Q. Would the members of the Forecasting Panel please state their names and business address?

A. Louis Bevilacqua, Joseph McGrath, Patrick F. Hourihane, and Hock G. Ng, 4 Irving Place, New York, New York 10003.

Q. By whom are you employed, in what capacity, and what are your professional backgrounds and qualifications?

A. We are employed by Consolidated Edison Company of New York, Inc. ("Con Edison" or the "Company").

(Bevilacqua) I am the Vice President of Business Finance. My background is as follows: I received a Bachelor of Business Administration degree in Accounting from Iona College in 1980 and the degree of Master of Business Administration in Management Information Systems from Iona College in 1985. In June 1979, I began my employment with Con Edison. I have held various positions of increasing responsibility over the years in the following organizations: the Company's planning organization, Transformer Shop, Corporate Accounting and Stores Operations. During these assignments, I worked on sales and revenue forecasting for gas and electric. I

also worked on the development of the Company's financial forecasting systems. In 2006, I worked as the Director of the Shared Services Administration group and worked on the restructuring of the Corporation. In 2008, I was promoted to Vice President and General Auditor, and worked in that position until November 2014, when I moved to my current position.

(McGrath) I am Director of Budget and Forecasting in Business Finance. I received a Bachelor of Science degree from New York Institute of Technology in 1990 and Master of Business Administration degree from New York University in 1994. I began my employment with Con Edison in 1985 and have held positions of increasing responsibility in Central Operations, Energy Management and Finance. In 2001, I was promoted to Director in the Treasury Department. In 2004, I became an Assistant Controller in Corporate Accounting and worked in that position until 2013, when I moved to my current position.

(Hourihane) I am Section Manager of Electric Revenue and Volume Forecasting in Business Finance. My

background is as follows: I received a Bachelor of Arts Degree in History from Saint Meinrad in 1974 and a Master in Energy Management Degree from New York Institute of Technology in 2000. In 1975, I began my employment with Con Edison in the Customer Service Department. Between 1978 and 2005, I worked in positions of increasing responsibility in the Customer Service and Energy Management departments. My responsibilities included such projects as the electric governmental forecast and the gas delivery forecast. In 2005, I transferred to the Rate Engineering Department. In December 2006, I was promoted to my present position in Business Finance. My responsibilities include overseeing the electric volume and revenue forecast.

(Ng) I am a Senior Planning Analyst of Electric Revenue and Volume Forecasting in Business Finance. My background is as follows: I received a Bachelor of Economics degree from the University of Western Australia in 1983. I also received a PhD degree in Economics in 1992 from Stanford University. In 2005, I began my employment with Con Edison. Prior to

joining Con Edison, I taught and performed research in economics and econometrics at various universities. My responsibilities include developing, testing and updating the forecasting models used to produce the electric delivery volume and revenue forecast.

Q. Has any panel member published any literature, which is relevant to modeling and forecasting?

A. **(Ng)** Yes, I co-authored two articles dealing with forecast modeling issues that have been published in the International Journal of Forecasting, and Systems Analysis Modeling Simulation, respectively.

Q. Have you previously testified in regulatory proceedings?

A. **(Bevilacqua), (Hourihane), & (Ng)** We have previously testified.

(McGrath) No, I have not previously testified.

Q. What is the purpose of the Forecasting Panel’s testimony?

A. The Panel presents the Company’s forecast of electric delivery volumes, revenues and system sendout for October 1, 2014 through December 31, 2018, and

discusses the methodologies used to develop these forecasts.

Q. What were the actual and normalized delivery volumes for the 12 months ending September 2014?

A. The actual franchise area delivery volume for the 12 months ending September 2014 was 56,496 gigawatt hours ("GWHs"). The normalized delivery volume for this period was 56,808 GWHs.

Q. Would you please summarize, in aggregate form, your delivery volume forecast?

A. The delivery volume forecast for the three months ending December 2014 is 13,428 GWHs. The delivery volume forecast for the 12 months ending December 2015 is 56,803 GWHs. The delivery volume forecasts are 56,643 GWHs for the 12 months ending December 2016 ("Rate Year" or "RY1"), 56,430 GWHs for the 12 months ending December 2017 (which we will refer to as "RY2" for ease of reference), and 56,641 GWHs for the 12 months ending December 2018 (which we will refer to as "RY3" for ease of reference).

Q. What is the purpose of the delivery volume and sendout forecasts?

A. The delivery volume forecast is used to determine the revenue forecast. The sendout forecast is supplied to the Energy Supply Panel for their forecast of the cost of energy supply.

