ORDINANCE 21-01

WHEREAS, Hyrum City (the "City") is a political subdivision of the State of Utah, authorized and organized under the provisions of Utah law; and

WHEREAS, on January 6, 1994, the Hyrum City Council passed and posted an ordinance adopting the "Hyrum City Municipal Code", a recodification of municipal ordinances encompassing the "Revised Ordinances of Hyrum City" and ordinances adopted through July 15, 1993; and

WHEREAS, Chapter 3.24 of Title 3 of the Hyrum City Municipal Code sets forth those regulations governing the enactment and collection of impact fees, together with methods of accounting and procedures for appeal and other matters pertaining to municipal impact fees; and

WHEREAS, the City has legal authority, pursuant to Title 11, Chapter 36 Utah Code, Annotated, as amended ("Impact Fees Act" or "Act"), to impose development Impact Fees as a condition of development approval, which Impact Fees are used to defray capital infrastructure costs attributable to growth activity; and

WHEREAS, the City has historically assessed Impact Fees as a precedent condition to development approval in order to assign capital infrastructure costs to development in an equitable and proportionate manner; and

WHEREAS, the City retained Active Power Engineering, LLC to prepare capital facilities plans and a written impact fee analysis consistent and in compliance with the Utah Impact Fees Act for Hyrum City's Electric Light and Power Utility (Section 11-36-201 et seq, Utah Code Annotated 1953 as amended); and

WHEREAS, upon recommendation of City Staff, the City Council has determined that it is in the City's best interest to adopt and set impact fees for Hyrum City's Electric Light and Power Utility to account for changes to capital facilities planning and land use planning necessary to meet projected growth of the City, and to promote more orderly development and infill; and

WHEREAS, after consideration of all the relevant factors, the Hyrum City Council finds and determines that it is in the

best interests of its current and future residents to approve this ordinance in order to provide for adequate public electric facilities to service anticipated future growth and development, the need for which is reasonably related to and created by the anticipated future growth.

NOW, THEREFORE, following the notice requirements set forth in State Law: 1) A Notice of Intent for the preparation of a written analysis on Hyrum City's wastewater and irrigation water impact fees was posted on the State's Public Notice Website and at the Hyrum City Offices on December 19, 2020; 2) A Notice of Public Hearing for the amendment of Hyrum City's wastewater and irrigation water impact fees was posted on the State of Utah's Public Notice Website, Hyrum City's Website, and at the Hyrum City Offices on February 5, 2021; 3) published in the Herald Journal on February 6, 2021; and 4) after holding a public hearing on February 18, 2021, as required by State Law, the Hyrum City Council hereby adopts, passes, and publishes the following:

AN ORDINANCE ADOPTING A POLICY FOR IMPACT FEES FOR ELECTRICAL POWER SERVICES IN HYRUM CITY; ESTABLISHING AND ADOPTING A CAPITAL FACILITIES PLAN, OR OTHER REASONABLE PLAN, AND THE ASSOCIATED IMPACT FEE ANALYSES FOR THIS SERVICE; ADOPTING IMPACT FEES FOR THE PROVISION OF SAID SERVICE; AND OTHER RELATED MATTERS.

BE IT ORDAINED by the City Council of Hyrum City, Cache County, State of Utah as follows:

SECTION 1. PURPOSE

This Impact Fee Ordinance revises and prescribes the City's impact fee policies and procedures and is promulgated pursuant to the requirements of the Utah Impact Fees Act. Further, this ordinance: 1) establishes the Electric Power and Light impact fees within Hyrum City and/or the service areas established herein; 2) describes capital improvements to be funded by impact fees; 3) provides a schedule of impact fees assessed by various types of development; and 4) sets forth the process to challenge, modify, and appeal impact fees.

SECTION 2. DEFINITIONS

Unless otherwise stated, words and phrases that are used in this Ordinance shall have the same definition as those words and phrases defined in the Act, including the following:

1. “Capital Facilities Plan” means the plan or other reasonable plan for capital improvements as allowed by Section 11-36-201 of the Act.

2. “Development Activity” means any construction or expansion of building, structure or use, any change in use of building or structure, or any change in the use of land located within a Service Area that creates additional demand and need for public facilities. Development Activity will include all development that will connect to the referenced systems.

3. “Development Approval” means any written authorization from the City that authorizes the commencement of Development Activity. Typically, development approval would be in the form of a building permit issued by the City’s building department.

4. “Hyrum City” is a local political subdivision of the State of Utah and is referred to hereinafter as “City.”

5. “Impact Fee” means a payment of money imposed upon Development Activity as a condition of Development Approval. “Impact Fee” includes development impact fees, but is not a tax, a special assessment, a hookup fee, a building permit fee, a fee for project improvements, or other reasonable permit or application fees.

6. “Project Improvements” means site improvements and facilities that are planned and designed to provide service for development resulting from a Development Activity and are necessary solely for the use and convenience of the occupants or users of said Development Activity. “Project Improvements” do not include “System Improvements” as defined below.

7. “Proportionate Share” of the cost of public facility improvements means an amount that is roughly proportionate and reasonably related to the service demands and needs of a Development Activity.

8. “Public Facilities” means, for purposes of this Ordinance, system improvements relating to services for which impact fees will be assessed.

9. “Service Area” refers to a geographic area designated by the City based on sound planning and engineering principles in which a defined set of the City’s Public Facilities provides service. For purposes of this Ordinance, the Service Area shall be

considered a separate and distinct geographic area from the rest of Hyrum City, or in some cases may include the entire city, which creates different demands on the Public Facilities from the rest of the City and therefore creates different impacts on the costs of capital infrastructure. The various Service Areas are identified in the maps attached hereto as exhibits.

10. "System Improvements" refer both to existing Public Facilities designed to provide services within Service Areas and to future Public Facilities identified in the Capital Facilities Plans adopted by the City that are intended to provide service to the Service Areas. "System Improvements" do not include "Project Improvements" as defined above.

