,725.12 | 574% |
| Three Phase 277/480 V 600 Amp Panel | 112.2 | 0.90 | 124.7 | $67,976 | $11,208.52 | 506% |
| Three Phase 277/480 V 800 Amp Panel | 149.6 | 0.90 | 166.3 | $90,634 | $16,812.77 | 439% |
| Three Phase 277/480 V 1200 Amp Panel | 224.5 | 0.90 | 249.4 | $135,951 | $22,417.02 | 506% |
| Three Phase 277/480 V 1600 Amp Service | 299.3 | 0.90 | 332.6 | $181,268 | n/a | n/a |
| Three Phase 277/480 V 2000 Amp Service | 374.1 | 0.90 | 415.7 | $226,586 | n/a | n/a |
| Three Phase 277/480 V 2500 Amp Service | 467.7 | 0.90 | 519.6 | $283,232 | n/a | n/a |
| Three Phase 277/480 V 3000 Amp Service | 561.2 | 0.90 | 623.5 | $339,878 | n/a | n/a |

*Table C—Energy Intensive Commercial Customer Power Demand and Recommended Impact Fee*

| COMMERCIAL IMPACT FEES (ENERGY INTENSIVE)-- *Panel Utilization assumed 40%* | | | | | | |
|---|---|---|---|---|---|---|
| | Est. Power Demand (kW Impact) | Power Factor | Est. kVA Impact | Recommended Impact Fee | Prior Impact Fee | % Change |
| Single Phase 120/240 V 200 Amp Panel | 17.3 | 0.90 | 19.2 | $10,466 | $1,076.00 | 873% |
| Single Phase 120/240 V 400 Amp Panel | 34.6 | 0.90 | 38.4 | $20,931 | $2,152.03 | 873% |
| Three Phase 120/208 V 200 Amp Panel | 25.9 | 0.90 | 28.8 | $15,710 | $1,681.28 | 834% |
| Three Phase 120/208 V 400 Amp Panel | 51.9 | 0.90 | 57.6 | $31,420 | $3,362.55 | 834% |
| Three Phase 120/208 V 600 Amp Panel | 77.8 | 0.90 | 86.5 | $47,130 | $5,043.84 | 834% |
| Three Phase 120/208 V 800 Amp Panel | 103.8 | 0.90 | 115.3 | $62,840 | $6,725.12 | 834% |
| Three Phase 120/208 V 1200 Amp Panel | 155.6 | 0.90 | 172.9 | $94,260 | $11,208.52 | 741% |
| Three Phase 120/208 V 1600 Amp Panel | 207.5 | 0.90 | 230.6 | $125,679 | $16,812.77 | 648% |
| Three Phase 120/240 V 100 Amp Panel | 15.0 | 0.90 | 16.6 | $9,063 | n/a | n/a |
| Three Phase 120/240 V 200 Amp Panel | 29.9 | 0.90 | 33.3 | $18,127 | $1,681.28 | 978% |
| Three Phase 120/240 V 400 Amp Panel | 59.9 | 0.90 | 66.5 | $36,254 | $3,362.55 | 978% |
| Three Phase 240/480 V 100 Amp Panel | 29.9 | 0.90 | 33.3 | $18,127 | $1,681.28 | 978% |
| Three Phase 240/480 V 200 Amp Panel | 59.9 | 0.90 | 66.5 | $36,254 | $3,362.55 | 978% |
| Three Phase 240/480 V 400 Amp Panel | 119.7 | 0.90 | 133.0 | $72,507 | $6,725.12 | 978% |

*Table C—Energy Intensive Commercial Customer Power Demand and Recommended Impact Fee (cont.)*

| COMMERCIAL IMPACT FEES (ENERGY INTENSIVE)-- *Panel Utilization assumed 40%* | | | | | | |
|---|---|---|---|---|---|---|
| | Est. Power Demand (kW Impact) | Power Factor | Est. kVA Impact | Recommended Impact Fee | Prior Impact Fee | % Change |
| Three Phase 277/480 V 200 Amp Panel | 59.9 | 0.90 | 66.5 | $36,254 | $3,362.55 | 978% |
| Three Phase 277/480 V 400 Amp Panel | 119.7 | 0.90 | 133.0 | $72,507 | $6,725.12 | 978% |
| Three Phase 277/480 V 600 Amp Panel | 179.6 | 0.90 | 199.5 | $108,761 | $11,208.52 | 870% |
| Three Phase 277/480 V 800 Amp Panel | 239.4 | 0.90 | 266.0 | $145,015 | $16,812.77 | 763% |
| Three Phase 277/480 V 1200 Amp Panel | 359.2 | 0.90 | 399.1 | $217,522 | $22,417.02 | 870% |
| Three Phase 277/480 V 1600 Amp Service | 478.9 | 0.90 | 532.1 | $290,029 | n/a | n/a |
| Three Phase 277/480 V 2000 Amp Service | 598.6 | 0.90 | 665.1 | $362,537 | n/a | n/a |
| Three Phase 277/480 V 2500 Amp Service | 748.2 | 0.90 | 831.4 | $453,171 | n/a | n/a |
| Three Phase 277/480 V 3000 Amp Service | 897.9 | 0.90 | 997.7 | $543,805 | n/a | n/a |

**Conclusions:** The analysis documented in this report satisfies the Impact Fee Act requirements. The Electric Power Impact Fee can be implemented upon Morgan City council approval and completion of the other appropriate steps outlined in the Utah Impact Fee Act.

# 1 IMPACT FEE STUDY--GENERAL

## 1.1 INTRODUCTION

The purpose of this study is to document the Morgan City Electric Power Impact Fee Analysis. This will help the city determine an impact fee for new electrical customers. This document provides the background, requirements, basis, projects and analysis for new customer impact fees that must be collected for new electric service to be connected. The impact fee applies to new services and upgraded services.

This analysis was performed using publicly available information, information supplied by Morgan City, and spreadsheets developed for conducting this analysis. Certain assumptions about areas of development, growth rates, and needed projects were used in the analysis in arriving at the recommended impact fee. These assumptions are believed to be appropriate and reasonable for the impact fee analysis. The 10-year period 2023 to 2032 was considered in this impact fee analysis.

This analysis complies with all the requirements of the Utah "Impact Fees Act", Utah Statute U.C.A 11-36a.

The Electric Power Impact Fee can be implemented upon Morgan City council approval and completing the other appropriate steps outlined in the Impact Fees Act.

## 1.2 IMPACT FEE STATUTE REQUIREMENTS

The Utah impact fee statute requires the city imposing impact fees to (1) prepare an Impact Fee Facilities Plan, (2) perform an Impact Fee Analysis, (3) calculate the Impact Fee(s), and (4) certify the Impact Fee Facilities Plan and Impact Fee Analysis. This report documents the completion of all four of these requirements.

According to the statute, the "Impact Fee Facilities Plan ("IFFP") shall identify (a) demands placed upon existing public facilities by new development activity; and (b) the proposed means by which the political subdivision will meet those demands."

The Impact Fee Analysis ("IFA") portion of the Statute states that (1) "each local political subdivision or private entity intending to impose an impact fee shall prepare a written analysis of each impact fee:" and (2) "shall also prepare a summary of the impact fee analysis designed to be understood by a lay person."

The requirements of the IFA include identifying the estimated impacts on existing capacity and system improvements caused by the anticipated development activity. The political subdivision must also estimate the proportionate share of: (i) the costs of existing capacity that

will be recouped and (ii) the costs of the impacts on system improvements that are reasonably related to the new development activity.

