

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF COLORADO

PROCEEDING NO. 25M-0057G

IN THE MATTER OF THE COMMISSION’S EXAMINATION OF THERMAL ENERGY
DEVELOPMENT IN COLORADO PURSUANT TO HOUSE BILL (HB) 23-1252.

**INTERIM DECISION TAKING
ADMINISTRATIVE NOTICE OF FILINGS,
MAKING PRELIMINARY FINDINGS, AND
INVITING COMMENT**

Issued Date: May 2, 2025

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I. STATEMENT AND SUMMARY

1. This Decision takes administrative notice of certain filings in another Commission Proceeding; makes preliminary findings relating to the potential outcome of this Proceeding; and establishes a May 16, 2025 deadline to file comments on matters discussed herein.

II. PROCEDURAL HISTORY

2. On February 4, 2025, the Colorado Public Utilities Commission (“Commission”) opened this Proceeding to implement certain provisions related to thermal energy services in House Bill (“HB”) 23-1252, codified in relevant part under § 40-4-121, C.R.S.¹ Specifically, the Proceeding is intended to comply with provisions requiring the Commission to determine whether Commission Rules or additional legislative changes are needed to facilitate developing thermal energy in Colorado per § 40-4-121(5), C.R.S.²

3. When it opened this Proceeding, the Commission referred this matter to an administrative law judge (“ALJ”) for disposition; required interested persons to make a filing by February 28, 2025 indicating that they will participate in this Proceeding; and identified numerous issues for which it sought comments by February 28, 2025.³ In particular, the Commission sought comments on the following:

- (a) Appropriate utility ownership models for the development, acquisition, customer service, and cost recovery for thermal energy networks;
- (b) Appropriate utility rate structures for and customer types or classes served by thermal energy networks;
- (c) Any requirements that should be implemented for gas-utility-owned thermal energy networks concerning a large gas utility’s ability to partner with qualified third-parties through joint ventures, asset development and

¹ Decision No. C25-0069 at 1-3 (issued February 4, 2025).

² *Id.* at 1.

³ *Id.* at 3-4.

transfers, or similar structures and facilitate the development of thermal energy networks;

- (d) How does the Commission ensure that any thermal energy network incorporated into a large gas utility's system provides reliable and resilient service;
- (e) How does the Commission ensure that new thermal energy networks promote training and transition of utility workers for thermal energy jobs;
- (f) Methods to adjust rate recovery mechanisms to further support the development of thermal energy networks as part of meeting the state's overall energy policy objectives, specifically for large gas utilities; and
- (g) Appropriate methods of cost recovery for thermal energy networks, including consideration of the stability of customers' bills.⁴

4. The following entities filed notices indicating they intend to participate in this matter: the City and County of Denver, Office of the Utility Consumer Advocate, the Colorado Energy Office ("CEO"), Atmos Energy Corporation, Western Resource Advocates, Public Service Company of Colorado ("Public Service"), Black Hills Colorado Gas ("Black Hills"), Colorado Natural Gas, Inc., and Southwest Energy Efficiency Project. Of those, only Public Service and Black Hills filed substantive responses to issues identified in Decision No. C25-0069.⁵

III. DISCUSSION, FINDINGS, AND CONCLUSIONS

A. Comments

5. Public Service submits that it is premature to promulgate rules to promote thermal energy development.⁶ Public Service explains that thermal energy technology is still in its nascency in Colorado and the country, and pilot projects arising from other provisions in HB 23-1252 (*e.g.*, § 40-4-121, C.R.S.) and HB 24-1370 (*e.g.*, § 40-3.3-102, C.R.S.) could provide

⁴ *Id.* at 3.

⁵ See generally Initial Comments of Public Service Company of Colorado filed February 28, 2025 ("Public Service's 2/28/25 Comments"); Initial Comments of Black Hills Colorado Gas, Inc., filed February 28, 2025 ("Black Hills' 2/28/25 Comments"). CEO's notice indicating that it would participate in this matter states that it cannot file comments by the established deadline due a scheduling conflict. CEO's Notice of Participation filed February 25, 2025 ("CEO's 2/25/25 Filing"). Although more two months have passed since CEO made that filing, it still has not filed any substantive comments and never sought an extension of time to file comments.

