- 1 Q. Please state your name and business address.
- 2 A. My name is John Catuogno. My business address is 4
- 3 Irving Place, New York, New York 10003.
- 4 Q. By whom are you employed and in what capacity?
- 5 A. I am employed by Consolidated Edison Company of New
- 6 York, Inc. ("Con Edison" or the "Company") as the
- 7 Section Manager of Steam Operations Planning, Steam
- 8 Operations.
- 9 Q. What is your educational and professional background?
- 10 A. I graduated from Polytechnic University with a Bachelor
- of Science degree in Mechanical Engineering in 1991 and
- with a Master of Science degree in Management in 2002.
- 13 I am a registered Professional Engineer in the State of
- 14 New York.
- 15 I joined Con Edison in 1991 and have held various
- positions of increasing responsibility in the Fossil
- 17 Power, Nuclear Power Engineering, Energy Management,
- and Steam Operations Departments. Since January 2007, I
- 19 have been the Section Manager of the Steam Operations
- 20 Planning Section.
- 21 Q. Please describe your current responsibilities in the
- 22 Steam Operations Planning area.
- 23 A. My responsibilities include, among other functions,
- 24 preparing estimates of fuel requirements for the

	Company's steam and steam-electric generating stations,
	determining budgets for fuel and purchased steam
	expenditures, preparing the near term operating and
	outage plans for the steam and steam-electric
	generating units, and performing technical analyses
	pertaining to the operation and dispatch of the Steam
	System (Production, Transmission, and Distribution).
0	Have you previously testified before the New York State
Q.	Public Service Commission?
_	
Α.	Yes, I have testified in Case 09-S-0029 and Case 07-S-
	1315.
Q.	What is the purpose of your testimony in this
	proceeding?
Α.	My testimony covers several areas. First, I provide
	estimates of fuel costs for steam production and
	describe how those estimates were prepared.
	Second, I present Con Edison's estimates of future fuel
	prices and the Company's measures for mitigating fuel
	costs and volatility.
	Third, I describe the calculation and application of
	heat rate and processing charges between steam and
	electric operations.
	Fourth, I discuss residual fuel oil storage capability
	and the storage needs of the Steam Department as well

1		as propose to recover labor costs related to fuel oil
2		storage and handling currently recovered through the
3		Fuel Adjustment Clause ("FAC") in base rates
4		prospectively.
5		Finally, I discuss the Fuel Management Program.
6		FORECASTED FUEL COSTS
7	Q.	Turning to the first area of your testimony, have you
8		prepared an exhibit showing the forecasted fuel costs
9		for steam production up to and including the rate year
10		ending September 30, 2011 ("Rate Year")?
11	Α.	Yes. I have prepared a one-page exhibit entitled
12		"STEAM SYSTEM FUEL REQUIREMENTS AND COSTS," set forth
13		as Exhibit (JC-1).
14		MARK FOR IDENTIFICATION AS EXHIBIT (JC-1)
15	Q.	Please describe the information contained in this
16		exhibit.
17	Α.	This exhibit shows actual steam sendout, fuel
18		consumption, and total fuel and purchased steam costs
19		for the Historic Year (i.e., the twelve-month period
20		ended June 30, 2009). Total fuel and purchased steam
21		costs for the Rate Year (i.e., the twelve month period
22		ended September 30, 2011) are forecast to be \$332.96
23		million, which reflects, among other things, a 1.3%

decrease in steam sendout, a 0.6% decrease in residual

- fuel oil price, and a 4.3% decrease in natural gas
- 2 price, as compared with actual values during the
- 3 Historic Year, when fuel and purchased steam costs were
- 4 \$333.36 million.
- 5 Q. Please explain the terms included under the heading
- 6 "Steam Sendout" in your exhibit.
- 7 A. "Steam Sendout" is the actual or forecasted steam
- 8 supplied from the Company's steam-electric generating
- 9 stations, steam-only generating stations, and purchased
- 10 from the Brooklyn Navy Yard Cogeneration Partners
- 11 ("BNYCP") plant. The total forecasted steam sendout
- for the Rate Year is 27,465 million pounds of steam.
- 13 Q. How was the total forecasted steam sendout for the Rate
- 14 Year determined?
- 15 A. Projections of the total monthly steam sales were
- 16 developed and provided to me by the Company's Steam
- 17 Forecasting Panel. The monthly steam sales are
- 18 multiplied by a forecasted monthly steam variance
- 19 factor to determine the monthly steam sendout.
- 20 O. How were the steam sendout requirements from various
- 21 generating stations determined?
- 22 A. The steam sendout for each of the generating stations
- are projected based on PROMOD simulations.
- 24 Q. Please discuss the PROMOD analysis.

