

Before the
New York State Public Service Commission

In the Matter of
Consolidated Edison Company of New York, Inc.

Case 25-S-0741

March 2026

Prepared Direct Testimony of:

John P. Sano

On Behalf of:

The City of New York

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INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS.

A. My name is John Sano. I am self-employed as a private consultant on utility regulation issues. My business address is 11 Glenmore Drive; Schenectady, N.Y. 12309-1945.

Q. ON WHOSE BEHALF ARE YOU SUBMITTING THIS TESTIMONY?

A. I am testifying on behalf of the City of New York, or City.

Q. PLEASE SUMMARIZE YOUR EDUCATION EXPERIENCE AND ANY HONORS YOU HAVE RECEIVED.

A. I received a Bachelor of Science degree in Chemical Engineering from Clarkson University in 1974. In 1974, I was inducted into Phalanx, the Clarkson Honorary Society, for outstanding achievements as an undergraduate. I received a Masters in Business Administration degree from the State University of New York at Albany in 1983.

Q. PLEASE SUMMARIZE YOUR PROFESSIONAL EXPERIENCE AND ANY HONORS YOU HAVE RECEIVED.

A. After my graduation from Clarkson, I held several engineering and management positions with the Union Carbide Corporation at its Bound Brook, New Jersey Phenolic Plastics Division from 1974 through 1976 and with the General Electric Corporation at its Silicone Products Division in Waterford, New York from 1976 through 1990. My responsibilities at various times included new process

1 development, process engineering, production engineering, production
2 management, customer technical support, project management and maintenance
3 management. During my tenure at General Electric, I was a Bronze Medallion
4 Award recipient. This award acknowledges individual contribution as an author of
5 General Electric patents and trade secrets. In 1990 I joined the New York State
6 Department of Public Service. During my thirty-one years at the Department, I
7 held various engineering and supervisory positions in the former Gas Division, the
8 former Energy & Water Division, and finally in the Office of Electric, Gas and
9 Water. The majority of my responsibilities as a technical advisor and later as a utility
10 supervisor included analysis of natural gas utility policy matters, including gas
11 distribution system design and planning, capacity asset management, gas
12 purchasing practices, gas system reliability, issues related to the restructuring of the
13 natural gas industry and use of natural gas in New York. During my last three years
14 with the Department, I supervised the Albany Office's Gas Safety Staff of engineers
15 on all gas safety matters. I retired from state service on May 28, 2021.

16 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE PUBLIC SERVICE**
17 **COMMISSION, OR COMMISSION?**

18 A. I testified in numerous proceedings before the Commission. Those proceedings
19 include, but are not limited to, Cases 14-G-0319 and 17-G-0460 with Central
20 Hudson Gas and Electric Corporation; Cases 04-G-1047, 07-G-0141, 13-G-0136,
21 and 16-G-0257 with National Fuel Gas Distribution ; Cases 06-G-1185, 16-G-0059
22 and 23-G-0225 with The Brooklyn Union Gas Company d/b/a KeySpan Energy

1 Delivery New York; Cases 06-G-1186, 16-G-0058 and 23-G-0226 with KeySpan
2 Energy Delivery Long Island; Case 08-G-1392 with St. Lawrence Natural Gas;
3 Cases 02-G-0003 and 05-G-1359 with Corning Natural Gas; Case 90-G-1001 with
4 Consolidated Edison Company of New York, Inc., or Con Edison; and Case 90-G-
5 0649 with Rochester Gas and Electric Corporation.

6 **Q. WHAT IS THE PURPOSE OF THE CON EDISON STEAM**
7 **INFRASTRUCTURE AND OPERATIONS PANEL'S, OR SIOP'S PRE-**
8 **FILED DIRECT TESTIMONY?**

9 A. The purpose of the SIOP's testimony is to present the investments and additional
10 O&M funds necessary to continue providing safe and reliable service, enhance
11 system resilience, and continue to decarbonize the steam system.

12 **Q. WHAT PERIOD DOES THIS TESTIMONY COVER?**

13 A. The testimony covers the 12-month period ending October 31, 2027, which I will
14 refer to as the Rate Year or Rate Year 1. The SIOP also addresses investments and
15 O&M spending planned for the two years following the Rate Year. This refers to
16 the twelve-month periods ending October 31, 2028 and October 31, 2029, which I
17 will refer to as Rate Year 2 and Rate Year 3, respectively.

18 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

19 A. My testimony addresses issues associated with Con Edison's proposed capital and
20 operations and maintenance, or O&M, projects and expenditures for the Rate Year,
21 as discussed in the SIOP's pre-filed direct testimony and associated exhibits and in
22 multiple discovery responses. Although not relevant to this one-year rate case, for

1 completeness purposes I also provide some observations and recommendations on
2 the SIOP's proposals for Rate Year 2 and Rate Year 3. My testimony focuses on
3 the following issues and recommendations:

- 4 • I recommend overall reductions in the Company's proposed capital spending of
5 approximately 58 percent in Rate Year 1, 65 percent in Rate Year 2, and 67
6 percent in Rate Year 3. These reductions are driven by blanket reductions on
7 most capital program budgets to align proposed spending with recent historic
8 average spending plus a reasonable inflation adjustment.
- 9 • Included in these reductions is a recommendation for the elimination of all
10 proposed capital spending for the Proposed Steam Production Decarbonization
11 projects, except for the Steam Digital Optimization software tools.
- 12 • I recommend overall reductions in the Company's proposed O&M spending of
13 approximately 61 percent in Rate Year 1, 62 percent in Rate Year 2, and 63
14 percent in Rate Year 3.

15 **Q. ARE YOU SPONSORING ANY EXHIBITS WITH YOUR TESTIMONY?**

16 A. Yes. I offer Exhibit__(NYCJS-1), which is a compilation of the discovery
17 responses from Con Edison that I relied upon in preparing this testimony,
18 Exhibit__(NYCJS-2), which is a press release from the Federal Reserve Bank of
19 New York, Exhibit__(NYCJS-3), which is a summary of my adjustments to the
20 Company's proposed capital expenditures, and Exhibit__(NYCJS-4), which is a
21 summary of my adjustments to the Company's proposed O&M increases.

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SUMMARY OF FUNDING REQUESTS

Q. PLEASE SUMMARIZE THE SIOP’S REQUESTED CAPITAL FUNDING.

A. According to Exhibit__(SIOP-1), Schedules 1, 2, and 3, the Company requests steam infrastructure capital funding of approximately \$166 million in Rate Year 1, \$177 million in Rate Year 2, and \$194 million in Rate Year 3.

Q. WHAT ARE YOUR PRIMARY CONCERNS WITH THE COMPANY’S CAPITAL SPENDING REQUESTS?

A. The Company’s estimation process and the resulting capital expenditure request are unrealistic.

Q. HOW DID THE COMPANY ESTIMATE BUDGETS FOR ITS CAPITAL PROJECTS?

A. In its answer to DPS Information Request, or IR, 1-79, the Company stated that cost estimating for capital projects is governed by Con Edison procedure CE-0304 05, Cost Estimating. Capital projects for the steam business generally make use of two distinct estimate classes: Conceptual Estimates and Appropriation Estimates. Conceptual Estimates are factor-based and are provided for potential projects whose scope and design have a maturity level of 0% to 30%. As a project matures, and the scope and design details are fully defined, an Appropriation Estimate is provided. These estimates should include detailed breakdowns of budgeted costs, including the use of historical cost information. Because projects proposed for inclusion in this rate case request are at the early stages of maturity, the estimates provided in the white papers are primarily derived from Conceptual Estimates.

1 Proposed projects generally do not undergo a full cost-benefit analysis; however,
2 the white papers typically provide one or alternative means of resolution as
3 justification for project initiation. Furthermore, in DPS IR-6-177, Con Edison was
4 asked for the basis of its cost estimates. In response, the SIOP explained that
5 individual projects can be rescheduled to stay within program budgets. The
6 Company also said that rescheduling is based on “yearly project cash flows.” This
7 is very problematic. The Company should be looking at the need for projects and
8 the implications of delaying them in deciding which should be delayed. It should
9 not be solely a cash-flow based decision. This serves as proof that the Company’s
10 approach of ignoring the technical merits and needs is not consistent with good
11 utility or prudent practices.

12 **Q. DO YOU AGREE WITH COMPANY’S ESTIMATION METHODOLOGY?**

13 A. No. By definition, the Conceptual Estimates are factor-based and are provided for
14 potential projects whose scope and design have a maturity level of only 0% to 30%.
15 The Company’s proposed increases are also inconsistent with the historical
16 evidence and current inflation rate expectations. The result of the Company’s cost
17 estimating techniques produce unreasonably high escalation rates resulting in
18 inflated projected expenditures. Even if the cost estimates were accurate, which
19 they are not if conceptual, I question whether the Company has the resources and
20 capability to properly complete the work within the rate case time frame, based on
21 historical performance.

