

BEFORE THE  
STATE OF NEW YORK  
PUBLIC SERVICE COMMISSION

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In the Matter of

Consolidated Edison Company of New York, Inc.

Case 09-E-0428

August 2009

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Prepared Redacted Testimony of:

Staff Infrastructure Investment Panel

Kin Eng, Utility Analyst 3

Leka P. Gjonaj, Utility Supervisor

Michael J. Rieder, Utility Engineer 3

Office of Electric, Gas, & Water  
State of New York  
Department of Public Service  
Three Empire State Plaza  
Albany, New York 12223-1350

State of New York  
Department of Public Service  
90 Church Street  
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Case 09-E-0428 STAFF INFRASTRUCTURE INVESTMENT PANEL  
REDACTED

1 Q. Please state your names, employer, and business  
2 addresses.

3 A. Kin Eng, Leka P. Gjonaj, and Michael J. Rieder.  
4 We are all employed by the New York State  
5 Department of Public Service (Department). Mr.  
6 Eng is located at 90 Church Street, New York,  
7 New York 10007. Messrs. Gjonaj and Rieder are  
8 located at Three Empire State Plaza, Albany, New  
9 York 12223.

10 Q Mr. Eng, what is your position at the  
11 Department?

12 A. I am a Utility Analyst 3 assigned to the  
13 Electric Distribution Systems Section in the  
14 Office of Electric, Gas, and Water.

15 Q. Please describe your educational background.

16 A. I graduated from New York Technical College with  
17 an Associate in Applied Science Degree in  
18 Electrical Technology in 1986.

19 Q. Please describe your responsibilities with the  
20 Department and professional experience.

21 A. I joined the Department in 1981. I supervise  
22 the Electric Distribution Systems Section in the  
23 Office of Electric, Gas, and Water in New York  
24 City. My current responsibilities include:

1 monitoring utility operations to determine if  
2 facilities are operated and maintained in  
3 accordance with appropriate codes and safe  
4 operating practices; ensuring that utilities are  
5 adequately prepared to respond to emergencies by  
6 reviewing utilities' electric emergency plans  
7 and attending annual emergency drills; and,  
8 monitoring utility operation and maintenance  
9 activities to ensure acceptable electric service  
10 reliability. I have been involved in many  
11 investigations of electric utility service  
12 disruptions, including the Westchester Outages  
13 in January 2006, the Long Island City Network  
14 outages in 2006, the Jodie Lane Fatality  
15 Investigation, the August 2003 Blackout, the  
16 September 11<sup>th</sup> terrorist attack in 2001, and the  
17 Washington Heights outages in 1999.

18 Q. Have you previously testified before the  
19 Commission?

20 A. Yes, I testified in a number of Con Edison  
21 electric rate cases; Cases 04-E-0572, 07-E-0523,  
22 and 08-E-0539.

23 Q. Mr. Gjonaj, what is your position in the  
24 Department?

1 A. I am employed as a Utility Supervisor in the  
2 Bulk Electric System Section of the Office of  
3 Electric, Gas, and Water.

4 Q. Please state your educational background and  
5 professional experience.

6 A. I hold a Bachelor of Science degree in  
7 Mechanical Engineering from Clarkson University  
8 and a Master of Science in Mechanical  
9 Engineering degree from Rensselaer Polytechnic  
10 Institute. I am also a licensed Professional  
11 Engineer in New York State. Before joining the  
12 Department in November 1990, I was employed by  
13 General Electric as a Manufacturing Engineer in  
14 its Defense Systems Division. I was responsible  
15 for designing, implementing, and recommending  
16 manufacturing and quality control equipment  
17 needed for the production of highly specialized  
18 components and systems for the United States  
19 Navy.

20 Q. Please describe your duties with the Department.

21 A. My areas of responsibility include and have  
22 included conducting electric system computer  
23 simulations and the review and analysis of  
24 proposed power plant projects under Public

1 Service Law Article X, the review and analysis  
2 of electric transmission lines under Public  
3 Service Law Article VII, wholesale market  
4 matters, cyber security matters, utility fuel  
5 budgets, purchased power contracts,  
6 depreciation, capital budgets, operating and  
7 maintenance expenses, rate design, cost  
8 allocation, and cost of service determinations.

9 Q. Have you previously testified before the  
10 Commission?

11 A. Yes. I have testified in Commission proceedings  
12 on a broad range of topics including: review of  
13 transmission and substation capital budgets;  
14 depreciation expense and rate base; rate design  
15 matters; purchased power and utility fuel  
16 budgets/targets; independent power producer  
17 contracts; and, electric production computer  
18 simulations.

19 Q. Mr. Rieder have you already discussed your  
20 educational background, professional and  
21 testimonial experience, and responsibilities?

22 A. Yes, that information is included in Staff  
23 Depreciation Panel testimony submitted in this  
24 proceeding.

1 Overview

2 Q. What is the purpose of the Staff Infrastructure  
3 Investment Panel's (SIIP) testimony?

4 A. The purpose of this testimony is to address  
5 Consolidated Edison Company of New York, Inc.'s  
6 (Con Edison or the Company) transmission and  
7 distribution (T&D) capital projects and  
8 operation and maintenance (O&M) expense programs  
9 as presented by the Company's Infrastructure  
10 Investment Panel (IIP). The Company's IIP  
11 presents capital projects and programs for the  
12 calendar years 2009 through 2013. It also  
13 presents O&M program expenses for the rate years  
14 ending March 31, 2011, 2012, and 2013. We are  
15 recommending adjustments that cumulatively  
16 reduce the Company's rate year T&D plant in  
17 service by \$214.964 million. We are not  
18 recommending adjustments to the Company's  
19 proposed rate year T&D O&M expense levels other  
20 than those recommended by the Staff Policy  
21 Panel.

22 Q. Please describe how you will address the  
23 Company's T&D capital projects and O&M expense  
24 programs in your testimony.

1 A. First, we will summarize our proposed  
2 adjustments to the Company's forecasted net T&D  
3 plant accounts. Second, we will explain the  
4 extent of our review of the Company's T&D  
5 capital and O&M projects and programs and  
6 describe the general nature of our adjustments.  
7 Third, we will explain in detail our recommended  
8 adjustments for each project and program by  
9 operational area. In so doing, we will present  
10 our adjustments to the Company's capital  
11 projects for System and Transmission Operations,  
12 Substation Operations, and conclude with  
13 Electric Operations. Fourth, we will discuss  
14 the Commission's recent approval of certain  
15 projects for federal funding, otherwise called  
16 Stimulus Projects. Fifth, we will discuss our  
17 adjustments related to low-priority and multi-  
18 year projects. Sixth, we will discuss a global  
19 capital expenditure adjustment to reflect the  
20 proposed reduction to the Company's peak load  
21 forecast, as sponsored by Staff Witness Dr. Liu.  
22 Seventh, we will discuss our support for the  
23 continuation of a cap on net plant. Finally, we  
24 will discuss our proposal to continue the

1 current productivity imputation.

2 Q. In your testimony, will you refer to, or  
3 otherwise rely upon, any information obtained  
4 during the discovery phase of this proceeding?

5 A. Yes, we will refer to, and have relied upon,  
6 several responses to Department of Public  
7 Service Staff (DPS) Information Requests (IR).  
8 These responses are included in Exhibit \_\_\_\_  
9 (SIIP-1).

10 Q. Are there any other exhibits associated with  
11 your testimony?

12 A. Yes. We are sponsoring one additional exhibit,  
13 Exhibit\_\_\_\_(SIIP-2), entitled "Staff  
14 Infrastructure Investment Panel, 2010-2011  
15 Transmission and Distribution Capital Budget  
16 Adjustments For Consolidated Edison Electric  
17 Rate Case 09-E-0428." This exhibit contains the  
18 T&D capital adjustments we are recommending for  
19 the calendar years 2010 and 2011 for each of the  
20 Company's proposed T&D projects and programs.

21

22 I. Summary of Adjustments

23 Q. Please summarize the impact your recommended  
24 adjustments to the Company's T&D capital budget

1 will have on the level of electric plant to be  
2 used for ratemaking purposes in this case.

3 A. First and foremost, we are not proposing changes  
4 to the Company's T&D capital budget. The  
5 Company should spend at the levels it deems  
6 appropriate to provide safe and adequate  
7 service. Rather, we are recommending  
8 adjustments to the amount of plant forecasted to  
9 be added to the Company's plant-in-service  
10 balances during the rate year and, thereby,  
11 adjusting the amount of carrying charges allowed  
12 to be recovered from customers. These  
13 adjustments reflect the level of capital  
14 additions the Company has justified in its  
15 initial rate case presentation and during the  
16 discovery phase of this proceeding and, thus,  
17 the level of plant in service that is most  
18 appropriate for the Commission to use in setting  
19 rates.

20 Q. If the Company completes projects, which it  
21 deems appropriate to provide safe and adequate  
22 service, at higher spending levels than  
23 forecasted, won't customers be exposed to higher  
24 electric rates than this testimony would

1 otherwise recommend?

2 A. No. The rates to be paid by customers will be  
3 set in accordance with the level of forecasted  
4 net plant that the Commission adopts in this  
5 proceeding, as well as other cost of service  
6 items. If the Company adds plant at levels in  
7 excess of the forecasted level that rates are  
8 based upon, there are no provisions for  
9 automatically adjusting rates associated with  
10 that increased level of plant.

11 Q. Please summarize the impact your recommended  
12 adjustments will have on the amount of electric  
13 T&D plant used for ratemaking purposes.

14 A. The Company's proposed T&D capital program  
15 increases the amount of electric plant added to  
16 plant in service by \$1.35 billion, \$1.76 billion,  
17 and \$1.24 billion over the three rate years  
18 ending March 31, 2011, 2012, and 2013,  
19 respectively. The T&D capital adjustments we  
20 recommend will reduce the amount of electric  
21 plant added to plant in service by \$214.964  
22 million in the rate year ending March 31, 2011.  
23 We provided to Staff Witness Randt our specific  
24 capital adjustments, which are made on a

1 calendar year basis and are shown in our  
2 Exhibit\_\_\_(SIIP-2). Ms. Randt incorporated  
3 these adjustments into the Company's plant-in-  
4 service forecast model to develop an average net  
5 plant amount to be used for ratemaking purposes  
6 for the rate year and then provided the average  
7 net plant amount to the Staff Accounting Panel.  
8 The Staff Accounting Panel used the average net  
9 plant amount to develop the Company's overall  
10 revenue requirement.

11 Q. Please explain what you mean by "the level of  
12 T&D plant to be used for ratemaking purposes".

13 A. The Company presents its capital budgets on a  
14 calendar year basis, which reflects the amount  
15 of spending it expects to incur for capital  
16 projects during that calendar year. For many of  
17 its large capital projects, the Company budgets  
18 expenditures over several years. When the  
19 project is completed, and thus is used and  
20 useful, the total dollars expended on that  
21 project are added to the Company's plant  
22 accounts. The Company's net plant accounts,  
23 that is to say the total amount expended to  
24 complete the Company's capital projects minus

1 depreciation charged to those plant accounts, is  
2 the primary component of the Company's rate  
3 base. The Company's rate base is a component  
4 used in calculating the Company's revenue  
5 requirement for a rate year by applying a rate  
6 of return on the amount of net rate base. Thus,  
7 the level of T&D plant assumed for ratemaking  
8 purposes is the average amount of net plant in  
9 service expected to be included in the Company's  
10 rate base during the rate year. The amount of  
11 net plant forecast is calculated by taking the  
12 existing amount of plant in service during the  
13 test year, per the Company's books, adding the  
14 amount of plant that is expected to be placed in  
15 service during each month of the link period and  
16 the rate year, and subtracting an amount  
17 accruing for depreciation on that plant during  
18 each month. The average of the monthly net  
19 plant-in-service balances for the rate year is  
20 the level that is reflected in rate base.

