



# **HEBER LIGHT & POWER**

## **IMPACT FEES FACILITIES PLAN**

**DRAFT**

**April 12, 2023**

### **IFFP Written Certification**

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
2. which each impact fee is paid;
3. 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
4. facilities, through impact fees, above the level of service that is supported
5. by existing residents; or
  - a. an expense for overhead, unless the expense is calculated pursuant to a
6. methodology that is consistent with generally accepted cost accounting
7. practices and the methodological standards set forth by the federal Office
8. of Management and Budget for federal grant reimbursement; and
9. 3. complies in each and every relevant respect with the Impact Fees Act

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Jason Norlen, General Manager  
Heber Light & Power

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Adam S. Long, General Counsel  
Heber Light & Power

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## **1. Introduction.**

Heber Light & Power (HLP) staff, with the assistance of outside consultants, have prepared this Impact Fee Facilities Plan (IFFP) and the corresponding Impact Fee Analysis (IFA) in anticipation of updating HLP's electrical impact fees, which were last modified in 2021. In 2021, the impact fees were modified based on a report by Utility Financial Solutions ("UFS") and UFS has again been engaged to perform the impact fee analysis for HLP. UFS has conducted significant investigation and analysis of HLP's business and expected future growth. This forecast provides the basis for expected future growth and need for system improvements. In preparing this IFFP, HLP has relied on information from UFS, HLP's own internal data on growth, demand, and energy usage, and a variety of publicly available information. The conclusions reached in this document rely on certain assumptions and projects regarding future events and actual future events may differ from our predictions.

## **2. Impact Fees Overview.**

Generally speaking, impact fees are used by government agencies (e.g., city and county governments) to fund certain capital-related costs (e.g., new buildings) incurred in providing governmental services to "new" development as mandated by law or ordinance. The basic philosophy behind the implementation of impact fees is that "new" development should bear the additional or "incremental" capital cost incurred in order to provide services to the "new" development. This establishes a cost causation or "nexus" requirement between the cost incurred in providing the service and those who benefit from the service. To be clear however, impact fees are not intended to recover annual operating expenses (e.g., utility costs) or to pay for capital expenditures related to the correction of an existing deficiency in the service(s) provided.

## **3. The Impact Fee Facilities Plan.**

The Impact Fee Facilities Plan (IFFP) determines which public facilities required to serve additional electrical needs resulting from new development activity with HLP's service territory. This IFFP must first identify the existing level of service, identify excess capacity to accommodate future growth, and identify demands placed upon existing facilities by new development. The Impact Fee Facilities Plan (IFFP) is the first step toward calculating an equitable impact fee rate table. The IFFP aggregates existing facilities with excess power capacity and planned capital projects which will require added capacity during the six-year period of study.

It is important that the IFFP only include existing facilities with excess capacity and capital projects that add to system capacity. Any existing facilities without spare capacity should not be included in the plan since their capital costs have already been allocated to the rate base. Likewise, any future expenditure which addresses maintenance, or which add capacity needed after the six-year period cannot be included in the IFFP.