22 **Q. HOW DID YOU DEVELOP YOUR RECOMMENDATIONS AS TO A**

1 **REASONABLE AND APPROPRIATE LEVEL OF CAPITAL**
2 **EXPENDITURES FOR THE RATE YEAR?**

3 A. My adjustments utilize the historic averages of actual expenditures from the last
4 five years and budget increases over the same period. I then applied inflation rates
5 to my basis for both Steam Production and Steam Distribution for the Rate Year
6 and each of the subsequent Rate Years.

7 **Q. WHAT IS THE BASIS FOR YOUR INFLATION FORECASTS?**

8 A. The New York Federal Reserve Bank, as part of the U.S. Central Bank, conducts
9 economic research on many topics. Its most recent “Short-Term Inflation
10 Expectations” estimates are shown in Exhibit__(NYCJS-2). I applied these
11 forecasts to the historical spending patterns for each category.

12 **Q. ARE THERE ANY CIRCUMSTANCES THAT COULD IMPACT THESE**
13 **ESTIMATES?**

14 A. The current United States tariff policy on goods from other countries may have an
15 impact. In addition, the current conflict in Iran needs to be considered for its impact
16 on the cost of business. However, at this time, it is not obvious how much of an
17 impact the tariffs or the Iran conflict will have, the duration of any such impacts, or
18 if cost pressures will remain in place.

19 **Q. HOW DO YOU RECOMMEND THE IMPACT OF POTENTIAL TARIFFS**
20 **BE TREATED?**

21 A. If, at the time the Commission approves a new revenue requirement for Con
22 Edison’s steam business, this matter remains in flux, the Commission should not

1 include any adjustments. Rather, the Commission should direct Con Edison to
2 defer any cost increases that are directly related to the increased costs from the
3 tariffs or the Iran conflict. The Commission also should direct Con Edison to file
4 documentation showing the increases in costs specifically due to either situation
5 and calculations of the amount of the increases.

6 **Q. ARE THERE ANY OTHER ISSUES THAT COULD IMPACT THE**
7 **COMPANY'S CAPITAL EXPENDITURES?**

8 A. Yes, in May 2025, Con Edison filed a petition for approval and funding of future
9 decarbonization projects. That petition was designated Case 25-S-0350. The
10 Company has also included the projects in that petition in this rate case. Depending
11 on how and where the Commission rules on those projects, there could be an impact
12 on the Con Edison's capital plans. Those projects are discussed in the New York
13 City Policy Panel's pre-filed testimony and I will touch on them later with the other
14 capital expenditure requests for Con Edison's Steam Production Operations.

15 **Q. DO YOU RECOMMEND ADJUSTMENTS TO THE COMPANY'S**
16 **PROPOSED CAPITAL EXPENDITURES?**

17 A. Yes. A summary of my adjustments to the capital expenditures can be found in
18 Exhibit___ (NYCJS-3).

19 **Q. BASED ON YOUR ADJUSTMENTS, WHAT IS YOUR RECOMMENDED**
20 **LEVEL OF CAPITAL EXPENDITURES?**

21 A. Consistent with the New York City Policy Panel's recommendations, I started by
22 removing the costs associated with the decarbonization projects, except the

1 software tools I previously mentioned. Utilizing historic spending and budget
2 escalation trends since FY 2020-21, I established a base budget to move forward
3 and added inflation to recommend \$88.1 million in the Rate Year, \$85.6 million in
4 Rate Year 2, and \$90.2 in Rate Year 3. These changes amount to a decrease of \$78.3
5 million or 47 percent in the Rate Year, a decrease of \$90.1 million or 52 percent in
6 Rate Year 2, and a decrease of \$103.8 million or 54 percent in Rate Year 3.

7 **SIOP CAPITAL PROPOSALS – DECARBONIZATION PROJECTS**

8 **Q. WHAT ARE CON EDISON’S STEAM DECARBONIZATION PLANS?**

9 A. Con Edison is developing an evolving portfolio of investments that purport to help
10 achieve Climate Leadership and Community Protection Act, or CLCPA and other
11 clean energy goals. The Company claims these investments will help its steam
12 customers comply with Local Law 97’s emissions requirements by reducing
13 emissions in the production of steam.

14 **Q. WERE THESE PLANS INCLUDED IN THE 2022 STEAM RATES**
15 **PROCEEDING?**

16 A. Sort of. The Company advanced some decarbonization concepts, but it did not
17 provide sufficient details regarding its proposed projects to allow parties or the
18 Commission to properly evaluate their merits. The rate plan approved by the
19 Commission in that proceeding included provisions to further develop three
20 decarbonization projects in the near term, established a mechanism for approval of
21 future decarbonization projects, and perform two interrelated studies. The rate plan
22 also provided for deferral and/or capitalization of up to \$3 million in total

1 incremental O&M and/or capital costs for preliminary work on future
2 decarbonization projects.

3 **Q. WHICH DECARBONIZATION PROJECTS AND PROGRAMS WERE**
4 **APPROVED BY THE COMMISSION AS PART OF THE 2022 STEAM**
5 **RATES PROCEEDING?**

6 A. No projects were approved by the Commission. The three decarbonization projects
7 advanced conceptually by Con Edison and addressed in the rate plan were:

- 8 • Industrial Heat Pump Project: The rate plan provided up to \$3 million in funding
9 for the Company to conduct preliminary work on an industrial heat pump
10 project at the East River Station.
- 11 • Hot Water Loop Decarbonization Project: The rate plan provided \$0.5 million
12 in funding to conduct preliminary work for a small district hot water system.
13 The project would utilize waste condensate to provide hot water to neighboring
14 buildings using fuel oil or natural gas with the intended benefits of reducing
15 emissions from those buildings and avoiding condensate discharge into the
16 sewer system.
- 17 • Thermal Storage Project – Feasibility Analysis: The rate plan required the
18 Company to conduct a feasibility study for a thermal storage project that would
19 store thermal energy generated from low-carbon off-peak electrical power from
20 the grid, and later dispatch the stored thermal energy to generate steam. This
21 analysis was to be shared with stakeholders and then possibly be submitted to
22 the Commission for full project approval pursuant to the Decarbonization

1 Project Approval Mechanism.

2 **Q. IS CON EDISON STILL PURSUING THESE PROJECTS?**

3 A. The Company is still proposing the Industrial Heat Pump Project. My
4 understanding is that it decided not to pursue either of the other two projects. I am
5 not aware that the Company performed the feasibility study for the Thermal Storage
6 Project. If the Company did so, it was not submitted to the Commission or shared
7 with the parties.

8 **Q. WHAT INTERRELATED STUDIES WERE CONSIDERED AS PART OF**
9 **THE 2022 STEAM RATES PROCEEDING?**

10 A. The two studies were the Steam Decarbonization Study and Implementation Plan
11 and Steam Business Development Plan. The former study was to include a
12 coordinated long-term analysis of pathways for achieving steam system
13 decarbonization through 2050. The study would also evaluate existing assets, the
14 potential value of temporary assets, energy availability and costs. A feasibility
15 analysis and cost/benefit evaluations for specific decarbonization projects was to
16 be included. The Company was directed to file the Study and an Implementation
17 Plan with the Secretary by December 31, 2024. The latter study was also to be filed
18 by December 31, 2024. That plan was to identify obstacles to steam's
19 competitiveness and include recommendations for addressing them. The plan was
20 to identify market sectors and geographic locations suitable for expansion of steam
21 service and provide an assessment of the potential for new business within the
22 existing system footprint and the potential for expansion of the steam system.

1 Both plans were filed with the Commission on December 27, 2024.

2 **Q. ARE ANY OF THE DECARBONIZATION PROJECTS INCLUDED IN**
3 **THIS RATE CASE FILING ALSO PART OF CASE 25-S-0350?**

4 A. Yes, all the decarbonization projects included in the petition in Case 25-S-0350
5 were included in the SIOP’s pre-filed direct testimony and capital funding request
6 in this proceeding.

7 **Q. HOW MUCH IS THE COMPANY PROPOSING TO INVEST IN THE**
8 **PROPOSED STEAM DECARBONIZATION PROJECTS?**

9 A. In total, the preliminary estimate is \$332 million. The Company proposes to spend
10 \$27.1 million in Rate Year 1, \$53.5 million in Rate Year 2, and \$70.8 million in
11 Rate Year 3.

12 **Q. DOES THE CITY SUPPORT THE DECARBONIZATION EFFORT?**

13 A. The New York City Policy Panel provides the City’s perspective on Con Edison’s
14 decarbonization proposals and plans.

15 **Q. BASED ON THE POLICY PANEL’S TESTIMONY, HOW ARE YOU**
16 **TREATING THE COSTS ASSOCIATED WITH THE PROPOSED**
17 **DECARBONIZATION PROJECTS?**

18 A. I have removed the funding for the heat pump and electric boiler projects but
19 retained the funding for the Steam Digital Optimization software tools.