SECTION 3. WRITTEN IMPACT FEE ANALYSIS

1. Executive Summary. A summary of the findings of the Written Impact Fee Analysis that is designed to be understood by a lay person is included in the Written Impact Fee Analysis and demonstrates the need for Impact Fees to be assessed on Development Activity. The Executive Summary has been available for public inspection at least fourteen (14) days prior to the adoption of this Ordinance. Hyrum City Power and Light Impact Fee Analysis dated November 2020, prepared by Active Power Engineering LLC is attached hereto as *Exhibit "B".*

2. Written Impact Fee Analysis. The City has commissioned the Written Impact Fee Analysis for the Impact Fees that identify the impacts upon the public systems and utilities and the facilities required by Development Activity, estimates the proportionate share of the costs if impacts on System Improvements that are reasonably related to the Development Activity, and identifies how the Impact Fees are calculated. A copy of the Written Impact Fee Analysis has been available for public inspection at least fourteen (14) days prior to the adoption of this Ordinance.

3. Proportionate Share Analysis. The City has prepared a Proportionate Share Analysis which analyzes whether or not the proportionate share of the costs of future Public Facilities is reasonably related to new Development Activity. The Proportionate
Share Analysis identifies the costs of existing Public Facilities, the manner of financing existing Public Facilities, the relative extent to which new development will contribute to the cost of existing facilities, and the extent to which new development is entitled to a credit for payment towards the

costs of new facilities from general taxation or other means apart from user charges in other parts of the City. A copy of the Proportionate Share Analysis is included in the Written Impact Fee Analysis and has been available for public inspection at least fourteen (14) days prior to the adoption of this Ordinance.

SECTION 4. IMPACT FEE CALCULATIONS

1. Ordinance Enacting Impact Fees. The City Council will, by this Ordinance, approve Impact Fees in accordance with the Written Impact Fee Analysis. Unless otherwise provided by the City Council, impact fees shall be due at the time of an application for a building permit and paid to the City prior to the issuance of a building permit.

a. Elements. In calculating the Impact Fee, the City has included the construction costs, land acquisition costs, costs of improvements, fees for planning, surveying, and engineering services provided for and directly related to the construction of System Improvements, and outstanding or future debt service charges if the City might use Impact Fees as a revenue stream to pay principal and interest on bonds or other obligations to finance the costs of System Improvements.

b. Notice and Hearing. In conjunction with the approval of this Ordinance, the City held a public hearing on February 18, 2021. After the public hearing, the City Council adopted this Impact Fee Ordinance as presented herein.

c. Contents of the Ordinance. This Ordinance adopting or modifying municipal Impact Fees contains such detail and elements for only the Electric Light and Power Utility and as deemed appropriate by the City Council. This Ordinance includes 1) a schedule of Impact Fees imposed for the Electric Light and Power Utility and/or 2) the formula used or to be used by the City in calculating the respective Impact Fees.

d. Adjustments. The standard Impact Fee may be adjusted by the City Council at the time the fee is charged in response to unusual circumstances or to fairly allocate costs associated with impacts created by a Development Activity or project. The standard

Impact Fee may also be adjusted to ensure that Impact Fees are imposed fairly for affordable housing projects, in accordance with Hyrum City's affordable housing policy, and other development activities with broad public purposes. The Impact Fee assessed to a particular development may also be adjusted should the developer supply sufficient written information and/or data to the City showing a discrepancy between the fee being assessed and the actual impact on the system.

e. Previously Incurred Costs. To the extent that new growth and development will be served by previously constructed improvements, the City's Impact Fees may include public facility and bond costs previously incurred by the City. These projects are included in the calculation of the impact fees and are under construction or completed but have not been utilized to their capacity, as evidenced by outstanding debt obligations, engineering analysis, or otherwise. Any future debt obligations determined to be necessitated by growth activity will also be included to offset the costs of future capital projects.

2. Developer Credits. A developer may be allowed a credit by the City Council against Impact Fees for any dedication or improvement to land or new construction of System Improvements provided by the developer provided that it is 1) identified in the City's Capital
Facilities Plan, and 2) required by the City as a condition of approving the Development Activity. Otherwise, no credit may be given.

3. Impact Fees Accounting. The City will establish a separate interest-bearing ledger account for the Impact Fees collected pursuant to this Ordinance and will conform to the accounting requirements provided in the Impact Fees Act. All interest earned by each fund or account shall be segregated to that account.

a. Reporting. At the end of each fiscal year, the City shall prepare a report on each fund or account generally showing the source and amount of all monies collected, earned, and received by the fund or account and each expenditure from the fund or account.

b. Impact Fee Expenditures. The City may expend Impact Fees covered by the Impact Fees Policy only for

System Improvements that are 1) Public Facilities identified in the City's Capital Facilities Plans and (2) of the specific public facility type for which the fee was collected. Impact Fees will be expended on a First-In First-Out (FIFO) basis.

c. Time of Expenditure. Impact Fees collected pursuant to the requirements of this Impact Fees Ordinance are to be expended, dedicated, or encumbered for a permissible use within six years of the receipt of those funds by the City, unless the City Council directs otherwise pursuant to Subsection D, Extension of Time. For purposes of this calculation, the first funds received shall be deemed to be the first funds expended.

d. Extension of Time. The City may hold previously dedicated or unencumbered fees for longer than six years if it identifies in writing 1) an extraordinary and compelling reason why the fees should be held longer than six years and 2) an absolute date by which the fees will be expended.

4. Refunds. The City shall refund any Impact Fees paid by a developer plus interest actually earned when 1) the developer does not proceed with the Development Activity and files a written request for a refund; 2) the fees have not been spent or encumbered; and 3) no impact has resulted. An impact that would preclude a developer from a refund from the City may include any impact reasonably identified by the City, including, but not limited to, the City having sized facilities and/or paid for, installed, and/or caused the installation of facilities based in whole or in part upon the Developer's planned Development Activity even though that capacity may, at some future time, be utilized by another development.

5. Additional Fees and Costs. The Impact Fees authorized hereby are separate from and in addition to user fees and other charges lawfully imposed by the City and other fees and costs that may not be included as itemized component parts of the Impact Fee Schedule. In charging any such fees as a condition of development approval, the City recognizes that the fees must be a reasonable charge for the service provided.