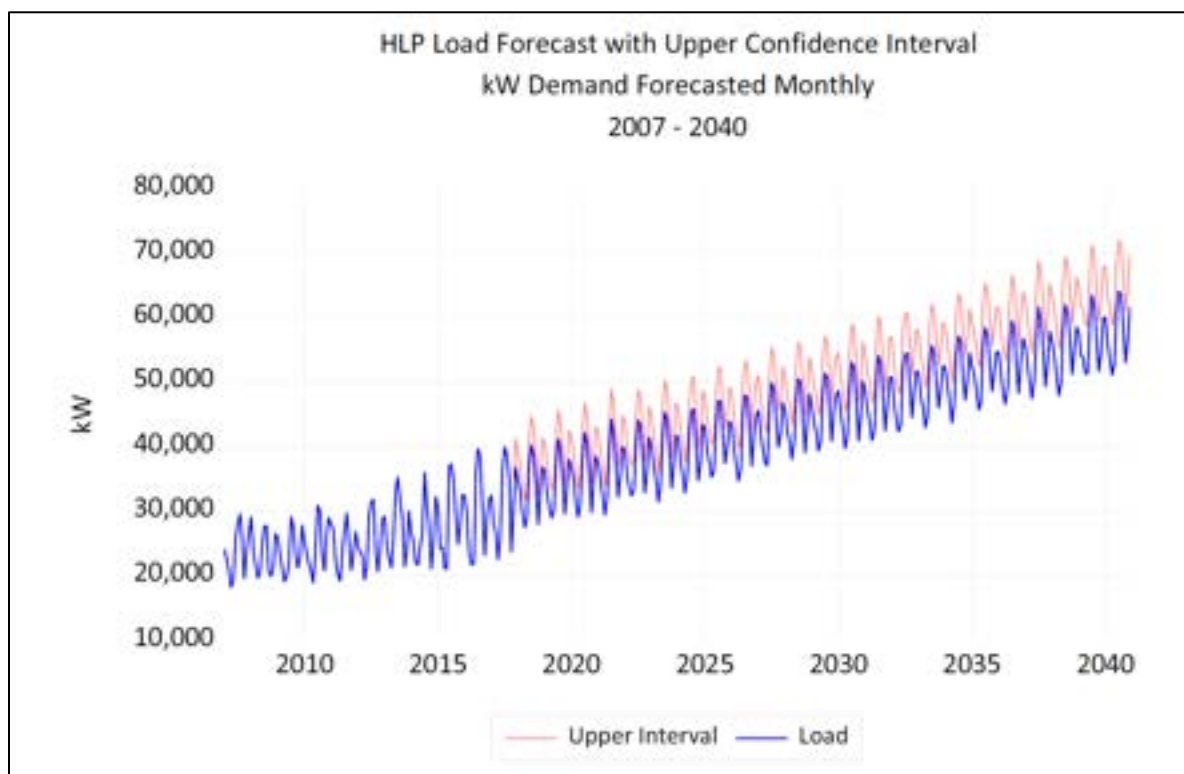
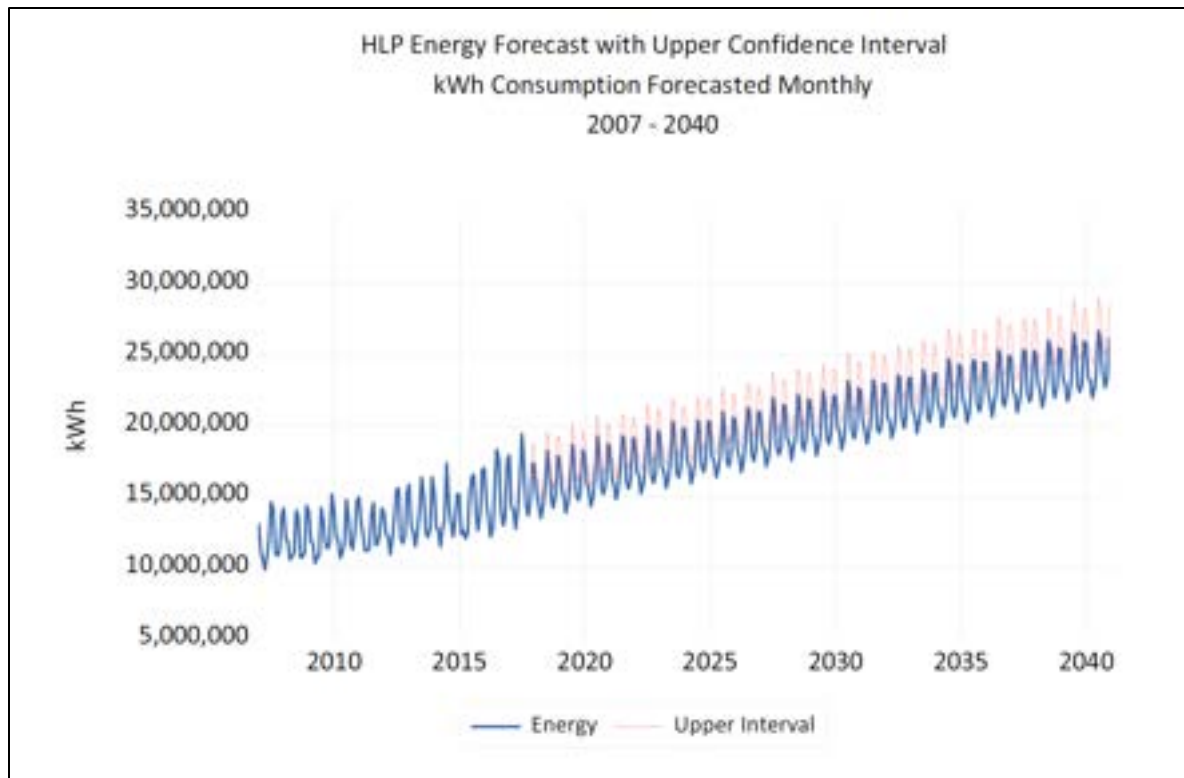
This IFFP considers improvements to power lines and substations necessary to serve expected future growth, expansion of buildings due to new growth, and investments in internal power generation facilities that are necessary to maintain the health and stability of the HLP system. Any costs associated with the Utah Associated Municipal Power Systems (UAMPS) will be excluded from the IFFP as they do not contribute to overall system capacity.