20 **SIOP CAPITAL PROPOSALS – STEAM PRODUCTION CAPITAL PROPOSALS**

21 **Q. BRIEFLY DESCRIBE THE TYPES OF STEAM PRODUCTION-RELATED**
22 **PROGRAMS PROPOSED BY CON EDISON.**

- 1 A. The Steam Production programs relate to the Company’s steam production facilities
2 and are primarily focused on ensuring uninterrupted steam service to customers.
3 These programs are categorized by the Company as follows:
- 4 • risk reduction, aiming at upgrades to increase dependability and reduce outages,
5 and civil, structural, and mechanical facilities’ upgrades;
 - 6 • replacement, for replacing facilities that are failing, poorly performing, or near
7 obsolescence;
 - 8 • environmental, focused on enhancing environmental performance, reducing
9 environmental impact, or ensuring compliance with regulatory requirements;
10 and
 - 11 • information technology, or IT, aimed at upgrading IT infrastructure and systems
12 to remain compliant and advance business processes.

13 **Q. HOW MUCH CAPITAL IS THE COMPANY PROPOSING TO INVEST IN**
14 **ITS STEAM PRODUCTION FACILITIES?**

15 A. The Company is proposing to invest \$89.3 million in Rate Year 1, \$95.2 million in
16 Rate Year 2, and \$112.1 million in Rate Year 3. These funding levels include the
17 decarbonization projects I previously discussed.

18 **Q. BASED ON YOUR ADJUSTMENTS, WHAT IS YOUR RECOMMENDED**
19 **LEVEL OF CAPITAL EXPENDITURES FOR STEAM PRODUCTION**
20 **FACILITIES?**

21 A. I removed the heat pump and electric boiler decarbonization projects and adjusted
22 historic spending by adding inflation to recommend \$40.2 million in Rate Year 1,

1 \$36.2 million in Rate Year 2, and \$39.4 million in Rate Year 3. These changes
2 amount to a decrease of \$49.1 million or 55 percent in Rate Year 1, a decrease of
3 \$58.9 million or 62 percent in Rate Year 2, and a decrease of \$72.7 million or 65
4 percent in Rate Year 3.

5 **SIOP CAPITAL PROPOSALS – RISK REDUCTION PROJECTS**

6 **Q. WHAT IS INCLUDED IN THE RISK REDUCTION PROJECTS**
7 **CATEGORY OF STEAM PRODUCTION CAPITAL PROGRAMS?**

8 **A.** The Company is proposing six programs that reduce risk.

- 9 • Balance of Plant Risk Reduction Projects – SP: This program consists of
10 projects that will increase the dependability or availability of balance of plant
11 equipment and reduce planned outages or prevent forced outages. Balance of
12 plant consists of all auxiliary mechanical equipment required to produce
13 steam or electricity, other than major equipment, such as boilers and gas
14 turbine generators.
- 15 • Civil & Structural Program – SP: The projects in this program upgrade or
16 replace buildings and structures vital to the continued safe and reliable
17 operation of the Company's steam production facilities.
- 18 • Instrumentation and Control Risk Reduction Program: This program consists
19 of projects that will increase dependability of instrumentation and control
20 equipment and reduce outages, and motor monitoring installations that will
21 gather performance data and improve reliability;
- 22 • Major Equipment Risk Reduction Projects – SP: This program consists of

1 projects that will increase the dependability or availability of major
2 equipment and reduce planned outages or prevent forced outages. Major
3 equipment consists of equipment that is directly used to produce steam or
4 electricity. This includes generators and equipment contained within the
5 boiler island including forced and induced draft fans, air preheaters, and
6 combustion equipment.

7 • Mechanical Facilities Projects – SP: This program consists of projects that
8 upgrade or replace the mechanical facilities within the Company's steam
9 generating plants. Mechanical facilities projects will improve bathrooms,
10 conference rooms, common areas, locker rooms, offices, warehouses, and
11 other non-production plant areas.

12 • Power Distribution Risk Reduction Projects – SP: This program consists of
13 projects that will increase the dependability or availability of power
14 distribution equipment and reduce planned outages or prevent forced outages.
15 Power distribution equipment consists of high-voltage equipment within a
16 generating station including, but not limited to: unit substations, high-voltage
17 transformers and switchgear, high-voltage cables, generator step-up
18 transformers, and uninterrupted power supplies.

19 **Q. WHAT IS THE COMPANY'S TOTAL PROJECTED CAPITAL**
20 **INVESTMENT IN RISK REDUCTION PROGRAMS AND PROJECTS FOR**
21 **STEAM PRODUCTION?**

22 A. The Company's total projected capital investment in Risk Reduction Projects for

1 Steam Production is \$19.5 million in Rate Year 1, \$17.1 million in Rate Year 2, and
2 \$14.1 million in Rate Year 3.

3 **Q. WHAT ISSUES ARE THERE WITH THE COMPANY'S PROPOSED**
4 **CAPITAL EXPENDITURE IN RISK REDUCTION PROJECTS FOR**
5 **STEAM PRODUCTION?**

6 A. Based on the Company's prior actions, it is questionable whether the Company can
7 complete the work it has planned for the Rate Year. In response to DPS IR-6-177,
8 regarding the Instrumentation and Control Risk Reduction Program, the Company
9 states that "At the project level, Con Edison cannot provide a specific estimate at
10 this time. It is premature due to: the nature of individual projects, the scheduling
11 of outages, and several other factors considered when prioritizing projects and
12 developing the yearly budget, e.g. equipment outages, resource constraints, and
13 procurement lead-times. Individual projects may be rescheduled to stay within the
14 established program budget as the year and project portfolio is executed. This
15 project rescheduling is accomplished by identifying yearly project cash flows.
16 Initial budgeting estimates are typically based on historical costs of similar projects
17 or an engineering/conceptual estimate. As projects move into engineering and
18 execution phases, estimates are refined as the project scope is developed."

19 Con Edison is proposing to double the historical 5-year average expenditure
20 to \$20 million. However, that doubling does not coincide with using historical
21 expenditures to develop the project budget. The answer to this IR clearly states
22 what could actually happen during the Rate Year, and why, even if the need does

1 exist, the amount of work shown here will prove hard to accomplish, especially
2 when considered in context with the Company's previous performance.

3 **Q. BASED ON YOUR ADJUSTMENTS, WHAT IS YOUR RECOMMENDED**
4 **LEVEL OF CAPITAL EXPENDITURES FOR THE STEAM**
5 **PRODUCTION RISK REDUCTION PROGRAMS AND PROJECTS?**

6 A. I adjusted historic spending by adding inflation to recommend \$11.0 million in Rate
7 Year 1, \$11.3 million in Rate Year 2, and \$11.7 in Rate Year 3. These changes
8 amount to a decrease of \$8.5 million or 44 percent in Rate Year 1, a decrease of
9 \$5.8 million or 34 percent in Rate Year 2, and a decrease of \$11.7 million or 17
10 percent in Rate Year 3.

11 **SIOP CAPITAL PROPOSALS – REPLACEMENT PROJECTS**

12 **Q. WHAT IS INCLUDED IN THE REPLACEMENT CATEGORY OF STEAM**
13 **PRODUCTION CAPITAL PROGRAMS AND PROJECTS?**

14 A. The Company is proposing four programs to replace facilities and equipment that
15 are failing or near end of life. The four programs pertain to balance of plant
16 equipment, instrumentation and control equipment, major equipment, and power
17 distribution equipment.

18 **Q. WHAT IS THE COMPANY'S TOTAL PROJECTED CAPITAL**
19 **INVESTMENT IN STEAM PRODUCTION REPLACEMENT PROGRAMS**
20 **AND PROJECTS?**

21 A. The Company's total projected capital investment in Replacement Projects for
22 Steam Production is \$35.5 million in Rate Year 1, \$20.6 million in Rate Year 2, and

1 \$24.4 million in Rate Year 3.

2 **Q. WHAT ISSUES ARE THERE WITH THE COMPANY’S PROPOSED**
3 **CAPITAL EXPENDITURE IN REPLACEMENT PROGRAMS AND**
4 **PROJECTS FOR STEAM PRODUCTION?**

5 A. Again, the Company’s previous experience raises significant questions as to
6 whether it can complete the work planned for the Rate Year. Given that prior
7 performance, expanding the universe and scope of projects, as reflected in the 40%
8 increase in the proposed budget as compared to the historical 5-year spend, is not
9 reasonable and likely is not achievable.

