

# INTEGRATED RESOURCE PLAN

2026-2040

#### **ABSTRACT**

A comprehensive plan for meeting HL&P's projected energy needs over the 2026-2040 planning horizon.

Prepared by Heber Light & Power Energy Resource Department





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#### **Heber Light & Power Integrated Resource Plan**

**Planning Horizon:** 2026–2040

**Action Plan:** 2026–2030

Prepared for: Western Area Power Administration (CRSP)

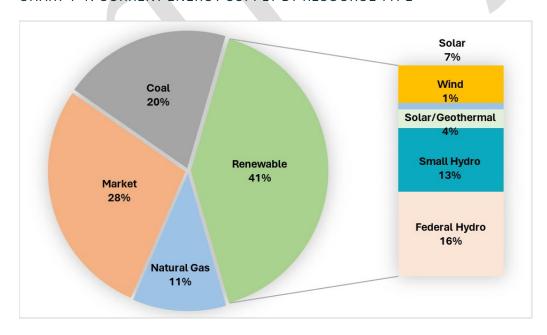
#### 1. EXECUTIVE SUMMARY

This Integrated Resource Plan (IRP) serves as the strategic roadmap for Heber Light & Power to meet projected customer energy needs over the next fifteen years while balancing reliability, cost, renewable integration, environmental stewardship, and compliance with Western Area Power Administration (WAPA) requirements.

#### **KEY DRIVERS:**

- Three percent to seven percent annual average load growth projected through 2040.
- Maintain at least 30 percent renewable energy share in the portfolio.
- Prepare for active participation in the CAISO Extended Day-Ahead Market (EDAM) and Resource Adequacy (RA) programs.
- Manage costs to keep rates competitive.
- Support environmental responsibility and customer satisfaction.

#### CHART 1-1: CURRENT ENERGY SUPPLY BY RESOURCE TYPE



#### 2. INTRODUCTION

Heber Light & Power is a community owned Utah Energy Services Interlocal Agency and a Western Area Power Administration (WAPA) Colorado River Storage Project (CRSP) customer. The utility serves more than 16,000 customers across 172 square miles within Wasatch County including residential and commercial loads. Governance is provided by the HL&P Board of Directors which is made up of Representatives for the owner cities Heber City, Charleston Town, and Midway City along with a franchise participant which is Wasatch County who represents all non-owner franchises in the Service Territory. The Energy Resource Department manages the power supply.

Wholesale power requirements have grown by an average of 4% each year for the last ten years. Growth is driven by population increases, service territory expansions from annexations into Heber City, and electrification trends including electric vehicle charging. Roof top solar installations have doubled in the last five years. In 2025, there are 3.3 megawatts (MW) of installed roof top solar on the system and there are 4.8 MW of solar capacity available to accommodate continued adoption of customer owned solar generation.

The IRP reflects the utility's guiding values: **reliability, affordability, sustainability, and environmental stewardship**.

MAP/TABLE 2-1: SERVICE AREA AND CUSTOMER STATISTICS



Municipality	Number of Meters
Charleston	296
Daniel	409
Heber City	8807
Independence	46
Interlaken	156
Midway City	3582
Wasatch County	3352

#### 3. REGULATORY CONTEXT

This IRP is prepared in accordance with **10 CFR Part 905** under WAPA's Energy Planning and Management Program (EPAMP). The plan meets the requirements for:

- Identification of supply- and demand-side resource options.
- Evaluation of options on a consistent and integrated basis.
- Inclusion of an action plan covering at least 5 years.

It also aligns with CAISO RA rules ensuring regulatory and market compliance.

#### 4. PLANNING FRAMEWORK

**Planning Horizon:** 2026–2041, with emphasis on 2026–2030 for immediate actions.

#### Methodology:

- Historical load and resource data analysis.
- Load forecasting models include seasonality, population growth, economic development, roof-top solar adoption, demand-side management savings, and electrification trends.
- Portfolio scenario modeling for high/low load growth, high renewable penetration, and market volatility.

#### Criteria:

- Reliability: Maintain resource adequacy.
- Renewables: Minimum 30% of energy.
- Cost: Affordability for customers.
- Flexibility: Prepare for CAISO EDAM and RA requirements.

