

BEFORE THE

NEW YORK STATE PUBLIC SERVICE COMMISSION

Joint Petition of Fortis Inc., Fortis US Inc., :
Cascade Acquisition Sub Inc., CH Energy :
Group, Inc., and Central Hudson Gas & : Case 12-M-0192
Electric Corporation for Approval of the :
Acquisition of CH Energy Group, Inc. by :
Fortis Inc. and Related Transactions. :

**CENTRAL HUDSON GAS & ELECTRIC CORPORATION'S PROPOSED PILOT GAS
EXPANSION PROGRAM**

Anthony S. Campagiorni
Vice President Business Development &
Government Affairs
284 South Avenue
Poughkeepsie, New York 12601
(845) 486-5544
acampagiorni@cenhud.com

Paul A. Colbert
Associate General Counsel -
Regulatory Affairs
Central Hudson Gas & Electric Corporation
284 South Avenue
Poughkeepsie, New York 12601
(845) 486-5831
pcolbert@cenhud.com

Counsel for CH Energy Group, Inc. and
Central Hudson Gas & Electric Corporation

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BACKGROUND

In the Order Authorizing Acquisition Subject to Conditions issued on June 26, 2013 in Case 12-M-0192, Central Hudson Gas & Electric Corporation (hereinafter “Central Hudson” or the “Company”) was required to “propose a limited pilot expansion program designed to test a number of innovative measures to facilitate gas service expansion.”

On March 12, 2013, Central Hudson filed comments and answers as part of the Proceeding to Examine Policies Regarding the Expansion of Natural Gas Service (Case 12-G-0297). At that time, Central Hudson set forth a number of innovative suggestions and recommendations in the filing that would enhance the expansion of the natural gas system within the Central Hudson service territory based on our experience of marketing natural gas to potential customers. Central Hudson reaffirms its support for its recommendations set forth in Case 12-G-0297.

In that filing, Central Hudson’s recommendations included: (1) extending the term to achieve the return on equity for gas franchise expansion; (2) establishing a subsidy to defray customer’s natural gas conversion costs; (3) creating a revolving loan fund from SBC dollars to finance customer conversions; (4) allowing utilities to purchase longer term natural gas supply on behalf of customers; (5) creating a tax deduction for natural gas conversion customers who donate their unused fuel oil to low-income customers; (6) re-examining state permitting processes and timelines on state roads; (7) encouraging NYS to fund gas main extensions to state colleges, prisons, and other state institutions; (8) creating a state agency similar to NYSEFC (water and sewer) to bond gas main extension projects because of the enormous societal benefits; (9) creation of a mechanism similar to TIF (tax incremental financing) whereby taxes on new gas mains would be set aside in a lockbox for future gas main extensions; (10) increasing natural gas

rebate amounts for high energy efficient equipment; (11) increasing the EEPS budget limitation of 38% on oil-to-gas incentive payments (only 38% of our EEPS gas budget can currently be used to fund oil-to-gas conversions); (12) establishment of state DOT/municipal working groups to coordinate construction projects such as coupling gas main extensions with water, sewer, and/or other roadwork; and (13) easing/streamlining SEQRA requirements for natural gas franchise expansion; to name a few.

Central Hudson has been aggressively marketing natural gas conversions to both commercial and residential customers this year. The results have been encouraging. The Company has undertaken a number of innovative concepts for nearly a year as part of its new “Simply Better” residential gas marketing initiative and the Company has also taken a new, innovative approach for natural gas conversions in the commercial space which are further discussed below.

Central Hudson will continue the current innovative practices that led to proven results, but the Company also recognizes that there are several customer barriers to switching from fuel oil to natural gas. The main barriers include: the lack of confidence in the current price advantage of natural gas over oil prices; the lack of education and customer understanding of the financial costs/benefits, and the fear of customers adding debt with the initial costs of the new heating systems.

