# TABLE OF CONTENTS

1. FORECASTED FUEL COSTS .................................................. 5
2. 59th STREET AND 74th STREET GAS ADDITION PROJECTS .......... 11
3. FORECASTED FUEL PRICES .............................................. 25
   Determination of the Natural Gas Prices .................. 26
   Determination of Oil Prices .............................. 26
4. HEAT RATES AND PROCESSING CHARGES ............................ 37
5. RESIDUAL FUEL OIL STORAGE ........................................ 40
6. FUEL MANAGEMENT PROGRAM ....................................... 42
Q. Please state your names, business addresses and employer.

A. Christina Ho, 4 Irving Place, New York, NY, 10003, and John Catuogno, 4 Irving Place, New York, NY, 10003. We are employed by Consolidated Edison Company of New York, Inc. (“Con Edison” or the “Company”) and are testifying jointly as the Steam Fuel Panel.

Q. What is your educational and professional background?

A. (Ho) I graduated from Cooper Union with a Bachelor of Engineering degree in Chemical Engineering in 2002, and I have recently completed a Master of Science degree in Earth Resources Engineering at Columbia University. I joined Con Edison in 2002 and have held various positions of increasing responsibility in the Central Engineering and Steam Operations Departments. I have been the Manager of the Steam Operations Planning Section since August 2011.

(Catuogno) 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. I am a registered Professional Engineer in the State of New York.
I joined Con Edison in 1991 and have held various positions of increasing responsibility in the Fossil Power, Nuclear Power Engineering, Energy Management, and Steam Operations Departments. Since January 2010, I have been the Department Manager of Steam Operations’ Customer and Business Services.

Q. Please describe your current responsibilities.

A. (Ho) My responsibilities include, among other functions, 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 and Distribution).

(Catuogno) My responsibilities include oversight of the business development, customer operations, communications, operations planning, technical analysis, and long term planning areas for Steam Operations.

Q. Have you previously testified before the New York State Public Service Commission?
A. (Ho) No.

(Catuogno) Yes, I have testified in Cases 09-S-0794, 09-S-0029, and 07-S-1315.

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

A. Our testimony covers several areas.

First, we will provide estimates of fuel costs for steam production and describe how those estimates were prepared.

Second, we present Con Edison’s estimates of future fuel prices, including the impact of the gas transmission reinforcement charge and the gas line loss charge both of which are proposed by the Company in its contemporaneous Gas rate filing, and the Company’s measures for mitigating fuel costs and volatility. This discussion will also include the fuel cost benefits associated with the Company’s gas addition projects at the 59th Street and 74th Street Generating Stations (“59th Street” and “74th Street”, respectively).

Third, we describe the calculation and application of heat rate and processing charges between steam and electric operations.
Finally, we discuss residual fuel oil storage capability and the storage needs of the Steam Department. We will also discuss the Fuel Management Program.

**FORECASTED FUEL COSTS**

Q. Turning to the first area of your testimony, I show you a one-page document entitled, “STEAM SYSTEM FUEL REQUIREMENTS AND COSTS,” and ask whether it was prepared under your supervision and direction?

A. Yes.

MARK FOR IDENTIFICATION AS EXHIBIT __ (Fuel Panel-1)

Q. Please describe the information contained in Schedule 1-Steam System Fuel Requirements and Costs of this exhibit.

A. Schedule 1 of this exhibit shows the forecasted fuel costs for steam production up to and including the 12-months ending December 31, 2014 (“Rate Year”). The exhibit is divided into categories and shows actual steam sendout, fuel consumption, and total fuel and purchased steam costs for the Historic Year (i.e., the twelve-month period ended June 30, 2012). Total fuel and purchased steam costs for the Rate Year are forecast to be approximately $174 million, which
FUEL PANEL - STEAM

1 reflects, among other things, an 11 percent increase in projected steam sendout due to the below average winter during the historic year.

4 Q. Which data are included under the heading “Steam Sendout” in your exhibit?

6 A. “Steam Sendout” is the actual or forecasted steam supplied from the Company’s steam-electric and steam-only generating stations, and purchased from the Brooklyn Navy Yard Cogeneration Partners (“BNYCP”) plant. The total forecasted steam sendout for the Rate Year is 25,791 million pounds of steam.

12 Q. How was the total forecasted steam sendout for the Rate Year determined?

14 A. Projections of the total monthly steam sales were developed and provided to us by the Company’s Steam Forecasting Panel. We then adjusted the monthly steam sales to account for the steam variance in order to determine the monthly steam sendout.

19 Q. How were the steam sendout requirements from various generating stations determined?

21 A. The steam sendout for each of the generating stations are projected based on PROMOD simulations.

23 Q. Please discuss the PROMOD analysis.
A. PROMOD is a multi-area production cost computer model, which has been widely used in conducting planning studies and in rate proceedings. For rate case purposes, and as has been done in the past, PROMOD was also employed to simulate the least-cost, reliable dispatch of Steam System production resources.

