

STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION

North Shore Gas Company)
)
The Peoples Gas Light and)
Coke Company)
) **Docket No. 13-0550**
)
Petition Pursuant to Section 8-104 of the)
Public Utilities Act to Submit an Energy)
Efficiency Plan.)
)

DIRECT TESTIMONY OF REBECCA DEVENS

ON BEHALF OF

THE CITIZENS UTILITY BOARD AND THE CITY OF CHICAGO

CUB/CITY Exhibit 1.0

December 20, 2013

1 **Introduction**

2 **Q. Please state your name and business address.**

3 A. My name is Rebecca Devens. My business address is 309 W. Washington, Suite 800,
4 Chicago, IL 60606.

5
6 **Q. What is your present occupation?**

7 A. I am a Policy Analyst for the Citizens Utility Board (“CUB”), where I have been
8 employed since 2008.

9
10 **Q. Please summarize your role at CUB.**

11 A. I research and evaluate state and federal legislative and regulatory proposals relating to
12 electricity, natural gas and telecommunications issues. In particular, I have focused on
13 energy efficiency, demand response and dynamic pricing. I also review the impact of
14 legislative and regulatory proposals on Illinois consumers and represent CUB at various
15 stakeholder meetings and forums, including the Illinois Commerce Commission (“ICC”
16 or “Commission”). I represent CUB in the Energy Efficiency Stakeholder Advisory
17 Group (“SAG”), the collaborative group that monitors utility implementation of statutory
18 energy efficiency and demand response programs. The SAG discusses proposals for new
19 utility programs within the Energy Efficiency Portfolio Standard (“EEPS”) framework,
20 the process for identifying new energy efficiency opportunities, and the evaluation,
21 measurement and verification (“EMV”) of energy efficiency programs.

22

23

24 **Q. Please describe your educational background.**

25 A. I graduated with honors from the University of Illinois at Urbana-Champaign with a
26 Bachelors degree in English.

27

28 **Q. Have you previously testified before the Commission?**

29 A. Yes. Please see CUB/City Ex. 1.1 for a list of dockets I have testified in.

30

31 **Q. On whose behalf are you testifying in this proceeding?**

32 A. I'm testifying on behalf of CUB and the City of Chicago ("CUB/City").

33

34 **Q. What is the purpose of your testimony?**

35 A. I am making recommendations to improve the mandatory three-year Energy Efficiency
36 Portfolio Standard Plan (the "Plan") that the Peoples Gas Light and Coke Company
37 ("Peoples Gas" or "PGL") and North Shore Gas Company ("North Shore Gas" or "NS",
38 or collectively "NS-PGL" or "the Companies") are required to file for Commission
39 approval of the Companies' natural gas programs pursuant the Public Utilities Act
40 ("PUA" or "the Act"). 220 ILCS 5/8-104. The Commission must find that the Plan
41 meets the statutory requirements for achieving statutory energy goals for program years
42 4-6 ("PYs 4-6"). In particular, I focus on the following issues:

- 43
- 44 • NS-PGL's failure to keep savings goals for customer classes set at the same
45 proportion as revenues received from those customer classes. NS-PGL Ex. 1.0R at
46 12. The Plan proposes to fund some Commercial and Industrial ("C&I) measures
with revenues collected from the residential class.

- 47 • NS-PGL’s failure to offer air sealing measures in the portfolio.
48 • NS-PGL’s failure to offer adequate multifamily programs.
49 • NS-PGL’s proposal for an “adjustable savings goal” NS-PGL Ex. 1.0R at 8 and
50 25-26.

51

52 **Q. Do you have any recommendations regarding Peoples and North Shore Gas’ Plan?**

53 A. Yes. I have the following specific recommendations which I address in this testimony:

- 54 • The Commission should order NS-PGL to set goals for customer sectors at the
55 same proportion as revenues received from those customer sectors.
56 • The Commission should order NS-PGL to offer additional air sealing measures in
57 the portfolio.
58 • The Commission should order NS-PGL to expand offerings for multifamily
59 customers.
60 • The Commission should reject NS-PGL’s proposal for an adjustable savings goal.

61

62 **Q. What documents have you reviewed in preparing your testimony?**

63 A. I reviewed the Plan, Peoples Gas and North Shore Gas’ Petition, testimony and
64 supporting exhibits, and the discovery responses provided by Peoples and North Shore
65 Gas in response to various parties in this proceeding.