Q. Do you have any exhibits that accompany this testimony?

A. Yes, we are presenting ten exhibits, Exhibit ___ (FP-1) through Exhibit ___ (FP-10).

Q. Were these ten exhibits prepared under the Panel's direction and supervision?

A. Yes. We will describe each of these exhibits in the course of our testimony.

DELIVERY VOLUMES BY SERVICE CLASSIFICATION

Q. What forecasting methodologies are used to project the electric delivery volumes?

A. The delivery volume forecasts are based on various methodologies. The forecasts of delivery volumes for major service classifications ("SCs") are based on econometric models, which will be discussed shortly under Econometric Models. The forecasts of delivery volumes for the other SCs are performed on a deterministic or individual service class basis.

Q. Please explain.

A. For two small service classifications (SC 5 -- Rail Road Platform and Stations Lightings and SC 6 -- New York City Private Street Lighting), under which delivery volumes have not changed significantly, forecasts were done on a deterministic basis.

Q. Are there any other delivery volume forecasts that are not based on econometric models?

A. Yes. The delivery volume forecasts for three groups of customers who are on special rates are not based on econometric models.

Q. Please elaborate.

A. The forecast of delivery volumes for commercial customers receiving the Company's Business Incentive Rate ("BIR") under Rider J are also done on a deterministic basis. The Recharge New York ("RNY") forecast for the portion ("below-the-allocation") that is exempt from the System Benefits Charge ("SBC") and Renewable Portfolio Standard ("RPS") charge was based on historical data. The Standby Service forecast was performed on an individual customer basis for the 56 existing and six projected new customers.

Econometric Models

Q. For which classes did the Company use econometric models?

A. Econometric models were used to forecast electric delivery volumes for SC 1 (Residential), SC 2 (Small Commercial), SC 8 (Master Metered Apartments), SC 9 (Large Commercial), and SC 12 (Multiple Dwelling Space Heating). The modeling periods, the independent variables, and the model structure are described below.

Modeling Period

The SC 12 econometric model is developed on a monthly basis, using data from October 1989 through September 2014. The other econometric models are developed on a quarterly basis, using data from the fourth quarter of 1989 through the third quarter of 2014.

Independent Variables

We employ three types of variables – weather, dummy and economic.

Weather variables, in terms of heating and cooling degree days, are included in all models to account for delivery variations due to differences in weather

conditions. Dummy variables are included in the SC 2, SC 9 and SC 12 models to account for structural breaks in the data.

Key economic variables included in the various models are as follows:

- The SC 2 and SC 9 models include the number of customers in the class, real electric price of the class, and private non-manufacturing employment. In this and all future references to the private non-manufacturing employment variable, we are referring to the series that has not been seasonally adjusted.
- The SC 1 and SC 8 models include the real electric price of the class and real disposable income.
- The SC 12 model includes the number of customers in the class.

Q. In Case No. 13-E-0030, you used private non-manufacturing employment as an independent variable in your SC 8 model. Why have you replaced this variable with a real personal disposable income variable?

A. As in Case No. 13-E-0030, we use real disposable income as an explanatory variable in the model for SC 1, which is the main service classification for residential customers. Since SC 8 includes many residential apartments, we decided to test an SC 8 model that included a real personal disposable income variable against an SC 8 model with private non-manufacturing employment. We opted to change to the model with the real personal disposable income variable because it better explains the variations in historical delivery volumes.

Model Structure

Each of the econometric models consists of two parts: the first part is a regression model, which correlates the delivery volume with the set of independent variables selected into the model; the second part is an autoregressive integrated moving average ("ARIMA") model. The combined model is often referred to as an ARIMAX model in modeling literature, where the letter "X" stands for the set of independent variables included in the model. The ARIMA model can take many different forms, and each model has its own ARIMA

structure, statistically determined according to the data pattern of each SC.

Q. What is the purpose of including an ARIMA part in the model?

A. In forecast modeling, the model includes only a few key economic variables, such as real electric price, number of customers, income and/or employment. Although other economic variables may have an effect on electric delivery, they are excluded from the model because they are not quantifiable, or there are no data available on them. The ARIMA mechanism captures the collective effect of those excluded variables. In addition, ARIMA also smoothes out autocorrelations in the data; the presence of autocorrelations would increase forecast error.

