REVISED REBUTTAL TESTIMONY

OF

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ILLINOIS COMMERCE COMMISSION

PETITION FOR APPROVAL OF AN ALTERNATIVE RATE REGULATION PLAN

PURSUANT TO SECTION 9-244 OF THE PUBLIC UTILITIES ACT

COMMONWEALTH EDISON COMPANY

DOCKET NO. 10-0527

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I. Witness Identification

Q. Please state your name, job title, and business address.

A. My name is Jennifer L. Hinman and I am an Economic Analyst on the Staff of the Energy Division's Policy Program at the Illinois Commerce Commission ("ICC" or "Commission"). My business address is Illinois Commerce Commission, 527 East Capitol Avenue, Springfield, Illinois 62701.

Q. Are you the same Jennifer L. Hinman who previously submitted direct testimony in this Docket?

A. Yes. My testimony is contained in Staff Ex. 2.0.

II. Overview

Q. What is the purpose of your rebuttal testimony?A. The purpose of my rebuttal testimony is to address the rebuttal testimonies of Commonwealth Edison Company ("ComEd" or "Company") witnesses Dr. Hemphill (ComEd Ex. 6.0) and Mr. McMahan (ComEd Ex. 7.0) as those testimonies relate to ComEd's proposed Electric Vehicle ("EV") Pilot program.

Q. What issues in Dr. Hemphill's rebuttal testimony are you responding to?

A. I respond to Dr. Hemphill's statements regarding ComEd's Budget-Based Alternative Regulation Plan, double-checking the budgeting assumptions and numbers, and the Rate ACEP tariff modification with respect to the EV Pilot. (ComEd Ex. 6.0)

Q. What issues in Mr. McMahan's rebuttal testimony are you responding to?

A. Mr. McMahan's rebuttal testimony concludes that the budgeted amounts presented by ComEd for the EV Pilot program in his direct testimony (ComEd Ex. 2.0) are reasonable. (ComEd Ex. 7.0 at 2:28-29) Mr. McMahan asserts that the assumptions and data I relied upon to calculate unit costs for line items in the EV Pilot budget are inappropriate or mistaken. (ComEd Ex. 7.0 at 2:26-28) I respond to Mr. McMahan's assertions.[1]

Q. Please summarize your Direct Testimony[2] in this Docket.

A. My direct testimony analyzes the EV Pilot program that is part of the Alternative Regulation ("Alt Reg") Plan being proposed by ComEd. My analysis concludes that the proposed EV Pilot program's budget appears to be excessive. Of the proposed $5 million budget for the EV Pilot program, I was only able to find information on projected assets estimated by ComEd to cost $3.22 million. My review suggests that ComEd's estimate of $3.22 million for these assets may be overstated by $1.12 million. Further, I note that my estimate of the overstatement may be conservative because I do not have access to the same information that a market participant like ComEd does. ComEd may have access to price discounts available to it that only it is aware of. Such discounts would reward ComEd not for superior efficiency, but rather for its superior knowledge as a participant in the market. Even with the transparency with this program, the fact that my research found lower asset prices

[1] Failure to respond to a particular issue raised by Mr. McMahan should not be construed as an endorsement of those issues.

[2] Staff Ex. 2.0

which may be more reasonable points to the intractable nature of calculating a fair budget.

Q. Are you attaching any exhibits to your rebuttal testimony?

A. Yes. Staff Ex. 9.1 contains ComEd Responses to Staff Data Requests that are used to support my rebuttal testimony.

Q. What are your conclusions and recommendations?

A. My conclusions and recommendations discussed further below are as follows:

1. ComEd has not provided verifiable information that substantiates the costs that ComEd includes in its Rate ACEP EV Pilot budget. Therefore, there is no evidence in the record to support the approval of ComEd's proposed Rate ACEP EV Pilot budget.

2. Mr. McMahan's rebuttal testimony illustrates that the EV Pilot is not transparent in terms of the specific assets to be purchased, which refutes Dr. Hemphill's assertion that ComEd's Rate ACEP budget estimate assumptions and numbers can be double-checked.