The calculation of the Impact Fee may include the following:

(a) The construction contract price;

(b) The cost of acquiring land, improvements, materials, and fixtures;

(c) The cost for planning, surveying, and engineering fees for services provided for and directly related to the construction of the system improvements; and

(d) For a political subdivision, debt service charges, if the political subdivision might use impact fees as a revenue stream to pay the principal and interest on bonds, notes or other obligations issued to finance the costs of the system improvements.

Also, the calculation of the Impact Fee must be based on realistic estimates and the assumptions underlying such estimates must be disclosed in the impact fee analysis.

# 2 IMPACT FEE FACILITIES PLAN (IFFP) FOR MORGAN CITY POWER SYSTEM

## 2.1 GENERAL

Morgan City Power is a municipal electric utility serving approximately 2,052 customers in Morgan City, and the nearby adjacent area in Morgan County, Utah. The Morgan City Power system coincident peak demand was 6,148 kW measured in the summer of 2022. The utility's service area is all of Morgan City limits and additional adjacent areas of Morgan County served by Morgan City utilities. The power system consists of transmission source from Rocky Mountain at 46 kilovolts (kV) that feeds three 12.47 kV substations. A map of the city and power system is shown in Figure 1.

The Impact Fee Facilities Plan (IFFP) is developed as part of this analysis. It is based on the Morgan City 10-year Capital Facility Plan 2023-2032, February 2024, (the "Capital Facility Plan" hereafter) that has been documented and used in this analysis.

Morgan City is a member of the Utah Associated Municipal Power Systems (UAMPS) organization. UAMPS works with its member cities to obtain the power supply for their electric power and energy needs.

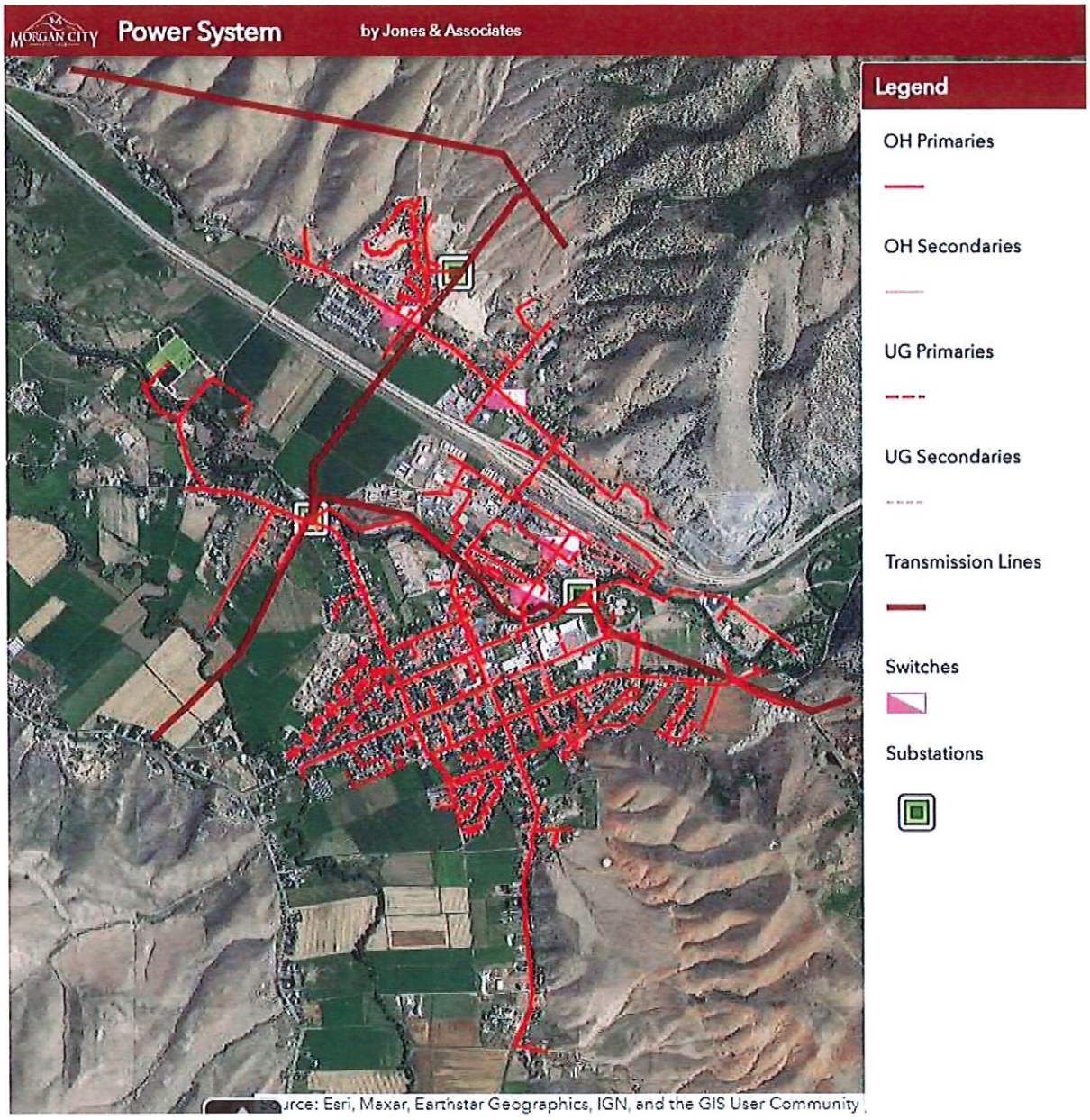


*Figure 1-Morgan City Power System Map*

## 2.2 POPULATION AND GROWTH

The population of Morgan City in 2020 according to the 2020 Census was 4,071. Population growth rate for Morgan City was 2.3%.

### 2.2.1 POPULATION FORECAST

A population growth rate of 2.3% was applied over the period 2023 to 2032 in this impact fee analysis. The estimated historic and projected future population of Morgan City is shown in Figure 2.