- 1 A. PROMOD is a multi-area production cost computer model,
- which has been widely used in conducting planning
- 3 studies and in rate proceedings. For rate case
- 4 purposes, and as has been done in the past, PROMOD was
- also employed to simulate the least-cost, reliable
- 6 dispatch of Steam System production resources.
- 7 Q. What data is used to simulate the Rate Year?
- 8 A. The data used includes forecasts of unit maintenance
- 9 schedules, heat rates, fuel prices, availability of
- natural gas, and volume and prices of steam purchases.
- 11 Q. Please describe the items shown on Exhibit __ (JC-1)
- 12 entitled "Fuel Consumption by Type."
- 13 A. "Fuel Consumption by Type" is the actual or forecasted
- 14 fuel oil and natural gas consumption for the generating
- 15 stations during each of the periods.
- 16 Q. How did you estimate the quantity of fuel and
- 17 consumption by type that would be used for steam
- 18 production?
- 19 A. The quantity of fuel and consumption by type for steam
- 20 production was taken from the results of the PROMOD
- 21 simulations of forecasted operations.
- 22 Q. Please describe the next item on Exhibit __ (JC-1)
- 23 entitled "Total Fuel & Purchased Steam Costs."

	L	Α.	Fuel	cost	is	the	actual	or	forecasted	cost	of	fuel	f	or
--	---	----	------	------	----	-----	--------	----	------------	------	----	------	---	----

- 2 each period for the Company's steam-only and steam-
- 3 electric generating stations. Steam purchased costs
- 4 are described below.
- 5 Q. How were total fuel and purchased steam costs
- 6 determined?
- 7 A. I used actual fuel and purchased steam costs through
- 8 August 31, 2009. The fuel and purchased steam cost
- 9 forecasts for the Rate Year were based on the PROMOD
- analysis and the fuel price forecasts that I describe
- 11 later in my testimony.
- 12 Q. Please explain the item entitled "Oil-Storage and
- 13 Handling" shown in your exhibit.
- 14 A. "Oil-Storage and Handling" costs are the costs for
- storing fuel oil and withdrawing it from storage when
- 16 required. The projections for these costs are
- 17 determined based on historical applicable charges made
- against each account and consider known, upcoming major
- or non-normal planned work, such as dredging and
- 20 storage facility repairs. The storage and handling
- 21 cost forecasts shown in the exhibit for steam reflect
- 22 the allocation methodology between electric and steam
- approved by the Commission in Case No. 99-S-1621.

- 1 Q. Does your forecast of the total cost of fuel include
- 2 any other components?
- 3 A. Yes. My estimate includes the energy portion of the
- 4 steam purchases from BNYCP.
- 5 Q. How was the BNYCP forecast for energy developed?
- 6 A. The amount of energy supplied by BNYCP is based on
- 7 simulations from PROMOD. The pricing of the energy by
- 8 month is equal to the sum of: (1) ninety-five percent
- 9 (95%) of the product of the forecast of natural gas
- prices at Henry Hub for such month (\$/Dt) and 2.45
- 11 (Dt/Thousands of Pounds); and (2) one hundred percent
- 12 (100%) of the Steam Processing Charges for such month
- 13 (\$/Thousands of Pounds).
- 14 Q. What is your forecast of the capacity charge associated
- with steam purchases from BNYCP?
- 16 A. For the Rate Year, the capacity charge is forecasted to
- 17 be approximately \$3.3 million based on the base price
- 18 set forth in the contract, escalated according to the
- 19 contract's inflation index, and adjusted for the
- 20 plant's expected equivalent availability. This
- 21 reflects a 13% increase from the BNYCP capacity costs
- in the historic year, which was approximately \$2.9
- 23 million.