#### 5. LOAD FORECAST

Historical load growth trends are important planning considerations. Steady annual system load growth has continued since 2015 with some years growing at only two percent and other years growing up to seven percent. The utility has consistently added more than four hundred meters to its system each year for five years.

To establish a baseline for forecasting HL&P applied a **weather normalized regression model**. This model controls heating degree days (HDD) and cooling degree days (CDD), isolating the portion of load growth attributable to economic expansion, customer additions, and electrification rather than year-to-year variability in weather.

The regression incorporated historical hourly and monthly load data against weather variables (HDD, CDD) and a time index. This produced coefficients that quantify incremental load impacts from weather extremes, while the time variable captures underlying structural growth.

Results showed that after adjusting to weather effects, the base load has grown at an average annual rate of 5% over the last five years.

To establish a ceiling and a floor for load growth, a low forecast and a high forecast were created in addition to a baseline forecast.

#### **Low Growth Forecast**

The low forecast utilized household and job growth projections for Wasatch County from the University of Utah Kem C. Gardner Policy Institute's published State and County long-term projections. (Kem C. Gardner Policy Institute, n.d.)

The published growth rates are applied to the residential and commercial customer projections to establish a low load growth scenario. The Gardner Policy Institute projects an average annual three percent household growth rate and an average annual one percent job growth rate over the next fifteen years.

TABLE 5-1: GARDNER POLICY INSTITUTE HOUSEHOLD AND JOB PROJECTIONS

Year	Households	Change (%)	Total Jobs	Change (%)
2026	13701	3.4%	21637	1.9%
2027	14183	3.4%	22025	1.8%
2028	14672	3.3%	22405	1.7%
2029	15172	3.3%	22903	2.2%
2030	15675	3.2%	23185	1.2%
2031	16192	3.2%	23429	1.0%
2032	16710	3.1%	23716	1.2%
2033	17238	3.1%	24009	1.2%
2034	17762	3.0%	24352	1.4%
2035	18271	2.8%	24662	1.3%
2036	18775	2.7%	24986	1.3%
2037	19284	2.6%	25322	1.3%
2038	19796	2.6%	25624	1.2%
2039	20296	2.5%	25911	1.1%
2040	20786	2.4%	26219	1.2%

Applying this growth to the utility's residential and commercial meter counts established an average annual three percent growth rate for the low load forecast.

#### **High Growth Forecast**

The high-load forecast uses a five percent average annual growth rate for residential, small and medium-sized customer load for five years and three percent average annual load growth for the remainder of the planning horizon. It also includes the addition of new large commercial loads connecting to the system at various points in time accounting for the addition of new resort hotels, big box stores, and schools in a high growth scenario.

Combining the increase to residential commercial, and the addition of new large loads results in an average annual seven percent growth rate with some years experiencing up to eight percent growth and some years as low as two percent.

#### **Baseline Forecast**

The results of the three forecasts establish low (3%), medium (5%), and high (7%) growth scenarios.

Additional forecasts establish scenarios where net metering adoption rates increase with growth and demand side management practices curb demand growth. Rapid adoption of net metering could reduce overall system load growth by up to one percent each year for five years but would not reduce the system peak. Demand side management could result in demand savings, although it is difficult to estimate what these savings would be or if the savings would be consistent from year to year.

These forecasts are used to assess risk and resiliency within the portfolio ensuring contingencies are in place to avoid over planning and under planning resources. The **five percent average annual** mid-range forecast is ultimately used as the planning benchmark as the most likely trajectory.

TABLE 5-2: HISTORICAL LOAD AND ENERGY (2015–2024)

Year	Annual Wholesale Power Purchases (MWh)	Peak Demand (MW)
2020	200,783	46
2021	206,594	49
2022	215,616	49
2023	220,419	51
2024	236,792	56

CHART 5-1: FORECAST OF ANNUAL SYSTEM LOAD (2026–2040)