#### **4. Population and Load Growth.**

The Heber Valley continues to experience significant growth, driven in large measure by new residential development. Indeed, Wasatch County is one of the fastest-growing counties in the United States. In order to obtain the best possible predictions about future load growth, HLP engaged UFS to prepare a study of expected load growth for HLP based on econometric modeling and long-term forecasting. This study is attached to this IFFP as **Exhibit A**.

The UFS study projects load growth (in kilowatt hours sold) of 2.3 percent annually over the next five years and demand growth (in kilowatts of demand) of 2.2 percent annually. These growth estimates have been used to identify the facilities likely to be needed within the next six years and to develop HLP's capital plan.

The two charts below illustrate the long-term projected growth in HLP's load and demand, respectively.



## **5. Existing Level of Service.**

Residents and businesses within HLP's service area currently experience a level of service and reliability from the electrical power grid. This level of service includes:

- Adequate system capacity capable of handling peak as well as off-peak loading conditions without overloading or damaging capital equipment such as transformers, distribution feeders, or transmission lines.
- Voltages will be within certain ranges of nominal, per industry standards. Voltages outside this range (either high or low) can cause equipment damage.
- Voltage fluctuations (i.e. "flicker") will be within industry frequency and magnitude limits.
- System N-1 redundancy is present for transmission and distribution backbone assets to allow for sustained service during periods of maintenance as well as faster restoration during unplanned outages or failure conditions.

In order to provide this level of service, HLP has invested in the existing transmission and distribution capital infrastructure. However, as populations, hence households and businesses, grow and develop with the HLP's service area, the current capital equipment will not be adequate to provide the current level of service.

Based on analysis of the current electrical system and project growth in the future, HLP has developed its Capital Facilities Plan. This Plan proposes a number of capital projects to maintain the existing level of service for both current and future customers. Some of these projects add to the existing capital base, while others only replace or maintain a depreciated asset. Only those projects (or portions of projects) adding to the capital base as required to serve new development over the next six years are included in this IFFP.