66 **I. Statutory Requirements: The Companies Plan Should Include Goals that Reflect**
67 **the Revenues from Each Rate Class Funding the Plan**

68 **Q. Please describe the statutory requirements for NS-PGL’s filing.**

69 A. The Act requires NS-PGL to meet increasing savings targets through the implementation
70 of cost-effective energy efficiency programs. 220 ILCS 5/8-103(a-b). In PY 4, NS-PGL

71 must achieve savings equal to 0.8% of the energy the Companies deliver, for total savings
72 of 2%. 220 ILCS 5/8-103(c). In PY 5 the target is 1% for an increase in total savings of
73 3%, and in PY 6 the annual target is 1.2% for an increase in total savings of 4.2%. *Id.*
74 DCEO is responsible for implementing programs for public sector and low-income
75 customers with 25% of the funding collected from ratepayers. 220 ILCS 5/8-103(e). The
76 law permits the Companies to reduce the amount of energy efficiency implemented per
77 three year plan filing to limit increases in customer bills to no more than 2%. 220 ILCS
78 5/8-103(d). Finally, in order to gain Commission approval of their Plan, the Companies
79 must demonstrate that the portfolio is cost-effective at the portfolio level and represents a
80 diverse cross section of opportunities for customers of all rate classes to participate in the
81 programs. 220 ILCS 5/8-103(f).

82

83 **Q. What are the proposed savings goals?**

84 A. The Companies have modified the statutory goals based on the 2% spending screen
85 discussed above, and maintain that the modified goals they propose are what is
86 achievable given market constraints such as the low price of gas. NS-PGL Ex. 1.0 at 4.
87 This translates to the following budgets and goals:

- 88 • For North Shore, a total budget of \$24,555,622 with annual savings goals of ,220,143
89 (PY4), 2,775,179 (PY5), and 3,330,215 therms in PY6. *Id.* These targets equate to
90 proposed goals of 0.84%, 0.66%, and 0.55%
- 91 • For Peoples, a total budget of \$24,555,622 million for Peoples Gas, and savings goals
92 of 11,226,846 (PY4), 14, 033,558 (PY5) and 16,840269 therms in PY6. *Id.* at 4.
93 These targets equate to proposed goals of 0.76%, 0.59%, and 0.46%. *Id.*

94 Regarding the statutory provision for programs to represent a diverse cross section of
95 opportunities for customers of all rate classes to participate, NS-PGL is not adequately
96 providing savings for all rate classes which fund the portfolio. The Companies fail to
97 provide adequate programs for the residential customer sector and have not adequately
98 considered ways in which they could better and more completely serve the residential
99 customer sector with the programs those customers are paying for.

100

101 **Q. How is NS-PGL’s proposal for programs for the residential customer sector**
102 **inadequate?**

103 A. The Companies claim it was “not practical to keep the goals at approximately the same
104 proportion as the revenues” for the respective delivery service class and portfolio of
105 programs, for example residential programs versus commercial and industrial programs.
106 NS-PGL Ex. 1.0 at 11-12. NS-PGL claim that it is “becoming more and more difficult to
107 find opportunities in the residential sector that are equivalent to its revenue share of the
108 customer base,” and that “the potential increase in Department of Energy (“DOE”)
109 residential gas furnace efficiency standards could make achieving cost-effective
110 residential energy savings even more difficult in the future.” *Id.*

111

112 **Q. What is the percentage of the residential budget that the Companies have proposed**
113 **to spend on C&I programs?**

114 A. There is no clear answer. The Companies do not provide any estimate, much less any
115 specifications, of how their proposal to spend funds collected from residential customers
116 on C&I customer programs will impact those programs budgets. Although I have

117 reviewed all the documents in the Plan filing, it is not clear to me how much residential
118 sector money NS-PGL has currently proposed to spend on C&I programs.

119

120 **Q. Do you agree with the Companies' approach?**

121 A. No. While all customers, including residential customers, can realize indirect benefits
122 from C&I programs, residential customers should have access to programs commensurate
123 with the funding they have provided. NS-PGL provided no evidence to justify why they
124 are moving funds stating only that they've found this statutory requirement too
125 "difficult." NS-PGL Ex. 1.0 at 11-12. Their concern about a potential increase in DOE
126 furnace standards is unwarranted because the change in standards is hypothetical, and
127 there are numerous options for residential measures and programs beyond incentivizing
128 furnaces. My review of the Plan has revealed that the Companies have overlooked two
129 opportunities for residential programs.