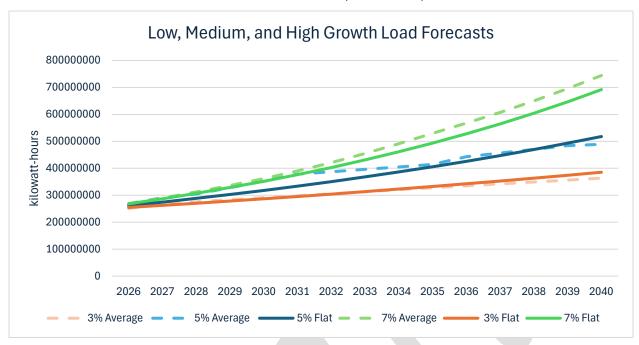


Chart 5-2: Forecast of annual System Peak (2026-2040)

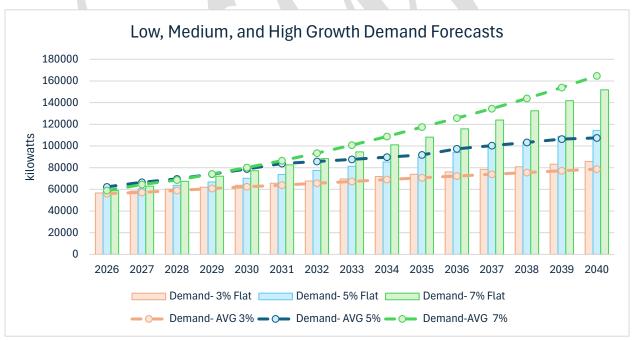


CHART 5-3: SYSTEM LOAD FORECAST WITH RAPID ADOPTION OF ROOF TOP SOLAR

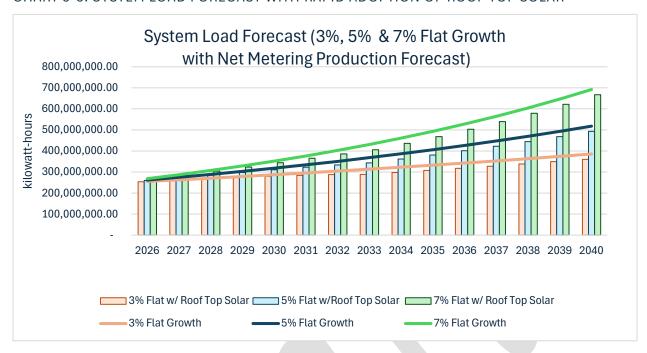
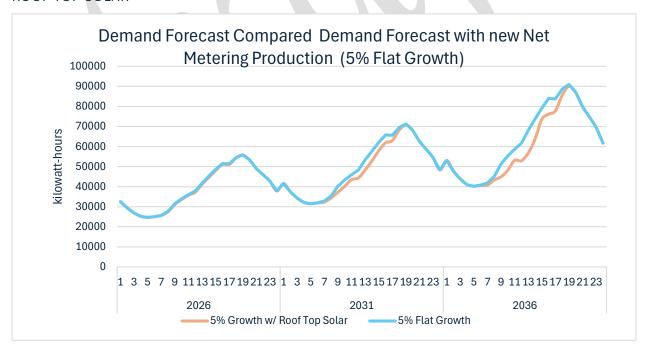


CHART 5-4: DAILY SNAPSHOT OF SYSTEM DEMAND FORECAST WITH RAPID ADOPTION OF ROOF TOP SOLAR



# 6. EXISTING RESOURCE PORTFOLIO

The current Resource Portfolio includes solar, wind, hydro, and geothermal renewable energy. Carbon-based resources include coal fired energy from two plants located in Utah and dispatchable natural gas fired generation owned and operated by HL&P.

TABLE 6-1: CURRENT GENERATION RESOURCES

Resource	Туре	Heber's Capacity (MW)	Ownership	Contact End
Federal Hydropower (Western Area Power Administration Hydro and Market Replacement)	Hydro	up to 8	Allocation	2057
Hunter	Coal	3.78	UAMPS PSC	Plant Retirement 2044
Intermountain Power Project	Natural Gas	5.267	IPA PSC	2077 or Retirement
Pleasant Valley	Wind	0.726	PPA-UAMPS	2029
Horse Butte	Wind	1	Owner	Life of Plant
Jordanelle	Hydro	4	PPA/increase in 2033	Life of Project
Patua	Geothermal/Solar	12	PPA	2033
Red Mesa	Solar	5	Owner	2048
Steel One	Solar	6	Owner	2048
Market (Includes new Short- term Purchases)	Market	0-20	Various PPA	Various Terms (1-5 years)
Snake Creek Upper & Lower, Lake Creek	Hydro	4	Owner	Life of Plant
Heber Natural Gas Generation Power Plant	Natural Gas	16.5	Owner	Life of Plant