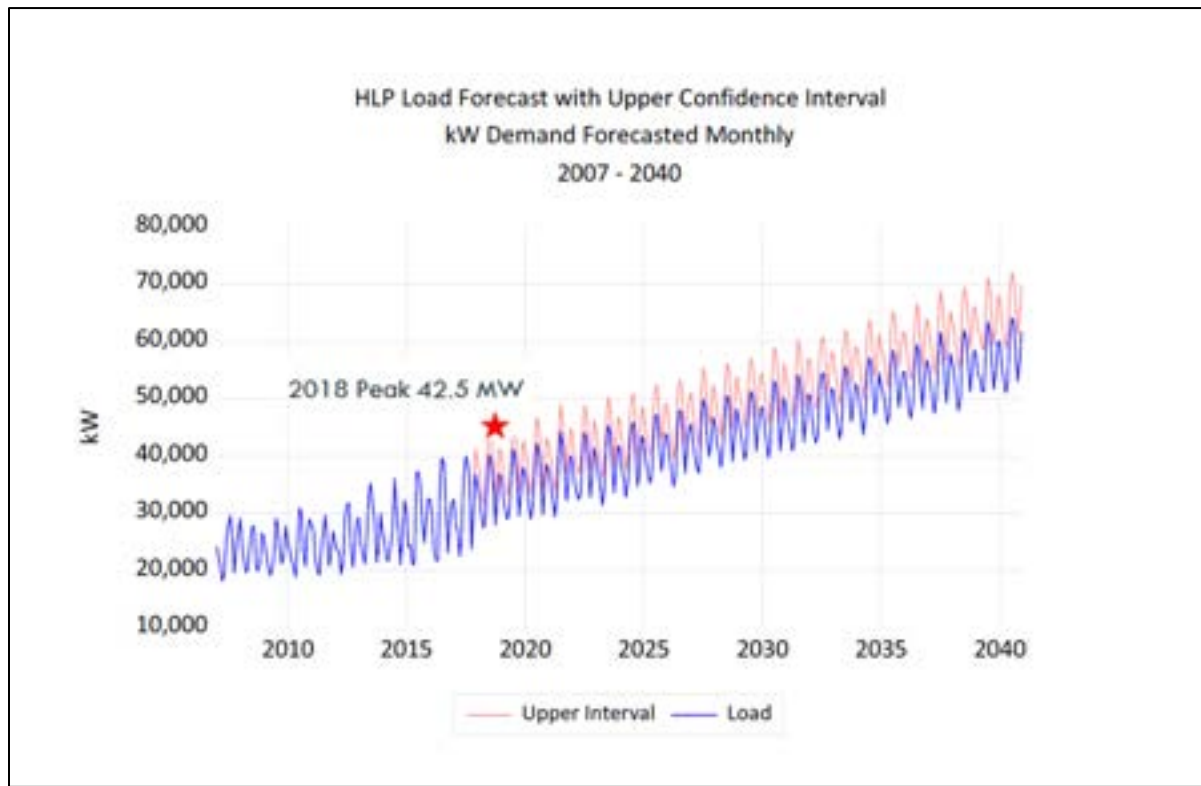
## **6. Proposed Level of Service.**

The proposed level of service for future growth is the same as the existing level of service, as explained above. HLP's obligation to provide safe, reliable, and cost-effective electrical service is the same for all customers. HLP determines its future facilities needs based upon this level of service and load growth over a particular planning horizon.

## **7. Excess Capacity of Current System.**

HLP's electrical transmission and distribution system operates as a single system to provide for the power needs of all HLP customers. As such, identification of excess capacity on a

granular level is impractical. While certain segments of the overall system may have excess capacity, it is impractical to identify excess capacity within individual circuits or portions of a transmission line. Instead, excess capacity in the context of an electrical system is better understood as the peak demand in comparison with the total capacity of the system. For HLP, the peak demand during 2022 was [REDACTED] MW, as compared to the project 2018 summer peak of 40.2 MW. The electrical system can currently handle a peak demand of approximately 49 MW, meaning very little excess capacity exists within the system as a whole. The electricity demands of growth due to new development cannot be met with existing infrastructure. For the purposes of calculating impact fees, HLP is not accounting for the small amount of excess capacity within the current system, which in turn decreases the amounts of the impact fees.