Q. What data are used to simulate the Rate Year?

A. The data used includes forecasts of unit maintenance schedules, heat rates, fuel prices, availability of natural gas, and volume and prices of steam purchases.

Q. Please describe the items shown on Exhibit __ (Fuel Panel-1) Schedule 1 entitled “Fuel Consumption by Type.”

A. “Fuel Consumption by Type” is the actual or forecasted fuel oil and natural gas consumption for the generating stations during each of the historic year, forecasted calendar years, and the rate year.

Q. How did you estimate the quantity of fuel and consumption by type that would be used for steam production?

A. The quantity of fuel and consumption by type for steam production was taken from the results of the PROMOD simulations of forecasted operations.
Q. Please describe the next item on Exhibit __ (Fuel Panel-1) Schedule 1 entitled “Total Fuel & Purchased Steam Costs.”

A. Fuel cost is the actual or forecasted cost of fuel for each period for the Company’s steam-only and steam-electric generating stations. Steam purchased costs are described below.

Q. How were total fuel and purchased steam costs determined?

A. The actual fuel and purchased steam costs are through June 30, 2012. The fuel and purchased steam cost forecasts for the Rate Year were based on the PROMOD analysis and the fuel and purchased steam price forecasts that we describe later in our testimony.

Q. Please explain the item entitled “Oil-Storage and Handling” shown in your exhibit.

A. “Oil-Storage and Handling” costs are the costs for storing fuel oil and withdrawing it from storage when required. The projections for these costs are determined based on historical applicable charges made against each system oil storage account and consider known, upcoming major or non-normal planned work, such as dredging and storage facility repairs. The storage
and handling cost forecasts shown in the exhibit reflect the allocation methodology between electric and steam adopted by the Commission in Case No. 99-S-1621.

Q. Does your forecast of the total cost of fuel include any other components?

A. Yes. The forecast includes the energy portion of the steam purchases from BNYCP as well as an annual fixed amount of $7.5 million of ER 1 and 2 above-market costs allocated to steam.

Q. How was the BNYCP forecast for energy developed?

A. The amount of energy supplied by BNYCP is based on simulations from PROMOD. The pricing of the energy by month is equal to the sum of: (1) ninety-five percent (95 percent) of the product of the forecast of natural gas prices at Henry Hub for such month ($/Dt) and 2.45 (Dt/Thousands of Pounds); and (2) one hundred percent (100 percent) of the Steam Processing Charges for such month ($/Thousands of Pounds).

Q. What is your forecast of the capacity charge associated with steam purchases from BNYCP?

A. For the Rate Year, the capacity charge is forecasted to be approximately $3.5 million based on the base
price set forth in the contract, escalated according
to the contract’s inflation index, and adjusted for
the plant’s expected equivalent availability. This
reflects a 6 percent increase from the BNYCP capacity
costs in the historic year, which was approximately
$3.3 million. BNYCP capacity costs are recovered in
Base Rates.

Q. What is the basis for including $7.5 million of
additional ER 1 and 2 fuel costs in this forecast?
A. The ER 1 and 2 above-market costs reflect the amount
of additional ER 1 and 2 fuel costs allocated to Steam
in Rate Year 3 of the 2010 Steam Rate Plan. Pending
before the Commission is the Company’s compliance
filing in Case 09-S-0794, which proposes two
alternatives for allocating ER 1 and 2 fuel costs
between Electric and Steam commencing October 1, 2013.
Since the Commission’s decision in that proceeding is
uncertain, the Company elected to use $7.5 million of
additional ER 1 and 2 fuel costs allocated to Steam as
a proxy for purposes of this forecast.

Q. Why did the Company use a compliance filing as the
vehicle for proposing a change to the allocation of ER
1 and 2 fuel costs?
A. The Commission’s Order Establishing Three-Year Steam and Gas Rate Plans and Determining East River Repowering Project Cost Allocation Methodology in Case Nos. 09-S-0794 and 09-S-0029, issued September 22, 2010 (“2010 Rate Order”), requires that the Steam System file no less than nine months prior to the expiration of the 2010 Steam Rate Plan a methodology to phase in the ER 1 and 2 full above-market fuel costs no later than the seventh year after the end of the three-year rate period set forth in the 2010 Rate Order. Since rates in this proceeding are filed with an anticipated effective date of January 1, 2014, the Company made its Compliance Filing Regarding East River Repowering Project Fuel Costs on Behalf of Consolidated Edison Company of New York, Inc. on December 31, 2012, which is nine months prior to September 30, 2013, the expiration of the rate plan adopted in the 2010 Rate Order.

