

# Preliminary Feasibility Study

## FORMATION OF A PUBLIC UTILITY IN PUEBLO, COLORADO

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### PREPARED FOR

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### KEY TAKEAWAYS

Municipalization of the electric distribution assets within the city limits of Pueblo, Colorado (“Pueblo”) that are owned and operated by Black Hills Energy (“BHE” or “Company”) is not currently considered to be financially feasible.

- The cost to acquire the electric distribution assets within the city limits of Pueblo and establish a new public electric utility is estimated to require financing of more than \$1 billion.
- While municipalization would allow a municipal utility in Pueblo to finance future electric operations entirely with tax-exempt debt without shareholder returns, this benefit is more than offset by the costs to acquire and operate the existing electric distribution system within the city.
- Specifically, it is estimated that forming a municipal utility would cost Pueblo electric customers an additional \$1.14 billion over the next 20 years as compared to the same electric service continuing to be provided by BHE, which equates to an average incremental cost of electric service to city customers of \$57 million per year.
- Importantly, the analysis herein also excludes any potential compensation that Pueblo would have to pay BHE related to going concern value, which could be a significant, and would need to be considered by the city and its voters.

While the viability of the entire BHE electrical system in Colorado being condemned and acquired by one or more municipal or public power entities as an alternative has not been considered, the viability of such a scenario would have to overcome a number of additional challenges beyond those related to a municipalization of the electric distribution system in Pueblo.

Whether taking over BHE’s distribution system in Pueblo or elsewhere, there are numerous additional factors beyond financial feasibility that voters should evaluate before deciding whether to proceed with municipalization.

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## Introduction

A preliminary independent analysis has been conducted to evaluate whether it is financially feasible for Pueblo to acquire the electric distribution assets owned and operated BHE within the Pueblo city limits. The analysis assumes that Pueblo would not acquire any of BHE's electric generation or transmission assets, nor any of BHE's electric distribution assets located outside of the Pueblo city limits. To assess whether municipalization is financially feasible for the electric customers of Pueblo, (1) the future cost of electric service being provided by a newly established municipal electric utility in Pueblo is compared to (2) the future cost of electric service continuing to be provided by BHE.

The acquisition and subsequent operation of BHE's electric assets is assumed to commence in 2032. The timing associated with the process of a municipality condemning and acquiring an incumbent utility's assets is highly variable and uncertain and historically has taken up to a decade or more to resolve. Based on the duration of several prior municipalization efforts and the fact that BHE would likely be averse to any condemnation, it is unlikely that municipal electrical service would be able to commence prior to 2032.

Neither the manner by which BHE's assets would be valued nor the magnitude of the acquisition cost are currently defined, and both ultimately would be determined at a future date, likely through litigation, should Pueblo decide to municipalize. However, for purposes of the preliminary feasibility of municipalization herein, the cost to Pueblo to condemn and acquire BHE's electric distribution system is based on the reproduction cost less depreciation value of those assets. As discussed later herein, there have been very few municipalization efforts in the last quarter century that have ultimately resulted in the establishment of a municipal utility, and of those limited instances, even fewer have been resolved through a litigated outcome. However,

the valuation methodology relied upon for this analysis is consistent with precedent in a prior municipalization effort.<sup>1</sup>

## Projected Future Cost of a New Pueblo Municipal Electric Utility

The projected future cost of electrical service to be provided by a new municipal electric utility in Pueblo first requires an estimate of the various costs that Pueblo would incur to condemn and acquire BHE's electric distribution system and to establish its own municipal utility. As shown in Figure 1, various categories of costs would be incurred by Pueblo, financed, and recovered through customer rates if the city decided to condemn and acquire BHE's distribution assets within its city limits:

- The costs to acquire the physical assets, land, and easements in the city that exist as of the time of the acquisition (*i.e.*, existing assets plus any additional assets installed up through the acquisition date).
- The cost of any assets constructed by BHE and contractual obligations entered into by BHE up to the point of an acquisition that become "stranded" or no longer needed by BHE to serve its remaining customers if Pueblo were to condemn and acquire BHE's electric distribution system.
- All costs associated with separating the electrical distribution system within Pueblo from BHE's remaining electric distribution system and reintegrating BHE's remaining electric network such that safe and reliable service is maintained to its remaining customers at the level prior to Pueblo's condemnation and acquisition.
- All transaction costs incurred up to the condemnation and acquisition of the electric distribution system within Pueblo, including all legal, engineering, and consulting costs, as well as the underwriting and debt issuance costs required to finance the acquisition.<sup>2</sup>
- The various costs related to the startup of a new municipal utility.<sup>3</sup>

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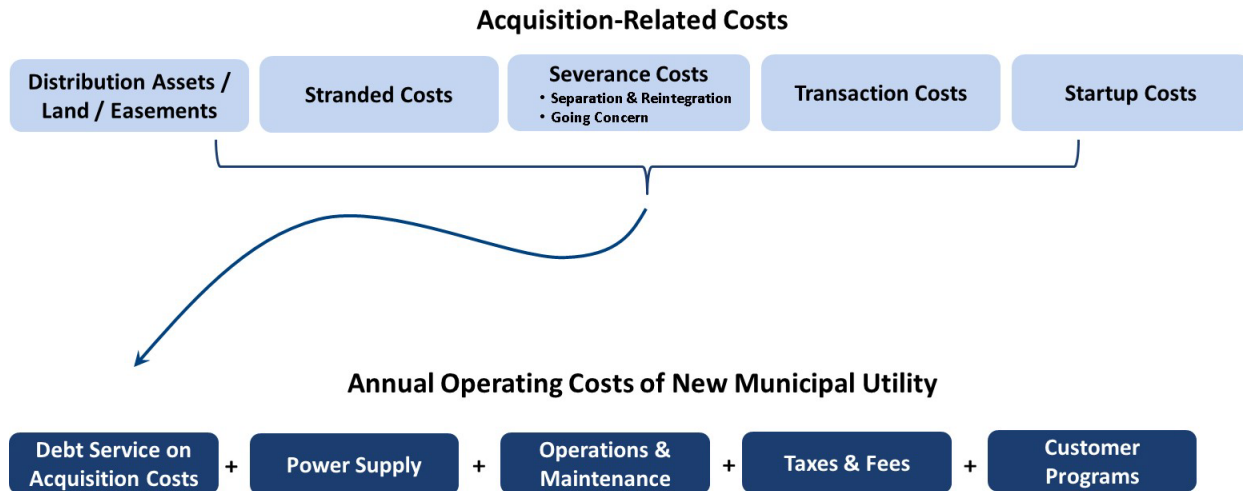
<sup>1</sup> See, *e.g.*, Iowa Utilities Board, Docket No. SPU-88-7, Order Denying Petition for Certificate Authority, August 2, 1990.

<sup>2</sup> All transactions costs incurred by Pueblo associated with the municipalization effort prior to a financing of such costs at the time of acquisition would be paid from the city's general fund.

<sup>3</sup> These startup costs include: initial capital expenditures of the new municipal utility, equipment inventory, facilities, fleet vehicles, staffing, information technology (*e.g.*, hardware and software; cyber security measures; billing system; website; mobile app development), and a debt service reserve fund, as well as the costs associated with maintaining sufficient cash working capital to support day-to-day operations of the utility and to respond to unanticipated events (*e.g.*, funding for initial energy purchases, operation and maintenance expenses, and customer assistance programs).

- The potential value of “going concern” that may be determined to be required to be paid by Pueblo to BHE as a result of the condemnation. Going concern value represents the incremental value attributable to the fact that the assets subject to the condemnation together comprise a business unit that is complete, functional, and can be run as a business unit on day one after the acquisition.<sup>4</sup>

**FIGURE 1: ACQUISITION AND ANNUAL OPERATING COSTS TO BE INCURRED BY A NEW PUEBLO MUNICIPAL UTILITY**



***Pueblo Acquisition-Related Costs***

It is projected to cost Pueblo approximately \$1.01 billion should it decide to condemn and acquire BHE’s distribution assets within the city limits, which includes approximately \$662 million for Pueblo to acquire the electric distribution assets within the city limits.<sup>5</sup> Specifically:

- *Distribution Assets/Land/Easements*: The cost of acquiring BHE’s distribution assets located within the city limits is the largest portion of the overall acquisition-related costs. For purposes of this preliminary analysis, the estimated cost to acquire these distribution assets is derived based on (1) the reproduction cost less depreciation value of the electric

<sup>4</sup> A determination of whether Pueblo would be required to pay going concern value associated with the condemnation and acquisition of BHE’s electric distribution system within the city limits, and the amount of such compensation Pueblo would pay to BHE, is outside the scope of this analysis and has been excluded from the assessment of financial feasibility. However, should Pueblo decide to proceed with municipalization, the payment by the city to BHE of any going concern value would need to be considered as part of the overall financial feasibility.

<sup>5</sup> All values expressed in 2032 dollars.

distribution and general plant assets that currently exist within Pueblo;<sup>6</sup> (2) the value of the incremental electric distribution and general plant assets projected to be placed into service from 2025 through 2031 (*i.e.*, prior to the assumed startup of municipal operations in Pueblo in 2032) less retirements during this period; and (3) the value of the land owned and easements controlled by BHE currently within Pueblo.<sup>7</sup>

- Stranded Costs: Pueblo would be required to compensate BHE for any stranded costs that may occur as a result of municipalization. For example, BHE supplies power to all of its customers through a combination of owned generation assets and power purchase agreements; however, if Pueblo were to municipalize, BHE would no longer need all of those power supply resources to serve its remaining customers. In this instance, it is estimated that Pueblo condemning BHE's existing distribution system and no longer relying on BHE to supply power to customers within the City would result in stranded generation<sup>8</sup> and stranded substation costs.<sup>9</sup>
- Going Concern: As noted, Pueblo may also be required to compensate BHE for its going concern value should the city decide to municipalize. No going concern value has been included as part of the acquisition-related costs in this analysis; however, the going concern could be a material addition to the costs that the city would need to incur and finance as part of its condemnation should it municipalize.<sup>10</sup>

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<sup>6</sup> See, e.g., Iowa Utilities Board, Docket No. SPU-88-7, Order Denying Petition for Certificate Authority, August 2, 1990.

<sup>7</sup> The BHE electric distribution system was designed to serve all customers within the service territory regardless of whether they are located within or outside of Pueblo city limits, and thus BHE's records do not specifically identify the distribution assets that are located within Pueblo versus outside of Pueblo in all instances. Therefore, this analysis reflects an estimate of the distribution assets that are located within the Pueblo city limits; however, should Pueblo decide to municipalize, a detailed engineering study and accounting analysis of BHE's electric distribution system assets would need to be conducted in order to determine those assets specifically located within Pueblo city limits that would be condemned and subject to an acquisition.

<sup>8</sup> The stranded generation cost is calculated as the difference between the cost of BHE's projected future generation portfolio less the projected price of power supply in the market multiplied by the amount of BHE's owned and contracted generation over time that exceeds the amount of electric required to serve BHE's remaining customers post-municipalization.