3. I recommend that ComEd make clear in its surrebuttal testimony that it intends to revise Rate ACEP t*o e*nsure *all* investments and expenses under Rate ACEP associated with government grants or tax credits are credited to Rate ACEP recoveries.

4. Further, in surrebuttal testimony, I recommend that ComEd include additional language in its Rate ACEP tariff to remove any revenues received from implementation of the EV Pilot, or any other project under Rate ACEP, from the cost recovery under Rate ACEP.

III. Response to Rebuttal Testimony of ComEd Witnesses Dr. Hemphill (ComEd Ex. 6.0) and Mr. McMahan (ComEd Ex. 7.0)

A. ComEd's Budget-Based Alternative Regulation Plan

Q. How does Dr. Hemphill describe the concept of Budget-Based Alternative Regulation?[3]

A. Dr. Hemphill states, among other things:

> ComEd is proposing to: (1) use **budgets as a benchmark** for evaluating the success of its alternative regulation program; and (2) make **discretionary investments** out of a conviction that **their benefits will be greater than their costs**.

(ComEd Ex. 6.0 at 11:238-240, emphasis added)

Q. How do you respond to Dr. Hemphill's description of ComEd's Budget-Based Alternative Regulation Proposal?

A. I understand Dr. Hemphill's statements to mean that the proposed "budgets" are at the front and center of ComEd's Alt Reg proposal. In fact, Dr. Hemphill even coins the term "Budget-Based Alternative Regulation" to describe ComEd's proposal,

[3] ComEd Ex. 6.0 at 11:237

which further emphasizes the importance of the budgets in this proceeding. (ComEd Ex. 6.0 at 11:237)

Q. Is the Rate ACEP EV Pilot program budget being reviewed in this proceeding?

A. Yes, Dr. Hemphill acknowledges that "the Rate ACEP budgets are being reviewed in this very proceeding." (ComEd Ex. 6.0 at 15:323) The Rate ACEP budgets including that for the EV Pilot program budget of $5 million are being reviewed in this Docket. In fact, Rate ACEP states:

> APPROVAL OF RECOVERY.
> The Company is allowed to begin recovery of certain costs it incurs in accordance with the provisions of this tariff only after receiving approval from the ICC for specifically proposed programs or modifications to previously approved programs associated with such costs. **Approval from the ICC for any such program constitutes a <u>determination by the ICC</u> that implementing such program at the <u>approved budgeted cost</u> is <u>prudent</u>.** Any such **approved program <u>may not again</u> be subject to review** with respect to the **<u>prudence</u>** of such approved program or the **<u>reasonableness of the costs</u>** associated with such program up to and including the amounts approved for recovery for such program.

(Rate ACEP, ComEd Ex. 1.2 at Original Sheet No. X+1, emphasis added)

Q. What information does ComEd provide to substantiate the costs included in its proposed Rate ACEP EV Pilot budget?

A. In its initial filing, ComEd does not provide information that demonstrates the budgeted costs of its EV Pilot are reasonable. In an attempt to find sufficiently detailed support for ComEd's proposal and budgets, Staff requested copies of *all* workpapers for ComEd Exhibits 1.0-5.0 and related exhibits on September 9, 2010,

and ComEd responded, however incompletely as discussed below. The workpapers and exhibits provided in ComEd's Response to Staff Data Request DLH 2.04, served on September 30, lack necessary detail to support ComEd's budgeted costs for the EV Pilot presented in ComEd Ex. 2.0. (Staff Ex. 9.1 at 1-6) Additionally, Staff Data Request JLH 1.09(a) requested ComEd to provide all supporting calculations and documents for the unit cost estimates of the ComEd EV Pilot Program Assets. (Staff Ex. 9.1 at 34) The response provided on October 11, 2010 referenced an attachment to ComEd's Response to Staff Data Request JLH 1.09 labeled as JLH 1.09_Attach 1. (Staff Ex. 9.1 at 36, 42-43) JLH 1.09_Attach 1 is the same workpaper as DLH 2.04_Attach 05 and DTR 1.17_Attach 1. (Staff Ex. 9.1 at 2-5, 42-43, 63-64) In its response to Staff Data Request JLH 1.12[4] served on October 8, 2010, ComEd states in part, "All workpapers relating to testimony supporting the proposed EV pilot have already been produced in ComEd's Response to Staff Data Request DLH 2.04 in this docket. Nor are there any additional workpapers that were used in the development of the EV pilot." (Staff Ex. 9.1 at 47)