1	Q.	Is there anything else you would like to note relevant
2		to fuel?
3	A.	Yes. It is important to note that the Company is
4		planning for the addition of full gas burning
5		capability on the Company's boilers at its $59^{\rm th}$ and $74^{\rm th}$
6		Street Generating Stations. The Company has modeled
7		this accordingly in its PROMOD simulations.
8		Accordingly, our PROMOD simulations have Boilers 114
9		and 115 at 59 th Street Generating Station modeled to
LO		commence full gas firing starting November 1, 2011, and
L1		November 1, 2014 for all of the boilers at the $74^{\rm th}$
L2		Street Generating Station. In addition, the Company
L3		has assumed that to the extent that new boilers are
L4		installed at the Hudson Avenue Generating Station, such
15		new boilers will have full natural gas burning
16		capability. The PROMOD simulation assumes a May 1,
L7		2014 in service date for full gas burning capability at
18		Hudson Avenue. Currently, Boilers 114 and 115 at 59th
19		Street only have ignition gas and there is no natural
20		gas supply to the boilers at either 74th Street or
21		Hudson Avenue. The Company's Steam Operations Panel
22		will elaborate further on these projects.
23		

24

1		FORECASTED FUEL PRICES
2	Q.	Did you prepare an exhibit relating to the development
3		of fuel oil and natural gas prices entitled "FORECAST
4		OF FUEL PRICES, SEPTEMBER 2009 TO DECEMBER 2015"?
5	Α.	Yes, I did.
6		MARK FOR IDENTIFICATION AS EXHIBIT (JC-2)
7	Q.	Please explain how the forecast of natural gas and
8		residual fuel oil prices was developed.
9	A.	The forecast of natural gas and residual fuel oil (No.
10		6 Fuel Oil) prices as reflected in Exhibit (JC-2),
11		which was used as an input in the PROMOD simulations
12		previously described, was developed as follows:
13		Determination of the Natural Gas Prices:
14		Column A - This is a forecast of the cost of the
15		portfolio of supplies that will be used to supply the
16		Company's generating stations, which was developed by
17		the Company's Gas Supply Department. This natural gas
18		price forecast is the delivered cost of natural gas to
19		the New York Citygate including taxes.
20		Determination of the New York Harbor ("NYH") 0.3%
21		Sulfur ("S") High Pour ("HP") No. 6 Fuel Oil Prices:
22		Column B - This is the NYMEX West Texas Intermediate
23		("WTI") Crude Oil futures by month at the time this
24		exhibit was prepared.

- 1 Column C This is the correlation factor between Crude
- and No. 6 Fuel Oil prices, which was established based
- on a review of the historical relative behavior of the
- 4 two prices.
- 5 Column D This is the projected No. 6 Fuel Oil spot
- 6 price, which was obtained by multiplying Columns B and
- 7 C.
- 8 Column E This accounts for the associated 4.5% New
- 9 York City sales/use tax.
- 10 Column F This includes the associated New York State
- 11 ("NYS") spill tax plus other fees.
- 12 Column G This accounts for the associated NYS PBT
- 13 (Petroleum Business Tax) on No. 6 Fuel Oil.
- 14 Column H This is the delivered cost of 0.3%S HP No. 6
- 15 Fuel Oil to the New York Harbor area including taxes,
- 16 which is calculated as the sum of Columns D, E, F, and
- 17 G.
- 18 Column I This is Column H expressed on a \$/MMbtu
- 19 basis.
- 20 Q. What information is used to develop these fuel oil and
- 21 natural gas forecasts?
- 22 A. These forecasts are based on the market expectations at
- a point in time. History has demonstrated that fuel
- 24 prices can and will deviate substantially from

1		forecasted levels. Changes in market prices for fuel
2		are outside of the Company's control. However, the
3		Company takes steps to mitigate fuel price volatility.
4		One example is the gas hedging program undertaken by
5		the Company's Gas Supply Department. I note that while
6		hedging is designed to mitigate volatility, it can
7		result in prices above or below the market price.
8		Efforts to mitigate the impact of fuel oil price
9		volatility are discussed below.
10	Q.	Are you generally aware of the measures undertaken by
11		the Company to mitigate its gas costs?
12	Α.	Yes, I am, based on information provided by the
13		Company's Gas Supply Department.
14	Q.	What methods does the Company use to minimize gas
15		costs?
16	Α.	The Company minimizes gas costs through competitive
17		bidding processes, requests for proposals to the
18		marketplace, and through purchasing opportunities
19		arising out of the Company's membership in the
20		Northeast Gas Markets Group. The Company also
21		undertakes additional efforts to reduce the volatility
22		of gas prices.