59th STREET AND 74th STREET GAS ADDITION PROJECTS

Q. Have the projects adding gas firing capabilities to the 59th Street and 74th Street Generating Stations been taken into account in this price forecast?
A. Yes. The Company has modeled these projects in its PROMOD simulations. Our PROMOD simulations have Boilers 114 and 115 at 59th Street Generating Station fully gas-fired as of June 2013 and all of the boilers at the 74th Street Generating Station modeled to commence full gas-firing as of December 2013. Currently, Boilers 114 and 115 at 59th Street only have ignition gas and there is no natural gas supply to the boilers at 74th Street. The Company’s Steam Infrastructure and Operations Panel discusses the capital costs of these projects as well as the environmental benefits associated with the firing of natural gas.

Q. I show you a three-page document entitled “GAS ADDITION–ECONOMIC IMPACTS” and ask whether it was prepared under your supervision and direction?

A. Yes.

MARK FOR IDENTIFICATION AS EXHIBIT __ (Fuel Panel-2)

Q. What are the anticipated fuel savings associated with these projects?

A. Fuel Panel-2, Schedule 1 shows the Company’s projection of fuel cost savings from this project. The anticipated fuel savings associated with the gas
addition projects are derived from the projected price difference between natural gas and residual fuel oil, which will be discussed in greater detail later in our testimony. Based upon fuel price estimates as of October 2012, the annual fuel cost savings are estimated to be approximately $66.5 million, on a levelized, 2012 dollar basis for the first five full years that the projects will be in service.

Q. How is the capital investment in these gas additions facilities reflected in the Company’s Steam rate filing?

A. The Company’s capital expenditures for the gas addition projects are expected to total approximately $109 million, and are reflected in the net plant calculation performed by the Company’s Accounting Panel and therefore reflected in the base delivery rates calculated for the Rate Year. The Steam Infrastructure and Operations Panel also discusses these capital expenditures in the context of the Company’s steam production capital budget.

Q. Is the Company proposing an alternative method of recovering the costs associated with this project?
A. Yes. As an alternative to recovering the cost of the gas additions project in base rates, the Company believes that customer interests would be better served by using a portion of the fuel cost savings that this project is anticipated to produce to recover the carrying charges (depreciation, federal and state income taxes, and return) associated with the capital investment in these facilities. Specifically, the Company proposes that recovery come from one-half of the savings associated with burning natural gas at the stations’ converted boilers instead of fuel oil and be allocated on a monthly basis towards the recovery of the carrying costs of the Project. The remaining one-half of the savings associated with burning natural gas at the stations’ converted boilers instead of fuel oil would be reflected in the Company’s monthly steam fuel adjustment calculation. Once the full cost of the project is recovered, 100 percent of the fuel savings associated with burning natural gas at the stations instead of fuel oil would inure on a monthly basis to the Company’s steam customers. Property taxes, maintenance costs, deferred taxes, and removal costs
associated with the project would be recovered through base rates in a traditional manner for the life of the project.

Q. Did the Company previously propose to recover the costs of the gas additions project by applying fuel savings to offset carrying charges on this capital investment, which has been referred to as an Accelerated Cost Recovery ("ACR") method?

A. Yes. In Case No. 09-S-0794, the Company made a filing with the Commission on July 28, 2011, requesting that the Commission authorize the Company to recover through the FAC the total revenue requirement associated with adding gas burning capability to the 59th Street and 74th Street Generating Stations.

Q. Did the Commission rule on this request?


Q. Given the February 22nd Order, why is the Company again proposing to use projected fuel cost savings to recover the costs of the gas additions project?
A. In rejecting the Company’s proposed recovery method, the Commission stated (February 22nd Order, at 5)

Given the current state of the economy as well as the three consecutive annual base rate increases associated with the Company’s current rate plan, customers should receive the full benefits from the gas conversion sooner rather than later. [emphasis added]

The Commission now has the opportunity to consider this proposal in the context of a proposal for steam base delivery rates that provides savings to steam customers that were not visible to the Commission when it stated the need to provide more fuel savings earlier in time in order to offset steam delivery rate increases.

Q. Are there additional reasons for having the Commission reconsider its order denying the Company’s petition?

A. Yes. We will address the other reasons given by the Commission for rejecting the Company’s petition, namely, (1) that the cost recovery period should generally follow the useful life of the plant asset so that customers benefiting from the assets are paying for them, (2) the Commission’s comparison of the net present value (“NPV”) of the project under the ACR and the traditional recovery method (“TCR”) methods, and
that recovery through the FAC results in a single volumetric charge applicable to all steam customers, which would not reflect proper allocation and recovery of costs among existing customers.

Q. Does the Company’s ACR method appropriately assign the costs of the project to those customers that will be receiving the benefits of the gas additions project?