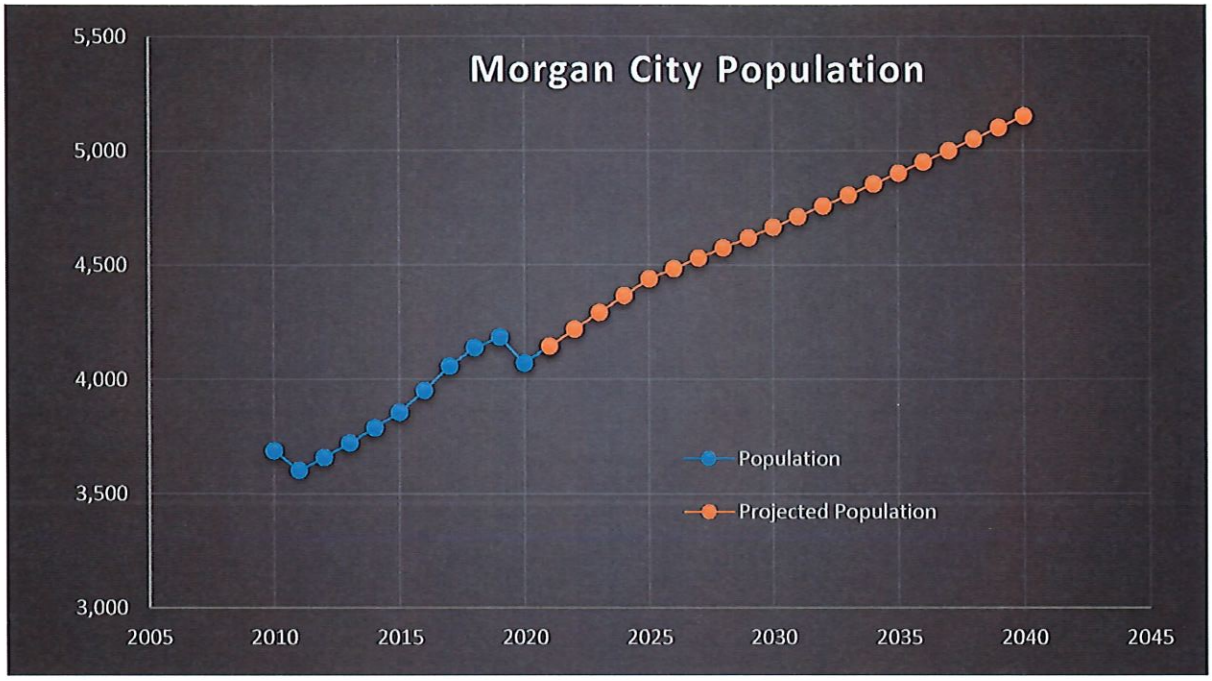


*Figure 2 – Morgan City Population and Electric Customers*

### 2.2.2 ELECTRIC CUSTOMERS

Morgan City has about 2,052 electric customers as of 2022.

### 2.2.3 GROWTH AREAS

Some areas within the city are built-out or slowly growing while others are projected to be developed and grow. The areas along the I-84 corridor, and the south and west sides of the city are projected to see the highest growth. The north side of the city will likely see some moderate growth. The types of projected 2032 growth in the city and potential future load in each area are shown on Figure 3.

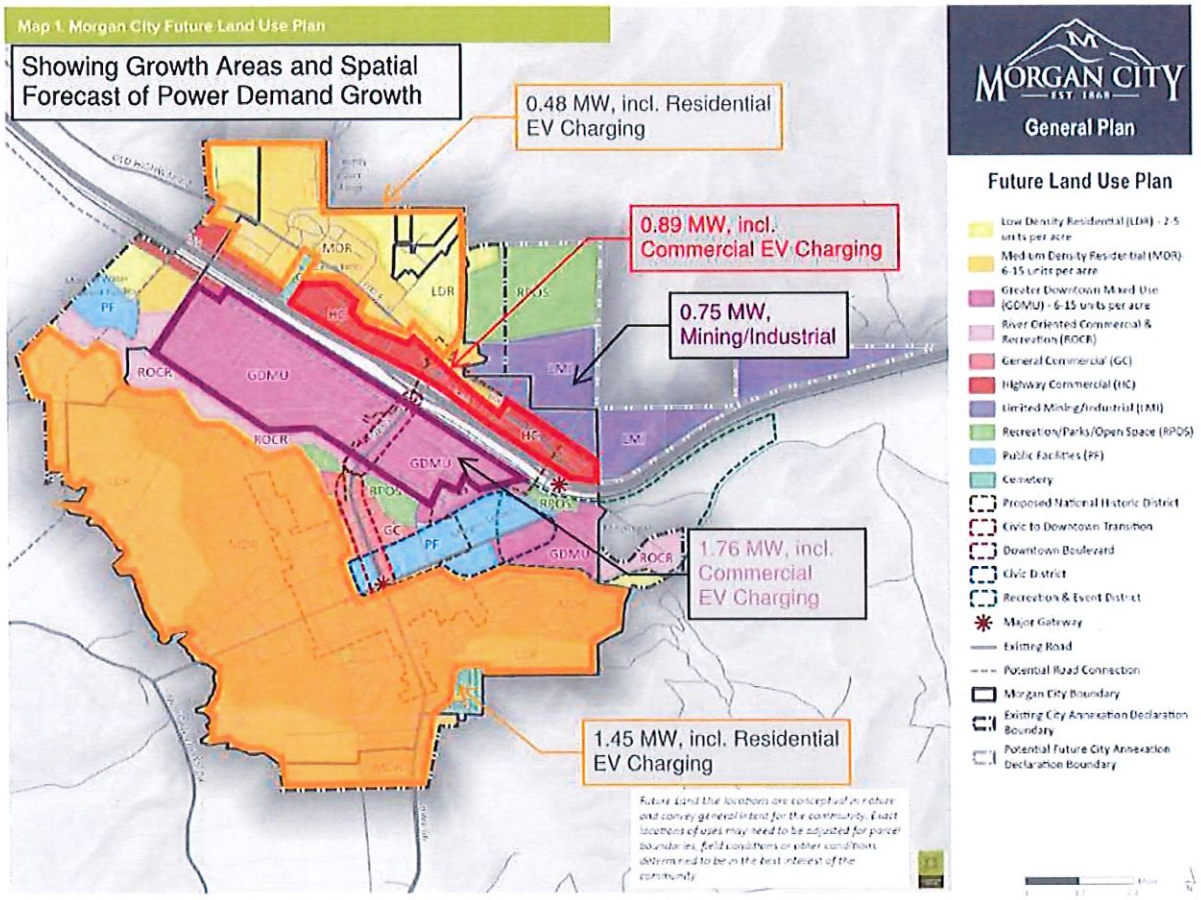


*Figure 3-Growth Area Projection Map*

### 2.2.4 PEAK POWER DEMNAD/LOAD FORECAST

In September 2022 the Morgan City power system experienced peak power demand at 6.148 MW. The Morgan City historic peak power average growth rate is 2.3% per year. Average typical load addition to the power system has historically been about 0.115 MW annually. The historic 2012-2022 peak power demand for Morgan City is shown on Figure 4, along with the projected peak power demand for 2023-2032.

The projected peak shown on the chart shown in Figure 4 is calculated two ways—starting with the 2022 measured peak demand and 1) applying a peak power demand growth rate of 2.3% annually (gray line), and 2) the addition of expected loads through 2028 and the addition of 1% annual demand growth thereafter (orange line).