21 Q. How is the amount of plant to be placed in  
22 service during the rate year determined from Con  
23 Edison's capital budgets?

24 A. Capital projects are added to the Company's

1 plant accounts using two different methods-- at  
2 a single point in time or ratably. When a large  
3 capital project, like a substation, is  
4 completed, it is added to the Company's plant  
5 accounts at that single point in time. For  
6 instance, if a substation is expected to be  
7 completed and placed into service in May 2010,  
8 the total amount expended on that project will  
9 be added to the Company's plant accounts in May  
10 2010. For projects with specific in-service  
11 dates, the amount of plant expected to be placed  
12 in service during the rate year is determined  
13 from the Company's capital budgets over a number  
14 of years by identifying the total cost of the  
15 project and the month it will be used and  
16 useful.

17 Q. Please continue.

18 A. For capital projects that result in the addition  
19 of many pieces of plant in service throughout  
20 the year, such as the installation of vented  
21 manhole covers, it would be impractical to add  
22 the cost of every individual vented manhole  
23 cover to the Company's plant accounts each time  
24 a cover is placed in service. Rather, the total

1 amount of capital dollars to be expended by the  
2 Company on that capital project over the course  
3 of the year is added to the plant account in  
4 specific monthly amounts reflecting historical  
5 seasonal construction patterns, which is said to  
6 be done ratably. Thus, for projects that are  
7 flowed into the plant accounts ratably, the  
8 amount of plant expected to be placed in service  
9 during the rate year is determined from the  
10 Company's capital budgets by identifying the  
11 most likely level of expense the Company will  
12 incur for that project during the year and  
13 distributing that amount to its plant accounts  
14 accordingly on a monthly basis throughout the  
15 forecasted rate year. The Company is allowed  
16 the opportunity to recover a return on, and the  
17 depreciation of, the investment over the useful  
18 life of the plant. The amount included in rates  
19 to recover the cost of the plant, the  
20 depreciation of the plant, and property taxes  
21 related to the plant is generally referred to as  
22 the carrying charges on the investment.

23  
24

1 II. Extent of Staff's Review

2 Q. Now that you've summarized your adjustments'  
3 impact on the Company's revenue requirement,  
4 please briefly describe the electric  
5 infrastructure investment Con Edison proposes to  
6 undertake during the next three years.

7 A. Con Edison identifies numerous projects designed  
8 to increase its electric system capacity to  
9 address load growth within its service  
10 territory, reinforce its T&D system, and enhance  
11 public safety related to the Company's electric  
12 facilities. In addition, it also presents  
13 numerous ongoing programs that address the  
14 Company's aging electric system infrastructure.

15 Q. Please briefly explain the need to address the  
16 Company's system capacity and its aging  
17 infrastructure.

18 A. In order to continue to provide its customers  
19 with safe and adequate electric service, Con  
20 Edison is obligated to provide sufficient  
21 electric delivery capacity to not only meet  
22 current needs, but also to meet projected future  
23 needs. Without upgrades and reinforcements, the  
24 older equipment in its substations, such as

1 transformers and feeders that supply the  
2 secondary system, will eventually exceed their  
3 design criteria and could potentially break down  
4 prematurely. As a result, the electric system  
5 may become less reliable. Con Edison,  
6 therefore, needs to continue to maintain and, at  
7 times, replace its infrastructure. The Company  
8 should proactively replace poorly performing,  
9 and in some cases undersized, overhead and  
10 underground equipment. If the Company only  
11 replaces equipment in response to an outage or  
12 equipment failure, as opposed to following a  
13 well planned improvement schedule, older  
14 equipment will begin to fail with increasing  
15 frequency.

16 Q. Please explain the review that was performed to  
17 develop your recommended adjustments.

18 A. For each operational area (System and  
19 Transmission, Substation, and Electric  
20 Operations) we analyzed each capital project or  
21 program for which the Company has budgeted  
22 expenditures during the calendar years 2009,  
23 2010, 2011, 2012, and 2013. Similarly, we  
24 reviewed each O&M program proposed by the

1 Company's Infrastructure Investment Panel for  
2 the rate years ending March 31, 2011, 2012, and  
3 2013. Our analysis and evaluation of the need,  
4 timing, and cost of the projects and programs  
5 resulted in the adjustments we are proposing.  
6 We reviewed and evaluated the information  
7 provided by the Company in its filing and in  
8 response to the numerous IRs that were  
9 propounded on Con Edison. Additionally, we  
10 performed numerous site inspections to  
11 investigate and confirm the status of major on-  
12 going and conceptual capital projects and to  
13 assist our analysis of the timing,  
14 reasonableness of cost, and need for those  
15 projects.

16 Q. Please explain the process by which you  
17 identified or selected specific capital projects  
18 to inspect.

19 A. Because it would not have been practical for  
20 Staff to physically inspect every capital  
21 project, our field investigations focused on  
22 major capital projects scheduled to be completed  
23 or that entailed a significant amount of  
24 spending during the next few years. For capital

1 programs related to System Operations, we toured  
2 the new energy control center and inspected the  
3 recently renovated East Control Room. The major  
4 transmission project inspected included the M29  
5 line, which will provide a 345 kilovolt (kV)  
6 transmission line from Sprain Brook, in  
7 Westchester County, to the Academy station, in  
8 northern Manhattan. Our investigation of  
9 substation work included site inspections at the  
10 following substations: Corona; Jamaica; Newtown;  
11 Elmsford; Granite Hill; Astor; and, Fox Hills.  
12 During each of these site inspections,  
13 interviews were conducted with the project  
14 managers to further explore the Company's  
15 project management and cost control measures and  
16 to confirm the in-service dates for those  
17 projects.

18 Q. Did you interview, or gather information from,  
19 Company personnel beyond those individuals  
20 engineering and directing the work associated  
21 with the actual projects?

22 A. Yes, we also analyzed responses to Staff IRs  
23 regarding the Company's capital and O&M  
24 budgeting process. These IRs focused on the

1 Company's cost estimation process, starting from  
2 initial order of magnitude estimates through and  
3 including current working estimates, which cost  
4 out a project once it has been fully engineered.  
5 We also reviewed Con Edison's budgeting process,  
6 from a project's initial justification and  
7 inclusion in the Company's five-year plan to its  
8 reflection in the annual budget for the  
9 prospective year, when final appropriations are  
10 made and money is actually expended on the  
11 project. We also explored the cost control  
12 measures that the Company utilizes to ensure  
13 that its proposed projects are completed in a  
14 cost effective manner, including Con Edison's  
15 bid check process and its use of competitive bid  
16 contractor services. Our review of the  
17 Company's budgeting processes provided us with  
18 information to better understand and analyze the  
19 need, timing, and cost of the projects and  
20 programs proposed by the Company. It should be  
21 noted, however, that our review was not aimed at  
22 specifically or comprehensively evaluating the  
23 corporate budgeting processes and procedures,  
24 and thus, we make no recommendations in that

1 regard in this testimony.

2 Q. Please continue.

3 A. Overall, we made an effort to fully investigate  
4 the Company's proposed T&D capital spending plan  
5 and O&M budgets. During the course of that  
6 review, however, we were mindful that, as  
7 advised by counsel, Con Edison has the burden of  
8 proof to support its proposed investments in  
9 electric plant and the costs to operate and  
10 maintain its electric T&D infrastructure. To  
11 that end, and based on our extensive review, we  
12 are proposing a number of adjustments to the  
13 Company's forecasted net T&D plant accounts.

14

15 III. Capital Adjustments

16 Q. Before you explain your specific T&D capital  
17 adjustments, please describe the general nature  
18 of your adjustments.

19 A. Our review and adjustments focused on the need,  
20 timing, and cost of the Company's T&D projects  
21 and programs. With regard to need, we reviewed  
22 the justification provided by the Company in its  
23 pre-filed testimony and exhibits, conducted  
24 several related interviews, and analyzed its

1 responses to information requests for each  
2 project and program in order to assess the  
3 project's necessity for the provision of safe  
4 and adequate service. For those projects that  
5 were not sufficiently justified or imminently  
6 necessary, we recommend that the cost of the  
7 project be excluded from the Company's rate base  
8 for the purpose of setting rates in this  
9 proceeding.

10 Q. Please continue.

11 A. In addition to assessing the need for each  
12 project and program, we determined whether the  
13 timing of that project's inclusion in the  
14 Company's plant in service was consistent with  
15 the expected completion of the project.  
16 Finally, we made a determination of the  
17 reasonableness of the costs associated with the  
18 projects and programs. Where we conclude  
19 otherwise, we propose adjustments.

20 Q. In your review of the Company's T&D capital  
21 spending plan, did you consider the Company's  
22 revised 2009 budget as it relates to capital  
23 expenditures?

24 A. Yes. On May 26, 2009, the Company filed a

1 letter in compliance with the Commission's 2009  
2 Rate Order in Case 08-E-0539. In that filing,  
3 the Company identified approximately \$139  
4 million in reductions to its capital programs  
5 for the year 2009. As shown in the Company's  
6 response to DPS-344, included in  
7 Exhibit\_\_\_(SIIP-1), the Company's filing reduced  
8 its proposed T&D capital budget in this  
9 proceeding by approximately \$79.6 million from  
10 the level originally filed. On page 4 of the  
11 May 26, 2009 filing, the Company describes the  
12 targeted reductions as, "for the most part,  
13 associated with multi-year and low-priority  
14 projects and programs, and are relatively modest  
15 on an individual project or program basis."

16 Q. Have you reviewed the T&D projects and programs  
17 the Company included in its revised 2009 budget?

18 A. Yes, we reviewed the projects and programs and  
19 accept the proposed level of reduced funding for  
20 those projects for 2009. As we will discuss  
21 later in our testimony, we are proposing that  
22 the Company continue the reduced funding level  
23 for many of those projects.

24

1 System and Transmission Operations and Generation  
2 Interconnection

3 Q. What level of capital expenditures has the  
4 Company proposed for this area?

5 A. The Company proposes capital expenditures  
6 related to System and Transmission Operations  
7 totaling \$219.6 million, \$192.0 million, \$101.7  
8 million, \$86.6 million, and \$96.5 million for  
9 the years 2009 through 2013, respectively. For  
10 Generation Interconnection, the Company proposes  
11 capital expenditures totaling \$5.0 million,  
12 \$35.0 million, \$24.0 million for the years 2009  
13 through 2011, respectively.

14 Q. What are the main drivers of the System and  
15 Transmission Operations capital investment?

16 A. The capital expenditures in this category for  
17 the next several years are primarily driven by  
18 the M29 transmission/Academy Substation (M29)  
19 project listed on Exhibit\_\_(IIP-9), page 14, as  
20 179<sup>th</sup> St.-Reinforcement - M29 (Includes Academy)  
21 and to a lesser extent the Vernon - W49th St. -  
22 38M72 Upgrade (Vernon). For the years 2009 and  
23 2010, these two projects account for about 85%  
24 of the proposed budgets and about 64% of the

1 proposed budget for year 2011.