130

131 **Q. What residential opportunities have NS-PGL overlooked?**

132 A. NS-PGL has failed to adequately include air sealing measures and programs for
133 multifamily customers.

134

135 **1. Air Sealing Measures**

136 **Q. What is air sealing?**

137 A. Air sealing involves minimizing air infiltration in the building envelope, which includes
138 the external walls, windows, roof, and floor of a building.¹ The federal Department of
139 Energy ("DOE") states that air sealing is one of the least expensive and most cost-

¹ See <http://aceee.org/topics/building-envelope>, accessed on December 20, 2013..

140 effective measures customers can take to improve home comfort and energy efficiency.
141 CUB/City Exhibit 1.2. By sealing uncontrolled air leaks, customers can expect to see
142 savings of 10% to 20% on heating and cooling bills, and even more if they have an older
143 or especially leaky house. *Id.* Without air sealing, air leaks in most existing homes add
144 up to an open window in the home. *Id.* CUB/City witness Paul Francisco also defines air
145 sealing in CUB/City Ex. 2.0.

146

147 **Q. What are air sealing measures?**

148 A. Air sealing measures address leaks and drafts in homes to improve comfort and ensure
149 that energy is not wasted if heat or cooling is lost. Larger measures include air and duct
150 sealing and insulation. Smaller measures may include using caulk or weatherstripping
151 around doors or windows.

152

153 **Q. Why are they important?**

154 Air sealing measures are essential to homeowners realizing savings from energy
155 efficiency programs. If a home loses energy equivalent to having a window open year
156 round, and a customer in that home installs a high efficiency furnace and/or air
157 conditioner is installed, the savings from that investment will not be fully realized. Leaky
158 homes prevent customers from achieving the possible savings of HVAC programs and
159 increase heating and cooling costs. Air sealing measures are integral to energy efficiency
160 programs; without them, any portfolio of programs will not be as cost-effective as they
161 could have been. The American Council for an Energy Efficient Economy (“ACEEE”) states that “before buying a new heating or cooling system, it makes sense to tighten up
162

163 your house first” in order to “reduce your heating and cooling load, improve your
164 comfort, and maybe even allow you to purchase a smaller—and less expensive—furnace
165 or air conditioner.”² That “tighter” envelope more effectively keeps conditioned air in,
166 reduces the load on the HVAC system, and increases the efficiency at which it operates,
167 and helps slow the conduction of heat through walls. *Id.*

168

169 **Q. Do the Companies offer air sealing measures?**

170 A. The Home Energy Rebate Program only includes two air sealing measures, attic
171 insulation and duct sealing, and NS-PGL forecasts that participation across both utilities
172 will only be around 100 customers each year. NS-PGL Ex. 1.2 at 37 (emphasis added).
173 The Multifamily Comprehensive Energy Assessment and Direct Install Program includes
174 attic insulation, but is only forecasted to reach 84 customers per year. *Id.* at 44 (emphasis
175 added). This is a small number of customers for what should be a standard program
176 offering which is extremely cost-effective and can be administrated within existing
177 Company programs.

178

179 **Q. Do you know why more air sealing measures are not included?**

180 A. It is my understanding, based on participation in the SAG and through meetings with
181 Company representatives, that NS-PGL is concerned about the risk of radon
182 overexposure occurring as a result of air sealing work. Specifically, the Companies are
183 concerned about being sued for radon poisoning if they include air sealing measures in
184 the portfolio.

185

² See <http://aceee.org/consumer/building-envelope>, accessed on December 20, 2013.

186 **Q. Is it likely that homes in NS-PGL territory are leaky?**

187 A. I believe it is likely that many homes in NS-PGL territory are leaky, because a statewide
188 building code for new construction was not established until 2009. Prior to 2009, there
189 was no requirement that new construction include measures that would maximize
190 efficiency. As a result, many buildings may lack features we consider essential to energy
191 efficiency in homes, such as wall or attic insulation.

192
193 **Q. Do other gas utilities in Illinois offer air sealing measure?**

194 A. Yes. Ameren proposed a program called Residential Home Performance with Energy
195 Star® that includes air sealing and insulation. Ameren Ex. 1.1(2nd Rev.) in ICC Docket
196 No. 13-0499 at 82, attached as CUB/City Ex. 1.3. To my knowledge, no intervenors
197 opposed this program or recommended modifications to it, so it is likely that the program
198 will be approved. The program includes the following measures related to air sealing: air
199 and duct sealing, and wall, attic, crawl space, and rim joint insulation. *Id.* at 83. The
200 program also includes energy efficient light bulbs, faucet aerators, and water heater
201 temperature adjustment. *Id.* at 84-85. This program will serve both gas heat and electric
202 customers, and has a TRC of 1.23. *Id.* at 86. In ICC Docket No. 13-0549, Nicor Gas also
203 proposes a program offering air sealing. Nicor Gas Ex. 1.1 in ICC Docket No. 13-0549
204 at 30, attached as CUB/City Ex. 1.4. The Home Energy Savings Program employs a
205 “comprehensive whole house model approach” which includes an assessment of
206 customers’ building envelope, HVAC/mechanical systems, water heating, appliances, and
207 lighting. *Id.* Air sealing measures include insulation, air sealing, and duct sealing, and the
208 program has a TRC of .93. *Id.* at 31.