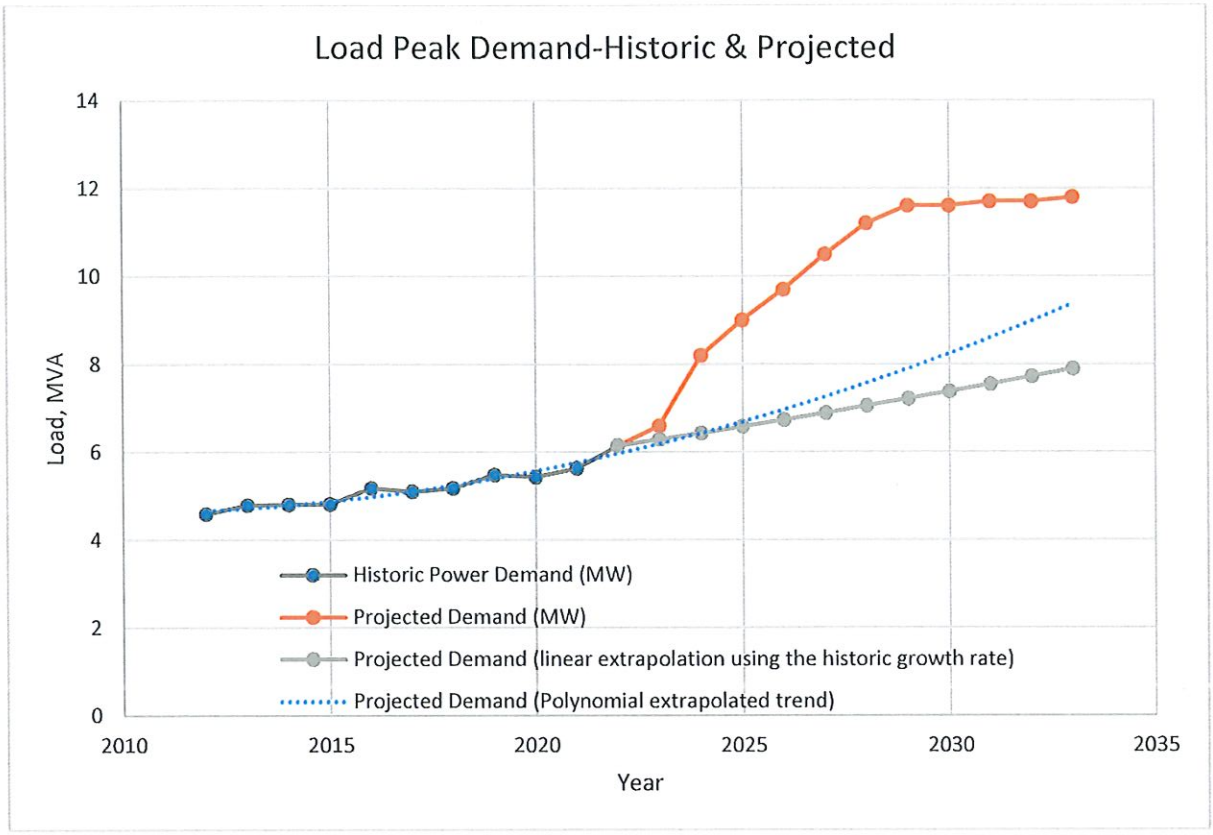


*Figure 4—Power Peak Demand Chart*

## 2.3 EXISTING INFRASTRUCTURE CAPACITIES

### 2.3.1 POWER SYSTEM SOURCE—TRANSMISSION AND DISTRIBUTION MAINLINES

Electric power is supplied to Morgan City on transmission lines owned and maintained by Rocky Mountain Power at 46 kV transmission voltage. These transmission lines feed Morgan City's three substations.

The present total system substation transformer capacity is 22.5 MVA. The distribution substations and their associated transformers and ratings are listed in Table 1.

*Table 1-Substation Transformers*

| System Element | Nameplate Rating | Element Capacity Rating (MVA) |
|---|---|---|
| Mahogany Substation 46-12.47 kV transformer | 7.5 MVA | 7.5 (normal)<br>10 (emergency) |
| Island Road substation 46-12.47 kV transformer | 7.5 MVA | 7.5 (normal)<br>10 (emergency) |
| High School Substation 46-12.47 kV transformer | 7.5 MVA | 7.5 (normal)<br>9.375 (emergency) |

### 2.3.2 DISTRIBUTION SYSTEM

From the three Morgan distribution substations there are four 12.47/7.2 kV distribution feeders. These four distribution feeders leaving the substations are generally constructed with 500 MCM aluminum (Al) underground cable, or 4/0 kcmil aluminum ACSR overhead conductor. The ratings of the feeders are determined based on the limiting ratings of the conductor and the other equipment in the main line of the system (e.g., reclosers, switchgear, elbows, bushings, connectors, etc.)

## 2.4 LEVEL OF SERVICE

The system loading criteria that the Morgan City Power Department has historically used in designing and expanding the power system is to limit loading to the base rating on substation transformers and 400 amps on main line feeder conductors. This ensures that there is sufficient reserve capacity built in the system to maintain service during the loss of a substation transformer or feeder during the peak load season. The 400 amps loading limit also serves to limit the number of customers affected by the loss of any one feeder.

The present level of service includes the system loading criteria that all the Morgan City load can be serviced from one substation.

The system voltage design criteria of the Morgan City Power Department are to maintain voltage within a range of +/- 5% in normal operation, and within a range of -10% to +5% during short-term emergency operation. The table below lists these loading and voltage design criteria.

*Table 2. System Design Criteria (Level of Service)*

| **Element** | **Normal System** | **During Emergency ("N-1" Contingency)** |
|---|---|---|
| Substation transformer loading | 100% of Base Rating | 100% of Highest Nameplate Rating (about 120% of Base Rating) |
| Main line feeder loading | 400 amps max., or 60% of the conductor rating, whichever is less | 100% of the conductor rating |
| Voltage | +/- 5% | + 5% to -10% |

*Table 2-Conductor Design Criteria Ratings for Level of Service*

| **Conductor** | **Use** | **Design Criteria Rating (amps)** | **Full Rating 100% (amps)** |
|---|---|---|---|
| 1100 MCM Aluminum | Underground mainline | 360 amps | 600 amps* |
| 500 MCM Aluminum | Underground mainline | 255 amps | 425 amps |
| 4/0 URD Aluminum | Underground mainline | 153 amps | 255 amps |
| 397.5 kcmil ACSR | Overhead mainline | 400 amps | 587 amps |
| 336 kcmil ACSR | Overhead mainline | 400 amps | 529 amps |
| 4/0 ACSR | Overhead mainline | 204 amps | 340 amps |
| 1/0 ACSR | Overhead mainline | 138 amps | 230 amps |
| * Although full rating for this conductor is higher, the design criteria rating is limited to the system maximum of 600 amps based on switchgear, elbows, bushings, connectors, etc. | | | |

## 2.5 DEMANDS ON CURRENT SYSTEM

The peak load demand on the current system in 2022 was 6,148 kW.

A load flow analysis performed using a computer model of the Morgan City power system provided insight on the system loading. The analysis and results are documented in the Capital Facility Plan.

There are no loading or voltage issues caused by the 2022 load, or the 2023 load, while the system is in normal operation ("N-0") or in contingency ("N-1") operation.

## 2.6 THEORETICAL REMAINING CAPACITY ON CURRENT SYSTEM AND LIMITATIONS

The capacity that theoretically remains available on the current power system is the lesser of 1) the capacity of the substation transformers for normal system operation minus the present system peak demand, or 2) the capacity of the lowest rated substation transformer for contingency system operation (one substation in service) minus the present system peak demand.

*Table 4-System Capacity Remaining*

| | |
|---|---|
| Normal Operation Substation Transformer Capacity (from Section 2.3.1) | 22,500 kVA |
| Present (2022) System Peak Demand (from Section 2.5) | - 6,148 kVA |
| Available Remaining Capacity (in theory) | = 16,352 kVA |

| | |
|---|---|
| Contingency Operation Substation Transformer Capacity (from Section 2.3.1) | 9,375 kVA |
| Present (2022) System Peak Demand (from Section 2.5) | - 6,148 kVA |
| Available Remaining Capacity (in theory) | = 3,227 kVA |

The ability to utilize this theoretical remaining capacity of 3,227 kVA is limited by the configuration of the power distribution system and the location of the customers/loads. The computer model of the Morgan City power system was used to determine the flow of power throughout the system and how the theoretical remaining capacity could be utilized before additional capacity would need to be installed.

## 2.7 DEMANDS WITH GROWTH (LOAD GROWTH FORECAST)

Historic power demand growth rate for Morgan City has averaged about 2.3% annually from 2016 to 2022. The power demand growth rate used for this forecast is 2.3% annually from 2023 to 2032. Known projected new blocks of load, such as the known new development are included in this load growth forecast.

The forecast peak power demand on the system from 2023-2032 is shown in Figure 4 as "Projected Demand." The Morgan City distribution peak power demand in 2032 is projected to be 11,700 kW. This is an expected increase of about 5,552 kW. It is seen in Table 4 that there is about 3,227 kVA of system capacity remaining, if it can be utilized. About 2,325 kW of system capacity needs to be added to reach the system capacity sufficient for the 2032 projected demand.

