

Consolidated Edison Company of New York, Inc.

Gas Innovation Program
Business Innovation to Accelerate Renewable Thermal Adoption
Request for Information (RFI)

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1 Introduction

1.1 Purpose of Gas Innovation RFI

Consolidated Edison Company of New York, Inc. (the “Company” or “Con Edison”) is extending a Request for Information (“RFI”) from qualified parties (herein referred to as “respondents”) to work with the Company to identify innovative business solutions to accelerate customer adoption of renewable thermal technologies within its natural gas distribution service territory.

Space heating and cooling, domestic hot water, and process heat are a significant portion of New York State’s energy system. According to the New York State Energy Research and Development Authority, residential and commercial thermal energy use represents 37 percent of statewide net energy consumption and creates 32 percent of New York State’s energy-related, combustion-based greenhouse gas (“GHG”) emissions¹. Con Edison is committed to reducing its carbon footprint, and firmly supports efforts by local, state and federal agencies to reduce GHG emissions. Significant increases in installations of clean, renewable thermal solutions have the potential to help governmental agencies and customers achieve their GHG reduction targets.²

Installations of thermal technologies that use or leverage renewable resources to provide heat, such as cold climate air source heat pumps and ground source heat pumps, are still substantially below installations of natural gas or fuel oil powered thermal systems. Unlike natural gas or fuel oil heating systems, these technologies are subject to factors like low customer awareness and comparatively high upfront costs. As the State makes progress towards its renewable electricity goal of 50% by 2030, which will lower the carbon intensity of electricity below current levels, adoption of these clean thermal technologies has the potential to provide substantial local air quality benefits as well as overall carbon reductions.

Natural gas use in Con Edison’s gas distribution service territory has grown substantially in recent years and continued growth is forecasted.³ Due to a growing shortfall of peak gas day pipeline capacity, in order to meet customer heating needs the Company will require either additional pipeline capacity or alternative means to balance supply and demand on its natural gas system. As a result, it is important that the Company advances potential alternatives to natural gas to satisfy its customers’ demand for heating.

To address these limitations, the Company is issuing this Gas Innovation Program RFI. The goals of the RFI are to solicit innovative solutions which will reduce market barriers and accelerate the renewable

¹ NYSERDA. (2017). *Renewable Heating and Cooling Policy Framework*. Retrieved from <https://www.nyserdanv.gov/Researchers-and-Policymakers/Clean-Heating-and-Cooling>

² Because renewable thermal technologies like heat pumps rely on electricity for operating power, to achieve its 80 percent by 2050 GHG reduction goal and other emissions reduction goals via electric-powered renewable thermal resources, the State will also need to make significant progress in reducing the carbon intensity of the State’s electric generation sources, which currently rely on GHG-emitting power generation for 68% of the electrical energy consumed in the State. This data can be found in NYISO 2017 Capacity Data Report (Gold Book). However, as the proportion of thermal energy harvested from renewable resources increases through technology advancement and as the generation mix becomes increasingly renewable, these technologies have the potential to be cleaner than other options.

³ Over the six-year period starting in 2011, weather-adjusted firm natural gas peak day demand in Con Edison’s service territory has grown by more than 30 percent, and is projected to grow more than an additional 20 percent over the next 20 years

thermal industry within our service territory. At scale, this technology could reduce the Company's need for peak day gas demand to meet its customers' thermal needs. The desired outcome of the RFI is a diverse portfolio of solutions that at scale would result in positive impacts for all gas customers, while also contributing to State and City GHG reduction targets and improved local air quality. Projects selected through this RFI will help to inform the Company's long term strategy for utilizing alternative resources to address growing customer heating needs.

2 Detailed Description of the RFI Opportunity

2.1 RFI Goals and Partnership Opportunity

The primary goals of the RFI are (1) to identify a number of innovative, scalable business models applicable to a variety of renewable thermal technologies that will inform the Company's long term strategy for accelerating installations of renewable heating in our service territory, and (2) establishing a roadmap for those business models to reduce peak natural gas demand in the long term.⁴

A traditional approach to achieving the primary goals of the RFI, where the Company prescribes the solution and invites proposals to achieve it, is unlikely to animate third-party market actors to attempt to creatively solve issues. Instead, Con Edison believes that partnerships with third-parties with expertise in installing, financing, marketing or otherwise advancing installations of renewable thermal resources may be a more effective pathway to addressing market barriers to this technology. Therefore this RFI seeks proposals to partner with Con Edison. Successful partnerships will leverage the skill, knowledge and competitive advantages of both Con Edison and the respondent to provide attractive renewable thermal solutions to customers that neither Con Edison nor the respondent could provide separately.