10 **Q. WHAT EVIDENCE DO YOU HAVE TO SUPPORT YOUR POSITION?**

11 A. The evidence includes the Company’s annual capital spending reports submitted to
12 the Commission, which show the variances between its budgets and actual
13 expenditures. Additionally, details of its prior spending were provided in responses
14 to the parties’ discovery requests. For example, in the response to NYC IR 7-100
15 with respect to the 27755-17 59th St. PB BMS Replacement Project described on
16 page 43 of Exhibit__(SIOP-4), which also was discussed in the response to DPS
17 IR-177, the Company states, “The Company has yet been unable to perform this
18 work because it directed funding toward emergent priorities. ... Con Edison does
19 not maintain records of project prioritization details and thus cannot identify the
20 specific emergent needs requiring reprioritization of this project.”

21 In fact, this response raises a second concern that the Company does not
22 track the projects it prioritizes each year and cannot identify the projects it considers

1 to be emergent. The Company should know how it is spending ratepayer funds and
2 be able to provide details as to why scheduled projects were not undertaken.
3 Indeed, in its annual capital reports to the Commission, the Company is required to
4 explain the reasons for certain variances between its budgets and actual
5 expenditures. Simply stating that certain projects were reprioritized does not allow
6 the Commission to determine whether the Company's actions were prudent. For
7 purposes of this rate case, the Commission should not authorize substantially larger
8 expenditures when the Company cannot complete its planned projects and cannot
9 explain how the funds for such projects were spent.

10 **Q. BASED ON YOUR ADJUSTMENTS, WHAT IS YOUR RECOMMENDED**
11 **LEVEL OF CAPITAL EXPENDITURES FOR REPLACEMENT**
12 **PROGRAMS AND PROJECTS IN STEAM PRODUCTION?**

13 A. I adjusted historic spending by adding inflation to recommend \$25.5 million in Rate
14 Year 1, \$20.6 million in Rate Year 2, and \$24.4 in Rate Year 3. These changes
15 amount to a decrease of \$10.0 million or 28 percent in Rate Year 1. The Rate Year
16 2 and Rate Year 3 amounts are the Company's and are acceptable.

17 **SIOP CAPITAL PROPOSALS – ENVIRONMENTAL**
18 **PROGRAMS AND PROJECTS**

19 **Q. WHAT IS INCLUDED IN THE STEAM PRODUCTION**
20 **ENVIRONMENTAL CAPITAL PROGRAMS AND PROJECTS?**

21 A. These programs consist of projects that are intended to enhance environmental
22 performance, reduce environmental impact, or to comply with regulatory
23 requirements. The projects in this program are executed at one or more of the

1 Company's steam production facilities. Two Steam Production Decarbonization
2 Programs, 74th Street Electric Boiler Installation and East River Industrial Heat
3 Pump Installation, are included here.

4 **Q. WHAT IS THE COMPANY'S TOTAL PROJECTED CAPITAL**
5 **INVESTMENT IN ENVIRONMENTAL PROGRAMS AND PROJECTS**
6 **FOR STEAM PRODUCTION?**

7 A. The Company's total projected capital investment in Environmental Programs and
8 Projects for Steam Production is \$25.7 million in Rate Year 1, \$51.3 million in Rate
9 Year 2, and \$68.2 million in Rate Year 3.

10 **Q. WHAT ISSUES ARE THERE WITH THE COMPANY'S PROPOSED**
11 **CAPITAL EXPENDITURE IN ENVIRONMENTAL PROGRAMS AND**
12 **PROJECTS FOR STEAM PRODUCTION?**

13 A. The Decarbonization Projects have been removed. The remaining Environmental
14 Projects have been accepted as reasonable.

15 **Q. BASED ON YOUR ADJUSTMENTS, WHAT IS YOUR RECOMMENDED**
16 **LEVEL OF CAPITAL EXPENDITURES FOR ENVIRONMENTAL**
17 **PROGRAMS AND PROJECTS IN STEAM PRODUCTION?**

18 A. My adjustment results in a recommendation of \$1.0 million in Rate Year 1, \$0.9
19 million in Rate Year 2, and \$0.2 in Rate Year 3. These changes amount to a decrease
20 of \$24.7 million or 96 percent in Rate Year 1, a decrease of \$50.3 million or
21 98 percent in Rate Year 2, and a decrease of \$68.0 million or almost 100 percent in
22 Rate Year 3.

**SIOP CAPITAL PROPOSALS – STEAM PRODUCTION
INFORMATION TECHNOLOGY UPGRADES**

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Q. WHAT IS INCLUDED IN THE OPERATIONAL IT CATEGORY OF STEAM PRODUCTION CAPITAL PROJECTS?

A. This program consists of projects that will replace instrumentation and control equipment that has failed, is performing poorly, or is at or near obsolescence within the generating stations. Instrumentation and control equipment consists of low voltage and control wiring, control valves, hardware, and software specific to the operation of plant systems. One Steam Production Decarbonization Program, the Steam Digital Optimization software tools, is included here.

- Steam Operational Technology Upgrades: This project would replace end-of-life hardware such as servers, workstations, and mobile equipment required to maintain the security of technology infrastructure, including historians and asset management applications within the generating station.
- FUELS Day 2: This project would upgrade the Align Fuels Application to migrate to the newest (2027) version, and to migrate to the cloud and enhance functionalities. The application is used to keep inventory consumption of fuel oil, water, and steam send out of and from the generating stations.
- Steam Digital Optimization tools: In recent years the Company studied and modelled an end-to-end digital analytics platform that could be used to optimize operations and reduce carbon emissions for the steam system. Phase 0 and Phase 1 type studies were undertaken as research and development projects and an all-in-one software optimization package that models the

1 steam system’s production and distribution system operations, forecasting,
2 fuel, carbon emissions, and economics has been deemed feasible and
3 beneficial to steam customers. The Company now seeks funding to fully
4 develop and integrate the software modules into Company systems and
5 processes.

6 • ECC Simulator: This project involves the upgrade of a steam simulator at the
7 Energy Control Center. The simulator would be used for dispatcher training,
8 performance optimization and verification under normal conditions, root
9 cause analyses of transient events, and as a simulated environment to test
10 cybersecurity patches

11 • OOWP & Rounds System: This project will implement Hitachi Energy’s
12 eSOMS platform to replace Maximo for the functionalities of operating
13 orders and work permits as well as DataSplice for Mobile Operator Rounds
14 at all of the generating stations. Con Edison’s goal is to enhance safety and
15 operational reliability with a system especially designed for utility operations,
16 which the current system is not.

17 **Q. WHAT IS THE COMPANY’S TOTAL PROJECTED CAPITAL**
18 **INVESTMENT IN OPERATIONAL INFORMATION TECHNOLOGY FOR**
19 **STEAM PRODUCTION?**

20 A. The Company’s total projected capital investment in Operational IT for Steam
21 Production is \$8.6 million in Rate Year 1, \$6.2 million in Rate Year 2, and \$5.3
22 million in Rate Year 3.

1 **Q. WHAT ISSUES ARE THERE WITH THE COMPANY’S PROPOSED**
2 **CAPITAL EXPENDITURE IN OPERATIONAL IT PROGRAMS AND**
3 **PROJECTS FOR STEAM PRODUCTION?**

4 A. Not including the Steam Digital Optimization Project, the request for \$6 million in
5 the Rate Year when the 5-year historical expenditure averages \$240,000 is
6 perplexing. As shown in the response to DPS IR-1-75, Attachment 4, even the test
7 year capital expenditure of \$3.4 million fell far short of the planned budgeted \$4.5
8 million. Adding the test year actual to achieve a 6-year historical average only
9 approaches \$1 million. The Company did not explain why the actual expenditure
10 increased so dramatically during the test year. I question the reasonableness of the
11 even higher Rate Year proposed budget and whether Con Edison could perform all
12 of the proposed projects.

13 **Q. BASED ON YOUR ADJUSTMENTS, WHAT IS YOUR RECOMMENDED**
14 **LEVEL OF CAPITAL EXPENDITURES FOR OPERATIONAL**
15 **INFORMATION TECHNOLOGY IN STEAM PRODUCTION?**

16 A. Apart from the Steam Digital Optimization Project, I applied inflation to historic
17 expenditures and budget information. Adding in the Optimization Project, I
18 recommend \$2.7 million in Rate Year 1, \$3.5 million in Rate Year 2, and \$3.1
19 million in Rate Year 3. These changes amount to a decrease of \$5.9 million or 69
20 percent in Rate Year 1, a decrease of \$2.7 million or 44 percent in Rate Year 2, and
21 a decrease of \$2.2 million or 42 percent in Rate Year 3.

22

1 **SIOP CAPITAL PROPOSALS – STEAM DISTRIBUTION PROPOSALS**

2 **Q. PLEASE BRIEFLY DESCRIBE THE TYPES OF STEAM DISTRIBUTION**
3 **CAPITAL PROGRAMS.**

4 A. Steam Distribution capital programs support the safety and reliability of the steam
5 system and reduce system risks. They can be further categorized as:

- 6 • risk reduction, which are proactive upgrades to increase dependability and
7 reduce unscheduled outages;
- 8 • new business investment, which includes purchase, construction, and
9 installation of metering equipment;
- 10 • replacement, which replaces system components that are failing, poorly
11 performing, or near obsolescence; and
- 12 • IT, aimed at upgrading IT infrastructure and systems to remain compliant and
13 advance business processes.

