

IMPACT FEE FACILITIES PLAN (IFFP) & IMPACT FEE ANALYSIS (IFA)

PURSUANT TO 11-36A, UTAH CODE

POWER FACILITIES

MAY 2023

SALEM CITY, UTAH





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IMPACT FEE FACILITIES PLAN & ANALYSIS CERTIFICATION

IFFP CERTIFICATION

LYRB certifies 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 the 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. complies in each and every relevant respect with the Impact Fees Act.

IFA CERTIFICATION

LYRB certifies 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 the 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. offsets costs with grants or other alternate sources of payment; and,
4. complies in each and every relevant respect with the Impact Fees Act.

LYRB makes this certification with the following caveats:

1. All of the recommendations for implementations of the IFFP made in the IFFP documents or in the IFA documents are followed by City Staff and elected officials.
2. If all or a portion of the IFFP or IFA are modified or amended, this certification is no longer valid.
3. All information provided to LYRB is assumed to be correct, complete, and accurate. This includes information provided by the City as well as outside sources.

LEWIS YOUNG ROBERTSON & BURNINGHAM, INC.

SECTION 1: EXECUTIVE SUMMARY

The purpose of the power facilities Impact Fee Facilities Plan (“IFFP”), with supporting Impact Fee Analysis (“IFA”), is to fulfill the requirements established in Utah Code Title 11 Chapter 36a, the “Impact Fees Act”, and assist Salem City (the “City”) in financing and constructing necessary capital improvements for future growth. This document will address the future infrastructure needed to serve the City through the next ten years, as well as the appropriate impact fees the City may charge to new growth to maintain the level of service (“LOS”). The City commissioned a Capital Facility Plan (CFP), completed in May 2023, to support the IFFP and IFA analysis.

- ☞ **Impact Fee Service Area:** The power service area (“Service Area”) covers the distribution service area of the City and is defined in **SECTION 3**.
- ☞ **Demand Analysis:** The proposed impact fees are based upon the costs of capital infrastructure that will be necessary to serve new development. A total of 59,648 additional kilowatts (“kW”) of demand will be generated within the current Service Area in the IFFP planning horizon. See **SECTION 3** for details regarding growth in kW and equivalent residential units (“ERUs”).
- ☞ **Level of Service:** The power LOS is based on loading to the base rating on substation transformers and system voltage criteria. **SECTION 3** provides the LOS information used in this analysis. New facilities are designed to maintain the diversified kW LOS.
- ☞ **Excess Capacity:** This analysis includes excess capacity related to substations and the feeder system.
- ☞ **Capital Facilities Analysis:** The costs of future system improvements related to growth and funded with impact fees is approximately \$48 million. This does not include the buy-in component, the impact fee fund balance, or professional expense.
- ☞ **Funding of Future Facilities:** At the request of the City, no financing costs are included in this analysis and thus assumes all future facilities will be funded on a cash basis.

PROPOSED POWER IMPACT FEE

Impact fees can be calculated using a specific set of costs specified for future development. The improvements are identified in the IFFP, Capital Facilities Plan (“CFP”) or Capital Improvement Plan (“CIP”) as growth related projects. The total project costs are divided by the total demand units the projects are designed to serve. Under this methodology, it is important to identify the existing LOS and determine any excess capacity in existing facilities that could serve new growth.

POWER IMPACT FEE CALCULATION

Based on the growth-related projects, as well as the applicable buy-in fee, the cost per new kW is shown in **TABLE 1.1**. The fee per kW is then applied to the general usage statistics by panel rating, as shown in **TABLE 1.2**.

TABLE 1.1: ILLUSTRATION OF COST PER NEW kW

| POWER PROJECTS | TOTAL COSTS | % GROWTH RELATED AND IMPACT FEE FUNDED | GROWTH RELATED & CITY FUNDED COSTS | GROWTH RELATED kW | COST PER NEW kW |
|--|---------------------|--|------------------------------------|-------------------|-----------------|
| Buy-In: Existing Substation Transformers (see Section 4) | \$3,380,699 | 40% | \$1,366,366 | 59,648 | \$23 |
| Buy-In: Salem Feeder Load (see Section 4) | \$5,093,405 | 43% | \$2,174,508 | 59,648 | \$36 |
| Future Capital Projects (see Table 5.1) | \$64,996,994 | 74% | \$47,920,261 | 59,648 | \$803 |
| Impact Fee Interest Credit | \$0 | 100% | \$0 | 59,648 | \$0 |
| Professional Expense (see Table 5.1) | \$31,245 | 82% | \$25,644 | 31,326 | \$1 |
| TOTALS: | \$73,502,342 | | \$51,486,778 | | \$863 |

