

**THE PEOPLE OF THE STATE OF ILLINOIS’
FINAL COMMENT FOR THE THERMAL ENERGY NETWORK FORUM**

The People of the State of Illinois, through KWAME RAOUL, Attorney General of the State of Illinois (the “People” or “AG”), hereby submit their final comment in connection with the stakeholder workshop process convened by the Staff of the Illinois Commerce Commission (“Staff”) regarding thermal energy networks (or “TEN”) pursuant to 220 ILCS 5/4-610.¹ Six workshops were held between November 15, 2023 and January 10, 2024, and three rounds of comments have already been filed. Staff indicated that for this final comment round, it is seeking “further comments on issues not previously addressed and recommendations regarding the thermal energy networks.”² The People’s silence on any particular issue or question is not to be interpreted to indicate their agreement or disagreement on that issue or question.

I. INTRODUCTION

After participating in the six workshops and fully considering the presentations and information provided, the People have concluded and recommend a comprehensive, longer-term TEN planning process as the next necessary step to evaluate the potential for TEN development in Illinois. The current TEN statute mandates that the workshops be designed to achieve the following objectives:

- (1) determine appropriate ownership, market, and rate structures for thermal energy networks and whether the provision of thermal energy services by thermal network energy providers is in the public interest;

¹ Senate Bill 1699 House Amendment 3 was signed into law as Public Act 103-0580 by Governor Pritzker on December 8, 2023, and governs this workshop process and its objectives.

² See “Thermal Energy Network Forum,” available at <https://www.icc.illinois.gov/informal-processes/Thermal-Network-Energy-Providers>.

(2) consider project designs that could maximize the value of existing State energy efficiency and weatherization programs and maximize federal funding opportunities to the extent practicable;

(3) determine whether thermal energy network projects further climate justice and emissions reductions and benefits to utility customers and society at large, including but not limited to public health benefits in areas with disproportionate environmental burdens, job retention and creation, reliability, and increased affordability of renewable thermal energy options;

(4) consider approaches to thermal energy network projects that advance financial and technical approaches to equitable and affordable building electrification, including access to thermal energy network benefits by low- and moderate-income households; and

(5) consider approaches to promote the training and transition of utility workers to work on thermal energy networks.

220 ILCS 5/4-610(d). Significantly, the General Assembly recognized that TEN may have the “potential to affordably decarbonize buildings at the community-scale and utility-scale,” but expressed that this be done “in a manner that is affordable and accessible.” *Id.* at 4-610(a)(2)&(1). The statute directs the Commission to “prepare a report, to be submitted to the Governor and the General Assembly no later than March 1, 2024, describing the stakeholders, discussions, proposals, and areas of consensus and disagreement from the workshop process, and making recommendations regarding thermal energy networks.” *Id.* at 4-610(c).

While the workshops were “open, inclusive, [] cooperative,” and generated good discussion, the presentations and responsive comments submitted by stakeholders exposed significant information gaps and fundamental questions that remain unanswered. *Id.* Significantly, presentations of utility TEN pilots at various stages of development in Massachusetts and New York demonstrated the high cost of these programs. The presentation regarding the Massachusetts pilot, which consists of one square mile, 37 buildings, and 140 individual customers, revealed that

the estimated *cost to retrofit and transfer a single utility customer’s home to a thermal network is approximately \$50,000.*³ The New York presentation discussed 14 proposed utility-pilots costing an estimated \$360 million to \$435 million, with each pilot serving between 20 and 100 customers.⁴ This translates to a *cost of approximately \$300,000 to retrofit and transfer a single utility customer’s home to a thermal network.*⁵ These utility pilots include the requirement that the utility indemnify each customer participant and bear all costs—including the cost to return the customer to their previous service if they opt out for unspecified reasons.⁶ The People learned that *these high pilot costs will be recovered from all customers through base rates*, meaning that the customers not receiving the service, or even being offered the service (or quantifiable direct benefits arising therefrom), will nevertheless pay for them.