6. Fees Effective at Time of Payment. Unless the City is otherwise bound by a contractual requirement, the Impact Fee

shall be determined from the fee schedule in effect at the time of payment in accordance with the provisions of Section 6 below.

7. Imposition of Additional Fee or Refund After Development Activity. Should any developer undertake Development Activities such that the ultimate density or other impact of the Development Activity is not revealed to the City, either through inadvertence, neglect, a change in plans, or any other cause whatsoever, and/or the Impact Fee is not initially charged against all units or the total density within the development, the City shall be entitled to charge an additional Impact Fee to the developer or other appropriate person covering the density for which an Impact Fee was not previously paid.

SECTION 5 CAPITAL FACILITIES PLAN

1. Capital Facilities Plan. In Section 11-36-201(2)(e) of the Utah Code Annotated 1953 as amended there is an exception to the Capital Facilities Plan for cities of 5,000 or less in population, based on the latest census. Hyrum City does not meet this exception; therefore, the City has completed Capital Facilities Plans in accordance with the Act and has adopted the Capital Facilities Plans in conjunction with this Ordinance. The City has developed Capital Facilities Plans for the City's electrical power distribution system it is included in the Hyrum City Power and Light Impact Fee Analysis dated November 2020, prepared by Active Power Engineering LLC *See Exhibit "B"*. The Capital Facilities Plan has been prepared based on reasonable growth assumptions for the City, general demand characteristic of future users of each system, and engineering principles. Furthermore, the Capital Facilities Plan identifies the impact on System Improvements created by Development Activity and estimates the proportionate share of the costs of impacts on System Improvements that are reasonably related to new Development Activity.

SECTION 6. IMPACT FEE SCHEDULES AND FORMULAS

1. Maximum Supportable Impact Fees. The fee schedules included herein represent the maximum Impact Fees which the City may impose on development within the defined Service Areas and are based upon general demand characteristics and potential demand that can be created by each class of user. The City reserves the right under the Impact Fees Act (Utah Code 11-36-202(2)(c,d)) to assess an adjusted fee to respond to unusual circumstances to ensure that fees are equitably assessed.

This adjustment may result in a higher Impact Fee if the City determines that a user would create a greater than normal impact on any of the systems. The City may also decrease the Impact Fee if the developer can provide documentation that the proposed impact will be less than what could be expected given the type of user (Utah Code 11-36-202(3)(a)).

ELECTRICAL POWER IMPACT FEES:

See Exhibit "A"

SECTION 7 FEE EXCEPTIONS AND ADJUSTMENTS

1. Waiver for "Public Purpose". The City Council may, on a project by project basis, authorize exceptions or adjustments to the Impact Fees due from development for those projects the City Council determines to be of such benefit to the community as a whole to justify the exception or adjustment. Such projects may include facilities being funded by tax-supported agencies, affordable housing projects, or facilities of a temporary nature. The City Council may elect to waive or adjust Impact Fees in consideration of economic benefits to be received from the developer's activity.

a. Procedures. Applications for exceptions are to be filed with the City at the time the applicant first requests the extension of service to the applicant's development or property.

SECTION 8. APPEAL PROCEDURE

1. Any person or entity that has paid an Impact Fee pursuant to this Ordinance may challenge the Impact Fee by filing:

a. An appeal to the City pursuant to paragraph 2, 3 and
4 of this Section 8;

b. A request for arbitration as provided in Utah Code Ann. § 11-36-402(1), as amended; or

c. An action in state district court as provided in Utah
Code Ann. § 11-36401(4)(c)(iii), as amended.

2. Application. Any person or entity that has paid an Impact Fee pursuant to this Ordinance may challenge or appeal the

Impact Fee by filing a written notice of appeal with the City Council within 30 days of the date that the fee was paid or within such other time limit as set by Section 11-36-401(4)(b), Utah Code Annotated 1953 as amended.

3. Hearing. Upon receiving the written notice of appeal, the City shall set a hearing date to consider the merits of the challenge or appeal. The person or entity challenging or appealing the fee may appear at the hearing and present any written or oral evidence deemed relevant to the challenge or appeal. Representatives of the City may also appear and present evidence to support the imposition of the fee.

4. Decision. The hearing panel, which shall consist of the City Council or such other body as the City shall designate, shall hold a hearing and make a decision within 30 days after the date the challenge or appeal is filed.

SECTION 9. MISCELLANEOUS

1. Severability. If any section, subsection, paragraph, clause or phrase of this Impact Fee Policy shall be declared invalid for any reason, such decision shall not affect the remaining portions of this Impact Fee Ordinance, which shall remain in full force and effect, and for this purpose, the provisions of this Impact Fee Ordinance are declared to be severable.

2. Interpretation. This Impact Fee Ordinance has been divided into sections, subsections, paragraphs and clauses for convenience only and the interpretation of this Impact Fee Ordinance shall not be affected by such division or by any heading contained herein.

3. Effective Date. Except as otherwise specifically provided herein, this Impact Fee Ordinance shall not repeal, modify, or affect any Impact Fee of the City in existence as of the effective date of this Ordinance other than those expressly referenced in Section 1 above. All Impact Fees established, including amendments and modifications to previously existing Impact Fees, after the effective date of this Ordinance shall comply with the requirements of this Impact Fee Ordinance.

This ordinance shall become effective May 27, 2008 following the posting of three (3) copies in three (3) public places within Hyrum City.

4. Adoption. This ordinance is hereby adopted and passed by the Hyrum City Council the 18th day of February, 2021.

HYRUM CITY

BY:_____
Stephanie Miller
Mayor

ATTEST:

_____
Stephanie Fricke
City Recorder

Posted:_____

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

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

Example 200A 120/240V Single Phase Residential Service

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

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

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

Example 200A 120/240V Single Phase Service

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

Equation 3

3 Phase Calculation

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

Example 600A 120/208V Three Phase Service

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

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

EXHIBIT "B"

HYRUM CITY POWER AND LIGHT IMPACT FEE ANALYSIS

HYRUM CITY

Power & Light
Impact Fee Analysis

November 2020

Prepared by: Active Power Engineering, LLC

Michael R. Anderson, P.E.

