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.

RECOMMENDED DECISION CLOSING PROCEEDING

Issued Date: August 26, 2025

TABLE OF CONTENTS

I.	ST_{A}	ATE	MENT AND SUMMARY	2
			DURAL HISTORY	
			ENTS	
111.				
	A.	Gei	neral Comments	4
	B.	Coı	nments Responding to Issues Commission Identified	9
		1.	Ownership Models	9
		2.	Rate Structures, Customer Classes, Cost Recovery, and Customer-Cost Stability	11
		3.	Reliability and Resiliency	14
		4.	Workforce Training and Retention	15
		5.	Partnering with Third Parties	16
IV.	DISCUSSION, FINDINGS, AND CONCLUSIONS			16
V.	ORDER			23
	A The Commission Orders That:			23

I. <u>STATEMENT AND SUMMARY</u>

1. This Decision finds that it is premature to initiate a rulemaking proceeding or identify legislative changes necessary to facilitate developing thermal energy in Colorado and closes this Proceeding.

II. PROCEDURAL HISTORY¹

- 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.² Specifically, this 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.³
- 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. 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 Only the procedural history necessary to understand this Decision is included.

² Decision No. C25-0069 at 1-3 (issued February 4, 2025).

³ *Id*. at 1.

⁴ *Id.* at 3-4.

Decision No. R25-0611

PROCEEDING NO. 25M-0057G

- 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.⁵
- 4. On May 2, 2025 the ALJ took administrative notice of the following filings in Proceeding No. 24A-0369G ("Public Service's Thermal Energy Case"):
 - Verified Application of Public Service Company of Colorado for Approval of Its Thermal Energy Network Pilot Development filed on August 29, 2024;
 - Hearing Exhibit 101, Direct Testimony of Michael Pascucci (attachments thereto omitted):
 - Recommended Decision No. R25-0319 (issued April 24, 2025); and
 - Appendix A to Decision No. R25-0319, Comprehensive Settlement Agreement ("Settlement Agreement" or "Settlement Agreement in Public Service's Thermal Energy Case").6
- 5. At the same time, the ALJ made preliminary findings based on the existing record and invited public comments on the administratively noticed documents, the ALJ's preliminary findings, and the issues the Commission identified for public comment in Decision No. C25-0069 (discussed above). Those comments were due on May 16, 2025. The ALJ specifically advised participants that the ALJ will construe a participant's failure to make a filing responding to the

⁶ Decision No. R25-0338-I at 10, 15 (issued May 2, 2025). The administratively noticed documents were filed with Decision No. R25-0338-I as Attachments A to D thereto.

⁷ Decision No. R25-0338-I at 15.

⁸ *Id*.

preliminary findings in Decision No. R25-0388-I to mean that the participant does not object to the ALJ's preliminary findings.⁹

6. Since this Proceeding was initiated, the following entities filed notices or other filings indicating they intend to participate in this matter: the City and County of Denver; Office of the Utility Consumer Advocate ("UCA"); 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.; Southwest Energy Efficiency Project; San Miguel County Board of Commissioners ("San Miguel"); and San Miguel Power Association ("SM Power Association"). Of those, Public Service, Black Hills, UCA, CEO, San Miguel and the SM Power Association filed substantive responses to issues identified in Decision No. C25-0069.¹⁰

III. <u>COMMENTS</u>

A. General Comments

Public Service submits that it is premature to promulgate rules to promote thermal energy development.¹¹ 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 helpful insight to the matters at issue here.¹² 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

⁹ *Id*.

¹⁰ See generally Public Service's comments filed February 28, 2025 ("Public Service's 2/28/25 Comments"); Black Hills's comments filed February 28, 2025 ("Black Hills' 2/28/25 Comments"); CEO's comments filed May 16, 2025 ("CEO's 5/16/25 Comments"); UCA's comments filed May 16, 2025 ("UCA's 5/16/25 Comments"); San Miguel's comments filed May 23, 2025 ("San Miguel's 5/23/25 Comments"); SM Power Association's comments filed June 4, 20205 ("SM Power Association's 6/4/25 Comments").

¹¹ Public Service's 2/28/25 Comments at 3.

¹² See id. at 2.