A. Yes. The February 22nd Order (p. 5) acknowledges that “the fuel price forecast is more certain over the short term and less certain in the outer years.” As a consequence, current steam customers are much more certain to derive financial benefit from the gas addition projects than future steam customers (which, in any event, may likely be most or all of the same customers). Accordingly, since rate design and cost allocation invariably requires the exercise of judgment, considering the nature of these capital facilities (i.e., to enable the Company to burn a more cost-effective fuel) and current market circumstances significantly favoring natural gas prices over fuel oil prices, there is no inequity in near-term customers receiving a lower, near certain net benefit, so that near-term and long-term customers can both
receive a certain long-term benefit of reduced steam delivery rates. Moreover, as indicated above, future customers bear some cost responsibility for these facilities, since they will share in property taxes, maintenance costs, deferred taxes, and removal costs associated with this project under either the TCR or ACR method.

Q. Please explain how steam customers will benefit financially from the ACR method.

A. The delivery portion of steam customer bills will be lower over the life of these facilities by implementing the ACR method as compared to steam customer bills using the TCR method of recovering capital project costs in base delivery rates. Specifically, steam customers would pay more under the TCR method because, over the life of the investment, the Company would recover a greater aggregate return on the capital investment component and higher associated state and federal taxes. Stated in present value terms over a forty-year period, the ACR mechanism is estimated to provide to the Company a return on investment of $22.8 million as compared to $72.7 million under the TCR method. These
calculations are a product of the cost recovery methodology associated with the capital investment, and unlike fuel price projections the methodology is certain, not speculative.

Q. Do you agree with the Commission’s assessment in the Order that the standard method of recovery should be used because the net present value (“NPV”) of the benefits during the first 10 years are more certain and therefore “the traditional recovery method provides a greater benefit to customers?”

A. We reach the opposite conclusion, and for that reason we are proposing the alternative method here. While it is true that customers will experience equal or lower bills during the first ten years under the TCR method as compared to the ACR method, all else equal, customer bills will be higher over the long term. Moreover, while in the near-term, customers have a high degree of assurance that their fuel savings will fund the conversion cost, in the latter years of recovery under the TCR method, there may not be the same savings. Accordingly, there is the potential that in the future customers would have to shoulder both higher fuel costs and the continuing capital
recovery requirements of the TCR. Therefore, it is the ACR method, and not the TCR method, that provides greater certainty of annual benefits to customers over the life of the asset.

Q. How does the ACR’s alignment of cost responsibility and benefits address the Commission’s concern in the February 22\textsuperscript{nd} Order (p. 6) that the “recovery of capital costs through the FAC would not reflect the proper allocation and recovery of costs based on standard rate making principles”?

A. By recovering the project’s costs through the FAC, customers that use the most steam and thereby benefit the most from increased fuel savings will “fund” a proportionally larger share of the costs of the project than customers that use less steam. Thus, recovering the costs of the gas additions using the ACR method is aligned with standard cost causation principles. That being said, this concern of the Commission is not a reason to reject the ACR method.

Q. Please explain why.

A. If the Commission determines that recovery of these capital costs using a portion of the fuel savings should not disturb cost responsibility among current
customers that would otherwise result from the recovery of these costs through base rates, the Company would endeavor to design its monthly FAC adjustment to preserve the cost responsibility of each rate class.

Q. How many years does the Company project it will take to fully recover the capital costs of the project using the ACR method?

A. The Company projects that it will recover the capital cost of the project using the ACR method in approximately four years while, at the same time, reducing the steam customers’ overall cost responsibility for the project.

Q. What is the bill impact associated with the Company’s proposed ACR method?

A. As shown in Page 1 of Fuel Panel-2, Schedule 2, based on the fuel costs projected by the Company, the bill impact from the Company’s ACR proposal in the Rate Year would be a bill reduction from current rates of approximately 7.1 percent during the Rate Year. Although the bill reduction in the Rate Year would be 10.2 percent under the rate request as filed and shown in the Steam Rate Panel, Exhibit ___(SRP-6), as
explained in this testimony, the Company believes that the ACR method reduces steam customers’ overall cost responsibility for the project.

Q. The Order notes comments from New York City proposing that the project costs be recovered over eight years to increase benefits to steam customers in the near term. Please comment on that proposal.