The high costs and ratepayer funding of these pilots conflict with the Illinois General Assembly’s stated intent to “*protect utility customers*” and “... *decarbonize in a manner that is affordable and accessible ...*” *Id.* at 4-610 (a)(1). The high cost per participant raises fundamental questions of affordability, equity, and cost-causation principles that underlie the Public Utilities Act. *See, e.g.,* 220 ILCS 5/1-102 *et seq.* The presentations further uncovered complicated and often overlapping technical, financial, tax, and legal questions regarding ownership, rate structure, and potential federal funding sources that forthcoming pilot data can help address.

³ “Utility Networked Geothermal Pilot in MA,” presentation by Nikki Bruno, Workshop #2 Recording (Nov. 29, 2023). Available at <https://www.icc.illinois.gov/informal-processes/Thermal-Network-Energy-Providers>.

⁴ “New York Depart of Public Service, Utility Pilot Proposals,” presentation by Peggie Neville, Workshop #3 Recording (Dec. 13, 2023). Available at <https://www.icc.illinois.gov/informal-processes/Thermal-Network-Energy-Providers> (describing 14 proposed utility TEN pilots, estimated cost of \$360 million to \$435 million, each pilot serving between 20 and 100 customers [\$435 million/1,400 customers = \$310,714.29 per customer]).

⁵ *See* fn. 4, *supra*.

⁶ *See* fn. 3 & 4, *supra*.

It is evident that the six workshops over a short two-month period—while helpful as a preliminary first step—were otherwise insufficient to meaningfully, comprehensively, and critically address the five statutory objectives intended to “promote the successful planning and delivery of thermal energy networks ...” in Illinois. *See* 220 ILCS 5/4-610 (d)(1)–(5). The People appreciate the potential environmental value of TEN (Section 4-610(a)(2)) and remain encouraged by their potential as an energy efficiency tool. These workshops are an important preliminary first step for stakeholders and policymakers to begin assessing in greater detail the issues these workshops raised. To this end, the People offer their comments focusing on the need for more information and recommend a comprehensive, longer-term planning process, described in further detail, below. This process will ensure that TEN development in Illinois reasonably achieves decarbonization in a manner that is affordable, accessible, and protects utility customers, consistent with Illinois regulatory law and practice.

II. COMMENT & RECOMMENDATION

A longer-term comprehensive planning process is the necessary and essential next step to ensure adequate input and information to assess and analyze the costs and benefits of potential development of a TEN pilot.

- A. The workshops clearly demonstrated that significantly more information and discussions are necessary. The workshops also established that all funding mechanisms must be meaningfully and thoroughly explored because of the extraordinarily high capital costs of TEN projects.**
- The workshops included discussions and presentations on utility pilots in New York and Massachusetts. As alluded to in the introduction, the presentations and surrounding discussions revealed retrofit costs of between \$50,000 and \$300,000 *per residential home* in exchange for currently unknown and/or unquantified⁷

⁷ Section 4-610 (d)(3) lists benefits such as “public health in areas with disproportionate environmental burdens, job retention ... and increased affordability of renewable thermal energy options.” The statute does not define “health

benefits. These high costs raise significant cost-effectiveness questions about whether TENs can be adopted as “equitable and affordable building electrification,” the cost to non-participants, and whether it is financially possible for low and moderate-income households to access thermal energy networks. *See* 220 ILCS 5/4-610(d)(4). These issues have not been adequately addressed, but the high costs per customer revealed in the workshops requires that further study be devoted to these goals and concerns.

- In directing the Commission to consider “a regulatory structure of utility thermal energy networks,” the General Assembly included the need to protect utility customers and “promote the successful planning and delivery” of TEN.⁸ Under the Public Utilities Act, protecting utility consumers means keeping rates “just and reasonable,” ensuring that any investment costs are “necessary for the provision of service, prudently incurred,”⁹ and that they deliver “tangible benefits in excess of costs.”¹⁰ Both protecting consumers and successful utility planning and delivery of TEN require significantly more data and discussions to meaningfully analyze TEN costs and benefits to determine whether these tests can be satisfied and whether utility TEN can provide a cost-effective option to Illinois consumers.

benefits, environmental burdens,” or articulate from which baseline “retention” is contemplated. This information is critical in assessing the costs and benefits associated with TEN.

