

BEFORE THE
STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

In the Matter of

CASES 16-G-0058 and 16-G-0059

KEYSPAN GAS EAST CORPORATION (KEDLI)
and
THE BROOKLYN UNION GAS COMPANY (KEDNY)

Gas Rates

May 2016

Prepared Testimony on Behalf of

Spring Creek Towers

and

Consumer Power Advocates

by

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- 1 Q. Please state your name and business address
- 2 A. My name is John J. Dowling, and my business address is 535 Main Street,
- 3 Allenhurst, New Jersey 07711.

Testimony of John J. Dowling, P.E.

1

2 **Q. What is your educational background and experience?**

3 A. I received a Bachelor of Engineering degree in Mechanical Engineering
4 from Polytechnic University, then known as the Polytechnic Institute of
5 Brooklyn, in 1970. Upon graduation, I accepted employment with the New
6 York State Department of Public Service. My responsibilities have included
7 all engineering analyses for major rate cases, as well as review of operating
8 practices and construction programs. In 1999, I joined Luthin Associates, and
9 currently serve as Director of Regulatory Issues. I am a professional engineer,
10 registered in New York.

11

12 **Q. Have you previously testified before the New York State Public
13 Service Commission?**

14 A. Yes. I have presented testimony in a variety of proceedings before this
15 Commission, including Case 94-E-0994, Con Edison electric rates, as a
16 Department of Public Service employee. I have filed testimony for CPA in
17 Con Edison rate cases 03-G-0167, 03-S-0168, 04-E-0572, 05-S-1376, 06-G-
18 1332, 07-E-0523 and 08-E-0539, 09-E-0428, 09-G-0795, 09-S-0794, 13-E-
19 0030, 13-G-0031 and 13-S-0032.

20

21 **Q. On whose behalf do you offer this testimony?**

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1 A. I prepared this testimony on behalf of Spring Creek Towers, a large
2 federally supported residential development, and Consumer Power Advocates
3 (CPA), an organization whose members are leading academic and medical
4 institutions in New York City.

5

6 **Q. What is the purpose of this testimony?**

7 A. I will make recommendations concerning interruptible gas delivery service
8 rates generally and particularly as they apply to customers using gas to
9 generate electricity.

10

11 **INTERRUPTIBLE RATES**

12

13 **Q. What considerations must be taken into account in setting rates for**
14 **interruptible customers?**

15 A. All the same considerations that apply to firm customer rates apply to
16 interruptible rates. Interruptible rates must be just and reasonable, and the
17 Company must provide safe and adequate service. The impact of changes in
18 the terms, conditions and rates applied to interruptible must be reasonable, and
19 adverse impacts must be mitigated to the extent feasible. The interests of
20 interruptible customers must be considered, just as the interests of any other
21 customer or class of customer must be considered.

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1

2 **Q. How has the Commission interpreted just and reasonable?**

3 A. Historically, rates must be justified by the cost of providing service.

4 Regardless of the cost of service, extreme rate changes are judged

5 unreasonable. The interests of all customers, including interruptible

6 customers, must be balanced and all Commission actions must be consistent

7 with the public interest.

8

9 **Q. What are the public interest considerations here?**

10 A. The interests of interruptible customers are equally as much part of the

11 public interest as the interests of firm customers. Interruptible rates impact

12 the cost of providing many essential services, including medical and

13 educational services and other municipal services provided at taxpayer

14 expense. To the extent interruptible service replaces fuel oil use in boilers, it

15 contributes to improved air quality. Interruptible service utilizes unused

16 capacity on the transmission and distribution systems, and optimizes the value

17 of those facilities to the benefit of all ratepayers. All these considerations are

18 well known and beyond dispute.

19

20 **Q. Have you reviewed Commission Order 94-26?**

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1 A. Yes. That Order deals with pricing what the Commission defined as “non-
2 core services.” At the time, those services included both firm and
3 interruptible delivery rates. Since then, delivery and balancing services have
4 replaced bundled sales service as the dominant method of providing gas
5 service for large commercial, industrial and institutional customers.

6

7 **Q. How does Order 94-26 affect the determination of interruptible**
8 **delivery rates?**

9 A. The Order allows broad discretion to utilities to set interruptible rates. It
10 sets the otherwise applicable firm service as a ceiling and marginal cost as a
11 floor, but otherwise allows utilities set rates at a level that maximizes revenue.
12 It further requires that 80 percent of the revenue from interruptible rates be
13 used to reduce firm service bills.