A. The Company believes that the longer the recovery period, the more the benefits to steam customers of an ACR method relative to a TCR method dissipates. For example, all else being equal, redesigning the Company’s proposal to double the cost recovery period (from four to eight years) would reduce bills by 2.0 percent from the ACR method discussed above, for a total bill decrease of 9.1 percent from current rates, as shown in Page 2 of Fuel Panel-2, Schedule 2. However, the Company would recover approximately $13 million in additional carrying charges on this investment over the longer recovery period. That said, adjusting the ACR proposal in an attempt to achieve recovery over eight years rather than four years would certainly be preferable to the extended recovery periods under the TCR method.
1 Q. Is it possible that future gas and oil prices and fuel cost savings will not be as currently projected?
2 A. Of course, but this is true under either recovery method and is much more likely as recovery years extend into the future.
3 Q. If the ACR method is adopted, what is the Company proposing in terms of cost recovery if there are little or no savings to fund this investment?
4 A. The proposed ACR method is premised upon the Commission acknowledging the Company’s right to petition the Commission to recover the then-unrecovered portion of this investment through alternate means.
5 Q. What is the basis for this premise?
6 A. This conversion is being undertaken to comply with environmental regulations. Upon advice of counsel, we understand the Company to be entitled to a reasonable opportunity to fully recover its prudently-incurred costs.
7 Q. Since the Company is proposing the ACR method, is it not reasonable for the Company to accept some risk that its fuel projections are as anticipated?
A. No, it is not. As explained above, the Company is obligated to make this investment in order to comply with environmental regulations and it is entitled to recover this prudently incurred expense. The Company is proposing the ACR method because it believes this approach to be in the best interests of customers. The Company gains no financial advantage or reward under the ACR method. In fact, as explained above, the Company earns materially less on this investment under the ACR method than it would under the TCR method.

The ACR method seeks to recognize that while this is an environmentally mandated project, it is occurring at a time when there are also significant economic benefits from implementing the project. This situation affords steam customers the opportunity to avoid an increase in base delivery rates for this investment while still providing them with a material reduction in fuel costs.

Q. Are there any other circumstances that the Commission should consider when evaluating the ACR method that were not available to the Commission when it
considered the Company’s July 28, 2011 petition to implement the ACR method?

A. Yes. As noted above, the Commission now has the opportunity to consider the ACR method in the context of setting base rates. As is evident from the Company’s rate filing in this proceeding, effective January 1, 2014, customers will receive a material reduction in their steam bills. The Commission can and should consider the net impact on steam customer bills, and recognize the value to customers of the Company using the other portion of the fuel cost savings to write down an investment that customers would otherwise pay for in base delivery rates.

**FORECASTED FUEL PRICES**

Q. I show you a one-page document entitled, “FORECAST OF FUEL PRICES, JANUARY 2013 TO DECEMBER 2018” and ask whether it was prepared under your supervision and direction?

A. Yes.

MARK FOR IDENTIFICATION AS EXHIBIT __ (Fuel Panel-3)

Q. Please explain how the forecast of natural gas and residual fuel oil prices was developed.
The forecast of natural gas and residual fuel oil (No. 6 Fuel Oil) prices as reflected in Exhibit __ (Fuel Panel-3), which was used as an input in the PROMOD simulations previously described, was developed as follows:

**Determination of the Natural Gas Prices:**

Column A - This is a forecast of the delivered natural gas prices, expressed in $/MMbtu, which was developed by the Company’s Gas Supply Department. This natural gas price forecast is the delivered cost of natural gas to the production units’ burner tip.

**Determination of Oil Prices:**

Column B - This is a forecast of the delivered cost of 0.3%S High Pour No. 6 Fuel Oil, expressed on a $/MMbtu basis, which was developed by the Company’s Gas Supply Department.

Q. What information is used to develop these fuel oil and natural gas forecasts?

A. These forecasts are based on the market expectations at a point in time and a number of proprietary services the Company subscribes to. History has demonstrated that fuel prices can and will deviate substantially from forecasted levels. Changes in
market prices for fuel are outside of the Company’s control. However, the Company takes steps to mitigate fuel price volatility. One example is the gas hedging program, which is designed to mitigate volatility, but can result in prices above or below the market price.

Q. Are you generally aware of the measures undertaken by the Company to mitigate its gas costs?
A. Yes, we are, based on information provided by the Company’s Gas Supply Department.

Q. What methods does the Company use to minimize gas costs?
A. The Company minimizes gas costs through competitive bidding processes and requests for proposals to the marketplace. The Company also undertakes additional efforts to reduce the volatility of gas prices.

Q. What additional steps does the Company take to reduce the impact of the volatility of gas prices on the Company’s gas costs?
A. Here are several examples. First, firm transportation to the Citygate, like those included in the Company’s gas supply portfolio, in addition to satisfying the need for reliability of gas deliveries, enables the Company to avoid the volatility of basis (i.e., the
value of transporting gas from a supply point to a
delivery point), which would be the case if the
Company were to buy all of its transportation capacity
in the market, on an “as needed” basis.

Second, for additional gas required by Steam during
the winter months, the Company secures deliveries to
the Citygate ahead of the winter at a predetermined
fixed capacity value (“Fixed Basis”). This avoids
monthly and daily basis fluctuations.

Third, for gas required by Steam in excess of their
firm transportation to the Citygate, the Company will
utilize other capacity in excess of the needs of the
Company’s firm gas customers (“Supplemental
Capacity”). The Supplemental Capacity is priced to
Steam (i) during the period April through October, at
the market value of capacity releases, and (ii) during
the period November through March, at the Company’s
weighted-average cost of capacity, further reducing
volatility.

