

VINCENT BADALI - STEAM

1 Q. Please state your name and business address.

2 A. My name is Vincent Badali and my business address is
3 Consolidated Edison Company of New York, Inc. ("Con
4 Edison"), 4 Irving Place, New York, NY 10003.

5 Q. What is your present title at Con Edison?

6 A. I am the Section Manager of Steam Operations' Business
7 Development group.

8 Q. What is your educational and professional background?

9 A. I graduated from New York Polytechnic Institute with
10 Bachelor and Master of Science Degrees in Civil
11 Engineering. I joined Con Edison in 1978 and held
12 various management positions of increasing
13 responsibility in the Steam Engineering Bureau. I
14 joined Trigen Energy Corporation in 1995 as Director of
15 Distribution and Engineering. I joined Johnson
16 Controls in 2005 as Manager of Engineering for the
17 Trigen account. I returned to Con Edison in 2007 and
18 assumed my present position of Section Manager of the
19 Steam Business Development ("SBD") group.

20 Q. Please describe your current responsibilities in the
21 SBD group.

22 A. I am the Section Manager of Con Edison's SBD group,
23 which is responsible for attracting and retaining steam
24 business for Con Edison.

1 Q. What is the purpose of your testimony in this
2 proceeding?

3 A. The purpose of my testimony is to discuss: (1) the
4 status of Con Edison's Steam Business Development's
5 attraction and retention efforts; (2) the steam energy
6 efficiency program; (3) proposed tariff changes; and
7 (4) enhancements to the Customer Care & Billing System.

8 **STATUS OF STEAM BUSINESS DEVELOPMENT**

9 Q. Please describe Con Edison's SBD attraction and
10 retention efforts.

11 A. Over the past two years, SBD has continued to: develop
12 and implement a sales and marketing program to acquire
13 new accounts, develop the value of our existing
14 accounts, and retain valuable accounts against rivals.
15 This robust program for attracting and retaining steam
16 customers includes:

- 17 • An experienced staff of marketing, technical, and
18 financial experts that is actively improving
19 relationships with major steam customers and looking
20 for opportunities to attract new business and retain
21 existing business.
- 22 • Information technologies that have been employed to
23 support the business development efforts, including an
24 account management system and a mapping and locational
25 analysis tool.

- 1 • Strong business relationships that have been developed
2 with key stakeholders through the assignment of account
3 managers to each major customer and a continuing
4 program of face-to-face customer contacts. As part of
5 this program, several seminars and conferences have
6 been held to provide information to our major customers
7 and their representatives.
- 8 • A marketing communications program that supports the
9 business development efforts. This includes
10 promotional brochures, a Web site with interactive
11 features for customers, a program to promote the
12 environmental benefits of district steam, and print
13 advertisements in selected trade publications.
- 14 • A targeted marketing effort to identify potential steam
15 business leads and lost business risks; meetings with
16 customers, developers, and consulting engineers; and
17 providing cost/benefit analyses to customers and their
18 key decision makers. The results of the attraction and
19 retention program in 2008 were 18 new customers, which
20 represent 6.5 million square feet and 300 MMBtu of
21 projected sales, the largest connected load since 1996.
- 22 • Vortex meters, which have been installed at
23 approximately 700 customer locations, replacing shunt
24 flow meters. The vortex meters allow customers to
25 connect to their building management system, track

1 their own usage patterns, and gain better control over
2 their steam usage.

3 Q. What steam business opportunities does the Company have
4 as a result of the SBD measures described?

5 A. We currently have 35 new business projects representing
6 approximately 450,000 Mlb of additional annual sales
7 committed to the steam system over the period July 1,
8 2009 to June 30, 2012 (which are included in the steam
9 sales forecast), and we are working on other new
10 business opportunities. The SBD group is working on
11 turning these opportunities into commitments by
12 maintaining good relationships with engineers,
13 architects, developers, vendors, and other energy
14 decision makers, and providing them with information on
15 the availability of service, pricing, and the benefits
16 of district steam.