Τ.	Q.	What additional steps does the Company take to reduce
2		the impact of the volatility of gas prices on the
3		Company's gas costs?
4	Α.	Here are several examples. First, firm transportation
5		to the Citygate, like the contracts supporting the East
6		River Repowering Project ("ERRP") and those included in
7		the Company's gas supply portfolio, in addition to
8		satisfying the need for reliability of gas deliveries,
9		enables the Company to avoid the volatility of basis
10		(i.e., the value of transporting gas from a supply
11		point to a delivery point), which would be the case if
12		the Company were to buy all of its transportation
13		capacity in the market, on an "as needed" basis.
14		Second, the Company injects gas into production area
15		storage during the summer months, when the price of gas
16		has traditionally been lower and less volatile than
17		during the winter months, for use during the winter.
18		Third, the Company has a gas hedging program that is
19		designed to mitigate the impact of natural gas price
20		volatility on the Company's gas costs. The program has
21		several components, including the use of a combination
22		of physical price locks, through the Company's supply
23		contracts, and various financial instruments to hedge
24		natural gas prices.

1	Q.	Have	the	Company's	efforts	to	mitigate	gas	pric

- volatility been successful?
- 3 A. Yes, they have. The Company's Gas Supply Department
- 4 measures the price volatility of the gas delivered to
- 5 the Company's Steam Department. For the Historic Year,
- 6 the gas delivered to the Steam Department had less than
- 7 60% of the volatility of the gas market prices in New
- 8 York City.
- 9 Q. Have the Company's gas procurement efforts been the
- subject of regulatory review?
- 11 A. Yes, they have. The Company's gas procurement efforts
- 12 are routinely reviewed in the context of Company gas
- rate filings, including the Company's November 2006 gas
- rate filing, Case No. 06-G-1332. In addition, Paul
- 15 Olmsted, who is the Director of the Company's Gas
- Supply Department, provided testimony regarding the
- 17 Company's gas procurement efforts in the Gas rate
- filing that was made contemporaneously with this Steam
- 19 rate filing. Finally, the Company's Gas Supply
- 20 personnel consult with the Department of Public Service
- 21 Gas Staff annually to review efforts designed to
- 22 provide for reliability of gas supply and mitigate gas
- 23 price volatility.

1	Q.	Are there any other steps the Company takes to
2		effectively manage its natural gas supply and costs?
3	A.	Yes. The Steam Operations Planning Section maintains
4		daily communication with Gas Supply to: (a) ensure
5		adequate and low cost supply; (b) understand near term
6		market trends; and (c) discuss any opportunities in the
7		natural gas market. During anticipated high burn days a
8		detailed review of the day ahead steam and steam-
9		electric unit dispatch and gas burn are reviewed so
10		that the load is met in the most cost effective manner
11		consistent with reliability. Contingencies in the gas
12		market and on the Gas System as well as on the Steam
13		System are also considered to maintain the reliability
14		of both systems.
15	Q.	Please describe the methodology for allocating gas
16		commodity and capacity costs between the Gas Department
17		and the Steam Department.
18	A.	Gas pipeline capacity and gas commodity costs are
19		allocated to Steam in the following manner:
20		Steam is directly allocated the cost of two-long-
21		term firm transportation agreements, having an
22		aggregate daily quantity of approximately 60,000
23		Dt/day.

1		For requirements in excess of 60,000 Dt/day, the
2		Company procures additional capacity for Steam, as
3		required. If needed and available, Steam can utilize
4		firm gas customers' excess capacity.
5		The cost of any additional capacity (and/or capacity
6		bundled with gas) procured specifically to meet
7		incremental Steam requirements is directly allocated to
8		Steam.
9		The cost of any gas commodity procured specifically
10		for Steam is directly allocated to Steam.
11		The commodity cost of gas supplied/allocated to
12		Steam from the Combined Portfolio is at the weighted
13		average cost of the gas taken from the portfolio.
14		Finally, I will note that all gas costs charged to the
15		Steam Department are then allocated between steam and
16		electric production pursuant to existing Commission-
17		approved allocation methodologies.
18	Q.	How is residual fuel oil for the Company's steam and
19		steam-electric generating stations procured?
20	Α.	The Company's residual fuel oil for the generating
21		stations is procured via a combination of firm supply
22		contracts and spot purchases (when situations dictate)
23		to obtain lowest reasonable costs consistent with
24		maintaining a reliable supply and to allow for