Historical Annual Energy by Resource 2015-2024 300000000 250000000 kilowatt-hours 200000000 150000000 100000000 50000000 0 -50000000 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 Heber Hydropower Federal Hydropower incl. WRP Hunter Heber Natural Gas Gen IPP Patua Jordanelle Horsebutte Wind Red Mesa Steel One Pleasant Valley Wind UAMPS Power Exchange Load Balancing System Load

CHART 6-1: HISTORICAL ANNUAL ENERGY BY RESOURCE (2015-2024)

#### 7. FUTURE RESOURCE NEEDS

As customer demand in Heber Light & Power's service area is projected to grow by approximately five percent annually over the next 15 years, existing resources alone will be insufficient to reliably serve peak loads and meet reserve margin requirements. Several contracts will expire within the planning horizon, and the variability of hydro resources increases the risk of seasonal shortfalls. In addition, participation in the CAISO Extended Day-Ahead Market (EDAM) and Resource Adequacy (RA) programs require dependable and flexible capacity beyond current commitments. To maintain reliability, contain costs, and preserve a minimum 30 percent renewable share, the utility must secure new resources—both supply- and demand-side that are flexible and financially sustainable.

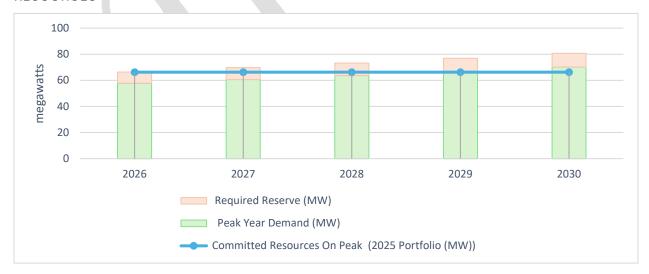
In 2026, HL&P will begin participating in the Energy Day Ahead Market (EDAM) and Western Resource Adequacy Program (WRAP) as a member of Utah Associated Municipal Power Systems (UAMPS). WRAP requires a Load Serving Entity (LSE) to have dependable capacity to meet its forecasted peak plus a percentage of its demand forecast as a reserve margin.

This new requirement means that HL&P must include a reserve margin in its portfolio. New resources will be required to supply both energy and firm capacity.

#### **Portfolio changes:**

- Federal Hydropower- Drought and environmental experiments continue to reduce hydropower generation, and the Western Area Power Administrations (WAPA) decision to join the SPP RTO Market means they will no longer offer hourly market replacement power. Month ahead replacement power could cost more due to the RTO structure. The resulting loss of reliability and the unknown cost of replacement energy requires some, if not all, of the capacity to be replaced in the portfolio.
- IPP- Intermountain Power Project coal fired, steam electric generating station is being repowered to natural gas with the capability of supplementing with hydrogen.
   The repowering will reduce the overall plant capacity. HL&P's share will be reduced to 5.267 MW from 11 MW.
- Pleasant Valley- The Power Purchase Agreement (PPA) for wind generation expires in 2029.
- Patua- The PPA for solar and geothermal energy expires in 2033.
- Market PPA- A PPA for 3MW of firm Around-The-Clock (ATC) market power expires in March 2027.
- Jordanelle- HL&P currently remarkets two thirds of the energy generated to Lehi City and St. George. These agreements expire in 2033, allowing HL&P to retain all energy generated.

CHART 7-1: CAPACITY AND ENERGY BALANCE- CURRENT PORTFOLIO WITHOUT NEW RESOURCES



#### 8. PREFERREED RESOURCE PLAN

To meet the energy requirements of the future, HL&P developed a Preferred Portfolio to meet the needs of the future. HL&P takes an "all of the above" approach to portfolio planning emphasizing diversity and flexibility. Power generation projects take many years to study, plan, and build. New resources include multiple UAMPS power projects which will add 28MW of capacity to the portfolio over the next six years. This additional capacity meets HL&P's reserve requirements, environmental goals and maintains flexibility in the portfolio.