TABLE OF CONTENTS

EXECUTIVE SUMMARY

General:
This report documents the study performed by Active Power Engineering, LLC, for Hyrum City Power & Light to update the Hyrum City Electric Power 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 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 2021 to 2030 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 projected demand placed upon the Hyrum City electric power system is directly tied to the forecasted population growth. Historic growth in population has averaged about 3.5%. Power demand growth rate has averaged about 5% and is projected continue to be between 3% to 4.6% per year going forward. Hyrum City power system load was 13.0 MVA in 2020 (21.6 MVA including JBS Meat Packing Plant). Hyrum City load is forecast to add 7.6 MVA of new development load between 2021 and 2030, totaling 20.6 MVA in 2030.

To serve the projected demand new power facilities are required. The IFFP includes a new substation (Dairy) with a 25 MVA transformer, an upgraded substation transformer adding 5 MVA capacity, an upgraded 46 kV transmission line to feed the new transformer capacity, and two new distribution feeders to utilize the new capacity. The total estimated cost of these projects is about $6,070,500. The projects add 30 MVA 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 Hyrum 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 interest earned on collected impact fees) by the added system capacity. The Impact Fee rate has been calculated to be $240.39/kVA.

The kVA power demand for residential customers was calculated from the typical kW demand experienced by Hyrum City on 200-amp and 400-amp services and the typical power factor. The kVA power demand for commercial customers was calculated using the service panel size, type (i.e., single phase or three phase), voltage, power factor and the panel utilization factor typical for commercial customers.

Several sample recommended Impact Fees calculated using the Impact Fee rate and power demand calculated above are shown below.

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

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

IMPACT FEE STUDY--GENERAL

INTRODUCTION

The purpose of this study is to update the Hyrum 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 Hyrum 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 2021 to 2030 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 Hyrum city council approval and completing the other appropriate steps outlined in the Impact Fees Act .

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.

IMPACT FEE FACILITIES PLAN (IFFP) FOR HYRUM CITY POWER SYSTEM

GENERAL

Hyrum City Power & Light, is a municipal electric utility serving approximately 3,220 customers in Hyrum, Cache County, Utah. The system coincident peak demand including the demand of the JBS Meat Packing Plant was 21.6 megawatts (MW) in summer 2020. The utility's service area is about 6 square miles including all of Hyrum City limits and a small additional area of Cache County. Hyrum City owns and operates one hydroelectric generator that is rated 350 kilowatts (kW). The power system consists of one 46-kilovolt (kV) delivery substation and three 46/12.47 kV distribution substations: 800 East, Hammer, and Center Street substations. A map of the city and power system is shown in Figure 1.

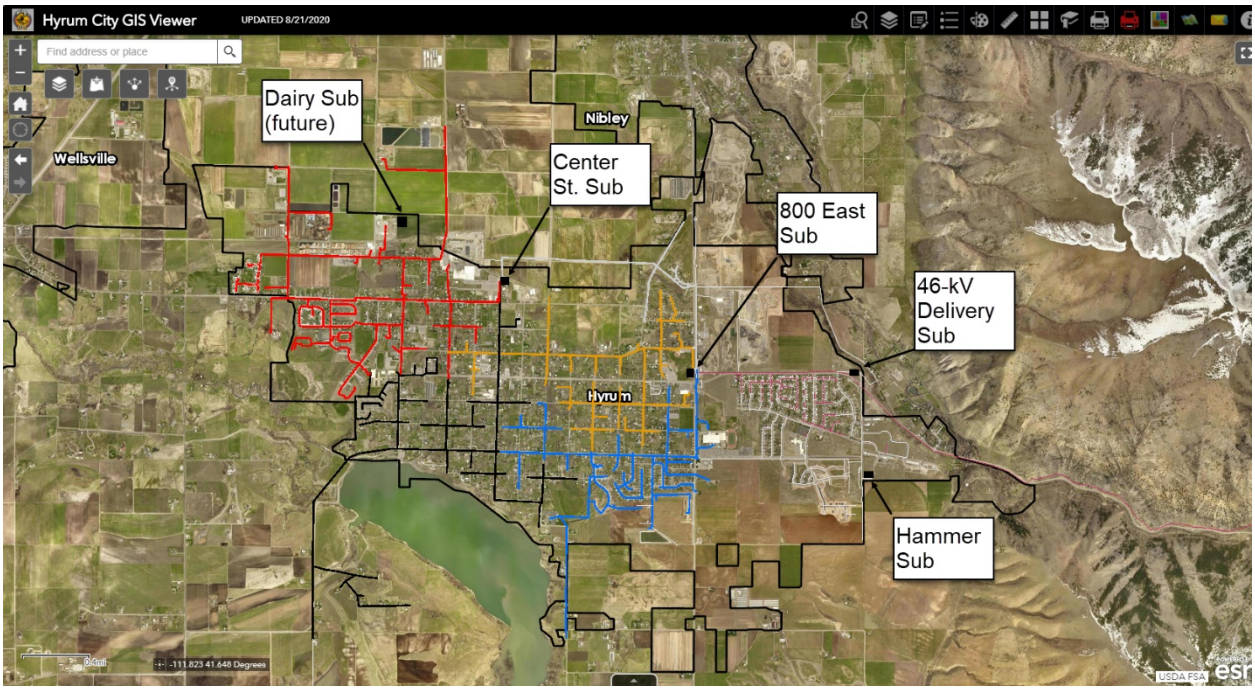

Figure 1-Hyrum City Power System Map

Hyrum City is a member of the Utah Associated Municipal Power Systems (UAMPS) organization. UAMPS is a member organization that provides wholesale electric-energy, transmission, and other energy services, on a nonprofit basis, to municipal-owned power systems. Hyrum City is able to participate along with other municipalities in projects including wind, natural gas, hydroelectric and coal-fired generation.