## 8. Demands on Existing Facilities.

To accurately assess the demands placed on current facilities and the expected future facilities needs, HLP engaged Intermountain Consumer Professional Engineers (ICPE) to conduct load flow studies for HLP's 12 kV distribution system and HLP's 46 kV internal transmission system. These studies are attached to this document as **Exhibit B** and **Exhibit C**, respectively. Each ICPE study analyzes the current system and the demands placed on it



by current HLP customers as well as the suggested improvements to handle the load growth as projected by the UFS study.

## 9. Capital Improvement Projects.

Based on the ICPE studies and HLP's internal analysis of the electrical system, the capital projects outlined below are impact fee eligible and planned to be built within the timeframe covered by this IFFP. These capital projects are also shown on the table attached as **Exhibit D**.

Project Name: New Office Building

Project Category: Buildings

Impact Fee Eligibility: 43%

Total Cost: \$11,400,000

### Purpose & Necessity:

Heber Light & Power has outgrown the existing work space for administrative operations. In addition, the building is older and not ADA compliant. Furthermore the division of Administration from Operations has made communications less-effective between departments. The building is currently surrounded on all four sides with rights-of-ways for other entities which causes expansion limitations. Parking for employees and customers is extremely limited. Finally, numerous secondary elements such as IT structure, and building security cannot be adequately addressed in the current state.

### Risk Assessment:

Efficiency is the main advantage to combining all of the administrative functions under one roof. In addition, by remaining noncompliant with appropriate ADA standards, the company remains at risk of not accommodating customer needs. Furthermore the transition to 138kV service in the valley also opens the company to additional cyber-security scrutiny and controls. The current building set-up will require extensive adjustments to obtain compliance with NERC CIPS requirements.

Project Name: New Office Building (Phase 3)

Project Category: Buildings

Impact Fee Eligibility: 43%

Total Cost: \$1,200,000

### Purpose & Necessity:

The new building project does not include the completion of the site improvements for the entire site. This project has been delayed to provide ample time to make additional infrastructure adjustments so as to minimize disruptions to the new site during that adjustment period.

**Risk Assessment:**

Site adjustments will need to be made so as to limit the risk of fleet vehicles becoming mired in the muck. Additional mobility of certain equipment necessary to move equipment and materials around will be impacted.

**Project Name: Unit UREA Systems**

Project Category: Generation

Impact Fee Eligibility: 100%

Total Cost: \$1,200,000

**Purpose & Necessity:**

The most recent Emissions Analysis undertaken by the State has shown that UREA systems need to be installed on certain units to comply with the Company Operating Air Permit. This project will see that these are completed and the Company is in full compliance with the State requirements.

**Risk Assessment:**

Heber Light & Power will be unable to meet the required air quality permit, thus shutting down the internal production undertaken by HLP.

**Project Name: New Generations**

Project Category: Generation

Impact Fee Eligibility: 100%

Total Cost: \$5,715,000

**Purpose & Necessity:**

The current generation portfolio will be heavily strained by 2025 without the procurement of other generating sources. Load growth is projected to be regular and consistent. The generator portfolio is used regularly to defer the market risk that is inherent with the increasing resource needs of the company. The company is working with the Caterpillar and Wheeler organizations to install a battery bank in 2022/2023, as well as looking at a new test engine in 2023. These combined with Unit 5 replacement will potentially come out of the test window and need to be paid for at said time.

Risk Assessment:

Heber Light & Power is regularly attempting to diversify the generation portfolio. Without the acquisition of additional resources, the Company will be forced to purchase more energy from the market at the prevailing rates which may not favor the Company.

Project Name: Annexation Asset Purchase

Project Category: Lines

Impact Fee Eligibility: 100%

Total Cost: \$150,000

Purpose & Necessity:

Heber city has undertaken an annexation plan that will encompass a large tract of land North of the existing HLP system. As such, existing assets will need to be purchased from PacifiCorp when an entity requests annexation. This is a blanket project to ensure annual funding exists for such asset purchases.

Risk Assessment:

HLP has no choice other than purchase the assets when an entity requests annexation into the City of Heber.