17 Q. How have you gauged the success of your programs?

18 A. We have received feedback through a few avenues,
19 including:

- 20 • The results of satisfaction surveys of customers who
21 contact Con Edison, which are distributed to Department
22 of Public Service ("DPS") Staff, indicate a high level
23 of customer satisfaction with the service they receive.
24 Those who are satisfied overall report that Con Edison
25 responded quickly and resolved their service issues,
26 that their telephone representative knowledgeably

1 handled their issue, and that their representative was
2 helpful and attentive.

3 • In focus group sessions conducted with architects,
4 engineers, developers, and chief engineers, the Company
5 has received favorable ratings in customer service and
6 emergency response. A report on the focus group
7 sessions was filed on June 29, 2009 with DPS staff.

8 Q. What has the Company done to promote the environmental
9 benefits of the steam system?

10 A. Given the Federal, State, and City government focus on
11 environmental issues, we have made significant efforts
12 to support a strong environmental communications
13 campaign for steam. The following are some examples of
14 the Company's efforts in this area.

15 • In June 2009, Con Edison Steam was presented with the
16 Environmental Protection Agency's 2009 Energy Star CHP
17 Award for the East River Repowering Project for its
18 outstanding pollution reduction and energy efficiency.
19 The use of cogeneration for producing steam is a key
20 message in our environmental campaign.

21 • As part of our campaign, Con Edison provides customers
22 with educational materials and assists them in gaining
23 Leadership in Energy and Environmental Design ("LEED")
24 /Energy Star certification. The Company has worked
25 with the Environmental Protection Agency, the U.S.
26 Green Buildings Council, the New York City Office of

1 Long Term Sustainability, the International District
2 Energy Association, and customers to gain greater
3 recognition of co-generated district steam as a green
4 energy source.

5 Q. What are the challenges that Con Edison faces in its
6 attraction and retention efforts?

7 A. There are several issues to be addressed as Con Edison
8 moves forward with its attraction and retention
9 program. The first involves steam cooling. Attracting
10 and retaining steam cooling load has benefits for both
11 the steam system (improved load factor) and the
12 electric system (peak load reduction). There is
13 currently about 580,000 tons of steam cooling equipment
14 connected, offsetting approximately 350 MW of peak
15 electric load. Because of the cost differentials in
16 capital and operating costs favoring electric air
17 conditioning equipment, major steam customers have been
18 converting from steam to electric cooling when their
19 steam cooling equipment reaches end of life. There has
20 been a reduction in 45,000 tons of steam cooling over
21 the past seven years. No new major commercial or
22 residential buildings have installed steam cooling over
23 that same timeframe. (One major hospital did install
24 steam cooling equipment in a new building two years
25 ago.) Without adequate incentives, we foresee an
26 acceleration in the loss of steam air conditioning

1 load. This loss of steam air conditioning load is also
2 addressed in the sales forecast testimony of the
3 Forecasting Panel.

4 Q. What has the Company done to address this issue?

5 A. Over the past several years, Con Edison has worked with
6 the New York State Energy Research and Development
7 Authority ("NYSERDA") to retain steam cooling load.
8 Through the use of NYSERDA incentives to offset capital
9 cost differentials and Con Edison rate discounts to
10 offset operating cost differentials, approximately
11 100,000 tons of steam cooling have been retained since
12 2002. However, NYSERDA's peak load reduction program
13 for steam cooling expired March 1, 2009 and there are
14 currently no incentives available to offset the capital
15 cost differential for steam cooling equipment. To
16 replace the former NYSERDA program, a steam cooling
17 program was one of eight efficiency programs submitted
18 in Con Edison's September 22, 2008 Case 08-E-1007
19 filing in the Energy Efficiency Portfolio Standards
20 ("EEPS") proceeding. The Con Edison filing provides
21 enhancements to the former NYSERDA program, such as
22 elimination of the project cap. If approved, this
23 program will assist in the attraction and retention of
24 steam cooling customers.

25 In addition, for several years, we have been discussing
26 with the New York City Economic Development Corporation

1 ("NYCEDC") the implementation of an Energy Cost Savings
2 Program ("ECSP") for steam cooling. This would help
3 reduce customer operating costs for steam cooling. We
4 are asking the NYCEDC to move forward on this proposal.