However, a subsequent statement conflicts with ComEd's response to Staff Data Request JLH 1.12 just quoted. In his rebuttal testimony, Mr. McMahan states,

[4] Staff Data Request JLH 1.12 states: Please provide ComEd's workpapers related to the purchase, use or performance of EVs, including but not limited to, the expected penetration levels, charging patterns, maintenance cost savings, driver habits, vehicle performance, direct load control, charge management strategies (including proposals for residential EV charging tariff structures and any proactive steps that ComEd has taken or plans to take regarding being notified of electric vehicle sales in ComEd's service territory—either directly from car dealerships or electricians) and impacts of plug-in electric vehicles on ComEd's electric grid (including impact on life of transformers and associated distribution cost increases). This includes any internal reports based on the plug-in electric vehicles currently deployed in ComEd's Meter Reading organization as well as the hybrid bucket trucks currently deployed by ComEd, unless otherwise provided in response to JLH-1.10(f). (Staff Ex. 9.1 at 47)

"The $5,000 per unit estimate for the CT-2100 [charging station] is based on a quote from Coulomb Technologies." (ComEd Ex. 7.0 at 10:185-186) Mr. McMahan provides one workpaper supporting ComEd's budgeted cost of the 55 Level 2 charging stations that ComEd proposes to purchase as part of its EV Pilot program. (Staff Ex. 9.1 at 7-17) The workpaper Mr. McMahan provided on December 3, 2010 consists of a pricing quotation[5] provided by Coulomb Technologies (Carbon Day Automotive), the charging station vendor of the Level 2 charging stations that ComEd intends[6] to purchase as part of its EV Pilot. (Quote Date: 8/27/2010, Quote Expires: 11/27/2010) (Staff Ex. 9.1 at 7-17)

Q. Is the information sufficient for Staff to analyze the cost of each asset included in the EV Pilot budget?[7]

A. No. ComEd does not provide sufficiently detailed information to substantiate the costs included in its proposed Rate ACEP EV Pilot budget. There is no detailed list with complete technical specifications or even information on vehicles most likely to be retired.[8] Of the five categories[9] of proposed EV Pilot program assets, ComEd

[5] Quote #: AEC-ComeED.2.1 (Staff Ex. 9.1 at 8)

[6] Staff Ex. 9.1 at 36

[7] Dr. Hemphill states that ComEd is proposing to: "(1) use budgets as a benchmark for evaluating the success of its alternative regulation program". (ComEd Ex. 6.0 at 11: 238-239)

[8] ComEd Response to Staff Data Request JLH 1.03 states that the vehicles in the pilot program will be used to replace older vehicles that are at the end of their useful life. Specific vehicles have not yet been identified as the 2011 replacement plan has not yet been finalized. Replacement vehicles will be like-for-like within the assigned departments listed. (Staff Ex. 9.1 at 20) This information could help narrow down the hybrid bucket truck model.

[9] These five broad categories include: (1) Plug-in car, (2) Plug-in cargo/service vehicle, (3) Hybrid bucket truck (non-pluggable), (4) PHEV digger-derrick, and (5) Level 2 charging stations for company vehicles. (ComEd Ex. 2.0 at 5:86)

provides only one vendor quotation[10] that supports its $5,000 budgeted cost for a Level 2 charging station. It provides no verifiable information to substantiate the costs of the remaining $4.7 million[11] in the EV Pilot budget. Additionally, while ComEd appears to believe that the particular vehicles and charging stations[12] it has chosen are necessary to ensure benefits[13] to its customers, it did not present this important information in its direct testimony.

Q. How does ComEd support its contention that the EV Pilot program will likely result in net benefits to customers?[14]

A. Mr. McMahan provides a workpaper in support of his direct testimony related to the potential quantifiable net benefits[15] for the proposed EV Pilot program. The workpaper is an Electric vs. Gas Vehicle comparison worksheet with ComEd-specific[16] data inputs ("ComEd EV Benefits Spreadsheet")[17] originally developed by

[10] This quotation was provided three months after ComEd's initial filing.