Commission, Public Service, and other stakeholders have the benefit of those experiences before promulgating rules.¹³

- 8. In support, Public Service discusses its recent Thermal Energy Case. In that case, the Commission considered 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. ¹⁴ 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. ¹⁵ In its Thermal Energy Case, Public Service agreed to a Settlement Agreement, which was filed on February 27, 2025, the day before Public Service filed comments in this Proceeding. ¹⁶ On June 11, 2025, the Commission issued a final decision affirming the Recommended Decision's approval of the Settlement Agreement, with a few additional requirements. ¹⁷
- 9. Black Hills states that many provisions in HB 23-1252 apply only to large gas utilities, which excludes Black Hills. 18 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. 19
- 10. UCA agrees with the ALJ's preliminary finding that initiating a rulemaking or drawing conclusions on needed legislative changes at this time would be based on little more than

¹³ See id.

¹⁴ See id. at 2-3.

¹⁵ See id.

¹⁶ *Id*.

¹⁷ See Decision Nos. C25-0449 at 13-14 (issued June 11, 2025) and R25-0352 (issued May 6, 2025) in Proceeding No. 24A-0369G. A Recommended Decision approving the Settlement Agreement was issued on April 24, 2025, but was rescinded on May 5, 2025. See Decision Nos. R25-0319 (issued April 24, 2025) and R25-0348-I (issued May 5, 2025).

¹⁸ Black Hills' 2/28/25 Comments at 2.

¹⁹ *Id*.

educated guesses or conjecture and that it is thus premature to initiate a rulemaking proceeding or determine whether additional legislation is necessary to develop thermal energy in Colorado.²⁰ UCA also agrees that the Commission should revisit issues in this Proceeding after the Commission and Public Service have reliable data and reasonable levels of experience gained through implementing pilot thermal energy program(s) for a reasonable time-period (*e.g.*, several years) as provided for in Public Service's Thermal Energy Case and ongoing Clean Heat Plan, Proceeding No. 23A-0392EG.²¹ UCA notes that the need for reliable data and experience is especially significant to estimated costs, potential cost recovery, and cost allocation impacts.²² It agrees that rulemaking and proposed legislation should occur only after the Commission and relevant dual-fuel utilities have reliable data based on experience gained through implementing neighborhood-scale pilot thermal energy program(s) for a reasonable time-period (*e.g.*, several years), as stated in paragraph 26 of Decision No. R25-0338-I.²³

11. UCA submits that the issues here overlap with those in Proceeding No. 25D-0183G, which involves Public Service and CEO's joint petition for approval of select gas planning pilot communities.²⁴ UCA notes that it filed comments in that Proceeding advocating that no preapproved backup sites be pursued until the Commission can meaningfully assess the feasibility of the two approved thermal energy network pilot projects from Public Service's Thermal Energy Case.²⁵ As in that case, here, UCA believes more time is needed to understand and learn lessons on the feasibility of thermal energy network projects before moving forward with additional

²⁰ UCA's 5/16/25 Comments at 1, citing Decision No. R25-0338-I, ¶ 26.

²¹ *Id*.

²² *Id*.

²³ *Id*.

²⁴ *Id*. at 2.

²⁵ *Id*.

Decision No. R25-0611

development, rulemaking, and legislative changes.²⁶ UCA emphasizes that a determination of whether thermal energy networks in Colorado are in the public interest should not be taken lightly or based solely on the desire to provide new technologies in the state.²⁷ Rather, it asserts that these decisions should be based on technical and economic factors, which require in-depth analyses of the potential rate impact for gas customers already burdened with the costs of decarbonization programs.²⁸

- 12. CEO generally supports the Commission examining thermal energy development because thermal and geothermal energy are supported by state policy.²⁹ CEO explains that thermal energy and thermal energy networks are statutorily-identified clean heat resources.³⁰ Because the thermal energy markets are still emerging, CEO agrees with the preliminary findings in Decision No. R25-0338-I that it is premature for the Commission to adopt thermal energy rules.³¹
- and gather more information about utility thermal energy services within Colorado and across the country.³² Specifically, it suggests the Commission evaluate thermal energy using information gleaned from the following Commission Proceedings: Public Service's Thermal Energy Case; Proceeding No. 25D-0183G; Proceeding No. 25A-0044EG; Proceeding No. 23A-0392EG (and the next filing in this case, expected July 1, 2026); and the 2025 Gas Infrastructure Plan (anticipated filing at the end of May 2025).³³

²⁶ *Id*.