## 2.8 CAPITAL FACILITY ANALYSIS

The power system capital facility projects needed for the future Morgan City power system can be found in the Capital Facility Plan. In that plan, an engineering analysis has identified the future capital projects, based on the projected increase in load, that must be constructed over the next ten-year period to serve the expected growth. A summary of the capital facilities identified in the Capital Facility Plan is shown in Table 5.

*Table 5-Summary of Future Power System Capital Projects*

| Number & Project | Estimated Cost (2024) | Construction Year | Estimated Cost (Construction Year) | Percent to Growth | $ To Impact Fee Calculation |
|---|---|---|---|---|---|
| **High Priority** | | | | | |
| 1. High School Sub Como Circuit Recloser | $40,000 | 2024 | $40,000 | 0.0% | $0 |
| A. Reconductor/rebuild 3,500' of mainline 4/0 ACSR with 477 ACSR from Mahogany Substation | $227,100 | 2024 | $227,100 | 43.60% | $99,020 |
| B. Reconductor/rebuild 3,700' of mainline 4/0 ACSR with 477 ACSR from Island Road Substation | $478,500 | 2024 | $478,500 | 43.60% | $208,630 |
| 2. Capacitor Additions | $60,000 | 2024 | $60,000 | 100.00% | $60,000 |
| **Moderately High Priority** | | | | | |
| 3. Automated Switching for Outage Restoration | $90,000 | 2026 | $97,400 | 0.0% | $0 |
| C. Add about 2 MVA generation capacity at a new generation-distribution substation | $15,000,000 | 2027 | $16,873,000 | 16.7% | $2,817,790 |
| **Medium Priority** | | | | | |
| D. Tie W. Young St. to W. Island Road | $700,200 | 2024 | $700,200 | 0.0% | $0 |
| E-F. Tie W. Island Road to N. 700 E. | $271,400 | 2024 | $271,400 | 0.0% | $0 |
| G. Tie E 100 S through to Como Springs Rd | $109,800 | 2024 | $109,800 | 0.0% | $0 |
| H. Tie S 600 E to 500 E | $197,000 | 2024 | $197,000 | 0.0% | $0 |
| I. Tie S 300 W to State St (Hwy 66) | $203,500 | 2024 | $203,500 | 0.0% | $0 |
| **Low Priority** | | | | | |
| T. 46 kV Transmission Mahogany-Island Rd | $1,562,900 | 2027 | $1,758,100 | | $0 |
| **Total** | **$18,940,400** | | **$21,016,000** | | **$3,185,440** |

## 2.8.1 SYSTEM IMPROVEMENTS

The projects listed in Table 5 are system improvements. They are projects that are intended to provide services to the service areas within the community at large. They are not projects that provide service for a specific development. The Impact Fee Facility Plan may only include the costs of impacts on system improvements related to new growth. The Impact Fee Facility Plan includes the projects and their proportionate cost that are needed to maintain the existing level of service.

### 2.8.2 EQUITY AND NECESSITY OF IMPACT FEES

Impact fees are intended to cover the costs of system improvement projects that are needed due to growth. There may be years when the impact fee revenues do not cover the cost of the growth related projects. The projects might be delayed, or other funds may be borrowed to make up the difference. Any borrowed funds should be repaid through subsequent impact fees to maintain equity between existing customers' contributions and new development's contribution.

Impact fees are identified as a necessary funding mechanism to help offset the costs of new capital system improvements that have been identified in the Capital Facility Plan. The proportion of each system improvement project that is related to growth has been analyzed the "Percent to Growth" used to calculate the estimated cost of the project that is included in the impact fee analysis.

### 2.8.3 IMPACT FEE FACILITY PLAN

The full Morgan City Power Impact Fee Facility Plan is included in the following table.

Morgan City Power
2024 Capital Plan Projects for IFFP and Impact Fee Study
Power Capital Facilities Plan (CPP) and Impact Fee Facility Plan (IFFP)
Projects 2024-2033

| Number & Project | Project Description | Underbuilt | Current Conductor | Proposed Conductor | Current Capacity (MVA) | Upgrade Capacity (MVA) | Additional Capacity (MVA) | Reason | Percent to Growth | Estimated Cost (2024) | Construction Year | Estimated Cost (Construction Year) | To Impact Fee | Implementation Schedule MW Load Level |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **High Priority** | | | | | | | | | | | | | | |
| 1. High School Sub Como Circuit Recloser | Install a new recloser replacing a decommissioned one for the Como Circuit | No | | | 4.4 | 4.4 | 0 | Existing recloser is inoperable and the Como circuit load is all on the other recloser. | 0.0% | $40,000 | 2024 | $40,000 | $0 | 0 year 8.2 MW |
| A. Reconductor/rebuild 3,500' of mainline 4/0 ACSR with 477 ACSR from Mahogany Substation | Reconductor/rebuild 3,500' of mainline 4/0 ACSR with 477 ACSR from Mahogany Substation to about 525 N 700E. | No | 4/0 ACSR | 477 ACSR | 4.4 | 7.8 | 3.4 | Mahogany substation main line feeder 4/0 ACSR from the substation to 525 N 700 E overloads when Island Rd. and High School subs are out-of-service | 43.60% | $227,100 | 2024 | $227,100 | $99,020 | 0 year 8.2 MW |
| B. Reconductor/rebuild 3,700' of mainline 4/0 ACSR with 477 ACSR from Island Road Substation | Reconductor/rebuild 3,700' of mainline 4/0 ACSR with 477 ACSR from Island Road Substation to about 200 N 300 W. | No | 4/0 ACSR | 477 ACSR | 4.4 | 7.8 | 3.4 | Reconductor/rebuild about 3,700 feet of three phase main overhead line with 477 ACSR from Island Road substation to 200 N 300 W. | 43.60% | $478,500 | 2024 | $478,500 | $208,630 | 0 year 8.2 MW |
| 2. Capacitor Additions | Install five 150 kVAR capacitor banks at the points shown in Figure 7. | No | | | 0 | 2.4 | 2.4 | System power factor is about 94% on average | 100.00% | $60,000 | 2024 | $60,000 | $60,000 | 0 year 8.2 MW |
| **Number & Project** | **Project Description** | **Underbuilt** | **Current Conductor** | **Proposed Conductor** | **Current Capacity (MVA)** | **Upgrade Capacity (MVA)** | **Additional Capacity (MVA)** | **Reason** | **Percent to Growth** | **Estimated Cost (Construction Year)** | | | **To Impact Fee** | **Implementation Schedule** |
| **Moderately High Priority** | | | | | | | | | | | | | | |
| 3. Automated Switching for Outage Restoration | Install "intelligent" 3-ph switches with communication to SCADA at three normal open points on the system | No | | | n/a | n/a | n/a | Outage time—reduce system average interruption duration index (SAIDI). Some outages could be reduced from 2 hours to less than 1 hour. | 0.0% | $80,000 | 2026 | $87,400 | $0 | 3 year 9.7 MW |
| C. Add about 2 MVA generation capacity at a new generation-distribution substation | Add about 12 MVA generation capacity at a new generation-distribution substation. (2 MVA generation is sufficient for forecast system load through 2032) (Perform along with Project H to make a strong connection to the High School and Mahogany circuits) | No | | | 10 | 12 | 2 | In 2027 the load of the Morgan system at peak overloads one 10 MVA substation transformer | 16.7% | $15,000,000 | 2027 | $16,873,000 | $2,817,790 | 4 year 10.5 MW |
| **Number & Project** | **Project Description** | **Underbuilt** | **Current Conductor** | **Proposed Conductor** | **Current Capacity (MVA)** | **Upgrade Capacity (MVA)** | **Additional Capacity (MVA)** | **Reason** | **Percent to Growth** | **Estimated Cost (Construction Year)** | | | **To Impact Fee** | **Implementation Schedule** |
| **Medium Priority** | | | | | | | | | | | | | | |
| D. Tie W. Young St. to W. Island Road | Install about 2,500 feet of 3-phase underground and switches or sectionalizers to tie the west end of W. Young St. to the Island Road circuit. Tie in the underground single-phase radial lines fed from 300 West to the extent possible. | No | | | | | | Over 50 customers would be out of power upon the loss of a section of main line on west Young St. until repairs could be made. There is no distribution circuit loop/tie for this area. | 0.0% | $700,200 | 2024 | $700,200 | $0 | 0 year 8.2 MW |
| E-F. Tie W. Island Road to N. 700 E. | Install about 2,260 feet of 3-phase overhead and 440 feet of 3-phase underground and switches or sectionalizers to tie the west end of W. Island Road to the Mahogany circuit on N 700 E. | No | | | | | | Forty to 75+ customers would be out of power upon the loss of a section of main line on west Island Road or north 700 E. until repairs could be made. There are no distribution circuit loops/ties for either of these areas. | 0.0% | $271,400 | 2024 | $271,400 | $0 | 0 year 8.2 MW |
| G. Tie E 100 S through to Como Springs Rd | Install about 600 feet of 3-phase underground and switches or sectionalizers to tie the east end of 100 S to the Como circuit on Com Springs Rd. | No | | | | | | 75+ customers would be out of power upon the loss of a section of mainline on east 100 S. until repairs could be made. There are no distribution circuit loops/ties for this area. | 0.0% | $100,000 | 2024 | $100,000 | $0 | 0 year 8.2 MW |
| H. Tie S 600 E to 500 E | Install about 800 feet of 3-phase overhead and 365 feet of 3-phase underground and switches or sectionalizers to tie the south end of 600 E to 500 E | No | | | | | | 10+ customers would be out of power upon the loss of a section of mainline on south 600 E. until repairs could be made. There are no distribution circuit loops/ties for this area. | 0.0% | $197,000 | 2024 | $197,000 | $0 | 0 year 8.2 MW |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| I. Tie S 300 W to State St (Hwy 66) | Install about 3,200 feet of 3-phase overhead and 50 feet of 3-phase underground and switches or sectionalizers to tie the south end of 300 W to State St (Hwy 06). | No | | | | | | 25+ customers would be out of power upon the loss of a section of main line on south State St. until repairs could be made. There are no distribution circuit loops/ties for this area. | 0.0% | $203,500 | 2024 | $203,500 | $0 | 0 year<br>8.2 MW |
| **Low Priority** | | | | | | | | | | | | | | | |
| T. 46 kV Transmission Mahogany-Island Rd | Build new 46 kV transmission from the Mahogany substation 46 kV Bus 477 ACSR overhead with distribution underbuild, northwest along 700 East to 600 West, then south past the wastewater treatment plant and east on Island Rd. to the Island Road substation site. About 2 miles | Yes | | | | | | 1) Island Road substation issues with the transmission utility-warrant considering options for feeding 46 kV transmission to that substation.<br>2) In 2027 the load of the Morgan system at peak overloads one 10 MVA substation transformer—this system cannot be fed at peak from one system transformer without overloading that transformer. | | $1,562,900 | 2027 | $1,758,100 | $0 | 4 year<br>10.5 MW |
| | | | | | | | | Totals | | $18,940,400 | | $21,016,000 | $3,185,440 | |