209 **Q. Do other energy efficiency providers offer air sealing?**

210 A. Yes. The Historic Chicago Bungalow Association offers an energy efficiency program
211 that includes sealing cracks and drafts in the attic, basement and sidewalls, attic
212 insulation, and weather stripping around windows and doors.³ CNT Energy, who runs
213 the multifamily Energy Savers Program through DCEO's portfolio, includes air sealing,
214 wall insulation, roof cavity and attic insulation in that program. DCEO Ex. 3.3 in ICC
215 Docket No. 13-0499, attached as CUB/City Ex. 1.5. The Illinois Home Weatherization
216 Assistance Program ("IHWAP") provides safety and health equipment, repairs or
217 replaces heating systems, seals air bypasses and other drafty areas, increases attic, wall,
218 basement, and crawl space insulation.⁴ DCEO's Efficient Living: Illinois Public Housing
219 Program includes duct insulation, duct sealing, and attic and ceiling insulation, and
220 DCEO's Residential Retrofit Program includes air sealing and wall and attic insulation.
221 DCEO Ex. 3.2 and 3.4 in ICC Docket No. 13-0499, attached as CUB/City Ex. 1.7 and
222 1.6, respectively. In short, I don't know of any energy efficiency program in Illinois that
223 doesn't offer adequate air sealing measures with the exception of NS-PGL.

224
225 **Q. What is the impact of NS-PGL not offering adequate air sealing measures?**

226 A. A lack of air sealing in NS-PGL's Plan, particularly as the Companies' programs mature,
227 the goals increase, and low-hanging fruit is exhausted, cripples the NS-PGL's ability to
228 generate deep and lasting savings in the residential sector. Air sealing measures are
229 necessary for customers to realize all possible direct benefits from investments in high
230 efficiency heating and cooling products. Air sealing is fundamental to comprehensive

³ See www.chicagobungalow.org, accessed on December 20, 2013.

⁴ See <http://www.cedaorg.net/www2/EnergyEfficiency.html>, accessed on December 20, 2013.

231 weatherization upgrades. Without air sealing, residential customers in Chicago and the
232 north suburbs will never have access to the cost-effective and comprehensive energy
233 efficiency offerings they are funding.

234

235 **Q. What do you recommend to the Commission?**

236 A. I recommend that the Commission order NS-PGL to evaluate how to cost-effectively
237 expand air sealing measures for single family and multifamily homes as part of the
238 Companies' portfolio, and order the Companies to include these measures in their Plan.
239 Funding for air sealing programs should be culled from the residential funding the
240 Companies have currently proposed to spend on C&I programs, and if more funding is
241 required to offer air sealing and expanded multifamily program offerings, the Companies
242 should reorganize the portfolio to accommodate this addition.

243

244 **2. Multifamily Programs**

245 **Q. Earlier you stated that the Companies fail to adequately include measures and**
246 **programs for multifamily customers. Please explain.**

247 A. The City of Chicago is one of the largest cities in the country with a population of
248 2,695,598 residents.⁵ The US Census Bureau reports that 55.1% of housing units, or
249 575,998 buildings in Chicago, are multi-unit properties.⁶ Of those units, 42.4% are 2-9
250 units, and 23.7% have more than 20 units. *Id.* 45.4% of housing units —almost half—
251 were built prior to 1939. In other words, Chicago has a large stock of multifamily
252 housing, and that stock is old and inefficient.

⁵ See <http://www.cityofchicago.org/city/en/about/facts.html>, accessed on December 20, 2013.

⁶ See <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>, accessed on December 20, 2013.