²⁷ *Id*.

²⁸ *Id*.

²⁹ CEO's 5/16/25 Comments at 4.

³⁰ *Id.*, citing § 40-3.2-108(2), C.R.S.

 $^{^{31}}$ See id., citing Decision No. R25-0338-I, ¶ 26.

³² *Id*.

³³ *Id*. at 10.

14. CEO also suggests that the Commission consider information gleaned from other thermal energy activities beyond those before the Commission. Specifically, it suggests that the Commission consider: CEO's geothermal energy incentive programs; a thermal energy program in Massachusetts by Eversource; National Grid's evaluation of a pilot program in Lowell, Massachusetts (which was not pursued); a geothermal network databank being compiled by HEET (a Massachusetts' nonprofit company); the Massachusetts Department of Public Utilities' potential thermal energy ratemaking proceeding; pilot projects and dockets collecting information on key definitions and terms that the New York Department of Public Service is considering; and a report that the Minnesota Public Utilities Commission expects to issue by December 31, 2025 compiling the results of a working group designed to examine regulatory opportunities for utilities to deploy thermal energy networks.³⁴

15. CEO suggests that the Commission keep this Proceeding open as a central repository of thermal energy information where interested persons may file relevant documents as they become available.³⁵ It also suggests that the Commission revisit the need for legislative changes or a rulemaking in the fourth quarter of 2027 after the Commission gathers information from various sources (discussed in CEO's comments).³⁶ It recommends this timeline given the timing of Public Service's proceedings, CEO's geothermal grant program, and proceedings in other states.³⁷ CEO estimates that useful data from these other sources will be available by late 2027.³⁸

³⁴ *Id*. at 10-13.

³⁵ *Id*. at 14.

³⁶ *Id*. at 19.

³⁷ *Id*.

³⁸ *Id*.

Decision No. R25-0611

16. San Miguel supports advancing geothermal energy development, noting that this presents a critical and underused opportunity to reduce greenhouse gas emissions, support local economic development, and diversify its regional portfolio.³⁹ It submits that geothermal energy development will create jobs to fill the gaps left by the renewable energy transition, and will foster long-term economic stability by anchoring energy production locally.⁴⁰ San Miguel states that expanding the state's energy portfolio to include geothermal energy reduces reliance on imported fossil fuels and enhancing the capacity to adopt to future energy demands and market shifts.⁴¹ To this end, San Miguel is "starting the process of developing geothermal regulations" in its land use codes.⁴²

17. The SM Power Association supports the Good Shepherd Ranch geothermal project by ZGEO Energy, LLC.⁴³ It explains that as a rural electric cooperative serving 10,000 members in western Colorado, that it believes this project offers a valuable opportunity to bring clean, reliable and baseload energy to the region.⁴⁴

B. Comments Responding to Issues Commission Identified

1. Ownership Models

18. 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.⁴⁵ Public Service submits that it is premature to prejudge the

³⁹ San Miguel's 5/23/25 Comments at 1.

⁴⁰ *Id*.

⁴¹ *Id*.

⁴² *Id*.

⁴³ SM Power Association's 6/4/25 Comments at 1.

⁴⁴ Id.

⁴⁵ Public Service's 2/28/25 Comments at 3-4.

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. 46 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. 47 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. 48 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 (the President and Congress), which warrants patience before promulgating rules around ownership. 49

19. 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.⁵⁰ As a result, Black Hills believes that utilities would likely have to own, develop, and operate such systems up to the meter.⁵¹ 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

⁴⁶ *Id*. at 4.

⁴⁷ *Id*.

⁴⁸ See id.

⁴⁹ *Id.* at 4-5.

⁵⁰ See Black Hills' 2/28/25 Comments at 3-4.

⁵¹ *Id*.

related equipment, and business owners might manage and own the in-building infrastructure.⁵² 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.⁵³ 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.⁵⁴

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

20. 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.⁵⁵ Public Service explains that traditional residential rate structures are volumetric (while non-residential 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.⁵⁶ Alternative approaches, such as tonnage-based rates or flat rates may be more appropriate.⁵⁷ 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.⁵⁸ For example, Public Service believes that utilities may need recovery mechanisms

⁵² *Id*. at 4.

⁵³ *Id*.

⁵⁴ *Id*.