Project Name: Install Voltage Regulators at Timber Lakes Gate

Project Category: Lines

Impact Fee Eligibility: 100%

Total Cost: \$100,000

Purpose & Necessity:

The continual growth in the Timber Lakes Subdivision along with the relative distance from the Jailhouse substation has the voltage within the subdivision subject to irregular fluctuations. These irregularities create a power quality issue for HLP customers.

Risk Assessment:

By refusing to correct the installation issues in the Timber Lakes Subdivision, customer satisfaction will decrease. In addition, customer equipment stands the chance of being damaged thus driving up insurance claims and premiums.

Project Name: Heber Substation Additional Circuits (South & West)

Project Category: Lines  
Impact Fee Eligibility: 100%  
Total Cost: \$300,000

**Purpose & Necessity:**

The system continues to grow and require additional feeders out of the substation. The recent addition of the 2nd transformer will facilitate the future energization of these feeders. These feeders will also facilitate the switching efforts required during outages, thus minimizing customer inconvenience.

**Risk Assessment:**

Stranded energy as a result of the excess capacity brought on by the 2nd transformer in 2016/2017. Lengthened outages due to lack of looped feed on different circuits. Overloaded circuits of existing feeders as a result of continued growth in the area.

**Project Name: Tie From 305 to 402 to 303**

Project Category: Lines  
Impact Fee Eligibility: 100%  
Total Cost: \$350,000

**Purpose & Necessity:**

This tie will provide the company with additional looped feeders for future redundant system needs.

**Risk Assessment:**

Without completing this tie, an outage could drive an extended outage in particular sections of the system as redundant loops would not be in place to allow for switching efforts.

**Project Name: Reconductor Provo River 201 (Main Street to Burgi Lane)**

Project Category: Lines  
Impact Fee Eligibility: 100%  
Total Cost: \$1,471,000

**Purpose & Necessity:**

The current circuit engineering study has demonstrated that the stretch of Provo River 201 from Main Street to Burgi Lane will be undersized after 2021. In order to remedy this issue, the circuit will need to be reconductored through this section of the line.

**Risk Assessment:**

Failure of the existing assets will result in outages with a high likelihood of a prolonged outage.

**Project Name: Provo River Substation Get Aways Reconnect to New Site**

Project Category: Lines

Impact Fee Eligibility: 100%

Total Cost: \$450,000

**Purpose & Necessity:**

By building a new distribution substation within the Southfield's Substation, HLP is able to decommission the Provo River substation, once the loads have been transferred over. This project will extend the existing get aways from the current Provo River feeders to the new get aways.

**Risk Assessment:**

An old substation that is a bit of a hazard to HLP will need to remain in-service.

**Project Name: Additional Circuits out of College to South and East**

Project Category: Lines

Impact Fee Eligibility: 100%

Total Cost: \$1,554,000

**Purpose & Necessity:**

The development of the North end of Heber City has necessitated additional circuits out of the College Substation.

**Risk Assessment:**

Insufficient capacity to serve the numerous additional customers seeking service on the North side of Heber City. This project is 100% customer driven and thus it has slipped from year to year as the development is still pending.

Project Name: Additional Circuits out of Jailhouse to the East

Project Category: Lines

Impact Fee Eligibility: 100%

Total Cost: \$300,000

Purpose & Necessity:

The development of the South end of Heber City, and the East side of Wasatch County require additional circuits out of the Jailhouse Substation.

Risk Assessment:

Insufficient capacity to serve the numerous additional customers seeking service on the South side of Heber City and the East side of Wasatch County. This project is 100% customer driven and thus it has slipped from year to year as the development is still pending.

Project Name: Reconductor Pine Canyon Road - Midway

Project Category: Lines

Impact Fee Eligibility: 60%

Total Cost: \$180,000

Purpose & Necessity:

Growth in the vicinity of Pine Canyon Road has begun to exceed the acceptable conductor size for the existing assets. In order to continue to provide uninterrupted service along this feeder, the conductor needs to be upgraded.

Risk Assessment:

Failure of the existing assets will result in outages with a high likelihood of a prolonged outage.