In order to overcome the barriers associated with a lack of education and understanding, Central Hudson regularly informs and educates customers about the benefits of natural gas service, encouraging them to save money on heating bills by converting to natural gas service from oil and propane. The Company has active marketing campaigns in all five of its operating districts. Using a targeted marketing approach, Central Hudson actively communicates to

customers located within 100 feet of an existing natural gas main using media outreach. For example, Central Hudson has been holding public outreach meetings on a monthly basis in each of its five operating districts (Catskill, Kingston, Poughkeepsie, Newburgh and Fishkill). Central Hudson holds these open house meetings in the evenings five days each month from 7 to 9 p.m., and Central Hudson's staff provides a formal presentation regarding the costs and benefits of converting to natural gas, followed by a question-and-answer period. At the conclusion of the meetings, customers can sign up to receive a free, no obligation proposal so they have specific details about their prospective gas conversion project. More than 800 customers have attended these open houses with 95% of customers signing up for a free estimate to convert their heating equipment to natural gas.

When an individual customer requests gas service, Central Hudson actively communicates with nearby customers by engaging in a door-to-door information campaign. Signage is also placed at the location of the gas service installation to inform nearby customers of the project and to encourage them to contact Central Hudson via phone or email, for more information. Door-to-door outreach is also used extensively in prospective neighborhoods for gas main extension.

Central Hudson also maintains a current stream of information through a series of postcards and newsletters. In fact, Central Hudson has been mailing 21,000 postcards a month to nearly 7,000 residential customers within 100 feet of the gas main. Central Hudson also distributes newsletters, maintains a dedicated website for our Simply Better program, and has established a dedicated group of new business gas representatives to answer customer phone calls. Central Hudson's "Simply Better" website informs customers about the benefits and

capability of natural gas service, and includes an online “savings calculator” for customers to compare the cost of their current usage of oil or propane to natural gas.

Central Hudson has also initiated a state-of-the-art natural gas marketing project that utilizes a GIS-based system in concert with available demographic information to intelligently identify, codify, prioritize and geographically arrange residential customers that may be more receptive to a natural gas heat conversion. The analysis includes a geographic overlay of our existing distribution gas network, which is readily available to identified customers. A separate, but similar, analysis is also being conducted for areas of our service territory where expansion of our gas distribution system may be considered.

Central Hudson actively seeks to identify areas of its service territory where an extension of gas main has a high likelihood to resonate with customers in terms of their interest and desire to convert to natural gas. Other operating data is also reviewed to ensure that a prospective gas main extension is sustainable for the Company, customers and affected stakeholders. In 2012 and 2013, Central Hudson extended gas mains in several of its operating districts to serve up to several hundred new gas customers. Central Hudson will continue to market the benefits of gas service to applicable customers in these areas, and seek new opportunities to extend gas mains in other areas of the service territory.

Notwithstanding the persistent, on-going marketing and outreach efforts and the substantial savings of natural gas over fuel oil, customer conversions are still difficult to obtain. According to customer feedback in the Central Hudson territory, the initial cost of replacing a heating system is by far the greatest customer barrier. Therefore, Central Hudson requests that the Commission approve a limited pilot program for residential customers to help offset the cost of a natural gas heating conversion.

In addition, Central Hudson requests that the Commission approve a limited pilot program whereby the Company has fifteen years to earn its allowed return on equity on both franchise expansion and main gas extensions of its natural gas system. By approving these pilot programs, the Commission would allow potentially thousands of additional customers to realize the enormous financial and environmental benefits of converting from fuel oil to natural gas.

CENTRAL HUDSON'S CURRENT INNOVATIVE PRACTICES

Central Hudson has been engaged for nearly a year in innovative practices in order to convert customers to natural gas. Thus far, these practices have proven to be highly successful for Central Hudson's gas conversion program.