#### **UAMPS Projects**

HL&P participates in multiple UAMPS projects including the Resource Project which allow UAMPS members to explore resource feasibility and to come together to negotiate Power Purchase Agreements and build new power projects. When the study phase of a project is completed and there is adequate UAMPS member participation then the development phase of a project begins and a new UAMPS project is formed.

Each UAMPS project is governed by its Project Management Committee (PMC). Once a project moves forward an operating agreement and/or Power Sales Contact must be approved by each project participant's governing body before it can proceed to the development phase. In the development phase pre-determined milestones must be met. These may include power sales contract participation of 85percent or more of project capacity, target price for the maximum cost of energy established, and off-ramps identified for specific "determination dates" where the maximum cost of energy will be evaluated and must be met for the project to continue.

HL&P is participating in two new UAMPS projects which are currently in the development phase and are slated to be built and online during the five-year planning term of this IRP. In 2024, HL&P determined its optimal participation levels in two natural gas projects: a base load project in Power County, Idaho and a peaking plant in Millard County, Utah.

#### Millard County Natural Gas Peaker (8.69MW)

A 200 MW natural gas fired reciprocating internal combustion engine peaking power plant in Millard County Utah is expected to be online by 2029. HL&P's participation level is 8.69MW.

### American Falls, ID Power County Natural Gas Base Load (16.4MW)

A 360 MW baseload combined cycle natural gas power plant project in American Falls Idaho is expected to be operational by 2031. HL&P's participation level is 16.4MW.

#### Renewable UAMPS Power Purchases Agreements

Additionally, HL&P is currently participating in the study phase of four renewable UAMPS study projects. These projects include utility scale solar with battery storage, geothermal, and wind. HL&P has requested a total of 4.4MW of participation in these projects.

#### **Market Power Purchases**

Peak demand and seasonal demands have predictable load shapes with higher resource requirements than shoulder months. To meet the summer and winter demands, seasonal market power purchases are made to ensure adequate capacity and energy are available. These purchases are made one to five years in advance and are presented to the Resource Risk Management Team and Approved according to the HL&P Risk Management Policy.

#### **Heber Natural Gas Generation**

Currently, the company owns and operates natural gas generation which provides dispatchable energy for meeting daily peaks. The plant is economically dispatched to reduce market exposure and manage power purchase costs. The plants operate under a minor source emissions permit from the Department of Environmental Quality, and all new equipment has the best available equipment in place to reduce emissions.

In 2024, one of three plants was retired due to the age of the building. Units were moved to open bays in another plant. To replace the lost bays, a new plant is set to be constructed in 2026, allowing for redundancies in the plants and the eventual expansion of generating capacity, when it is needed in the portfolio.

TABLE 8-1: CAPACITY AND ENERGY BALANCE- PREFERRED PORTFOLIO

		Heber's Capacity		
Resource	Туре	(MW)	Ownership	Contact End
Federal Hydropower (Western				
Area Power Administration				
Hydro and Market				
Replacement)	Hydro	up to 8	Allocation	2057
Western Replacement Power				
(Market Hydropower	M. L.		Alleration	0057
Replacement)	Market	4	Allocation	2057
Hunter	Coal	3.78	UAMPS PSC	Plant Retirement 2044
Intermountain Power Project	Natural Gas	5.267	IPA PSC	2077 or Retirement
·	Wind			
Pleasant Valley		0.726	PPA-UAMPS	2029
Horse Butte	Wind	1	Owner	Life of Plant
Leader all a	111		PPA/increase	L'C CD CL
Jordanelle	Hydro	4	in 2033	Life of Project
Patua	Geothermal/Solar	12	PPA	2033
Red Mesa	Solar	5	Owner	2048
Steel One	Solar	6	Owner	2048
Market (Includes new Short-				Various Terms (1-5
term Purchases)	Market	0-20	Various PPA	years)
Snake Creek Upper & Lower,				
Lake Creek	Hydro	4	Owner	Life of Plant
Heber Natural Gas Generation				
Power Plant	Natural Gas	16.5	Owner	Life of Plant
Millard County Peaker	Natural Gas	8.69	Owner	Life of Plant
Power County Base Load	Natural Gas	16.4	Owner	Life of Plant
10.4	NAP I		DDA	20+ years
Uinta Coothermal 1 (HAMPS Cove	Wind	1	PPA	(development phase)
Geothermal 1 (UAMPS Cove	Coothormal	1.050	Owner	20+ years
Point) Geothermal 2 (UAMPS	Geothermal	1.252	Owner	(development phase) 20+ years
Rodatherm)	Geothermal	0.17	Owner	(development phase)
Solar/Battery Storage (UAMPS	Geomerillat	0.17	Owner	20+ years
Fremont)	Solar/Battery	2	Owner	(development phase)
	- Stan Battory	_	J 111101	(2370topinonepha00)