Q. Have you prepared an Exhibit showing the models that you have just described?

A. Yes, we have prepared a six-page document entitled "VOLUME FORECASTING MODELS." In the Exhibit, we provide the econometric models used for forecasting delivery volume for SCs 1, 2, 8, 9, and 12, as well as the sendout model.

MARK FOR IDENTIFICATION AS EXHIBIT ___ (FP-1)

Q. What are the criteria used to measure the accuracy of the econometric models?

A. Generally accepted criteria to measure the accuracy of each model are used. Many different model structures are tested for each SC, with variations especially in the structure of the ARIMA part of the model. A Durbin-Watson value near two, a low standard error, and a high R^2, are criteria used to select the models for forecasting.

Q. Have you prepared an Exhibit showing the measures of accuracy you have just described?

A. Yes, we have prepared a one-page document entitled "ELECTRIC FORECASTING MODEL STATISTICS." In this Exhibit, we present measures of model performance for SCs 1, 2 and 9. These three service classifications are featured in the Exhibit because they account for over 90 percent of total Con Edison delivery volumes.

MARK FOR IDENTIFICATION AS EXHIBIT ___ (FP-2)

Q. Please explain this Exhibit.

A. The Exhibit lists the adjusted R^2, standard error, and Durbin-Watson statistic of the models for SCs 1, 2 and

9. All three statistics indicate that the models fit the historical data very well.

Q. Besides these statistics, have you considered other measures of forecast performance?

A. Yes, we tracked the forecast performance of the Company's volume forecasting models from Case 13-E-0030, which are similar in model structure to the models we present in this Case, against those proposed by the Staff witness in Case 13-E-0030. The results, shown in the one-page document entitled "A COMPARISON OF FORECAST VARIANCES," indicate that the total forecast derived using the Company's models were 71 GWH (or 0.1%) above the actual delivery volume over the period from January 2013 through September 2014. In comparison, the total forecast using Staff's models were 827 GWH (1.0%) above the actual delivery volume. When compared against weather normalized delivery volume over the same period, the Company's models again performed better at 846 GWH (1.0%) over actual volume as compared to 1,602 GWH (2.0%) over actual volume for Staff's models.

MARK FOR IDENTIFICATION AS EXHIBIT ___ (FP-3)

Model Assumptions

Q. You listed the key economic variables used in the forecasting models as private non-manufacturing employment, real electric price, real disposable income, and the number of customers in each SC. Please explain how the forecast of private non-manufacturing employment is developed.

A. The private non-manufacturing employment forecast is developed using the forecast from the economic consulting firm, Moody's Analytics, Inc. The forecasts from Moody's Analytics are used by the New York Independent System Operator and other New York State utilities. The Moody's Analytics forecast is developed for New York State as a whole as well as for individual regions and counties within the State. For the historical period, the Company uses the Bureau of Labor Statistics Current Employment Survey ("CES") data for New York City (through September 2014) and Westchester County (through December 2004). The Bureau of Labor Statistics CES discontinued the Westchester County series at the end of 2004. As such, January 2005 – September 2014 employment figures

for Westchester County are estimated by applying the most up-to-date year over year growth rates (obtained from the Moody's Analytics database in September 2014) to the actual CES historical (2004) figures.

The forecast for New York City was developed by applying the annual growth rates available in the Moody's Analytics database in September 2014 (the most current available at the time the forecast was developed) to the CES actuals. The forecast for Westchester County was developed by applying the annual growth rates available in Moody's Analytics database in September 2014 to the CES 2004 actuals.

Q. What is the projection for private non-manufacturing employment?

A. For the Company's service territory, private non-manufacturing employment is projected to increase by 2.5% in 2014, 2.5% in 2015, 2.0% in 2016, 2.0% in 2017, and 2.3% in 2018.

Q. What is the projection for real personal disposable income?

A. For the Company's service territory, real personal disposable income is projected to increase by 2.4% in

2014, 2.6% in 2015, 3.4% in 2016, 2.3% in 2017, and 2.1% in 2018.

Q. What assumption does the model use for the real electric price variable for forecasting purposes?

A. For forecasting purposes, we assumed that the real electric price remains at the level for the 12 months ended September 2014.

Q. Are the foregoing projections of employment, real disposable income, and real electric price used as inputs in the forecasting models to generate the Con Edison delivery volume forecasts?

A. Yes.

Q. Please explain the development of the forecasts of the number of customers for the various service classifications.

A. The forecast of the number of customers for SCs 1, 2, 8, and 9 are based on ARIMA models, using quarterly data from the fourth quarter of 1989 through the third quarter of 2014.