⁸ 220 ILCS 5/4-610 (c).

⁹ 220 ILCS 5/9-101; *Bus. & Prof'l People for the Pub. Interest v. Ill. Com. Comm'n*, 146 Ill. 2d 175, 247 (1991); *Ill. Power Co. v. Ill. Com. Comm'n*, 245 Ill. App. 3d 367, 371 (3d Dist. 1993).

¹⁰ *See* Northern Illinois Gas Company d/b/a Nicor Gas Company, Proposed General Increase in Natural Gas Rates, ICC Docket No. 04-0779, Order at 45 (Sept. 20, 2005) (holding that if a utility is seeking to recover such projected expenses from ratepayers, the utility should demonstrate that its plan can reasonably be expected to provide net benefits to ratepayers... [such as] specific dollar savings or other tangible benefits).

- The importance of protecting consumers is highlighted given the high costs of the TEN pilots currently underway. Affordability concerns were not substantively discussed or analyzed during the workshop process. Collections reports filed by Illinois' large utilities show that a significant number of customers remain consistently unable to pay their bills. For example, between August 2022 and August 2023, approximately one in four residential customers of Peoples Gas, one in five of Nicor, and one in six of Commonwealth Edison, were assessed late payment charges.¹¹ These troubling figures confirm that significant attention must be given to pilot costs from the ratepayers' perspective, given TENs high price tag but limited reach. Alternative funding mechanisms that will avoid imposing more costs on consumers for TEN initiatives must be thoroughly explored and analyzed, to determine whether non-utility, private companies and owners are better agents for TEN development. Based on the information gathered in the workshops, private developers should be preferred over utility ratepayer funding in the near term. More data and time are needed to meaningfully and thoroughly understand the role of other funding mechanisms and third-party funding, participation, and development. That information is critical to developing an appropriate TEN pilot that will protect consumers.
- The People provided their Round One Comment ("Comment 1") on December 8, 2023, stating that different ownership models (such as existing and potential utility

¹¹ CEJA codified twenty-two (22) credit and collection metrics, including most of the sixteen (16) metrics required in the June 18, 2020 Stipulation. Section 8-201.10 require each "public utility [to] report to the Commission by the 15th day of each month" the metrics "for the immediately preceding month[.]" 220 ILCS 5/8-201.10(b). The utility compliance reports must be "ma[d]e publicly available in executable, electronic spreadsheet format," and be provided "by zip code." *Id.* See <https://www.icc.illinois.gov/industry-reports/credit-collections-and-arrearages-reports/monthly-dashboard>.

and private-sector business models) must be thoroughly vetted before Illinois sponsors utility TEN pilots. Defaulting to utility ownership is likely to negatively impact the competitiveness of existing business models, potentially stifling and/or weakening existing and emerging markets.¹² The Accelerate Group submitted similar comment on the issue.¹³ No further discussion or analyses of these non-utility models or impacts were conducted due to information and time constraints. Significantly more data and time are needed to meaningfully analyze potential ownership models and market impacts.

B. Forthcoming TEN data from other states will help Illinois address and analyze many outstanding, complex, and critical questions.

- Eversource’s pilot program in Framingham, Massachusetts commenced in 2021 and is the furthest along of any utility-owned TEN pilot, transitioning now from pipe installation to building retrofits.¹⁴ Information on how much energy customers are saving compared to their previous heating/cooling systems, calculations on emission reductions, and actual implementation costs will be collected by the utility; the People understand that non-financial information will be made available to the public.¹⁵ Because Eversource is a combination utility (water/gas/electric), it will also collect electric and natural gas impact data from its customers, which

¹² See “Thermal Energy Network Forum,” available at <https://www.icc.illinois.gov/informal-processes/Thermal-Network-Energy-Providers>.

¹³ See “Thermal Energy Network Round 1 Comments” at 2, The Accelerate Group (December 8, 2023), available at <https://www.icc.illinois.gov/informal-processes/Thermal-Network-Energy-Providers>.

