

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

In the Matter of

Cases 16-E-0060 and 16-G-0061

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

Electric and Gas Rates

May 27, 2016

Prepared Testimony of

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Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

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.

4

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

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

14

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

17 A. Yes. I have presented testimony in a variety of proceedings before this
18 Commission, including Case 94-E-0994, Con Edison electric rates, as a
19 Department of Public Service employee. I have also filed testimony for CPA
20 in the following Con Edison rate cases:

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

- 1 • 03-G-0167
- 2 • 03-S-0168
- 3 • 04-E-0572
- 4 • 05-S-1376
- 5 • 06-G-1332
- 6 • 07-E-0523
- 7 • 08-E-0539
- 8 • 09-E-0428
- 9 • 09-G-0795
- 10 • 09-S-0794
- 11 • 13-E-0030
- 12 • 13-G-0031
- 13 • 13 –S-0032

14 Recently, I filed testimony in National Grid Gas Rate Cases 16-G-0058 and
15 16-G0059 on behalf of CPA.

16

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

18 **A.** I will discuss Con Edison’s (the Company’s) proposal to increase Off-peak
19 Firm service rates. I will explain that the gas delivery rates applicable to gas
20 used in distributed generators (DG) are uncompetitive and excessive, and will
21 recommend a reduction in those rates. I will also recommend revisions to the
22 Company’s electric standby rates, in order to support the Commission’s
23 Reforming the Energy Vision (REV) initiative. These revisions include a
24 reduction of the Contract Demand rate and a revision related to the optional

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1 exemption from standby rates. I will explain certain temporary difficulties
2 regarding compliance with the requirements for the reliability credit contained
3 in the standby rates, and suggest a solution. I will discuss the Company's
4 interpretation of its campus offset tariff, and propose a revision to that tariff.
5 Finally, I will comment on the Company's proposal to reduce the discounts
6 available under Rider J-Business Incentive Rates.

7

8 **OFF-PEAK FIRM DELIVERY RATES**

9

10 **Q. Have you examined the testimony of the Gas Rate Panel regarding**
11 **Off-peak Firm Service (Rate 2)?**

12 **A.** Yes. The Panel recommends an increase in the base delivery rate from 8
13 cents to 11.5 cents per therm. This is identical to the proposal of the
14 Company's Gas Non-firm Services Panel in case 13-G-0031. That proposal
15 was rejected by the signatory parties to the Joint Proposal in that case. It
16 should be rejected here.

17

18 **Q. Has the Company offered any new evidence to support this extreme**
19 **proposal?**

20 **A.** No.

21

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

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

3 **A.** As I testified in the last case, all the same considerations that apply to firm
4 customer rates apply to interruptible rates. Interruptible rates must be just and
5 reasonable, and the Company must provide safe and adequate service. The
6 impact of changes in the terms, conditions and rates applied to interruptible
7 must be reasonable, and adverse impacts must be mitigated to the extent
8 feasible. The interests of interruptible customers must be considered, just as
9 the interests of any other customer or class of customer must be considered.

10

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

12 **A.** As I testified in the last case, historically, rates must be justified by the cost
13 of providing service. Regardless of the cost of service, extreme rate changes
14 are judged unreasonable. The interests of all customers, including
15 interruptible customers, must be balanced and all Commission actions must be
16 consistent with the public interest.

17

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

19 **A.** The interests of interruptible customers are equally as much part of the
20 public interest as the interests of firm customers. Interruptible rates impact
21 the cost of providing many essential services, including medical and

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1 educational services and other municipal services provided at taxpayer
2 expense. To the extent interruptible service replaces fuel oil use in boilers, it
3 contributes to improved air quality. Interruptible service utilizes unused
4 capacity on the transmission and distribution systems, and optimizes the value
5 of those facilities for the benefit of all ratepayers. All these considerations are
6 well known and beyond dispute.

7
8 In the case of gas used for distributed generators (DG), there is an additional
9 concern that excessive gas delivery rates are uncompetitive, and will thwart
10 the full development of efficient DG technologies. This is a particular
11 concern because DG will be essential for the operation of microgrids, and are
12 an essential element of the Commission's Reforming the Energy Vision
13 (REV) initiative.

14

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

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

21

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1 **Q. How does one reconcile the broad discretion allowed utilities to**
2 **determine interruptible rates with the public interest considerations you**
3 **describe?**

4 **A.** Discretionary rates are appropriate only if the interests of interruptible
5 customers are otherwise protected from monopoly pricing power. In the past,
6 the customers' ability to switch fuels was provided adequate protection, and
7 set a reasonable limit on the Company's ability to increase interruptible rates.
8 Moreover, it was thought that occasional short or medium term decreases in
9 fuel prices would cause the Company to suffer unnecessary revenue loss if it
10 were not able to promptly decrease prices to match the market. Recently,
11 changes in local law requiring the eventual elimination of the cheapest
12 alternative boiler fuels, No.4 and No.6 fuel oil, and the current large disparity
13 between the wholesale price of gas and oil have exposed interruptible
14 customers to unreasonable and unjust increases in interruptible delivery
15 services.