[11] $4.725 million [=$[EV Pilot Budget] – ($5,000×55 charging stations)]

[12] ComEd Ex. 7.0 at 9:164-166, 10:174-188

[13] ComEd Ex. 7.0 at 10:186-188

[14] Dr. Hemphill states that ComEd is proposing to: "(2) make discretionary investments out of a conviction that their benefits will be greater than their costs… Before approving the Rate ACEP investments, the Commission will consider the investment and O&M budgets as a tool to determine whether the programs are indeed likely to result in net benefits to customers." (ComEd Ex. 6.0 at 11: 239-244)

[15] Staff Data Request JLH 1.04(b) states: "How will the analysis of the data directly benefit ratepayers?" ComEd Response to Staff Data Request JLH 1.04(b) states: "Data gathered throughout the pilot period will benefit ratepayers by providing actual costs and benefits of EVs vs. equivalent "non-EV" vehicles. This information will be valuable for both residential customers and commercial fleets considering adoption of EVs." (Staff Ex. 9.1 at 22)

[16] The inputs included in Mr. McMahan's analysis are presented in Staff Ex. 9.1 at 6; however, he does not justify these assumptions in his workpaper. Lacking explanation, I assume these to be ComEd-specific inputs as they differ from the inputs contained in the original University of Delaware model. (Staff Ex. 9.1 at 6, 57-59)

[17] See Staff Ex. 9.1 at 6

the University of Delaware.[18] (ComEd Response to Staff Data Request DLH 2.04_Attach 06; Staff Ex. 9.1 at 6) The ComEd EV Benefits Spreadsheet contains an analysis of the total lifecycle costs for a Nissan Leaf EV versus a Ford Focus gas vehicle. ComEd's estimates show potential net financial benefits due to cost[19] savings equal to $6,304 over the expected ten-year[20] lifetime from employing an electric-powered Nissan Leaf (at a cost of $32,700) instead of a gas-powered Ford Focus (at a cost of $16,640) assuming a $7,500 tax credit with the breakeven point occurring in year seven. (Staff Ex. 9.1 at 6) Mr. McMahan's analysis shows the Nissan Leaf owner pays an initial premium of $8,560 [=[($32,700 – $7,500) – $16,640)]. With this premium, the Leaf's cost is less than the expected ten-year lifetime fuel and maintenance cost savings for the Focus.[21] (Staff Ex. 9.1 at 6)

Q. How do you assess this information?

A. While Mr. McMahan correctly acknowledges, "plug-in electric vehicles… are substantially different from traditional vehicles in both their operations and the 'fueling' (charging) infrastructure required – both of which impact the overall lifecycle costs of the vehicles", he fails to include the charging infrastructure cost

[18] ComEd provides a link to the original model developed by the University of Delaware in ComEd Response to Staff Data Request DTR 1.20: http://www.udel.edu/V2G/page13/files/page13_2.xls ("EV Lifecycle Cost Spreadsheet") (Staff Ex. 9.1 at 57-59)

[19] Taking into consideration fuel and maintenance cost savings. See Staff Ex. 9.1 at 6.

[20] Mr. McMahan's workpaper focuses on a "ten-year" lifecycle cost analysis. This ten-year lifetime assumption appears to stem from the assumption of an estimated battery pack life of ten years. ComEd Response to Staff Data Request JLH 1.09(r) states: "Based on conversations, with OEMs, it is expected that the batteries in the EVs will last 10 years." (Staff Ex. 9.1 at 37)

[21] Mr. McMahan's analysis assumes a $3.00 price per gallon of gasoline, an $0.08 cost per kWh of electricity, and 13,000 miles driven per year. The other assumptions included in Mr. McMahan's analysis are presented in Staff Ex. 9.1 at 6; however, he does not justify these assumptions in his workpaper.