Fourth, the Company has a gas hedging program that is
designed to mitigate the impact of natural gas price
volatility on the Company’s gas costs. The program
has several components, including the use of a
A combination of physical price locks, through the Company’s supply contracts, and various financial instruments to hedge natural gas prices.

Q. Have the Company’s efforts to mitigate gas price volatility been successful?
A. Yes, they have. The Company measures the price volatility of the gas delivered to the Company’s Steam Department. For the Historic Year, the gas delivered to the Steam Department had less than 51 percent of the volatility of the gas market prices in New York City.

Q. Have the Company’s gas procurement efforts been the subject of regulatory review?
A. Yes, they have. The Company’s gas procurement efforts are routinely reviewed in the context of Company gas rate filings, including the Company’s November 2009 gas rate filing, Case No. 09-G-0795. In addition, Peter Carnavos, who is the Director of the Company’s Gas Supply Department, provides testimony regarding the Company’s gas procurement efforts in the contemporaneous Gas filing. Finally, the Company’s Gas Supply personnel consult with the Department of Public Service Gas Staff annually to review efforts...
designed to provide for reliability of gas supply and mitigate gas price volatility.

Q. Are there any other steps the Company takes to effectively manage its natural gas supply and costs?

A. Yes. The Steam Operations Planning Section maintains daily communication with Gas Supply to: (a) relay up-to-date unit operation plans; (b) understand near term market trends; and (c) discuss any opportunities in the natural gas market. During anticipated high burn days, a detailed review of the day ahead steam and steam-electric unit dispatch and gas burn are reviewed so that the load is met in the most cost effective manner consistent with reliability. Contingencies in the gas market and on the Gas System as well as on the Steam System are also considered to maintain the reliability of both systems.

Q. Please describe the methodology for allocating gas commodity and capacity costs between the Gas Department and the Steam Department.

A. Gas pipeline capacity and gas commodity costs are allocated to Steam in the following manner: -- Steam is directly allocated the cost of certain long-term firm transportation contracts.
-- The cost of any additional capacity procured specifically to meet incremental Steam requirements is directly allocated to Steam.
-- If needed and available, Steam utilizes firm gas customers’ excess capacity. Steam is charged according to its portion of usage of this excess capacity.
-- The cost of any gas commodity procured specifically for Steam is directly allocated to Steam.
-- The commodity cost of gas supplied/allocated to Steam from the Combined Portfolio is at the weighted average cost of the gas taken from the portfolio.
Finally, we note that all gas costs charged to the Steam Department are then allocated between steam and electric production pursuant to existing Commission-approved allocation methodologies.

Q. In its contemporaneous Gas rate filing, the Company is proposing to charge generators, including steam, a Gas Transmission Reinforcement Charge. What is the impact of this proposed surcharge on steam customers?

A. If adopted by the Commission, the Gas Transmission Reinforcement Charge will add an additional $768,000 in costs to Steam during the Rate Year. The Company
will recover this surcharge from Steam’s customers through the FAC, as part of the cost of gas. Please refer to the testimony of the Gas Non-Firm Service panel for the derivation of this charge.

Q. In its contemporaneous Gas rate filing, the Company is also proposing to change the Lost and Unaccounted For Gas (“LAUF”) calculation for generators. What is the impact of this proposed surcharge on steam customers?

A. If adopted by the Commission, Steam will be charged an increased gas line loss of 0.5 percent starting in October 2013. Steam currently pays a 0.1 percent line loss. This proposal will increase the volumes that steam has to purchase at the city gate an additional 0.4 percent.

Q. Please describe the effect of the gas line loss proposal on the cost of natural gas.

A. The revised LAUF calculation will add an additional $192,000 in commodity costs of natural gas costs during the Rate Year for Steam. It will also affect the fixed cost of natural gas due to the contracts reflecting higher total volumes to account for the line loss. The Company will recover this charge from the customers through the FAC, as part of the cost of
FUEL PANEL - STEAM

gas. Please refer to Company witness Carnavos (Gas
Supply) for the derivation of this charge.

Q. Please describe the Platts subscription charge.

A. The Company requires access to the Platts system, for
which Gas Supply maintains a subscription. Twenty
four percent of the subscription charge is allocated
to steam. Steam’s share of the charge for this
subscription is recovered in base rates.

Q. Are there proposed changes in the charge for the
Platts subscription?

A. Yes. The estimated cost of this service in the Rate
Year is $424,000. The Steam portion of this
subscription is increasing from approximately $24,000
in the Historical Test Year to approximately $102,000
in the Rate Year. The increase charge is reflected in
steam base delivery rates for the Rate Year. Company
witness Carnavos (Gas Supply) describes the Company’s
proposal to recover the gas department share of the
Platts subscription (or the costs of any clearinghouse
publication that may substitute for Platts in the
future) through the MRA. If the Gas Supply proposal
is adopted by the Commission, we propose to recover
the Steam share of the Platts subscription charge.
through the FAC and remove that cost from the base rate calculation.