16

17 **Q. How are the proposals of the Gas Rates Panel unjust and**
18 **unreasonable?**

19 **A.** The extreme increase proposed by the Company is arbitrary, without
20 justification by the Company's cost of providing interruptible service, result in
21 unacceptable bill impacts, ignore the interruptible customers' costs of

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1 maintaining interruption capability, are contrary to economic theory and
2 Commission policy, may potentially undermine vital community services
3 and/or serve otherwise to undermine other public policy goals.

4

5 **Q. Are these extreme increases supported by the cost of providing**
6 **interruptible services?**

7 **A.** No. In fact, the Company has not performed either fully allocated or
8 marginal cost studies of interruptible sales.

9

10 **Q. Have you reviewed Con Edison's estimates of the cost incurred by**
11 **interruptible customers to maintain the capability to burn alternate**
12 **fuels?**

13 **A.** Yes. The Company refers to a survey of interruptible customers. In
14 contradiction of the Company's interpretation of the survey results, CPA
15 Witness Monez testifies that there are significant capital and operating and
16 maintenance costs required to build and maintain dual-fuel capability. This is
17 important because customer borne costs decrease the value of interruptible
18 service relative to firm service, and are a principal consideration regarding
19 decisions to retain interruptible service or convert to firm service.

20

21 **Q. What is the basis of the Company's extreme proposal?**

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1 **A.** The Gas Rate Panel refers to Commission Opinion 94-26 in case 93-G-
2 0932, (issued December 20, 1994) as the controlling policy. While this
3 opinion allows utilities broad discretion to set interruptible rates, that
4 dispensation is based on the assumption that a robust boiler fuel market will
5 adequately protect the legitimate interests of interruptible customers.
6 Moreover, the discussion in the opinion shows that the Commission was
7 concerned that the boiler fuel market would not support high interruptible
8 rates, and that utilities required the discretion to reduce rates to very low
9 levels in order to maximize revenue. Those market conditions no longer exist,
10 and are unlikely to return.

11

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

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

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

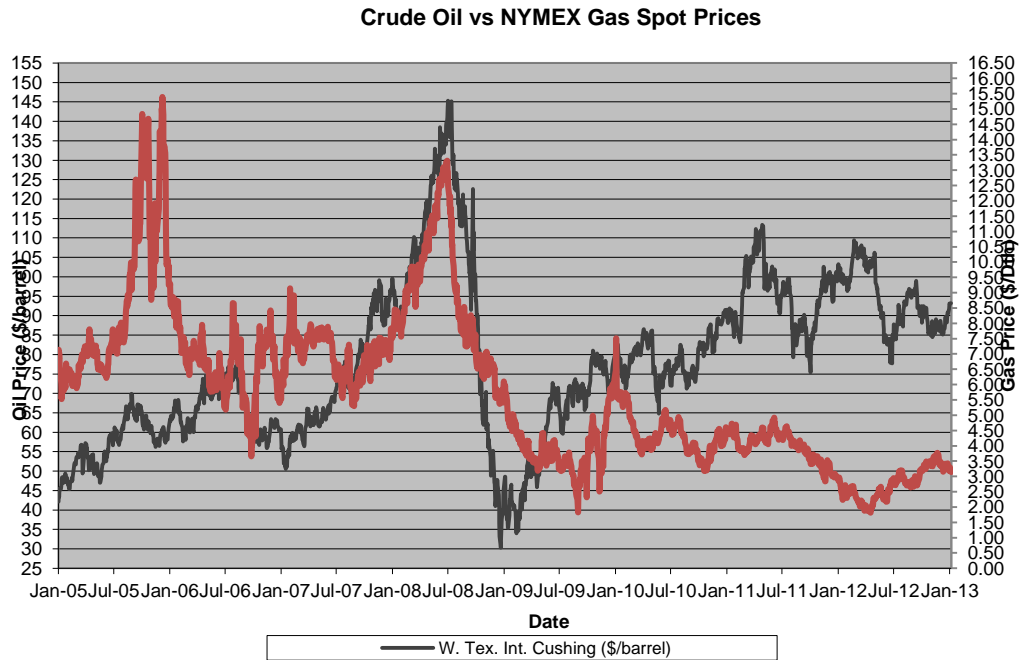
1 volumes of oil and natural gas that were previously uneconomic to produce
2 from low permeability geological formations. We expect this situation to
3 continue to suppress natural gas prices. These are fundamental changes
4 within the market.

5

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

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

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



12

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

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.

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

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. How do customers value interruptible service?**

12 **A.** Customers value interruptible service according to the cost savings that can
13 be achieved relative to alternatives. In the current boiler fuel market, firm gas
14 delivery service is the only realistic alternative for large boilers in New York
15 City. Any change increases the cost of interruptions or maintaining the
16 capability to interrupt reduces the value of interruptible service.

17

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

20 **A.** In the past, it was expected that the same short term price volatility in the
21 fuel oil and natural gas markets that led the Commission to allow very low

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1 interruptible rates would create occasional opportunities for utilities to charge
2 excessive delivery rates. Limiting interruptible rates to the otherwise
3 applicable firm service rate was thought to be an adequate protection from that
4 sort of short-term pricing. Customers subject to those rates must maintain
5 dual-fuel and interruption capability, without any benefit of lower rates or
6 guarantee of continuous service.