Project Name: Airport Road Rebuild and Loop

Project Category: Lines

Impact Fee Eligibility: 100%

Total Cost: \$550,000

Purpose & Necessity:

Growth in and around the Airport Road area has reached a point in which the system is becoming undersized and therefore needs to be reconducted with a larger conductor. In addition, the growth needs a redundant feed and as such a looped line will be constructed to remove the inherent risks associated with a radial feed.

**Risk Assessment:**

Outages due to overloading the conductor will soon be happening and critical customers will be negatively affected by these frequent and prolonged outages.

Project Name: Reconductor Jailhouse 502/503 (Old Mill Drive from 800 S to 1200 S)

Project Category: Lines

Impact Fee Eligibility: 100%

Total Cost: \$529,000

**Purpose & Necessity:**

The current circuit engineering study has demonstrated that the stretch of Jailhouse 502/503 along Old Mill Drive from 800 South to 1200 South will be undersized in the near future. In order to remedy this issue, the circuit will need to be reconducted through this section of the line.

**Risk Assessment:**

Failure of the existing assets will result in outages with a high likelihood of a prolonged outage.

Project Name: New Circuit to Highway 32

Project Category: Lines

Impact Fee Eligibility: 100%

Total Cost: \$729,000

**Purpose & Necessity:**

With the annexation of the North Village area, an additional circuit will need to be taken North out of the College substation until the new North Substation can be constructed and tapped off of the 138kV system.

**Risk Assessment:**

Without this line, the developments North cannot be energized until a new point of delivery substation is permitted and built.

Project Name: Jailhouse Tap Transmission Line and East Extension

Project Category: Lines

Impact Fee Eligibility: 100%

Total Cost: \$3,900,000

Purpose & Necessity:

An additional substation is now needed on the South/East sector of the HLP service territory. This project will be the interconnection project that will tie the new substation in with the rest of the system.

Risk Assessment:

Without this transmission line, the substation cannot be energized, thus stranding the costs of the substation.

Project Name: Reconductor Midway 101/102 from 4/0 to 477

Project Category: Lines

Impact Fee Eligibility: 100%

Total Cost: \$3,900,000

Purpose & Necessity:

The current circuit engineering study has demonstrated that the Midway 101/102 circuits will be undersized after 2024. In order to remedy this issue, the circuit will need to be reconducted.

Risk Assessment:

Failure of the existing assets will result in outages with a high likelihood of a prolonged outage. This project will achieve N-1 standard on this circuit. It is currently below this standard and as such the system reliability is at risk.

Project Name: Reconductor Cloyes 402 (600 West to Tate Lane)

Project Category: Lines

Impact Fee Eligibility: 100%

Total Cost: \$1,296,000

Purpose & Necessity:



The current circuit engineering study has demonstrated that the stretch of Cloyes 402 from 600 West to Tate Lane will be undersized in the near future. In order to remedy this issue, the circuit will need to be reconductored through this section of the line.

**Risk Assessment:**

Failure of the existing assets will result in outages with a high likelihood of a prolonged outage.

**Project Name: 2nd Point of Interconnect Substation (POI)**

Project Category: Substation

Impact Fee Eligibility: 70%

Total Cost: \$23,258,000

**Purpose & Necessity:**

Growth within the system has been steadily increasing for numerous years. This substation will increase the reliability of the current system and also provide additional capacity to serve new customers. The system is currently fed off of a single point of interconnect to the RMP system. This point of interconnect is fed from a radial (meaning single line) service line. In addition, the transformer at the end of the radial line is quickly becoming undersized for the local load on our system. This project will provide a second interconnect substation thus reducing the loading on the existing substation transformer. Numerous engineering studies have been conducted on the system and each has drawn the conclusion that the current system will be over-capacity by 2022 at the latest.