14 **Q. HOW MUCH CAPITAL IS THE COMPANY PROPOSING TO INVEST IN**
15 **ITS STEAM DISTRIBUTION SYSTEM?**

16 A. As shown in Exhibit__ (SIOP-1), Schedule 3, the Company is proposing to invest
17 \$77.1 million in Rate Year 1, \$81.4 million in Rate Year 2, and \$81.9 million in
18 Rate Year 3.

19 **Q. WHAT ISSUES ARE THERE WITH THE COMPANY’S PROPOSED**
20 **STEAM DISTRIBUTION CAPITAL EXPENDITURES?**

21 A. As with most of the other capital expenditure categories, Con Edison is proposing
22 to substantially increase its spending on distribution projects compared to previous

1 levels. I am not aware of any significant recent changes in the Company's
2 operations or the condition of the distribution system, and the Company did not
3 identify any such changes in its testimony or discovery responses. Additionally,
4 according to the response to IR NYC 5-83, the Company appears to be assuming a
5 level of work that exceeds its actual experience over the past few years. I am not
6 aware of any change in conditions or circumstances which supports this
7 assumption, and the Company's testimony does not demonstrate any such changes.
8 Accordingly, the significant increase in spending does not appear to be justified,
9 necessary, or appropriate.

10 **Q. BASED ON YOUR ADJUSTMENTS, WHAT IS YOUR RECOMMENDED**
11 **LEVEL OF CAPITAL EXPENDITURES IN STEAM DISTRIBUTION**
12 **FACILITIES?**

13 A. I adjusted historic spending and budget information by adding inflation to
14 recommend \$47.9 million in Rate Year 1, \$49.4 million in Rate Year 2, and
15 \$50.9 million in Rate Year 3. These changes amount to a decrease of \$29.2 million
16 or 38 percent in Rate Year 1, a decrease of \$32.0 million or 39 percent in Rate Year
17 2, and a decrease of \$31.0 million or 38 percent in Rate Year 3.

18 **SIOP CAPITAL PROPOSALS – STEAM DISTRIBUTION RISK REDUCTION**

19 **Q. WHAT IS INCLUDED IN THE RISK REDUCTION CATEGORY OF**
20 **STEAM DISTRIBUTION CAPITAL PROGRAMS AND PROJECTS?**

21 A. This program consists of proactive upgrades to increase dependability:
22

- Remote Monitoring System Enhancement: This program funds several projects

1 related to steam remote monitoring system enhancement. The remote
2 monitoring system, with the use of sensors, remote terminal units, and
3 centralized software measures, in real time, the condition of the steam system.

4 • Steam Excavation Program: This program funds steam excavations required to
5 repair steam leaks and upgrade steam distribution system components.

6 • Manhole Rebuild Program: This program funds rebuilding deteriorated
7 manhole structures. The Company has identified 69 manholes that are in poor
8 condition and intends on rebuilding about 20 manholes annually

9 • Steam Distribution System Reliability Enhancements: This program funds
10 inspections and corrective actions resulting from the Company risk assessment
11 program. The program considers threats to pipelines like blocked traps,
12 corrosion, over-pressurization, and sabotage, and evaluates risk attributes like
13 steam velocity, pipe age, and proximity to water mains.

14 • Remote Metering Enhancement Program – Meter Install: This program funds
15 the enhancement of installed remote metering systems and the installation of
16 remote metering systems in customer buildings with no remote metering
17 system(s).

18 **Q. WHAT IS THE COMPANY’S TOTAL PROJECTED CAPITAL**
19 **INVESTMENT IN RISK REDUCTION PROGRAMS AND PROJECTS**
20 **FOR STEAM DISTRIBUTION?**

21 A. The Company’s total projected capital investment in Risk Reduction Programs and
22 Projects for Steam Distribution is \$54.8 million in Rate Year 1, \$60.0 million in

1 Rate Year 2, and \$62.0 million in Rate Year 3.

2 **Q. WHAT ISSUES ARE THERE WITH THE RISK REDUCTION CATEGORY**
3 **OF STEAM DISTRIBUTION CAPITAL PROGRAMS AND PROJECTS?**

4 A. First, a positive approach. The Steam Excavation Program is discussed in the
5 response to DPS IR-264. This response indicates that the 6-year average number
6 of excavations completed is 180. The increase in the funding requested for the
7 upcoming years is due to the actual average spend between years 2023 to 2025 of
8 approximately \$21 million. The Company states that excavating in Manhattan has
9 become increasingly expensive due to a combination of regulatory and logistical
10 challenges. In response to DPS IR-423, as follow-up to the response to DPS IR-
11 264, the Company states it is using average spending observed across multiple
12 projects as a basis for the funding requested for the Steam Excavation Program
13 during the Rate Year. Using the three-year average spending is higher than the 5-
14 year average and could be more realistic of the actual cost the Company could
15 experience during the Rate Year. This is due to increasing permitting requirements.

16 The Company does not use the average number of project completions from
17 previous years as a forecasting basis because the work that is being performed is
18 regulatorily-required and non-discretionary. In response to DPS IR-264(3), the
19 Company took the budget amounts requested, divided by estimated costs per unit,
20 to arrive at 223 potential units. However, the Company does not forecast based on
21 anticipated units. Requesting \$20.9 million in the Rate Year when the 5-year
22 average spend was \$17.8 million and the 3-year average was \$20.3 million is the

1 most straightforward request in the SIOP pre-filed direct testimony.

2 Further support for this approach can be found in the response to DPS IR-
3 255, regarding the Steam Distribution System Reliability Enhancements Program
4 – Steam Main Remediation Plan described on pages 117 and 118 of
5 Exhibit__(SIOP-4). The Company replaced approximately 848 feet of pre-1906
6 wrought iron pipe over calendar years 2020 through 2025. The breakdown
7 provided indicates an annual average of 142 feet of pipe replaced. The Company
8 has approximately 1,008 feet of pre-1906 wrought iron pipe remaining and plans to
9 replace it by the end of 2029 in roughly equal annual amounts (i.e., approximately
10 336 feet per year) starting in 2027. The historical breakdown provided only shows
11 one year where 300 feet was actually accomplished. The response to DPS IR-255
12 states, “The Company’s work on the top 40 risk-assessed locations is not mandated
13 by the Commission or by law. ...The Company has not completed work on any of
14 the top 40 risk-assessed locations from 2020-2025. These top 40 locations reflect
15 the Company’s prioritized future risk-mitigation efforts for 2026–2029. ...The
16 Company intends to execute corrective actions at the top 40 risk-assessed locations
17 in calendar years 2026-2029. Work will be sequenced one location at a time and
18 will follow risk prioritization and funding availability.”

19 These remaining pre-1906 pipe segments will continue to age and the risk
20 of failures and leakages increases. Replacing all such risky pipe eliminates this risk
21 in a planned manner rather than defensively, through emergent leak repairs. This
22 is how it should be done. However, the Company does not explain why it needs to

1 replace all of the remaining wrought-iron pipe by 2029. A more realistic approach,
2 which provides greater flexibility to accommodate emergent work and lowers the
3 immediate financial impact on customers, would be to complete the replacements
4 within a five-year period, or by 2031.

5 More broadly, it appears that at least some of the risk reduction projects
6 proposed for the Rate Year are catch up projects, or work that was planned but not
7 completed in prior years. It is important to set budgets and expectations at realistic
8 and achievable, rather than aspirational, levels. Con Edison has not reasonably
9 justified why all of the risk reduction projects are needed immediately. Considering
10 that the Company's actions demonstrate that some of the work is not urgent as it
11 has been reprioritized, it does not appear that a downward adjustment to the risk
12 reduction capital spending would have an adverse impact on the Company's ability
13 to provide safe and adequate service. At the same time, a lower spending level
14 would help maintain rates that are just and reasonable.

15 **Q. BASED ON YOUR ADJUSTMENTS, WHAT IS YOUR RECOMMENDED**
16 **LEVEL OF CAPITAL EXPENDITURES FOR RISK REDUCTION**
17 **PROGRAMS AND PROJECTS FOR STEAM DISTRIBUTION?**

18 A. I adjusted historic spending by adding inflation to recommend \$34.9 million in Rate
19 Year 1, \$35.9 million in Rate Year 2, and \$37.0 million in Rate Year 3. These
20 changes amount to a decrease of \$19.9 million or 36 percent in Rate Year 1, a
21 decrease of \$24.1 million or 40 percent in Rate Year 2, and a decrease of \$25.0
22 million or 40 percent in Rate Year 3.