<sup>\*</sup>Total Jordanelle capacity available in 2033

New resources Expiring/retiring resources

<sup>\*\*</sup>Market power purchases are made one to five years in advance to meet seasonal needs.

<sup>\*\*\*</sup>HL&P's natural gas plant will be expanded, as needed to meet load forecasts.

140 120 100 megawatts 80 60 40 20 0 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 Required Reserve (MW) Peak Year Demand (MW) Committed Resources On Peak (2025 Portfolio (MW))

CHART 8-1: PREFERRED PORTFOLIO PROJECTED CAPACITY SURPLUS/DEFICIT

#### 9. RESOURCE OPTIONS

While the Preferred Portfolio meets HL&P's energy goals in the near-term, additional resources may be required if one or more planned projects fail to materialize, if load growth outpaces projections, or if drought conditions reduce hydropower beyond current expectations. HL&P has many resource options to consider, including supply side and demand side options.

#### **Supply-Side Resource Options:**

#### Solar

Solar energy is a low-cost renewable option. The downside of solar energy is the time at which it is available does not usually match customer demand. It can create a surplus of energy during the day when the market is saturated with an abundance of solar generation. HL&P prefers new solar resources combined with battery energy storage to ensure the energy is available at optimum times. The Levelized Cost of Energy (LCOE) for utility scale Solar PV combined with Storage is between \$60/MWh and \$210/MWh.

#### Wind

Wind energy is a renewable resource with variable availability and costs related to the capacity factor of a specific wind project. It can be more costly due to variable generation with long periods of little to no production.

#### Geothermal

Geothermal energy is considered renewable and can be produced ATC with some considerable plant derates due to ambient temperatures. Geothermal projects can be expensive to build.

#### Other Renewables

There are several other renewable options that could be viable additions to the portfolio but require additional analysis of cost and feasibility. Pumped hydropower storage, biomass, and micro-hydropower systems could be cost effective in the right application.

Hydrogen is a renewable fuel that can be used to power gas generation. Currently published LCOE for natural gas combined cycle generation with 20 percent blend of green hydrogen makes it cost prohibitively expensive.

Nuclear power is a carbon-free resource capable of providing low-cost baseload and dispatchable energy. Currently, cost estimates and lead times are still prohibitive.

#### **Natural Gas Peaking and Combined Cycle**

Natural gas generation is a conventional dispatchable energy source that can produce very low emissions when there are good controls in place. This type of generation lends flexibility to a portfolio. Natural gas generation can be used to firm variable resources and peak shave.

Natural gas does come with market risk due to price volatility, but this can be smoothed over time. Weather, LNG exports, storage levels, and policy shifts cause price volatility. To reduce exposure to sudden cost spikes, HL&P's hedging strategies include Forward Contracts locking in a portion of expected fuel purchases at fixed prices for set delivery periods. Forward contracts are staggered over time to take advantage of varying market conditions.

Although natural gas prices are subject to market volatility, the U.S. Energy Information Administration (EIA), projects domestic dry natural gas production to remain steady to

slightly increasing through 2050, in the range of 37–43 trillion cubic feet annually (EIA, 2024). This outlook suggests that natural gas will remain a widely available and reliable fuel source for decades to come.

Baseload and peaking natural gas generation are proven options for the portfolio. Fuel cells need further study to determine cost and feasibility.