7

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

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

18

19 **Q. What are the costs of maintaining dual-fuel capability?**

20 **A.** Those costs are the subject of the testimony of CPA Witness Monez.

21

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1 **Q. What are the savings resulting from interruptible service for a typical**
2 **customer?**

3 **A.** Our analysis for one CPA member shows that a typical interruptible boiler
4 fuel user with a total annual requirement of 15 million therms (equivalent
5 volume of all fuels) might pay \$8,916,000 in combined charges for
6 interruptible gas and replacement oil in a typical year, but would pay
7 \$10,618,000 for the same volume of firm gas service. In an extreme year, with
8 more days of interruption, that customer would pay \$1,153,000 annually for
9 the same equivalent volume, a savings of only 12 percent compared to firm
10 service.

11

12 **Q. Does this analysis indicate that customers receive sufficient value to**
13 **remain on interruptible service?**

14 **A.** No. As testified by CPA Witness Monez, the capital expenditures,
15 replacement fuel costs and other operating and maintenance costs, including
16 administrative costs and safety and environmental compliance, considerably
17 reduce the value of interruptible service.

18

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

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1 **A.** No. Interruptible service is intrinsically less valuable than firm service
2 because of the added costs of maintaining interruption capability. Interruptible
3 rates must be lower, and sometimes much lower, than firm rates to encourage
4 customers to take on the added burden of dual-fuel capability, and to avoid
5 stranded investment by customers in dual-fuel facilities. The Department of
6 Public Service Staff Policy Panel in Case 16-G-0059 (KEDNY gas rates)
7 recognized this when they proposed to limit KEDNY interruptible delivery
8 rates to 70 percent of the otherwise applicable firm rate.

9

10 **Q. Is that appropriate in this case?**

11 **A.** No. SC12 Rate 2 is currently much less than the “otherwise appropriate”
12 firm rate, but that does not mean Rate 2 customers should be subject to an
13 extreme increase here. For one thing, these customers have made large
14 investments over the years based on the expectation of the large differential
15 between firm service and Rate 2. As well, unlike KEDNY, the Con Edison
16 tariff does not include a rate specifically designed to meet the needs of large
17 boiler fuel customers, such as KEDNY’s SC 17, CTS-2 - Firm General
18 Service Transportation (Leaf 340), which provides for firm delivery rates
19 much less than the Con Edison rate. The Staff proposal in KEDNY provides
20 meaningful protection to KEDNY customers, but it would not provide similar
21 protection for Con Edison’s customers.

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1

2 **Q. If a limit similar to the Staff proposal in KEDNY is accepted, what**
3 **other measures must be taken?**

4 **A.** Before Con Edison is allowed to increase interruptible delivery rates to 70
5 percent of the otherwise applicable firm rates, the Commission should re-
6 examine rate design and revenue allocation determine whether large firm
7 service boiler fuel users are suffering unjust, unreasonable or otherwise
8 excessive rates. The current high rates applicable to that service must not be
9 used to justify excessive rates to interruptible customers.

10

11 **Q. Have you reviewed Con Edison's estimates of the cost incurred by**
12 **interruptible customers to maintain the capability to burn alternate**
13 **fuels?**

14 **A.** Yes. In response to CPA question 20, the Company referred to a survey
15 conducted as part of the *Gas Interruptible Study* filed May 1, 2015. I am not
16 familiar with specific survey methodology used by the Company, but I can
17 say that it does not accurately reflect the costs borne by Mount Sinai as
18 testified by CPA Witness Monez, or the costs described by CPA Witness
19 Mellusi in case 13-G-0031. The Company offered no other reports or studies
20 regarding actual costs incurred at facilities in New York City.

21

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1 **Q. What do you propose for Rate 2?**

2 **A.** I propose to retain the current base rate of 8 cents per therm, and the
3 current one cent per therm discount for monthly usage in excess of 500,000
4 therms per month. I further propose to retain multiple year contracts, and to
5 restore the one-half cent per therm discount for two year contracts, and the
6 one cent per therm discount for three year contracts. If this case results in a
7 multi-year rate plan, I propose to extend those rates for the term of the rate
8 plan.

9

10 **Q. What is the minimum charge included in Rate 2?**

11 **A.** Rate 2 currently includes a Monthly Minimum Charge equal to the revenue
12 from one-half the annual maximum annual quantity.

13

14 **Q. What change do you propose for Rate 2 minimum charge?**

15 I propose to forgive the Monthly Minimum Charge on any day during which
16 an interruption occurs. In the current market environment, economic fuel
17 switching is not a real option for customers, and thus the revenue security
18 provided by the minimum charge is unnecessary. Moreover, the minimum
19 charge is not forgiven for days in which service is interrupted. It s entirely
20 possible that a Rate 2 customer could be required to pay one-half of a normal
21 delivery bill for a month in which no delivery service was provided because of

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1 interruptions. This provides revenue security to Con Edison, without unduly
2 burdening customers.