## 2.9 CERTIFICATION OF THE IFFP

I certify that the attached Impact Fee Facilities Plan:

1. includes only the costs of public facilities that are:
    a. allowed under the Impact Fees Act; and
    b. actually incurred; or
    c. projected to be incurred or encumbered within six years after the day on which each impact fee is paid;
2. does not include:
    a. costs of operation and maintenance of public facilities;
    b. costs for qualifying public facilities that will raise the level of service for facilities, through impact fees, above the level of service that is supported by existing residents;
    c. an expense for overhead, unless the expense is calculated pursuant to a methodology that is consistent with generally accepted cost accounting practices and the methodological standards set forth by the federal Office of Management and Budget for federal grant reimbursement;
    d. costs to cure deficiencies in a public facility serving existing development;
3. complies in each and every relevant respect with the Impact Fees Act.

**CERTIFIED BY:**

**Signature:**

**Name:** Michael R. Anderson

**Title:** **Principal Engineer, Active Power Engineering, LLC**

**Date:** **June 24, 2024**

# 3 IMPACT FEE ANALYSIS (IFA)

## 3.1 GENERAL

Impact fees are one-time charges imposed on new development activity as a condition of development approval to mitigate the costs associated with necessary capital improvements to the public infrastructure, in this case the electric system. Utah has put in place Title 11, Chapter 36a (the "Impact Fee Act"). The "Impact Fee Act" imposes requirements regulating impact fees which apply to municipally owned electric utilities.

To implement impact fees as defined by the Impact Fee Act, "local political subdivisions" must conduct an analysis with the following elements:

Identification of the impact on or consumption of any existing capacity of a public facility by the anticipated development activity;

Identification of the anticipated impact on system improvements required by the anticipated development activity to maintain the established level of service;

Demonstration of how those impacts on system improvements are reasonably related to the development activity;

Estimation of the proportionate share of the costs for existing capacity that will be recouped and the costs of impacts on system improvements; and

Explanation of how the impact fee was calculated.

Electric impact fees in Morgan City are calculated using incremental costs, which is one of several methods for calculating impact fees. This method determines what new developments pay for improvements or a portion of the improvements needed to serve them. This is a "capacity-based" fee structure. In this way existing customers are not burdened by the new growth.

This Impact Fee Analysis involves three basic steps or sub-analyses: (1) determining an Impact Fee rate that applies a cost per each kVA of new power demand from development; (2) determining the kVA power demand for the typical customer types and service levels; and (3) calculating the proposed Impact Fee

### 3.1.1 IMPACT FEE RATE CALCULATION

As shown in Table 5 the total cost of new development-related projects in the IFFP is $3,185,440. The Impact Fee rate analysis is shown in Table 12.

*Table 12-Impact Fee Rate Calculation*

| Row Item | Value | Notes |
|---|---|---|
| (1) Total Cost of IFFP Projects | $3,185,440 | Project costs (construction year dollars) of new development-related projects shown in Table 5 |
| (2) Added kVA | 5,844 kVA | Capacity addition due to IFFP projects, and used by growth in the analysis period. This is 5,552 kW ÷ 0.95 power factor. |
| (3) Cost per kVA | $545.08 per kVA | $(Row\ 1) \div (Row\ 2) = \frac{\$}{kVA}$ |
| (4) Escalated Total Cost of Projects (in the construction year of the projects) | $3,185,440 | Assumed construction cost of each project at escalation rate of 4% per year (already considered in row (1)). |
| (5) Escalated Cost per kVA | $545.08 per kVA | $(Row\ 4) \div (Row\ 2) = \frac{\$}{kVA}$ |
| (6) Effect of assumed interest earnings | $3,185,440 | Calculated interest credit effect on the total cost of IFFP projects and fee calculation—no credit applied in this analysis due to the timing of impact fee expenditures relative to collections—interest earnings will not produce a positive fund balance. |
| (7) Cost per kVA considering earned interest (no net earned interest) | $545.08 per kVA | $(Row\ 6) \div (Row\ 2) = \frac{\$}{kVA}$ |
| **Impact Fee Rate** | **$545.08** | |

As shown in Table 12, row (3) the estimated cost/kVA of new system capacity is $545.08/kVA—row (5)—for projected construction year pricing[1], assuming no interest is earned on the collected fees. Interest earnings, at 1.5% on collected impact fees will not

[1] Calculated based on assumed construction cost escalation rate of 4%

produce a positive fund balance due to the timing of impact fee expenditures relative to collections.