The forecast for the number of SC 12 customers is based on a monthly ARIMA model, using data from October 1989 through September 2014.

The forecasts of the number of customers for SC 5 and SC 6 are done on a deterministic basis.

SC 1 and SC 9 represent the two largest number of customer classes.

The forecast of the number of customers in each service class is used to forecast the number of bills, which, in turn, is used in calculating the competitive delivery revenues, to be explained later in our testimony.

Q. Have you prepared an exhibit showing the ARIMA models used for forecasting the number of customers?

A. Yes, we have prepared a five-page document entitled "CUSTOMERS FORECASTING MODELS." In the Exhibit, we provide the ARIMA models used to forecast the number of customers for SCs 1, 2, 8, 9 and 12.

MARK FOR IDENTIFICATION AS EXHIBIT ___ (FP-4)

Q. Based upon the foregoing methodologies, what are the projections for customers for SC 1 and SC 9?

A. The number of customers for SC 1 is projected to grow by 0.30% in 2014, 0.51% in 2015, 0.54% in 2016, 0.55% in 2017, and 0.57% in 2018, while the number of customers for SC 9 is projected to grow by 0.52% in

2014, 0.38% in 2015, 0.43% in 2016, 0.41% in 2017, and 0.42% in 2018.

Q. Are the foregoing projections of the numbers of customers used as inputs in the forecasting models to generate the Con Edison delivery volume forecasts?

A. For SCs 2, 9 and 12, these customer forecasts are used as inputs in their respective forecasting models. However, customer forecasts for all Con Edison service classes were developed for use in projecting the number of bills to determine competitive charge revenues, as explained later in our testimony.

Q. Have you prepared an exhibit showing the economic assumptions you have described?

A. Yes, we have prepared a one-page document entitled "ECONOMIC ASSUMPTIONS." In this exhibit, we provide projected values of the economic variables during the forecast period.

MARK FOR IDENTIFICATION AS EXHIBIT ___ (FP-5)

Q. Are there other delivery volumes that are included in the forecast?

A. Yes. We also include New York Power Authority ("NYPA") volumes.

Q. Please describe the methodology for forecasting NYPA volumes.

A. For SC 66 (Westchester Street Lighting), and SC 80 (New York City Street Lighting), the forecast of delivery volume is performed on a deterministic basis based on recent billing data. The forecast of delivery volume for the new World Trade Center ("WTC") and the development of the Hudson Yards are based on data provided by Energy Services. Econometric Models were used to forecast the power supplied by Kennedy International Airport Cogeneration ("KIAC") to JFK Airport, and the forecasts of delivery volumes for all other NYPA service classes.

Q. Have you prepared an exhibit showing the models that you have just described?

A. Yes, we have prepared a three-page document entitled "NYPA VOLUME FORECASTING MODELS." In this Exhibit, we provide the econometric models used for forecasting NYPA delivery volume.

MARK FOR IDENTIFICATION AS EXHIBIT ___ (FP-6)

Q. Please describe how the RNY delivery volume is forecasted.

A. The delivery volume forecast for RNY was developed using historical data for the 12 month period ended September 2014 of the customers who have accepted a RNY allocation offered by NYPA.

Q. How are the total delivery volumes for the franchise area derived?

A. The total delivery volumes are equal to the sum of Con Edison, NYPA, and RNY volumes.

Q. Does your forecast of delivery volumes reflect savings due to the impact of demand side management (“DSM”) programs?

A. Yes. The forecasts are net of the impact of Con Edison Energy Efficiency Portfolio Standard (“EEPS”) programs, Con Edison’s Demand Management Program (“DMP”), and the Company’s current Targeted DSM program, including the Brooklyn Queens Demand Management Program (“BQDM”). The forecast also includes projected reductions attributable to other demand reduction programs, such as the approved NYSERDA EEPS programs and NYPA’s planned efficiency projects in the Company’s service territory. EEPS program goals for both Con Edison and NYSERDA have

been adjusted, as authorized in the New York Public Service Commission's Order issued on October 25, 2011 in Case 07-M-0548, *Proceeding on Motion of the Commission Regarding an Energy Efficiency Portfolio Standard*. This order reauthorized most of the energy efficiency programs covered under EEPS and revised targets and budgets where it was deemed appropriate. The Company included its Demand Management Program projected savings from Case No. 12-E-0503 and BQDM Program from Case No. 14-E-0302. The Company also used the NYSERDA "PETITION FOR MODIFICATION OF ENERGY EFFICIENCY PORTFOLIO STANDARD BUDGETS AND TARGETS," dated March 30, 2012, the NYSERDA "NEW YORK'S SYSTEM BENEFITS CHARGE PROGRAMS EVALUATION AND STATUS," August 22, 2011 and Quarterly Reports September 30, 2014 from the Department of Public Service Staff's EEPS reporting website to develop its projected DSM savings.