2.2 Benefits of and Barriers to Renewable Thermal Technology Adoption

The Company believes that customer adoption of renewable thermal technology will provide a variety of benefits, including:

- Increased customer comfort due to high efficiency heating and cooling year round;
- Reduced on-site fuel combustion resulting in improved local air quality and, as the State's generation portfolio increases the amount of renewable generation, reduced GHG emissions;
- Gas distribution system benefits due to a reduction in total volume of natural gas required to serve customer thermal heating needs during winter peak periods; and
- Economies of scale, in which upfront costs are eventually reduced and installations of systems are standardized.

While renewable thermal adoption can offer wide-ranging benefits, limited customer awareness and lack of confidence in new technologies are significant obstacles to increased installations. In addition,

⁴ Though proposals selected through this RFI are not intended to provide a substantial reduction in peak gas demand needs in the near term, the intent is to develop scalable opportunities and to inform the Company's long-term strategy to mitigate the need for additional pipeline capacity, which should achieve the secondary goal of reducing peak day gas demand.

these systems often have high upfront costs, which can be too costly for customers without access to financing mechanisms or unattractive to customers with short term goals for investment payback.

The Company is aware that low-to-moderate income (“LMI”) customers can be underserved by the energy marketplace. Insufficient access to capital, challenging credit histories, limited control over decisions impacting energy use, gaps in information and awareness, and basic affordability issues can complicate LMI customers’ participation in this market. Therefore, the Company encourages respondents to submit proposals that address barriers that prevent the LMI community in New York City and Westchester County from adopting renewable thermal solutions.

2.3 Eligible Customers

Con Edison believes that this opportunity applies to all customer segments including single-family residential, multifamily residential, commercial, and industrial customers. Projects and customers must be located within Con Edison’s natural gas [service territory](#), which encompasses the Bronx, Manhattan, and portions of Queens and Westchester County. Any current natural gas customers participating in an RFI proposal must be taking firm gas service from the Company.

2.4 Possible Solutions

The Company is interested in creating a portfolio of solutions across customer segments, technology types, and geographic locations. This may require establishing multiple contractual relationships between Con Edison and a number of separate respondents to the RFI.

The Company has identified ground-source heat pumps and cold-climate air-source heat pumps as renewable thermal technologies that have a high probability of success within its service territory. These technologies typically use bulk power system electricity as a primary fuel source and as a result, depending on the generation mix being utilized, may temporarily add to statewide emissions at the generation level. Moreover, these technologies can significantly reduce natural gas consumption at the customer site which can achieve the goal of reducing natural gas peak demand.

Additionally, proposals that address the needs of fuel oil customers transitioning to renewable thermal sources in Con Edison’s gas territory will be of interest to the Company.⁵ It should be noted, however, that the Company is technology agnostic and will consider any commercially established renewable thermal technology that can serve to reduce gas demand economically at scale without degrading local environmental conditions.

The Company will also consider proposals that address associated market barriers, such as innovative financing models and market awareness solutions.

2.5 Potential Replicability, Scalability and Value Creation

Proposals must demonstrate an ability to be replicated at a larger scale to a broader customer base. As stated previously, this RFI will serve as a demonstration of innovative business models that can influence

⁵ New York City Department of Environmental Protection has phased out the use of No.6 heavy heating oil in New York City and will phase out the use of all heavy heating oil by January 2030. It is likely that these customers will switch to natural gas as the new heating resource. The Company is interested in potentially transitioning these customers directly from fuel oil to renewable thermal.

the company's long term strategy. It will be vital to the success of this program for respondents to identify the long-term value of the proposed solution to customers, the third-party partner, and Con Edison.

2.6 Solutions Not Being Considered

The Gas Innovation Program is not a research and development program and therefore the Company will not consider unproven or pre-commercial technologies.