3

4 **GAS DELIVERY RATES FOR ELECTRIC GENERATION**

5

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

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

12

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

14 **A.** To the customer, the value of the DG is determined largely by the net
15 savings available by reducing electricity purchases, or by the net revenue
16 available by selling excess generation. Those net savings or net revenues are
17 the difference between the revenue from the sale of electrical energy and the
18 cost of the fuel used to produce that energy. If DGs experience higher fuel
19 costs, they will consequently receive less net revenue.

20

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

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

4 **A.** First, NYISO is now considering tariff revisions which will allow direct
5 participation in the market by at least some DGs, and other DGs can
6 participate in the current Special Case Resource program as well. DG
7 customers may also sell energy under SC11 Buyback Service, which is priced
8 with reference to the NYISO Day-Ahead Locational-Based Marginal Price
9 (LBMP). More importantly, one goal of REV is to allow the most efficient
10 generation to be dispatched at all times. While the industry has not yet begun
11 to dispatch large numbers of DGs, tariff rules must be written in a way that
12 ensures that the entire system, including DGs, is operated as efficiently as
13 control protocols allow. In the case of DGs, this may require tariff rates that
14 approximate expected market prices, rather than full price formation by
15 auction, as the NYISO administers for the wholesale market. Whether DGs
16 participate directly in wholesale electricity markets or operate based on the
17 expected value of those markets, they are disadvantaged by higher gas
18 delivery prices. That is anti-competitive and unduly discriminatory.

19

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

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

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

13

14 **Q. How do they undermine Commission policy goals?**

15 A. The Commission has instituted a number of proceedings in order to
16 implement under its Reforming the Energy Vision (REV) initiative. The
17 centerpiece of REV is the development of distributed energy resources
18 (DERs) and microgrids that can operate in an islanded mode, isolated from the
19 larger distribution system. While it is expected that these microgrids will
20 support the development of renewable resources, islanded operation will
21 require the load balancing capability of distributed generators (DG) or other

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1 controllable resources. By applying excessive gas delivery rates, Con Edison
2 is limiting DG development and directly undermining REV.

3

4 **How so?**

5 **A.** Con Edison provides delivery service to several large generators which
6 participate in the NYISO wholesale markets and to numerous distributed
7 generators (DGs) located throughout the system. The rates available to
8 wholesale generators are determined under the Commission policy expressed
9 in order in case 98-G-0122, issued March 17, 1999. That order allows
10 negotiated rates for generators of greater than 50 MW capacity. Smaller
11 generators eligible for SC2, Rider H are served under SC9 A (9) (Leaf 271)
12 rates. These rates are substantially higher. A DG of less than 5 MW will pay a
13 base rate of 20.43 cents per therm in the summer and 25.53 cents per therm in
14 the winter. A DG of greater than 5 MW will pay base rate of 4.07 cents per
15 therm in the summer and 5.11 cents per therm in the winter, plus a monthly
16 demand charge of \$35.29. Alternately, DG customers can take Off-peak Firm
17 Service. That rate is currently 8 cents, but the Company has proposed to
18 increase that to 11.5 cents per therm in this case.

19

20 The base rates for large generators include a “system cost component” of 1
21 cent per therm, a “marginal cost component” of 0.92 cents per therm and a

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1 “Value Added Charge.” The Value Added Charge is equal to 5% of the net
2 revenue available to a wholesale generator in the NYISO market, calculated
3 on an hourly basis. Wholesale generators are also able to negotiate rates for
4 gas delivery, and some have done so.

5

6 **Q. What is the effect of the Value Added Charge?**

7 **A.** According to the Company’s response to CPA question 5.2, no customers
8 are subject to the Value Added Charge.

9

10 **Q. Have you reviewed the Addendum 19 to the Company’s gas tariff?**

11 **A.** Yes. Addendum 19 includes summaries of eight individually negotiated
12 contracts. Excluding the two firm service contracts, these contracts all include
13 commodity rates of less than 5 cents per dekatherm, although they also
14 include substantial demand charges.

15

16 **What are the net effective rates under these contracts?**

17 The quantities and revenues are shown on Exh, JJD-1. The effective rates
18 resulting under those contracts vary greatly, but the weighted average unitized
19 price is about 20 cents per dekatherm, including balancing and all applicable
20 surcharges and taxes. Excluding one very high price contract results in an
21 effective weighted average of 18.4 cents per dekatherm. The current Off-peak

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1 Firm Rate 2 base rate is 80 cents per dekatherm, excluding balancing,
2 surcharges and taxes.

3

4 **Q. Do you have an opinion about the two contracts that appear to be**
5 **more costly than the Off-peak Firm Rate 2?**

6 A. Contract 1 includes a large fixed demand charge, but the variable delivery
7 charge is only 2 cents per dekatherm, plus an additional 5 cents per dekatherm
8 when the Hunts Pont compressor station operates. At the full annual quantity,
9 the unitized rate would be about 13 cents per dekatherm, exclusive of
10 additional charges, still less than the current Off-peak Firm Rate 2 base rate of
11 80 cents. Contract number 7 requires a base delivery rate of 35.8 cents per
12 dekatherm, less than half the comparable Off-peak Firm Rate 2 of 80 cents per
13 dekatherm.