Savings related to the NYSERDA Clean Energy Fund ("CEF") are not included in this forecast but will be considered in future forecast updates as more information and details emerge on the CEF initiatives

and associated funding and goals.

Q. Did you make any adjustments to DSM forecast?

A. Yes. The Company made adjustments to the projected DSM savings to reflect the variance of the actual DSM achieved from what was projected in Case No. 13-E-0030.

Q. Are there any other adjustments to the delivery forecast?

A. The forecast includes the following adjustments:

- Solar generation – to account for the loss in delivery volume due to the installation of solar panels by customers who will then generate a portion or all of their energy requirements.
- Standby service - to reflect the projected loss in delivery volume from customers who plan to convert a portion, or all, of their existing load to on-site generation and will become standby service customers.
- Hudson Yards – to capture the projected increases in delivery volume from the development of the Hudson Yards. This adjustment is based on data provided by Energy Services.

- Steam air-conditioning conversions – to capture the projected increases in delivery volume to customers who currently operate steam air-conditioning chillers and plan to convert to electric chillers.
- The delivery forecast for NYPA is also adjusted to reflect the projected loss in delivery from NYPA customers who plan to convert all or a portion of their existing load to on-site generation and will become standby service customers (as provided by Distribution Engineering), as well as the projected increases in delivery to the WTC and the Hudson Yards (as provided by Energy Services).

Q. Have you prepared an exhibit showing the adjustments you have made to the delivery volume forecast?

A. Yes, we have prepared a five-page document entitled "DELIVERY AND SENDOUT ADJUSTMENTS." In this Exhibit, we provide the impacts on delivery volume due to energy efficiency programs, solar panel installation, steam air-conditioning conversions, WTC, Hudson Yards, and standby service (including NYPA customers). The

impacts are listed, by service class, for each rate year.

MARK FOR IDENTIFICATION AS EXHIBIT ___ (FP-7)

Q. For what periods are delivery volumes forecasted?

A. Quarterly. However, the quarterly delivery volumes need to be disaggregated into monthly amounts.

Q. Why do you need to disaggregate the quarterly delivery volumes into monthly forecasts?

A. Monthly delivery volumes are required to calculate revenues.

Q. How are the quarterly delivery volumes disaggregated into monthly delivery volumes?

A. Quarterly delivery volumes are divided into monthly delivery volumes by reflecting the patterns of historical weather-normalized monthly delivery volumes. Monthly delivery volumes are also adjusted to reflect the differences in forecasted billing cycle days.

REVENUE FORECAST

Q. Please explain the method of estimating Con Edison’s delivery revenues.

A. The delivery revenue forecast consists of both the

non-competitive delivery revenues and the competitive delivery revenues. The non-competitive delivery revenues represent revenues from customer charges, and the energy and demand delivery rates while the competitive delivery revenues are comprised of the Merchant Function Charge ("MFC"), Billing and Payment Processing Charge ("BPP"), and Metering Charge Revenues.

Q. Please explain the method of estimating Con Edison's non-competitive transmission and distribution delivery ("T&D") revenues for the forecast periods.

A. The T&D revenues from the forecasted delivery volumes to Con Edison's customers are estimated by month and by service classification. For each of the energy-only classes (SCs 1 and 2), a pricing equation is developed by correlating historical average T&D revenue of the class to historical volume of the class, the number of billing days and summer/winter rate differentials, if applicable, for the period September 2012 through August 2013. These pricing equations are an update of those used in Case No. 13-E-0030.

For each of the commercial classes (SCs 5, 8, 9, and 12), where energy and demand charges apply, a demand pricing equation is also developed by correlating historical average T&D revenue of the class to historical billed demand of the class, the number of billing-days and summer/winter rate differentials, if applicable, for the period September 2012 through August 2013. The T&D energy revenues for commercial classes are based upon pricing equations similar to those developed for the energy only classes. The delivery volume, billed demand and revenues of customers receiving BIR under Rider J and RNY customers are excluded from the data used in these commercial pricing equations. These pricing equations are then applied to the delivery and demand forecast of the respective service classes to obtain revenue at rates that went into effect on April 1, 2012. The revenue from the pricing models is then adjusted to reflect the rate changes that went into effect on March 1, 2014 and January 1, 2015.