5 Q. Are there any other challenges to the steam attraction
6 and retention efforts?

7 A. Yes. Another issue is the tax burden on steam
8 customers. For example, the cost of Con Edison steam
9 includes a tax that is not part of the cost structure
10 for on-site boilers. The current 4.5% boiler fuel
11 sales and use tax on electric and steam generators and
12 the New York City Gross Receipts Tax on steam revenues
13 (as opposed to net income) are particularly burdensome.
14 Reduction and/or elimination of these taxes would help
15 stabilize steam costs to customers. The Company has
16 continuously stressed the repeal of the sales and use
17 tax on boiler fuel and has met many times with New York
18 City officials over the past several years in an
19 attempt to repeal this tax. The Company has drafted
20 proposed legislation to repeal the sales and use tax on
21 boiler fuel and worked with the other NYC generator
22 owners in an attempt to get the legislation passed.
23 However, this legislation has been met with continued
24 opposition from NYC. The sales and use tax on boiler
25 fuel is particularly regressive since the higher the
26 fuel costs the more tax is paid. In effect, the tax

1 revenues are compounded on top of inflation. On an
2 annual basis, steam customers are billed more than \$12
3 million due to this tax alone. Moreover, this tax is
4 then subject to the NYC gross receipts tax, resulting
5 in an additional customer charge due to this tax on tax
6 effect.

7 Another issue is the use of City and State financial
8 incentives by customers to install on-site generation
9 and leave the steam system. For example, a major
10 residential customer left the steam system using
11 NYSERDA funding for an engineering study and a NYSERDA
12 low interest loan to fund the installation of boilers.
13 In another example, a major New York City residential
14 property will be using NYPA funding to install on-site
15 boilers and leave the steam system. Over the past
16 several years, the Company has communicated to NYSERDA
17 the need for a mechanism that prohibits this type of
18 government funding that provides an incentive to
19 customers to leave the Con Edison steam system. At
20 minimum, Con Edison should be informed expeditiously of
21 studies and applications from steam customers who are
22 considering on-site boiler installations. This would
23 provide Con Edison with the opportunity to interact
24 with the customer to find the optimal solution to their
25 heating and cooling needs.

26 **STEAM ENERGY EFFICIENCY PROGRAM**

1 Q. What is the Company's policy related to steam energy
2 efficiency and demand reduction?

3 A. The Company believes that cost-effective energy
4 efficiency and demand reduction programs for steam can
5 provide for customers' needs; are in line with Federal,
6 State, and City efficiency goals; and can provide
7 important environmental benefits. These programs can
8 help reduce fossil-fuel generation emissions, such as
9 CO₂, which contributes to global warming, nitrogen
10 oxides, which contribute to smog, and SO₂, which
11 contributes to the formation of acid rain.

12 Q. What energy efficiency efforts has Con Edison
13 undertaken to date?

14 A. Throughout 2006 and 2007, Con Edison retained a
15 building energy systems consultant to perform audits at
16 30 steam customer locations. The purpose of these
17 audits was to provide site-specific recommendations for
18 potential improvement in steam usage and demand at
19 these facilities and to prepare a "Best Practices"
20 report for all steam customers. The steam audits
21 identified a broad spectrum of steam energy efficiency
22 measures, which were compiled and summarized in the
23 Best Practices report that is available to customers on
24 the Company's Web site.

25 In early 2009, a market potential study was conducted
26 that prioritized the appropriate steam efficiency

1 measures to be recommended to customers. In the study,
2 a metric called the "Uptake Potential" was developed,
3 which estimated the percentage of customers that can
4 practically adopt any given measure. The educational
5 program will use this metric to rank energy efficiency
6 measures in terms of their potential for implementation
7 and promote those measures to the appropriate audience.
8 The market potential study segmented steam customers by
9 service classification - SC-1 (small users), SC-2
10 (large commercial) and SC-3 (large residential). In
11 addition, in April 2009, Con Edison retained an
12 independent research consultant to conduct three focus
13 groups that included SC-2 and SC-3 steam customers and
14 other key stakeholders. The purpose of the sessions
15 was to elicit participants' perceptions of Con Edison's
16 steam service. The major issues for the participants
17 were the cost of steam service, environmental
18 considerations in their energy-choice decisions, and
19 the need for increased energy efficiency measures.