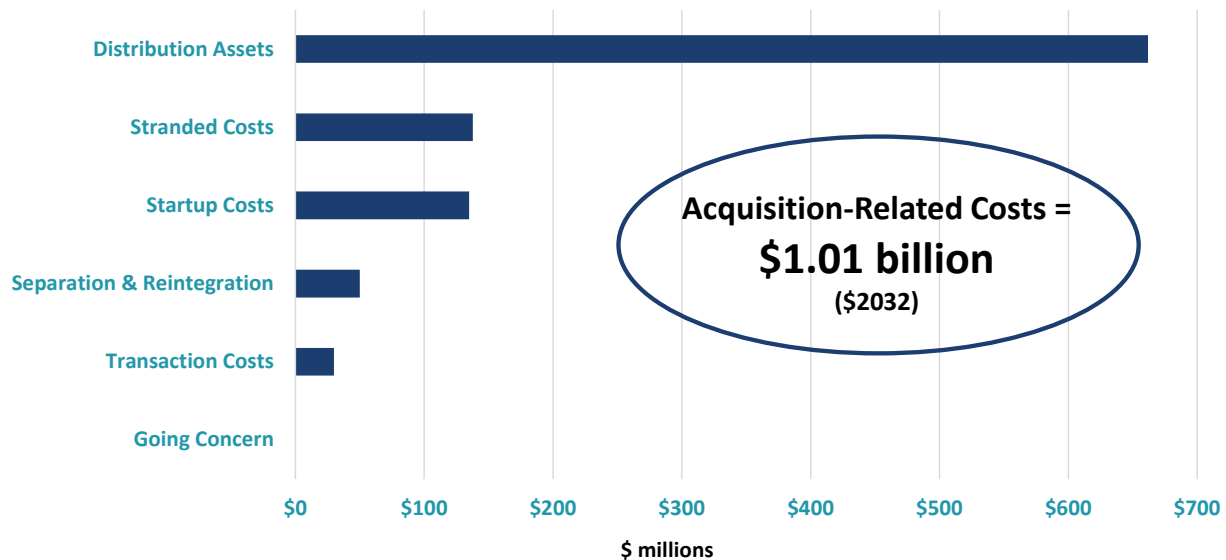
<sup>9</sup> A detailed engineering study would be required to determine the stranded costs associated with BHE's substations that would no longer be necessary to serve BHE's remaining customers if Pueblo were to municipalize.

<sup>10</sup> For example, a well-respected legal treatise, Nichols on Eminent Domain (3rd Edition) notes that, "...in the 'fair-value' era [courts] regularly valued the going concern element as an added percentage of the cost of reproduction of the physical assets (between 7.5% and 25%)."

- Separation & Reintegration Costs: Given that each electrical system is configured differently, a detailed engineering study would need to be conducted in order to determine whether the remaining BHE electrical system could be severed from the new Pueblo municipal utility and reconnected such that it operated in a similar manner as it does currently as a single system. Since such a detailed study has not been conducted, these costs have been estimated for this preliminary analysis.
- Transaction and Startup Costs: Transaction and startup costs are estimated based on prior municipalization efforts.

Figure 2 summarizes the total acquisition-related costs estimated to be incurred by Pueblo if it decided to condemn and acquire BHE’s distribution system within the city limits.

**FIGURE 2: TOTAL ESTIMATED ACQUISITION-RELATED COSTS**



***Pueblo Annual Operating Costs***

As shown previously in Figure 1, the annual debt service associated with financing acquisition-related costs is added to the other projected future operating costs needed to run the municipal utility (i.e., power supply; operations and maintenance (“O&M”) expenses; taxes and fees; customer program costs such as low-income assistance). The total of these costs represents the estimated future annual operating costs that a city-owned electric utility would need to recover from electric customers within Pueblo. Specifically:

- Debt Service: The acquisition-related costs to form a municipal utility would be financed through a combination of taxable debt and tax-exempt debt.<sup>11</sup> While Pueblo would be able to issue tax-exempt debt to finance future investment needs, the city's initial acquisition of BHE's physical assets would need to be financed with taxable debt similar to the debt relied upon by BHE and other investor-owned utilities to finance their utility investments.<sup>12</sup> Annual debt service costs would be a function of the amount to be financed and the relevant interest rates at the time the acquisition-related costs needed to be financed based on the credit rating of a new city-owned electric utility. For this analysis, the interest rate for taxable debt is based on the projected 30-year US Treasury bond yield plus the spread between (1) the historical average 30-year Treasury yield and (2) the average Moody's AA-rated utility debt yield. The interest rate for tax-exempt debt is based on the spread between actual taxable and tax-exempt debt issuances.
- Power Supply Costs: The municipal utility is assumed to purchase all of its power supply requirements from one or more market sources, meaning the city would not purchase generation from BHE. To estimate the city's power purchase costs, a projected power price inclusive of energy and capacity is multiplied by the projected wholesale electric demand requirements in Pueblo each year of the forecast period. In addition, a city-owned utility would also incur electric transmission costs to transmit its purchased power from the generating source to Pueblo, and it is assumed that the city would utilize BHE for such transmission.
- O&M Expenses: The annual O&M expenses that the city would be required to incur are based on the actual O&M costs incurred by other municipal utilities in Colorado and elsewhere in the western United States.
- Taxes and Other Fees: BHE currently pays property taxes on the assessed value of its assets located within Pueblo. In addition, BHE also pays a franchise fee and undergrounding fees to the city. If the city were to municipalize, BHE would no longer be required to pay these taxes and fees to Pueblo. In order to continue to fund city operations at existing levels, it is assumed that a municipal electric utility would provide a "payment in lieu of taxes" to the city's general fund to replace the revenue to the city