14

15 **Q. How does one reconcile the broad discretion allowed KEDNY to**
16 **determine interruptible rates with the public interest considerations you**
17 **describe?**

18 A. Discretionary rates are appropriate only if the interests of interruptible
19 customers are otherwise protected from the use monopoly pricing power by
20 the utility. In the past, the customers’ ability to switch fuels was provided
21 adequate protection, and set a reasonable limit on the Company’s ability to

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1 increase interruptible rates. Moreover, it was thought that occasional short or
2 medium term decreases in fuel prices would cause the Company to suffer
3 unnecessary revenue loss if it were not able to promptly decrease prices to
4 match the market. Recently, changes in local law requiring the eventual
5 elimination of the cheapest alternative boiler fuels, No.4 and No.6 fuel oil, and
6 the current large disparity between the wholesale price of gas and oil have
7 exposed interruptible customers to unreasonable and unjust rates for
8 interruptible delivery services.

9

10 **Q. Why is the market unlikely to return to a robust competitive state?**

11 A. Boiler fuel use in New York City is heavily regulated, and recent concerns
12 about the health effects of particulate pollution have cause the City to limit the
13 use of No. 6 fuel oil, which was the primary competitive boiler fuel. Because
14 of this, more costly No.2 fuel oil must be the primary replacement fuel during
15 gas interruptions. We expect the increased concerns about SO₂ and NO_x
16 emissions to result in further restrictions on fuel oil use, and further expect the
17 City to require larger percentage of bio-fuels (currently 2 percent) to be
18 blended into No.2 fuel oil. Over the past decade, the combination of
19 horizontal drilling and hydraulic fracturing has provided access to large
20 volumes of oil and natural gas that were previously uneconomic to produce

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1 from low permeability geological formations. We expect this situation to
2 continue to suppress natural gas prices.

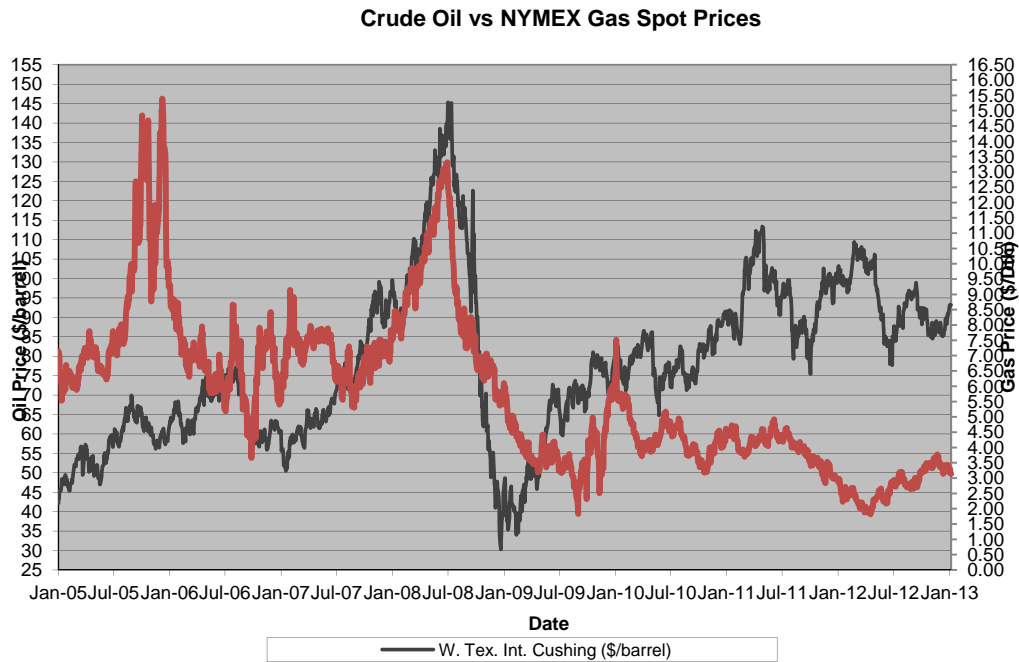
3 These are fundamental changes within the market.

4

5 **Q. Why do you expect these market conditions to continue?**

6 A. For one thing, the price disparity between fuel oil and natural gas has
7 increased to the point where fuel oil is no longer a viable alternative. Barring
8 a collapse in world oil prices, this disparity will likely persist for some time.

9 The following chart shows the historic relationship between natural gas and
10 oil prices:



11

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1 Before 2008, oil was priced competitively with natural gas and often cheaper.
2 In order to maintain interruptible revenue, the utilities needed to chase fuel oil
3 prices downward. Recently, oil has not been competitive with gas. Oil
4 remains nearly three times as costly as natural gas for use in boilers. I expect
5 that situation to persist. Additionally, new environmental regulations restrict
6 the opportunity to switch fuels for economic reasons.

