

BEFORE THE
STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

In the Matter of
Consolidated Edison Company of New York, Inc.
Case 08-E-0539
September 2008

Prepared Testimony of:

Nicola Jones
Utility Engineer 2
Office of Electric, Gas, and Water

State of New York
Department of Public Service
90 Church Street, 4th Floor
New York, New York 10007

1 Q. Please state your name, employer, and business
2 address.

3 A. Nicola Jones, I am employed by the New York
4 State Department of Public Service (Department).
5 My business address is 90 Church Street, New
6 York, New York 10007.

7 Q. Ms. Jones, what is your position at the
8 Department?

9 A. I am a Utility Engineer 2 assigned to the
10 Electrical Distribution Systems section in the
11 Office of Electric, Gas, and Water.

12 Q. Please describe your educational background and
13 professional experience.

14 A. I graduated from Rensselaer Polytechnic
15 Institute with a Bachelor of Science Degree in
16 Civil Engineering and a Bachelor of Science
17 Degree in Management in 2003. I joined the
18 Department in 2005. My responsibilities
19 include: monitoring electric utility
20 reliability; investigating the cause and
21 response level of the utilities after emergency
22 events; monitoring electric distribution
23 projects; and monitoring utility compliance with
24 electrical codes and with electric service

1 standards.

2 Q. Ms. Jones, have you previously testified before
3 the Commission?

4 A. Yes. I testified in Case 07-E-0523 regarding
5 Consolidated Edison of New York, Inc.'s (Con
6 Edison or the Company) infrastructure investment
7 and Reliability Performance Mechanism.

8 Q. What is the purpose of your testimony?

9 A. To present my review of the Research and
10 Development (R&D) portion of Con Edison rate
11 case filing as presented in the testimony of
12 witness Arthur Kressner.

13 Q. Have you reviewed all the projects and programs
14 presented by the Company's witness, Arthur
15 Kressner?

16 A. Yes, I have reviewed all the exhibits and work
17 papers associated with each project to get a
18 better understanding of the purpose and
19 justification for each project. Additionally,
20 through Staff Information Requests DPS-205, DPS-
21 206, DPS-207, DPS-208, DPS-593, DPS-594, DPS-
22 595, and DPS-604. I have requested and analyzed
23 the Company's historic budgets and actual dollar
24 amounts spent on each R&D project. That

1 information was compared to the \$20.025 million
2 R&D operation and maintenance expenditures that
3 is requested by the Company for the rate year. I
4 have concluded that each of the base programs
5 are warranted and justified, with the exception
6 of projects related to energy efficiency that
7 are being addressed by the Staff Accounting
8 Panel.

9 Q. Are there any new Research and Development
10 programs that were not presented by the Company
11 in Case 07-E-0523?

12 A. No. All programs presented were previously
13 submitted in the 2008 rate case.

14 Q. What types of projects are included in the
15 Company's rate year R&D program?

16 A. The Company has submitted projects under six
17 business areas: transmission, distribution,
18 system operations, substations, customer
19 operations, and information
20 technology/communications. In 2008, the Company
21 will perform work that spans across these six
22 business areas. They include work related to
23 building a smart grid, a superconductor and
24 fault current limiter under Project Hydra,

1 improved network reliability and monitoring,
2 energy efficiency and demand response, and
3 environmental sustainability.

4 Q. What is the Company's definition of a "Smart
5 Grid?"

6 A. According to the Con Edison, a "Smart Grid"
7 would entail the interoperability of an electric
8 system from power generation level down to the
9 customer level.

10 Q. What is covered under the Company's Smart Grid
11 R&D initiatives?

12 A. This includes a conglomerate of projects aimed
13 at increasing the reliability and quality of
14 service delivered by the Company's electric
15 distribution system. Advancements in technology
16 will be used to develop advanced sensors, field
17 devices, and real-time decision making software;
18 and tests will be done towards evaluating
19 reactive power and voltage control, conductor
20 size, and transformer efficiency.

21 Q. What are some of the specific projects included
22 in the Company's R&D proposal that are linked to
23 developing a Smart Grid?