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<sup>11</sup> The acquisition of the physical assets, land, easements would be financed with taxable debt, while the remainder of the acquisition-related costs would be financed with tax exempt debt, and the analysis assumes all debt would be financed over a 30-year period.

<sup>12</sup> It is our understanding that Federal law prohibits the use of tax-exempt debt to finance the acquisition of utility property from an investor-owned utility. See, 26 U.S.C. § 141(d).

currently supplied through BHE’s rates. Therefore, the total amount of taxes and fees that are recovered through BHE’s rates is assumed to continue in the cost of municipal operation of the system.

- **Customer Programs:** It is assumed that the city would continue the customer programs that BHE currently provides to its customers in Pueblo, which include energy efficiency and low-income assistance.

Figure 3 summarizes the projected revenue requirement of a new Pueblo municipal electric utility over the 20-year forecast period.

**FIGURE 3: A PUEBLO MUNICIPAL ELECTRIC UTILITY’S PROJECTED ANNUAL COST TO SERVE**

<i>in \$millions</i>	Year 1 2032	Year 5 2036	Year 10 2041	Year 15 2046	Year 20 2051
Debt Service	\$63	\$68	\$74	\$81	\$91
Power Supply Expenses	\$61	\$75	\$95	\$120	\$151
O&M Expenses	\$35	\$38	\$43	\$48	\$53
Assistance Programs	\$4	\$4	\$5	\$5	\$6
Payments in Lieu of Taxes and Fees	\$5	\$6	\$6	\$7	\$8
<b>Total</b>	<b>\$168</b>	<b>\$190</b>	<b>\$222</b>	<b>\$261</b>	<b>\$309</b>

### Projected Future Cost of BHE Continuing to Provide Electric Service to Pueblo

BHE’s existing electric rates are not currently calculated for Pueblo on a stand-alone basis, but rather are calculated on a system-wide basis. Accordingly, a projected future system-wide BHE cost of electric service (*i.e.*, the generation, transmission, and distribution functions) is developed over the forecast period (*i.e.*, from 2032 through 2051), which is allocated to Pueblo based on the proportion of projected future electricity requirements in Pueblo as a percentage of BHE’s total system requirements in Colorado.

Specifically, the projected future cost of BHE continuing to provide electric service to Pueblo reflects:

- The costs reflected in the settlement of BHE’s pending 2024 electric rate proceeding.
- BHE’s current projected investments and retirements for its generation, transmission, and distribution functions. The company’s current projection of future capital investment for these functions is projected through 2029, and thereafter, the analysis assumes a historical level of capital investment for the company. Specifically for the generation function, the analysis reflects BHE’s projected future generation-related costs (both owned generation and purchased power agreements) required to comply



with the Colorado Clean Energy Plan.<sup>13</sup> Additional future power supply requirements that exceed the supply capable of being provided by BHE's currently projected resources are assumed to be purchased in the market at the prevailing projected power price (inclusive of both energy and capacity).

- The same modest increases in the future number of electric customers in Pueblo, and the future electric requirements of those customers, as reflected in the derivation of the future cost to serve Pueblo if the city were to municipalize.

### **Comparison of the Future Cost of Electric Service – a Pueblo Municipal Utility versus BHE**

Figure 4 compares the projected future cost of electric service to customers within the city being provided by a Pueblo municipal electric utility versus BHE over the forecast period. As shown, it is estimated to be significantly more costly to customers in the city under a municipal utility model. Specifically, the annual additional cost to Pueblo electric customers of the city municipalizing is estimated to begin at over \$30 million/year and reach over \$80 million/year at the end of the 20-year forecast period, thus totaling approximately \$1.14 billion over the first 20 years of municipal ownership and operation.