7

8 **Q. What are the recent and expected changes in environmental rules**
9 **concerning boiler fuels?**

10 A. On July 20, 2010, the “Clean Heating Oil” rule lowered the sulfur content
11 in No.2 heating oil by 99 percent. Starting in July 2012, all No.2 heating oil in
12 New York State must contain no more than 15 parts per million (ppm) sulfur
13 or 0.0015 percent by weight, which was the federally required sulfur level of
14 all motor diesel fuel. This product, known as ultra low sulfur heating oil,
15 replaces traditional No.2 oil, which contained an allowable sulfur cap of 2,000
16 ppm in New York City. Since October 1, 2012, Local Law 43 has required
17 that all boilers regulated by the NYC Department of Environmental Protection
18 (DEP) that utilize heating oil (No.2, No.4 and No.6) contain at least 2 percent
19 biodiesel. The law also caps the sulfur content of No.4 heating oil in NYC at
20 1,500 parts per million (ppm) or 0.15 percent by weight. That is half the
21 former limit.

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1 The DEP issued rules eliminating No.6 heating oil completely by June 2015,
2 and by 2030, No. 4 oil boilers will have to be converted to meet the
3 requirements of low sulfur No.2 oil or natural gas.

4

5 **Q. How do these new rules affect the value of interruptible gas service?**

6 A. These more stringent requirements require significant capital expenditures
7 and increase the expense of the alternate fuels required for use during
8 interruption periods. Those cost increases directly reduce the value of
9 interruptible services.

10

11 **Q. Why does the limit equal to firm service rates no longer adequately
12 protect the interests of interruptible customers?**

13 A. In the past, it was expected that the same short term price volatility in the
14 fuel oil and natural gas markets that led the Commission to allow very low
15 interruptible rates would create occasional opportunities for utilities to charge
16 excessive delivery rates. Limiting interruptible rates to the otherwise
17 applicable firm service rate was thought to be an adequate protection from that
18 sort of short-term pricing. But what was intended as a consumer protection
19 has become the *de facto* justification for excessive rates. In current
20 circumstances, KEDNY is able to negotiate interruptible contracts at
21 essentially the full firm rate. Customer subject to that rate must maintain

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1 dual-fuel and interruption capability, without any benefit of lower rates or
2 guarantee of continuous service.

3

4 **Q. Absent a robust and competitive market for alternate boiler fuels,**
5 **what are the real alternatives to the use of interruptible fuel?**

6 A. Many customers may choose to convert to firm gas service. Those
7 customers will suffer stranded investment in dual-fuel equipments. They may
8 also experience losses due to liquidation of interruptible supply contracts. But
9 for other customers, there would be no alternative to paying those higher
10 prices. The real alternatives for those customers who cannot convert are
11 deferred maintenance, reduced capital expenditures and/or curtailed tenant
12 services. These are in fact the same unduly burdensome alternatives firm
13 customers face.

14

15 **Q. Are the otherwise applicable firm rates an appropriate limit for**
16 **interruptible gas rates?**

17 A. No. Interruptible service is intrinsically less valuable than firm service
18 because of the added costs of maintaining interruption capability. Interruptible
19 rates must be lower than firm rates to encourage customers to take on the
20 added burden of dual-fuel capability, and to avoid stranded investment by
21 customers in dual-fuel facilities.

1

2 **Q. What do you recommend?**

3 A. I recommend that the tariff be amended to include a new, lower limit on
4 interruptible delivery rates. In the absence of any relevant cost studies
5 prepared by KEDNY, I recommend that all interruptible rates be limited to the
6 delivery component of SC4 (A) High Load Factor Firm service. SC4 (A) is
7 the lowest firm rate that reflects the value that high load factor customers
8 provide to the system. Interruptible customers also add value by improving
9 the system load factor, and this it is appropriate to limit interruptible rates to
10 the SC4 (A) rates, regardless that the otherwise applicable firm rate may be
11 higher.

12

13 **DELIVERY RATES FOR GAS USED FOR POWER GENERATION**

14

15 **Q. Have you reviewed the gas delivery rates applicable to electric**
16 **generation use?**

17 A. Yes. I find these rates unduly discriminatory, and in the case of the rates
18 applied to distributed generators (DG), anti-competitive. Taken as a whole,
19 these rates present an obstacle to DG participation in the competitive electric
20 energy markets.