1		operational flexibility when needed. The firm supply
2		contracts are solicited via requests for proposals and
3		the suppliers' offers are competitively selected.
4		Residual fuel oil for the 74th Street and Ravenswood
5		Steam Generating Stations is purchased from
6		TransCanada, the owner and operator of the oil storage
7		facilities at the Ravenswood site.
8	Q.	How does the Company mitigate the impact that the
9		volatility in residual fuel oil prices has on its fuel
LO		costs?
L1	Α.	To mitigate the impact that the volatility in residual
L2		fuel oil prices has on the Company's fuel costs, the
L3		Company uses its residual fuel oil storage, which is
L 4		further described in my testimony below. In times of
L5		rising oil market prices, when a portion of the oil
L6		supply to the generating stations is taken from
L7		storage, customers are charged the inventory price,
L8		which reflects the lower prices of past purchases.
L9		When oil market prices fall, the Company purchases oil
20		to both replenish the inventory in its storage tanks
21		and for delivery to its generating stations.
22	Q.	Are there any other steps the Company takes to
23		effectively manage fuel oil supply and costs?

1	Α.	Yes. The Steam Operations Planning Section maintains
2		daily communication with its Fuel Oil Agent to ensure
3		adequate and low cost supply, to understand near term
4		market trends, and discuss any opportunities in the
5		fuel oil market.
6		HEAT RATES AND PROCESSING CHARGES
7	Q.	Have you prepared an exhibit titled "CHARGES FOR STEAM
8		SENDOUT FROM EAST RIVER 6 and 7 STEAM-ELECTRIC UNITS
9		EFFECTIVE APRIL 1, 2009"?
10	Α.	Yes I have.
11		MARK FOR IDENTIFICATION AS EXHIBIT (JC-3)
12	Q.	Please explain the items included in processing charge
13		shown in this exhibit.
14	Α.	The processing charges include water, chemical, and
15		labor costs. Water costs for East River Units 6 and 7
16		are determined on the basis of three components,
17		namely, sendout, treatment plant use, and boiler
18		blowdown, all of which are determined by utilizing the
19		current New York City water price. The chemical costs
20		are for chemicals used to remove or neutralize
21		impurities in the feedwater used to make steam. Labor
22		costs include those costs that are associated with the
23		additional personnel required for Steam System
24		operations. All costs that are part of the processing

1		charges are based on actual production data from the
2		previous year.
3	Q.	How is the East River Unit 6 heat rate determined?
4	Α.	East River Unit 6 is normally operated as a
5		cogeneration unit. Fuel for steam sendout is allocated
6		to the Steam Department based on a fixed steam rate of
7		1,185 btu/lb. The balance of fuel costs for the unit
8		is allocated to electric production. This information
9		has been used in the foregoing PROMOD simulations. We
LO		would also like to note that an exception is made for
L1 .		periods when East River Unit 6 is operated as a live
L2		steam boiler (i.e., when the turbine-generator is off-
L3		line). In that mode of operation, all fuel costs are
L4		allocated to steam. The heat rate for East River Unit
L5		6 live steam sendout is determined by dividing the
L6		steam sendout heat output, in btu/lb (steam enthalpy
L7		less make-up water enthalpy), by the boiler efficiency
L8		and then making adjustments to reflect the energy used
L9		by electrical auxiliaries for steam generation. The

the boiler to the heat available in the fuel.

20

21

22

23

boiler efficiency is the ratio of the heat captured in

heat rate is also adjusted for the steam and electric

		RESIDUAL FUEL OIL STORAGE
2	Q.	Turning now to residual fuel oil storage, what are the
3		factors that you consider in estimating residual fuel
4		oil inventories?
5	Α.	I consider a number of factors, including the Company's
6		storage capacity, target inventory levels, and other
7		practical operational considerations, such as unit fuel
8		burns, and supply and delivery logistics.
9	Q.	How are target inventory levels determined?
10	Α.	The target inventory levels are based on the PROMOD
11		forecasted oil burn, fuel availability, and projected
12		weather and market conditions.
13	Q.	What are the estimated residual fuel oil inventory
14		levels for the Steam System for calendar years 2010 and
15		2011?
16	Α.	The estimated residual fuel oil inventory levels for
17		the Steam System for 2010 and 2011 are approximately
18		300,000 barrels per month for nine months and
19		approximately 350,000 barrels per month for three
20		months of each year. These estimates are based on
21		projections of Company-owned steam-electric and steam-
22		only generation.
23	Q.	What is the Company's current storage capability?