253 **Q. What programs is NS-PGL proposing for multifamily buildings?**

254 A. NS-PGL is proposing a multifamily program that includes four “paths:”

- 255 • Path 1: Comprehensive Energy Assessment and Direct Install provides direct
256 installation of low flow showerheads, low flow faucet and kitchen aerators,
257 programmable thermostats, pipe insulation, water heater thermostat setbacks, and
258 pre-rinse sprayers where appropriate;
- 259 • Path 2: Standard and Trade Ally Partner Installed (“TAPI”) Incentives provides
260 standardized Incentives for equipment such as heating systems (boilers and
261 furnaces), boiler cut out and reset controls, steam trap repairs, water heaters, and
262 pipe insulation;
- 263 • Path 3: Custom Incentives provides custom incentives for non-standard items,
264 calculated given the operating conditions of the facility in question; and
- 265 • Path 4: Gas Optimization provides a service where energy advisors/engineers
266 review a multifamily facility for operation and maintenance issues that, if
267 corrected, often provides short payback projects that are very attractive to owners.
268 NS-PGL Ex. 1.2 at 40.

269

270 **Q. Why are these current offerings inadequate?**

271 A. There are at least two reasons NS-PGL’s proposal falls short: these programs do not
272 include adequate air sealing, and estimated participation is so unreasonably low as to be
273 unfair to the multifamily customers funding these programs.

274

275

276 **Q. Is air sealing as important for multifamily buildings as it is for single family homes?**

277 A. Yes. All the principles of air sealing for single family homes apply to multi-unit
278 buildings. Air sealing maximizes the efficiency of common area space and rental units.

279

280 **Q. What participation levels do the Companies propose?**

281 A. In Peoples Gas territory, the Companies propose annual participation of 33,000
282 customers in the Direct Install path, a range of 8-1,400 customers in the Standard and
283 Trade Ally Partner Installed (“TAPI”) Incentives path, 50 customers in the Custom
284 Incentives Path, and 4 customers in the Gas Optimization Path. NS-PGL Ex. 1.2 at 43-
285 44. In North Shore Gas territory, they propose annual participation of 2,500 customers in
286 the Direct Install path, a range of 0-75 customers in the TAPI Incentives path, 4
287 customers in the Custom Incentives Path, and 1 customer in the Gas Optimization Path.
288 *Id.* at 44-45.

289

290 **Q. What are your thoughts on NS-PGL’s proposed participation levels?**

291 A. They are inadequate. While the 33,000 customers NS-PGL proposes to reach annually
292 for the Direct Install path in Peoples Gas territory sounds like a large number, this is a
293 program that serves as a gateway path to the other three paths. In fact, the Companies
294 themselves note “this program provides a facility assessment to identify other savings
295 opportunities.” NS-PGL Ex. 1.2 at 40. The Direct Install path includes cheap measures
296 that do not provide many therm savings, relative to the potential achievable savings in
297 multiunit buildings, and focuses on small measures like faucet aerators and energy
298 efficient showerheads. *Id.* at 45. If a unit in a multifamily building were to take

299 advantage of all measures offered in the Direct Install path, NS-PGL projects that that
300 customer would save 172.5 therms. That number of therms is nothing to sniff at, but it
301 doesn't compare to the potential savings of the other "paths."

302
303 By contrast, the Custom path is forecasted to provide per unit savings of 3,210 therms,
304 and the Gas Optimization path is forecasted to provide per unit savings of 5,290 therms.
305 *Id.* at 46. One of the Standard/TAP measures alone, pipe insulation, is forecasted to
306 provide per unit savings of 8,180 therms. *Id.* That's more than 47 times more therms
307 than the total Direct Install therm savings. NS-PGL should be incentivizing small
308 measures like aerators and showerheads for multifamily building customers, because
309 those programs are affordable and therefor accessible to all customers. But in a city like
310 Chicago, where half the housing units are multifamily, and half the housing units were
311 built prior to 1939, long before there was a statewide building code, the Direct Install
312 path should not be NS-PGL's most stalwart multifamily offering. Multifamily customers
313 are funding these programs, and they deserve better.

314

315 **Q. What are the potential achievable savings in multiunit buildings?**

316 A. An ACEEE and CNT Energy report reveals that Illinois is one of the states with the
317 highest potential savings in multiunit buildings, with 30 million potential therm savings
318 and 445 potential GWh savings. CUB/City Ex. 1.8. While the Companies did not
319 include a potential study in this Plan filing, I did review potential studies shared with the
320 SAG conducted by the Energy Center of Wisconsin and released in May of 2013. The
321 Peoples Gas potential study is attached to my testimony as Ex. 1.9 and the North Shore