⁵⁵ See Public Service's 2/28/25 Comments at 5.

⁵⁶ See id.

⁵⁷ *Id*.

⁵⁸ *Id*.

Decision No. R25-0611

allowing some concurrent or accelerated cost recovery to foster the capital needed for the potentially large and evolutionary systems.⁵⁹

21. 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. 60 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. 61 Black Hills would likely seek cost recovery for both capital and operating and maintenance costs in future rate cases or standalone filings, but notes that other cost recovery mechanisms may be appropriate (e.g., a thermalspecific rider, deferred accounting treatment, or some kind of accelerated cost recovery mechanism). 62 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. 63 Black Hills states that it is challenging to make a very large-scale capital investment in Colorado due to increasing regulatory difficulties and regulatory lag lasting approximately one year for rate changes.⁶⁴ It urges the Commission to take appropriate steps to reduce regulatory burdens and lag by encouraging formula rate making and future test year outcomes.65

22. 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). 66 It submits

⁵⁹ *Id.* at 5-6.

⁶⁰ Black Hills' 2/28/25 Comments at 3.

⁶¹ *Id*.

⁶² *Id*.

⁶³ *Id.* at 7.

⁶⁴ *Id*.

⁶⁵ *Id*.

⁶⁶ *Id*. at 4.

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.⁶⁷ 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.⁶⁸ 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.⁶⁹ 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.⁷⁰

23. CEO states that rate structures for thermal energy networks is an emerging topic area, and there are few examples from which the Commission could learn. That said, CEO again suggests that the Commission monitor the anticipated thermal energy ratemaking case in Massachusetts. ⁷¹ It encourages the Commission to consider performance-based regulation when looking at rate structures and to use appropriate methods to account for long-term cost savings when deciding whether to approve an application to provide thermal energy network service. ⁷² For example, CEO explains that rather than evaluating only the upfront capital costs, the Commission should also consider the low operation and maintenance costs (including avoided gas fuel costs). ⁷³

⁶⁷ *Id*.

⁶⁸ *Id.* at 4-5.

⁶⁹ *Id.* at 5.

⁷⁰ *Id.* at 7.

⁷¹ CEO's 5/16/25 Comments at 14.

⁷² *Id.* at 14-15.

⁷³ *Id*. at 15.

3. Reliability and Resiliency

- 24. 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.⁷⁴ Since the technology is still nascent both in the country and on its system, Public Service has not tested networks' reliability or resiliency.⁷⁵
- 25. Black Hills notes that the Commission currently regulates utilities' operating and maintenance manuals.⁷⁶
- 26. CEO submits that utilities will need to consider reliability and resiliency as it relates to thermal energy system design and operation.⁷⁷ It suggests that the Commission could require utilities or third-party developers to consider the following questions during system design:
 - What redundancies are included in the design, including for heat pumps, thermal storage, and backup power?
 - Is the system sized to handle fluctuations in heating load and heating demand?
 - What are the design day conditions or peak thermal load that the system is designed for? Is this adequate to address the expected system loads?
 - What is the trade off between cost and resilience? Although a system could likely be designed with 100 percent redundancy, is it worth the added cost?⁷⁸
- 27. CEO also suggests that the Commission could require utilities or third-party developers to consider outage rates during system operation to assess reliability and redundancy; measure outage rates based on individual pieces of equipment, individual customers, and the

⁷⁴ Public Service's 2/28/25 Comments at 6.

⁷⁵ Id.

⁷⁶ 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*.

⁷⁷ CEO's 5/16/25 Comments at 16.

⁷⁸ *Id*.

overall system; and categorize outages into planned and unplanned outages and number of service hours lost to outages. 79 It also suggests the Commission consider how electric power outages might impact the system and whether backup electricity might be needed to mitigate impacts. 80

4. Workforce Training and Retention

- 28. 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.⁸¹ Indeed, Public Service has not yet fully developed or implemented its first thermal energy network pilot project.⁸²
- 29. 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.⁸³ 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.⁸⁴ This may provide actionable information to inform longer-term cost estimates for critical staff training and education.⁸⁵ Indeed, Black Hills notes that further information is needed to help the Commission comply with requirements in HB 23-1252 to consider impacts to utility workforces.⁸⁶
- 30. CEO primarily asserts that existing provisions in statute will help the Commission promote training and transitioning utility works into thermal energy jobs, pointing to §§ 40-3.2-105.7(1) and (3) and 40-4-121(2) and (3), C.R.S.⁸⁷ In addition to the workforce provisions in

⁷⁹ *Id*. at 17.

