
ATTACHMENT A
ADDITIONAL QUESTIONS FOR INVESTOR-OWNED ELECTRIC UTILITIES
FOR STUDY PURSUANT TO § 40-3.2-104.6, C.R.S.

The questions below are posed to Colorado’s two investor-owned electric utilities, Public Service Company of Colorado (Public Service) and Black Hills Colorado Electric, Inc. (Black Hills). These questions have been tailored to each utility based on feedback collected from the experiences of customers, developers, and other stakeholders located in the utility’s particular service territory. Timely and thorough responses to these questions are necessary, given the statutory deadline for work in this scope to be completed by the Commission.

A. Questions for Public Service

Please note: Page number references in the following questions refer to responses filed by Public Service to R23-0636-I on October 18, 2023, in the document titled “23M-0464EG - Public Service Company of Colorado’s Initial Comments_Final.”

1. Describe the internal processes and procedures for conducting conceptual capacity checks requested by customers during early phases of a new development design. Provide details including average staff time and resources allocated for the conceptual capacity checks, the staff or departments responsible for the conceptual capacity checks, and the average number of conceptual capacity checks issued each month.
 - a. Provide a detailed description, and example, if available, of the information typically provided to customers during a conceptual capacity check.
 - b. (Page 9) Does Public Service update customers who have requested early phase conceptual capacity checks with new capacity availability?
 - i. If so, what triggers the updates to these calculations and notification to the customer?
 - ii. If so, what processes are in place to manage this communication, the need for updates to the calculations, and what information is provided to customers when capacity availability changes?
2. Describe the extent to which Public Service integrates information from the following sources in their electrical distribution system planning and forecasting and, where integrated, identify the extent to which forecasts have been impacted by these factors:
 - a. Local zoning codes.
 - b. Community Comprehensive Plans.
 - c. Local and state building codes, energy codes, and electric codes.

- d. Local and state goals and/or incentives related to greenhouse gas emission reduction, beneficial electrification, renewable energy, and electric vehicle (EV) adoption.
3. Summarize, of the customers who put in an application for service upgrades, what is the average percentage of residential customers and average percentage of commercial customers that follow through with that service upgrade and/or who drop the request?
 - a. If customers dropped or did not follow up on their requested service upgrade, please summarize any reasons cited by customers as to why their applications were withdrawn and provide the rough proportion to which each reason is cited.
 - b. Please provide summarized total costs for the amount customers spent in the last 12 months for in front of the meter distribution system upgrades.
4. A few stakeholders have reported success in the way the Electric Vehicle Support Infrastructure (EVSI) program is run at Public Service, due to early planning and access to communicative team members throughout the process, as well as cost sharing for the electrical upgrades needed for the infrastructure. Details were provided about this program in the utility's initial response (Pages 38-39).
 - a. Identify any successes in the approach to EVSI that might be transferable to planning and integration of other BE or DERs. Provide internal or external changes that might be necessary to enable Public Service to provide a similar program including features like cost sharing opportunities, early planning discussions, and proactive investment for line extensions and interconnections to the system for electrification and DERs.
 - b. If a similar program to EVSI were developed for line extension and interconnection applications, does Public Service have sufficient staffing resources to execute this program? If not, please identify what additional resources would be necessary.
 - c. (Page 38 Diagram) Provide a more detailed breakdown of cost sharing for the EVSI program, explaining what fees are charged to end customers and when, and what costs Public Service assumes.
 - d. (Page 39) Public Service mentioned that an early capacity check is provided to help guide siting for EV chargers, which includes maps that "indicate nearby feeders with sufficient capacity to accommodate the proposed EV charging." Is this also available for project developers working on new construction or availability for service upgrades? If not, please explain why.

5. Provide an example of communication (email, phone, or written), from Public Service to the customer when a line extension design has been completed and Public Service has identified the total project costs and timeline for connection of the new development.
 - a. When a new permanent project triggers an offsite distribution line extension, is the offsite distribution line extension credit of 35 percent applied in the project costs shared with the customer following design, through the communication referenced above?
 - b. Are the total project costs initially provided to the customer ever revised?
 - i. If so, please share details on why Public Service would need to revise their original cost estimates and what process, timeline and communications surround the process of revising estimates.
 - ii. If so, please provide details on approximately how many original quotes are revised, as a rough percentage of the total quotes provided.
6. Stakeholders have noted a concern on the size of the transformers that Public Service is willing to use in their service territory, indicating they are smaller than preferred in some cases. Please share or describe in detail Public Service's formal or informal policies on allowable transformer sizes on the distribution system.
7. Stakeholders have shared that Public Service is disallowing additional solar for some areas of the electric grid. However, in some cases, stakeholders have been allowed to pay for grid upgrades to allow for more solar.
 - a. Provide all internal or external facing policies or procedures that dictate whether Public Service will allow for grid upgrades to support additional solar or Public Service will be disallowing additional solar.
 - b. Provide detail on how this decision is made and what factors dictate the options offered to the customer or prospective customer.
 - c. Do company policies dictate if customers should be provided information about what additional capacity is available for project modifications before triggering the need for system upgrades?