⁶ Public Service's 2/28/25 Comments at 3.

helpful insight to the matters at issue here.⁷ Public Service encourages the Commission to allow the initial pilot projects arising from HB 23-1252 and HB 24-1370 to develop further so that the Commission, Public Service, and other stakeholders have the benefit of those experiences before promulgating rules.⁸

6. In support, Public Service discusses Proceeding No. 24A-0369G. In that case, the Commission is considering Public Service’s proposal to study and evaluate potential thermal energy network pilot project(s), which Public Service describes as Phase I of II in developing thermal energy network pilot projects.⁹ Public Service sought to bifurcate the process into two phases to ensure there is sufficient stakeholder and Commission input and evaluation before thermal energy pilot projects are constructed and implemented given the technology’s nascency.¹⁰ In that case, Public Service filed a Comprehensive Settlement Agreement (“Settlement Agreement” or “Agreement”) on February 27, 2025, the day before filing comments in this Proceeding.¹¹ To date, the Commission has not issued a final decision in Proceeding No. 24A-0369G.¹²

7. Black Hills states that many provisions in HB 23-1252 apply only to large gas utilities, which excludes Black Hills.¹³ Black Hills asks the Commission to consider unintentional implications associated with imposing requirements on it that the General Assembly specifically limited to large gas utilities.¹⁴

⁷ See *id.* at 2.

⁸ See *id.*

⁹ See *id.* at 2-3.

¹⁰ See *id.*

¹¹ *Id.*

¹² See generally, Proceeding No. 24A-0369G. A Recommended Decision approving the Settlement Agreement in that case was issued on April 24, 2025. Decision No. R25-0319 (issued April 24, 2025).

¹³ Black Hills’ 2/28/25 Comments at 2.

¹⁴ *Id.*

8. As to the issues the Commission identified, Public Service and Black Hills provide some initial substantive responses, described below. As noted, no other participant filed substantive responses to the Commission's inquiries.

1. Ownership Models

9. Public Service states that the appropriate utility ownership model for a thermal energy network is dependent, in part, on the type of customer taking service, the type of infrastructure needed to serve customers, and the direct or indirect impact on customers not served by the thermal energy network.¹⁵ Public Service submits that it is premature to prejudge the appropriate ownership structures at this time, and recommends that the Commission first allow pilot projects in Colorado and nationally (such as a project in Massachusetts) to develop further so that the Commission will have a more fulsome record of the pros and cons of different ownership structures before promulgating rules.¹⁶ Public Service adds that the Treasury Department and Internal Revenue Service recently released regulations impacting tax credits relating to energy property, and that those tax credits may result in potential benefits that could warrant alternative ownership structures.¹⁷ It submits that the Commission would benefit from more analysis of those regulatory changes, and the potential costs and benefits of alternative ownership structures, which would be more appropriate after the unique circumstances of pilot projects can be considered.¹⁸ Public Service also cites uncertainty surrounding the direction of federal clean energy policy (and how the Inflation Reduction Act will be implemented) due to new federal leadership

¹⁵ Public Service's 2/28/25 Comments at 3-4.

¹⁶ *Id.* at 4.

¹⁷ *Id.*

¹⁸ *See id.*

(the President and Congress), which warrants patience before promulgating rules around ownership.¹⁹

10. Similarly, Black Hills states that the regulatory framework for thermal energy networks is still developing and that Colorado currently lacks a robust network of third-party contractors in the district thermal heat infrastructure field.²⁰ As a result, Black Hills believes that utilities would likely have to own, develop, and operate such systems up to the meter.²¹ Black Hills notes that it is possible to conjure a system that might allow for shared ownership of geothermal networks, where local distribution companies could develop and own underground loops and related equipment, and business owners might manage and own the in-building infrastructure.²² Black Hills submits that a shared ownership structure would require gas utilities to develop a new contractual arrangement contrary to the current regulatory framework for gas utilities in the context of evolving regulatory structures for thermal networks.²³ Black Hills believes that incentives or grants (*e.g.*, contribution in aid of construction incentives from developers, and state and/or federal grants) would likely be needed.²⁴