⁸⁰ *Id*.

⁸¹ Public Service's 2/28/25 Comments at 7.

⁸² Id.

⁸³ Black Hills' 2/28/25 Comments at 6.

 $^{^{84}}$ Id

⁸⁵ *Id*.

⁸⁶ *Id*.

⁸⁷ CEO's 5/16/25 Comments at 17-18.

statute, CEO suggests that the Commission or utilities could consider taking a more proactive approach to workforce planning, by, for example, creating training opportunities or plans for gas LDC employees to transition to careers in thermal energy.⁸⁸

5. Partnering with Third Parties

31. 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.⁸⁹

IV. <u>DISCUSSION, FINDINGS, AND CONCLUSIONS</u>

32. Except for CEO and the UCA, none of the participants made a filing responding to the ALJ's preliminary findings in Decision No. R25-0388-I. Consistent with Decision No. R25-0388-I, the ALJ construes such participants' failure to respond to the preliminary findings in Decision No. R25-0388-I to mean that such participants do not object to those findings. 90 As explained above, CEO and UCA agree with and do not dispute the preliminary findings in Decision No. R25-0388-I. 91 Most relevant to the discussion here, the ALJ's preliminary findings include that is premature for the Commission to initiate a rulemaking or draw conclusions on needed legislative changes. 92 No comments filed since the ALJ made these preliminary findings alter this conclusion. Indeed, additional comments further support this conclusion.

⁸⁸ *Id*. at 18.

⁸⁹ Public Service's 2/28/25 Comments at 7.

⁹⁰ See Decision No. R25-0388-I at 15.

⁹¹ See supra, ¶¶ 10 and 12.

⁹² See Decision No. R25-0388-I at ¶ 26.

33. Section 40-4-121(5)(a), C.R.S., required 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."93 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.94 The Commission "may also consider" whether rules are necessary to: (a) create requirements 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 transfers, or similar structures, and facilitate the development of thermal energy networks;"95 (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 support developing thermal energy networks to help meet the state's overall energy policy objectives; and (e) determine appropriate cost recovery methods for thermal energy networks, including considering utility customers' bill-stability.96

34. In Decision No. C25-0069, the Commission sought comment on all the statutory items above (in § 40-4-121(5)(b)(I) and (II), C.R.S.). Although the record provides limited substantive insight on the issues identified by § 40-4-121(5), C.R.S., it does establish that the Commission cannot fully assess the issues outlined in § 40-4-121(5)(b)(I) and (II), C.R.S., or

⁹³ § 40-4-121(5)(a), C.R.S.

⁹⁴ § 40-4-121(5)(b)(I), C.R.S.

⁹⁵ § 40-4-121(5)(b)(II)(A), C.R.S.

⁹⁶ § 40-4-121(5)(b)(II)(A) to (E), C.R.S.

⁹⁷ Decision No. C25-0069 at 3.

determine whether regulatory or legislative changes are necessary, as contemplated by § 40-4-121(5)(a), C.R.S., at this time. 98 For example, comments explain that the appropriate ownership structure, cost recovery (method and from whom), and customer classes are dependent on numerous factors, the answers to which are unknown. 99 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. Given the nascency of thermal energy network service, and the timelines contemplated by § 40-4-121(3)(a) and (5)(a) C.R.S., the Commission was forced to initiate this Proceeding with no experienced-based reliable data on thermal energy network development, service, or pilot programs.

35. On August 29, 2024, Public Service, the state's only large gas utility as defined § 40-4-121(1)(d), C.R.S., initiated its Thermal Energy Case 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. 100 Public Service explained that this first phase involves identifying project sites, and that the second phase involves project development planning activities. 101 Phase II project development activities include detailed engineering design, robust community engagement, specific pilot project cost estimates, project development timelines, and ultimately concludes with Public Service filing an application seeking Commission approval to begin construction of one or more pilot projects. 102 The Settlement Agreement in Public Service's Thermal Energy Case allows Public Service to start Phase II development activities for two agreed-upon project sites. 103 The

⁹⁸ See supra, ¶¶ 7-31.