2 Q. Briefly explain the M29 project.

3 A. As more fully described in Exhibit\_\_(IIP-2),  
4 page 14, the M29 project will provide an  
5 approximately 9.5 mile 345 kV transmission line,  
6 from Sprain Brook, located in Westchester  
7 County, to the Academy station, which is also  
8 under construction, in northern Manhattan. The  
9 project will reinforce the Company's East 179<sup>th</sup>  
10 Street load area that includes the Bronx and  
11 Upper Manhattan, and increase the overall  
12 transfer capability into New York City by about  
13 350 MW.

14 Q. Briefly describe the Vernon Project.

15 A. As more fully described in Exhibit\_\_(IIP-2),  
16 page 16, the Vernon project entails the  
17 installation of a phase angle regulator and  
18 associated equipment upgrades at the Vernon  
19 (Queens) station in order to regulate the power  
20 flow on the 38M72 feeder that interconnects  
21 Vernon with the West 49th station (Manhattan).  
22 The 38M72 feeder is used as an emergency tie  
23 during a contingency loss of 345 kilovolt  
24 feeders M51 and M52, and when in service, its

1 power flows are currently controlled via the  
2 MVAR/MW output manipulation of the Charles  
3 Poletti Power Project (Poletti) generator, which  
4 is scheduled for retirement in 2010. In  
5 addition, through discussions with the Company,  
6 we have come to understand that even if the  
7 retiring Poletti generator is replaced at its  
8 current interconnection point, the replacement  
9 unit, which most likely will be a combined-cycle  
10 natural gas fired facility, would not possess  
11 the inherent operating characteristics needed to  
12 enable it to perform the output control function  
13 now performed by the existing Poletti generator.

14 Q. Please identify the project or program and the  
15 associated level of the Panel's proposed  
16 adjustments to System and Transmission  
17 Operations.

18 A. We propose adjustments to two programs. For the  
19 Emergent Transmission Reliability program, we  
20 propose a \$6 million reduction in 2010 and a  
21 \$3.8 million reduction in 2011. And, for the  
22 Transmission Feeder Failures program, we propose  
23 a \$1.5 million reduction in each of the calendar  
24 years 2010 and 2011.

1 Q. Please provide a brief description of the  
2 Emergent Transmission Reliability program.

3 A. The IIP provides, on page 116, lines 13-17, of  
4 its pre-filed testimony, the following  
5 justification for this program: "The purpose of  
6 the emergent transmission reliability category  
7 is to address reliability and load relief issues  
8 on the transmission system that require  
9 expedited action for resolution and that can be  
10 resolved through project work of relatively  
11 limited scope." As noted in the Staff  
12 Infrastructure Investment Panel's testimony in  
13 Case 08-E-0539, our understanding of this  
14 program is that it essentially funds capital  
15 projects that have not been explicitly  
16 identified when the annual budget is developed  
17 (Tr. 3021).

18 Q. Please continue.

19 A. According to the Company's IIP's pre-filed  
20 Exhibit\_\_(IIP-9), page 15, actual versus  
21 forecast expenditures for emergent transmission  
22 reliability projects for calendar years 2004 -  
23 2008 vary greatly. For example, in 2004 the  
24 Company forecasted levels of \$12 million and

1 expended about \$6.1 million. For 2008, Con  
2 Edison forecasted \$5.0 million and expended  
3 about \$1.8 million.

4 Q. What is your recommendation for this program?

5 A. For 2010, we propose that the Company fund this  
6 program at its 2009 proposed level of \$4  
7 million. We are mindful, however, that  
8 unforeseen situations requiring capital  
9 expenditures can and will arise between  
10 budgeting cycles. When that situation arises,  
11 the Company should expend the capital needed to  
12 ensure the continued provision of safe and  
13 adequate service. In light of this and the  
14 difficulty in predicting future expenditures in  
15 this category, we recommend that the Commission  
16 adjust this category by a ratio of the total  
17 actual to total forecast expenditures for the  
18 calendar years 2004 - 2008, inclusive. Using  
19 the data provided in Exhibit\_\_(IIP-9), page 15,  
20 this ratio is 62%. Applying this ratio to the  
21 Company's proposed level of \$10 million in  
22 calendar year 2011, we propose that the budget  
23 allowance for this category for 2011 be reduced  
24 to \$6.2 million, a reduction of \$3.8 million.

1 Q. Please provide a brief description of the  
2 Transmission Feeder Failures program.

3 A. This program provides capital funding for feeder  
4 repairs that are extensive enough to necessitate  
5 capitalization of the work.

6 Q. What did your review find for this program?

7 A. Exhibit\_\_\_(IIP-9), page 15, shows that, with the  
8 exception of 2006, for the calendar years 2004 -  
9 2008, inclusive, all actual expenditure levels  
10 for the Transmission Feeder Failures program  
11 were lower than budgeted. For example, in 2008,  
12 \$5.0 million was budgeted, but only  
13 approximately \$0.362 was expended. In 2006, \$4  
14 million was budgeted and approximately \$6.5  
15 million was expended.

16 Q. What is the Panel's recommendation?

17 A. For this category, history shows that the  
18 tendency is for Con Edison to forecast higher  
19 levels than it actually expends, and because  
20 feeder failures requiring capitalization are not  
21 easily predicted, we recommend adjusting this  
22 category by a ratio of the total actual to total  
23 forecast expenditures for the calendar years  
24 2004 - 2008, inclusive. Using the data provided

1 in Exhibit\_\_(IIP-9), page 15, this ratio is 70%.  
2 Applying this ratio, we proposed that the budget  
3 allowance for calendar years 2010 and 2011 for  
4 this category be reduced from \$5.0 million each  
5 year to \$3.5 million, a reduction of \$1.5  
6 million per year.

7 Q. Please describe the generation interconnection  
8 projects presented by Con Edison.

9 A. As shown in its Exhibit\_\_(IIP-9), page 2, Con  
10 Edison lists two projects under Generation  
11 Interconnection, the Astoria East-Install Phase  
12 Angle Regulator and Corona-Install Series  
13 Reactor that together total \$64 million. As we  
14 will more fully discuss, these projects were  
15 necessary for a planned new generation project  
16 to interconnect with the Company's 138 kV  
17 transmission system. The generation developer  
18 has since changed its interconnection point and  
19 it will now connect to Con Edison's 345 kV  
20 transmission system. This change eliminates the  
21 need for the two proposed interconnection  
22 projects.

23 Q. Please generally describe issues relating to  
24 generator interconnections.

1 A. New generator interconnections generally involve  
2 the need to address two basic issues: 1) the  
3 design of a reliable interconnection; and, 2)  
4 the allocation of associated costs. These costs  
5 generally arise due to needed system upgrades  
6 and/or re-configurations needed to allow for a  
7 safe and reliable interconnection. The New York  
8 State Independent System Operator (NYISO) has a  
9 formal process whereby the Transmission Owner  
10 (TO), the NYISO, and the Generation Developer  
11 work together to develop the interconnection  
12 design needed to resolve these two broad issues.

13 Q. Please provide background for the generator  
14 interconnection issues pertaining to this case.

15 A. In Case 08-E-0539, Con Edison's response to DPS-  
16 296, included in Exhibit 169, references a  
17 document entitled "Con Edison Fault Current  
18 Management Plan Presentation to the NYISO  
19 Management Committee June 20, 2001" that details  
20 the Company's engineering and reliability system  
21 needs in support of a number of proposed  
22 Generators interconnecting to its system  
23 reliably and safely. On the page entitled  
24 "Milestone Schedule," under the year 2004 of the

1 document, Astoria Energy (a/k/a SCS Astoria)  
2 1,000 Megawatts (MW) is indicated. To date, of  
3 the 1,000 MW of generation proposed by Astoria  
4 Energy, it has constructed and placed in service  
5 approximately half that level, or 500 MW (Phase  
6 1). The second half, 500 MW (Phase 2), of the  
7 initial project has not yet been constructed.

8 Q. Please continue.

9 A. In a press release dated April 29, 2008, the New  
10 York Power Authority (NYPA) announced that  
11 through its RFP process it had selected the  
12 Astoria Energy (Phase 2) Project, a 500 MW,  
13 natural gas-fueled generating plant, to help  
14 compensate for the scheduled retirement in  
15 January 2010 of Poletti. The retiring Poletti  
16 unit is interconnected at NYPA's 345 kV switch  
17 yard located at Astoria and interconnected to  
18 Con Edison's 345 kV transmission system. The  
19 Astoria 500 MW (Phase 2) plant was originally  
20 proposed to be interconnected to the 138 kV  
21 transmission system. In anticipation of Astoria  
22 Energy's Phase 2 construction in the near  
23 future, two of the projects listed on page 14 of  
24 Con Edison Fault Current Management Plan

1 Presentation, namely, "The Phase Angle Regulator  
2 At Astoria East" and the "Bus Tie Reactor At  
3 Corona," are proposed in this case, as shown in  
4 Exhibit\_\_\_(IIP-9), page 2. These projects would  
5 allow Astoria Energy's Phase 2 unit to  
6 interconnect to the Company's Astoria 138 kV  
7 yard, where the Astoria Phase 1 Project is  
8 interconnected.

9 Q. Does interconnecting the 500 MW (Phase 2) unit  
10 give rise to any other concerns besides the \$64  
11 million capital expenditure?

12 A. Yes, it does. Part of the Company's response to  
13 DPS-541, included in Exhibit 169 in Case 08-E-  
14 0539, contains a document prepared by Con Edison  
15 entitled, "System Reliability Impact Study for  
16 NYPA's 500 MW Combined Cycle Generation Project  
17 at Poletti (Alternative interconnection to  
18 Astoria West) April 8, 2002." On page 15 of  
19 this study, with both Phases of Astoria Energy  
20 completed (1000 MW total), the Company states  
21 that "800 MW of generation could be bottled up  
22 at the Astoria East bus, due to limited  
23 transmission capacity." This means that while  
24 the unit is safely and reliably interconnected,

1 there is insufficient outlet capability to  
2 accommodate all the available generation  
3 interconnected at the Astoria East 138 kV yard.

4 Q. In Case 08-E-0539, the Staff Infrastructure  
5 Investment Panel recommended that the three  
6 affected parties "work together towards a  
7 solution that minimizes the costs to customers  
8 of interconnecting and allows the unit's  
9 unconstrained output be available to the system"  
10 (Tr. 3053). Has that happened?

11 A. Yes. In response to DPS-20, included in  
12 Exhibit\_\_\_(SIIP-1), the Company stated that on  
13 July 2, 2009, among other executed agreements,  
14 Astoria Energy and Con Edison entered into an  
15 agreement by which Astoria Energy would  
16 interconnect the new facility to the Company's  
17 345 kV transmission system, at the point where  
18 the retiring Poletti unit is currently  
19 interconnected. Furthermore, the Company states  
20 that with that agreement, it should not need to  
21 incur the \$64 million capital costs for  
22 interconnection of the Astoria Energy facility.

23 Q. What is your recommendation?

24 A. We recommend that these expenditure levels be

1 reduced to zero, an adjustment of \$64 million.