Morgan City states that there is no cost of debt service since there are no bonds for electrical capital projects, and there are no offsets to project costs with grants or other alternate sources of payment. Therefore, the impact fees recommended for Morgan City will be based on the rate of $545.08 per kVA of power demand connected to the system.

### 3.1.2 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 13 and in Table 14. Complete tables of recommended impact fees are contained in the Appendix to this analysis.

#### *3.1.2.1 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 several residential service levels recognized by Morgan City Power—from 100-amp service to 400-amp service. Morgan City power department experience was used to determine typical power demand. About 12.5% service panel utilization on 100-amp to 200-amp 120/240 V residential services is typical. Service panel utilization for residential services larger than 200-amp is typically higher at about 12.85%. Power factor on residential services is typically about 95%.

#### *3.1.2.2 RESIDENTIAL IMPACT FEE CALCULATION*

Recommended residential Impact Fee is calculated based on Equation 1:

Equation 1

**Single Phase Residential Calculation**

$$Residential\ Service\ Panel\ Size\ (amps) \times \frac{240\ (Volts)}{1000} \times (0.125\ or\ 0.1285) \times Impact\ Fee\ Rate(\$/kVA) = Incurred\ Fee$$

**Example 200A 120/240V Single Phase Residential Service**

$$For\ 200Amp\ Residential\ Service\text{: } 200 \times \frac{240}{1000} \times 0.125 \times \$545.08/kVA = \$3{,}270$$

Table 13 shows the recommended Impact Fee charge for the several residential service levels. A complete table of recommended Impact Fee charges for residential customers is included in Table A in the Appendix.

*Table 13-Typical Recommended Residential Impact Fees*

| Residential Service Panel Size | Typical Panel Utilization (kVA Impact, %) | Est. kVA Impact | Recommended Impact Fee |
|---|---|---|---|
| 100 – Amp | 12.5% | 3.00 | $1,635 |
| 125 – Amp | 12.5% | 3.75 | $2,044 |
| 150 – Amp | 12.5% | 4.50 | $2,453 |
| 200 – Amp | 12.5% | 6.00 | $3,270 |
| 225 – Amp | 12.5% | 6.75 | $3,679 |
| 320 – Amp | 12.5% | 9.60 | $5,233 |
| 400 – Amp | 12.5% | 12.00 | $6,541 |

### *3.1.2.3 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 commercial business panel utilization seen in the experience of Morgan City Power has been about 25%, on average. The typical panel utilization of some energy intensive commercial customers, such as industrial, heavy manufacturing, data centers, electric vehicle chargers, quarries, and crushers, have been determined to be higher, at 40% panel utilization. Tables B and C in the Appendix show the estimated power demand (column 2) for commercial customers with various typical service panel sizes (column 1). Table B is for the typical commercial business, and Table C is for the category of energy intensive commercial customers.

### *3.1.2.4 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**

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

**Example 200A 120/240V Single Phase Service (25% panel utilization)**

$$For\ 200A\ Single\ Phase\ Service\text{:}\ \frac{200A\ \times 240V\times\ 0.25}{1000} \times \frac{\$545.08}{kVA} = \$6{,}541$$

Equation 3

**Three Phase Calculation**

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

**Example 600A 120/208V Three Phase Service (40% panel utilization)**

$$600A\ Three\ Phase\ Service\text{:}\ \sqrt{3} \times \frac{600A\ \times 208V\ \times 0.4}{1000} \times \$545.08/kVA = \$47{,}130$$

A selected sample of recommended Impact Fee charges for commercial class customers is shown in Table 14. A complete table of recommended Impact Fee charges for commercial class customers is included in Tables B and C in the Appendix.

*Table 14-Selected Recommended Commercial Impact Fees*

| Type and Size of Commercial Service | Typical Panel Utilization (kVA Impact, %) | Est. kVA Impact | Recommended Impact Fee |
|---|---|---|---|
| Single Phase 120/240 V 200 Amp Panel | 25% | 12 | $6,541 |
| Three Phase 120/208 V 200 Amp Panel | 25% | 18 | $9,819 |
| Three Phase 277/480 V 200 Amp Panel (energy intensive commercial customer) | 40% | 66.5 | $36,254 |

## 3.2 CERTIFICATION OF THE IFA

I certify that the attached Impact Fee Analysis:

1. includes only the costs of public facilities that are:
    a. allowed under the Impact Fees Act; and
    b. actually incurred; or
    c. projected to be incurred or encumbered within six years after the day on which each impact fee is paid;
2. does not include:
    a. costs of operation and maintenance of public facilities;
    b. costs for qualifying public facilities that will raise the level of service for facilities, through impact fees, above the level of service that is supported by existing residents;
    c. an expense for overhead, unless the expense is calculated pursuant to a methodology that is consistent with generally accepted cost accounting practices and the methodological standards set forth by the federal Office of Management and Budget for federal grant reimbursement;
    d. costs to cure deficiencies in a public facility serving existing development; and
3. offsets costs with grants or other alternate sources of payment; and
4. complies in each and every relevant respect with the Impact Fees Act.

**CERTIFIED BY:**

**Signature:**

**Name:** Michael R. Anderson

**Title:** **Principal Engineer, Active Power Engineering, LLC**

**Date:** **June 24, 2024**

# MORGAN CITY POWER

# APPENDIX

# ELECTRIC IMPACT FEE ANALYSIS SUPPORTING DOCUMENTATION

# RECOMMENDED IMPACT FEES

*Table A--Residential Customer Power Demand and Recommended Impact Fee*

| RESIDENTIAL IMPACT FEES -- *Panel Utilization assumed 12.5%* | | | | | | |
|---|---|---|---|---|---|---|
| | Est. kW Impact | Power Factor | Est. kVA Impact | Recommended Impact Fee | Prior Impact Fee | % Change |
| 100 Amp Panel | 2.9 | 0.95 | 3.0 | $1,635 | $538.02 | 204% |
| 125 Amp Panel | 3.6 | 0.95 | 3.8 | $2,044 | $672.51 | 204% |
| 150 Amp Panel | 4.3 | 0.95 | 4.5 | $2,453 | $807.00 | 204% |
| 200 Amp Panel | 5.7 | 0.95 | 6.0 | $3,270 | $1,076.00 | 204% |
| 225 Amp Panel | 6.4 | 0.95 | 6.75 | $3,679 | $1,210.51 | 204% |
| 320 Amp Panel | 9.1 | 0.95 | 9.6 | $5,233 | n/a | n/a |
| 400 Amp Panel | 11.4 | 0.95 | 12.0 | $6,541 | $2,152.03 | 204% |