Capacity Upgrade Processes (Pages 8-12)

8. (Page 12) Stakeholders have expressed frustration with the lack of detailed information in the formal design capacity analyses that dictate the grid reinforcements a project needs to pay for. The Design Process, on Page 13 of the utility response, is missing explicit mention of customer conversations regarding opportunities for avoiding reinforcement/ extension and the associated costs that arise.
 - a. Describe if and when customers are involved in each milestone of the design process listed on Page 13.
 - b. Describe in greater detail the communication process when grid reinforcement or upgrades are needed for projects who have applied for design review through the Builder Call Line (BCL).
 - i. Describe how these communications are sent to customers and how/if Public Service offers support to customers to better understand the calculations, fees, and timeline delay that may result from the design study.
 - c. Describe the internal quality control and quality check processes and accountability mechanisms in place internally or externally to verify and finalize the distribution system upgrade costs and timeline required for a new development or upgrade to existing electric service.
9. (Page 11) Stakeholders have expressed concern with the timeliness and responsiveness of Public Service staff when projects apply for design service through the BCL.
 - a. Describe in greater detail the internal timelines and deadlines that Public Service's staff are beholden to within the line extension application process.
 - b. How does Public Service ensure that customers applying through the BCL are responded to in a timely manner that is supportive of development and construction timelines?
 - c. Is it possible for a customer to establish productive contact with the BCL prior to an applicant's plans being complete? If so, does Public Service prioritize assignment of the customers, once they apply, to the BCL representatives that were already working with the project?
 - d. When a customer connects with a representative from the BCL, are they able to maintain the same contact throughout the application and Public Service's design and construction process for the new line extensions?

Summary Table of Public Service's Design Process (Page 13)

10. (Page 13) The timelines in this table provide very large windows for Public Service to complete the design analyses (*e.g.*, 4 to 24 months for offsite grid reinforcements). Stakeholders have noted this is a concern because, without timeline predictability, projects cannot make decisions that have large impacts on their budget and timeline.
 - a. Describe how Public Service provides reliable and predictable time frames for projects who need grid reinforcements or off site extensions to keep project teams updated as the design progresses.
 - b. Confirm whether the 4-24 month timeline for reinforcements and line extensions is just for the design process and does not include construction timelines.
 - c. Explain what factors would change a project design process from a 4-month process to a 24-month process. Given the steps outlined for each design application are the same, provide detailed justification as to why these timelines can be so variable.
 - d. Does the design process include identification of additional generation and transmission upgrades necessary to supply new loads? If so, does this consideration impact timelines or project design?

General Discussion of Project Costs and Timelines (Pages 14-19)

11. (Page 14) Page 14 details the invoicing process and Customer Information Letter for project payments.
 - a. While a number of payment types are listed, are payments for project connection required in full upfront?
 - b. Does Public Service offer financing options for projects when expensive reinforcements or extensions are needed?
 - i. If so, what are the available financing options and at what point are those financing options communicated to the customer?

Integration of Renewable Energy and Building Codes (Pages 20-29)

12. (Page 20) Public Service's response to Question 5 indicates minimal if not no integration of interconnection applications and line extension applications that bring on new/additional load to the system.
 - a. Please comment on the possibility of the two departments (or efforts) to further integrate and identify if onsite generation planned at the time of new construction or the integration of energy storage could help mitigate capacity issues and consequently lower service needs for projects.

- b. Describe why these processes are not currently working together to identify the full suite of grid reinforcements/upgrades needed to support not just the new buildings but their anticipated solar PV arrays?
- 13. (Page 25) Public Service details a collaborative effort between Builder Developer Representatives, Commercial Service Managers, EV Advisors, and Account representatives to provide comprehensive support to customers.
 - a. Can these robust, existing services be leveraged to help customers understand how to use each department/contact to understand capacity needs and limitations for interconnection and line extension applications?
 - b. Explain how these services interact with Public Service's Design Team responsible for outlining any new infrastructure needs for new line extension requests, service upgrades, and interconnection requests.

Education and Outreach, Question 9 (Pages 26-28)

- 14. (Page 27) Provide comment on how the CO EDA and EEB Programs could potentially be leveraged to avoid any identified capacity issues for a project, if these programs are not being used to inform customers of this already. Do they identify equipment, controls or strategies that might be able to avoid capacity issues, where those are identified to exist?
- 15. (Page 27) Through the building code support program, is there an opportunity to integrate capacity checks and design solutions for new developments to avoid grid reinforcements or capacity upgrades? How does this program interact with Public Service's Designers through the new service applications?

Distribution Planning Processes and Beneficial Electrification Load Processing, Questions 10-11 (Pages 29-30)

- 16. (Page 30) Public Service has "No Regrets" infrastructure proposals in the Transportation Electrification Plan detailing proactive distribution upgrades.
 - a. Please comment on how a similar process could be leveraged for non-EV investments.
 - b. Furthermore, EV investments are often tied closely to building upgrades or new construction projects. How does Public Service account for EV charging elements of new projects or existing service upgrade requests when it comes to implementing the "No Regrets" investments?