2

3 Substation Operations

4 Q. What level of capital expenditures has the  
5 Company proposed for Substation Operations?

6 A. The Company proposes capital expenditures  
7 related to Substation Operations totaling \$357.9  
8 million, \$302.9 million, \$260.2 million, \$359.2  
9 million, and \$343.8 million for the calendar  
10 years 2009 through 2013, respectively.

11 Q. What are the main drivers of the Substation  
12 Operations capital investment?

13 A. There are five main projects that drive the  
14 capital investment level under Substation  
15 Operations. Those projects are the building of  
16 two new substations, Newtown and York, the  
17 upgrade of the Elmsford substation, and the  
18 purchase of transformers under the Failed  
19 Transformer program and the Transformer  
20 Replacement program.

21 Q. Please describe the Newtown substation project.

22 A. Newtown is a five transformer bank substation  
23 supplying the distribution system in Sunnyside,  
24 Queens. The existing North Queens area

1 substation supplying the Long Island City  
2 network will require load relief through load  
3 transfers in the next five years. Load transfer  
4 occurs when load that is currently being  
5 supplied through a substation that is at or near  
6 its maximum capacity is transferred to another  
7 new or existing substation that has spare  
8 capacity. Without the required load transfer,  
9 the North Queens substation would not be able to  
10 support the forecasted loads in the Long Island  
11 City network. Con Edison's plan is to relieve  
12 the North Queens substation by transferring load  
13 from the North Queens substation to the new  
14 Newtown substation. The service date for the  
15 new Newtown substation was advanced by three  
16 years to an in service date of June 2010. This  
17 was done to reduce the cost of required network  
18 reinforcement work and to significantly improve  
19 the reliability of the system. The Newtown  
20 substation is expected to cost \$92.9 million and  
21 \$42 million for calendar years 2009 and 2010,  
22 respectively.

23 Q. Please explain the York substation project.

24 A. The York substation, which will be located in

1 Manhattan, will allow the Company to transfer  
2 load to it from the East 63rd Street and East  
3 75th Street substations to sustain demand growth  
4 on the East side of Manhattan through 2018.  
5 This substation project is needed since all  
6 nearby substations are at, or close, to  
7 capacity. By applying the Third Generation  
8 Design, the York substation will share two  
9 existing transformers at the East 75th Street  
10 Substation. The Third Generation Design defers  
11 the need to install a fourth transformer and  
12 associated cable at York until 2028 and it  
13 eliminates the need for a fifth transformer and  
14 transmission line. The York substation is  
15 estimated to cost \$40.0 million, \$2.5 million,  
16 \$20.0 million, \$130.0 million, and \$120.0  
17 million for the calendar years 2009 through  
18 2013, respectively.

19 Q. Please explain the upgrade of the Elmsford  
20 substation.

21 A. The Elmsford substation, located in Westchester  
22 County, is over 50 years old, with outdoor  
23 switchgear and underground protection and  
24 control wiring. Exposure to the elements has

1 damaged equipment, supporting structures, and  
2 protection/control wiring. This project will  
3 enhance the reliability of the Elmsford  
4 Substation by constructing a new building to  
5 house new switchgear, a control room, battery  
6 rooms, a communications room, and relay rooms.  
7 Completion of this project is scheduled for  
8 October 2011. Following completion of this  
9 project, abatement, demolition, landscaping, and  
10 completion of the Storm Water Pollution  
11 Prevention Plan, is scheduled to be completed by  
12 January 2013. Further delay of this project  
13 could result in increased equipment failures and  
14 possibly customer outages. The Elmsford  
15 substation upgrade is estimated to cost \$25.0  
16 million, \$32.0 million, \$27.7 million, and \$1.8  
17 million for the years 2009 through 2012,  
18 respectively.

- 19 Q. Please explain the two transformer programs.  
20 A. Substation Operations has two main transformer  
21 programs, Failed Transformer and Transformer  
22 Replacement. Under the Failed Transformer  
23 program, transformers in area substations,  
24 transmission substations, and generating

1 stations are replaced when they stop working  
2 during an emergency. The costs of these  
3 programs include the installation of an existing  
4 system spare unit (spare units are purchased and  
5 kept on hand due to the long lead-time required  
6 for delivery of a new transformer) and the  
7 purchase of a replacement spare. For the Failed  
8 Transformer program, Con Edison has budgeted  
9 \$30.0 million, \$25.8 million, \$24.7 million,  
10 \$23.0 million, and \$23.0 million for the years  
11 2009 through 2013, respectively.

12 Q. Please continue.

13 A. The Transformer Replacement program includes:  
14 the replacement of transformers that have  
15 reached the end of their life expectancy and  
16 cannot be maintained in a reliable operating  
17 condition; moat systems for transformer vaults;  
18 a new fire protection system; and, a transformer  
19 condition monitoring system. Transformer  
20 replacement parts are custom made and therefore,  
21 must be specially ordered from the manufacturer  
22 and result in long lead times. Proactively  
23 replacing problematic transformers prior to  
24 failure is cost effective when compared to

1 emergency replacement and improves the  
2 reliability of the system. For this program,  
3 Con Edison has budgeted \$13.0 million, \$20.5  
4 million, \$20.0 million, \$21.0 million, and \$21.0  
5 million for the years 2009 through 2013,  
6 respectively.

7 Q. What level of capital expenditures has the  
8 Company proposed for Substation Operations -  
9 System and Component Performance?

10 A. For Substation Operations - System and Component  
11 Performance, as shown on Exhibit\_\_\_(IIP-4), page  
12 1, for calendar years 2010, 2011, and 2012, the  
13 forecasted capital expenditures total \$185.450  
14 million, \$188.940 million, and \$193.370 million,  
15 respectively.

16 Q. Do you propose any adjustments?

17 A. Yes. There are three program/project  
18 adjustments we propose for Substation Operations  
19 - System and Component Performance. These  
20 adjustments are made to the Relay Protection  
21 System Redundancy project, the Area Substation  
22 Reliability (Auto Ground Circuit Switchers)  
23 program, and the Facility Improvement program.

24 Q. Please provide a brief description of the Relay

1 Protection System Redundancy project.

2 A. This program results from a new standard  
3 currently in the early stages of development by  
4 the North American Electric Reliability  
5 Corporation (NERC), the nation's Electric  
6 Reliability Organization (ERO). The proposed  
7 scope of the standard would require transmission  
8 and generation owners to have protection systems  
9 installed such that the failure of one of the  
10 specified components of a protection system  
11 would not prevent meeting the bulk electric  
12 system (BES) performance measures specified in  
13 the NERC's transmission planning standards.  
14 Essentially, this is to ensure protection system  
15 performance for equipment failures within the  
16 protection system itself.

17 Q. What are protection systems?

18 A. In this context, they are the devices and  
19 controls that are used to protect and isolate  
20 all of the various BES elements (transmission  
21 lines, transformers, generators, etc.) during a  
22 system disturbance and prevent these  
23 disturbances from cascading and adversely  
24 affecting neighboring electric systems.

1 Q. Are BES elements clearly identified for each  
2 utility?

3 A. The definition of what constitutes BES elements  
4 is also currently being evaluated and reviewed  
5 by the Northeast Power Coordinating Council  
6 (NPCC), a NERC region encompassing Con Edison's  
7 service territory, with the likelihood of more  
8 system elements being considered part of the  
9 BES. The Company notes on page 35 of  
10 Exhibit\_\_\_(IIP-4) that it anticipates the  
11 definition to be revised to include at least all  
12 of its 138 kV transmission substations and  
13 portions of its East River Generation Station  
14 that are currently not part of the BES.

15 Q. Has NERC developed a schedule for approving the  
16 new protection system standard?

17 A. In response to DPS-82, included in  
18 Exhibit\_\_\_(SIIP-1), the Company notes that "NERC  
19 has not published a completion date for the new  
20 Standard." Further, it states "...only a SAR form  
21 exists, not a draft Standard; thus a copy cannot  
22 be provided." SAR, "Standard Authorization  
23 Request" in NERC parlance, is a request that a  
24 standard be developed.

1 Q. Are new NERC reliability standards generally  
2 developed quickly?

3 A. Because NERC's process is stakeholder-based,  
4 conducted in an open and inclusive manner, the  
5 process by its nature will not proceed rapidly.

6 Q. Do you have an example of a recently developed  
7 and approved NERC standard for reference?

8 A. Yes, the NERC cyber security standard, CIP-002  
9 thru CIP-009. The request to authorize the  
10 development of this standard was made May 2003  
11 and the final standard became effective three  
12 years later, June 2006.

13 Q. Has NPCC published a schedule for completing its  
14 review of redefining what constitutes BES?

15 A. To the best of our knowledge this has not  
16 occurred.

17 Q. What has the Company proposed?

18 A. The Company proposed funding for this Relay  
19 Protection System Redundancy project of \$2.0  
20 million, \$8.0 million and \$30 million for  
21 calendar years 2010, 2011 and 2012,  
22 respectively.

23 Q. In light of the uncertainties discussed, how did  
24 the Company estimate the expenditures?

1 A. In its confidential response to DPS-201,  
2 included Exhibit\_\_\_\_(SIIP-1),

3  
4  
5  
6  
7  
8  
9

10 Q. What is your recommendation regarding the  
11 Company's proposal?

12 A. We recommend that the costs associated with this  
13 project be excluded from the Company's capital  
14 budget forecast. Until such time as the NERC  
15 standard is approved and NPCC has made a  
16 determination regarding its definition of what  
17 constitutes the BES, there is too much  
18 uncertainty surrounding this project to make a  
19 meaningful forecast of capital expenditures.

20 Q. Please provide a brief description of the Area  
21 Substation Reliability (Auto Ground Circuit  
22 Switchers) program.

23 A. Con Edison proposed funding of \$10.5 million for  
24 the Area Substation Reliability (Auto Ground

1 Circuit Switchers) program for each of the  
2 calendar years 2009 through 2013. Under this  
3 program two independent lines of protracted  
4 fault protection are installed in the Company's  
5 substation, which prevents further damage to a  
6 station transformer in the event of a system  
7 fault. The work also involves the replacement  
8 of an Auto Ground Switch (AGS) with a newer,  
9 improved Auto Ground Circuit Switcher.

10 Q. What did you find in your review of this  
11 program?

12 A. This is a long term Company program that  
13 commenced in 2005. As shown in response to DPS-  
14 322, included in Exhibit\_\_(SIIP-1), during the  
15 period 2005 through 2008, an average of three  
16 Auto Ground Circuit Switchers have been replaced  
17 at an average yearly expenditure of \$6.64  
18 million, which is shown in Exhibit\_\_(IIP-4),  
19 page 38-39. The Company plans to replace  
20 approximately five to seven Auto Ground Circuit  
21 Switchers per year between 2009 and 2013. In  
22 response to DPS-83, included in Exhibit\_\_(SIIP-  
23 1), the Company indicates that as of June 2009,  
24 only one was replaced.

1 Q. What is your recommendation?

2 A. Taking into account the varying system outage  
3 constraints each year, and based on the average  
4 replacement of three Auto Ground Circuit  
5 Switchers between 2005 and 2008, we conclude  
6 that three Auto Ground Circuit Switcher  
7 replacements for each of the years 2009, 2010,  
8 and 2011 is reasonable. Thus, we recommend that  
9 the Commission determine a funding level of  
10 \$6.64 million, which is based on the average  
11 spending between 2005 and 2008, for each of the  
12 years 2009-2011.