Q. How do you forecast the revenues for customers not included in the pricing equations?

A. The forecast of T&D energy and demand revenues for BIR customers are based on the trend of actual BIR revenues over the 36 months ended December 2013, adjusted to reflect current rates.

The forecast of T&D revenues for the allocated portion of RNY customers are based on historical billing data for the same period used to develop the delivery volume forecast.

The T&D revenues for SC 6 and commercial classes taking service under standby service were estimated by applying the appropriate tariff rates.

Q. Please explain the method of estimating Con Edison's competitive delivery revenues for the forecast periods.

A. The MFC revenues represent the supply and credit and collection related charges. The service class delivery volumes for full service customers only were multiplied by the current MFC rate as determined in Case No. 13-E-0030. The BPP revenues are determined by applying the BPP charge per bill to the forecasted number of bills. This charge is at the level set in Case No. 13-E-0030 and depends on the customer's

choice of billing option and choice of service. The Metering Charge is also on a per bill basis and applies to demand classes only (SCs 5, 8, 9, 12, and Standby Service). We similarly forecast this charge by using the rates set in Case No. 13-E-0030.

Q. Please explain the development of the forecasts of the number of bills for the various service classifications.

A. The forecasted monthly number of bills by service class is determined by adding the monthly year over year change in the number of customers to the monthly number of bills for the twelve months ended December 31, 2010, as was provided to us by the Electric Rate Panel, i.e., the historical period for which detailed billing data is available. For January 2011 through September 2014, this change in the number of customers is based on actual customer counts. For the forecast period, the change in the number of bills is based on the number of customers forecast.

Q. Please explain the projection of billable demand for Con Edison's commercial customers.

A. The billable demand forecast is the ratio of the

forecasts for energy volume and the average hours use.

Q. How is the average hours use forecasted?

A. A detailed analysis of the relationship between historical delivery volumes and billable demand is used to project the average hours use.

Q. Please explain the method of estimating NYPA delivery service revenues for the forecast periods.

A. The NYPA delivery service revenues are estimated by applying monthly average demand rates to the estimated billable demand. The estimated monthly demand rates are based upon the average actual demand rates for the 12 months ended September 2014, adjusted to reflect the rate changes that went into effect on March 1, 2014 and January 1, 2015. For NYPA standby service, the energy only classes, KIAC, WTC, and the Hudson Yards, the delivery revenues are estimated by applying the appropriate tariff rates to our forecast.

Q. Please explain the method of arriving at the estimated NYPA demand.

A. Monthly billable demand projections are based on an analysis of historical growth patterns and a three-year average of the historical ratio of monthly

billable demand to the total annual billable demand. Billable demand is not applicable to small general services and non-New York City street lighting that only have an energy charge component.

Q. Please explain the method of arriving at KIAC billable demand.

A. The KIAC billable demand forecast is based on a method that is similar to that used in developing the Con Edison commercial class demand forecast. The KIAC billable demand is calculated by taking the ratio of the energy volume forecast and the average hours use.

Q. How is the average hours use forecasted?

A. The average hours use is projected by using the relationship between KIAC's historical delivery volumes and billable demand.

Q. Please explain the method of estimating WTC and the Hudson Yards billable demand.

A. The WTC and the Hudson Yards billable demand forecast is developed on a deterministic method using the estimated load levels provided by Energy Services.

Q. The revenue forecast also includes Market Supply Charge ("MSC") and Monthly Adjustment Clause ("MAC")

revenues. Please explain how these components are forecast.

A. Rates for the MSC and MAC charges for each service class are supplied by the Electric Rate Panel. These rates are then multiplied into the delivery volume forecast for the respective service classes to determine, by service class, the MSC and MAC charges.

SENDOUT FORECAST

Q. How is the franchise area sendout forecast developed?

A. An econometric model is used to forecast the franchise area sendout on a quarterly basis.

Q. What variables are used in the sendout model?

A. Weather variables in terms of heating and cooling degree days are included in the model to account for variations due to differences in weather conditions. Like the delivery volume forecast, the key economic variables included in the sendout model are real electric price, total non-manufacturing employment, real disposable income and the number of customers. As with the private non-manufacturing employment series used in the delivery volume forecasting models, the total non-manufacturing employment series used in

the sendout model is not seasonally adjusted.