The projected higher cost of a new municipal utility in Pueblo as compared to continued BHE ownership is driven by the estimated significant upfront costs the city would incur to condemn and acquire the BHE assets, the need to compensate remaining customers for stranded costs, the estimated startup costs to establish a new municipal utility, and the expected higher cost to operate and maintain the system. These projected higher costs outweigh the benefit of a municipal electric utility in the city being able to finance its operations entirely with debt and its ability to use tax-exempt as opposed to taxable debt.

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<sup>13</sup> The assumed future generation capital investments and retirements reflect BHE's 2022 Electric Resource Plan and Clean Energy Plan and reflect both the Company's owned generation and purchase power agreements.

**FIGURE 4: ADDITIONAL COST OF MUNICIPAL OWNERSHIP OVER FIRST 20 YEARS**

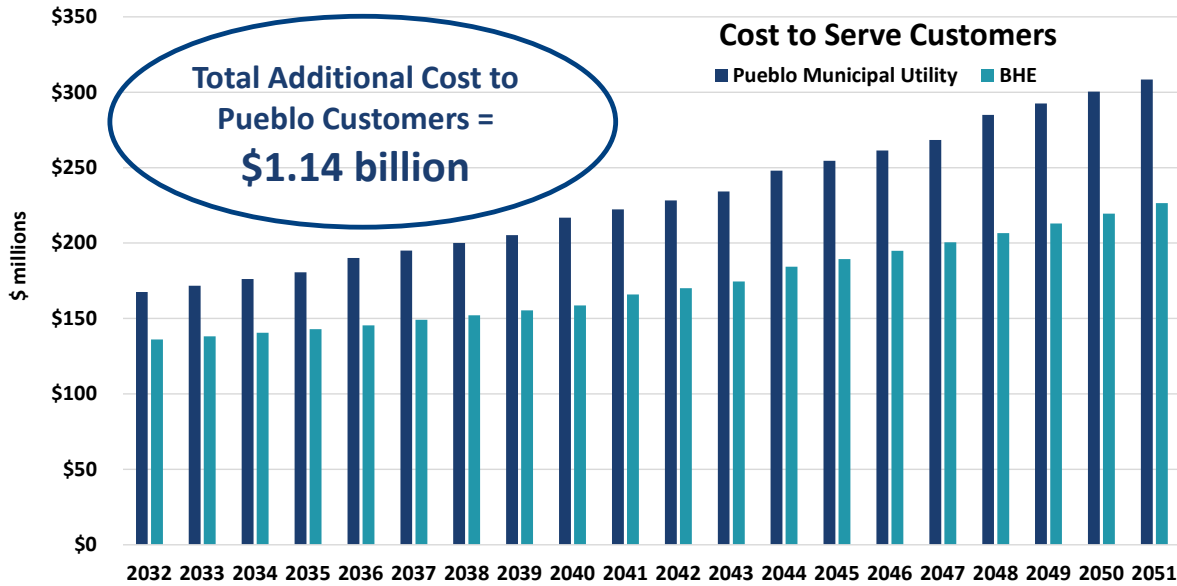
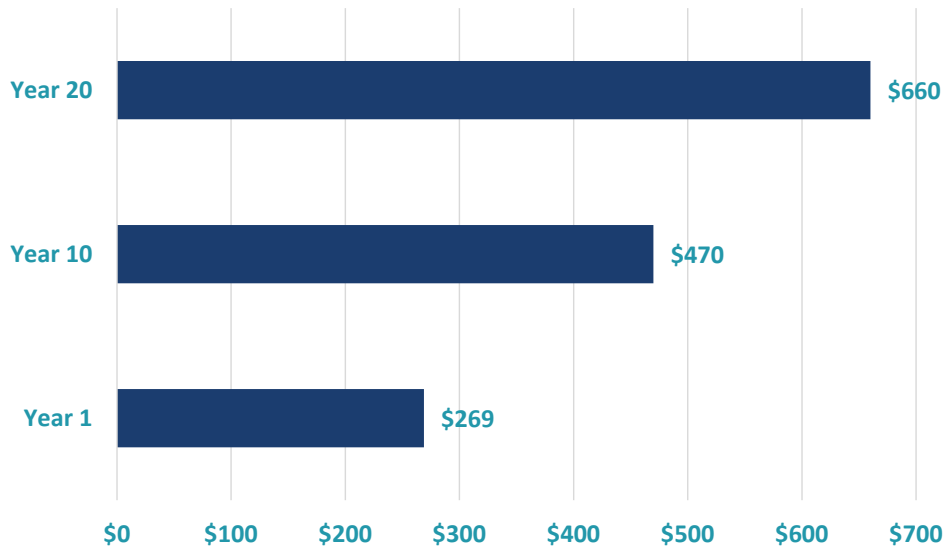