TABLE 1.2: ILLUSTRATION OF IMPACT FEE BY PANEL

| PANEL RATING | LINE-TO-LINE VOLTAGE | 100% PANEL kVA | AVG PANEL LOADING | AVG PEAK DEMAND @ PANEL (kVA) | POWER FACTOR | ESTIMATED DIVERSIFIED KW | PROPOSED FEE | EXISTING FEE | % CHANGE |
|---------------------------------------|----------------------|----------------|-------------------|-------------------------------|--------------|--------------------------|--------------|--------------|----------|
| Residential (120/240, 1 Phase) | | | | | | | | | |
| 100 | 240 | 24 | 12.50% | 3.00 | 95% | 2.85 | \$2,460 | \$1,931 | 27% |
| 150 | 240 | 36 | 12.50% | 4.50 | 95% | 4.28 | \$3,689 | \$2,896 | 27% |
| 200 | 240 | 48 | 12.50% | 6.00 | 95% | 5.70 | \$4,919 | \$3,862 | 27% |
| 400 | 240 | 96 | 12.85% | 12.34 | 95% | 11.72 | \$10,114 | \$7,723 | 31% |
| 600 | 240 | 144 | 12.85% | 18.50 | 95% | 17.58 | \$15,171 | \$11,585 | 31% |
| 800 | 240 | 192 | 12.85% | 24.67 | 95% | 23.44 | \$20,227 | \$15,447 | 31% |
| Commercial (120/240, 1 Phase) | | | | | | | | | |
| 200 | 240 | 48 | 25.00% | 12.00 | 90% | 10.80 | \$9,320 | \$7,294 | 28% |
| 400 | 240 | 96 | 25.00% | 24.00 | 90% | 21.60 | \$18,641 | \$14,588 | 28% |
| 600 | 240 | 144 | 25.00% | 36.00 | 90% | 32.40 | \$27,961 | \$21,883 | 28% |
| Commercial (120/208, 3 Phase) | | | | | | | | | |
| 200 | 208 | 72 | 25.00% | 18.01 | 90% | 16.21 | \$13,991 | \$10,949 | 28% |
| 400 | 208 | 144 | 25.00% | 36.03 | 90% | 32.42 | \$27,982 | \$21,899 | 28% |
| 600 | 208 | 216 | 25.00% | 54.04 | 90% | 48.64 | \$41,973 | \$32,848 | 28% |
| Commercial (277/480, 3 Phase) | | | | | | | | | |
| 200 | 480 | 166 | 25.00% | 41.57 | 90% | 37.41 | \$32,287 | \$25,268 | 28% |
| 400 | 480 | 333 | 25.00% | 83.14 | 90% | 74.82 | \$64,574 | \$50,536 | 28% |
| 800 | 480 | 665 | 25.00% | 166.28 | 90% | 149.65 | \$129,147 | \$101,071 | 28% |
| 1,200 | 480 | 998 | 25.00% | 249.42 | 90% | 224.47 | \$193,721 | \$151,607 | 28% |

NON-STANDARD IMPACT FEES

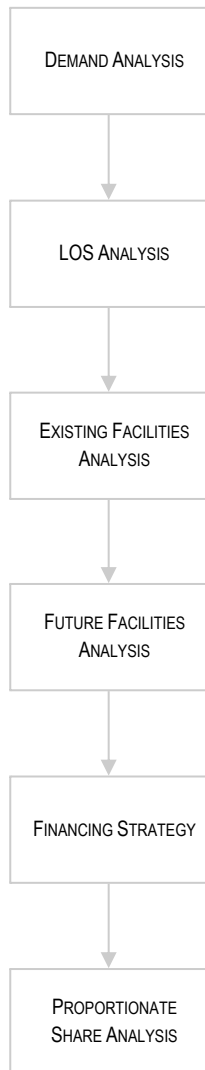
The proposed fees are based upon growth in kW's. The City reserves the right under the Impact Fees Act to assess an adjusted fee that more closely matches the true impact that the land use will have upon public facilities.¹ A developer may submit studies and data for a particular development and request an adjustment. This adjustment could result in a higher or lower impact fee if the City determines that a particular user may create a different impact than what is standard for its land use.

Estimated Diversified kW Usage * \$863

¹ UC 11-36a-402(1)(c)

SECTION 2: GENERAL IMPACT FEE METHODOLOGY

FIGURE 2.1: IMPACT FEE METHODOLOGY



The purpose of this study is to fulfill the requirements of the Impact Fees Act regarding the establishment of an IFA². The IFFP is designed to identify the demands placed upon the City's existing facilities by future development and evaluate how these demands will be met by the City, as well as the future improvements required to maintain the existing LOS. The purpose of the IFA is to proportionately allocate the cost of the new facilities and any excess capacity to new development, while ensuring that all methods of financing are considered. The following elements are important considerations when completing an IFA.

DEMAND ANALYSIS

The demand analysis serves as the foundation for this analysis. This element focuses on a specific demand unit related to each public service – the existing demand on public facilities and the future demand as a result of new development that will impact system facilities.

LEVEL OF SERVICE ANALYSIS

The demand placed upon existing public facilities by existing development is known as the existing LOS. Through the inventory of existing facilities, combined with the growth assumptions, this analysis identifies the LOS which is provided to a community's existing residents and ensures that future facilities maintain these standards.

EXISTING FACILITY INVENTORY

In order to quantify the demands placed upon existing public facilities by new development activity, the IFFP provides an inventory of the City's existing system facilities. The inventory does not include project improvements. The inventory of existing facilities is important to properly determine the excess capacity of existing facilities and the utilization of excess capacity by new development. Any excess capacity identified within existing facilities can be apportioned to future new development.

FUTURE CAPITAL FACILITIES ANALYSIS

The demand analysis, existing facility inventory and LOS analysis allow for the development of a list of capital projects necessary to serve new growth and to maintain the existing system. This list includes any excess capacity of existing facilities, as well as future **system improvements** necessary to maintain the level of service. Any demand generated from new development that overburdens the existing system beyond the existing capacity justifies the construction of new facilities.

FINANCING STRATEGY

This analysis must also include a consideration of all revenue sources, including impact fees, debt issuance, alternative funding sources, and the dedication (aka donations) of system improvements, which may be used to finance system improvements.³ In conjunction with this revenue analysis, there must be a determination that impact fees are necessary to achieve an equitable allocation of the costs of the new facilities between the new and existing users.⁴

PROPORTIONATE SHARE ANALYSIS

The written impact fee analysis is required under the Impact Fees Act and must identify the impacts placed on the facilities by development activity and how these impacts are reasonably related to the new development. The written impact fee analysis must include a proportionate share analysis, clearly detailing each cost component and the methodology used to calculate each impact fee. A local political subdivision or private entity may only impose impact fees on development activities when its plan for financing system improvements establishes that impact fees are necessary to achieve an equitable allocation of the costs borne in the past and to be borne in the future (UCA 11-36a-302).

SYSTEM VS. PROJECT IMPROVEMENTS

System improvements are defined as existing and future public facilities designed and intended to provide

² UC 11-36a-301,302,303,304

³ 11-36a-302(2)

⁴ 11-36a-302(3)



services to service areas within the community at large.⁵ Project improvements are improvements and facilities that are planned and designed to provide service for a specific development (resulting from a development activity) and considered necessary for the use and convenience of the occupants or users of that development.⁶ References to facilities, amenities, projects, etc. within this analysis are referring to System Improvements unless otherwise stated.