CHART 9-1: EIA NATURAL GAS: PRODUCTION OUTLOOK

Natural Gas: Production: Dry Gas Production

Tof Case: Reference case

40

20

10

2022 2024 2026 2028 2030 2032 2034 2036 2038 2040 2042 2044 2046 2048 2050

Data source: U.S. Energy Information Administration

TABLE 9-1: RESOURCE OPTION COMPARISON

Option	LCOE (\$/MWh)	Dispatchable?	Renewable?	Lead Time (yrs)
Natural Gas (Peaking)	102-238	Yes	No	2+
Natural Gas Combined Cycle	38-115	Yes	No	2+
Wind	27-73	No	Yes	2+
Solar/Battery	60-210	Yes	Yes	2+
Battery Storage	60-210	Yes	No	1+
Nuclear PPA	139-225	Yes	Carbon Free	5+

Lazard's Levelized Cost of Energy+ Report 17.0 (June 2024)

#### **Demand-Side:**

#### **Energy efficiency programs**

The Energy Efficiency Program is structured to lower overall energy consumption while supporting beneficial electrification. Rebate offerings are reviewed and updated annually to target the most effective technologies and maximize system-wide savings.

TABLE 9-2: 2025 RESIDENTIAL ENERGY REBATES

Air Source Heat Pump	Ceiling Fans	Central Air Conditioners
Dual Fuel Heat Pump	Ductless Heat Pump	EMC Furnace Blower
Ground Source Heat Pump	Heat Pump Water Heater	Heat Tape Timer
Refrigerator	Smart Thermostat	Whole House Fan

New additions to the Energy Rebate Program are rebates for Power Watt heat tape systems which reduce heat tape energy consumption by 90 percent and additional HVAC rebates.

#### **Demand Response Initiatives**

HL&P has several demand side management initiatives to help consumers to reduce energy consumption and peak usage.

**The Commercial Rebate Program** is available to HL&P's General Service Customers. The Program is designed to offer an incentive for any project that demonstrates energy or demand savings. The Program encourages energy conservation and load shaping with verifiable and achievable results.

#### Time-of-use and demand Rate Structures

Time-of-use and demand rate structure have been implemented to encourage customers to reduce energy consumption during peak times of the day. HL&P's annual and daily demand typically occurs between 4pm and 7pm. This time of high demand coincides with market pricing peaks which means purchasing energy for these times can be very costly. Time-of-use rates allow customers to shift usage to off-peak times to save money.

HL&P implemented a demand charge for commercial customers in 2014 and has successfully helped many of these customers reduce their demand on the system. In 2025, HL&P implemented a demand charge for residential customers to bring attention to these high-cost hours of the day. The company has an approved rate plan in place which

will increase the residential and commercial demand charge each year over the next three years.

#### Renewable Energy Goal

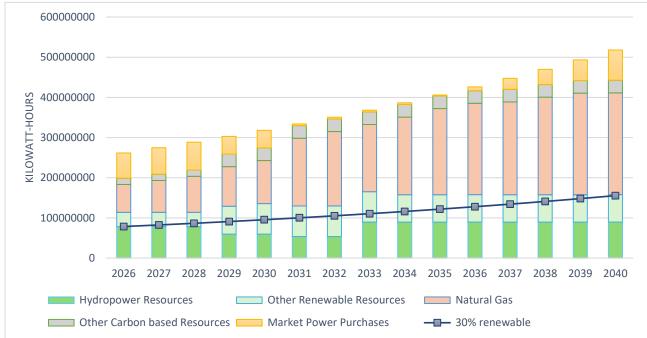
The Preferred Portfolio currently exceeds the goal of maintaining a 30% renewable energy share. However, in a low-hydro scenario, the renewable share could decline to as little as 22%. Drought remains a persistent challenge in the West, with the potential to significantly reduce generation across all hydropower resources in the portfolio.

The three small hydropower facilities owned by HL&P are run-of-stream projects that only produce electricity when water is available and when shares are called by water users. The Jordanelle Hydropower Plant operates in the same manner, with generation as a byproduct of water deliveries. Similarly, federal hydropower allocations prioritize irrigation and other water user needs, leaving energy production as a lower priority. Because water cannot be stored or conserved specifically for power generation, drought impacts on hydropower are both lasting and significant.

As drought continues to erode the reliability of hydropower, HL&P will consider expanding renewable energy resources and battery storage as long-term replacements. In the short term, market purchases will be used to maintain reliability when hydropower output falls short.

In years when the Preferred Portfolio's renewable share exceeds 30%, the company may remarket excess Renewable Energy Credits (RECs) to help offset power supply costs.