*Table B--Commercial Customer Power Demand and Recommended Impact Fee*

| COMMERCIAL IMPACT FEES -- *Panel Utilization assumed 25%* | Est. Power Demand (kW Impact) | Power Factor | Est. kVA Impact | Recommended Impact Fee | Prior Impact Fee | % Change |
|---|---|---|---|---|---|---|
| Single Phase 120/240 V 200 Amp Panel | 10.8 | 0.90 | 12 | $6,541 | $1,076.00 | 508% |
| Single Phase 120/240 V 400 Amp Panel | 21.6 | 0.90 | 24 | $13,082 | $2,152.03 | 508% |
| Three Phase 120/208 V 200 Amp Panel | 16.2 | 0.90 | 18.0 | $9,819 | $1,681.28 | 484% |
| Three Phase 120/208 V 400 Amp Panel | 32.4 | 0.90 | 36.0 | $19,637 | $3,362.55 | 484% |
| Three Phase 120/208 V 600 Amp Panel | 48.6 | 0.90 | 54.0 | $29,456 | $5,043.84 | 484% |
| Three Phase 120/208 V 800 Amp Panel | 64.8 | 0.90 | 72.1 | $39,275 | $6,725.12 | 484% |
| Three Phase 120/208 V 1200 Amp Panel | 97.3 | 0.90 | 108.1 | $58,912 | $11,208.52 | 426% |
| Three Phase 120/208 V 1600 Amp Panel | 129.7 | 0.90 | 144.1 | $78,550 | $16,812.77 | 367% |
| Three Phase 120/240 V 100 Amp Panel | 9.4 | 0.90 | 10.4 | $5,665 | n/a | n/a |
| Three Phase 120/240 V 200 Amp Panel | 18.7 | 0.90 | 20.8 | $11,329 | $1,681.28 | 574% |
| Three Phase 120/240 V 400 Amp Panel | 37.4 | 0.90 | 41.6 | $22,659 | $3,362.55 | 574% |
| Three Phase 240/480 V 100 Amp Panel | 18.7 | 0.90 | 20.8 | $11,329 | $1,681.28 | 574% |
| Three Phase 240/480 V 200 Amp Panel | 37.4 | 0.90 | 41.6 | $22,659 | $3,362.55 | 574% |
| Three Phase 240/480 V 400 Amp Panel | 74.8 | 0.90 | 83.1 | $45,317 | $6,725.12 | 574% |

*Table B--Commercial Customer Power Demand and Recommended Impact Fee (cont.)*

| COMMERCIAL IMPACT FEES -- *Panel Utilization assumed 25%* | Est. Power Demand (kW Impact) | Power Factor | Est. kVA Impact | Recommended Impact Fee | Prior Impact Fee | % Change |
|---|---|---|---|---|---|---|
| Three Phase 277/480 V 200 Amp Panel | 37.4 | 0.90 | 41.6 | $22,659 | $3,362.55 | 574% |
| Three Phase 277/480 V 400 Amp Panel | 74.8 | 0.90 | 83.1 | $45,317 | $6,725.12 | 574% |
| Three Phase 277/480 V 600 Amp Panel | 112.2 | 0.90 | 124.7 | $67,976 | $11,208.52 | 506% |
| Three Phase 277/480 V 800 Amp Panel | 149.6 | 0.90 | 166.3 | $90,634 | $16,812.77 | 439% |
| Three Phase 277/480 V 1200 Amp Panel | 224.5 | 0.90 | 249.4 | $135,951 | $22,417.02 | 506% |
| Three Phase 277/480 V 1600 Amp Service | 299.3 | 0.90 | 332.6 | $181,268 | n/a | n/a |
| Three Phase 277/480 V 2000 Amp Service | 374.1 | 0.90 | 415.7 | $226,586 | n/a | n/a |
| Three Phase 277/480 V 2500 Amp Service | 467.7 | 0.90 | 519.6 | $283,232 | n/a | n/a |
| Three Phase 277/480 V 3000 Amp Service | 561.2 | 0.90 | 623.5 | $339,878 | n/a | n/a |

*Table C—Energy Intensive Commercial Customer Power Demand and Recommended Impact Fee*

| COMMERCIAL IMPACT FEES (ENERGY INTENSIVE)-- *Panel Utilization assumed 40%* | | | | | | |
|---|---|---|---|---|---|---|
| | Est. Power Demand (kW Impact) | Power Factor | Est. kVA Impact | Recommended Impact Fee | Prior Impact Fee | % Change |
| Single Phase 120/240 V 200 Amp Panel | 17.3 | 0.90 | 19.2 | $10,466 | $1,076.00 | 873% |
| Single Phase 120/240 V 400 Amp Panel | 34.6 | 0.90 | 38.4 | $20,931 | $2,152.03 | 873% |
| Three Phase 120/208 V 200 Amp Panel | 25.9 | 0.90 | 28.8 | $15,710 | $1,681.28 | 834% |
| Three Phase 120/208 V 400 Amp Panel | 51.9 | 0.90 | 57.6 | $31,420 | $3,362.55 | 834% |
| Three Phase 120/208 V 600 Amp Panel | 77.8 | 0.90 | 86.5 | $47,130 | $5,043.84 | 834% |
| Three Phase 120/208 V 800 Amp Panel | 103.8 | 0.90 | 115.3 | $62,840 | $6,725.12 | 834% |
| Three Phase 120/208 V 1200 Amp Panel | 155.6 | 0.90 | 172.9 | $94,260 | $11,208.52 | 741% |
| Three Phase 120/208 V 1600 Amp Panel | 207.5 | 0.90 | 230.6 | $125,679 | $16,812.77 | 648% |
| Three Phase 120/240 V 100 Amp Panel | 15.0 | 0.90 | 16.6 | $9,063 | n/a | n/a |
| Three Phase 120/240 V 200 Amp Panel | 29.9 | 0.90 | 33.3 | $18,127 | $1,681.28 | 978% |
| Three Phase 120/240 V 400 Amp Panel | 59.9 | 0.90 | 66.5 | $36,254 | $3,362.55 | 978% |
| Three Phase 240/480 V 100 Amp Panel | 29.9 | 0.90 | 33.3 | $18,127 | $1,681.28 | 978% |
| Three Phase 240/480 V 200 Amp Panel | 59.9 | 0.90 | 66.5 | $36,254 | $3,362.55 | 978% |
| Three Phase 240/480 V 400 Amp Panel | 119.7 | 0.90 | 133.0 | $72,507 | $6,725.12 | 978% |

*Table C—Energy Intensive Commercial Customer Power Demand and Recommended Impact Fee (cont.)*

| COMMERCIAL IMPACT FEES (ENERGY INTENSIVE)-- *Panel Utilization assumed 40%* | | | | | | |
|---|---|---|---|---|---|---|
| | Est. Power Demand (kW Impact) | Power Factor | Est. kVA Impact | Recommended Impact Fee | Prior Impact Fee | % Change |
| Three Phase 277/480 V 200 Amp Panel | 59.9 | 0.90 | 66.5 | $36,254 | $3,362.55 | 978% |
| Three Phase 277/480 V 400 Amp Panel | 119.7 | 0.90 | 133.0 | $72,507 | $6,725.12 | 978% |
| Three Phase 277/480 V 600 Amp Panel | 179.6 | 0.90 | 199.5 | $108,761 | $11,208.52 | 870% |
| Three Phase 277/480 V 800 Amp Panel | 239.4 | 0.90 | 266.0 | $145,015 | $16,812.77 | 763% |
| Three Phase 277/480 V 1200 Amp Panel | 359.2 | 0.90 | 399.1 | $217,522 | $22,417.02 | 870% |
| Three Phase 277/480 V 1600 Amp Service | 478.9 | 0.90 | 532.1 | $290,029 | n/a | n/a |
| Three Phase 277/480 V 2000 Amp Service | 598.6 | 0.90 | 665.1 | $362,537 | n/a | n/a |
| Three Phase 277/480 V 2500 Amp Service | 748.2 | 0.90 | 831.4 | $453,171 | n/a | n/a |
| Three Phase 277/480 V 3000 Amp Service | 897.9 | 0.90 | 997.7 | $543,805 | n/a | n/a |