20 Q. What energy efficiency program are you implementing?

21 A. As part of its commitment in the current Steam Rate
22 Plan, Con Edison launched an Energy Efficiency
23 Educational Program on October 1, 2009. The primary
24 objective of the program is to raise the levels of
25 awareness and knowledge about the measures that Con
26 Edison steam customers can take to reduce the

1 consumption of steam for heating, hot water, cooling,
2 and other uses in their facilities. Some of these
3 measures include insulation of steam piping, valves,
4 and fittings, condensate heat recovery and management,
5 repair of steam leaks, building envelope improvements,
6 thermostatic radiator valves, and management and
7 operational changes. Reminding customers of various
8 efficiency measures with short pay-back periods is a
9 low cost method of reducing steam consumption. Another
10 objective of the program is to reach opinion leaders in
11 the business community, news media, academia,
12 government, and local communities on the importance of
13 energy efficiency and how it relates to the steam
14 system.

15 Q. What is the cost of this efficiency campaign?

16 A. The rates established in the current Steam Rate Plan
17 reflect \$100,000 to cover the cost of (1) program
18 development and administration, and (2) a market
19 potential analysis. The administration of the program
20 is being handled by members of the SBD staff, along
21 with support organizations at Con Edison.

22 Q. Does the Company have a financial disincentive to
23 implement this program and/or other energy efficiency
24 programs?

25 A. Potentially, yes. However, the Company strongly
26 supports the aggressive promotion of energy efficiency

1 for all aspects of its business. The long-term
2 viability of the steam system is enhanced as customers
3 conserve, thereby delaying and minimizing the need for
4 investment in production and infrastructure. In
5 addition, as described in the testimony of Company
6 witness Muccilo, the Company is proposing a Steam
7 Revenue Adjustment Mechanism ("SRAM") to eliminate any
8 potential financial disincentive the Company may have
9 to implement an energy efficiency program.

10 **TARIFF CHANGES**

11 Q. Is the Company proposing any modifications to its Steam
12 Tariff?

13 A. The Company implemented demand billing commencing
14 November 1, 2007, for SC-2 and SC-3 customers with
15 annual usage equal to or greater than 22,000 Mlb.
16 Current demand billed customers will remain on the
17 demand billing tariff rate until such time as their
18 annual usage falls below 14,000 Mlb, as stated in the
19 current SC-2 and SC-3 tariffs. As described in the
20 Commission's September 22, 2008 Order Establishing Rate
21 Plan in case 07-S-1315, customers with annual usage
22 less than 22,000 Mlb and greater than 14,000 Mlb will
23 be sample billed during the 2009-2010 winter period,
24 with actual demand billing for these customers being
25 implemented in the following rate year, 2010-2011.

1 Based on winter billing data available from the demand
2 meters in place, the Company will design winter peak
3 demand rates that will be effective for the 2010-2011
4 winter demand period for the demand billed customer
5 classes (i.e., SC-2 and SC-3 customers with annual
6 usage of less than 22,000 Mlb but equal to or greater
7 than 14,000 Mlb and SC-2 and SC-3 customers with annual
8 usage equal to or greater than 22,000 Mlb). The winter
9 rates for all demand billed customers will be designed
10 to yield the same winter period revenues from the
11 customers within each service class as the proposed
12 revenues that would be collected at the rates
13 effective. Customers will remain on the demand rate
14 until their annual usage ending August drops below
15 12,000 Mlb.

16 Q. Why are you proposing that there be a threshold below
17 14,000 Mlb when an account will be switched from the
18 SC-2 or SC-3 demand rate to the SC-2 or SC-3 non-demand
19 rate?