At this time, the Company will not consider solutions that would result in customers relying on combustion of biomass or bio-diesel.

2.7 Related Information

Con Edison is seeking regulatory approval for a budget of \$10 million for the Gas Innovation Program overall, and may seek to implement multiple proposals under the proposed budget. Respondents should consider this budget constraint and the Company's potential interest in executing multiple proposals when drafting their response.

For more information on the goals of this Gas Innovation program, please review the September 29, 2017 [petition](#) to the New York State Public Service Commission ("NYSPPSC") setting forth Con Edison's Smart Solutions for Natural Gas Customers effort.

3 Instructions to Respondents

3.1 Short Form and Long Form Response Overview

The Company is using a two-step process for soliciting RFI responses. Step 1: The Company requests that interested respondents submit a Short Form response to the Gas Innovation Program RFI. Con Edison's team will review the Short Form to determine if it is of interest and if it meets the evaluation criteria of the RFI. Step 2: The Company will then select and invite those respondents with the most promising ideas to submit a Long Form response. Respondents that have been selected to submit a Long Form response will receive additional material that outlines the timing, process, and evaluation criteria for the Long Form response.

The purpose of asking each respondent to complete a Short Form is to give the respondent an opportunity to introduce their business innovation efficiently and to receive prompt notification from Con Edison as to whether or not the Company will proceed with the proposal. The goal of the two-step process is to ensure that the submission experience is efficient and timely for all parties involved.

Respondents should take care to present a well formulated project idea in the Short Form. Con Edison has the right to reject a Short Form response if it does not meet the criteria as outlined below.

3.2 Contact Information and Questions

All respondents should direct questions during the clarification question timeframe via email to CleanThermal@coned.com. All questions and answers deemed essential for the viable submission of a

bid response will be publicly posted at www.coned.com/cleanthermal. Questions and answers will be anonymized when posted on the website.

3.3 RFI Schedule

Responses are to be submitted electronically via email to CleanThermal@coned.com. Responses should be provided in PDF format. In preparing responses, respondents should note the following deadlines:

RFI Milestone	Completion Date*
Issue RFI	Monday, June 18, 2018
Last day to submit clarification questions	Monday, July 2, 2018 by 5:00PM EST
Con Edison publishes responses to questions	Monday, July 16, 2018
Short Form response submission deadline	Wednesday, August 1, 2018 by 5:00PM EST

*Con Edison reserves the right to change any of the above dates.

The Company has no obligation to evaluate late submissions. Potential respondents are encouraged to check Con Edison’s Clean Thermal web page periodically for additional information that may be of interest.

3.4 Short Form Response

3.4.1 Short Form Proposal Format

The Short Form has a maximum word count of 2,500 words. Responses that exceed this word count or provide extraneous information may be rejected at the discretion of the Company.

The Short Form response must include the following sections:

3.4.1.1 Cover Letter

The cover letter must include the following information:

- The legal name and address of respondent;
- The name, title, telephone number and email address of the individual authorized to negotiate and execute the Agreement;
- A statement that the respondent has read, understands, and agrees to all provisions of the RFI, or indicating that exceptions will be taken to the provisions of the RFI.

The cover letter does not count towards the word count of the proposal. Respondents should not use the cover letter to describe their proposal.

3.4.1.2 Proposal

The proposal must include the following sections. Con Edison, at its option, may reject proposals that do not include these sections.

- **Proposed Solution:** describe the products, services and technologies associated with the proposed solution and how the proposed solution overcomes barriers and, at scale, would support wide-spread customer adoption of renewable thermal resources.
- **Benefits to the customer, the Company, and the respondent:** describe how the business model benefits all parties involved, including how value is created and monetized among customers, the Company, the respondent and other market partners and stakeholders.

- **Project risks and mitigation strategies:** summarize potential project risks as well as viable mitigation strategies.
- **High-level cost estimate:** summarize total proposal costs, funding request from Con Edison, and offsetting sources of funding, including incentives or rebates, tax credits, third party financing, and customer-paid costs.
- **Respondents Experience:** describe the respondent’s track record and experience in the renewable thermal industry.

3.4.2 Short Form Evaluation Criteria

The Short Form will be evaluated by a Con Edison evaluation committee, which will use the following criteria to determine if the respondent’s Short Form response is of interest and if it meets the specified criteria of the RFI.