- 1 A. Con Edison has approximately 300,000 barrels of its own
- 2 residual fuel oil working storage capability, and
- 3 approximately 700,000 barrels of leased/contracted
- 4 residual fuel oil working storage capability.
- 5 Q. Is this storage capability adequate for the Company's
- 6 projected needs?
- 7 A. The Company has determined that its current storage
- 8 capability exceeds its needs. As a result, the Company
- 9 does not intend to renew one of its three large leased
- 10 residual fuel oil storage tanks. This will reduce the
- leased residual fuel oil working storage capability to
- approximately 550,000 barrels, which when added to the
- Company's storage capacity, will meet our residual fuel
- oil storage capacity needs. This reduction in leased
- 15 residual fuel oil storage costs results in a reduction
- in base rates, which has been reflected in the
- 17 Company's steam revenue requirement.
- 18 Q. Please explain the basis used for estimating other
- 19 fuel-related expenses.
- 20 A. Other fuel-related expenses are comprised primarily of
- 21 leased residual fuel oil tank rents as described in the
- 22 preceding answer on this page. Leased residual fuel oil
- 23 storage tank rents are estimated based on residual fuel
- oil storage capacity commitments under contracts that

1		are necessary to supplement Company-owned storage in
2		meeting the storage capacity target requirement
3		described above.
4	Q.	How are your estimates utilized?
5	A.	The Company's Accounting Panel uses these residual fuel
6		oil inventory levels and residual fuel oil storage
7		capacity cost estimates in determining the Company's
8		revenue requirement, including working capital
9		requirements. The estimates of residual fuel oil
10		inventory levels are used as inputs to the PROMOD
11		simulations for the estimation of total system fuel
12		costs.
13	Q.	Are you proposing any changes to any of the oil storage
14		and handling costs currently being recovered through
15		the FAC?
16	A.	Yes. Pursuant to the Commission's September 22, 2008
17		Order Establishing Rate Plan in Case No. 07-S-1315
18		("2007 Steam Rate Order"), the Company is moving the
19		recovery of labor costs associated with fuel oil
20		storage and handling, which has been described in the
21		forecasted fuel costs section of my testimony, out of
22		the Steam FAC and into base rates, beginning in the
23		Rate Year effective October 1, 2010. This equates to a
21		program change increase of \$2 129 000 for Company Labor

1		and a concomitant reduction to costs recovered through
2		the FAC. This amount is included in the program
3		changes from the Steam Operations Panel and in Exhibit
4		(SOP-3). These labor costs represent the Company labor
5		costs associated with fuel oil storage and handling
6		efforts at the generating stations. The amount of the
7		program change is based on a three-year average (2006 -
8		2008) of the actual costs incurred by the Company for
9		these efforts.
10		FUEL MANAGEMENT PROGRAM
11	Q.	Turning now to Fuel Management, how does the Company
12		optimize the value of its residual fuel oil storage
13		capability?
14	A.	The Company seeks to optimize the value of its residual
15		storage capacity by performing exchange transactions
16		with third parties. For the Rate Year, the Company
17		forecasts \$230,000 of net revenues for the Fuel
18		Management Program allocated to steam.
19	Q.	Does this forecast reflect any changes from activities
20		in the Historic Year?
21	A.	Yes. In the Historic Year, the Company sublet a
22		portion of its leased residual storage capacity to
23		third parties. However, the Company does not expect
24		this subleasing to occur in the Rate Year. As

1 explained earlier in my testimony, the Company is not 2 planning to renew the lease on one its three large 3 leased storage tanks. The contract for this storage 4 tank will expire just before the start of the Rate 5 This action will reduce the amount of storage 6 capacity that the Company can sublease without interfering with the reliable operation of its system. 7 8 In addition, not renewing this lease will add storage 9 capacity to a very tight low sulfur residual fuel oil 10 storage market, which, in turn, should decrease 11 interest in secondary capacity available from the 12 Company. 13 What is the basis of the estimated \$230,000 in fuel Q. 14 management revenues? 15 In addition to the foregoing, the Company estimates a Α. 16 total of four fuel oil exchange transactions. Two of 17 these transactions were based on 30-day periods for over 100,000 barrels and the other two transactions 18 19 were based on 5 day periods for 20,000 to 40,000 barrels. These projections were based on a review of 20 similar exchanges that occurred in the Historic Year. 21 Does this conclude your initial testimony? 22 Q. 23 Yes, it does. Α.