322 Gas potential study as Ex. 1.10. The only mention of multifamily units I could find in the
323 North Shore Gas potential study was a statement that Peoples Gas has more multifamily
324 units as compared to North Shore Gas. CUB/City Ex. 1.10. The only mention of
325 multifamily units I could find in the Peoples Gas potential study was a statement
326 regarding a calculation the Energy Center of Wisconsin used to estimate the achievable
327 potential for low-income customers. CUB/City Ex. 1.09. Both studies also included
328 several charts detailing achievability factors where the Energy Center of Wisconsin
329 compared potential between customer sectors without providing any supporting analyses.
330

331 **Q. Why doesn't the potential study contain information about achievable potential**
332 **therm savings for a major customer sector?**

333 A. I'm not sure. The potential studies seem designed to support the program decisions NS-
334 PGL has made in the Plan, and not provide comprehensive information about achievable
335 potential, aside from seemingly cherry-picked analyses. For example, the Energy Center
336 of Wisconsin states that they found there were more "opportunities" in the commercial
337 and industrial sectors than in the residential sectors. CUB/City Ex. 1.09 at 24. The
338 Energy Center of Wisconsin does not explain how they reached this conclusion about
339 sector-specific opportunities. But as a result of this finding, Table 6 on page 26 of the
340 potential study illustrates the impact of increasing the achievable potential for the
341 commercial and industrial sectors. While I am confused now as to whether "base case"
342 or "increased C&I focus" reflects reality, given the "opportunities" the Energy Center of
343 Wisconsin found in the C&I sector, the impact of this "finding" is that achievable
344 potential for the residential sector, including multifamily units, decreases.

Table 6
Achievability Factors by Segment
Base Case vs. Increased Commercial/Industrial Focus

Segment	End-of-Life Replacement		Retrofit	
	Base Case	Increased C&I Focus	Base Case	Increased C&I Focus
single-family non-low-income	27.0%	15.0%	0.9%	0.5%
single-family low-income	6.0%	6.0%	0.2%	0.2%
multi-family individually-metered non-low-income	15.0%	12.0%	0.5%	0.4%
multi-family individually-metered low-income	6.0%	6.0%	0.2%	0.2%
small multi-family master-metered non-low-income	15.0%	12.0%	0.5%	0.4%
small multi-family master-metered low-income	6.0%	6.0%	0.2%	0.2%
medium multi-family master-metered non-low-income	15.0%	12.0%	0.5%	0.4%
medium multi-family master-metered low-income	6.0%	6.0%	0.2%	0.2%
large multi-family master-metered non-low-income	15.0%	12.0%	0.5%	0.4%
large multi-family master-metered low-income	6.0%	6.0%	0.2%	0.2%
small and medium commercial	30.0%	37.5%	1.0%	1.3%
large commercial	30.0%	45.0%	1.0%	1.5%
industrial	30.0%	60.0%	1.0%	2.0%

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Q. Do the potential studies look at achievable potential from air sealing measures.

354

A. I could not find any information related to air sealing in the potential studies, aside from

355

a note that customers lack motivation to invest in a measure like insulation as opposed to

356

furnaces because furnaces are more of a necessity. Peoples Gas Potential Study at 14.

357

358 **Q. What should the Commission order NS-PGL to do to reach the achievable potential**
359 **savings in the multifamily sector, and provide multifamily customers with an**
360 **opportunity to invest in measures offering comprehensive and lasting savings?**

361 A. The Commission should order NS-PGL to fund a comprehensive, cost-effective, and
362 user-friendly multifamily program that will reach a much larger number of multifamily
363 customers and provide deep and lasting savings.

364
365 **Q. What type of multifamily program should the Companies invest ratepayer money**
366 **in?**

367 A. The Companies should invest ratepayer money into a program with a proven track record
368 of being cost-effective, user-friendly, and generating deep and lasting savings.

369
370 **Q. Are you aware of an existing program that meets the above criteria?**

371 A. Yes. CNT Energy's Energy Savers program meets the above criteria, and serves as an
372 excellent model for the kind of program NS-PGL should offer.

373
374 **Q. What is CNT Energy?**

375 A. CNT Energy is an award-winning Chicago-based non-profit organization that is a
376 division of the Center for Neighborhood Technology ("CNT"), a nonprofit that promotes
377 urban sustainability.⁷ CNT Energy offers programs and conducts research related to
378 energy and utility issues, including dynamic electricity pricing, building performance,
379 and regional energy planning. CNT Energy partners with the Community Investment
380 Corporation ("CIC") on this program. The CIC is a non-profit mortgage lender that

⁷ See <http://www.cntenergy.org/>, accessed on December 20, 2013.