- 1) Turn-key model approach for residential customers. Central Hudson's Simply Better natural gas conversion program has been extremely successful. This innovative program offers customers the option of a comprehensive, yet simple and convenient, turn-key opportunity to convert their heating system to natural gas. The turn-key package provides customers with a connection to the existing gas system, a pre-qualified and licensed local contractor to install the new heating equipment, available rebates for energy-efficient equipment, flexible financing option for the customer conversion, a written proposal with cost/benefit payback, oil tank removal, and a single point of contact for the customer from start to finish on their project.
- 2) Portfolio of commercial natural gas conversions. Central Hudson is currently using an innovative portfolio approach to projects when negotiating with customers that have multiple projects, those that are exceeding the allowed return on equity offset lower return on equity projects. For example, Central Hudson has recently converted five schools within the Wappingers Central School system. Under the old model, only two of

the schools would have met the financial threshold to convert to natural gas. However, when all five schools were viewed as a “portfolio,” all the schools met the necessary return on equity requirement for a natural gas conversion. Collectively, the Wappingers School system will save more than \$300,000 annually by switching to clean, efficient natural gas.

- 3) Providing more than 100 feet of service for residential customers. In order to provide more customers with access to economical and clean natural gas, Central Hudson is promoting service connections of greater than 100 feet when the customer is on an existing natural gas main through the use of fixed, contractor pricing which lowers the costs and makes the service justifiable. By obtaining contractor fixed pricing on services, Central Hudson is able to justify the cost of the extended service by obtaining installation price certainty and allowing more customers to connect to our existing gas system. To date in 2013, 41% of all customers with a new natural gas service on an existing natural gas main have received more than 100 feet of service from Central Hudson.
- 4) Extending gas main into residential neighborhoods by securing fifty percent of customers initially and marketing aggressively to obtain additional natural gas conversions. As mentioned above, Central Hudson conducts on-going, aggressive marketing campaigns to potential natural gas customers. In areas where there is some customer interest in extending natural gas to a defined neighborhood, Central Hudson invites all customers to a “town hall” style meeting. Central Hudson first explains the process of converting to natural gas and then provides detail for all the associated financial and environmental benefits of converting to natural gas. Central Hudson then commits to extending the natural gas main if one-half of the residents within a neighborhood submit deposits to

convert to natural gas heat. Central Hudson then continues to market to the remaining customers in the neighborhood throughout the construction period and subsequent months and years to obtain additional gas conversion commitments.

APPROVAL OF LIMITED PILOT PROGRAM

Central Hudson respectfully requests that the Commission approve two pilot programs: (1) the Commission should permit Central Hudson to fund up to a \$2,550 subsidy to defray approximately 30% of a customer's natural gas conversion¹ through reallocation of current customer collections, and (2) the Commission should allow Central Hudson fifteen years to earn its return on equity for both natural gas franchise expansion and natural gas main extensions, rather than the currently permitted five and ten year return on equity.

The Commission should approve both requests because of the compelling customer savings of more than \$2,000 for the average residential customer; the increased economic activity and job creation among utility crews, construction contractors, and HVAC contractors; and the overwhelming environmental benefits of converting from oil to natural gas; 34% reduction in CO₂, 100% reduction in SO₂, and a 35% reduction in NO_x.

I. The Commission should approve the reallocation of current customer collections to defray the cost of customers' conversion to natural gas.

Central Hudson would like the opportunity to pilot a gas conversion program developed around incentives distributed to customers, funded from dollars already collected by Central Hudson on behalf of customers. The initial cost of converting an oil heating system to a natural gas heating system is the greatest barrier to switching to natural gas based on feedback from hundreds of customers at the Simply Better open house meetings, even with available financing

¹ Central Hudson residential conversion data through its Simply Better program indicates an average customer conversion cost of approximately \$8,500. The \$8,500 is an average of both boiler and furnace conversions.

options and average customer savings of more than \$2,000 a year. Therefore, Central Hudson strongly recommends a subsidy of up to \$2,550 to each customer that converts to natural gas from fuel oil. This amount would be equal to about 30% of the average residential heating conversion in the Central Hudson territory and the 30% would match the percentage of subsidy given to residential solar installations but at about one-fourth the cost². In effect, the same subsidy traditionally allotted to one solar installation, could fund nearly 4 gas conversions, each with an individually greater environmental impact, and collectively with 6 times the reduction in CO₂ emissions per dollar of subsidy.³ This program would accelerate the realization of both economic and environmental benefits that more than justify its cost.