14

15 **Q. Why are these delivery rates as, applied to DGs, discriminatory?**

16 A. Regardless of the capacity of the machine, all generators produce the same
17 product, and must compete in the same deregulated markets. The higher gas
18 delivery rates applicable to small generators disadvantage them in this market,
19 and ultimately will prevent the development of the most efficient generator
20 fleet. This is particularly troubling in the context of Reforming the Energy
21 Vision (REV), which is based largely on “microgrids,” or small distribution

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1 networks capable of internal load balancing. While it is hoped that these
2 microgrids will provide a platform for the development of renewable
3 resources, efficient DG will still be required for the load balancing necessary
4 to operate those microgrids reliably.

5

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

7 **A.** As a result of case 13-G-0031, the Company retains 0.75 percent of the gas
8 delivered at the City gate for large generators, but it applies the average loss
9 factor (LAUF) for DGs, which is currently 2.063 percent or a difference of
10 1.313 percent. At current commodity prices, that is about five cents per
11 dekatherm. DG customers should not be required to contribute more to the
12 fixed volume of lost gas than is required of wholesale generators. Opinion 04-
13 26 requires wholesale generators to provide a maximum of one percent of
14 deliveries to account for incremental losses. That should be the maximum
15 required of DG customers, unless it can be shown that marginal losses are
16 greater than one percent.

17

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

20 **A.** One megawatt is the lower limit for eligibility for temporary exemption
21 from electric standby rates. The Commission recently required that

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1 exemption to eliminate a barrier to the development of DG. The undue
2 discriminatory and anti-competitive gas delivery rates applicable to those DG
3 create another barrier that must be eliminated.

4

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

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

9

10 **Q. Why?**

11 **A.** Bypass of Con Edison by the customers currently served under negotiated
12 agreements would require construction of a lengthy high pressure pipeline in
13 the City. That requires a public permitting and certification process that would
14 surely attract opposition from residents and property owners along any
15 proposed route. Recent experience in rural Upstate New York proves that the
16 successful completion of such a project is uncertain and difficult, if not
17 impossible.

18

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

20 **A.** I recommend that delivery rates for all customers using gas in DG greater
21 than 1MW be decreased to equal the rates applied to wholesale generators. I

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1 further recommend that the percentage of delivered gas retained to recover of
2 losses should be reduced to one percent. Finally, all else equal, DG greater
3 than 1MW should be considered to be similarly situated to wholesale power
4 generators, and thus eligible for negotiated contracts for delivery service on
5 substantially similar terms.

6

7 **STANDBY RATES –CONTRACT DEMAND**

8

9 **Q. What other steps must be taken to insure that standby rates do not**
10 **remain a barrier to achieving REV goals?**

11 **A.** Standby rates were originally determined by a negotiated cost allocation
12 matrix. That cost allocation was based on the principal that customers taking
13 standby service should, as a class, contribute an equivalent amount of net
14 revenue as the otherwise applicable standard rates. To my knowledge, there
15 have been no studies to determine whether standby rates have actually
16 achieved (or over-achieved) that standards of revenue neutrality. Moreover,
17 no consideration was given to the possibility of diversity or non-coincidence
18 of peak loads at the distribution level. With the new emphasis on distributed
19 energy resources (DER) and microgrids, which are intended to exploit
20 numerous diverse types of resources with individual networks, the assumption
21 that standby rates must be based on coincident load should be re-examined.

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1

2 **Q. If standby rates are reduced, how will the Company recover sufficient**
3 **revenue to provide reliable service?**

4 **A.** Revenue losses are automatically recovered through the Revenue
5 Decoupling Mechanism. The Company suffers no revenue loss, although
6 standard service ratepayers receive insignificantly higher bills. If there is a
7 public policy preference for DG and other DER, it is appropriate to re-allocate
8 some of the cost of standby service to the other ratepayers.

9

10 **Q. Why?**

11 **A.** The cost of providing standby service is the cost of the risk of failure of the
12 DER. If there were no risk of DER failure, there would be no cost of standby
13 service. As currently structured, standby rates put all of the risk on the DERs.
14 It is unrealistic to expect DER developers to take all of the risk associated
15 with these developing technologies. Some of this risk should be re-allocated to
16 all ratepayers.

17

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

19 **A.** Until the completion of a cost study or other determination that standby
20 rates are actually revenue neutral, I recommend that the Commission require
21 that the Contract Demand rates be reduced to one-half its current value. This

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1 reduction will appropriately re-allocate some of the risk of DER development
2 to the general body of ratepayers, and reduce the possibility that standby rates
3 are unnecessarily excessive.

4

5 **STANDBY RATES-OPTIONAL TEMPORAY EXEMPTION**

6

7 **Q. Have you examined Con Edison's electric standby service rates?**

8 **A.** Yes. Standby service continues to be a barrier to the implementation of
9 distributed generation (DG) and other distributed energy resources (DER).
10 The recent implementation of a credit for reliable generator performance was
11 an important improvement, but developers continue to avoid standby, and
12 chose standard service rates, in most cases. The Commission recognized this
13 situation when it extended an optional exemption for standby service to new
14 combined heat and power (CHP) projects.

15

16 **Q. What was the intent of this exemption from standby rates?**

17 **A.** The Commission's intent was to remove the barrier set by standby rates, to
18 allow time to consider further changes.