⁵ 11-36a-102(20)

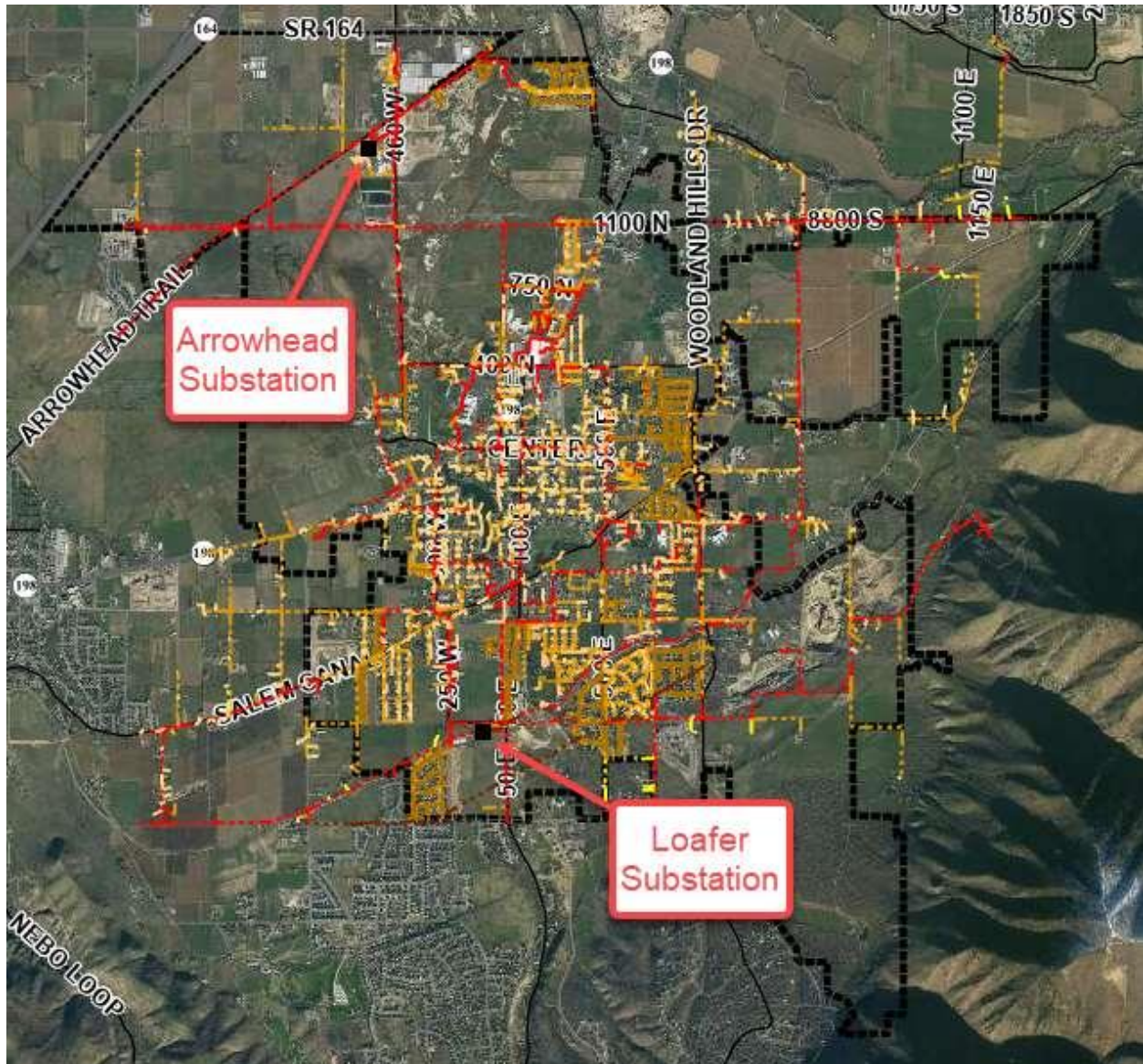
⁶ 11-36a102(13)

SECTION 3: OVERVIEW OF SERVICE AREA, DEMAND, AND LOS

SERVICE AREA

Utah Code requires the impact fee enactment to establish one or more service areas within which impact fees will be imposed.⁷ The City's electrical system serves areas within the existing municipal boundaries as outlined in **FIGURE 3.1**. All information regarding the existing power LOS, projected system load growth, future power capital projects, and proposed power impact fee relates to the adopted service area.

FIGURE 3.1: SALEM POWER IMPACT FEE SERVICE AREA



⁷ UC 11-36a-402(a)

DEMAND UNITS

The City's power system is in need of expansion as new growth and development activity continue to occur within the area to maintain the LOS that the City has historically provided. To accurately determine the portion of the costs of future capital infrastructure that should be included in the impact fees, this analysis projects the future growth in megawatts (MW) and kilowatts (kW). The demand unit used in the calculation of the power impact fees is the estimated MW and kW at a power factor of 95 percent.⁸ **TABLE 3.1** summarizes the projected annual increase in kW within the Service Area.