POPULATION AND GROWTH

The population of Hyrum City in 2019 was estimated by the Utah Governor's Office to be 8,619. The estimated population provided by Hyrum City for 2020 is 9,000. Population growth rate averaged over 2016-2020 is 2.5% to 3.5%, and the most recent year growth was about 4.5%.

POPULATION FORECAST

The population growth rate of 3.5% was applied over the 10-year period, 2021 to 2030, in this impact fee analysis. The estimated historic and projected future population of Hyrum City is shown in Figure 2.

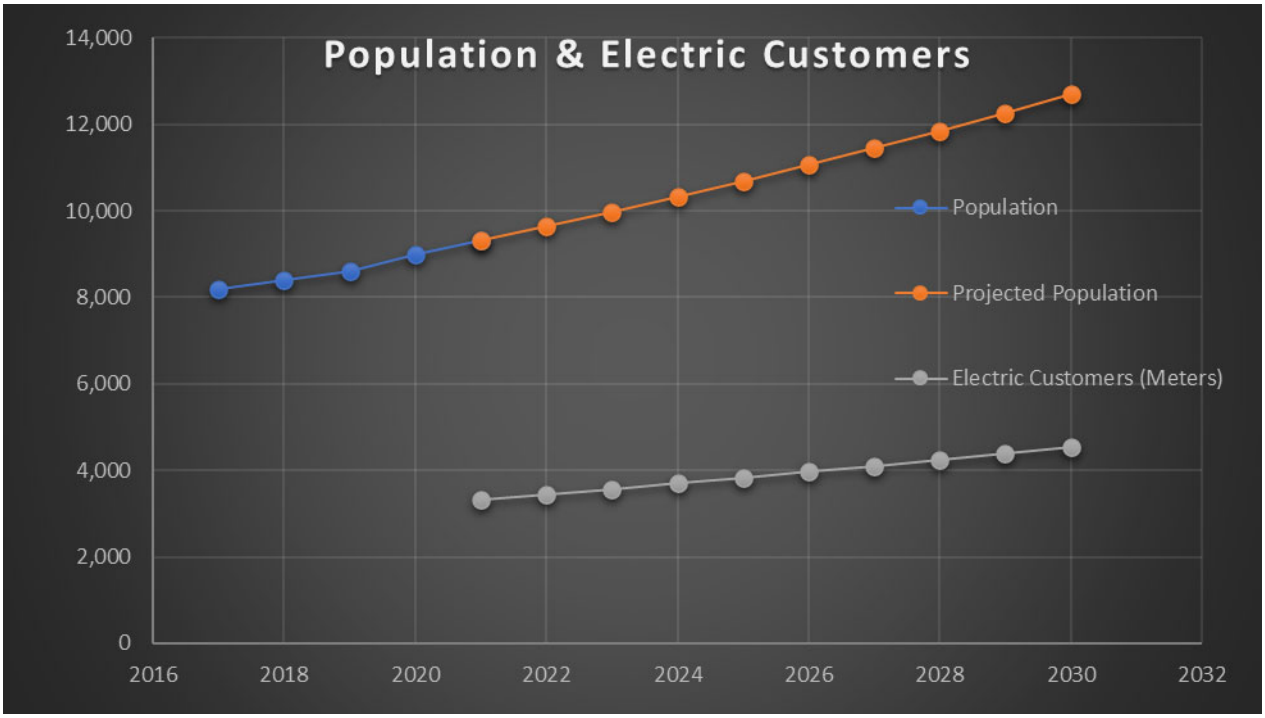

Figure 2 – Hyrum Population and Electric Customers

ELECTRIC CUSTOMERS

Hyrum City has about 3,220 electric meters installed as of 2020. Each meter is considered a customer, so the ratio of customers to population is 3,220:9,000 or 1 meter per 2.8 people. An estimated projection on the new of new meters or customers can be made from the population projection and the meters per population ratio. The projected number of total electric customers, or meters, is shown in Figure 2.

CUSTOMER FORECAST

The estimate for new meters is an average of 132 per year, some years might be less and some years might be more. Based on 2020 data, 94% of the meters are for residential customers, 4% of the meters are for commercial customers, and 2% of the meters are net meters or other type of meters. Going forward it is assumed that 94% of new meters will be for residential customers.

GROWTH AREAS

The areas of the city that are expected to see new growth are shown in Figure 3. The areas are identified as either residential or industrial based on the current zoning.