Figure 5 presents the estimated annual incremental cost to an average residential electric customer in Pueblo over the forecast period if the city were to municipalize.<sup>14</sup>

**FIGURE 5: ESTIMATED ANNUAL ELECTRIC BILL INCREASE ABOVE AND BEYOND BHE RATES FOR AVERAGE RESIDENTIAL CUSTOMER IF PUEBLO WERE TO FORM A MUNICIPAL UTILITY**



<sup>14</sup> The average annual cost increase to a residential electric customer in Pueblo is based on average usage of 600 kWh/month.

## Additional Factors to Be Considered Beyond Financial Feasibility

In addition to considering whether municipalization in Pueblo would be financially feasible, numerous additional factors are critical for stakeholders to consider when weighing whether to pursue municipalization. As discussed in a recently published whitepaper by The Brattle Group,<sup>15</sup> these considerations include – but are not limited to – the following:

- 1) Whether municipal time and resources that would be necessary to pursue municipalization, which can be significant and would likely be paid out of the city’s general fund, are better spent on other critical city services (e.g., public safety; roads; wastewater/stormwater systems) given that the municipalization process can be lengthy, litigious, and costly;
- 2) The inherent risk associated with the level of future electric rates given that the decision to pursue municipalization must be made sometimes years in advance and without definitively knowing whether municipalizing the utility is financially feasible;
- 3) The capability of the municipality to execute and provide safe, reliable, and efficient electric service;
- 4) There would be no third-party review of utility operations;
- 5) All benefits and risks of municipal electric operations, including full cost recovery, are directly assigned to the electric customers of the municipality given that there would be no outside shareholders who assume financial risk under municipal ownership;
- 6) The differences between the governance of a municipal utility versus the existing federal and state regulatory structure under which investor-owned utilities operate, and any potential risks related to possible organizational or political influence over the municipal utility operations; and,
- 7) Whether the costs incurred to achieve municipal ownership and operation may be disproportionately borne by current customers is fair to achieve potential benefits for future customers.

All of these factors are important and can affect both the long-term financial feasibility and successful operations of a municipal electric utility should Pueblo decide to proceed with municipalization.

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<sup>15</sup> The Brattle Group, “Electric Utility Municipalization: Key Statistics and Risk Considerations,” February 2025, <https://www.brattle.com/insights-events/publications/electric-utility-municipalization-key-statistics-and-risk-considerations/>.

## Potential Municipalization of the Entire BHE Colorado Electrical System

While this analysis has focused on the condemnation of BHE’s distribution system assets located within the Pueblo city limits, it is also theoretically possible that the entire BHE electrical system in Colorado could be condemned and ultimately acquired by one or more municipal or public power entities. While such an alternative has not been considered in detail, the viability of such a scenario would have to overcome a number of additional challenges beyond those related to a municipalization of the electric distribution system in Pueblo. For example, BHE’s electric assets are located within multiple municipalities across Colorado and the condemnation of the entirety of BHE’s electric assets within the state undoubtedly would require the separate approval of voters in each of those jurisdictions. In addition, the potential for condemning all of the BHE Colorado assets would also need to overcome any differences between the various jurisdictions regarding the priorities and/or visions of future municipal operation (*e.g.*, affordability; renewable power; distributed generation). Furthermore, acquisition of BHE’s entire Colorado electric asset base could result in greater financial costs to future customers than as reflected herein related to the potential municipalization of BHE’s electrical distribution system in Pueblo. Initiatives for multi-jurisdictional condemnations are extremely rare, and the most recent effort, which would have created a public power utility in Maine, was overwhelmingly rejected by voters in November 2023.<sup>16</sup>