TABLE 3.1: PROJECTED GROWTH IN POPULATION (CITY-WIDE)

| YEAR | PEAK LOAD (MVA) | FORECAST MW @ 95% P.F. | FORECAST kW @ 95% P.F. | GENERAL PLAN POPULATION |
|---------------------|-----------------|------------------------|------------------------|-------------------------|
| 2022 | 14.7 | 13.9 | 13,936 | 10,379 |
| 2023 | 17.0 | 16.2 | 16,150 | 10,877 |
| 2024 | 22.6 | 21.5 | 21,512 | 11,399 |
| 2025 | 31.6 | 30.0 | 30,010 | 11,946 |
| 2026 | 40.3 | 38.3 | 38,253 | 12,519 |
| 2027 | 47.6 | 45.3 | 45,262 | 13,120 |
| 2028 | 53.4 | 50.7 | 50,733 | 13,750 |
| 2029 | 59.3 | 56.3 | 56,295 | 14,410 |
| 2030 | 65.2 | 62.0 | 61,952 | 15,102 |
| 2031 | 71.3 | 67.7 | 67,713 | 15,827 |
| 2032 | 77.5 | 73.6 | 73,583 | 16,587 |
| IFFP 10-Year Demand | 62.8 | 59.6 | 59,648 | 6,208 |
| IFFP 5-Year Demand | 33.0 | 31.3 | 31,326 | 2,741 |

Source: CFP p.7-9, 19-20
p.f. = power factor

It is anticipated that the growth will impact the City's existing services. Power facilities will need to be expanded in order to maintain the existing LOS. The IFFP, in conjunction with the impact fee analysis, are designed to accurately assess the true impact of a particular user upon the City's infrastructure.

LEVEL OF SERVICE STANDARDS

Impact fees cannot be used to finance an increase in the LOS to current or future users of capital improvements. Therefore, it is important to identify the power LOS within the Service Area to ensure that the new capacities of projects financed through impact fees do not exceed the established standard. According to the most recent CFP, the system loading criteria that the Salem 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 60% of the rated capacity 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 while in the peak load season. The feeder loading limit also serves to limit the number of customers affected by the loss of any one feeder. The system voltage design criteria of the Salem 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. **TABLE 3.2** and **3.3** identify the existing system design criteria and LOS variables.

TABLE 3.2: SYSTEM DESIGN CRITERIA

| ELEMENT | NORMAL SYSTEM | DURING EMERGENCY ("N-1" CONTINGENCY) |
|--|--|---|
| Arrowhead and Loafer Substations Transformer Loading | 100% of Base Rating (12 MVA) | 100% of Highest Nameplate Rating (20 MVA, about 167% of Base Rating) |
| Main line feeder Loading — Arrowhead North, West, & East; Loafer North, West, & East | 60% of the conductor rating, 231 amps (5 MVA each feeder) for 500 kcmil A1 underground conductor | 100% of the conductor rating, 385 amps max.— rating of 500 kcmil A1 underground conductor |
| Voltage | +/- 5% | + 5% to -10% |

Source: CFP p.18

⁸ Power factor (p.f.) is the ratio of working power, measured in kilowatts (kW), to apparent power, measured in kilovolt amperes (kVA). The power factor of the present system is acceptable, above 0.95. The system power factor is primarily influenced by the types and level of loads on the system and the amount of shunt capacitors installed in the system. For additional information see CFP Section 3.1.1.

TABLE 3.3: CONDUCTOR DESIGN CRITERIA

| CONDUCTOR | USE | DESIGN CRITERIA | 100% FULL RATING (AMPS) |
|--------------------|----------------------|-----------------|-------------------------|
| 500 kcmil Aluminum | Underground Mainline | 231 amps | 385 amps |
| 4/0 URD Aluminum | Underground Mainline | 153 amps | 200 amps* |
| 266 kcmil ACSR | Overhead Mainline | 276 amps | 460 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—255 amps—the design criteria rating is limited to the system maximum of 200 amps based on sectionalizer elbows, bushings, connectors, etc.

Source: CFP p.18

The City also operates based on a “N-1 Contingency”. Being able to continuously operate at an acceptable N-1 contingency level means that the system can withstand the loss of any single system component (equipment, transmission line, source, etc.) while still providing service to its customers at an acceptable standard of service.

SECTION 4: EXISTING FACILITIES INVENTORY

This section is intended to summarize the existing public facilities related to power services. Generally, existing assets are separated into two areas: (1) Power Resources (aka Generation); and, (2) City Transmission and Distribution System Improvements. Salem City is a member city in the Utah Municipal Power Association (UMPA). UMPA works with its member cities to obtain the power supply for their electric power needs. Electric power is supplied to Salem City on transmission lines owned and maintained by Southern Utah Valley Power Systems (SUVPS) at 46 kV transmission voltage. These transmission lines deliver power at Salem's Arrowhead and Loafer substations. Salem City owns two 46 kV-12.47 kV distribution substation transformers, one located in each substation. The present total system substation transformer capacity is 24 MVA in normal operation. The distribution substations and their associated transformers, ratings, loading, and remaining capacities are discussed below.

VALUE OF EXISTING POWER INFRASTRUCTURE

Based upon the City's 2022 electric utility depreciation schedule, the existing system is valued at approximately \$15.3 million, based on original cost, as shown in **TABLE 4.1**. Of this amount, \$8.5M is included as impact fee eligible value based on the exclusion of developer contributed assets, project improvements, and assets with a useful life of less than 10 years.

TABLE 4.1: VALUE OF EXISTING POWER SYSTEM

| ITEM | IFFP ELIGIBLE ORIGINAL VALUE |
|-----------------------------------|---------------------------------|
| Total System Value | \$15,289,901 |
| Eligible Substations | \$3,380,699 |
| Eligible Distribution | \$5,093,405 |
| Subtotal of Eligible Value | \$8,474,104 |

EXCESS CAPACITY

TRANSFORMERS AND FEEDER SYSTEM

The City maintains a network of transmission and distribution infrastructure. **TABLE 4.2** and **4.3** illustrate the capacity analysis for the existing transformers and feeder loads. Based on this analysis, there is excess capacity related to existing infrastructure.