2. Rate Structures, Customer Classes, Cost Recovery, and Customer-Cost Stability

11. Public Service cautions the Commission against promulgating rules at this time because the Commission should further evaluate costs, system designs, and other relevant factors, which will benefit from the experience gained through Proceeding No. 24A-0369G.²⁵ Public Service explains that traditional residential rate structures are volumetric while non-residential

¹⁹ *Id.* at 4-5.

²⁰ *See* Black Hills' 2/28/25 Comments at 3-4.

²¹ *Id.*

²² *Id.* at 4.

²³ *Id.*

²⁴ *Id.*

²⁵ *See* Public Service's 2/28/25 Comments at 5.

structures typically combine demand and volumetric charges, but the differences in how electric and gas systems work relative to thermal energy networks may render volumetric structures less appropriate.²⁶ Alternative approaches such as tonnage-based rates or flat rates may be more appropriate.²⁷ Public Service notes that this nascent service warrants unique consideration of the risks to both customers and the utility, and that cost recovery structures must be flexible to address those risks.²⁸ For example, Public Service believes that utilities may need recovery mechanisms allowing some concurrent or accelerated cost recovery to foster the capital needed for the potentially large and evolutionary systems.²⁹

12. Black Hills submits that thermal energy network systems may require significant long-term capital investment, with utilities likely responsible for making the initial outlays, operating the systems, and maintaining them once operational.³⁰ It does not believe that natural gas infrastructure currently in place can be repurposed in a cost-effective manner due to pressurization within the larger pipeline delivery system, among other reasons.³¹ Black Hills would likely seek cost recovery for both capital and operating and maintenance costs in future rate cases or stand-alone filings, but notes that other cost recovery mechanisms may be appropriate (*e.g.*, a thermal-specific rider, deferred accounting treatment, or some kind of accelerated cost recovery mechanism).³² Black Hills submits that due to the large capital investment required for utilities to develop thermal energy networks, the Commission must take steps to incentivize utilities to make these large investments.³³ Black Hills states that it is challenging to make a very large scale capital

²⁶ *See id.*

²⁷ *Id.*

²⁸ *Id.*

²⁹ *Id.* at 5-6.

³⁰ Black Hills' 2/28/25 Comments at 3.

³¹ *Id.*

³² *Id.*

³³ *Id.* at 7.

investment in Colorado due to increasing regulatory difficulties and regulatory lag lasting approximately one year for rate changes.³⁴ It urges the Commission to take appropriate steps to reduce regulatory burdens and lag by encouraging formula rate making and future test year outcomes.³⁵

13. Black Hills states that the rate structure will vary depending on the type of investment and the scope and scale of those investments, (assuming utility ownership).³⁶ It submits that public benefit and business interest in developing thermal energy network systems will weigh heavily into the rate structure and customer class organization that it may wish to employ.³⁷ In addition to making a baseline determination as to whether a new customer class should be established, Black Hills submits that the Commission should consider and evaluate a cost socialization structure (on existing gas customers); how fixed rate charges could be structured; and volumetric rate structure “realities” for residential customers versus non-residential customers.³⁸ It states that because cost recovery, rate design, and cost-effective service to customers are inextricably linked, to incentivize utilities, the Commission would need to initially approve and guide utilities on a predictable cost recovery mechanism.³⁹ Black Hills adds that establishing a predictable and prudent incentive for future cost recovery aimed toward developing thermal energy networks would promote long-term stability in customer bills.⁴⁰

³⁴ *Id.*

³⁵ *Id.*

³⁶ *Id.* at 4.

³⁷ *Id.*

³⁸ *Id.* at 4-5.

³⁹ *Id.* at 5.