Q. How is residual fuel oil for the Company’s steam and steam-electric generating stations procured?

A. The Company’s residual fuel oil for the generating stations is procured via a portfolio of spot and firm purchase supply contracts to obtain lowest reasonable costs consistent with maintaining a reliable supply and to allow for operational flexibility when needed. The spot supply transactions are solicited via requests for bids and the suppliers’ offers are competitively selected.

Residual fuel oil for the 74th Street and Ravenswood Steam Generating Stations is purchased from TransCanada, the owner and operator of the oil storage facilities at the Ravenswood site.

Q. How does the Company mitigate the impact that the volatility in residual fuel oil prices has on its fuel costs?

A. To mitigate the impact that the volatility in residual fuel oil prices has on the Company’s fuel costs, the Company uses its residual fuel oil storage, which is further described in the testimony below. In times of
FUEL PANEL - STEAM

1 rising oil market prices, when a portion of the oil
2 supply to the generating stations is taken from
3 storage, customers are charged the inventory price,
4 which reflects the lower prices of past purchases.
5 When oil market prices fall, the Company purchases oil
6 to both replenish the inventory in its storage tanks
7 and for delivery to its generating stations.
8 Q. Are there any other steps the Company takes to
9 effectively manage fuel oil supply and costs?
10 A. Yes. The Steam Operations Planning Section maintains
11 daily communication with its Fuel Oil Agent to relay
12 up-to-date unit operation plans, to understand near
13 term market trends, and discuss any opportunities in
14 the fuel oil market.
15 Q. How does the renegotiation of the TransCanada
16 agreement affect steam’s cost for oil storage and
17 handling?
18 A. The Company has renegotiated its fuel supply agreement
19 with TransCanada for the Ravenswood Steam Plant and
20 74th Street Generating Station. This was due to the
21 settlement agreement approved by FERC in Docket No.
22 EL10-70, TCRavenswood LLC vs. NYISO ("TCRavenswood
23 agreement"), to which the Commission was a party.
After the settlement of the case, revised contract terms related to the storage and handling were delineated and effected a reduction in steam’s cost for storage and handling by approximately $3.4 million/year. These storage and handling costs are recovered through the FAC.

Q. Are there other costs that the Company is proposing to recover through the FAC?

A. Yes. Company witness Price (Steam EH&S) discusses the possible environmental costs from the Environmental Protection Agency’s Clean Air Interstate Rule (”CAIR”) and Cross State Air Pollution Rule (“CSAPR”). According to Company witness Price, there are currently no quantifiable costs expected in the Rate Year associated with CAIR or CSAPR. As such, the Company’s projected fuel costs do not include a component for CAIR or CSAPR.

Q. How does the Company propose to recover these types of environmental costs if the Company does become subject to such costs.

A. The Company’s Steam Rate Panel discusses the Company’s proposal for environmental cost recovery.
HEAT RATES AND PROCESSING CHARGES

Q. I show you a one-page document entitled “CHARGES FOR STEAM SENDOUT FROM EAST RIVER 6 and 7 STEAM-ELECTRIC UNITS EFFECTIVE APRIL 1, 2012” and ask whether it was prepared under your supervision and direction?
A. Yes.

MARK FOR IDENTIFICATION AS EXHIBIT __ (Fuel Panel -4)

Q. Please explain the items included in processing charges shown in this exhibit.
A. The processing charges include water, chemical, and labor costs. Water costs for East River Units 6 and 7 are determined on the basis of three components, namely, sendout, treatment plant use, and boiler blowdown, all of which are determined by utilizing the current New York City water price. The chemical costs are for chemicals used to remove or neutralize impurities in the feedwater used to make steam. Labor costs include those costs that are associated with the additional personnel required for Steam System operations. All costs that are part of the processing charges are based on actual production data from the previous year.

Q. How is the East River Unit 6 heat rate determined?
A. East River Unit 6 is normally operated as a cogeneration unit. Fuel for steam sendout is allocated to the Steam Department based on a fixed steam rate of 1,185 btu/lb. The balance of fuel costs for the unit is allocated to electric production. This information was used in the foregoing PROMOD simulations. We also note that an exception is made for periods when East River Unit 6 is operated as a live steam boiler (i.e., when the turbine-generator is off-line). In that mode of operation, all fuel costs are allocated to steam. The heat rate for East River Unit 6 live steam sendout is determined by dividing the steam sendout heat output, in btu/lb (steam enthalpy less make-up water enthalpy), by the boiler efficiency and then making adjustments to reflect the energy used by electrical auxiliaries for steam generation. The boiler efficiency is the ratio of the heat captured in the boiler to the heat available in the fuel. This heat rate is also adjusted for the steam and electric auxiliaries used in the production of live steam.