⁹⁹ See supra, ¶¶ 18-22.

¹⁰⁰ See Attachment A to Decision No. R25-0338-I.

¹⁰¹ Attachment B at 10: 10-19 to Decision No. R25-0338-I.

¹⁰² *Id.* at 10: 19-22—11: 1-3; Attachment A at 3 to Decision No. R25-0338-I.

¹⁰³ Attachment D at 3 to Decision No. R25-0338-I.

Commission issued a final Decision essentially approving the Settlement Agreement on June 11, 2025. ¹⁰⁴ Given the nature of the Settlement Agreement and the Commission's Decision approving it, Public Service's Thermal Energy Case will not directly result in specific pilot projects being constructed and implemented, but instead lays the groundwork for this. ¹⁰⁵ Indeed, neither the Application nor the Settlement Agreement seek Commission approval to construct and implement a thermal energy pilot program. ¹⁰⁶ As a result, the Commission and the state's only large gas utility are likely many years away from gaining reliable data based on real-world experience with thermal energy service through pilot programs arising from Public Service's Thermal Energy Case.

- 36. 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. ¹⁰⁷ 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. ¹⁰⁸
- 37. On April 30, 2025, Public Service and CEO filed a joint Petition for Commission approval of selected gas planning pilot communities, pursuant to HB 24-1370 ("Petition"), thereby initiating Proceeding No. 25D-0183G. In Proceeding No. 25D-0183G, Public Service and CEO

¹⁰⁴ See Decision Nos. C25-0449 at 13-14 and R25-0352 in Proceeding No. 24A-0369G.

¹⁰⁵ See Decision Nos. C25-0449 at 13-14 and R25-0352 in Proceeding No. 24A-0369G; Attachment A at 1-3 to Decision No. R25-0338-I; Attachment B at 10: 10-22 to Decision No. R25-0338-I; Attachment D at 3-4, 7 to Decision No. R25-0338-I.

¹⁰⁶ See generally, Attachments A, B, and D to Decision No. R25-0338-I.

¹⁰⁷ See §§ 40-3.3.101(1), (7), and (11), and 40-3.3-102(2)(a), C.R.S.

¹⁰⁸ § 40-3.3-102(2)(a), C.R.S.,

jointly asked the Commission to approve identified pilot communities to advance to the next phase as outlined in HB 24-1370, noting that they will work with approved communities to reach a signed partnership agreement outlining the scope and details of partnership for assessing the development of neighborhood-scale non-gas alternatives in those communities. 109 Section 40-3.3-102(2)(c), C.R.S., required the Commission to approve or modify the list of proposed communities (in Proceeding No. 25D-0183G) by June 30, 2025. On June 26, 2025, the Commission granted the Petition, approving the proposed communities and requiring that Public Service and the relevant pilot communities jointly file an application for approval of one or more projects within the communities by June 1, 2027, or file a report explaining why certain projects are not being pursued. 110 Given § 40-3.3.102(2)(a), C.R.S., the ALJ agrees with UCA and CEO that Proceeding No. 25D-0183G may be relevant to the issues here and may offer complementary insight into ownership models, rate design, cost recovery, and community engagement. That said, the joint application for approval of one or more projects within the selected communities that will be filed by June 1, 2027 is likely to offer more substantive insights on those issues. For the reasons discussed, and based on the plain language of §§ 40-3.3-102 and -103, C.R.S., the ALJ finds that it appears highly likely that the Commission will need many more years beyond June 2027 to gain reliable experienced-based data from neighborhood-scale thermal energy pilot projects arising out of HB 24-1370.

38. 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,

¹⁰⁹ See Verified Application at 1-2 filed April 30, 2025 in Proceeding No. 25D-0183G.

¹¹⁰ Decision No. C25-0482 at ¶¶ 44, 48 (issued June 26, 2025) in Proceeding No. 25D-0183G.

reliability, and resiliency of thermal energy network service and development.¹¹¹ The current record establishes that experienced-based data in Colorado and nationwide on thermal energy networks and service is lacking or non-existent. Indeed, as UCA notes, it is especially significant to estimated costs, potential cost recovery, and cost allocation impacts for the Commission to have reliable data and experience.¹¹² The ALJ agrees with UCA that a determination of whether thermal energy networks in Colorado are in the public interest should not be taken lightly or based solely on the desire to provide new technologies in the state, but should be based on in-depth analyses.¹¹³ No such analyses is possible at this time.