**Risk Assessment:**

This point of interconnect has two significant risks associated with it; 1) risk of damage to the radial feed thus causing immediate outages to all customers, and 2) interconnect site is currently sized to be out of capacity by 2022. If the single interconnect transformer becomes overloaded, RMP will begin to remove load from the transformer which will result in regular prolonged rolling brown-outs. All customers in the system will have a daily outage lasting up to 6 hours during peak load windows.

**Project Name: Midway Substation - High Side Rebuild**

Project Category: Substation

Impact Fee Eligibility: 90%

Total Cost: \$2,656,000

**Purpose & Necessity:**

The Midway Substation has slowly taken on more load until it has reached its capacity on the high-side of the transformer. It is estimated that by 2022 the high-side will need to be rebuilt to serve the loads being placed on the transformer by new development.

**Risk Assessment:**

The high side of the transformer is the side receiving energy from the grid. If the feed to the transformer is compromised, a prolonged outage will be experienced on the substation thus affecting all of the circuits from this substation.

**Project Name: Northeast Point of Delivery Substation**

Project Category: Substation

Impact Fee Eligibility: 100%

Total Cost: \$15,012,000

**Purpose & Necessity:**

The annexation by Heber City has presented a need for a new point of delivery substation on the Northeast part of the system. A direct tap off of the PacifiCorp 138kV system will be required to serve the loads brought on by the large development that is being planned for that area. Other projects in this capital plan are being undertaken to connect the early development stages of this master plan but the ultimate need for energy in this area will require a new point of interconnect.

**Risk Assessment:**

Without this substation, HLP will be unable to serve the proposed 6,500 units for this area.

**Project Name: East Substation**

Project Category: Substation

Impact Fee Eligibility: 100%

Total Cost: \$8,172,000

**Purpose & Necessity:**

Due to the regular growth and the planned development on the East side of the valley, additional capacity will be required in the next several years. This project will include the siting, permitting, design, and construction of a new system load substation.

Risk Assessment:

Lack of substation capacity in the Lake Creek area will put the system at risk of overloaded circuits and existing equipment ultimately leading to rolling brown outs across the valley.

Project Name: AMI North Tower

Project Category: Information Technology

Impact Fee Eligibility: 100%

Total Cost: \$210,000

Purpose & Necessity:

The recent annexation plan approval by Heber City Corporation has also expanded the potential customer territory for Heber Light & Power. As developers begin to establish buildable lots within this annexed area, HLP will begin to deploy meters for the collection and relay of usage data. In order to have these meters communicate the data, a new AMI tower will need to be erected with the appropriate equipment. In conducting the meter study, Sensus has communicated that two additional towers will be required on the system in 2025.

Risk Assessment:

Without installing this critical antenna, HLP will not be able to read the meter data within the newly annexed service territory.

## **10. Funding Sources.**

Utility Rate Revenues. Utility rate revenues serve as the primary funding mechanism for HLP. Rates are established to ensure appropriate coverage of all operations and maintenance expenses, debt service coverage, non-growth-related capital project needs, and regular distributions to HLP's owner cities.

Grants and Donations. HLP does not anticipate receiving grants or donations to fund improvements currently contemplated in this IFFP. HLP expects that assets and infrastructure installed as part of a new development will be project improvements rather than system improvement. However, a developer would be entitled to a credit for the value of necessary system improvements donated to HLP rather than funded through impact fees.

Impact Fee Revenues. Impact fees have become a logical mechanism for funding growth-related infrastructure. Impact fees are charged to ensure that new growth pays its proportionate share of the costs for the development of the necessary electrical infrastructure. Impact fee revenues are generally considered nonoperating revenues and help offset future capital costs.

Debt Financing. HLP expects to finance a portion of future capital project with new debt. 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 HLP to finance and quickly construct infrastructure for new development and reimburse itself later from impact fee revenues for the costs of issuing debt. However, no financing costs are included in expected costs of future capital facilities in this IFFP.

## **Exhibit A**

### Load Forecast Study

## **Exhibit B**

### 12 kV Load Flow Study

## **Exhibit C**

### **46 kV Load Flow Study**

## **Exhibit D**

### **Impact-Fee Eligible Capital Projects**