13 Q. Please provide a brief description of the  
14 Facility Improvement program.

15 A. Con Edison proposed funding for the Facility  
16 Improvement program for the years 2010, 2011,  
17 and 2012 is \$6 million each. This program  
18 provides for improvements and upgrades to  
19 substations, including: façade repair;  
20 foundation repair; paving; lifts and platforms;  
21 retaining walls; lighting; plumbing; drainage;  
22 and, heating and ventilation. The construction  
23 of permanent office space for employees  
24 utilizing temporary space is also funded under

1 this program.

2 Q. What did the Panel learn based on your review of  
3 this project?

4 A. Con Edison states that the work is necessary to  
5 maintain the operational conditions of its  
6 substations and to provide a safe work  
7 environment for its employees. The Company  
8 provided a list of substations identified as  
9 candidates for work under this program, as shown  
10 in Exhibit\_\_(IIP-4), page 59. This list  
11 indicates the location work is to be performed,  
12 describes the work to be performed, and provides  
13 a cost estimate of the work to be performed.  
14 The costs for each project ranged from \$100,000  
15 to \$3.5 million. Con Edison, however, did not  
16 provide start dates for each type of work.

17 Q. Please continue.

18 A. As indicated in the Company's response to DPS-  
19 88, included in Exhibit\_\_(SIIP-1), work was  
20 performed on eight substations budgeted for  
21 2008. However, this work was carried over to  
22 2009. We asked how the Company expects to meet  
23 the more aggressive goal of spending twice as  
24 much in each of the two years from 2010 to 2011,

1 when Con Edison's historical performance shows  
2 that it cannot meet the goal it set in 2008.  
3 Con Edison responded that it recognizes that  
4 there is an increased volume of work for this  
5 program, and that it has begun to address this  
6 issue by assigning a program manager to ensure  
7 that the work is completed in a timely manner  
8 and that committed goals are met for each year.

9 Q. What is your recommendation?

10 A. Assigning a program manager to monitor the  
11 effort does not always guarantee work will be  
12 performed on a timely basis. Historical data  
13 show that the average expenditure from 2004  
14 through 2008 was \$2.215 million with a high of  
15 \$3.391 million in 2008, as shown in  
16 Exhibit\_\_(IIP-4), page 60. As indicated in its  
17 response to DPS-406, included in  
18 Exhibit\_\_(SIIP-1), as of July 31, 2009, the  
19 Company has expended \$1.860 million, on a pace  
20 to spend \$3.720 million for the year. This  
21 amount is in line with the 2008 expenditure,  
22 and, therefore, is our recommended funding level  
23 for this program for the years 2010 and 2011.

24

1 Electric Operations

2 Q. What level of capital expenditures has the  
3 Company proposed for Electric Operations?

4 A. The Company proposes capital expenditures  
5 related to Electric Operations totaling \$883.8  
6 million, \$905.0 million, \$890.3 million, \$904.8  
7 million, and \$872.9 million for the calendar  
8 years 2009 through 2013, respectively.

9 Q. What are the main drivers of the Electric  
10 Operations capital investment?

11 A. There are five main programs that drive the  
12 capital investment level under Electric  
13 Operations. They include New Business Capital,  
14 Network Load Relief Transformer Installation,  
15 Secondary Open Mains, Transformer Purchase, and  
16 the Emergency Primary Cable Replacement program.

17 Q. Please explain the New Business Capital program.

18 A. The New Business Capital program includes work  
19 associated with the reinforcement of the  
20 electric system to ensure it can handle future  
21 load growth within Con Edison's distribution  
22 system. Work activities under this program  
23 include the replacement or installation of  
24 cables, ducts, conduits, poles, transformers,

1 and manholes. The Company's five year capital  
2 forecast has been adjusted downward from actual  
3 expenditures in 2007 and 2008 to reflect the  
4 impact of current economic conditions on future  
5 growth. For the New Business Capital program,  
6 Con Edison is budgeting \$123 million for 2010,  
7 and \$122 million for each of the years 2011-  
8 2013.

9 Q. Please explain the Network Load Relief  
10 Transformer Installation program.

11 A. The Network Load Relief Transformer Installation  
12 program includes replacement of network  
13 transformers that are projected to operate  
14 beyond their normal or contingency ratings to  
15 improve both network reliability and extend the  
16 service life of the equipment. Work includes  
17 installing new transformers, upgrading  
18 transformer network protectors, and reinforcing  
19 associated secondary mains. For the Network  
20 Load Relief Transformer Installation program,  
21 Con Edison is budgeting \$50.860 million, \$45.620  
22 million, \$46.158 million, \$46.460 million, and  
23 \$46.460 million for the years 2009 through 2013,  
24 respectively.

1 Q. Please explain the Secondary Open Mains program.  
2 A. This program involves emergency repair work on  
3 the secondary network to address secondary cable  
4 failures. These repairs often involve cable  
5 replacement, cable joint replacement and related  
6 conduit and subsurface structure work. The  
7 Company's cost estimate also includes the cost  
8 of accessing the secondary cable, such as street  
9 excavation. Secondary open mains require repair  
10 to maintain the integrity of the secondary  
11 network system according to its original system  
12 design because open mains can cause area low  
13 voltage conditions, outages, and additional main  
14 damage due to overloads. Secondary open mains  
15 can result in local contingencies within a  
16 network area load pocket by limiting the load  
17 flow from transformer(s) in service and  
18 increasing the load flow on the remaining main  
19 sections in service. Without this program,  
20 customer service reliability would be impacted  
21 including restoration times and the quality of  
22 the power delivered to customers. For the  
23 Secondary Open Mains program, Con Edison is  
24 budgeting \$147.331 million, \$139.245 million,

1 \$129.871 million, \$129.871 million, and \$129.871  
2 million for the years 2009 through 2013,  
3 respectively.

4 Q. Please explain the Transformer Purchase program.

5 A. This program involves the purchase of new and/or  
6 reconditioned primarily underground network  
7 transformers, overhead transformers, pad-mount  
8 transformers, emergency generators, and network  
9 protectors to support the distribution system.  
10 For this program, Con Edison has budgeted  
11 \$148.152 million, \$144.606 million, \$138.640  
12 million, \$138.750 million, and \$137.250 million  
13 for the years 2009 through 2013, respectively.

14 Q. Please explain the Emergency Primary Cable  
15 Replacement program.

16 A. This program involves the replacement of primary  
17 cable which either has failed in service or has  
18 been selected for replacement before failure.  
19 Feeders that open automatically as a result of  
20 cable and joint failures must be repaired  
21 immediately to maintain network system  
22 reliability. Feeders that open automatically  
23 have a significant impact on the Company's  
24 ability to provide continuous electric service

1 to customers. For this program, Con Edison has  
2 budgeted \$59.625 million, \$56.056 million,  
3 \$53.856 million, \$53.856 million, and \$53.856  
4 million for the years 2009 through 2013,  
5 respectively.

6 Q. What level of capital expenditures did the  
7 Company propose for Electric Operations - System  
8 and Component Performance?

9 A. For Electric Operations - System and Component  
10 Performance, as shown on Exhibit\_\_\_(IIP-4), page  
11 127, for years 2010, 2011, and 2012, the capital  
12 expenditures total \$445.004 million, \$434.116  
13 million, and \$445.653 million, respectively.

14 Q. Does the Panel propose adjustments in this area?

15 A. Yes. There are four program adjustments for  
16 Electric Operations - System and Component  
17 Performance. These adjustments are made to the  
18 Secondary Open Mains program, Shunt Reactor  
19 program, C-Truss program, and the Aerial  
20 (Okonite) Cable Replacement program.

21 Q. You have already described the Secondary Open  
22 Mains program. Please describe your adjustment.

23 A. As we stated earlier, the Secondary Open Mains  
24 Program involves emergency repair work on the

1 secondary network to address secondary main  
2 cable failures. While the amount of secondary  
3 open mains is identified through emergency work  
4 and inspections, the level of secondary main  
5 cable failures should be in part related to the  
6 demand placed on the secondary system. Because  
7 the demand level forecasted by Dr. Liu and the  
8 Company is to be less than previously expected  
9 by the Company, it is reasonable to also reflect  
10 changes in the forecasted expenditure levels for  
11 this program. For example, the Company has  
12 adjusted its budgets for those electric  
13 operations programs related to Increased  
14 Customer Demand, as shown in Exhibit\_\_\_(IIP-9)  
15 pages 19 and 22. In fact, the funding levels  
16 for these programs now approximate 2005 funding  
17 levels. We believe the funding level for the  
18 Secondary Open Main programs should also be set  
19 at reduced levels, which approximate 2006  
20 funding levels of \$120.0 million, for 2010 and  
21 2011.

22 Q. Has the Company provided any justification for  
23 the level of proposed funding for this program?

24 A. No. The Company's pre-filed testimony and

1 exhibits fail to justify the level of funding  
2 for the Secondary Open Mains program.  
3 Exhibit\_\_(IIP-4), page 151, indicates that  
4 "[t]he scope of secondary main replacement work  
5 is subject to the amount of work required due to  
6 secondary burn outs each year, and thus will be  
7 variable from year to year." The Company did  
8 not provide the historic number of burnouts  
9 received, the estimated level of burn outs to be  
10 addressed in 2010 or 2011, or the estimated  
11 level of unit cost. Moreover, the Company did  
12 not justify the proposed level of spending on  
13 this program in conjunction with its reduced  
14 funding for its other demand related programs.

15 Q. Please provide a brief description of the Shunt  
16 Reactor program.

17 A. A shunt reactor provides compensation to reduce  
18 over voltage on the secondary system due to  
19 backfeed conditions. Con Edison plans to  
20 install 26 shunt reactors per year at a proposed  
21 spending level of \$2.761 million, \$2.788  
22 million, and \$2.79 million for the years 2010,  
23 2011, and 2012, respectively.

24 Q. What did the Panel find in its review of this

1 project?

2 A. Con Edison began the installation of six shunt  
3 reactors in 2007 and three in 2008. These shunt  
4 reactors were fully completed by the end of  
5 2008, as shown in response to DPS-130, included  
6 in Exhibit\_\_(SIIP-1). As shown in response to  
7 DPS-379, included in Exhibit\_\_(SIIP-1), three  
8 shunt reactors have been installed in 2009 to  
9 date. The Company states that the limited work  
10 performed in 2008 was due to the lack of the  
11 availability of equipment, the scope of other  
12 higher priority system reinforcement and  
13 reliability programs, and the availability of  
14 Company resources, as indicated in response to  
15 DPS-130, included in Exhibit\_\_(SIIP-1). Con  
16 Edison, in its response to DPS-410, included in  
17 Exhibit \_\_\_\_(SIIP-1), indicates that more  
18 contractors would be made available as a result  
19 of a reduction in the transformer relief work  
20 after 2008. These same contractors were also  
21 performing work on the shunt reactor program.  
22 The Company further states that since these  
23 contractors would be doing less work on the  
24 transformer relief program, they would now have

1 the available time to perform work on the Shunt  
2 Reactor program.