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

STEAM SYSTEM FUEL REQUIREMENTS AND COSTS

	ACTUAL				- ESTIMA	TED -			
STEAM SENDOUT (MILLION POUNDS)	12 Months Ending June - 2009	(A) Year 2009	Year 2010	Year 2011	Year 2012	Үеаг 2013	Year 2014	Year 2015	(B) 12 Months Ending September - 2011
CON EDISON	23,030	22,590	23,145	23,060	23,220	23,345	22,947	23,135	22,856
BNYCP PURCHASED	4,786	4,708	4,548	4,315	4,330	4,293	4,691	4,522	4,609
TOTAL STEAM SENDOUT	27,816	27,928	27,693	27,375	27,550	27,638	27,638	27,657	27,465
FUEL CONSUMPTION BY TYPE OIL = 1,000 bbl	2,032	2,087	2,071	1,975	1,555	1,629	1,130	586	2,068
GAS = 1,000 Dt	10,134	9,973	9,603	9,809	12,453	12,528	14,582	18,468	9,807
TOTAL FUEL & PURCHASED STEAM COSTS (X \$1,000)				•					
CON EDISON OIL & GAS BURNED	250,271	205,355	226,559	242,674	244,504	254,458	241,468	245,722	245,747
OIL - STORAGE & HANDLING COSTS	12,666	13,397	14,000	13,500	16,500	12,500	11,500	13,500	13,500
BNYCP ENERGY PURCHASES	70,426	48,724	63,640	73,210	81,016	84,252	94,254	96,645	73,709
(C) TOTAL FUEL & PURCHASED STEAM COSTS	333,363	267,476	304,199	329,384	342,020	351,210	347,222	355,867	332,956

⁽A) Includes actual data from January to August, 2009 and estimated data from September to December, 2009.

⁽B) Rate Year.

⁽C) Excludes: BNYCP Capacity Charges - Other Fuel Costs - Deferral Accounting Entries.