TABLE 4.2: EXISTING SUBSTATION TRANSFORMER CAPACITY ANALYSIS

| SUBSTATION | TRANSFORMER | BASE RATING - CAPACITY USED FOR NORMAL LOAD (MVA) | MAXIMUM CAPACITY USED FOR "N-1" CONTINGENCY (MVA) | JULY 2022 RECORDED LOADING (MVA) | REMAINING TRANSFORMER CAPACITY AVAILABLE (MVA) |
|-----------------------------------|-------------|--|---|--|--|
| Arrowhead | T1 | 12.00 | 20.00 | 6.88 | 5.12 |
| Loafer | T1 | 12.00 | 20.00 | 7.42 | 4.58 |
| Total | | 24.00 | 40.00 | | 9.70 |
| % Excess Capacity (Buy-In) | | | | | 40% |

Source: CFP p.16

TABLE 4.3: EXISTING FEEDER SYSTEM CAPACITY ANALYSIS

| SUB | FEEDER | PHASE A | PHASE B | PHASE C | PHASE N | RECORDED kW | CALCULATED P.F. | TOTAL CAPACITY | CALCULATED kVA | REMAINING CAPACITY (kVA) |
|-----------------------------------|--------|---------|---------|---------|---------|----------------|--------------------|-------------------|-------------------|--------------------------------|
| Arrowhead | East | 151 | 140 | 135 | 28 | 2,907 | 0.948 | 4,989 | 3,066 | 1,923 |
| Arrowhead | West | 134 | 117 | 105 | 34 | 2,505 | 0.977 | 4,991 | 2,564 | 2,427 |
| Arrowhead | North | 62 | 54 | 58 | 24 | 1,228 | 0.980 | 4,990 | 1,253 | 3,737 |
| Loafer | North | 255 | 233 | 278 | 79 | 5,425 | 0.984 | 4,988 | 5,513 | (525) |
| Loafer | West | 79 | 76 | 109 | 47 | 1,870 | 0.984 | 4,989 | 1,900 | 3,089 |
| Total | | | | | | 13,935 | | 24,948 | 14,297 | 10,651 |
| % Excess Capacity (Buy-In) | | | | | | | | | | 43% |

Source: CFP p.17

MANNER OF FINANCING EXISTING INFRASTRUCTURE

The City has funded its existing capital infrastructure through a combination of different revenue sources, including user fee revenues, service fees, and impact fees. Therefore, the City's existing LOS standards have been funded by the City's existing residents. The City does not foresee receiving revenues from other entities (i.e. grants, federal or state funds, other contributions, etc.) to fund new facilities.

SECTION 5: CAPITAL FACILITY ANALYSIS

The capital project and engineering data, planning analysis, and other information related to future capital needs can be found in the 2022 CFP. The accuracy and correctness of this plan is contingent upon the accuracy of the data and assumptions. Any deviations or changes in the assumptions due to changes in the economy or other relevant information used by the City for this study may cause this plan to be inaccurate and may require modification to this analysis to ensure accuracy.

SUMMARY OF FUTURE CAPITAL PROJECTS

Based upon the projected increase in kW and demand on the system, the City has identified the future capital projects that must be constructed over the next ten years to serve future development. The costs of these projects are summarized in **TABLE 5.1**. The percentage of the total cost that is attributable to growth is based upon information provided by the City's contract engineer. All of the projects listed in the table below have a life expectancy of more than 10 years.

TABLE 5.1: SUMMARY OF FUTURE POWER CAPITAL PROJECT COSTS

| PROJECT # | PROJECT TITLE | OPINION OF PROBABLE COST | PERCENT ATTRIB. TO GROWTH | CONSTRUCTION YEAR | CONSTRUCTION YEAR COST | COST TO GROWTH |
|-----------------|---|--------------------------|---------------------------|-------------------|------------------------|---------------------|
| 1 | Rebuild Loafer North Overhead Main Line Along 100 E To 200 S | \$838,451 | 46% | 2022 | \$838,451 | \$385,687 |
| 2 | Reconductor Loafer North Getaway With 1100 Mcm | \$124,319 | 22% | 2022 | \$124,319 | \$27,350 |
| 3 | Build 400 N Arrowhead East-Loafer North Tie On 500 East | \$133,189 | 100% | 2023 | \$138,517 | \$138,517 |
| Salem 1 | Power Department Shop Building | \$3,059,822 | 68% | 2023 | \$3,182,215 | \$2,163,906 |
| Salem-Devl.1-19 | 600-Amp Main Line Projects** | \$3,879,586 | 8% | 2023 | \$4,034,769 | \$316,326 |
| 4 | New Substation (Arrowhead Springs) | \$5,062,834 | 100% | 2024 | \$5,475,961 | \$5,475,961 |
| 4.1 | Three New Circuits From New Substation (Arrowhead Springs) | \$2,680,197 | 53% | 2024 | \$2,898,901 | \$1,536,418 |
| 5 | Rebuild Mainline On 400 North, West Part | \$524,248 | 43% | 2024 | \$567,027 | \$243,821 |
| 6 | Rebuild Mainline On 400 North, East Part | \$183,149 | 77% | 2024 | \$198,094 | \$152,532 |
| 7 | Reconductor Arrowhead North And East Getaways With 1100 Mcm, And Arrowhead North Mainline Overhead | \$249,948 | 84% | 2025 | \$281,158 | \$236,172 |
| 8 | Reconductor Loafer East Getaway, Install 1100 Mcm Along 1280 South & Build Oh On Woodland Hills Dr. | \$1,956,715 | 73% | 2025 | \$2,201,038 | \$1,606,758 |
| 9 | Reconductor Ug Segments Of Loafer North Circuit | \$362,321 | 62% | 2025 | \$407,562 | \$252,688 |
| Salem-2 | System Scada, Oms, Dispatch, System Model | \$433,000 | 41% | 2026 | \$506,549 | \$207,685 |
| 10 | New Substation (Veridian Sub) | \$5,756,737 | 100% | 2026 | \$6,734,568 | \$6,734,568 |
| 10.1 | Three New Circuits From New Substation (Veridian) | \$3,134,322 | 43% | 2026 | \$3,666,713 | \$1,576,687 |
| 11 | New Substation (Davis Sub) | \$5,894,430 | 100% | 2027 | \$7,171,475 | \$7,171,475 |
| 11.1 | Three New Circuits From New Substation (Davis) | \$2,668,372 | 50% | 2027 | \$3,246,483 | \$1,623,241 |
| 12 | Reconductor Arrowhead West Getaways With 1100 Mcm | \$61,990 | 67% | 2032 | \$91,760 | \$61,479 |
| 13 | Install 2Nd Arrowhead Springs Substation Transformer | \$4,006,415 | 100% | 2030-2032 | \$5,702,378 | \$5,702,378 |
| 13.1 | Three New Circuits From New Substation (Arrowhead Springs 2Nd) | \$3,208,496 | 23% | 2030-2032 | \$4,566,690 | \$1,050,339 |
| 14 | Install 2Nd Veridian Substation Transformer | \$4,006,415 | 100% | 2030-2032 | \$5,702,378 | \$5,702,378 |
| 14.1 | Three New Circuits From New Substation (Veridian 2Nd) | \$2,724,271 | 56% | 2030-2032 | \$3,877,487 | \$2,171,393 |
| SUVPS-1 | Transmission System Capital Projects | \$3,382,500 | 100% | 2022-2032 | \$3,382,500 | \$3,382,500 |
| Total | | \$54,331,728 | | | \$64,996,994 | \$47,920,261 |