20 A. Since the demand class will now include customers with
21 annual consumption down to 14,000 Mlb, the Company is
22 proposing this lower threshold in order to minimize
23 customers moving between rate classes due to relatively
24 minor variations in annual steam consumption. The
25 influence of weather fluctuation, particularly during
26 the heating season, as well as incidental or temporary

1 operational changes within the building, are among the
2 factors that the threshold is intended to consider.

3 Q. What is the basis for the 12,000 Mlb threshold?

4 A. We analyzed the SC-2 and SC-3 customers (169 in total)
5 whose annual use was between 14,000 and 22,000 Mlb
6 during a twelve month period ending either August 2008
7 or August 2009 or both. Forty seven of those customers
8 exceeded 14,000 Mlb in one of the periods and fell
9 below 14,000 Mlb in the other. Of these forty seven
10 customers, thirty eight had not performed any
11 significant equipment replacement, building renovations
12 or other changes that would affect their usage during
13 the 24-month period. We therefore believe that the
14 average annual difference in usage for this group of
15 customers, approximately 2,000 Mlb, represents a
16 differential that is normal variation. The Company is
17 therefore proposing to implement a 12,000 Mlb
18 threshold.

19 Q. Is the Company proposing any other modifications to its
20 Steam Tariff?

21 A. Yes. The Company is proposing tariff changes to extend
22 the period for accepting applications from SC-2 and SC-
23 3 customers installing a new or replacement steam air-
24 conditioning system under the current air-conditioning
25 incentive program. This program provides a \$2.00 per
26 Mlb discount off base rates for steam used in excess of

1 the first 250 Mlb for SC-2 and in excess of the first
2 50 Mlb for SC-3 in each monthly billing period during
3 the summer months of May to October. The proposed
4 extension is through September 30, 2011. In the
5 context of a multi-year plan, we would provide a
6 further extension through the last day of the rate
7 plan. This extension will enhance the Company's
8 ability to promote steam air conditioning.

9 One other proposed tariff modification is to amend the
10 Special Services at Stipulated Rates provision to
11 charge customers for each temporary disconnection and
12 reconnection of service performed by the Company at the
13 Customer's request. Currently, there is no charge to
14 customers for one temporary disconnection and one
15 reconnection performed at the steam customer's request
16 in a 12-month period. Implementation of this charge
17 will better align customer responsibility for costs
18 associated with these special services. As specified
19 in the current tariff, the charge will be \$315.00 for a
20 disconnection or reconnection during Business Hours and
21 \$356.00 for a disconnection or reconnection begun or
22 completed After Hours.

23 **CUSTOMER SERVICE ENHANCEMENTS**

24 Q. What customer service enhancements are planned for
25 steam customers?

1 A. At focus groups conducted in April 2009, the Company's
2 steam customers indicated that having access to more
3 online steam billing information and options are
4 priorities for them. Specifically, customers indicated
5 that they would like to have access to expanded online
6 billing information, self-service options and payment
7 options. Presently, steam customers do not have the
8 option of online payments that our electric and gas
9 customers have. Thus, in order to provide customers
10 with these online billing capabilities, the steam
11 customer service website needs to be modified.
12 These modifications will provide steam customers with
13 several options for efficiently paying their bills
14 online, the ability to access key customer information
15 and resolve billing-related problems. Overall, these
16 modifications will provide steam customers with on-line
17 services they have requested, meet their future
18 evolving needs and provide a higher level of service.
19 It will provide a flexible platform for future
20 developments. These factors are critical in the
21 retention of our steam customers.

22 Q. What is the cost associated with these modifications?

23 A. The associated capital costs are \$200,000 in the 2010
24 rate year and \$100,000 in the 2011 rate year. The
25 majority of the costs will go towards replacement of
26 obsolete servers. Software products will also be

- 1 purchased to advance the services provided to steam
2 customers. The operating and maintenance costs are
3 projected to be \$100,000 which represents a dedicated
4 resource to supervise the system, resolve business
5 issues and deploy enhancements as previously stated.
- 6 Q. What is the timeline to complete these modifications?
- 7 A. These modifications will be completed in the 2010 rate
8 year.
- 9 Q. Does this conclude your initial testimony?
- 10 A. Yes, it does.