required in his ComEd EV Benefits Spreadsheet workpaper. (ComEd Ex. 7.0 at 4:72-75; Staff Ex. 9.1 at 6) Adding in the additional cost of the charging infrastructure per electric vehicle of $10,909 [=($5,000+$5,000+$909)],[22] ComEd's estimated fixed cost per electric vehicle in ComEd's proposed EV Pilot is $47,161 [=($36,252+$10,909)].[23] Because it is vital[24] that ComEd purchases a Level 2 charging station with added functionality[25] for each Nissan Leaf for this EV Pilot, the Nissan Leaf owner pays a premium of $28,340 [=($47,161 – $18,821)]. This premium significantly exceeds the expected ten-year lifetime fuel and maintenance cost savings. (Staff Ex. 9.1 at 61) Holding constant the rest of the ComEd-specific assumptions[26] in Mr. McMahan's workpaper, and using ComEd's estimated[27] cost

[22] $5,000 charging station, $5,000 installation cost, and $909 [=($50,000/55)] additional installation cost.

[23] Mr. McMahan's workpaper does not include the additional cost for taxes, title, and freight in the Nissan Leaf and Ford Focus prices. If the additional cost for taxes, title, and freight are accounted for, the estimated total cost of the Nissan Leaf vehicle rises to $36,252. Mr. McMahan's workpaper (ComEd EV Benefits Spreadsheet) specifies the Ford Focus cost at $16,640, which is the starting MSRP. (Staff Ex. 9.1 at 6; www.Ford.com/Focus) Assuming the same 8% sales tax rate, car title cost of $150, and $700 for freight costs as with the Nissan Leaf (See Staff Ex. 2.0 at 11:fn 8), the 2011 Ford Focus price inclusive of these additional costs is roughly $18,821.

[24] ComEd Ex. 7.0 at 10:177-178

[25] Some additional functionalities of the Coulomb Technologies CT-2100 charging station proposed by ComEd include the following: utility grade energy meter (integrated power metering circuitry provides accurate *bi-directional* energy measurement), smart grid compatible (utility grade meter and smart-grid interfaces enable *demand response* and Time-Of-Use (TOU) pricing), over-the-air station upgrade (upgrade station firmware remotely over-the-air to keep charging station current with future and evolving EV charging needs), integrated fault detection, remote diagnostics and control, and network interface. (Staff Ex. 9.1 at 14) It has the ability to be networked and remote communications capability, which enables aggregate management of the electrical load associated with ComEd's fleet of plug-in vehicles. (ComEd Ex. 7.0 at 10:182-184)

[26] ComEd EV Benefits Spreadsheet; Staff Ex. 9.1 at 6

[27] The estimated cost is $252 greater than ComEd's budgeted cost and is based on statements contained in Mr. McMahan's rebuttal testimony, ComEd Ex. 7.0 at 6:96-107. ComEd budgets $36,000 for the plug-in electric car component of its EV Pilot, which results in ComEd's budgeted fixed cost per electric vehicle being $46,909 [=($36,000 + $10,909)]. Using this budgeted cost (i.e., ignoring the additional freight cost that Mr. McMahan referenced in his rebuttal (ComEd Ex. 7.0 at 6:104-106)), the Nissan Leaf owner pays a premium of $28,088 [=($46,909 – $18,821)]. The investment from employing an all-electric Nissan Leaf instead of a Ford Focus gas vehicle may result in a net financial loss of $13,224. Based on ComEd's own

per electric vehicle of $47,161 in the EV Pilot, the investment from employing a Nissan Leaf instead of a Ford Focus may result in a net financial loss of $13,476 over the expected ten-year battery life. (Staff Ex. 9.1 at 61) These results are presented in the "Modified ComEd EV Benefits Spreadsheet – full EV Pilot cost and no tax credit" in Staff Ex. 9.1. (Staff Ex. 9.1 at 61)

Based on ComEd's own estimated costs, and taking into consideration that ComEd proposes to use 45 Nissan Leaf vehicles in its EV Pilot, the potential net financial loss to ComEd and its customers for this specific EV Pilot investment is estimated[28] to be $606,420 [=($13,476)*45] over ten years. Considering ComEd plans to purchase the charging stations before the end of 2011, the 30% Alternative Fuel Vehicle Refueling Property[29] Credit can help alleviate some of the costs of the charging stations to ComEd and its customers. (ComEd Ex. 2.0 at 6:96) ComEd has not monetized the "informational"[30] benefits of this investment nor has ComEd provided any other quantitative analysis of this investment that potentially could offset this estimated net financial loss over the ten year period.