¹⁴ “Utility Networked Geothermal Pilot in MA,” presentation by Nikki Bruno, Workshop #2 Recording (Nov. 29, 2023). Available at <https://www.icc.illinois.gov/informal-processes/Thermal-Network-Energy-Providers>.

¹⁵ *Id.* See also Peters, Adele, “In this Massachusetts neighborhood, nearly every home is switching to geothermal energy,” Fast Company (June 13, 2023). Available at <https://www.fastcompany.com/90907992/in-this-massachusetts-neighborhood-nearly-every-home-is-switching-to-geothermal-energy>.

should assist Illinois with determining costs and benefits across utility functions.¹⁶

The learnings from this pilot will greatly inform the longer-term planning process recommended by the People.

- Blacks in Green launched a DOE-funded “Sustainable Chicago Geothermal Project” in the West Woodlawn community on Chicago’s South Side. The Accelerate Group stated in comment that “the project will be engaging in deep analysis on system designs[,] customer-side investments ... regulatory structures to enable construction ... [and] electric and gas utility bill impacts.”¹⁷ While this analysis is in its infancy, critical data and learnings will also be produced as the project progresses towards completion. The information produced through this effort will greatly assist stakeholders in addressing many of the outstanding questions discussed above.
- Additionally, as the People stated in their Comment 1, engagement with these and other existing, third-party TEN companies, such as Mesa University located in Grand Junction, CO and Olivette in Asheville, NC, could enhance stakeholder perspectives, increase opportunities for data sharing, and help answer many of the outstanding questions related to environmental impacts, costs, and benefits without incurring the significant costs associated with utility TEN pilots.¹⁸

¹⁶ See fn. 14, *supra*.

¹⁷ See “Thermal Energy Network Round 1 Comments” at 2, The Accelerate Group (December 8, 2023), available at <https://www.icc.illinois.gov/informal-processes/Thermal-Network-Energy-Providers>.

¹⁸ See Geo-Grid System at <https://www.coloradomesa.edu/sustainability/initiatives/geo-grid.html>; see also Olivette at <https://www.olivettenc.com/2019/05/geothermal-heating-and-cooling/>

C. It is evident that a longer-term, comprehensive planning process is the necessary and essential next step to assess potential utility TEN development in Illinois.

- To adequately address the outstanding complex and critical questions—including those regarding ownership, markets, rate structure, and public interest—a significantly longer and comprehensive stakeholder process is necessary and essential. This process should, at a minimum: (1) engage all stakeholders, including but not limited to state and local agencies¹⁹ and third-party developers; (2) provide for the sharing of information between stakeholders; (3) critically and objectively assess all consumer costs and benefits, and thoroughly explore all other funding mechanisms besides ratepayers to protect consumers and prevent worsening already existing affordability problems; (4) track and analyze forthcoming data from TEN pilots in other states, as well as data from private developers, to the extent practicable; and (5) identify with specificity what research questions remain unanswered and what data should be tracked and measured before contemplating any potential utility-owned TEN pilot.

¹⁹ *E.g.*, Illinois Department of Public Health, Illinois Environmental Protection Agency, Department of Commerce and Economic Opportunity, and municipal utilities (e.g., Metropolitan Water Reclamation District and other municipal water and energy systems).

III. CONCLUSION

The six workshops convened by Staff, while informative, were insufficient to meaningfully address the objectives outlined in the current TEN statute. It is evident that critical and complex questions regarding ownership, markets, cost, rate structure, and affordability remain unanswered. Forthcoming data from utility and third-party TEN pilots are likely to help address many significant information gaps identified during the course of the workshops. The workshops served as a first step; what is necessary and essential moving forward is a longer-term, comprehensive stakeholder process that can produce the critical information needed to enable the Commission to closely assess the utility TEN model, while putting consumer protection, affordability, and accessibility at the forefront of any potential utility TEN initiative, consistent with both Section 4-610 and the broader Public Utilities Act.

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Respectfully Submitted,

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