Criteria	Description
Proposal Content	All sections requested by Con Edison in this RFI are included in the Short Form submission and is comprehensive enough to allow Con Edison to evaluate the proposal
Proposed Solutions	Increased Customer Access to Renewable Thermal Solutions: <i>The proposed solution provides customers greater access to renewable thermal technologies</i>
	Scalability: <i>The proposed solution is scalable across Con Edison’s service territory and can be scaled to a much larger customer base.</i>
	LMI Community: <i>The proposed solution addresses the heating needs of the LMI community in NYC and Westchester. It is not a requirement to address the LMI community, however, those projects that do offer a solution for LMI will be considered favorably.</i>
Benefits to the customer, the Company, and the respondent	Environmental Impacts: <i>The proposed solution will positively contribute to the State and City goals for achieving environmental benefits</i>
	Long Term Natural Gas Mitigation Strategy: <i>The proposed solution will positively contribute to Con Edison’s goal of mitigating peak natural gas demand over the long term</i>
	Cost Effectiveness: <i>The proposed solution is cost effective for all parties involved</i>
Project Risks and Mitigation Strategies	The proposed solution includes a thoughtful review of potential risks and mitigation strategies
High Level Cost Estimate	Inclusion of 3rd party capital: <i>The proposed solution employs 3rd party risk capital to implement its project</i>
Track Record of Respondent	The respondent of the proposed solution has a credible track record and experience in the renewable thermal industry; the proposal team has the right mix of skills and experience to successfully implement the proposal
Coordination with NYSERDA Programs	Solutions that leverage NYSERDA programs for renewable thermal resources will be considered positively

3.5 Long Form Response

The Long Form response is an opportunity for respondents selected by the Company to present the business innovation from the Short Form response in greater detail. The goal of the Long Form is to

provide the respondent the room to present an executable project at the level of detail necessary to demonstrate to Con Edison that their project is consistent with the RFI objectives and is likely to achieve the goals of the RFI.

This RFI is for the Short Form response, therefore, the Company will not provide the timing, process, or evaluation criteria for the Long Form response in this document. Respondents that have been selected to submit a Long Form response will receive additional material that outlines the timing, process, and evaluation criteria for the Long Form response.

4 General Information

4.1 Confidentiality

Con Edison recognizes that a respondent may wish to include information in its response to this RFI that the respondent considers proprietary, a trade secret, or confidential to the respondent. If, in any response or information (initial or supplemental) that you provide to Con Edison in connection with this RFI, you include information that you consider proprietary, a trade secret or confidential, please identify such information by clearly marking both the top and bottom of each page that contains such information as "CONFIDENTIAL." Con Edison will deem any such designated information as submitted to it and its designees, including, any third party advisors retained by Con Edison to assist it with the RFI evaluation process, with the express understanding that, subject to any legally mandated disclosure requirements, such designated information will be held in confidence and will not be disclosed or used for any purpose other than the review and evaluation of the response to this RFI or any resulting proposal from the respondent or the finalization and implementation of any resulting contract between Con Edison and the respondent. All proposals will be treated as confidential and will not be discussed with any parties outside of the RFI evaluation team without the permission of the respondent.

4.2 Background on Con Edison

Consolidated Edison Inc., the parent company of Con Edison, is one of the nation's largest investor-owned energy companies, with approximately \$13 billion in annual revenues and \$47 billion in assets. The company provides a wide range of energy-related products and services to its customers through the following subsidiaries: Consolidated Edison Company of New York, Inc., a regulated utility providing electric, gas, and steam service in New York City and Westchester County, New York; Orange and Rockland Utilities, Inc. (O&R), a regulated utility serving customers in an approximately 1,300-square-mile-area in southeastern New York State and northern New Jersey; Consolidated Edison Solutions, Inc., a retail energy services company; Consolidated Edison Energy, Inc., a wholesale energy services company; Consolidated Edison Development, Inc., a company that develops, owns and operates renewable and energy infrastructure projects; and Con Edison Transmission, Inc., which invests in electric and natural gas transmission projects. This RFI is led by Con Edison only and does not involve O&R or the unregulated businesses of Consolidated Edison, Inc.