#### 10. PORTFOLIO COST AND RISK CONSIDERATIONS

The preferred resource portfolio has been evaluated for both cost and risk. Total portfolio costs, including capital, O&M, and purchased power, are projected to remain stable compared to alternative scenarios, while maintaining at least a 30% renewable share. Sensitivity testing shows that higher natural gas prices or lower hydro availability increase costs modestly but do not compromise reliability.

The portfolio's diversity across hydro, renewable, and firm capacity resources provides protection against market price volatility and load uncertainty. This balanced approach minimizes long-term cost risk while meeting system reliability requirements.

TABLE 10-1: PORTFOLIO COST

Scenario	Avg Cost (\$/MWh)		Reserve Margin	Renewable Share	Notes
Base Case Portfolio	\$	69.76	15%	39%	Meets all targets
High Gas Price	\$	75.08	15%	39%	Costs increase modestly
Low Hydro Output	\$	81.04	15%	22%	RA met with market purchases

# 11. ACTION PLAN (2025-2029)

TABLE 11-1: ACTION PLAN MATRIX

Action	Responsible Party	Timeline	<b>Expected Outcome</b>
UAMPS Millard County Peaker Project NG Hedge Strategies & Dispatch Optimization	Resource Dept	2026- 2028	Hedges in place and generation available in 2029
UAMPS Power County Baseload Project NG Hedge Strategies & Dispatch Optimization	Resource Dept	2028- 2031	Hedges in place and generation available in 2031
Finalize UAMPS Renewable PPAs	Resource Planning/General Manager	2026	PPA terms 20-25 years/LCOE under budget
Secure RA capacity for CAISO	Resource Dept.	2026– 2028	Ensure RA compliance

# 12. MONITORING

Each year, the portfolio performance is evaluated. Key metrics include keeping demand growth below 5% annually, maintaining a 15 percent reserve margin and 30 percent renewable energy share.

TABLE 12-1: KEY PERFORMANCE METRICS

Metric	2026 Target	t 2030 Target
Renewable Share (%)	≥30%	≥32%
Reserve Margin (%)	≥1%	≥15%
DSM Savings (MWh)	1,000	3,000
Peak Reduction from TOU (%)	) 1%	3%

#### 13. CONCLUSION

This Integrated Resource Plan (IRP) provides a comprehensive roadmap for meeting Heber Light & Power's projected energy needs over the 2025–2045 planning horizon. The plan evaluates supply- and demand-side resource options, incorporates weather-normalized load forecasts projecting ~5 percent annual growth, and ensures compliance with Western Area Power Administration (WAPA) requirements. The Preferred Portfolio balances reliability, affordability, and sustainability by maintaining at least a 30 percent renewable energy share while securing flexible capacity for participation in the EDAM and WRAP programs.

Scenario analysis demonstrates that while drought continues to reduce hydropower reliability, long-term investments in renewable energy and dispatchable natural gas generation provide resilience against supply and market risks. The plan also highlights the role of rate design and demand-side management in reducing peak demand and supporting electrification. Financial considerations, including portfolio cost analysis and risk management strategies such as natural gas price hedging, are incorporated to ensure rate stability and creditworthiness.

Through this balanced "all of the above" approach, Heber Light & Power demonstrates its commitment to environmental responsibility, long-term reliability, and prudent financial stewardship while positioning itself to adapt to evolving market and regulatory conditions.

# REFERENCES

- Kem C. Gardner Policy Institute. Long-Term Archives. University of Utah, David Eccles School of Business. Accessed August 27, 2025. <a href="https://gardner.utah.edu/category/long-term">https://gardner.utah.edu/category/long-term</a>
- Lazard. (2024, June). Lazard's Levelized Cost of Energy+ Report 17.0. Lazard LLC. Retrieved from <a href="https://www.lazard.com/media/xemfey0k/lazards-lcoeplus-june-2024-vf.pdf">https://www.lazard.com/media/xemfey0k/lazards-lcoeplus-june-2024-vf.pdf</a>
- U.S. Energy Information Administration. (2024). *Natural Gas: Production Dry Gas Production (Reference Case)*. Annual Energy Outlook 2024. Retrieved from <a href="https://www.eia.gov/outlooks/aeo">https://www.eia.gov/outlooks/aeo</a>