II. The Commission should approve a pilot program that allows Central Hudson to earn a return on equity on gas franchise expansion and gas main extension over 15 years.

To further enhance our natural gas growth initiative, Central Hudson respectfully requests that the Commission allow the Company to offer an additional pilot program to extend its gas franchise and gas main system to customers while allowing a fifteen year timeframe to obtain a return on equity of the gas investment. By approving this measure, the Company will be able to extend natural gas main lines to a far greater number of residential homes. Central Hudson would track the number of new residential customers that could now be served under the new pilot program. There are two noteworthy groups that would most likely benefit from such a change in Commission policy: (1) new potential franchise areas that could not meet the 5 year return on equity requirement; and (2) more suburban and rural neighborhoods that have greater

² Central Hudson estimates the average sized residential solar installation within the service territory to be eligible for approximately \$9,300 in state incentives under the current model.

³ Please refer to Appendix A for detailed analysis on the environmental impact and attributes of an oil to gas conversion.

than 100 feet between homes. A simple revision in the Commission's policy could yield large numbers of additional customers.

Central Hudson requests that this limited pilot program be approved for two years and that Central Hudson would report to the Commission on a semi-annual basis the incremental number of residential customers that were served as a result of the change in policy.

Conclusion

The expansion of New York State's natural gas infrastructure includes significant customer savings, increased economic activity and substantial environmental benefits. Central Hudson has experienced good success thus far converting customers to natural gas. However despite our persistent marketing efforts and innovative practices, natural gas conversions are quite challenging to obtain. Central Hudson strongly feels that the approval of the two recommended pilot programs would lead to substantial customer conversions from oil to natural gas while allowing customers to derive the significant financial benefits of converting to natural gas as well as providing enormous societal environmental benefits by switching to natural gas.

Submitted



Paul A. Colbert

Associate General Counsel-Regulatory Affairs
The Central Hudson Gas & Electric Corporation
284 South Avenue
Poughkeepsie, New York, 12601
Telephone: 845-486-5831
e-mail: pcolbert@cenhud.com

Appendix A

The environmental impact of oil to natural gas conversion is compelling from a state policy perspective as well. Central Hudson is currently designing and implementing a comprehensive residential natural gas conversion program, targeted at customers who are currently using other fossil fuels as a primary domestic fuel source, but are within close proximity to a Central Hudson gas main.⁴ As part of this program, the Company has conducted an analysis of the various benefits of converting to natural gas. While our analysis is specific to the Central Hudson service territory, the demonstrated substantial environmental benefits resulting from residential customers converting from fuel oil to natural gas are probably similar or greater throughout upstate New York.⁵

Annual Residential Fuel Usage & Associated Emissions^{6,7}				
Fuel	Annual Usage (MMBTU)	CO ₂ (lb)	SO ₂ (lb)	NO _x (lb)
Fuel Oil	114.9	18,329	58.2	14.7
Natural Gas	102.1 ⁸	12,017	0.0	9.5
Reduction	12.8	6,311	58.2	5.2
(%) Reduction	11%	34%	100%	35%

The analysis shows that the associated CO₂ and NO_x emissions are reduced by over 1/3 for converting from oil to natural gas. Additionally, 100% of the SO₂ emissions associated with fuel oil are eliminated.

⁴ Central Hudson's gas conversion program is designed to convert both space and water heating.

⁵ Customers who heat with propane and other fuel types are also targeted, but this analysis focuses squarely on customers using fuel oil.

⁶ Emissions factors sourced from U.S. Department of Energy - EMISSIONS FACTORS FOR FUEL COMBUSTION FROM NATURAL GAS, LPG, AND OIL-FIRED RESIDENTIAL FURNACES AND BOILERS http://www1.eere.energy.gov/buildings/appliance_standards/residential/pdfs/furnaces_boilers/fb_tsd_appendixw_09_06.pdf

⁷ Secondary emissions benefits exist as a result of conservation of diesel fuel needed to deliver fuel oil.