4.3 RFI Objectives

The RFI solicits information from respondents with the expectation that one or more of the responses will lead to a project filing with the NYSPSC as part of the Con Edison Gas Smart Solutions initiative.

Con Edison seeks to use the RFI process to increase transparency and efficiency of the process for developing Renewable Thermal business models and solutions and to yield actionable projects that align with the interests of our customers and shareholders. All submissions made in response to this RFI will be evaluated by a committee (the “Evaluation Committee”) consisting of representatives of Con Edison and other committee members designated by Con Edison. Con Edison may seek third party subject-matter experts and advisors to serve on the Evaluation Committee and assist with the review and evaluation of the submissions received in response to this RFI. Con Edison plans to screen any third party members of the Evaluation Committee to determine if they have any conflicts of interest in assisting with an objective evaluation of the any of the respondents’ submissions. The goal of the Evaluation Committee will be to identify one or more qualified respondents who have presented ideas and concepts for a project related to developing and accelerating the renewable thermal market, and if implemented, would meet the other requirements set forth in this RFI.

4.4 General Conditions

By responding to this RFI, respondents are deemed to accept and agree to these general guidelines. By submitting a response to this RFI, the respondent acknowledges and accepts Con Edison’s rights as set forth in this RFI, includes these general guidelines.

Con Edison reserves the right (a) to reject any respondent’s submission, (b) to request clarifications or additional information from a respondent regarding its submission, (c) to revise and re-issue this RFI or to revise any requirements of this RFI, (d) to extend any deadlines applicable to this RFI, and (e) to hold discussions with any respondent and to correct any deficient responses which do not conform fully with the instructions set forth in this RFI. Con Edison may exercise the foregoing rights at any time, without notice and without any liability to a respondent or any other party for expenses that the respondent or other party incurred in the preparation of responses to this RFI. All costs and expenses associated with the submission of any initial or supplemental response to this RFI will be borne solely by the applicable respondent.

Con Edison may ask any or all respondents to elaborate or clarify specific points or portions of their submissions. Clarification may take the form of written responses to questions or phone calls or in-person meetings for the purpose of discussing the RFI, the responses thereto, or any combination of the foregoing.

It is the sole responsibility of each respondent to ensure that all pertinent and required information is included in its submission to this RFI. Con Edison reserves the right to determine, in its sole discretion, whether a submission is incomplete or non-responsive. Con Edison also reserves the right, in its sole discretion, to reject or discontinue evaluation of any or all submissions to this RFI for any reason or for no reason.

Respondents should clearly state all assumptions they make about the meaning or accuracy of information contained in this RFI. If a respondent does not ask questions or clarify any assumptions, Con Edison will assume that the respondent agrees with and understands the requirements of this RFI. While Con Edison has endeavored to provide, and will endeavor to provide, accurate information to respondents, Con Edison makes no representations or warranties of accuracy.

In evaluating a respondent's submission, Con Edison may utilize any and all information available (including information not provided by the respondent).

The issuance of this RFI and the submission or a response by any person or entity does not obligate Con Edison to qualify the person or entity in any manner whatsoever. A legal obligation on the part of Con Edison to engage in any business transaction with a respondent will only arise if and when a formal written contract is entered into between or among Con Edison and such respondent. If a business transaction between a respondent and Con Edison were to be entered into in connection with this RFI, there are a number of terms and conditions and special conditions that may be applicable to any such transaction, depending on the nature of the respondent's response. Current examples of Con Edison's disclosure form, standard terms and conditions and special conditions can be found using the following link: <https://apps.coned.com/supplychain/APL/tc.aspx?lnk=terms%20and%20conditions>

These forms and documents are subject to change, without notice, by Con Edison at any time after the date of this RFI.

Subject to Con Edison's statement regarding confidentiality in [Section 4.1](#), Con Edison reserves the right, in its sole discretion and without liability, to utilize any or all of the submissions, responses and materials received in connection with this RFI (including any late responses), in Con Edison's planning efforts and otherwise.

By responding to this RFI, respondents are deemed to agree to keep confidential all information that is directly or indirectly provided by Con Edison to a respondent in connection with this RFI, provided that the foregoing confidentiality obligation shall not apply to any information that Con Edison has previously made generally available to the public or information that must be disclosed pursuant to law.