1 **SIOP CAPITAL PROPOSALS – STEAM DISTRIBUTION**

2 **NEW BUSINESS PROJECTS**

3 **Q. WHAT IS INCLUDED IN THE NEW BUSINESS CATEGORY OF STEAM**
4 **DISTRIBUTION CAPITAL PROGRAMS AND PROJECTS?**

5 A. This program consists of projects that will support the addition of customers.

6 • New Business Various Locations: This program funds the installation of piping
7 and equipment to new steam customers. The Company estimates completing
8 four to five new customer installations per year under this program.

9 • Meter Purchase Program: This program funds the purchase of steam revenue
10 meters required for: (1) new business steam service requests, which include
11 service pipe installation; (2) customer load change requests; (3) steam revenue
12 meter modifications initiated by the Company such as downsizing oversized
13 steam revenue meters at existing customer buildings with steam load
14 reductions; and (4) system-wide replacement and/or enhancement of revenue
15 meters.

16 **Q. WHAT IS THE COMPANY’S TOTAL PROJECTED CAPITAL**
17 **INVESTMENT IN THE NEW BUSINESS CATEGORY OF STEAM**
18 **DISTRIBUTION CAPITAL PROGRAMS AND PROJECTS?**

19 A. The Company’s total projected capital investment in the New Business Project
20 Category for Steam Distribution is \$7.8 million in Rate Year 1, \$11.2 million in
21 Rate Year 2, and \$9.6 million in Rate Year 3.

22 **Q. WHAT ISSUES ARE THERE WITH THE NEW BUSINESS CATEGORY OF**

1 **STEAM DISTRIBUTION CAPITAL PROGRAMS AND PROJECTS?**

2 A. In response to DPS IR-283, the Company states that there are three customers who
3 have advanced efforts towards obtaining steam service in 2026, and one customer
4 who has expressed interest in obtaining steam service in Q4 2028. The current
5 requests vary in cost from \$636,000 to over \$9 million. This response also indicates
6 that over the last six years the number of new adds has averaged two customers
7 annually. This response explains that the Company determines the budget by
8 reviewing historical spend and incorporating projected spend for any projects
9 known in advance. Using the Company's own approach, its proposal for the Rate
10 Year is overstated. That is, the amount proposed to be spent is not consistent with
11 the expected or likely number of new customers to be added or the number of
12 meters that may need to be replaced.

13 **Q. BASED ON YOUR ADJUSTMENTS, WHAT IS YOUR RECOMMENDED**
14 **LEVEL OF CAPITAL EXPENDITURES FOR THE NEW BUSINESS**
15 **CATEGORY OF STEAM DISTRIBUTION CAPITAL PROGRAMS AND**
16 **PROJECTS?**

17 A. I adjusted historic spending and budget information by adding inflation to
18 recommend \$5.4 million in Rate Year 1, \$5.6 million in Rate Year 2, and \$5.7
19 million in Rate Year 3. These changes amount to a decrease of \$2.4 million or 31
20 percent in Rate Year 1, a decrease of \$5.6 million or 50 percent in Rate Year 2, and
21 a decrease of \$3.9 million or 40 percent in Rate Year 3.

22 **Q. DO YOU HAVE ANY OTHER COMMENTS ON YOUR RECOMMENDED**

1 **ADJUSTMENTS?**

2 A. Yes. The Company has proposed a large and unsubstantiated increase in its
3 spending in this category during the Rate Year as compared to its spending during
4 the test year and historically. My proposal is comparative to the actual performance
5 of the Company in the past and is based on the higher average of the last five years’
6 actual expenditures instead of the much lower FY 25-26 budget of \$3.1 million.

7 **SIOP CAPITAL PROPOSALS – STEAM DISTRIBUTION**
8 **REPLACEMENT PROGRAM**

9 **Q. WHAT IS INCLUDED IN THE REPLACEMENT CATEGORY OF STEAM**
10 **DISTRIBUTION CAPITAL PROGRAMS?**

- 11 A. This program consists of projects that will replace aging and obsolete equipment.
- 12 • Main Valve Replacement Program: This program funds the replacement of
13 main valves and associated work such as manhole and adjacent piping
14 modifications. The Company expects to replace about 10 defective valves,
15 identified during operational use, per year as part of this program.
 - 16 • Anchor Replacement Program: This program funds the replacement of
17 deteriorated anchors.
 - 18 • Limi-torque Angle Valve Replacement: This program funds the replacement of
19 defective or failed Limi-torque actuator-operated angle globe valves with new
20 valve assemblies.
 - 21 • Customer Load Changes – Install: This program funds the replacement,
22 configuration and activation of service equipment in existing customer
23 buildings that are undergoing renovation projects impacting the buildings’

1 steam load requirements.

2 **Q. WHAT IS THE COMPANY’S TOTAL PROJECTED CAPITAL**
3 **INVESTMENT FOR THE STEAM DISTRIBUTION REPLACEMENT**
4 **PROGRAM?**

5 A. The Company’s total projected capital investment in replacement programs and
6 projects for steam distribution is \$10.1 million in Rate Year 1, \$9.9 million in Rate
7 Year 2, and \$10.0 million in Rate Year 3.

8 **Q. WHAT ISSUES ARE THERE WITH THE PROJECTED CAPITAL**
9 **INVESTMENT IN THE STEAM DISTRIBUTION REPLACEMENT**
10 **PROGRAM?**

11 A. Historically the Company has underspent the Steam Distribution Replacement
12 Program by 25%. The Company’s response to DPS IR-215, shows that annual
13 differences are caused by many factors including size of valves and scope of work,
14 which can include breaking out and rebuilding a manhole structure to complete the
15 main valve replacement. In response to DPS IR-410, which was a follow-up to
16 DPS IR-215, the Company stated that in 2022, it was balancing other work
17 commitments and resources. As the Company balances the workload and resources
18 and manages its outage schedule, jobs will often bridge calendar years. In addition,
19 in 2022, factors outside of the Company’s control impacted construction progress
20 for this program. Although there was minimal to no variance between budget to
21 actual expenditures for some individual projects, there has been a significant
22 variance between budget and actual expenditures for the program overall.

1 Accordingly, the budget for the Rate Year should rely more heavily on actual
2 performance rather than aspirational goals.

3 **Q. BASED ON YOUR ADJUSTMENTS, WHAT IS YOUR RECOMMENDED**
4 **LEVEL OF CAPITAL EXPENDITURES FOR THE STEAM**
5 **DISTRIBUTION REPLACEMENT PROGRAM?**

6 A. I adjusted historic spending by adding inflation to recommend \$7.4 million in Rate
7 Year 1, \$7.6 million in Rate Year 2, and \$7.9 million in Rate Year 3. These changes
8 amount to a decrease of \$2.7 million or 27 percent in Rate Year 1, a decrease of
9 \$2.3 million or 23 percent in Rate Year 2, and a decrease of \$2.2 million or 22
10 percent in Rate Year 3.

11 **SIOP CAPITAL PROPOSALS – STEAM DISTRIBUTION IT PROGRAM**

12 **Q. WHAT IS INCLUDED IN THE IT CATEGORY OF STEAM**
13 **DISTRIBUTION CAPITAL PROGRAMS?**

14 A. This program consists of projects that will be upgrading IT infrastructure and
15 systems.

16 • Steam GIS Conflation: Con Edison has an in-flight Enterprise Geographic
17 Information System program to consolidate and standardize all of its electric,
18 gas, and steam information onto the Schneider ArcFM platform. Migrating
19 steam information is underway and is expected to be completed by December
20 31, 2026.

21 • Kongsberg Model Enhancement: The Kongsberg model is a virtual
22 representation of the Company’s steam system. The model will be enhanced

1 by adding 15 miles of steam service piping to the existing model, completing
2 the model to account for all of the street underground piping within the steam
3 distribution and transmission system.

4 **Q. WHAT IS THE COMPANY'S TOTAL PROJECTED CAPITAL**
5 **INVESTMENT IN THE IT CATEGORY OF STEAM DISTRIBUTION**
6 **CAPITAL PROGRAMS?**

7 A. The Company's total projected capital investment in the IT Category for Steam
8 Distribution is \$4.5 million in Rate Year 1, \$0.25 million in Rate Year 2, and \$0.30
9 million in Rate Year 3.

10 **Q. WHAT IS THE COMPANY PROPOSING RELATED TO THE STEAM GIS**
11 **CONFLATION PROJECT?**

12 A. Con Edison seeks an additional \$4.2 million in the Rate Year for its Steam GIS
13 Conflation project to migrate its existing steam Geographic Information System, or
14 GIS, maps onto an enterprise-wide GIS platform, often referred to as the eGIS.
15 This is part of a larger, multi-year project to consolidate Con Edison's steam,
16 electric, and gas assets onto a single, enterprise-wide GIS platform. The estimated
17 completion date for the steam portion of the project is December 31, 2026.