⁴⁰ *Id.* at 7.

3. Reliability and Resiliency

14. Public Service explains that more evaluation is needed to determine the appropriate benchmarks; what, if any, redundancy (such as electric or natural gas heating) is needed; and to identify the appropriate balance between system performance and customer-sited equipment performance.⁴¹ Since the technology is still nascent both in the country and on its system, Public Service has not tested networks' reliability or resiliency.⁴²

15. Black Hills notes that the Commission currently regulates utilities' operating and maintenance manuals.⁴³

4. Workforce Training and Retention

16. Public Service generally supports retraining its existing workforce for thermal energy jobs, but states that it is too early in the process to do this on a large-scale.⁴⁴ Indeed, Public Service has not yet fully developed or implemented its first thermal energy network pilot project.⁴⁵

17. Black Hills states that it and third-party developers would need to invest in training, education, and field readiness to execute any Commission-driven approved transition.⁴⁶ It suggests that the Commission consider a future test year forecast model at the outset of piloting, so that it can discern the cost viability of establishing one-off, localized thermal district networks with actual, on-the-ground data.⁴⁷ This may provide actionable information to inform longer-term cost estimates for critical staff training and education.⁴⁸ Indeed, Black Hills notes that further

⁴¹ Public Service's 2/28/25 Comments at 6.

⁴² *Id.*

⁴³ Black Hills' 2/28/25 Comments at 5-6. Black Hills explains that it does not comment further on this issue because it does not meet the definition of large gas utility per § 40-4-121(1)(d), C.R.S., and does not foresee becoming one in the near future. *Id.*

⁴⁴ Public Service's 2/28/25 Comments at 7.

⁴⁵ *Id.*

⁴⁶ Black Hills' 2/28/25 Comments at 6.

⁴⁷ *Id.*

⁴⁸ *Id.*

information is needed to help the Commission comply with requirements in HB 23-1252 to consider impacts to utility workforces.⁴⁹

5. Partnering with Third Parties

18. Public Service believes that partnering with vendors, communities, and other groups to develop more knowledge in this field and the appropriate policies and structures will allow it to integrate lessons learned from other implementations, use industry practices for community and stakeholder engagement, and structure proposals that balance customers' interests with the state's energy goals.⁵⁰

B. Administrative Notice and Preliminary Findings

19. Comments demonstrate that Proceeding No. 24A-0369G is relevant to the issues in this Proceeding, and that it would be helpful to include some of those filings in the record here. For these reasons, as permitted by Rule 1501(c) of the Commission's Rules of Practice and Procedure, 4 *Code of Colorado Regulations* ("CCR") 723-1, the ALJ takes administrative notice of the following filings in Proceeding No. 24A-0369G:

- Verified Application of Public Service Company of Colorado for Approval of Its Thermal Energy Network Pilot Development filed on August 29, 2024 (Attachment A);
- Hearing Exhibit 101, Direct Testimony of Michael Pascucci (attachments thereto omitted) (Attachment B);
- Recommended Decision No. R25-0319 (issued April 24, 2025) (Attachment C); and
- Appendix A to Decision No. R25-0319, Settlement Agreement (Attachment D).

20. Those filings are added to the record as Attachments A to D to this Decision.

⁴⁹ *Id.*

⁵⁰ Public Service's 2/28/25 Comments at 7.

21. Section 40-4-121(5)(a), C.R.S., requires the Commission to open this Proceeding to “determine whether commission rule-making or additional legislative changes are needed to facilitate the development of thermal energy in the state.”⁵¹ As “part of the proceeding held” per § 40-4-121(5), C.R.S., (*i.e.*, this Proceeding), the Commission must consider the appropriate utility ownership models for development, acquisition, customer service, and cost recovery for thermal energy networks; and utility rate structures and customer types or classes served by thermal energy networks.⁵² And, § 40-4-121(5)(b)(II), C.R.S., states that the Commission “may also consider” in this Proceeding whether rules are necessary to: (a) create requirements for utility-owned thermal energy networks concerning a large gas utility’s ability to partner with qualified third parties through joint ventures, asset development and transfers, or similar structures and facilitate the development of thermal energy networks; (b) ensure that any thermal energy network incorporated into a large gas utility’s system provides reliable and resilient service; (c) promote training and transition of utility workers for thermal energy jobs; (d) adjust a large gas utility’s rate recovery mechanisms to further support the development of thermal energy networks as part of meeting the state’s overall energy policy objectives; and (e) determine appropriate methods of cost recovery for thermal energy networks, including considering the stability of utility customers’ bills.