21

22 **Q. How does DG compete with large scale generators?**

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1 A. To the customer, the value of the DG is determined largely by the net
2 savings available by reducing electricity purchases, or by the net revenue
3 available by selling excess generation. Those net savings or net revenues are
4 the difference between the revenue from the sale of electrical energy and the
5 cost of the fuel used to produce that energy. If DGs experience higher fuel
6 costs, they will consequently receive less net revenue.

7

8 **Q. If DGs do not generally sell into the NYISO wholesale market, why is**
9 **it important that their gas delivery rates be the same as for wholesale**
10 **generators?**

11 A. First, NYISO is now considering tariff revisions which will allow direct
12 participation in the market by at least some DGs, and other DGs can
13 participate in the current Special Case Resource program as well. DG
14 customers may also sell energy under SC11 Buyback Service, which is priced
15 with reference to the NYISO day-ahead locational-based marginal price
16 (LBMP). But more importantly, one goal of REV is to allow the most
17 efficient generation to be dispatched at all times. While the industry has not
18 yet begun to dispatch large numbers of DGs, tariff rules must be written in a
19 way that ensures that the entire system, including DGs, is operated as
20 efficiently as control protocols allow. In the case of DGs, this may require
21 tariff rates that approximate expected market prices, rather full price

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1 formation by auction, as the NYISO administers for the wholesale market.
2 Whether DGs participate directly in wholesale electricity markets or operate
3 based on the expected value of those markets, they are disadvantaged by
4 higher gas delivery prices. That is anti-competitive and unduly
5 discriminatory.

6

7 **Q. How does NYISO determine which generators will run in any hour?**

8 A. The NYISO system dispatches generators based on marginal cost,
9 principally the variable fuel cost. All else equal, a generator that suffers higher
10 gas costs will be dispatched only after less costly generators are dispatched.
11 This is designed to insure that the least cost generation mix is dispatched at all
12 times. If generators all purchase fuel at the same price the least cost dispatch
13 is also the most thermally efficient one. Thus, the NYISO market is not only
14 economically efficient, it minimizes the environmental harm caused by fuel
15 use. But if some generators suffer higher gas costs that are not based on the
16 marginal cost of providing gas service, those generators may be forced out of
17 the dispatch by less efficient, but still cheaper generators. This is
18 economically inefficient and environmentally irresponsible in the short run,
19 and will prevent the optimal development of DG in the long run.

20

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1 **Q. Have you reviewed KEDNY's gas delivery rates as applied to electric**
2 **generation customers?**

3 A. Yes. DG customers are served under SC17, Baseload Distributed Generation
4 Service Transportation, and (Leaf 341). These are the relevant rates:

5 **Rate 2 – equal to or greater than 1MW but less than 5MW:**

6	First 10 therms or less per month	\$333.14
7	All over 10 therms per month (April - October)	\$ 0.094 per therm
8	All over 10 therms per month (November - March)	\$ 0.120 per therm
9		

10 **Rate 3 – equal to or greater than 5MW but less than 50MW:**

11		
12	First 10 therms or less per month	\$771.69
13	All over 10 therms per month (April - October)	\$ 0.023 per therm
14	All over 10 therms per month (November - March)	\$ 0.032 per therm
15		

16 The monthly demand charge is \$4,414.11 per MW of generating capacity.

17

18 Wholesale generators are served under SC 20, Non-Core Transportation
19 Service for Electric Generation (NCTEG). Those rates (as stated on Leaf
20 427.7) include only one cent per therm to recover marginal cost plus one cent
21 per therm as a contribution to system fixed cost, plus a “value added charge.”
22 These customers are also exempt from the Temporary State Surcharge, and
23 are required to provide only one percent of delivery volumes to account for
24 lost gas. The value added charge is five percent of the “spark spread”
25 computed hourly. Spark spread is a measure of the net revenue available in
26 the NYISO energy markets.

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1 Taken together, these rates are substantially less than the rates for DG of less
2 than 50MW. In addition, three generation customers have negotiated rate
3 agreements filed with the Commission. The firm delivery rates above are the
4 maximum allowable interruptible rate according to Commission policy.

5

6 **Q. What are the rates resulting from those agreements?**

7 A. Those rates are summarized on Addendum No.5. filed with the
8 Commission's Electronic Tariff System (ETS). Customers one and two use
9 enough gas that they must be wholesale generators, while customer three is
10 described as using gas for its own cogeneration use, from which I infer that it
11 is a DG. Again, the negotiated rates for the large customers are substantially
12 lower than for the DG customer. Customer two pays a simple commodity rate
13 stated as \$0.12 per dekatherm, which (according to the KEDNY's response to
14 CPA question 18) has been adjusted to \$0.1898 per dekatherm. Customer
15 three pays \$0.72 per dekatherm, more than three times as much. In fact,
16 customer one would pay a smaller amount for delivery service than customer
17 three, even if the larger customer were to use more than three times the
18 volume of the smaller customer.