19

20 **Q. What further changes are appropriate?**

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1 **A.** The Commission should consider rates that include explicit reductions for
2 the environmental and resiliency value provided by DERs. In the current
3 determination of standby rates, the entire risk of the project is placed on the
4 customer or developer, but the non-monetized system benefits are not
5 available to offset the cost of those risks. The value of those benefits can and
6 should be estimated, and applied as reductions to standby rates. This rate
7 reduction is necessary to allow customers to recover their investment in the
8 DER projects that will generate those benefits.

9

10 **Q. Is it not a better solution to allow the market to price this value by**
11 **including environmental damage cost in the energy markets?**

12 **A.** That would be a perfect solution for pricing environmental benefits, but
13 those markets have not yet developed, and the current standby rates prevent
14 the development of the diverse resource base necessary for those markets to
15 operate efficiently. Moreover, it is unlikely that all the system benefits
16 provided by DERs could be priced in any market system. For example, it is
17 not clear how a market in “resiliency” could be organized.

18

19 **Q. Has this approach been tried before?**

20 **A.** Elements of this approach have been applied to roof-top solar
21 development, with great results. Net-metering provides guaranteed bill

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1 savings and allows relatively risk-free financing. As a result, the growth in
2 total solar capacity has been spectacular. This growth of net-metered solar
3 power may cause problems in the future, but those problems will not include a
4 lack of available solar resources.

5

6 **Q. Does this not impose costs on Con Edison ratepayers?**

7 **A.** It does, but as long as there is a public policy preference for DERs, and as
8 long as the expected benefits of a fully developed DER based “utility of the
9 future” are greater than those costs, it is entirely appropriate for ratepayers to
10 bear some of those costs to alleviate the risks faced by DER developers. In
11 fact, this is exactly the reasoning behind the recent Contract Demand
12 reliability credit.

13

14 **Q. What is the optional exemption from standby rates?**

15 **A.** In an order dated April 20, 2015 in case 14-E-0488, the Commission
16 required all electric utilities to file tariffs allowing a one-time option for an
17 exemption from standby rates for four years for all combined heat and power
18 (CHP) facilities of more than 1MW and less than 15MW. In doing so, the
19 Commission recognized that 94% of eligible customers chose the standby rate
20 exemption, and further stated (p.10):

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on Behalf of Consumer Power Advocates (CPA)

1 *The additional 15 MW exemption removes this incentive to install an*
2 *undersized project solely for the reason of retaining standard rates.*

3

4 **Q. Has the optional exemption been applied appropriately by Con**
5 **Edison?**

6 **A.** I do not believe so. SC9, Rate 2 is the otherwise applicable rate for most
7 DG development in large buildings. This rate includes a Monthly Minimum
8 Charge defined in General Rule 10.10(b) as:

9 *The Minimum Monthly Charge is equal to the product of the*
10 *Customer's Contract Demand and 40 percent of the Demand Delivery*
11 *Charges per kW applicable to such Customer under the Customer's*
12 *applicable rate.*

13

14 The term *Contract Demand* as applies to the SC9 standard rate is defined in
15 the description of the Monthly Minimum Charge (Leaf 454):

16 *The Contract Demand under Rate I, II, and III is determined each*
17 *month and is equal to the Customer's highest registered demand in the*
18 *most recent 18 months,*

19

20 The tariff allows the minimum charge to be reduced in the case of a customer
21 who experiences a permanent load reduction. In the case of a customer opting

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1 for exemption from standby rates, Con Edison continues to apply the full
2 Monthly Minimum Charge to that account.

3

4 **Q. Why is that a problem?**

5 **A.** Our concern is that the standard monthly demand rate is more than double
6 the standby Contract Demand rate. In many cases, particularly in the case of a
7 DG sized to serve the greatest part of the building load, the minimum charge
8 may cause the standard rate to cost as much or more than the standby rates.
9 The problem is compounded by the fact that the monthly minimum is an
10 unavoidable charge, while the reliability credit effectively allows the customer
11 to earn relief from the standby Contract Demand Charge. I do not believe that
12 this was the result the Commission intended when it required the optional
13 exemption for standby rates.

14

15 **Q. How long does the Monthly Minimum Charge persist?**

16 **A.** The minimum charge is based on the highest demand in the previous 18
17 months. The standby rates exemption is limited to 48 months, so a substantial
18 portion of the value of the exemption may be lost due to the Monthly
19 Minimum Charge.

20

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1 **Q. If the customer has a choice to take the least costly service for his own**
2 **needs, why does a problem remain?**

3 **A.** A new problem arises if developers must limit the size of their DGs based
4 solely on rate considerations, rather than the economic value of the project.
5 With the Company's current interpretation of the tariff, developers who seek
6 to supply all or most of a building load receive no benefit from the standby
7 exemption, and may instead limit their projects to a smaller than optimum
8 DGs. This is exactly the result the Commission explicitly addressed in its
9 order. Thus, Con Edison's interpretation of its tariff and of the optional
10 standby rate exemption has become a barrier to the full development of
11 appropriately sized DERs.