- 39. For the reasons discussed, and consistent with the ALJ's preliminary findings, the ALJ concludes 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, and based on the record, the ALJ concludes 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. In reaching this conclusion, the ALJ has considered the information in the record relevant to the factors in § 40-4-121(5)(b)(I) and (II), C.R.S. The ALJ finds that the Commission has complied with § 40-4-121(5), C.R.S., through this Proceeding and Decision.
- 40. The ALJ recommends that the issues in this Proceeding be revisited after the Commission and Public Service have reliable data based on several years of experience gained through implementing pilot thermal energy program(s), including neighborhood-scale pilot

¹¹¹ 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).

¹¹² UCA's 5/16/25 Comments at 1.

¹¹³ *Id*. at 2.

thermal energy program(s). CEO suggests that the Commission leave this Proceeding open as a central repository for thermal energy information to be filed (when available) and revisit the need for legislative changes or a rulemaking in the fourth quarter of 2027.¹¹⁴ It appears unlikely that the Commission and Public Service will have reliable experienced-based data by then, given the lack of a timeline to construct and implement thermal energy network pilot programs anticipated by Public Service's Thermal Energy Case and Proceeding No. 25D-0183G. Indeed, while those cases contemplate constructing and implementing pilot programs at some point, they do not identify with any degree of certainty a timeline for this. Even if such pilot programs were constructed and implemented in 2027, the Commission will need several years of data from those programs to appropriately assess the relevant issues. Indeed, the Commission's analyses of the relevant issues must be based on facts, not conjecture or assumptions, especially given that thermal energy is a budding and emerging technology. The Commission may also consider information gleaned from the other Commission Proceedings participants identified, and relevant thermal energy network activities in other states, as CEO suggests. It remains critical for the Commission to have factual, experienced-based data upon which it may determine appropriate next steps as contemplated by § 40-4-121, C.R.S. Given the length of time that will pass before such data will be available (years beyond 2027), the ALJ is concerned that other proceedings (both current and future) will cause this Proceeding (if used as a repository one) to be both incomplete and redundant at the same time, which is unhelpful. The ALJ finds it is better to open a separate proceeding closer to the time within which the needed data will be available so that interested persons can make more targeted filings, which may help avoid an incomplete and redundant record. For the reasons discussed, the ALJ rejects CEO's recommendation and instead closes this Proceeding.

¹¹⁴ CEO's 5/16/25 Comments at 14 and 19.

41. In accordance with § 40-6-109, C.R.S., the ALJ transmits the record in this Proceeding to the Commission along with this Decision and recommends that the Commission enter the following order.

V. ORDER

A. The Commission Orders That:

- 1. Consistent with the above discussion, the Commission will not initiate a rulemaking proceeding to facilitate thermal energy development and makes no recommendations about potential legislative changes to facilitate thermal energy development at this time. The Commission will revisit the issues in this Proceeding when appropriate.
 - 2. This Proceeding is closed.
- 3. This Recommended Decision shall be effective on the day it becomes the Decision of the Commission, if that is the case, and is entered as of the date above.
- 4. As provided by § 40-6-109, C.R.S., copies of this Recommended Decision shall be served upon the parties, who may file exceptions to it.
 - a. If no exceptions are filed within 20 days after service or within any extended period of time authorized, or unless the decision is stayed by the Commission upon its own motion, the recommended decision shall become the decision of the Commission and subject to the provisions of § 40-6-114, C.R.S.
 - b. If a party seeks to amend, modify, annul, or reverse basic findings of fact in its exceptions, that party must request and pay for a transcript to be filed, or the parties may stipulate to portions of the transcript according to the procedure stated in § 40-6-113, C.R.S. If no transcript or stipulation is filed, the Commission is bound by the facts set out by the administrative law judge and the parties cannot challenge these facts. This will limit what the Commission can review if exceptions are filed.

5. If exceptions to this Decision are filed, they shall not exceed 30 pages in length, unless the Commission for good cause shown permits this limit to be exceeded.

(SEAL)



ATTEST: A TRUE COPY

Rebecca E. White,

Director

THE PUBLIC UTILITIES COMMISSION OF THE STATE OF COLORADO

MELODY MIRBABA

Administrative Law Judge