Source: CFP p. 28 - 35; 36 - 37

*68 percent of this project is considered attributed to growth. The City currently provides 3,600 square feet (SF) of building space to existing demand of 13,936 kW. This produces a LOS of .26 sf per kW. Assuming 59,648 new kW, the City would need to provide an additional 15,400 sf of building space. The proposed facility is estimated at 11,200 sf and will replace the existing facility. The expansion sf equals 7,600 sf, or 68 percent of the total proposed facility.

** See Appendix A

The projected resource needs for the next several years is detailed in the following paragraphs. The estimated costs of future capital projects are based on historical experience with the system and projected growth patterns for the system.

SYSTEM VS. PROJECT IMPROVEMENTS

System improvements are defined as existing and future public facilities that are intended to provide services to service areas within the community at large.⁹ Project improvements are improvements and facilities that are planned and designed to provide service for a specific development (resulting from a development activity) and considered necessary for the use and convenience of the occupants or users of that development.¹⁰ The Impact Fee Analysis may only include the costs of impacts on system improvements related to new growth within the proportionate share analysis. However, impact fees will be used for the substations, etc. since these are considered system improvements.

FUNDING OF FUTURE FACILITIES

Future facilities are generally funded using the following resources:

UTILITY RATE REVENUES

Utility rate revenues serve as the primary funding mechanism within enterprise funds. Rates are established to ensure appropriate coverage of all operations and maintenance expenses, debt service coverage, and capital project needs not related to growth.

GRANTS AND DONATIONS

The City does not anticipate receiving grants or donations to fund improvements currently contemplated in this IFFP. However, the impact fees will be adjusted if grants become available to reflect the grant monies received. A donor may be entitled to a reimbursement for the value of the system improvements funded through impact fees if donations are made by new development. **SECTION 6** further addresses proposed credits available to development.

IMPACT FEE REVENUES

Impact fees are charged to ensure that new growth pays its proportionate share of the costs for the development of public infrastructure. Impact fee revenues can also be attributed to the future expansion of public infrastructure if the revenues are used to maintain an existing level of service. Increases to an existing level of service cannot be funded with impact fee revenues. Impact fee revenues are generally considered non-operating revenues and help offset future capital costs.

DEBT FINANCING

In the event the City has not accumulated sufficient impact fees to pay for the construction of time sensitive or urgent capital projects needed to accommodate new growth, the City must look to revenue sources other than impact fees for funding. The Impact Fees Act allows for the costs related to the financing of future capital projects to be legally included in the impact fee. This allows the City to finance and quickly construct infrastructure for new development and reimburse itself later from impact fee revenues for the costs of issuing debt. However, the City does not anticipate utilizing debt financing for this plan and therefore no financing costs are included in this analysis.

EQUITY OF IMPACT FEES

Impact fees are intended to recover the costs of system improvements (infrastructure) that relate to future growth. The impact fee calculations are structured for impact fees to fund 100 percent of the growth-related facilities identified in the proportionate share analysis as presented in the impact fee analysis. Even so, there may be years that actual impact fee revenues cannot cover the annual growth-related expenses. In those years, growth-related projects may be delayed, or other revenues such as general utility rate revenues may be borrowed to make up any annual deficits. Any borrowed funds are to be repaid in their entirety through subsequent impact fees.

NECESSITY OF IMPACT FEES

An entity may only impose impact fees on development activity if the entity's plan for financing system improvements establishes that impact fees are necessary to achieve parity between existing and new development. This analysis has identified the improvements to public facilities and the funding mechanisms to complete the suggested improvements. Impact fees are identified as a necessary funding mechanism to help offset the costs of new capital improvements related to new growth. In addition, alternative funding mechanisms are identified to help offset the cost of future capital improvements.

⁹ 11-36a-102(20)

¹⁰ 11-36a102(13)

SECTION 6: POWER IMPACT FEE CALCULATION

PROPOSED POWER IMPACT FEES

The calculation of impact fees relies upon the information contained in this analysis. Impact fees are calculated based on many variables centered on proportionality and LOS. The following paragraph briefly discusses the methodology for calculating impact fees. Impact fees can be calculated using a specific set of costs specified for future development. The improvements are identified in the IFFP, CFP or CIP as growth related projects. The total project costs are divided by the total demand units the projects are designed to serve. Under this methodology, it is important to identify the existing LOS and determine any excess capacity in existing facilities that could serve new growth.

POWER IMPACT FEE CALCULATION

Based on the growth-related projects, as well as the applicable buy-in fee, the cost per new kW is estimated at \$863, as shown in TABLE 6.1.