Q. What is the Company doing to improve its steam production unit heat rate?
A. The Company has updated its plant information system ("PI System"), which is a real time data trending system that looks at the steam production units and steam distribution system, to provide real time monitoring of steam production costs and heat rates for each station. This information is accessed by plant operators, engineers, and steam’s support staff. This information is useful in effectively managing the day to day operations of the production units. The visual graphics of the steam PI System enables plant operators, engineers and plant support staff to quickly assess the status of units, system load, plant conditions, and street conditions. Such information provides insight on how to dispatch our units and to run the least cost units first and the highest cost units last. In addition to the steam PI System, our energy dispatchers utilize a steam dispatch optimizer that evaluates the fuel type, boiler efficiency, system load, and other operating costs parameters to provide the best loading and dispatch sequence for the units. The stations make use of a real time boiler fouling tracking system that informs them when boiler efficiency is degraded to point that requires a
fireside wash. Boiler efficiency and air leakage
tests are performed every six months. In addition to
these items, the stations monitor and test rotating
equipment for vibrations and efficiency, clean heat
exchangers and air preheaters, inspect steam traps,
and perform deaerator and feedwater system
inspections.

RESIDUAL FUEL OIL STORAGE

Q. Turning now to residual fuel oil storage, what are the
factors that you consider in estimating residual fuel
oil inventories?

A. A number of factors are considered, including the
Company’s storage capacity, target inventory levels,
and other practical operational considerations, such
as unit fuel burns, and supply and delivery logistics.

Q. How are target inventory levels determined?

A. The target inventory levels are based on the PROMOD
forecasted oil burn, fuel availability, and projected
weather and market conditions.

Q. What are the estimated residual fuel oil inventory
levels for the Steam System for calendar years 2013
and 2014?
A. The estimated residual fuel oil inventory levels for the Steam System for 2013 and 2014 are approximately 300,000 barrels per month. These estimates are conservative and are based on projections of Company-owned steam-electric and steam-only generation as well as a worst case 30 day burn potential for gas system emergencies.

Q. What is the Company’s current storage capability?

A. Con Edison has approximately 220,000 barrels of its own residual fuel oil working storage capability, and approximately 480,000 barrels of leased/contracted residual fuel oil working storage capability.

Q. Is this storage capability adequate for the Company’s projected needs?

A. The Company has determined that its current storage capability meets its needs. The Company further notes that it has not renewed one of its leased storage agreements for 320,000 barrels. This is because fuel oil burns have been much less than previous years. This is a program change that reduces costs to steam customers by approximately $2.1 million in the rate year.
Q. Please explain the basis used for estimating other fuel-related expenses.

A. Other fuel-related expenses are comprised primarily of leased residual fuel oil tank rents. Leased residual fuel oil storage tank rents are estimated based on residual fuel oil storage capacity commitments under contracts that are necessary to supplement Company-owned storage in meeting the inventory target requirement described above.

Q. How are your estimates utilized?

A. The Company’s Accounting Panel uses these residual fuel oil inventory levels and residual fuel oil storage and handling cost estimates in determining the Company’s revenue requirement, including working capital requirements. The estimates of residual fuel oil inventory levels are used as inputs to the PROMOD simulations for the estimation of total system fuel costs.

FUEL MANAGEMENT PROGRAM

Q. Turning now to Fuel Management, does the Company foresee any optimization of the value of its residual fuel oil storage capability?
A. In the past the Company optimized the value of its residual storage capacity by performing exchange transactions and storage tank capacity subleases with third parties. For the Rate Year, the Company does not forecast any net revenues for the Fuel Management Program.

Q. Does this forecast of no net revenues for the Fuel Management Program reflect any changes from activities in the Historic Year?

A. Yes. In the Historic Year, the Company sublet a portion of its leased residual storage capacity to third parties. However, the Company does not expect this subleasing to occur in the Rate Year. The Company has not renewed the lease on one of its two large leased storage tanks. The contract for this storage tank expired in the fall of 2012. While the Company did increase a small amount of storage capacity though the aforementioned TCRavenswood agreement, the expiration of the lease of one storage tank has significantly reduced the total amount of storage capacity that the Company can sublease without interfering with the reliable operation of its system.

Q. What about revenue from fuel oil exchanges?
A. Based on a review of exchanges that occurred in the Historic Year as well as the projected decrease in #6 fuel oil demand in the New York Harbor area, there is no reasonable basis for anticipating any viable opportunities for fuel exchanges during the rate year. Therefore, the revenue requirement for Rate Year 1 reflects zero dollars for fuel oil exchanges, a change from the test year in which there was approximately $1.3 million of revenues, which was primarily attributed to subleasing the 320,000 bbl fuel oil tank that we no longer lease as discussed above.

Q. Does this conclude your initial testimony?

A. Yes, it does.