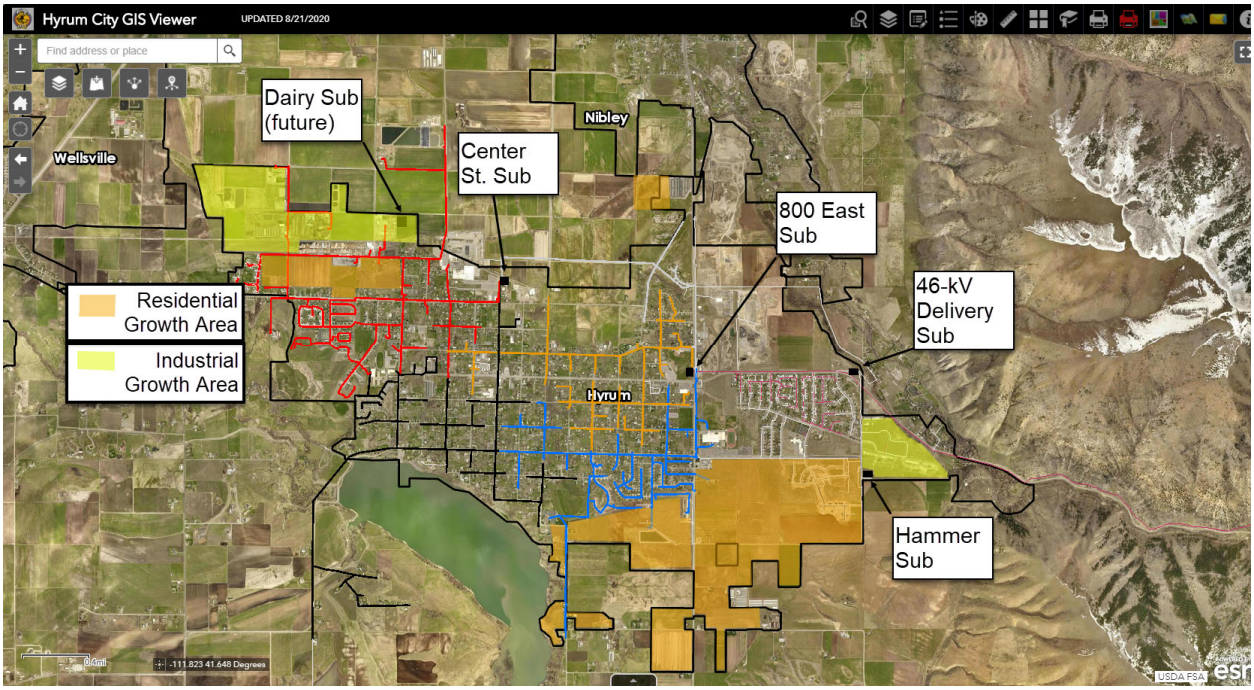

Figure 3-Growth Area Projection Map

EXISTING INFRASTRUCTURE CAPACITIES

TRANSMISSION SYSTEM AND SUBSTATIONS

Electric power is supplied to Hyrum City on a 46 kV transmission line owned and maintained by Rocky Mountain Power to one 46 kV breaker in the delivery substation. The city owns about 3.5 miles of 46 kV transmission line that feed four substations. An extension of the 46 kV transmission line will feed one future substation west of Center Street substation (the Dairy substation).

The 46 kV transmission system that is owned and operated by Hyrum City Power& Light has two branches. One branch goes to Hammer substation and another—the main branch—serves the substations at 800 East, Center Street, JBS[1] and will extend to feed the future Dairy substation. This main branch transmission line capacity is 23 MVA based on the 3/0 ACSR conductor rating (25 MVA short-term).

The substations and their associated transformers are listed in Table 1.

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[1] JBS is a customer owned substation serving only the JBS plant. It is not counted as a Hyrum City Power distribution substation.

Table 1-Substation Transformers

Substation	Transformer Manufacturer	Transformer Rating (MVA)
800 East	Westinghouse	5
Center Street	Westinghouse	5
Hammer	ABB	10
Total Existing Transformer Rated Capacity		20
Dairy (Planned Future)	To be determined	10 (planned) 25 (ultimate)

DISTRIBUTION SYSTEM

From the three distribution substations there are nine 12.47/7.2 kV distribution feeders. These nine distribution feeders leaving the substations are generally constructed with 4/0 aluminum ACSR overhead conductor or 1100 MCM aluminum (Al) underground cable. The feeders built with 1100 MCM Al underground cable are classified as 600-amp circuits based on the limiting ratings of the other equipment in the system (e.g., reclosers, switchgear, elbows, bushings, connectors, etc.) The feeders built with 4/0 Al ACSR overhead conductor are rated at 340 amps and operated normally limited to 200 amps.

CURRENT LEVEL OF SERVICE

The current level of service is the system loading design criteria that Hyrum City Power & Light has historically used in designing, operating, and expanding the power system. The criteria followed is to limit loading to the base rating on substation transformers and to 80 percent of the rated capacity on main line feeder conductors. This ensures that there is sufficient reserve capacity built into the system to maintain service during the loss of a substation transformer or feeder while in the peak load season.

The system voltage design criteria of Hyrum City Power & Light are to maintain voltage within a range of +/- 5% nominal voltage in normal operation, and within a range of -10% to +5% during short-term emergency operation. Table 2 lists these loading and voltage design criteria.

Table 2-System Design Criteria

Element	Normal System	During Short-term

		Emergency ("N-1" Contingency)
Substation transformer loading	5 MVA on 800 East Sub 5 MVA on Center St. Sub 10 MVA on Hammer Sub	6.25 MVA on 800 East Sub 6.25 MVA on Center St. Sub 12.5 MVA on Hammer Sub (Transformer "Emergency" rating is 125% of its base rating)
Main line feeder loading	80% of conductor rating	100% of conductor rating
Main tie or main branch line loading	80% of conductor rating	100% of conductor rating
Voltage	+/- 5%	+ 5% to -10%

DEMANDS ON CURRENT SYSTEM

The peak load demand on the current system in 2020 was 21.66 MVA. This includes the load of the JBS plant. The Hyrum City distribution load not including the JBS plant was 12.34 MVA. See Table 3 for the details on the 2020 power demand.

Table 3 - Hyrum 2020 Peak Power Demand

July 2020 Peak Demand	MW	Power Factor	MVA	% of Total
Hyrum UAMPS Meter Total	19.912	0.9199	21.646	100%
JBS Meat Packing Plant UAMPS Meter	7.575	0.8778	8.630	39.9%
Hyrum City (without JBS)	12.337	0.9478	13.016	60.1%

Load on the main branch of the Hyrum owned and operated 46 kV transmission line in 2020 is estimated to have been 17.6 MVA (includes JBS load).

DEMANDS WITH GROWTH (LOAD GROWTH FORECAST)

Historic power demand growth rate has averaged about 5% from 2016 to 2020. Power demand growth correlates with and is tied to the population growth rate. The forecast peak load

demand on the system from 2021-2030 is shown in Figure 4. The orange line Includes Hyrum City distribution load with the JBS plant load with a 3% growth rate per year applied. The blue line shows the Hyrum City distribution load only, with a 4.6% growth rate per year applied to it. The Hyrum City distribution peak load demand in 2030 is projected to be 20.6 MVA.