TABLE 6.1: ILLUSTRATION OF COST PER NEW KW

| POWER PROJECTS | TOTAL COSTS | % GROWTH RELATED AND IMPACT FEE FUNDED | GROWTH RELATED & CITY FUNDED COSTS | GROWTH RELATED KW | COST PER NEW KW |
|--|---------------------|--|------------------------------------|-------------------|-----------------|
| Buy-In: Existing Substation Transformers (see Section 4) | \$3,380,699 | 40% | \$1,366,366 | 59,648 | \$23 |
| Buy-In: Salem Feeder Load (see Section 4) | \$5,093,405 | 43% | \$2,174,508 | 59,648 | \$36 |
| Future Capital Projects (see Table 5.1) | \$64,996,994 | 74% | \$47,920,261 | 59,648 | \$803 |
| Impact Fee Interest Credit | \$0 | 100% | \$0 | 59,648 | \$0 |
| Professional Expense (see Table 5.1) | \$31,245 | 82% | \$25,644 | 31,326 | \$1 |
| TOTALS: | \$73,502,342 | | \$51,486,778 | | \$863 |

The fee per kW is then applied to the general usage statistics for residential and commercial users, as shown below.

TABLE 6.2: ILLUSTRATION OF IMPACT FEE BY PANEL

| PANEL RATING | LINE-TO-LINE VOLTAGE | 100% PANEL KVA | AVG PANEL LOADING | AVG PEAK DEMAND @ PANEL (KVA) | POWER FACTOR | ESTIMATED DIVERSIFIED KW | PROPOSED FEE | EXISTING FEE | % CHANGE |
|---------------------------------------|----------------------|----------------|-------------------|-------------------------------|--------------|--------------------------|--------------|--------------|----------|
| Residential (120/240, 1 Phase) | | | | | | | | | |
| 100 | 240 | 24 | 12.50% | 3.00 | 95% | 2.85 | \$2,460 | \$1,931 | 27% |
| 150 | 240 | 36 | 12.50% | 4.50 | 95% | 4.28 | \$3,689 | \$2,896 | 27% |
| 200 | 240 | 48 | 12.50% | 6.00 | 95% | 5.70 | \$4,919 | \$3,862 | 27% |
| 400 | 240 | 96 | 12.85% | 12.34 | 95% | 11.72 | \$10,114 | \$7,723 | 31% |
| 600 | 240 | 144 | 12.85% | 18.50 | 95% | 17.58 | \$15,171 | \$11,585 | 31% |
| 800 | 240 | 192 | 12.85% | 24.67 | 95% | 23.44 | \$20,227 | \$15,447 | 31% |
| Commercial (120/240, 1 Phase) | | | | | | | | | |
| 200 | 240 | 48 | 25.00% | 12.00 | 90% | 10.80 | \$9,320 | \$7,294 | 28% |
| 400 | 240 | 96 | 25.00% | 24.00 | 90% | 21.60 | \$18,641 | \$14,588 | 28% |
| 600 | 240 | 144 | 25.00% | 36.00 | 90% | 32.40 | \$27,961 | \$21,883 | 28% |
| Commercial (120/208, 3 Phase) | | | | | | | | | |
| 200 | 208 | 72 | 25.00% | 18.01 | 90% | 16.21 | \$13,991 | \$10,949 | 28% |
| 400 | 208 | 144 | 25.00% | 36.03 | 90% | 32.42 | \$27,982 | \$21,899 | 28% |
| 600 | 208 | 216 | 25.00% | 54.04 | 90% | 48.64 | \$41,973 | \$32,848 | 28% |
| Commercial (277/480, 3 Phase) | | | | | | | | | |
| 200 | 480 | 166 | 25.00% | 41.57 | 90% | 37.41 | \$32,287 | \$25,268 | 28% |
| 400 | 480 | 333 | 25.00% | 83.14 | 90% | 74.82 | \$64,574 | \$50,536 | 28% |
| 800 | 480 | 665 | 25.00% | 166.28 | 90% | 149.65 | \$129,147 | \$101,071 | 28% |
| 1,200 | 480 | 998 | 25.00% | 249.42 | 90% | 224.47 | \$193,721 | \$151,607 | 28% |

NON-STANDARD IMPACT FEES

The proposed fees are based upon growth in kW's. The City reserves the right under the Impact Fees Act to assess an adjusted fee that more closely matches the true impact that the land use will have upon public facilities.¹¹ A developer may submit studies and data for a particular development and request an adjustment. This adjustment could result in a higher or lower impact fee if the City determines that a particular user may create a different impact than what is standard for its land use.

Estimated Diversified kW Usage * \$863

CALCULATION OF IMPACT FEE INTEREST CREDIT

This analysis calculates projected interest earnings and applies a credit in the fee calculation. The table below illustrates that the timing of impact fee expenditures relative to collections will not produce a positive fund balance in interest earnings. Therefore, no credit is applied in this analysis.

TABLE 6.3: IMPACT FEE INTEREST CALCULATION

| YEAR | KW | NEW KW | FEE PER KW | PROJECTED REVENUE | PROJECTED EXPENSE | PROJECTED BUY-IN EXPENSE | NET | CUMULATIVE | INTEREST EARNED |
|--------------|--------|--------|------------|---------------------|-----------------------|--------------------------|---------------|---------------|--------------------|
| 2022-2023 | 17,000 | 2,331 | \$863 | \$2,011,653 | (\$6,414,286) | (\$137,529) | (\$4,540,162) | (\$4,540,162) | (\$68,102) |
| 2024 | 22,645 | 5,645 | \$863 | \$4,871,386 | (\$7,408,733) | (\$333,038) | (\$2,870,385) | (\$7,410,547) | (\$111,158) |
| 2025 | 31,590 | 8,945 | \$863 | \$7,719,409 | (\$2,095,619) | (\$527,746) | \$5,096,044 | (\$2,314,503) | (\$34,718) |
| 2026 | 40,266 | 8,677 | \$863 | \$7,488,089 | (\$8,518,940) | (\$511,932) | (\$1,542,783) | (\$3,857,286) | (\$57,859) |
| 2027 | 47,644 | 7,377 | \$863 | \$6,366,621 | (\$8,794,717) | (\$435,261) | (\$2,863,357) | (\$6,720,642) | (\$100,810) |
| 2028 | 53,403 | 5,760 | \$863 | \$4,970,471 | \$0 | (\$339,812) | \$4,630,659 | (\$2,089,983) | (\$31,350) |
| 2029 | 59,257 | 5,854 | \$863 | \$5,052,214 | \$0 | (\$345,400) | \$4,706,813 | \$2,616,830 | \$39,252 |
| 2030 | 65,213 | 5,955 | \$863 | \$5,139,588 | \$0 | (\$351,374) | \$4,788,214 | \$7,405,044 | \$111,076 |
| 2031 | 71,277 | 6,064 | \$863 | \$5,232,982 | (\$14,626,488) | (\$357,759) | (\$9,751,264) | (\$2,346,220) | (\$35,193) |
| 2032 | 77,456 | 6,179 | \$863 | \$5,332,811 | (\$61,479) | (\$364,584) | \$4,906,748 | \$2,560,528 | \$38,408 |
| Total | | | | \$54,185,225 | (\$47,920,261) | | | | (\$250,454) |