Transmission Extension Policy

17. Provide more detail on the Open Extension Period and its potential to be an opportunity for customer cost-sharing of transmission upgrade costs.

Electric Distribution Extension Policy

18. What is the purpose of the Photovoltaic Cost Comparison detailed in the Electric Service Distribution Extension Policy, (Attachment 1-2, COLO. PUC No. 8 Electric, Proceeding No. 23M-0464EG)?

B. Questions for Black Hills

Please note: Page number references in the following questions refer to responses filed by Black Hills to R23-0636-I on October 18, 2023, in the document titled “Black Hills Initial Comments.”

19. When Black Hills discovers a safety concern on the electrical distribution system, describe all formal and informal company policies on how it manages the safety concern and the steps it takes to address it.
 - a. Share generally if safety concerns have led to electric service disconnections from the grid.
 - i. If so, provide detail on the primary factors that lead to Black Hills’ decision(s) to terminate the electric service.
20. Please share Black Hills’ residential rebate application for air source heat pumps and heat pump water heaters.
 - a. How many customers (residential and commercial) have applied for and received rebates for air source heat pumps and heat pump water heaters, separately, through Black Hills in the last 3 years?

Response to Question 1, Part a. ii)

21. Elaborate on the frequency of customer touchpoints and the topics of those interactions. What channels of communication does Black Hills use to reach the customer?
22. Provide the timeline for when an application is submitted and when a project is connected to a Construction Planner.

Questions Regarding the Construction Allowance Tariff

23. Provide an example of a Facilities Extension Agreement as referenced in the Construction Allowance Tariff.
24. Describe the process by which Black Hills provides a construction allowance to a customer. Include details on what provisions triggered the construction allowance and how it is communicated to the customer.
25. In **Part 4, B** of the Construction Allowance Tariff, what are the consequences of not meeting the 6 month timeline of permanent load connection? Are there allowances for delays or extension requests?
26. In **Part 5, B** of the Construction Allowance Tariff, what criteria does Black Hills use to determine if a project qualifies for a reclassification of Indeterminate Service to Permanent Service, and which of the Construction Charges become refundable?
27. What are typical costs for underground installation? Is this Black Hills' standard practice in its Colorado electric territory, including in rural areas? How do additional costs for undergrounding lines get passed along to consumers?
28. The Construction Allowance Tariff details a 120 day timeline for timely execution of the Facilities Extension Agreement.
 - a. Is the Facilities Extension Agreement 120 day timeline for full execution enough? Are there instances where customers need to delay, or where Black Hills needs to delay and are there allowances for this? If so, please describe in detail how those delays are handled.
 - b. Do delays in this process lead to increased construction costs?
29. Does Black Hills track the use of the Photovoltaic Cost Comparison tool? If so, how often does the Photovoltaic Cost Comparison result in PV system installations? Does Black Hills provide further consultation or customer support on PV installation beyond the cost comparison?

Response to Question 2

30. Black Hills' response to this question indicates the processes are no different between an all-electric and a mixed-fuel project wanting to connect, however, there are separate routes on Black Hills' website for natural gas services and electric services.
 - a. What is different about the two pathways for requesting natural gas and/or electricity service? Does a mixed-fuel building go through both processes?

- b. Does Black Hills discuss capacity or other electric infrastructure needs, warnings about capacity limitations, etc. for new customers? If not, at what point might a customer become aware of service capacity details from the utility for all-electric vs. mixed fuel?

Response to Question 4

- 31. Describe the process when system studies are triggered from large incremental load requests. How does Black Hills determine when these system studies are appropriate? Who pays for those studies? Is there information available to the customer with what load requests may necessitate these studies?

Response to Question 8

- 32. Noting that Black Hills does not support customers with building code compliance, does Black Hills stay informed on new building codes and incorporate these updated standards into distribution system planning in Black Hills' service territory? For example, Colorado's newest EV requirements for multifamily buildings and the new Electric and Solar Ready Code may have major implications for electrical service for new buildings.

Response to Question 9

- 33. Black Hills details that there is a request for customer feedback after outreach events. How is customer feedback processed and addressed?
 - a. Explain what outcomes Black Hills hopes to achieve with outreach, including the topics covered.
 - b. Please share how Black Hills supports customers with a high energy burden, through education and outreach, in understanding their options to lower their household energy bill?
 - c. Does Black Hills educate or conduct outreach relating to energy efficiency and/or electrification to its customers?

Response to Question 10

- 34. Black Hills indicated that due to limited requests for beneficial electrification adoption for EV charging and building energy systems, the forecast in the ERP was not localized.
 - a. Does Black Hills have any plans to start conducting localized forecasting or account for future anticipation of increased capacity needs from beneficial electrification within specific areas of the service territory?

- b. Does Black Hills examine statewide building and transportation electrification adoption trends?

Response to Question 13

- 35. How, if at all, does Black Hills proactively share rate options, including EV charging rates with customers? Describe how Black Hills assigns rates to new or existing customers for residential, commercial, and EV rates.

Response to Questions 13 and 14

- 36. Is there a cost charged to individual customers associated with information requests when a customer needs assistance with or electric distribution system information for EV charger siting for Level 2 and/or DCFC chargers?