381 provides financing to buy and rehab multifamily apartment buildings with five units or
382 more in the six-county metropolitan Chicago area.⁸ CIC also offers property
383 management training to help owners and managers better market, manage, maintain and
384 improve affordable rental property.

385

386 **Q. What is the Energy Savers program?**

387 A. The Energy Savers program is designed to be a “one-stop energy efficiency shop for
388 multifamily building owners” which includes:

- 389 • A building assessment and expert advice: the Energy Savers team will conduct a
390 building assessment that includes an examination of utility bills and a thorough
391 inspection o to find where energy, water and money are being wasted. An expert
392 energy assessor will help identify the most cost-effective investments for your
393 building. This service is available at no cost for many buildings.
- 394 • Financial guidance: Energy Savers can help connect participants with low-cost
395 financing from CIC for energy efficiency improvements. Participants will also get
396 help obtaining any available rebates or incentives.
- 397 • Construction oversight: the Energy Savers team will assist participants throughout the
398 construction process, from developing an implementation plan to reviewing bids from
399 contractors and monitoring installation.
- 400 • Annual savings reports: once energy efficiency and water conservation upgrades are
401 complete, participants will receive annual reports showing how much they are saving.
402 If participants’ building is not performing as well as anticipated, CNT Energy will
403 perform a building tune-up.⁹

404

405 **Q. Has the program been evaluated by an independent evaluator?**

406 A. Yes. Navigant Consulting completed an independent evaluation of the program in March
407 of 2013. Navigant reports that the program launched in January 2008 and involves a
408 variety of services to promote energy efficiency improvements for multi-family

⁸ See <http://www.cicchicago.com/>, accessed on December 20, 2013.

⁹ <http://www.cntenergy.org/buildings/energysavers/multifamily/>

409 residential buildings of 5-50 units in the affordable housing market segment. CUB/City
410 Ex. 1.11 at iii. Navigant found that the program is generating enormous savings.
411 Navigant reports that the evaluation estimates the natural gas savings from January 2010
412 through September 2012 for 21 buildings that completed energy efficiency upgrades
413 through the Energy Savers program before January 2010. *Id.* Navigant estimates that
414 average natural gas savings were 19.8%, with savings reaching 26.1% during the heating
415 season months of November through March, measured against comparable buildings that
416 did not make efficiency improvements through the Energy Savers program. *Id.* Savings
417 were 14.6% during April/May and September/October, and 1.9% during the summer
418 months of June through August. *Id.* Overall, estimated gas savings for the 21 renovated
419 buildings from the first completed renovation in June 2008 through September 2012 are
420 587,000 therms. Once renovations on all 21 buildings were complete, the estimated
421 average energy savings were 179,800 therms annually.

422

423 **Q. Is the program cost-effective?**

424 A. Yes. DCEO's filing shows that the Energy Savers program is cost-effective with a Total
425 Resource Cost ("TRC") test result of 1.29. CUB-City Ex. 1.5. While the Energy Savers
426 program is cost-effective when administered to low-income customers, a similar program
427 as part of NS-PGL's portfolio could be administered to moderate-income customers and
428 other customers of other income levels.

429

430

431

432 **Q. Have you seen other estimates of savings generated by the Energy Savers program?**

433 A. Yes. The US Department of Energy evaluated the program only a few months ago, in
434 September of last year. CUB/City Ex. 1.12. The US DOE found that some buildings
435 that participated in the program are benefitting by as much as 30-50% when comparing
436 their energy use before and after installation of recommended measures. CUB/City Ex.
437 1.12 at 2. The DOE report provides a list of the most cost-effective measures, which
438 when packaged together, lead to savings of 20-30% per building. *Id.* at 15-16.

439

440 **Q. What do you conclude related to the Energy Savers program?**

441 A. The Energy Savers program is an excellent model for the type of multifamily offering
442 which should be included in the Companies' Plan. The program has been found cost-
443 effective in other portfolios, is user-friendly, and generates deep and lasting savings. The
444 program has a track record of generating savings of 20-30%—an amazingly large number
445 for an efficiency program serving a difficult but critical customer sector. As it stands
446 now, the Companies are overlooking the multifamily sector in Chicago, whose large
447 stock of renters and multifamily building owners deserve to have access to the programs
448 they are funding, and Chicago's old housing stock is in great need of upgrades.

449

450 **Q. What do you recommend related to multifamily programs**

451 A. The Commission should order NS-PGL to allocate a portion of the residential funding
452 the Companies proposed to spend on C&I on expanded multifamily programs that
453 emulate the best practices of the Energy Savers program. If more funding is required to

454 offer this program, the Companies should reorganize the portfolio to accommodate this
455 additions.