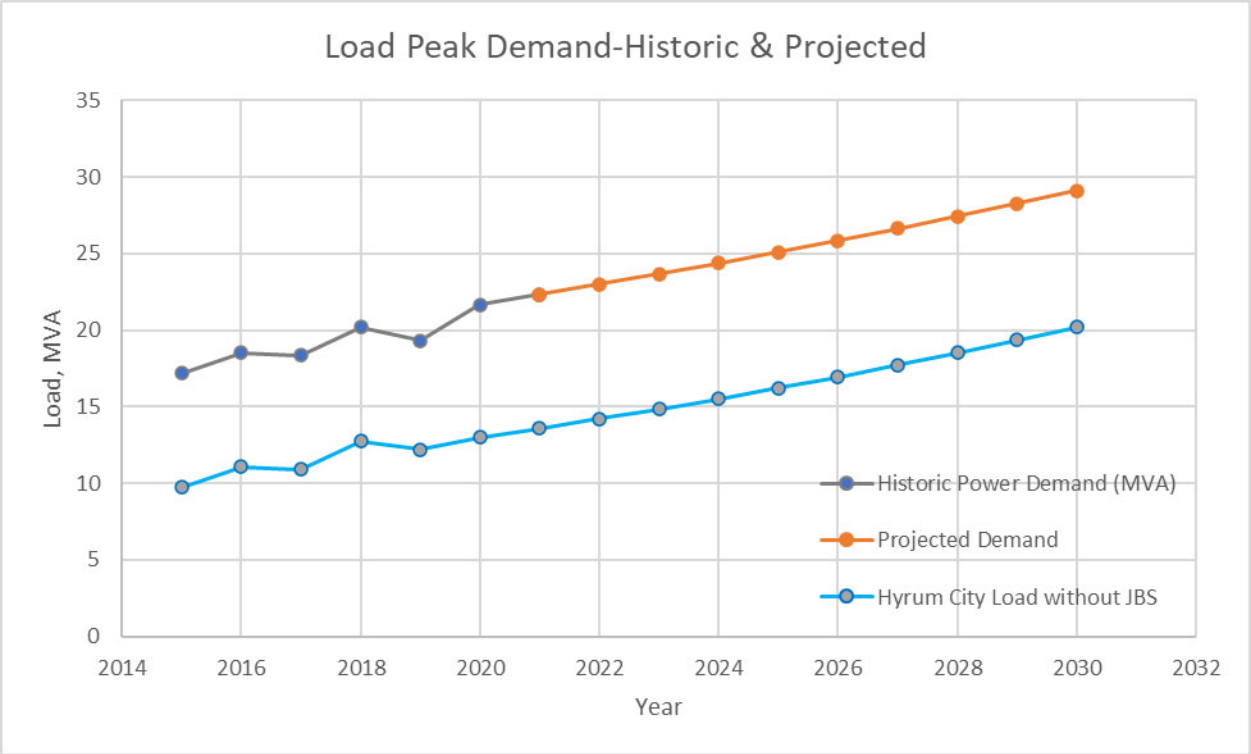

Figure 4- Power Demand

SPATIAL LOAD FORECAST

In order to plan the capital expansion of the Hyrum City power system, a spatial load forecast was performed. Spatial load forecast was performed using the growth areas provided in Figure 3 to obtain a prediction of future electric demand in those specific areas. The Figure 3 map of Hyrum City shows where and what types of future development is anticipated. From this information the 2021-2030 spatial load forecast was developed showing the projected power demand at build-out of these areas. The total Hyrum City power demand projected at build-out is approximately 20.6 MVA[2] as shown in Table 4.

Table 4-Spatial Load Forecast

Hyrum City Zoning Category	Approx. Total Acres	Factor of Usable Acreage	Number of Units per Acre	Demand per Customer	Spatial Forecast Demand

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[2] Does not include JBS substation/plant load

		(Accounts for roads, parks, open space, etc.)		(kW)	(kW)
R-2 (Residential Multi Family)	725	0.4	4	5	5,800
M-2 (Manufacturing-Med. To Heavy)	250	0.625	0.36 (2.75 acres per unit)	25	1,400
Totals	975				7,200

Future Load (kW) (kVA @ 0.95 P.F.)	7,200 kW 7,579 kVA	From above Spatial Forecast
Hyrum City 2020 Peak Load (kVA)	13,016 kVA	(Without JBS)
Total (kVA)	20,595 kVA	Projected for 2030

PROJECTS FOR IFFP—REQUIRED CAPACITY ADDITIONS

The projects below are included in the IFFP to meet the demand of future growth. They are also listed with the project's probable costs in Table 5.

46 kV TRANSMISSION PROJECT

When the Dairy substation is built (10 MVA capacity initially) it will have about 5 MVA of new load on it. The Dairy substation and its load will be served by the main transmission branch. The year that the Dairy substation load is added the main branch transmission line is projected to be loaded over its normal rating.

Even if the Dairy substation load is not added, in the "N-1" contingency loss of Hammer substation the entire Hyrum load is on the transmission line. The projected load in 2022 that the main branch transmission line would carry in this "N-1" is 23.1 MVA which exceeds the 23 MVA normal rating.

When the new Dairy substation is built and loaded, but no later than 2022, the 46 kV transmission line to the substations at 800 East, Center Street, and JBS substations and the new Dairy substation needs to be rebuilt with conductor that adds at least 9 MVA additional capacity--such as 397.5 ACSR conductor (rated 44 MVA) or greater.

SUBSTATION TRANSFORMERS

Hyrum City substation transformer total existing base capacity is 20 MVA which is sufficient for 2021 projected load of about 13.6 MVA. However, the 2020 load on Center Street substation appears to be about 5.7 MVA which is over its base rating capacity of 5 MVA. Load transfer

could be used to address this existing loading issue. This is an existing system issue the resolution of which is not included as an IFFP project.

Prior to building Dairy Sub the worst-case emergency ("N-1") contingency is the loss of the Hammer sub transformer (10 MVA capacity). In this "N-1" contingency there is emergency capacity of 12.5 MVA on the two remaining subs which is not enough capacity for the 13.6 MVA projected load in 2021. As development driven load continues to increase beyond this, another substation transformer or upgraded substation transformer is needed to serve the load. Either adding the Dairy substation or upgrading the Center St. substation transformer could fix this deficiency. The resolution of this issue is included in IFFP projects.