3 Q. What is the Panel's recommendation to the  
4 Commission?

5 A. Given that the issues that hindered work in the  
6 past could continue to impact the work performed  
7 in the future, we believe that the Commission  
8 should determine that actual 2009 installations  
9 should be used to project appropriate funding  
10 levels. Since three shunt reactors were  
11 installed as of July 31, 2009 at cost of  
12 \$525,331, the projected year end installations  
13 would be six at a cost of \$1,050,662. While Con  
14 Edison has indicated that more resources will be  
15 available to complete the projected number of  
16 shunt reactors in 2010 and 2011, its current  
17 efforts show otherwise. Therefore, we recommend  
18 a funding level of \$1,050,662 for each of the  
19 years 2010 and 2011.

20 Q. Please provide a brief description of the C-  
21 Truss program.

22 A. The C-Truss program involves replacing a pole or  
23 reinforcing a pole with a "C" shape truss to  
24 comply with NESC regulations. Con Edison plans

1 to install 1,225 C-Trusses and replace 323 poles  
2 per year at a proposed spending level of \$2.048  
3 million for each of the years 2010-2012.

4 Q. What did your review of this project find?

5 A. As shown in response to DPS-132, included in  
6 Exhibit\_\_\_\_(SIIP-1), Con Edison replaced 52 poles  
7 between 2006 and 2008, an average of 17 poles at  
8 a cost of \$647,000 per year. For the period  
9 2006 through 2009, 3,294 C-Trusses were  
10 installed, which is an average of 1,098 C-  
11 Trusses at a cost of \$400,000 per year. The  
12 Company states in its response to DPS-132,  
13 included in Exhibit\_\_\_\_(SIIP-1), that the limited  
14 work performed between 2006 and 2008 was due to  
15 the deferral of this program because of other  
16 work that was a higher priority. Based on the  
17 historical replacement of poles and the  
18 continuation of other higher priorities, we do  
19 not believe that the Company's forecasted budget  
20 for pole replacement is reasonable.

21 Q. What is your recommendation?

22 A. As shown in response to DPS-132, included in  
23 Exhibit\_\_\_\_(SIIP-1), for 2009 through May, three  
24 poles have been replaced at a cost of \$93,000,

1 and 582 C-Trusses have been installed at a cost  
2 of \$637,000. Prorated on a twelve month basis,  
3 the annual projected cost would be \$1,752,000.  
4 We recommend a funding level of \$1.75 million  
5 for each of the years 2010 and 2011.

6 Q. Please provide a brief description of the Aerial  
7 (Okonite) Cable Replacement program.

8 A. The Aerial (Okonite) Cable Replacement program  
9 involves replacing high failure rate aerial  
10 cables on the overhead system. As shown in  
11 response to DPS-411, included in  
12 Exhibit\_\_(SIIP-1), Con Edison plans to replace  
13 215 Okonite cables per year at a proposed  
14 spending level of \$2.532 million, \$2.544  
15 million, and \$2.550 million for the years 2010-  
16 2012, respectively.

17 Q. What did your review of this project find?

18 A. Con Edison replaced 53, 169, and 18 spans of  
19 aerial cable for the years 2005, 2006 and 2008,  
20 respectively, as shown in response to DPS-380,  
21 included in Exhibit\_\_(SIIP-1). The  
22 expenditures for these three years were  
23 \$758,000, \$823,000, and \$539,000, respectively,  
24 as shown in Exhibit\_\_(IIP-4), page 179. As of

1 July 2009, 77 spans of Okonite cables are in  
2 progress of being replaced and the replacement  
3 of 38 spans of cable have already been completed  
4 at a cost of \$588,834, as indicated in response  
5 to DPS-380, included in Exhibit\_\_\_\_(SIIP-1). The  
6 Company states that the variance, delays, and  
7 change in program was the result of its need to  
8 maintain the overall system reinforcement budget  
9 at its Company approved funding level; the  
10 budget variation for the years 2005 and 2007 was  
11 primarily due to a shift in funding to various  
12 system reinforcement projects with a higher  
13 priority whose expenditures greatly exceeded  
14 their original estimates, as shown in response  
15 to DPS-411, included in Exhibit\_\_\_\_(SIIP-1).

16 Q. What is your recommendation?

17 A. We do not believe that the Company's forecasted  
18 budget for Okonite cable replacement is  
19 reasonable simply because of the probability  
20 that this program will be delayed for the same  
21 reason provided by the Company to explain its  
22 past performance, and because this program is a  
23 lower priority compared to other system  
24 reinforcement programs. Furthermore, through

1 August 2009, 95 spans have been replaced at a  
2 cost of \$1,160,200. Prorated on a twelve month  
3 basis, the annual projected cost would be  
4 \$1,740,353, quite a bit less than the Company's  
5 \$3,021,000 budget. Since Con Edison has made a  
6 concerted effort regarding cable replacements in  
7 2009, we are recommending a funding level that  
8 reflects this trend. Therefore, we recommend a  
9 funding level of \$1,740,353 for each of the  
10 calendar years 2010 and 2011.

11 Q. What level of capital expenditures has the  
12 Company proposed for Electric Operations -  
13 Efficiency and Process Improvement?

14 A. For Electric Operations - Efficiency and Process  
15 Improvement, as shown on Exhibit\_\_\_ (IIP-8),  
16 page 24, for years 2010, 2011, and 2012, capital  
17 expenditures total \$29.700 million, \$28.200  
18 million, and \$28.700 million, respectively. The  
19 expenditures are related to a single project  
20 referred to as the Work Management Systems  
21 project.

22 Q. Do you propose an adjustment to this project?

23 A. Yes. The Work Management Systems project is the  
24 implementation of a comprehensive work

1 management system that will track work and time  
2 spent in a common electronic platform. Our  
3 adjustment to this program is based on timing  
4 and the justification provided by the Company.  
5 We recommend a funding level of \$15 million for  
6 calendar years 2010 and 2011. These adjustments  
7 will, in effect, double the time to complete the  
8 project, but provide funding levels that ensure  
9 continued progress can be made on a yearly  
10 basis. We recommend this adjustment for the  
11 following reasons: the current work management  
12 system meets the needs of Con Edison; the  
13 current system is still supported by its vendor;  
14 Con Edison is currently in its assessment phase  
15 and final plans regarding this system have not  
16 been determined; this project is not necessary  
17 at this time; and, extending the time frame to  
18 complete this project would not hinder the  
19 safety, performance, or reliability of the  
20 electric system.

- 21 Q. Please describe the Isolation Transformers  
22 program under the category of Public Safety.  
23 A. This program entails the installation of  
24 transformers to create an isolated ungrounded

1 circuit for each streetlight. This protects the  
2 public from hazards that may result from cable  
3 failure, poor neutral connections or ineffective  
4 grounding. A total of 163,000 transformers will  
5 be installed when the program is completed.

6 Q. What is your recommendation for this program?

7 A. This program was initiated in the last quarter  
8 of 2008 and the Company was able to install  
9 approximately 1,600 units in that period, at a  
10 cost of approximately \$1,600 per unit. Con  
11 Edison's goal for 2009 and 2010 is 8,800 units  
12 annually at a per-unit cost of \$660, increasing  
13 to 16,000 units annually for the remaining seven  
14 years of the program. The goals set for 2009-  
15 2010 seem reasonable as they would only require  
16 the Company to effectively continue the rate of  
17 installation it achieved in the final quarter of  
18 2008. For the years 2010 and 2011, however, the  
19 Company proposes a near doubling of the  
20 installation targets from 2010 to 2011 and we do  
21 not believe this level is reasonable.

22 Therefore, we believe a more moderate increase  
23 in the budget is warranted in 2011 to allow for  
24 a gradual ramping up of the program. We believe

1 that a more reasonable forecast would allow for  
2 an increase to 12,400 units in 2011, half the  
3 targeted increase in that year, increasing to  
4 the full forecasted total of 16,000 in 2012 and  
5 2013. A per unit cost of \$660 yields a total of  
6 \$5.809 million for 8,800 units in 2009-2010,  
7 \$8.145 million for 12,400 units in 2011, and  
8 \$10.482 million for 16,000 units in both 2012  
9 and 2013. Therefore, we recommend funding  
10 levels of \$5.809 million and \$8.145 million for  
11 2010 and 2011, respectively.

12 Q. Please describe the Vented Service Box  
13 Replacement Program?

14 A. This program involves replacing existing service  
15 box covers with vented covers to reduce the  
16 incidences of the buildup of combustible gases  
17 in these structures resulting from the failure  
18 of secondary cables, thus reducing the severity  
19 of underground events. In addition, because of  
20 the fact that the covers are manufactured of  
21 composite materials, they will mitigate any  
22 stray voltage issues associated with the  
23 structures.

24 Q. What is your recommendation for this program?

1 A. In 2008 the Company installed 8,868 covers at a  
2 cost of \$6.3 million, or a per-unit cost of  
3 \$710. The installation target for 2009 is  
4 11,400, increasing to 21,000 annually for each  
5 of the years 2010-2013. The Company requested  
6 funding for this program of \$15.375 million  
7 annually for years 2010 through 2013, yielding a  
8 per-unit cost of approximately \$730. The  
9 Company's goal of 11,400 units in 2009 seems  
10 reasonable, given that they were able to install  
11 almost 9,000 covers in 2008, the first year of  
12 implementation of the program. However, as  
13 discussed above with respect to the Isolation  
14 Transformer program, the Company's plan is to  
15 effectively double its targeted installation  
16 goals from 2009 to 2010 and continue at that  
17 level for the following three years. A more  
18 reasonable forecast would allow for an increase  
19 to 16,200 units in 2010, half the targeted  
20 increase in that year, and then increase to the  
21 full forecasted total of 21,000 for 2011. As a  
22 result, we recommend funding levels of \$11.875  
23 million in 2010 and \$15.375 million for 2011.  
24

1 IV. Stimulus Projects

2 Q. Please explain the Commission's recent approval  
3 of certain projects for federal funding  
4 associated with the American Recovery and  
5 Reinvestment Act of 2009 (ARRA)(Public Law 111-  
6 05).

7 A. Among other things, the ARRA provides funding to  
8 the U.S. Department of Energy (DOE) to award  
9 grants to various entities to facilitate  
10 projects that test and deploy smart technology  
11 for the electric grid, promote investment in  
12 renewable energy sources, drive innovation in  
13 the fossil energy industry, and adapt electric  
14 facilities to the needs of the future. Due to  
15 the cost sharing requirements of the grants,  
16 utilities filed their project proposals with the  
17 Commission seeking ratepayer funding for the  
18 balance of project costs. By Order issued on  
19 July 27, 2009, in Case 09-E-0310, et. al., the  
20 Commission approved, with certain conditions,  
21 several Con Edison project proposals and  
22 authorized the recovery of eligible project  
23 costs through the imposition of a surcharge  
24 mechanism if awarded funding by the DOE.

1 Q. Were any of the approved projects included in  
2 the Company's original rate filing in this  
3 proceeding?

4 A. Yes. As shown in Con Edison's response to DPS-  
5 372, included in Exhibit \_\_\_(SIIP-1), the  
6 Company's original filing included seven  
7 projects that were recently approved by the  
8 Commission in Case 09-E-0310. However, as shown  
9 in the Company's response to DPS-416, included  
10 in Exhibit \_\_\_(SIIP-1), the scope of work for  
11 these seven projects as set forth in the  
12 Company's filing to DOE is for work that is  
13 incremental to the work as proposed in the  
14 Company's rate filing. Thus, we are not  
15 recommending adjustments to the projects'  
16 funding levels in this proceeding.