18 **Q. WHAT IS THE COMPANY'S JUSTIFICATION FOR THIS BUDGET**
19 **INCREASE?**

20 A. The SIOP claims that the incremental funding is required due to cost overruns
21 related to delays in transitioning its steam distribution system onto the eGIS
22 platform. This incremental funding would bring the total capital spending on the

1 steam-related portion of the Company’s eGIS project up to \$32.6 million.

2 **Q. DO YOU HAVE CONCERNS WITH THIS PROJECT?**

3 A. Yes. In Cases 25-E-0072 and 25-G-0073, the Company’s IT Panel at pages 11
4 through 21 of Exhibit__(IT-6) introduced a new \$100 million project, the “Clean
5 Energy Mapping Platform,” to transition the Company’s GIS maps away from the
6 current eGIS platform due to the loss of vendor support on March 1, 2027 and
7 attendant cybersecurity risks. Page 13 of Exhibit__(IT-6) presented a
8 comprehensive timeline for the transition of all assets onto the new platform,
9 including steam assets. Given these plans, it does not appear to be reasonable or
10 prudent to continue to make investments into the existing eGIS platform.

11 In its response to City IR-86, the Company states that in addition to the \$4.2
12 million requested by the SIOP, it “also anticipates further upgrade costs” to migrate
13 the steam GIS map away from the current eGIS platform, but those additional costs
14 were not included in this rate case.

15 However, the Company’s documents provided in responses to DPS IR-59
16 include a funding request during the proposed rate term for Project 28180499, “GIS
17 Migration Data Requirements and Investigating Data Readiness.” Project
18 28180499 is described as assessing data quality and data readiness prior to
19 undertaking a migration to a new GIS system. The existence of that project
20 suggests that steam customers are, in fact, being asked to simultaneously pay for
21 migrating data onto and away from the eGIS platform during the Rate Year.

22 **Q. WHAT DO YOU RECOMMEND?**

1 A. I recommend that the \$4.2 million funding for Steam GIS Conflation project be
2 removed. To the extent funding for the migration to a GIS platform is included in
3 the Company's revenue requirement request, it should remain.

4 **Q. BASED ON YOUR ADJUSTMENTS, WHAT IS YOUR RECOMMENDED**
5 **LEVEL OF CAPITAL EXPENDITURES FOR THE IT CATEGORY OF**
6 **STEAM DISTRIBUTION CAPITAL PROGRAMS?**

7 A. I accepted the Company's other proposal as reasonable. This includes the O&M
8 amounts requested for the Kongsberg Model Enhancement Project. These amounts
9 will be included in the Steam Distribution O&M total but will not be discussed
10 further.

11 **NET PLANT RECONCILIATION**

12 **Q. WHAT IS MEANT BY A NET PLANT RECONCILIATION?**

13 A. A Net Plant Reconciliation is a tool that can be used to protect both the customers
14 and the Company by comparing the actual average net plant (excluding removal
15 costs) associated with the capital projects to the amount included in rates for
16 average approved plant balances (excluding removal costs) in service. The
17 Company will defer for the benefit of customers the revenue requirement impact of
18 that difference if less than the approved amount or, if allowed, it will retain for its
19 own benefit the difference if it is more than the approved amount.

20 **Q. DOES THE COMPANY CURRENTLY HAVE A NET PLANT**
21 **RECONCILIATION ASSOCIATED WITH ITS COMMISSION**
22 **APPROVED CAPITAL EXPENDITURES?**

1 A. Yes, the rate plan adopted in the 2022 Steam Rates Proceeding includes a
2 downward-only Net Plant Reconciliation. To the extent that actual average net
3 plant (excluding removal costs) is less than the amount included for average steam
4 plant balances (excluding removal costs) in service, the Company is to defer for the
5 benefit of customers the revenue requirement impact of that difference. The
6 downward-only reconciliation protects customers against under-spending and
7 provides the Company with flexibility over the term of the rate plan to change as
8 necessary the capital expenditures from those incorporated into the net plant targets.

9 **Q. IS THAT THE ONLY NET PLANT RECONCILIATION INCLUDED IN**
10 **THE CURRENT RATE PLAN?**

11 A. No. The rate plan also includes a reconciliation mechanism applicable to capital
12 expenditures made for projects related to municipal infrastructure support which
13 includes upward reconciliation of the carrying costs on the average net plant in
14 service (excluding removal costs) resulting from municipal infrastructure support
15 related capital costs up to 20% above established capital expenditure targets that
16 are incurred due specifically to the East Side Coastal Resiliency Project, and to the
17 extent the Company's capital expenditures related to that project result in total
18 actual average net plant in service (excluding removal costs) exceeding the average
19 steam net plant in service balance in any or all rate years.

20 **Q. DO YOU RECOMMEND CONTINUING ANY NET PLANT**
21 **RECONCILIATION IN THIS PROCEEDING?**

22 A. Yes. I recommend that a downward-only net plant reconciliation be adopted to

1 protect customers. As I just explained, this mechanism provides flexibility to Con
2 Edison regarding its capital expenditures while protecting customers in the event
3 the Company decides not to make the authorized level of capital investments.
4 Absent a net plant reconciliation, the Company could decide to refrain from making
5 investments to bolster its earnings. That would not be in customers' interests, and
6 the Commission should take steps to prevent that outcome from occurring.

7 **SIOP O&M PROPOSALS**

8 **Q. PLEASE SUMMARIZE THE SIOP'S REQUESTED NON-LABOR O&M**
9 **FUNDING.**

10 A. The Company seeks an increase in non-labor O&M funding for steam production
11 and steam distribution projects of \$6.6 million in Rate Year 1, an incremental \$0.7
12 million in Rate Year 2, and an additional \$0.6 million in Rate Year 3. These
13 increases result in annual steam production plus steam distribution project budgets
14 of \$8.9 million in Rate Year 1, \$9.6 million in Rate Year 2, and \$10.2 million in
15 Rate Year 3. With these increases, and based on the information contained in the
16 response to DPS IR-129, the total O&M expenses for steam production and steam
17 distribution average over three times the test year amount.

18 **Q. WHAT ARE YOUR CONCERNS WITH THESE NON-LABOR O&M**
19 **REQUESTS?**

20 A. First, the increases requested are extensive. The requests result in annual amounts
21 that average over three times the test year expenditures that are only \$2.3 million
22 as indicated in the program white papers. The 2025-26 budget shown in

1 Exhibit__(SIOP-2), is about 2.7 times higher than the test year amount. The Rate
2 Year 2 and Rate Year 3 requests are even higher. Second, there is not sufficient
3 proof that these increases are warranted. The performance versus budgets since
4 2020-2021 shows an average annual under spend of \$0.5 million. In fact, the 2025-
5 26 budget itself is twice the historical average.

6 **Q. WHAT SPECIFIC CONCERNS DO YOU HAVE WITH THE COMPANY'S**
7 **STEAM PRODUCTION O&M PROPOSALS?**

8 A. I question the reasonableness of the assumed level of work to be undertaken. For
9 example, the boiler cleaning white paper states, "the program funding request
10 allows for units to be cleaned during the rate case years. Estimates are based on
11 historic spending on cleaning efforts." The White Paper does not indicate an
12 increase in the number of units to be cleaned as compared to historical experience.
13 The funding budget for Fiscal Year 2025-26 shows an increase of 182% over the
14 historical 5-year average budget. The rate year proposed funding shows an increase
15 of 74% over the historical 5-year average budget. Actual expenditures fall far short
16 of both. Additionally, in response to City IR-95, the SIOP explained that no boiler
17 cleanings were needed from 2023 through 2025. However, the Company assumes
18 that annual cleanings will be needed in the future because of conversions from
19 heavy fuel oil to #2 fuel oil. No analysis was provided to support this assumption,
20 and it does not make sense. Fuel oil is generally not favored over natural gas for
21 cost and environmental reasons, so extensive use of #2 fuel oil is not, in my view,
22 a reasonable going forward assumption. Despite budgets higher than actual

1 spending over the last five years, I utilized the average 5-year actual expenditures
2 and added inflation to propose annual budgets of \$300,000 in Rate Year 1, Rate
3 Year 2, and Rate Year 3. These changes amount to a decrease of \$200,000 or about
4 40 percent in Rate Year 1, Rate Year 2, and Rate Year 3.