Q. Please explain how the forecast variables are derived.

A. The bases for the real electric price and real disposable income are the same as for the delivery volume forecast. Total non-manufacturing employment is the sum of private non-manufacturing employment and governmental employment. The governmental employment projection is based on Moody’s Analytics’ forecast of total government employment. Total non-manufacturing employment is projected to increase by 2.1% in 2014, 2.3% in 2015, 2.0% in 2016, 1.7% in 2017, and 1.2% in 2018. The number of customers is represented by a sales-weighted index of the number of customers in SCs 1, 2, 8 and 9.

Q. Does your forecast of system sendout reflect the impact of DSM programs?

A. Yes. Like the delivery volume forecast, the sendout forecast is net of the impact of the DSM programs.

Q. Are there any other adjustments made to the sendout forecast?

A. Yes. The sendout forecast is also adjusted for projected losses in delivery volumes that result from

customers who have informed the Company that they plan to convert a portion, or all, of their existing load to on-site generation, including the installation of solar generation, and for projected gains in delivery volumes that result from the completion of expected large loads, such as the WTC and the Hudson Yards development, and the projected conversion of steam chillers to electric chillers.

Q. How do you determine the sendout forecasts for the different categories of delivery volumes, such as NYPA, RNY and retail access delivery volumes?

A. The NYPA and RNY sendout forecasts are derived from their respective delivery volume forecasts. We apply the historical averages of distribution efficiency factors to the delivery volume forecast to account for the line loss in the system. Forecasts for retail access customers are done using a proportional allocation.

Q. How was the sendout for Con Edison full service customers derived?

A. It is derived by subtracting the sendout forecasts for NYPA, RNY and retail access customers from the

franchise area sendout.

Q. What is the actual and normalized sendout for the 12 months ended September 2014?

A. The actual franchise area sendout for 12 months ended September 2014 was 60,166 GWHs. The normalized sendout for the same period was 60,598 GWHs.

Q. Please summarize your sendout forecasts.

A. The sendout forecast for the three months ended December 2014 is 13,893 GWHs. The sendout forecast for the 12 months ending December 2014 is 60,298 GWHs. The sendout forecasts are 60,168 GWHs for RY1, 59,748 GWHs for RY2, and 59,490 GWHs for RY3.

Q. Do you need to disaggregate the quarterly sendout forecasts into monthly forecasts?

A. Yes. The Energy Supply Panel requires the monthly full service sendout for forecasting fuel costs.

Q. How are the quarterly sendout forecasts disaggregated into monthly sendouts?

A. Quarterly sendouts are divided into monthly sendouts by reflecting the patterns of historical weather-normalized monthly sendout figures.

Q. I show the Panel a one-page document entitled

"ELECTRIC SENDOUT, DELIVERY VOLUMES, AND REVENUES FROM DELIVERY VOLUMES – FORECASTED THREE MONTHS ENDING DECEMBER 31, 2014, AND YEARS ENDING DECEMBER 31, 2015, DECEMBER 31, 2016, DECEMBER 31, 2017, AND DECEMBER 31, 2018" and ask if it was prepared under the Panel's supervision and direction?

A. Yes, it was.

MARK FOR IDENTIFICATION AS EXHIBIT ___ (FP-8)

Q. Will you please describe what is shown on this Exhibit?

A. Yes. This Exhibit shows the forecast of electric system sendout, delivery volumes and revenues from delivery volumes for the three months ended December 31, 2014 and the twelve months ending December 31, 2015, December 31, 2016, December 31, 2017, and December 31, 2018. Lines 1 through 4 show sendout categories within the Con Edison franchise area, and the total sendout for each period. Lines 5 through 8 show electric system delivery volumes for the same categories. Lines 9 through 23 show revenues for each of the periods. For RY1, as shown in column 3, lines 24 through 29 show the proposed revenue increases from

delivery volumes to Con Edison and NYPA customers, decreased revenues from discounts to low income customers, as well as the associated revenue taxes, and line 30 shows total revenue at the proposed rates.

Q. I show the Panel a document consisting of five pages, entitled “ELECTRIC DELIVERY VOLUMES AND REVENUES FROM DELIVERY VOLUMES BY SERVICE CLASSIFICATION” and ask if this Exhibit was prepared under the Panel’s supervision and direction?