22. In Decision No. C25-0069, the Commission seeks comment on all the issues listed in § 40-4-121(5)(b)(I) and (II), C.R.S., (outlined above).⁵³ Only Public Service and Black Hills filed comments that speak to some of these items. As a result, the record provides limited insight into the issues that § 40-4-121(5)(b), C.R.S., requires or allows the Commission to consider in this Proceeding.

⁵¹ § 40-4-121(5)(a), C.R.S.

⁵² § 40-4-121(5)(b)(I), C.R.S.

⁵³ Decision No. C25-0069 at 3.

23. That said, the comments that were submitted highlight that the Commission is not currently in a position to fully or appropriately assess the issues outlined in § 40-4-121(5)(b), C.R.S., or determine whether regulatory or legislative changes are necessary, as contemplated by § 40-4-121(5)(a), C.R.S.⁵⁴ For example, comments explain that the appropriate ownership structure, cost recovery (method and from whom), or customer class are dependent on numerous factors, the answers to which are unknown.⁵⁵ This is unsurprising given the overall lack of experience and data on thermal energy network development and service. Indeed, as comments suggest, thermal energy service is in its early stages in Colorado and nationwide. The Commission has very little reliable data upon which it can base potential rules to facilitate developing thermal energy networks or determine whether additional legislative changes are necessary, as contemplated by § 40-4-121(5)(a), C.R.S. Indeed, § 40-4-121(3)(a), C.R.S., required large gas utilities to seek Commission approval for at least one pilot program to provide thermal energy services by September 1, 2024. At the same time, § 40-4-121(5)(a), C.R.S., required the Commission to initiate this Proceeding by January 1, 2025. This statutory timeline provides almost no runway for the Commission to enter this Proceeding with reliable data and experience through thermal energy pilot programs.

24. On August 29, 2024, Public Service, the state's only large gas utility (as defined by § 40-4-121(1)(d), C.R.S.), initiated Proceeding No. 24A-0369G by filing a verified application asking the Commission to approve its thermal energy network pilot development initiative, as the first phase in establishing one or more thermal energy pilot programs, as required by § 40-4-121(3)(a), C.R.S.⁵⁶ Public Service describes the first phase as identifying project sites, and the

⁵⁴ See *supra*, ¶¶ 5-18.

⁵⁵ See *supra*, ¶¶ 9-13.

⁵⁶ See Attachment A.

second phase as involving project development planning activities.⁵⁷ Phase II project development activities include detailed engineering design, robust community engagement, specific pilot project cost estimates, project development timelines, and ultimately concluding with an application seeking Commission approval to begin construction of one or more pilot projects.⁵⁸ The Settlement Agreement in Proceeding No. 24A-0369G would allow Public Service to start Phase II development activities for two agreed-upon project sites.⁵⁹ As a result, Proceeding No. 24A-0369G is unlikely to directly result in specific pilot projects being constructed and implemented, but instead lays the groundwork for this.⁶⁰ This means that the Commission and the state's only large gas utility are likely years away from gaining reliable data based on real-world experience with thermal energy service.