5 The most significant increase is for Local Law 11 compliance. The budget
6 for Fiscal Year 2025-26 shows an increase of 74% over the historical 5-year
7 average budget. The Rate Year proposed funding is more than three times the test
8 year expenditure. However, the SIOP testimony and exhibits provide almost no
9 justification for the increase requested. Some explanation was provided in response
10 to NYC IR-97 and DPS IRs-176 and 369. That information demonstrates that the
11 increase is not based on any analysis. Rather, the Company simply escalated the
12 spending for the past five years. This approach is suspect, though, because the
13 information provided shows relatively low spending from November 2020 to
14 October 2025 – only \$4.5 million in total over that five-year period. While the
15 projected spend for Fiscal Year 2025-26 is much higher, the SIOP notes that many
16 factors can affect the actual spending and the variance between the projected and
17 actual expenditures. I therefore do not agree with Con Edison that it is reasonable
18 to rely heavily on this projection as the basis for the Rate Year estimate, especially
19 when, as here, the Company has no idea whether or what work it may need to
20 perform over the next three years. Accordingly, and recognizing the changes in
21 Cycle 11 required by the law, I utilized the test year expenditures and added the
22 same 25% factor used by the Company. to propose: \$1.6 million in Rate Year 1,

1 Rate Year 2, and Rate Year 3. These changes amount to a decrease of \$2.2 million
2 or 58 percent in Rate Year 1, Rate Year 2, and in Rate Year 3.

3 **Q. DO YOU HAVE COMMENTS ON ANY OF THE OTHER STEAM**
4 **PRODUCTION O&M PROJECTS?**

5 A. Yes. I have concerns with the Asbestos Removal Program at the steam generating
6 stations. The Company seeks an increase in O&M funding of \$0.5 million in Rate
7 Year 1 which will continue on for Rate Year 2 and Rate Year 3. Based on 2020-25
8 actual average annual expenditures of \$27,000 and a test year expenditure of
9 \$20,000, the requested annual budget increase of \$0.5 million per year does not
10 appear to be justified or reasonable.

11 The Asbestos Removal Program white paper states, “The cost of asbestos
12 abatement could significantly raise the price for performing equipment repairs,
13 possibly beyond what was budgeted for....” The Company’s historical experience
14 does not support this statement. The white paper continues, “This program would
15 set aside funding for the plants to address asbestos when encountered without
16 having to unnecessarily burden the corrective maintenance program budget. This
17 program facilitates addressing issues as they arise and proactively deals with known
18 areas that need to be addressed. The program funding requested allows the steam
19 plant to address asbestos removal needs as encountered over the coming years.”
20 No evidence was provided that asbestos removal has seriously burdened the
21 maintenance budget or that funds were not available when needed. The Company
22 did not provide any valid support for adding \$500,000 annually to a program that

1 incurs costs of approximately \$30,000 annually, and this increase is not appropriate.
2 If capital work is requiring this increase, the issue should have been included as
3 part of those projects. Accordingly, despite budgets higher than actual spending
4 over the last five years, I utilized the average 5-year actual expenditures and added
5 inflation to propose annual budgets of \$30,000 in Rate Year 1, Rate Year 2, and
6 Rate Year 3. These changes amount to a decrease of \$490,000 or about 94 percent
7 of the proposed amount in Rate Year 1, Rate Year 2, and Rate Year 3.

8 **Q. WHAT CONCERNS DO YOU HAVE WITH THE COMPANY'S STEAM**
9 **DISTRIBUTION O&M PROPOSALS?**

10 A. I have similar concerns about the reasonableness of the assumed level of work to
11 be undertaken. The Company is seeking a large increase for its rain and vapor
12 patrols. Specifically, Con Edison is requesting an increase in non-labor O&M
13 funding of \$1.1 million in Rate Year 1 which will result in an annual budget of
14 \$1.8 million in Rate Year 1, and then to continue this level of funding for
15 Rate Year 2 and Rate Year 3. Based on 2020-25 actual average annual expenditures
16 of \$950,000 and a test year expenditure of \$714,000, the requested Rate Year budget
17 of \$1.8 million is more than twice the historical spending level.

18 The SIOP's responses to City IR-78 and DPS IRs-129, 163, and 294 show
19 that the amount requested is excessive when compared to the amounts actually
20 spent over the past five years. While the SIOP stated in the discovery responses
21 that the request is not based on prior actual spending, the SIOP, itself, discussed the
22 annual average spending in its white paper for this project apparently as

1 justification for the amount requested. This conflict in justification was never
2 explained, and it raises further questions as to the reasonableness of the request.

3 Since 2020, there have been only three significant rainfall events. These
4 occurred on 8/22/2021 – Tropical Storm Ida, 9/1/2021 – Tropical Storm Henri, and
5 9/29/2023 – Tropical Storm Ophelia. There was an increase in the amount of steam
6 distribution structures on the system impinged or submerged, which added to the
7 amount of priority structures to be checked after subsequent rain events. Following
8 these three events, there was a correlating increase in expenses, but they were
9 isolated occurrences. Total non-labor costs were \$0.9 million for Tropical Storms
10 Ida and Henri combined, and \$0.7 million for Tropical Storm Ophelia. In summary,
11 all of the information provided supports an annual average need of about
12 \$1.0 million, not \$1.8 million.

13 **Q. WHAT DO YOU PROPOSE?**

14 A. I adjusted the historic 5-year average expenditures since this figure is higher than
15 the test year and appears more appropriate. I adjusted by adding inflation and
16 rounding to recommend \$1.0 million in each of Rate Years 1, 2, and 3. These
17 changes amount to a total budget decrease of \$0.8 million or 43.0 percent in each
18 of Rate Years 1, 2, and 3. While I am not generally offering any opinions or
19 recommendations about labor expenses, I make an exception for this project. The
20 Company stated that the rationale for the cost of dedicated staffing is two crews per
21 rain event to respond to emergencies, as described in the Company's *Steam 30-*
22 *Minute Response Time Metric Report* filed on July 1, 2025, in Case 22-S-0659.

1 This would be Company Labor. The rate used was \$161/hour times two crews of
2 four people times 12 hours times 1.5 hours overtime pay. Assuming 11 rain events,
3 that calculates to a cost of \$0.129 million per year. This incremental expense was
4 not included in the Company's forecast for its "Company Labor - Steam
5 Distribution" expense, or any similar Company Labor expense. Accordingly, it
6 should be added as an O&M expense as well.

7 **Q. DO YOU HAVE CONCERNS WITH ANY OTHER STEAM**
8 **DISTRIBUTION O&M PROPOSAL?**

9 A. Yes. I disagree with the amount sought for the Remote Monitoring System
10 Enhancement Program. The Company seeks an increase in non-labor O&M above
11 the test year amount of \$1.9 million in Rate Year 1, an additional \$0.5 million in
12 Rate Year 2 and an additional \$0.5 million in Rate Year 3. These increases would
13 result in an annual budget of \$2.2 million in Rate Year 1, \$2.7 million in
14 Rate Year 2, and \$3.2 million in Rate Year 3. Based on 2020-25 actual average
15 annual expenditures of \$371,000 and test year expenditures of \$310,000, the
16 requested annual budget increase ranges from seven times the historical level in
17 Rate Year 1 to eleven times the historical level in Rate Year 3. I do not believe the
18 increases are justified or reasonable.

19 **Q. PLEASE EXPLAIN YOUR POSITION.**

20 A. The white paper for this program indicates that at the current population of 150
21 Remote Monitoring System-enabled locations, about 5,250 hours were spent
22 troubleshooting and repairing sensors from July 2024 to June 2025. In 2025, to

1 maintain the system, the Company purchased 600 sets of temperature sensors and
2 1,000 level sensors. The Company asserted that it is expanding the system.
3 However, the white paper for the project did not identify any need for additional
4 maintenance work. While I acknowledge that an expanded system could require
5 more maintenance over time, that O&M work should have been included in the
6 white paper for that project to allow for a proper and complete evaluation of the
7 project. However, no such information was provided. Without it, there is no
8 reasonable basis for the Company's claim that maintenance expenses would
9 increase by seven to eleven times the test year and historical average levels.

10 **Q. WHAT DO YOU PROPOSE?**

11 A. I adjusted the historic 5-year average expenditures since this figure is higher than
12 the test year level and appears more appropriate. I adjusted expenditures due to the
13 number of additional units requiring maintenance and rounding to recommend a
14 total budget of \$500,000 in Rate Year 1 2, and 3. These changes amount to a total
15 budget decrease of \$1.8 million or 77 percent in Rate Year 1, \$2.2 million or 82
16 percent in Rate Year 2, and \$2.7 million or 84 percent in Rate Year 3.

17 **Q. PLEASE SUMMARIZE YOUR RECOMMENDED LEVEL OF NON-**
18 **LABOR O&M FUNDING FOR STEAM PRODUCTION AND STEAM**
19 **DISTRIBUTION PROJECTS.**

20 A. As I just discussed, I adjusted the test year amounts or historical averages as
21 appropriate by adding inflation to recommend total O&M expenses for steam
22 production plus steam distribution projects of \$3.5 million in Rate Year 1, \$3.7

1 million in Rate Year 2, and \$3.8 million in Rate Year 3. These changes amount to
2 a total budget decrease of \$5.4 million or 61 percent in Rate Year 1, a decrease of
3 \$5.9 million or 62 percent in Rate Year 2, and a decrease of \$6.4 million or 63
4 percent in Rate Year 3.

5 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

6 A. Yes, it does