19

20 **Q. Why is this discriminatory?**

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1 A. Regardless of the capacity of the machine, all generators produce the same
2 product, and/or services and must compete in the same deregulated market.
3 The higher gas delivery rates applicable to small generators have not been
4 justified by cost, but disadvantage them unnecessarily in the electricity
5 market. This will ultimately prevent the development of the most efficient
6 generator fleet. This is particularly troubling in the context of Reforming the
7 Energy Vision (REV), which is based largely on “microgrids,” or small
8 distribution networks capable of internal load balancing. While it is hoped that
9 these microgrids will provide a platform for the development of renewable
10 resources, efficient DG will still be required for the load balancing necessary
11 to operate those microgrids reliably.

12

13 **Q. Is it your opinion that DGs should enjoy the same delivery rates as**
14 **wholesale generators?**

15 A. Not necessarily, but the rates for DGs and wholesale generators should be
16 determined on consistent economic principles. This means that any
17 differences in rates should be justified by differences in marginal costs, and
18 DGs must not be required to contribute more to the fixed costs of the gas
19 utility than do wholesale generators. It does not mean that the rates, or the
20 rate form, must be identical. For example, the value added charge is a
21 complex computation that would not be appropriately applied to any customer

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1 who is not fully familiar with the operations and complex data transfer of the
2 NYISO markets. Nevertheless, nothing prevents creating a unitized rate that
3 recovers equivalent amounts.

4

5 **Q. What are the differences in marginal costs between serving a large
6 wholesale generator and a DG?**

7 A. In response to CPA question 20, the KEDNY confirmed that electric
8 generators were not represented in either the embedded cost of service study
9 (ECOSS), or its marginal cost of service study (MCOSS). In the absence of
10 that evidence, one must conclude that the difference is *de minimis*.

11

12 **Q. What other cost difference is included in the various rates?**

13 A. The Commission's order in case 98-G-0122 (issued March 17, 1999)
14 requires wholesale generators to provide only one percent of deliveries to
15 account for incremental losses. Any amount over this is thought to be a
16 contribution to recover the fixed cost of losses. DG customers are required to
17 supply the full average lost and unaccounted factor (LAUF), which is
18 currently 2.6 percent. DG customers should not be required to contribute
19 more to the fixed volume of lost gas than is required of wholesale generator
20 unless that difference can be attributed to differences in the marginal losses
21 for those customers. The application of the system average LAUF to DG

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1 deliveries adds more than one percent to cost of gas supply for electric
2 generation, relative to wholesale generators. At current commodity prices,
3 this is about five cents per dekatherm, or about half the fixed-cost contribution
4 required of wholesale generators.

5

6 **Q. Why do you include all DG of greater than 1MW capacity in your**
7 **recommendations?**

8 A. One megawatt is the lower limit for eligibility for temporary exemption
9 from electric standby rates. The Commission recently required that
10 exemption to eliminate a barrier to the development of DG. The undue
11 discriminatory and anti-competitive gas delivery rates applicable to those DG
12 create another barrier that must be eliminated.

13

14 **Q. Commission policy allows for negotiated delivery contracts in order to**
15 **prevent bypass of the gas utility. Did you consider the potential for such**
16 **bypass?**

17 A. I dismiss the possibility of bypass in New York City.

18

19 **Q. Why?**

20 A. Bypass of KEDNY by the customers currently served under negotiated
21 agreements would require construction of a lengthy high pressure pipeline in

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1 the City. That requires a public permitting and certification process that would
2 surely attract opposition from residents and property owners along any
3 proposed route. Recent experience in rural Upstate New York proves that the
4 successful completion of such a project is uncertain and difficult, if not
5 impossible.

6

7 **Q. What do you recommend?**

8 A. I recommend that delivery rates for all customers using gas in DG greater
9 than 1MW be decreased to equal the rates applied to wholesale generators. I
10 further recommend that the percentage of delivered gas retained to recover of
11 losses should be reduced to one percentage. Finally, all else equal, DG greater
12 than 1MW should be considered to be similarly situated to wholesale power
13 generators, and thus eligible for negotiated contracts for delivery service on
14 substantially similar terms.

15

16 **Q. Does this complete your prepared testimony in these cases?**

17 A. Yes.