## Conclusion

The estimate provided herein indicating that it would be more expensive for customers in Pueblo to condemn and acquire the city’s electric distribution assets than to continue to receive electric service from BHE is consistent with the financial, operational, and other challenges acknowledged by municipalities that have explored municipalizing existing electric utility service.<sup>17</sup> While it is possible in certain circumstances that condemnation of existing electric utility assets could provide future benefits to customers through municipalization, many communities have concluded that doing so is uneconomic.

For example, similar to the findings presented herein regarding Pueblo:

- A preliminary feasibility analysis conducted by Chicago, Illinois concluded that electric rates in the city would be more than 40% higher in the first year of service under municipal operation as compared with the rates projected under continued operation by the existing utility, and were projected to be higher for customers over the entire 20-year

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<sup>16</sup> Kate Cough, “Pine Tree Power proposal decisively voted down,” *The Maine Monitor*, November 8, 2023.

<sup>17</sup> Most recently, a municipalization initiative in Decorah, Iowa was rejected by voters on March 4, 2025.

study period.<sup>18</sup> Based on the city’s findings, Chicago indicated that it would instead focus on negotiating with the utility on the mayor’s policy objectives of rate affordability, energy and sustainability, equitable economic development, and transparency.<sup>19</sup>

- An associate professor of electrical engineering and computer science at the University of Michigan assisting the city of Ann Arbor noted that “staging a municipal takeover” of the existing electric utility’s infrastructure was not realistic and that alternative paths were “the city’s best bet for quickly ramping up clean energy generation.”<sup>20</sup>
- The executive director of the mayor of Louisville, Kentucky’s sustainability office indicated that “municipalization was a pathway the city had to consider given the city’s sustainability demands,” but noted that the cost of municipalization was likely “out of reach for Louisville.”<sup>21</sup>

As a result, although many municipalization efforts have been initiated in the past 25 years, less than 10% of these efforts have resulted in a new municipal electric utility being established that remains in service today. The most recent municipalization occurred more than a decade ago through a settlement with the existing utility as opposed to extensive and lengthy litigation that is typical of the way in which municipalization initiatives have unfolded.<sup>22</sup>

While there are numerous municipal utilities throughout the US, the majority were established 100 years or more ago when the systems were small and less complex, and these municipal systems have grown organically over time. The circumstances related to the acquisition of an electric utility system currently differs substantially from a century ago due to the scale and complex physical infrastructure that exists today to serve customers, and the cost to acquire those much larger, more complex systems. Based on the analyses presented herein, the cost of

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<sup>18</sup> Mayor’s Press Office, “City of Chicago Releases Findings of Preliminary Municipal Utility Feasibility Study; Study finds that municipalization of electric utility is not financially viable,” Press Release, August 28, 2020; “Preliminary Municipal Utility Feasibility Study,” NewGen Strategies & Solutions, August 2020, at Report Summary.

<sup>19</sup> Mayor’s Press Office, “City of Chicago Releases Findings of Preliminary Municipal Utility Feasibility Study; Study finds that municipalization of electric utility is not financially viable,” Press Release, August 28, 2020.

<sup>20</sup> Ysabelle Kempe, “A Michigan city’s ‘sustainable energy utility’ got the green light from voters. What now?” *Utility Dive*, January 2, 2025.

<sup>21</sup> John Engel, “Another big city considers building its own utility. What would it cost?,” *Power Grid International*, July 26, 2024.

<sup>22</sup> The Brattle Group, “Electric Utility Municipalization: Key Statistics and Risk Considerations,” February 2025, <https://www.brattle.com/insights-events/publications/electric-utility-municipalization-key-statistics-and-risk-considerations/>.

acquiring and operating the electric utility operations in Pueblo would result in higher overall costs to customers.