12

13 **Q. What do you propose?**

14 **A.** General Rule 10.10.e provides for the Monthly Minimum Charge to be
15 reduced in the case of a permanent load reduction. The tariff should be
16 amended to clarify that the installation of a DG is a load reduction that
17 requires the monthly minimum to be reset.

18

19 **Q. What other change do you propose?**

20 **A.** With regard to the Monthly Minimum Charge included in standard service
21 rates, the tariff uses the term "Contract Demand" to refer to the highest

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1 recorded usage in the previous 18 months. The same term is used when
2 referring to standby rates tariff to refer to the highest expected load at any
3 time. This use of the same term to refer to different concepts creates
4 confusion and should be clarified in the compliance filing in this case.

5

6 **CAMPUS OFFSET TARIFF**

7

8 **Q. Have you examined the Company's pending tariff provisions allowing**
9 **the use of a DG by multiple customers included in General Rule 20?**

10 **A.** Yes. The current tariff allows a DG connected to the Con Edison high
11 tension system to supply power back to multiple high and low tension
12 accounts, but the accounts must be maintained by a single customer and be
13 used in a single "premises." The pending revisions allow the DG to supply
14 accounts owned by different customers as long as all the customers are served
15 by the same ESCO for standby supply, and adds a limitation that all the
16 accounts must be in a single building. The single building provision is more
17 restrictive than the "premises" provision, which was not changed for multiple
18 accounts maintained by a single customer.

19

20 **Q. How is a premises currently defined?**

21 **A.** General Rule 20.2.1.B.8.a.3 defines a single premises as:

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on Behalf of Consumer Power Advocates (CPA)

1 *”...a parcel of land; or more than one building and/or parcel of land*
2 *proximate to each other if there is common use, whether or not such*
3 *buildings or parcels are separated by public or private roads.”*

4

5 That rule goes on to add:

6 *The accounts of a Customer whose buildings or parcels of land are not*
7 *physically interconnected may meet the definition of a single*
8 *“premises” upon the Customer’s demonstration of common use to the*
9 *Company”.*

10

11 This allows campus buildings that may be separated by streets, and thus not
12 electrically connected, to meet all or some of their energy requirements by
13 offset service and the use of a single campus DG.

14

15 **Q. How has the Company interpreted term “common use”?**

16 **A.** Con Edison has provided an interpretation of the offset provision of
17 General Rule 20 Standby Service which we believe is counter to the tariff
18 language. One of our members, a hospital, that has facilities on two city
19 blocks which are across the street from each other. They are planning a CHP
20 project and wanted to take advantage of the offset provision. We reviewed the
21 tariff and it clearly indicates that facilities across the street from each other

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1 could qualify for the offset tariff. As shown below (General Rule 20. 2.1.
2 B.8.a.3), the offset provision requires that the generating and Standby
3 accounts be on a single premises. It defines a premises as, "... more than one
4 building and/or parcel of land proximate to each other if there is common use,
5 whether or not such buildings or parcels are separated by public or private
6 roads." The entire section is below:

7
8 *General Rule 20. 2.1.B.8.a.3 - The generating facility and the Standby*
9 *Service accounts must all be located within a single "premises,"*
10 *defined, for purposes of General Rule 20.2.1(B)(8) only, as "a parcel*
11 *of land; or more than one building and/or parcel of land proximate to*
12 *each other if there is common use, whether or not such buildings or*
13 *parcels are separated by public or private roads." At least one of the*
14 *Standby Service accounts must be connected to the Company's low*
15 *tension distribution system. The accounts of a Customer whose*
16 *buildings or parcels of land are not physically interconnected may*
17 *meet the definition of a single "premises" upon the Customer's*
18 *demonstration of common use to the Company.*

19
20 Con Edison has interpreted this to mean that having the same ownership
21 across a street is not sufficient, and that a common heating/cooling loop or

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1 common electrical distribution is required. These are physical connections
2 among the buildings.

3

4 **Q. Is the Company's interpretation correct?**

5 **A.** No. The Company's interpretation contradicts the plain language of the
6 tariff, which specifically states that buildings which are not physically
7 connected qualify. In the case of campus buildings separated by streets, that
8 interpretation would require electrical, steam or water connections in the
9 separating streets. The Company's interpretation essentially eliminates all
10 campuses that are separated by streets. That cannot be a correct interpretation
11 when the tariff is clearly intended to include campuses with separating streets.
12 The tariff requires only "common use," and does not specify any required
13 facilities. In fact, the tariff explicitly states that "...*buildings or parcels of*
14 *land [that] are not physically interconnected may meet the definition of a*
15 *single "premises..."* .

16

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

18 **A.** I recommend that the Commission determine that the term *common use*
19 does not imply a physical connection among campus buildings.

20

21

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1 **MULTI-PARTY OFFSET TARIFF**

2

3 **Q. What other concern do you have regarding the offset tariff?**

4 **A.** In its pending amendments to allow multiple customers to receive offset
5 service, the Company added a new provision, General Rule
6 20.2.1(B)(8)(a)(3)(b) which states: “*Under Multi-party Offset, “premises”*
7 *means “a single building.”* CPA objects to the single building limitation,
8 because in some cases campuses include leased space in which the owner
9 prefers that the lessee maintains the utility accounts, or because a single
10 institution may be organized as multiple corporations. For example, a hospital
11 campus may include a medical school and independently owned businesses in
12 leased spaces, such as gift shops or cafeterias. These leased spaces may be in
13 any building within a campus, including buildings separated by streets. The
14 proposed tariff would not allow the use of a campus DG to serve leased spaces
15 if a single campus owner does not maintain all the accounts.