A. Yes, it was.

MARK FOR IDENTIFICATION AS EXHIBIT ___ (FP-9)

Q. Does this Exhibit set forth the results of the forecasts?

A. Yes. This Exhibit sets forth in greater detail, by service classification, the data that were shown in summary form on Exhibit ___ (FP-8). Page 1 of this Exhibit shows the forecasted electric delivery volumes and revenues by service classification for the three months ended December 31, 2014. Kilowatt hour delivery volumes are shown in Column 1, the sum of the monthly billable demand for Con Edison and NYPA in Column 2, non-competitive transmission and

distribution delivery revenues at the current rates in Column 3, competitive service revenues at the current rates in Column 4, Reactive Power revenues at the current rates in Column 5, System Benefit Charge/Renewable Portfolio Standard revenues in Column 6, MSC and MAC revenues in Column 7, revenue taxes in Column 8, and total revenues at current rates in Column 9. Pages 2 through 5 are similar in format to page 1; page 2 covers the forecast for 12 months ending December 31 2015, page 3 covers the forecast for RY1, page 4 covers the forecast for RY2, and page 5 covers the forecast for RY3. For the rate years, the low income discounts are shown as a separate item on line 9 at the level proposed by the Customer Operations Panel. For RY1, as shown on page 3, the effect of the proposed changes in revenues, annualized for the Rate Year, are shown in Columns 10 through 13, with the associated increase in revenue taxes shown in Column 14. The proposed change in revenues from the purchase of receivables, as supplied by the Electric Rate Panel, is shown on line 10. Column 15 shows the total revenues at proposed rates. The total proposed

revenue increase to Con Edison's customers of $319,730,000, exclusive of GRT, consists of the non-competitive T&D related delivery revenue increase of $297,729,000, the competitive service revenue decrease of $1,835,000, reactive power revenue increase of $1,611,000, and a MAC increase of $22,225,000. The proposed rates also result in increases, exclusive of GRT, in NYPA delivery revenue of $40,263,000, and reactive power revenue increase of $464,000. The resultant proposed overall increase for RY1, inclusive of the increase in rates and charges of $8,083,000 for revenue taxes, amounts to $368,139,000.

Q. Should this revenue forecast be used as the basis for setting the target revenues in the revenue decoupling mechanism ("RDM")?

A. Yes, the non-competitive delivery revenue forecast shown in Columns 3, 5, 10 and 12 on Page 3 of Exhibit ___ (FP-9) should be the basis for setting the target revenue for each relevant service classification.

Q. Is the Company proposing any changes to the RDM?

A. No.

Q. Please explain the current methodology.

A. The current RDM is based on a total class revenue approach. That is, at the end of each rate year, the Company will reconcile, by service class, the actual delivery revenues including reactive power revenue to the "allowed delivery revenues, which include reactive power revenue." The Company refunds to customers if the actual delivery revenues are more than the allowed delivery revenues and surcharges customers if the actual delivery revenues are less than the allowed delivery revenues. The RDM is applicable to SCs 1, 2/6, 8, 9/5, and 12. In addition, NYPA is considered its own service class subject to the RDM. Certain customers and service classes are excluded from the RDM, such as standby service.

Q. Assuming that retail access customers' supply costs were equivalent to the supply cost projected by the Company to its full service customers, and assuming that NYPA customers' supply costs were $0.081226/kWh, as specified in the testimony of the Electric Rate Panel, what is the overall percentage increase corresponding to the total overall revenue increase?

A. The percentage increase for RY1 is 3.2 percent.

Q. Has the Forecasting Panel prepared an exhibit that shows the future average prices of delivery and supply by service class, taking into account both the increase in proposed delivery rates and other expected changes, such as changes in the MSC and MAC?

A. Yes, we have prepared a one-page document entitled "FUTURE AVERAGE DELIVERY AND SUPPLY PRICES BY SERVICE CLASSIFICATION." In this Exhibit, we provide the forecast of the average price of T&D Delivery and Supply for each service classification for the three rate years. The supply charges reflect the effect of projected MSC and MAC charges based on the supply cost projections made by the Energy Supply Panel. The delivery charges consist of projected non-competitive T&D charges and projected competitive service charges based on three years of proposed delivery revenue increases as provided to us by the Electric Rate Panel.

MARK FOR IDENTIFICATION AS EXHIBIT ___ (FP-10)

Q. Does this conclude the Panel's direct testimony?

A. Yes, it does.