25. HB 24-1370, codified in relevant part as § 40-3.3-101, -102, and -103 C.R.S., contemplates CEO and dual-fuel utilities working together to identify gas planning pilot communities with whom a dual-fuel utility will work to evaluate potential neighborhood-scale energy alternatives that have low or zero carbon emissions and do not combust methane, propane, or petroleum-derived gas.⁶¹ Section 40-3.3-102(2)(a), C.R.S., mandates that CEO and the relevant dual-fuel utility prioritize local governments interested in pursuing thermal energy networks as a part of the proposed gas planning pilot community's evaluation of neighborhood-scale alternatives. The resulting filings were due on April 30, 2025.⁶² As such, projects arising out of HB 24-1370's requirements may offer complementary insights into ownership models, rate design,

⁵⁷ Attachment B at 10: 10-19.

⁵⁸ *Id.* at 10: 19-22—11: 1-3; Attachment A at 3.

⁵⁹ Attachment D at 3.

⁶⁰ As noted, the Commission has not issued a final decision in that Proceeding, so the final outcome is unknown. However, neither the Application nor the Settlement Agreement seek Commission approval to construct and implement a pilot program. *See generally*, Attachments A and D.

⁶¹ See §§ 40-3.3-101(1), (7), and (11), and 40-3.3-102(2)(a), C.R.S.

⁶² § 40-3.3-102(2)(a), C.R.S.,

cost recovery, and community engagement. While it is unknown when such projects will come to fruition, based on the plain language of § 40-3.3-102 and -103, it may be many years for the Commission and relevant utilities to gain reliable data through experience with neighborhood-scale thermal energy pilot projects.

26. To facilitate thermal energy development while also meeting numerous other significant statutory mandates, (*e.g.*, ensuring reliable and safe service at just and reasonable charges), the Commission must have a thorough understanding of the costs, benefits, risks, reliability, and resiliency of thermal energy network service and development.⁶³ The current record establishes that experienced-based data in Colorado and nationwide on thermal energy networks and service is lacking or non-existent. As such, the ALJ preliminarily finds that initiating a rulemaking or drawing conclusions on needed legislative changes at this time would be based on little more than educated guesses or conjecture. This does not serve the public interest and may increase the regulatory burden on utilities and resulting costs passed to ratepayers, without commensurate benefits. For all the reasons discussed, based on the current record, the ALJ preliminarily finds that at this time, it is premature to initiate a rulemaking proceeding or determine whether additional legislation is necessary to develop thermal energy in Colorado. The ALJ preliminarily finds that the issues in this Proceeding should be revisited after the Commission and Public Service have reliable data based on experience gained through implementing pilot thermal energy program(s) for a reasonable time-period (*e.g.*, several years), and after the Commission and relevant dual-fuel utilities have reliable data based on experience gained through implementing

⁶³ See § 40-3-101(1) and (2), C.R.S. (charges must be just and reasonable and service must be adequate and efficient, and promote the public safety, health and comfort).

neighborhood-scale pilot thermal energy program(s) for a reasonable time-period (*e.g.*, several years).

27. Before issuing a recommended decision along these lines, the ALJ invites comments on the matters discussed in ¶¶ 3 and 19-26 (above). This explicitly includes but is not limited to the issues identified in ¶ 8 of Decision No. C25-0069; the above preliminary findings; and the administratively-noticed documents (Attachments A to D hereto). Although participants are not required to make such a filing, if a participant fails to do so, the ALJ will construe this to mean that the participant does not object to the ALJ's preliminary findings.

IV. ORDER

A. It Is Ordered That:

1. The administrative law judge takes administrative notice of the filings identified in ¶ 19 above. Those filings are added to the record contemporaneously as Attachments A to D to this Decision.

2. Consistent with the above discussion, comments on matters discussed in ¶¶ 3 and 19-26 above must be filed on or by the close of business on May 16, 2025. This includes but is not limited to comments responding to the issues identified in ¶ 8 of Decision No. C25-0069 (issued February 4, 2025); the above preliminary findings; and the administratively-noticed documents (Attachments A to D hereto).

3. This Decision is effective immediately.

(S E A L)



THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF COLORADO

MELODY MIRBABA

Administrative Law Judge

ATTEST: A TRUE COPY

A handwritten signature in cursive script that reads "Rebecca E. White".

Rebecca E. White,
Director