When the Dairy substation is built (10 MVA capacity initially) then the worst case emergency ("N-1") contingency would be the loss of the Dairy substation transformer (10 or 25 MVA)—there is emergency capacity of 25 MVA on the three remaining substations, which is enough capacity for the projected load until 2029. Another substation transformer or upgraded substation transformer is needed in 2029 to meet and serve the projected 2029 load under the worst-case emergency ("N-1") contingency. The resolution of this issue is included as an IFFP project.

DISTRIBUTION SYSTEM

In order to serve the projected new load one feeder with at least 360 amp capacity (477 ACSR overhead or 1100 MCM aluminum (Al) underground needs to be built, and another feeder of the same size is needed to back it up in the "N-1" contingency situation. Since the forecasted load is projected to be connected in two separate geographical areas, the southeast and northwest areas of the city, new feeders will be need in each area.

A total of two new feeders are considered necessary to maintain the level of service to Hyrum City Power & Light customers. One new feeder would be built into the northwest area and one new feeder would be built into the southeast area. This would likely satisfy the capacity requirements of new load in these areas. The new feeder built in the southeast area would likely be built from the Hammer substation into the areas that are being developed. The new Dairy substation or existing Center Street substation would be the source for the new feeder that would be built into the northwest area where it would be developed.

COST OF IFFP PROJECTS REQUIRED

The opinion of the probable costs of the capacity additions required and discussed in Section 2.8 are show in Table 5 and discussed in this section. Costs shown are 2020-dollar probable costs.

Table 5-IFFP Projects

Project	Added Capacity	Year	Opinion of Probable Cost

Build Dairy Substation	25 MVA (10 MVA initially, 25 MVA ultimate)	2021	$3,000,000
Center St. Substation Transformer Upgrade	5 MVA (10 MVA transformer replaces 5 MVA)	2021-2029	$800,000
Two New Feeders	15 MVA	2021-2026 (dependent on growth)	$575,000
46 kV Transmission Upgrade	21 MVA (44 MVA line replaces 23 MVA line)	2022 (or earlier when Dairy Sub is added)	$1,695,500
Capacity Added[3] (MVA)	**30 MVA**	**TOTAL Cost**	**$6,070,500**

SUBSTATION TRANSFORMER COST

The probable cost of the Dairy substation with a 25 MVA transformer is likely about $3,000.000. A transformer upgrade at Center St. substation to a 10 MVA transformer is an option in 2021, or required in 2029, and is likely about $800,000. These substation transformers are what are counted in the "Capacity Added" total in Table 5 since they represent the increase of the capacity of the system. The transmission upgrade and two new feeders are means to feed and utilize, respectively, the new transformer capacity.

FEEDER COST

Standard feeders are underground 1100 MCM aluminum (Al) feeders with a feeder breaker at the substation. The opinion of cost of a feeder is approximately $50,000 for the feeder breaker and $287,500 for an underground feeder that extends approximately one mile from the substation. One feeder from Hammer substation and one feeder from the Dairy substation are included in Table 5.

46 KV TRANSMISSION COST

The cost of the 46 kV transmission upgrade is based on 46 kV transmission line costing about $500,000 per mile. The length of the 46 kV transmission line to be built--upgraded to higher capacity--is 3.39 miles. The opinion of probable cost on this project is $1,695,500.

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[3] The 46 kV transmission upgrade is required for the capacity of the Dairy substation so it is not included in the total of the capacity added. Also, the two new feeders do not increase the system capacity but are needed to utilize it, so they are not included in the total of the capacity added.

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;
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: **11/17/2020**

IMPACT FEE ANALYSIS (IFA)

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 Hyrum 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

IMPACT FEE RATE CALCULATION

As in shown Table 5 the total cost of new development-related projects in the IFFP is $6,070,500. The Impact Fee rate analysis is shown in Table 6.

As shown in Table 6 the estimated cost/kVA of new system capacity, including transmission and substation capacity, and distribution feeders, is $202.35/kVA at present day pricing and

$252.71/ kVA for projected 2029 pricing[4], assuming no interest is earned on the collected fees. However, if the current rate of 0.5% interest earnings[5] on invested funds can be maintained, the impact fee rate can be reduced to $240.39/kVA.

Table 6-Impact Fee Rate Calculation

Row Item	Value	Notes
(1) Total Cost of IFFP Projects	$6,070,500	2020-dollar costs of new development-related projects shown in Table 5
(2) Added kVA	30,000 kVA	25,000 kVA New Dairy Sub + 5,000 kVA transformer upgrade at Center St. Sub
(3) Cost per kVA	$202.35 per kVA	$(Row\ 1) \div (Row\ 2) = \frac{\$}{kVA}$
(4) 2029 Escalated Total Cost of Projects	$7,581,223	Assumed construction cost escalation rate of 2.5% per year. $(Row\ 1) x (1.025)^9$
(5) 2029 Escalated Cost per kVA	$252.71 per kVA	$(Row\ 4) \div (Row\ 2) = \frac{\$}{kVA}$
(6) Present Value of 2029 Escalated Total Cost of Projects	$7,211,707	Assumed interest earnings rate of 0.5% per year compounded quarterly, Impact fees collected evenly over 10 years
(7) Cost per kVA considering earned interest	$240.39	$(Row\ 6) \div (Row\ 2) = \frac{\$}{kVA}$
Impact Fee Rate	**$240.39**	

Hyrum 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 Hyrum City will be based on the rate of $240.39 per kVA of power demand added to the system.

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

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[4] Calculated based on assumed construction cost escalation rate of 2.5%

[5] The 0.5% rate of return is the present rate of return available to the City for these funds.

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

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

Example 200A 120/240V Single Phase Residential Service

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

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
200 Amp	5	95.0%	5.3	$1,265
400 Amp	10	95.0%	10.5	$2,530

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

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

Example 200A 120/240V Single Phase Service

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

Equation 3

3 Phase Calculation

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

Example 600A 120/208V Three Phase Service

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

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

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; 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:

CERTIFIED BY:

Signature: 

Name: Michael R. Anderson

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

Date: **11/17/2020**

HYRUM CITY
Power Department

APPENDIX

IMPACT FEE ANALYSIS
SUPPORTING DOCUMENTATION

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