⁸ An energy demand reduction of 11% is assumed for conversions based on the increased efficiency of new natural gas heating units as compared to existing oil heating units (from 80% AFUE to 90% AFUE)

Comparison to the Environmental Benefits of Distributed Solar Generation

To demonstrate the significance of this reduction, these findings are compared with the environmental benefits of residential solar electricity generation. Central Hudson’s data on residential solar generation sites indicates an average annual generation of 7,207 kWh⁹ per site. According to the EPA, each kWh consumed in a particular region has a quantifiable emissions signature. To quantify the emissions reductions attributed to distributed solar, this logic is used to determine the emissions signature of the grid-based generation that has been displaced. The estimated annual environmental benefits of residential solar are shown in the table below.

Environmental Benefits of Residential Photovoltaic Generation		
Pollutant	lb/MWh ¹⁰	Annual Emissions Reduction (lb)
CO ₂	498	3,589
NO _x	0.4	2.9
SO ₂	0.98	7.1

The table below demonstrates a direct comparison of the emissions reductions from both natural gas conversion and solar generation.

	Comparison of Annual Emissions Reductions		
	CO ₂ (lb)	SO ₂ (lb)	NOx (lb)
Solar Generation	3,589	7.1	2.9
Natural Gas Conversion	6,311	58.2	5.2

The annual reduction in each pollutant is substantially higher for natural gas conversion than for solar. Considering CO₂ emissions alone, the savings is 76% greater.

⁹ Central Hudson estimate based on an internal study of customer data

¹⁰ Regional emissions resulting from electrical generation sourced from U.S. Environmental Protection Agency <http://www.epa.gov/cleanenergy/energy-and-you/how-clean.html>

Central Hudson has supported and continues to support distributed solar generation within the Company’s service territory. This analysis does not imply competition or mutual exclusivity of these two emission reduction streams. The key conclusion is that natural gas conversion presents a significant opportunity for environmental benefits, evidenced by its favorable comparison with solar, the benefits of which have already been widely accepted.

Financial Comparison

The substantiated benefits of distributed solar have justified a large state investment in customer incentive programs through the Renewable Portfolio Standard. The current incentive available to residential customers is \$1.50/Watt up to a maximum of \$10,500.¹¹ Central Hudson estimates that this subsidy typically defrays approximately 30% of the overall cost.

A similarly designed subsidy for gas conversion would have a substantially higher proportionate impact due to the relatively low cost of natural gas conversion. Central Hudson’s residential installation data indicates an average customer conversion cost of approximately \$8,500. For comparison, a subsidy designed to defray 30% of a customer’s natural gas conversion cost would be valued at only \$2,550. In effect, the same subsidy traditionally allotted to one solar installation, could fund nearly 4 gas conversions, each with an individually greater environmental impact, and collectively with 6 times the reduction in CO₂ emissions per dollar of subsidy.

The table below shows the comparative environmental benefits of solar and gas conversion, normalized per dollar of state subsidy, based on the proposed model of a 30% subsidy.

	Cost Per Pound Annual Emissions Reductions		
	CO ₂	SO ₂	NO _x
Solar	\$2.59	\$1,316.73	\$3,225.99
Gas Conversion	\$0.45	\$48.64	\$545.38

¹¹ Central Hudson estimates the average sized residential solar installation within the service territory to be eligible for approximately \$9,300 in state incentives under the current model.

Using the current RPS funded solar program as a baseline, the proposed program is a highly cost effective way to reduce carbon emissions in New York State.

Opportunity in New York State

With oil being the most prevalent domestic fuel source, the opportunity for emissions reductions in New York State through gas conversions is substantial. There are approximately 550,000 residential customers in the state who burn fuel oil and are located within 100 feet of a natural gas main, the maximum distance for required service by tariff. Central Hudson believes it is realistic to design a subsidy program which aims to convert 50% of these customers statewide over the next 10 years. The overall cost of this program, at maximum achievement, would be approximately \$779 million. The estimated environmental benefits of converting these 275,000 residential customers to natural gas are shown in the table below.

Emissions Reductions Estimates For Proposed Statewide Gas Conversion Program		
CO₂ (tons)	SO₂ (tons)	NOx (tons)
867,822	8,009	714