24 A. Specific projects related to Smart Grid include:

- 1 1. Automated Meter Reading (AMR)/Advanced
2 Metering Initiative (AMI) and Metering
3 Projects. These initiatives include, amongst
4 other related projects, a study that will
5 identify technologies that can improve the
6 automated meter reading, time-sensitive rate
7 structure, enhanced customer service, load
8 study, load flow analysis, load forecasting,
9 and demand side management.
- 10 2. Secondary Monitoring Sutton Network Pilot.
11 Includes the installation of meters in the
12 Sutton network to test the technology and to
13 validate load flow models.
- 14 3. Staten Island Primary Network Visualization
15 System (SIPS). The Company is working to
16 develop a sub-transmission to distribution
17 level screen, perform and analyze possible
18 scenarios, and analyze data regarding the 4
19 kV Unit Substation Automation system.
- 20 4. Model Build Feasibility using Distributed
21 Engineering Workstation (DEW). The model
22 review will help the Company determine
23 whether DEW models can be built of other Con
24 Edison systems. DEW models can provide

1 analysis down to the secondary customer that
2 is not available in current network
3 distribution models.

4 Q. Please briefly discuss Project Hydra, Network
5 Reliability and Monitoring and, Environmental
6 Sustainability, the other projects that have
7 commenced in 2008 under R&D.

8 A. Project Hydra. Under this program, the Company
9 is creating a superconducting cable and fault
10 current limiter aimed to mitigate fault
11 currents, enable interconnection of additional
12 capacity to the electric system, and improve on
13 asset sharing.
14 Network Reliability and Monitoring. This covers
15 work related to an advanced primary and
16 secondary supervisory control data acquisition
17 system. It will allow the remote monitoring and
18 control of network protectors in below ground
19 network transformer vaults. It also includes
20 work related to the creation of tools to better
21 integrate various data sources from transmission
22 to the secondary distribution system into a
23 system model. This model could provide more
24 insight related to activities occurring on its

1 system.

2 Environmental Sustainability. This includes all
3 efforts towards reducing carbon dioxide and
4 other greenhouse gas emissions.

5 Q. Are there any other projects you would like to
6 discuss?

7 A. Yes, the 3G System of the Future Projects.

8 Q. What are the 3G System of the Future Projects?

9 A. For the next generation of system design, Con
10 Edison has begun to develop and test designs
11 focused on improving the efficient use of
12 existing facilities to minimize cost while
13 keeping the same level of reliability. The
14 Company has done this by honing in on the best
15 practices of utilities world-wide, assessing
16 these practices, and altering these practices so
17 that they can be incorporated into Con Edison's
18 electric system. Three specific projects
19 include:

20 1. 3G SOF Concept Demonstration In Staten
21 Island - Phase 1. This project will
22 demonstrate the 3G SOF concept of sharing
23 resources and improving asset utilization
24 on the Con Edison system.

- 1 2. 3G SOF Independent Reliability Assessment
2 of Hudson Yard Load. The 3G SOF team is
3 investigating alternative power supply
4 systems for the Hudson Yard Load area to
5 maximize the use of installed equipments.
- 6 3. 3G System of Future 2006 Activities. The
7 System of the Future Design identifies new
8 ideas such as fault current limiting and
9 submersible vault that would be needed to
10 fully enable the improved asset utilization
11 and reduced cost goal of the 3G-System of
12 the Future while preserving reliability.
- 13 Q. Are there any concerns regarding the 3G
14 projects?
- 15 A. Yes, I find that a significant portion of
16 funding under R&D is devoted towards projects
17 related to the 3G System. Staff has a concern
18 regarding the value gained to customers from 3G
19 activities because there is no real
20 accountability for the project. Therefore,
21 Staff recommends that the Company be directed to
22 submit a report within 30 days after the
23 Commission's Order in this proceeding
24 identifying all activities, costs, and benefits

- 1 associated with the 3G project. The filing
2 should cover the period from the initial
3 inception of the 3G project to the present. The
4 Company should also be required to file semi-
5 annual reports identifying all projects related
6 to 3G, funding budgets, total to-date spending,
7 and progress to-date.
- 8 Q. Could there be any credits posted against the
9 R&D expense during the rate year?
- 10 A. Yes. There are eight projects that might result
11 in credits to the R&D expense. Con Edison
12 credits its R&D expense for successful projects
13 which are capitalized. A software or hardware
14 project is capitalized only if it is completed
15 and determined used and useful by its users. The
16 level of credit is equal to the cost to create
17 the final product. Previous costs related to
18 the research and development of the product are
19 not included in the credit.
- 20 Q. What is the Company's position on how to handle
21 these credits when received?
- 22 A. The Company recommends using credits to
23 supplement its R&D budget.
- 24 Q. Do you agree with this recommendation?

- 1 A. No. I support the Staff Accounting Panel
2 adjustment to the Company's R&D expense that is
3 based on reflecting a reasonable level of
4 expected credits on a going forward basis. This
5 is further discussed in Staff Accounting Panel
6 testimony.
- 7 Q. Does this conclude your testimony at this time?
- 8 A. Yes.