Assumes interest earnings based on 1.5 percent interest rate.

CONSIDERATION OF ALL REVENUE SOURCES

The Impact Fees Act requires the proportionate share analysis to demonstrate that impact fees paid by new development are the most equitable method of funding growth-related infrastructure. See **SECTION 5** for further discussion regarding the consideration of revenue sources.

EXPENDITURE OF IMPACT FEES

Legislation requires that impact fees should be spent or encumbered with six years after each impact fee is paid. Impact fees collected in the next five to six years should be spent or encumbered on only those projects outlined in the IFFP as growth related costs to maintain the LOS or to reimburse existing development for excess capacity used.

PROPOSED CREDITS OWED TO DEVELOPMENT

Credits may be applied to developers who have constructed and donated system facilities to the City that are included in the IFFP in-lieu of impact fees. Credits for system improvements may be available to developers up to, but not exceeding, the amount commensurate with the LOS identified within this IFA. Credits will not be given for the amount by which system improvements exceed the LOS identified within this IFA. This situation does not apply to developer exactions or improvements required to offset density or as a condition of development. Any project that a developer funds must be included in the IFFP if a credit is to be issued.

In the situation that a developer chooses to construct system facilities found in the IFFP in-lieu of impact fees, the decision must be made through negotiation with the developer and the City on a case-by-case basis.

¹¹ UC 11-36a-402(1)(c)



GROWTH-DRIVEN EXTRAORDINARY COSTS

The City does not anticipate any extraordinary costs necessary to provide services to future development.

SUMMARY OF TIME PRICE DIFFERENTIAL

The Impact Fees Act allows for the inclusion of a time price differential to ensure that the future value of costs incurred at a later date are accurately calculated to include the costs of construction inflation. A four percent annual construction inflation adjustment is applied to projects completed after 2022 (the base year cost estimate).



APPENDIX A: DETAILS RELATED TO CIP PROJECT SALEM-DEVL.1-19

Salem City Power
600-Amp Main Line Projects
Tied to Subdivisions/Developments

| Subdivision/Development | Opinion of | #of Lots or Units | kW of each lot or unit | Expected kW | 600 Amp Capacity (kW) | Sudivision/ Development use of 600 Amp Line, % | Weighted % use |
|----------------------------|---------------|----------------------|------------------------------|----------------|-----------------------------|---|----------------|
| | Probable Cost | | | | | | |
| Skyhawk Knoll Phase 1 | \$ 191,110.04 | 22 | 6 | 132 | 7776 | 1.7% | 0.08% |
| Skyhawk Knoll Phase 2 | \$ 118,129.75 | 34 | 6 | 204 | 7776 | 2.6% | 0.08% |
| Skyview Estates Phase 1 | \$ 262,692.85 | 40 | 6 | 240 | 7776 | 3.1% | 0.21% |
| Loafer Springs | \$ 105,229.90 | 22 | 6 | 132 | 7776 | 1.7% | 0.05% |
| Board Hollow | \$ 177,423.56 | 22 | 6 | 132 | 7776 | 1.7% | 0.08% |
| Valley View | \$ 100,475.32 | 20 | 6 | 120 | 7776 | 1.5% | 0.04% |
| Foothill Ridge Plat A | \$ 121,235.89 | 17 | 6 | 102 | 7776 | 1.3% | 0.04% |
| Carson Ridge Ph1 | \$ 74,055.28 | 39 | 6 | 234 | 7776 | 3.0% | 0.06% |
| Carson Ridge Ph2 | \$ 74,055.28 | 12 | 6 | 72 | 7776 | 0.9% | 0.02% |
| Carson Ridge Ph3 | \$ 146,498.08 | 36 | 6 | 216 | 7776 | 2.8% | 0.10% |
| Garret's Place | \$ 295,802.45 | 97 | 6 | 582 | 7776 | 7.5% | 0.57% |
| Raspberry Fields | \$ 95,555.02 | 27 | 6 | 162 | 7776 | 2.1% | 0.05% |
| Timber Ranch | \$ 42,680.10 | 23 | 6 | 138 | 7776 | 1.8% | 0.02% |
| Tag n Go Carwash | \$ 72,442.80 | 1 | 83 | 83 | 7776 | 1.1% | 0.02% |
| Rooftops Devel | \$ 184,122.62 | 104 | 4.5 | 468 | 7776 | 6.0% | 0.29% |
| Salem Fields | \$ 760,592.86 | 275 | 6 | 1650 | 7776 | 21.2% | 4.16% |
| Summer Springs 1 | \$ 434,356.95 | 61 | 6 | 366 | 7776 | 4.7% | 0.53% |
| Summer Springs 2 | \$ 76,742.75 | 58 | 6 | 348 | 7776 | 4.5% | 0.09% |
| 750 N Temp OH for Veridian | \$ 546,384.84 | 125 | 6 | 750 | 7776 | 9.6% | 1.36% |
| Total | | | | | | Overall % Attrib. to Growth | 7.84% |