17

18 V. Low Priority and Multi-Year Projects

19 Q. The Panel has stated that during your review of  
20 Con Edison's capital spending plan, you  
21 considered the Company's revised 2009 budget as  
22 it relates to capital expenditures. Please  
23 explain.

24 A. On May 26, 2009, the Company filed a letter in

1 compliance with the Commission's 2009 Rate  
2 Order. In that filing, the Company identified  
3 approximately \$139 million in reductions to its  
4 capital programs for the calendar year 2009. As  
5 shown in the Company's response to DPS-344,  
6 included in Exhibit \_\_\_(SIIP-1), the Company's  
7 filing reduced its proposed T&D capital budget  
8 in this proceeding by approximately \$79.6  
9 million from the level originally filed. On  
10 page 4 of the May 26, 2009 filing, the Company  
11 describes the targeted reductions as, "for the  
12 most part, associated with multi-year and low-  
13 priority projects and programs, and are  
14 relatively modest on an individual project or  
15 program basis." The Company's response to DPS-  
16 415, included in Exhibit\_\_\_(SIIP-1), provides  
17 the priority ranking for each of its T&D capital  
18 projects. We reviewed the projects and programs  
19 and accept the proposed level of reduced funding  
20 for those projects for 2009. In addition, we  
21 are proposing that the Company continue the  
22 reduced funding level for many of those  
23 projects.

24 Q. Please identify each of the projects that you

1 are proposing be deferred or continue with a  
2 reduced level of funding.

3 A. Each of the Company's T&D projects that were  
4 either deferred or subject to a reduced funding  
5 level is identified in our Exhibit\_\_\_\_(SIIP-2) by  
6 an indicator in the far right column. We will  
7 start with the five projects that fall under  
8 System and Transmission Operations. For the EMS  
9 Reliability AECC and ECC project, the Company's  
10 revised 2009 budget deferred spending on this  
11 low-priority project from 2009 to 2010. It  
12 further proposed a funding level of \$0.5 million  
13 for 2010 and \$1.0 million for 2011. We propose  
14 that this low-priority project be deferred for  
15 an additional year, which would lead to no  
16 funding in 2010 and \$1.0 million in 2011. For  
17 the Outage Scheduling System, the Company's  
18 revised 2009 budget reduced funding for this  
19 low-priority project from \$3.0 million to \$1.0  
20 million. We propose that the \$1.0 million  
21 funding level continue through 2010 based on the  
22 project's low priority. For the Sprain Brook -  
23 W49th St. - M51 project, the Company's revised  
24 2009 budget deferred this low-priority project

1 from 2009 to 2010. We propose that it be  
2 deferred again to 2011 based on the project's  
3 low priority. For its Emergent Transmission  
4 Reliability program, the Company's revised 2009  
5 budget reduced funding for this multi-year  
6 project from \$10.0 million to \$4.0 million for  
7 2009. We propose that the \$4.0 million funding  
8 level be set for 2010 for this multi-year  
9 project. As we discussed earlier, however, we  
10 are proposing a \$6.2 million funding level for  
11 2011. For its Re-conductor Dunwoodie - Sprain  
12 Brook Transmission Corridor, the Company's  
13 revised 2009 budget deferred this project from  
14 2009 to 2010 with a proposed funding level of  
15 \$0.5 million in 2010 and \$5.4 million in 2011.  
16 Based on the Company's decision to defer this  
17 project for one year, we expect that deferring  
18 the project an additional year will not  
19 adversely affect safe and adequate service.  
20 Thus, we propose that the project be deferred  
21 for an additional year and propose no funding in  
22 2010 and \$5.4 million in 2011.

23 Q. Please continue with the eight projects that are  
24 under Substation Operations.

1 A. For the 345 kV Circuit Breaker Upgrade Program,  
2 the Company's revised 2009 budget and rate  
3 filing proposed funding at \$5.0 million in each  
4 of the years 2009-2011. We agree with this  
5 level of proposed funding. For the Bus Section  
6 Upgrade - E. 63<sup>rd</sup> Street project, the Company's  
7 revised 2009 budget and rate filing proposed no  
8 funding for this project. We agree. For  
9 Additional G&T Devises, the Company's revised  
10 2009 budget and rate filing proposed funding at  
11 \$0.5 million annually for the years 2009-2011.  
12 We agree with this level of proposed funding.  
13 We also agree with the proposed \$1.0 million  
14 funding level for the Company's Diesels / Black  
15 Start Restoration (Phase 2) - Upgrade Station L  
16 & P project for the years 2009-2011. For the  
17 Substation Loss Contingency program, the  
18 Company's revised 2009 budget reduced its 2009  
19 funding level from \$2.0 million to \$1.0 million  
20 for this low-priority program. We propose that  
21 the \$1.0 million funding level continue for 2010  
22 and 2011 based on the program's low priority.  
23 For the Pumping Plant Improvement project, the  
24 Company's revised 2009 budget reduced its 2009

1 funding level from \$8.5 million to \$5.5 million,  
2 which is approximately Con Edison's 2008 actual  
3 spending level. We propose that the \$5.5  
4 million funding level continue for 2010 and  
5 2011, thereby extending the time necessary to  
6 complete this project. For the Security  
7 Enhancements project, we are not recommending  
8 any adjustments. For the Substation Automation  
9 Target Information System, the Company's revised  
10 2009 budget reduced its 2009 funding level from  
11 \$2.0 million to \$1.0 million for this low-  
12 priority project. We propose that the \$1.0  
13 million funding level for this low-priority  
14 project continue for 2010 and 2011.

15 Q. Please continue with those projects listed under  
16 Electric Operations.

17 A. For the Network Load Relief Transformer  
18 Installations program, the Company's revised  
19 2009 budget reduced funding by \$3.0 million for  
20 2009 for this program. The Company's rate  
21 filing proposes reduced levels for both 2010 and  
22 2011 compared to the revised \$47.9 million level  
23 proposed for 2009. We agree with the Company's  
24 proposed funding levels for this program. For

1 the HiPot program, the Company's original rate  
2 filing and its revised 2009 budget proposed a  
3 funding level of \$3.4 million for this low-  
4 priority program. We propose that the \$3.4  
5 million funding level continue for 2010 and 2011  
6 because of the program's low priority. For the  
7 multi-year PILC program, the Company's revised  
8 2009 budget reduced funding from \$32.0 million  
9 to \$27.1 million. We propose that the \$27.1  
10 million funding level continue for 2010 and 2011  
11 for this multi-year program. For the multi-year  
12 Sectionalizing Switches program, the Company's  
13 revised 2009 budget reduced the 2009 funding  
14 level from \$4.1 million to \$3.6 million. We  
15 propose that the \$3.6 million funding level  
16 continue for 2010 and 2011 for this multi-year  
17 program. For the multi-year Underground  
18 Secondary Reliability Program, the Company's  
19 revised 2009 budget reduced the 2009 funding  
20 level from \$40.4 million to \$24.3 million. We  
21 propose that the \$24.3 million funding level  
22 continue for 2010 and 2011 for this multi-year  
23 program. For the Network Reliability program,  
24 the Company's revised 2009 budget reduced

1 funding for this multi-year program by \$4.4  
2 million, from \$16.3 million to \$11.9 million.  
3 We propose the \$4.4 million reduction also be  
4 applied to the Company's 2010 and 2011 budget  
5 forecast for this multi-year program, which  
6 would lead to funding levels of \$21.3 million  
7 and \$22.1 million for 2010 and 2011,  
8 respectively.

9 Q. Please continue with the next project.

10 A. For the Coastal Storm Risk Mitigation project,  
11 which has an estimated completion date of 2040,  
12 the Company's revised 2009 budget reduced the  
13 2009 funding level from \$2.4 million to \$0.4  
14 million. The Company's rate filing proposed  
15 funding levels of \$3.0 million for 2010 and  
16 2011. We propose that the 2010 and 2011 funding  
17 levels for this project also be reduced by \$2.0  
18 million to \$1.0 million, compared to the \$0.074  
19 million spent in 2008. For the Transformer  
20 Purchase program, which the Company categorizes  
21 as low priority, Con Edison's revised 2009  
22 budget reduced the 2009 funding level by \$14.0  
23 million, from \$148.2 million to \$134.2 million.  
24 We propose that the 2010 and 2011 funding levels

1 also be reduced by \$14.0 million, which would  
2 lead to funding levels of \$130.6 million and  
3 \$124.6 million for 2010 and 2011, respectively  
4 for this low-priority program. We have already  
5 discussed our adjustments to the C-Truss  
6 program. For the multi-year Autoloop  
7 Reliability program, the Company's revised 2009  
8 budget reduced the 2009 funding level from \$6.1  
9 million to \$3.1 million. We propose that the  
10 \$3.1 million funding level continue for 2010 and  
11 2011, thereby extending the time necessary to  
12 complete this multi-year project. For the  
13 multi-year Overhead Feeder Sectionalizing  
14 Program, the Company's revised 2009 budget  
15 reduced the 2009 funding level from \$2.6 million  
16 to \$2.3 million. We propose that the \$2.3  
17 million funding level continue for 2010 and 2011  
18 for this multi-year project. For the multi-year  
19 Rear-Lot Pole Elimination program, the Company's  
20 revised 2009 budget reduced the 2009 funding  
21 level from \$1.4 million to \$0.4 million. We  
22 propose that the \$0.4 million funding level  
23 continue for 2010 and 2011 for this multi-year  
24 program. For the Targeted Primary DBC

1 Replacement program, the Company's revised 2009  
2 budget deferred spending on this low-priority  
3 project from 2009 to 2010. Con Edison proposed  
4 in its rate filing a funding level of \$0.8  
5 million for each of the years 2010 and 2011. We  
6 propose that this low-priority project be  
7 deferred for an additional two years, which  
8 would lead to no funding in 2010 and 2011. For  
9 the multi-year ATS Installation USS Reliability  
10 XW project, the Company's revised 2009 budget  
11 reflects a reduction of the 2009 funding level  
12 from \$2.45 million to \$1.45 million. We propose  
13 that the \$1.45 million funding level continue  
14 for 2010 and 2011, compared to 2008 actual  
15 expenditures of \$0.15 million. For the Vented  
16 Manhole Cover program, the Company's revised  
17 2009 budget reduced spending levels for 2009 and  
18 its rate filing did not propose any additional  
19 spending in 2010 or 2011. We agree with the  
20 Company's proposed spending levels. We have  
21 already discussed our adjustments to the Vented  
22 Service Box Covers program and the Isolation  
23 Transformers program.