	- Natural Gas Prices - Belivered Cost	NYMEX	SEFTEMBER 2009 10 DECEMBER 2015 -0.395 Sulfur High Projected No. 6011	Projected	MBER 2015	Pour No. 6 F	DECEMBER 2013 - 0.376 Suffur High Pour No. 6 Fuel Off Prices ted Maccil. N. Y. S.	Delivered No. 6 Oil Cost	Delivered No. 6 Oil Cost
Year Morah	Web Texes (\$AABby)	W T I Crude (B)	No. 6 Oil / W T I Eactor (C)	Sport Price (2.2bb)	4.5% Sales Tax (S.Obb)	Texes (\$796) (E)	PB Tax For Steam (££\$B))	With Taxes (Srbbi) (ED	With Taxes (£/MMdetu)
2009 Sep Oct Nav	3.89 4.56 4.50 6.34	70.60 72.61 74.08	0.91	64.95 67.19 68.06	25 25 30 30 30 30 30 30	0.12	55 88 85 57 75 85 57 85 85 57 85 85 57 85 85 57 85 85 57 85	70.98 71.93 74.23	11.49
2910 Jan Feb Mar	7,00	75.80	0.09 0.99 0.99	68.83 60.52 70.12	3.10 3.13 3.16	0.12	2.98	75.03 75.75 76.38	11.99 12.10 12.21
Apr Masy Jul Jul Aug	700 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	78.43 79.34 79.34	· 55555	21.15 21.25 22.25	2 2 2 2	5 5 5 5 5 5	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	71.92	1238
Sep Oct Nov	0.05 0.92 7.40 8.31	79.95 80.22 80.52 80.83	669	827 827 80 E	2522	012 22 22 22 23 23 23 23 23 23 23 23 23 23	867 867 867 867 867 867 867 867 867 867	78.86 79.14 79.42	12.69 12.69 12.74
2011 Jan Reb Mer Agr	8.91 8.30 7.63 7.33	81.16 81.15 81.48	16.0 16.0 16.0 16.0	73.47 73.61 73.90 74.04	322	0.12 0.12 0.12 0.12	2.98 2.98 2.98	79.38 80.03 80.33 80.33	12.75 12.79 12.81 12.84
Aug Sep Nov Nov	7.06 8.006 8.03 8.03 8.37 9.03	81.78 82.08 82.28 82.28 82.28 82.28	68 68 68 68 68 68 68 68 68 68 68 68 68 6	74.17 74.45 74.58 74.72 74.85	4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	0.12 0.12 0.12 0.12 0.12	2.98 2.98 2.98 2.98 2.98	80.62 80.90 80.90 81.04 81.19 81.32 81.45	12.88 12.90 12.93 12.93 12.97 13.00
Jun Ner Mary Mary Mary Mary Mary Mary Mary Mar	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	22 23 23 23 23 23 23 24 25 25 25 25 25 25 25 25 25 25 25 25 25	6 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	75.10 75.22 75.33 75.44 75.54 75.55 75.75 75.85 75.05 76.05 76.15	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	0.12 0.12 0.12 0.13 0.13 0.13 0.13 0.13	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	81.58 81.71 81.82 81.82 82.03 82.16 82.37 82.37 82.38 82.38	13.06 13.08 13.08 13.18 13.18 13.18 13.18 13.18 13.20 13.20 13.20
Jan Mary Mary Mary Mary Mary Mary Mary Mary	9.40 9.40 8.23 8.23 8.23 8.23 9.03 9.03 9.03 9.03 11.1	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	6.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5 6.5	76.37 76.39 76.52 76.53 76.58 77.10 77.11 77.11 77.11 77.12 77.13 77.13	4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	012 012 013 013 013 013 013 013 013	2.98 2.98 2.98 2.98 2.98 2.98 2.98 2.98	82 52 52 52 52 52 52 52 52 52 52 52 52 52	13.22 13.27 13.27 13.33 13.33 13.34 13.48 13.48 13.48
And May	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	86.32 86.52 86.53 86.78 86.91 87.95 87.31 87.31 87.31 87.31 87.31	6,8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	76.29 78.29 78.29 78.29 78.29 79.00 79.00 79.00 79.00	23 24 24 24 24 24 24 24 24 24 24 24 24 24	0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12	2.58 2.58 2.58 2.58 2.58 2.58 2.58 2.58	64.92 85.11 85.23 85.36 85.61 85.61 85.61 86.17 86.17	13.57 13.66 13.66 13.66 13.68 13.68 13.75 13.75 13.75 13.75
Table Teeb Markey Marke	10.59 10.13 20.07 20.07 20.00 23 10.00 10.00 11.00 11.00 11.00 11.00 11.00 11.00	88.05 88.77 89.16 89.16 89.16 89.20 89.42 89.62 89.62 89.95 90.09	6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0	80.39 80.62 80.62 80.67 80.87 80.87 81.10 81.47 81.52 81.53	362 362 362 363 364 366 366 366 366 366 366 366 366	0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12	2.08 2.08 2.08 2.08 2.08 2.08 2.08 2.08	87.11 87.24 87.36 87.50 87.74 87.76 88.26 88.24 88.24 88.34 88.46	13.92 13.94 13.96 13.96 14.00 14.00 14.01 14.10 14.10

EXHIBIT

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC

CHARGES FOR STEAM SENDOUT FROM EAST RIVER 6 AND 7 STEAM - ELECTRIC UNITS

EFFECTIVE BEGINNING APRIL 1, 2009

	EAST RIVER 6 (1)
EAM HEAT RATES - (btu/lb)	
TURBINE EXHAUST	1,185
LIVE	1,432
ROCESSING CHARGES - (CENTS/MIb)	
FEEDWATER TREATMENT CHEMICALS	9.08
LABOR	10.65
WATER COST FOR SENDOUT	37.02
FOR WATER TREATMENT	1.55
FOR BOILER BLOWDOWN	0.50
TOTAL	58.80
ROUNDED TO	58.80
) The same Processing Charges also apply to East River 7 wher	it operates as a Steam-Only Unit.