B. <u>Double-Checking the Budgeting Assumptions and Numbers</u>

Q. What is Dr. Hemphill's position on whether budgets can be double-checked?

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budgeted costs, and taking into consideration that ComEd proposes to use 45 Nissan Leaf vehicles in its EV Pilot, the potential net financial loss to ComEd and its customers for this specific EV Pilot investment is estimated to be $595,080 [=($13,224)*45] over ten years.

[28] Estimated using Mr. McMahan's workpaper with ComEd's budgeted cost for the EVs.

[29] The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 signed into Law by President Obama on December 17, 2010 extends the Alternative Fuel Vehicle Refueling Property Credit through 2011, a credit for 30% of the purchase and installation costs of the charging equipment, up to $30,000 for businesses. It is lower than the credit for 50% ($50,000 for businesses) that it had been for all of 2010. (http://www.gpo.gov/fdsys/pkg/BILLS-111hr4853enr/pdf/BILLS-111hr4853enr.pdf)

[30] ComEd Ex. 2.0 at 3:52, 3:62-4:67, 4:75-77, 7:110-111

A. Dr. Hemphill states, "ComEd's assumptions and numbers can be double checked, and the budgets can be altered if appropriate." (ComEd Ex. 6.0 at 13:283-284) Dr. Hemphill also states that my direct testimony demonstrates that "it is possible to double check ComEd's budgeting assumptions and numbers." (ComEd Ex. 6.0 at 14:297-298)

Q. Please respond to Dr. Hemphill's statements.

A. Dr. Hemphill contends that the Commission can readily oversee ComEd's budgets and determine whether ComEd's proposed budgets are reasonable benchmarks to evaluate ComEd's Alt Reg performance. I disagree. While my direct testimony acknowledges, "to some extent, market prices can be compared to the budgeted prices," Dr. Hemphill fails to account for Mr. McMahan's rebuttal testimony, in which he attempts to discredit the cost estimates for the few EV Pilot items for which I found objective support.[31]

For example, to justify his own estimate of the charging station installation cost, Mr. McMahan relies on his discussions with charging station providers. He then concludes, "ComEd *feels* that its $5,000 estimate for installation is more reasonable than those cited by Ms. Hinman from the 2008 U.S. Department of Energy Study[32]." (ComEd Ex. 7.0 at 13:234-236, emphasis added) Without

[31] Staff Ex. 2.0 at 22:427-428; ComEd Ex. 6.0 at 14:297-298; ComEd Ex. 7.0

[32] Kevin Morrow, Donald Karner, and James Francfort. November 2008. U.S. Department of Energy Vehicle Technologies Program – Advanced Vehicle Testing Activity Plug-in Hybrid Electric Vehicle Charging Infrastructure Review Final Report, Battelle Energy Alliance Contract No. 58517. Prepared for the U.S. Department of Energy Assistant Secretary for Energy Efficiency and Renewable Energy Under DOE Idaho Operations Office, Contract DE-AC07-05ID14517, Section 5.1.1. (http://avt.inel.gov/pdf/phev/phevInfrastructureReport08.pdf) ("DOE Study")

documentation or even contact information for the vendor on which to base his opinion, it is impossible to "double-check" his conclusion. He is offering an opinion. Considering the dearth of publicly available price information for EV Pilot assets, Dr. Hemphill's comment implying that the Commission can easily or readily double-check ComEd's budgeting assumptions and numbers for Alt Reg programs is so overly optimistic that it is not a fair representation of the facts.

C. <u>Rate ACEP Tariff Modifications for EV Pilot</u>

Q. Does ComEd accept the recommendations of Staff witness Hathhorn with respect to modifying the Rate ACEP tariff to take tax credits and grants into account for the EV Pilot program?