24 Q. Please continue.

1 A. For the Meter Shop Adams project, the Company's  
2 revised 2009 budget deferred spending on this  
3 project from 2009 to 2010. Con Edison proposed  
4 a funding level of \$2.8 million for 2010 and  
5 \$1.0 million for 2011. Because this project is  
6 to upgrade a current working system, we propose  
7 that this project be deferred for an additional  
8 two years, which would lead to no funding in  
9 2010 and 2011. We note that the Company  
10 prioritizes its Strategic IT Enhancements  
11 separately from its other Electric Operations  
12 projects, which does not provide a showing of  
13 the project's overall import to the Company.  
14 For the 4 kV Load Shedding System, the Company's  
15 revised 2009 budget eliminated spending for 2009  
16 and its rate filing did not propose any  
17 additional spending in 2010 or 2011. We agree  
18 with the Company's proposed spending levels for  
19 this project. For the multi-year Electric  
20 Distribution Control Center Upgrades project,  
21 the Company's revised 2009 budget reduced the  
22 2009 funding level from \$3.0 million to \$0.5  
23 million. We propose that the \$0.5 million  
24 funding level continue for 2010 and 2011 for

1 this multi-year project. For the Mapping System  
2 Upgrades project, the Company's revised 2009  
3 budget reduced the 2009 funding level from \$2.9  
4 million to \$0.5 million for this low-priority  
5 project. We propose that the \$0.5 million  
6 funding level continue for 2010 and 2011 based  
7 on its low priority. For the Distribution  
8 Engineering Workstation project, the Company's  
9 revised 2009 budget deferred spending on this  
10 low-priority project from 2009 to 2010. Con  
11 Edison's rate filing proposed a funding level of  
12 \$0.5 million for 2010 and 2011. We propose that  
13 this low-priority project be deferred for an  
14 additional two years, which would lead to no  
15 funding in 2010 and 2011. For the Grid  
16 Optimization project, the Company's revised 2009  
17 budget reduced spending levels for 2009 to zero  
18 and its rate filing did not propose any  
19 additional spending in 2010 or 2011. We agree  
20 with the Company's proposed spending levels. We  
21 have already discussed our adjustments to the  
22 Work Management Systems project.

23 Q. Why are you proposing that the above programs be  
24 deferred or continue at reduced funding levels?

1 A. Again, the Company describes the above programs  
2 as "multi-year and low-priority" and that the  
3 reductions are "relatively modest on an  
4 individual project or program basis." We  
5 believe that the reductions should continue  
6 until the Company re-evaluates and prioritizes  
7 all of its electric capital projects and  
8 programs as part of an integrated, long-term  
9 vision as described in the recently issued  
10 management audit report.

11 Q. Please discuss the recently issued management  
12 audit report.

13 A. On August 7, 2009, the Commission released an  
14 independent third-party management and  
15 operations audit of Con Edison (the Audit) that  
16 covered the electric, natural gas, and steam  
17 businesses, with a specific focus on the  
18 Company's construction program planning  
19 processes and operational efficiency.

20 Q. What are some of the audit's findings?

21 A. On page I-9 of the Audit, the consultant states  
22 that "[n]o issue in this audit surfaced so  
23 quickly and from so many independent sources as  
24 the lack of an integrated vision or plan for the

1 electric business across the long term." The  
2 consultants further state on page I-9 that "we  
3 are confident that neither the regulator nor  
4 CECONY's Board is provided what is necessary to  
5 make the best decisions on capital spending."  
6 On page I-11, the consultants state that "[t]he  
7 Company does not distinguish between longer and  
8 shorter term plans, or identify a separate  
9 strategic planning process. The guidelines for  
10 the planning process and the format and content  
11 of the annual plans are minimal, and the plans  
12 are not integrated."

13 Q. Has your review of the Company's planning and  
14 budgeting process found anything to support  
15 these findings?

16 A. Yes, the Company currently does not prioritize  
17 its capital projects across all of its electric  
18 business departments. The Company's response to  
19 DPS-29, included in Exhibit \_\_\_(SIIP-1),  
20 explains how it prioritizes its T&D projects.  
21 The response first describes how the Electric  
22 Operations organization prioritizes its projects  
23 and then describes the same for the Electric  
24 Transmission and Substation organization. The

1 Company's response concludes by stating that  
2 "Electric Operations and Substation Operations  
3 are presently working to develop one overall  
4 prioritization methodology. This methodology  
5 would be a tool that can be used to ensure that  
6 projects and programs are prioritized in a  
7 similar [manner] across both groups, and that  
8 capital infrastructure investment benefits would  
9 be optimized. Priorities will be aligned with  
10 maintaining Company strategic investment and  
11 managing the Company's identified enterprise  
12 risks." Thus, by not having one overall  
13 prioritization methodology across its electric  
14 business units, or by not having an integrated  
15 overall capital spending program, the Company is  
16 not optimizing its capital investment.

17 Q. Please summarize some of the Audit's conclusions  
18 regarding Con Edison's corporate planning?

19 A. A few of the Audit's conclusions, as shown on  
20 pages III-14 through III-21, are: Con Edison  
21 lacks a statement of vision; Business Unit plans  
22 and their use are not sufficiently similar in  
23 format and content to promote integrated  
24 planning; there is not effective integration of

1 business-unit plans at the top level; the  
2 Strategic Planning group has not had a clear,  
3 consistent purpose through the period following  
4 divestiture and restructuring; and the Company  
5 lacks sufficient clarity in its long-term  
6 "vision" for the infrastructure necessary to  
7 move effectively, efficiently, and flexibly into  
8 an uncertain future. Based on the Audit's  
9 findings and conclusions, and our review, we are  
10 recommending the continuation of the reduced  
11 funding levels for many of those projects  
12 identified by the Company.

13

14 VI. Global Capital Expenditure Adjustment

15 Q. Please explain your global capital expenditure  
16 adjustment.

17 A. The Company's T&D capital spending plan is  
18 driven largely by the forecast of its peak  
19 demand. Staff Witness Dr. Liu's recommended 200  
20 MW reduction to Con Edison's weather adjusted  
21 peak load for 2008 and an additional 100 MW by  
22 2013 should reduce the required level of T&D  
23 capital spending proposed by the Company.

24 Q. Has the Company quantified the expected

1 reduction to its T&D capital forecast based on  
2 Dr. Liu's recommendation?

3 A. No. The Company claims that doing so would  
4 cause it to perform an inordinate amount of  
5 work, similar to its annual efforts dedicated to  
6 the preparation of its annual capital budget and  
7 five year capital spending plan. To develop a  
8 reasonable proxy of the expected reduction to  
9 the Company's electric capital spending plan, we  
10 used the Company's marginal cost study in  
11 Exhibit\_\_(ERP-4).

12 Q. Please explain.

13 A. At page 72 of the Company's Electric Rate  
14 Panel's pre-filed testimony, the Company states  
15 that "[m]arginal cost is generally defined as  
16 the cost of supplying an additional increment of  
17 load on T&D system components measured over a  
18 time period during which capital investments are  
19 made in response to load growth." The Company's  
20 marginal cost study shows that the total  
21 marginal cost to supply an additional kilowatt  
22 of load is \$910.01. Thus, based on its own  
23 marginal cost study, the Company would incur  
24 approximately \$182 million in T&D capital

1 expenditures to supply an additional 200 MW of  
2 load. Therefore, based on this analysis the  
3 Company would avoid investing \$182 million in  
4 T&D capital if its load forecast was reduced by  
5 200 MW, or avoid investing \$273 million if its  
6 load forecast was reduced by 300 MW.

7 Q. Is the Panel suggesting that Dr. Liu's  
8 recommendation will result in the reduction of  
9 the Company's needed infrastructure investment  
10 by \$182 million or \$273 million?

11 A. No. The Company develops its T&D capital  
12 investment plan by using both the peak load  
13 forecast and each individual area network  
14 forecast. Moreover, we would not expect the  
15 Company to stop progress on a project nor not  
16 expend monies committed in the short term based  
17 on the reduced demand forecast. A 200 MW (300  
18 MW by 2013) reduction should, however, have a  
19 significant impact on the Company's T&D capital  
20 spending. Therefore, based on the foregoing, we  
21 believe that a \$100 million adjustment is a  
22 conservative proxy to reflect the impact on the  
23 Company's T&D capital budget based on the  
24 proposed reduction to its peak load forecast by

1 200 MW in 2008 and by 300 MW by 2013.

2 Q. Have you reflected the \$100 million reduction to  
3 capital spending in the Panel's exhibits?

4 A. No, the \$100 million proxy is not included in  
5 our exhibits. However, we informed Staff  
6 Witness Randt of this adjustment and she applied  
7 the reduction in T&D capital spending to the  
8 Company's plant-in-service model for the rate  
9 year. Thus, the revenue requirement presented  
10 by Staff in this proceeding includes this \$100  
11 million global adjustment to the Company's plant  
12 forecast for the rate year.

13

14 VII. Net Plant Cap

15 Q. Do you support the continuation of the current  
16 downward reconciliation of T&D plant established  
17 in the 2009 Rate Order?

18 A. Yes. The plant-in-service levels we propose in  
19 our testimony should be construed to be the cap,  
20 or maximum limit, on the amount of T&D plant  
21 used for ratemaking purposes. If, at the  
22 conclusion of the rate year, an amount less than  
23 those levels recommended by us were actually  
24 added to the Company's plant accounts, the

1 Commission should require Con Edison to refund  
2 to customers the incremental carrying charges  
3 associated with the reduced level of investment.  
4 If the amount of plant added to the Company's  
5 plant accounts during the rate year exceeds  
6 those levels recommended in our testimony, the  
7 Company should not be allowed to prospectively  
8 recover the associated carrying charges in its  
9 next rate case until it fully justifies the need  
10 for and cost of the projects which caused the  
11 plant accounts to exceed the levels proposed in  
12 our testimony.

13

14 VIII. Productivity Imputation

15 Q. Please explain your proposal regarding the 2%  
16 productivity imputation established in the 2009  
17 Rate Order.

18 A. We are supporting the continuation of the  
19 current 2% productivity imputation established  
20 by the 2009 Rate Order, and as reflected in the  
21 testimony of the Staff Accounting Panel. During  
22 the past five years, the Company has made  
23 significant investments in its electric system  
24 infrastructure. Its current proposal

1 essentially maintains this high level of  
2 infrastructure investment during the ensuing  
3 five years, as well. Such continual,  
4 substantial investments to upgrade and reinforce  
5 its electrical system will not only provide for  
6 increased reliability, enhanced customer  
7 service, but produce increased operational  
8 efficiencies as well. As the Company's electric  
9 system is reinforced and operated under less  
10 stressful conditions, the likelihood of  
11 unforeseen events will be reduced, as will the  
12 necessity to make costly reactionary repairs.  
13 For this reason, we expect the Company will  
14 become more productive in its core business, the  
15 delivery of electricity.

16 Q. Has the Company identified potential cost  
17 savings associated with the projects and  
18 programs it is proposing?

19 A. In most circumstances, the Company has not  
20 identified or quantified potential savings  
21 associated with its capital and O&M programs.  
22 Rather, the Company has only generally described  
23 the projects' benefits in its pre-filed exhibits  
24 as reducing failures and maintenance, improving

1 operational response, or improving efficiency.

2 Q. What types of savings are generally intended to  
3 be captured by the application of a productivity  
4 adjustment?

5 A. Productivity adjustments have historically been  
6 used to capture all types of savings, specific  
7 enhancements resulting in operational  
8 efficiencies, as well as cost reductions that  
9 cannot be specifically foreseen or quantified at  
10 the time rates are set. Because of the level of  
11 investment and proposed substantial increase  
12 investments in both infrastructure and the  
13 personnel needed to operate and maintain that  
14 infrastructure, we recommend that the Commission  
15 continue to apply a productivity adjustment that  
16 reflects the productivity savings that should be  
17 expected as a result of the substantial  
18 increases in both capital and O&M project and  
19 program expenditures the Company has incurred in  
20 the recent past and proposes for the foreseeable  
21 future.

22 Q. Does this conclude your testimony at this time?

23 A. Yes, it does.