456

457 **II. Adjustable Savings Goal: the Companies' Proposal to Change Plan Goals Based on**
458 **Evaluation Protocol Changes Should be Rejected**

459

460 **Q. What is the Companies' request related to an "adjustable savings goal?"**

461 A. NS-PGL request the ability to change the savings goal to reflect any changes in the
462 Technical Reference Manual ("TRM") or in the Net to Gross ("NTG") estimates. NS-
463 PGL Ex. 1.0R at 25-26.

464

465 **Q. What is the Technical Reference Manual?**

466 A. The TRM is a document developed collaboratively through the Stakeholder Advisory
467 Group ("SAG") and updated almost constantly that serves as a common reference
468 document for all stakeholders, program administrators, and the Commission to provide
469 transparency to all parties regarding savings assumptions and calculations and the
470 underlying sources of those assumptions and calculations.

471

472 **Q. What are Net to Gross Estimates?**

473 A. These are estimates that attempt to capture the savings directly attributable to a specific
474 energy efficiency measure or program, or in other words, savings that would not have
475 occurred in the absence of a program. To do so, evaluators may take into account three
476 categories of customers:

- 477 1) Customers who participated in a program because of an incentive being offered.
478 2) Customers who would have taken an action, such as purchasing a high efficiency
479 clothes washer, regardless of whether an incentive was offered. These customers
480 are referred to as “free riders.”
481 3) Customers who took an action such as purchasing a high efficiency clothes
482 washer as the result of an efficiency program, but without participating in the
483 program (i.e., receiving an incentive for that clothes washer). These customers
484 are referred to as “spillover.”

485 In employing a NTG approach, evaluators seek to count savings from the first class of
486 customers, who invested in an energy efficient upgrade specifically because of the
487 existence of an incentive program. Depending on the type of NTG approach employed,
488 evaluators may or may not subtract “free rider” customers from the savings calculation,
489 and they may or may not add “spillover” estimates to the savings calculation. The end
490 result is an estimate of how many therms or kilowatt hours are attributable to the
491 program, expressed as a NTG percentage.

492

493 **Q. Why do Companies claim to require an adjustable goal?**

494 A. They state that without an adjustable goal, the Companies could “achieve the exact
495 participation rates that are contained in their approved plan and still fail to achieve the
496 goal. That seems to be an unfair outcome.” NS-PGL Ex. 1.0 at 25. The Companies also
497 opine that because the Companies have a performance-based contract with their
498 implementation contractor, “it is impossible to administer a performance-based contract
499 if the goal criteria upon which the contractor is being measured changes.” *Id.*

500 **Q. Do you support their request to be able to change the goals any time there is a**
501 **change in TRM or NTG values.**

502 A. Absolutely not. Allowing the Company to change goals any time there is a change in the
503 NTG or TRM values for a measure or program is antithetical to the purpose of the
504 statutory Energy Efficiency Portfolio Standard (“EEPS”) goals, which call for utilities to
505 put forth efforts to annually increase the amount of energy efficiency achieved by
506 managing programs. The Companies are asking for the Commission to approve a policy
507 that would mean North Shore Gas and Peoples Gas need not make efforts to increase
508 savings or respond to changes in the market. Risk management is an inherent facet of
509 offering goal-centered energy efficiency programs. Risk management ensures that
510 programs funded with ratepayer money are spending that money to increase benefits and
511 impactful program offerings to ratepayers. NS-PGL should not operate under a scheme
512 where the Company does not face any risk for not meeting Commission approved goals.
513 The Commission should not grant the Company an unfettered ability to lower savings
514 goals. NS-PGL, and any entity offering goal-centered energy efficiency programs, must
515 always respond prudently to changes in the market, whether that change results from
516 federal efficiency standards, an informative EMV report, or a change in TRM values.

517

518 **Conclusion**

519 **Q. What are your recommendations related to this Plan filing?**

520 A. The Commission should require NS-PGL to file a revised plan that incorporates the
521 following changes:

- 522 • The Commission should order NS-PGL to set goals for customer sectors at the
523 same proportion as revenues received from those customer sectors;
- 524 • The Commission should order NS-PGL to offer air sealing measures in the
525 portfolio;
- 526 • The Commission should order NS-PGL to expand offerings for multifamily
527 customers; and
- 528 • The Commission should reject NS-PGL’s proposal for an adjustable savings goal.

529

530 **Q. Does this conclude your direct testimony?**

531 A. Yes.