16

17 **Q. Has the Company offered an explanation for the new requirement**
18 **restricting multi-party DG use to a single building, or to a single ESCO?**

19 **A.** No.

20

21 **Q. What do you propose?**

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1 **A.** I propose that the pending tariff filing be revised to remove General Rule
2 20.2.1(B)(8)(a)(3)(b), the new requirement limiting multi-party use of a DG to
3 a single building or single ESCO.

4

5 **Q. Why are these recommendations important?**

6 **A.** These are important because DGs are one of the distributed energy
7 resources (DERs) necessary to support the microgrids that are one of the
8 essential features of Reforming the Energy Vision (REV). Without DG or
9 other controllable resources, it will be impossible to balance load and with
10 intermittent renewable supply on any proposed microgrid, and the value of a
11 microgrid will be severely constrained if it is limited to a single customer, and
12 even more constrained if it is limited to a single building. We expect large
13 campuses served by DGs, such as those operated by CPA members, to be
14 among the first and best microgrid opportunities. By restricting these
15 opportunities, Con Edison is directly undermining REV.

16

17 **MIXED USE OF LOW TENSION SERVICE**

18

19 **Q. What other barriers to the development of DER and other new**
20 **technologies are you concerned about?**

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1 **A.** We are concerned that the electric tariff unnecessarily restricts the use of a
2 single low tension service in mixed residential and commercial use buildings.
3 Special Provision A (7) of the SC9 tariff allows distribution of electricity to
4 residential tenants where, "...the residential tenants occupy space which does
5 not exceed 10 percent of the total square foot area supplied under this Service
6 Classification if low-tension service is furnished..." At the same time, the
7 tariff allows high tension redistribution if the residential connected load is up
8 to 50 percent of the total building load. This difference is inexplicable.

9

10 **Q. Why is this a concern?**

11 **A.** In some case, our members wish to develop efficient DG to provide energy
12 to mixed use buildings served low tension service. The limit on the residential
13 area of the building would require the installation of a second service and
14 complicate the connection of a DG. This unnecessarily increases the cost of
15 the project, and thus creates a barrier to DER development. In addition, in
16 some cases, the Company may be required to provide an electric service to the
17 residential building at the Company's cost. This would unduly add costs to the
18 Company and contradict the "least cost" reasoning of the high tension
19 modifications as explained below.

20

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1 **Q. What was the intent of earlier tariff revisions relaxing the limitation**
2 **on mixed use service for high tension accounts?**

3 **A.** In its original filing letter of April 16, 2012, the Company stated that the
4 reason for filing that revision:

5 *The Company received an application from a prospective customer for*
6 *high tension service in April 2009. The Company agreed that high-*
7 *tension service to this applicant was appropriate, because of the*
8 *magnitude and location of the load at the applicant's premises and*
9 *because providing high-tension service would result in least cost to the*
10 *Company.*

11

12 **Q. Why is that significant?**

13 **A.** That filing letter demonstrates that the Company believes it is appropriate
14 to amend the tariff in order to provide service at the least cost, even in
15 situations that initially apply to only a single customer. This is exactly the
16 situation of one of our members who wishes to develop a DG, except that the
17 service in question is a low tension service.

18

19 **Q. Why is this important?**

20 **A.** The revisions I will propose will avoid unnecessary cost from preventing
21 the certain DG or DER projects.

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1

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

3 **A.** I propose that the Commission require tariff amendments allowing mixed
4 residential and commercial use of low tension services on the same basis as
5 for high tension services.

6

7 **RIDER J-BUSINESS INCENTIVE RATES**

8

9 **Q. What has the Company proposed for a Business Incentive Rate (BIR)?**

10 **A.** The Company has proposed to reduce the discounts available under Rider
11 J from 45 percent to 34 percent for SC9 Rate 2 customers, and from 49
12 percent to 39 percent for Rate 1, 3 and 4 customers.

13

14 **Q. What is the reason for this reduction?**

15 **A.** The Company cites the results of its Marginal Cost of Service Study
16 (MCOS).

17

18 **Q. Why is this a concern?**

19 **A.** As CPA Witness Luthin testifies, BIR has been an important element
20 supporting the growth of bio-medical research in New York City, and it
21 supports other important economic activity as well, including the renovation

Testimony of John J. Dowling, P.E.
on Behalf of Consumer Power Advocates (CPA)

1 of vacant buildings. The reduction of this discount will only reduce the
2 effectiveness of this important program. Moreover, this large change is based
3 on an MCOS methodology which has proven to provide results that are
4 dramatically more unstable than the Company's ECOSS methodology.
5 Annual changes reduce the effectiveness of BIR because of the long planning
6 horizon required by research institutions and other developers of large
7 projects.

8

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

10 **A.** The Commission should freeze the BIR discounts at their current level.

11

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

13 **A.** Yes.

14