A. Yes, Mr. McMahan states, "ComEd accepts the recommendation of Staff witness Hathhorn to modify the Rate ACEP tariff to account for any grants or credits that ComEd uses." (ComEd Ex. 7.0 at 11:198-200) If the EV tax credits are extended, Dr. Hemphill states, "ComEd would certainly revise the budget to take them into account, as well as the tariff, as Staff witness Hathhorn recommends." (ComEd Ex. 6.0 at 32:711-33:714) Additionally, Dr. Hemphill states that ComEd "is willing to work with Staff to develop appropriate language and identify appropriate places in the tariff to insert such language." (ComEd Ex. 6.0 at 47:1033-1036; ComEd Ex. 1.2)

Q. How do you respond to ComEd's acceptance of the modification to the Rate ACEP tariff regarding grants and tax credits?

A. While ComEd agreed to fix some problems associated with its proposed Rate ACEP tariff, it did so only after Staff pointed them out.[33] (ComEd Ex. 6.0 at 32:711-33:714; ComEd Ex. 7.0 at 11:198-200) It is my opinion that this could have easily been part of the initial proposal. The recognition by ComEd of a need for a tariff change[34] to allow the benefits of grants and tax credits to flow through[35] to ComEd's customers – while correct – shows that ComEd recognizes the proposed Rate ACEP tariff should change to ensure ratepayer benefit. However, ComEd was aware of these credits prior to its initial filing; see ComEd Response to Staff Data Request JLH 1.08(a)[36] listing the potential charging station and EV credits, in addition to Mr. McMahan's workpaper, the ComEd EV Benefits Spreadsheet,[37] showing the potential $7,500 tax credit. (Staff Ex. 9.1 at 6, 30) ComEd's Advanced Metering Program Adjustment ("Rider AMP") also includes language to ensure ratepayer benefit of any government funds received for projects associated with costs recovered under Rider AMP. (ILL C.C. No. 10, 1st Revised Sheet Nos. 230 and 234) Yet, ComEd neglected to include a provision for the potential tax credits and grants in Rate ACEP in its initial filing. (ComEd Ex. 1.2) Together, these facts indicate that the proposed Rate ACEP tariff would have allowed ComEd to profit[38]

[33] ComEd Corrected Response to Staff Data Requests JLH 1.08(b) and (d); Staff Ex. 9.1 at 31

[34] ComEd Response to Staff Data Requests JLH 1.08(b); Staff Ex. 9.1 at 31

[35] Flow through in the form of reduced approved program plant in the Rate ACEP tariff. (ComEd Ex. 1.2)

[36] Staff Ex. 9.1 at 30

[37] The ComEd EV Benefits Spreadsheet workpaper provided in support of Mr. McMahan's direct testimony, ComEd Response to Staff Data Request DLH 2.04_Attach 06, shows that the $7,500 tax credit was used as an assumption in its ten-year gas-powered to electric-powered car cumulative savings analysis. (Staff Ex. 9.1 at 6)

[38] Under the name of "efficiency improvements". (ComEd Ex. 6.0 at 12:247)

from grants and tax credits[39] for the Electric Vehicle Plant ("EVP") proposed in the EV Pilot if not brought up as an issue by Staff. (ComEd Ex. 1.2) The point is that tax credits, grants, and revenue enhancements, in addition to purchasing assets with reduced functionality and potentially lower quality, while lower cost, would not be subject to an after-the-fact[40] review. (ComEd Ex. 1.2 at Original Sheet No. X+1)

Q. Do you have a further recommendation on the issue of tax credits and grants?

A. Yes. In its surrebuttal testimony, I recommend that ComEd make clear that it intends to revise Rate ACEP to ensure *all* investments and expenses under Rate ACEP associated with government grants or credits are credited to Rate ACEP recoveries.

Q. Aside from the potential for tax credits and grants, do you have reason to believe there may be other sources of potential revenue available that could help offset some of the costs of the EV Pilot?

A. Yes. ComEd provides a link[41] to an analysis tool developed by the University of Delaware that suggests the overall cost may be lower for an electric vehicle in comparison to a gas vehicle. (Staff Ex. 9.1 at 57-59) Staff at the University of

[39] The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 signed into Law by President Obama on December 17, 2010 extends the Alternative Fuel Vehicle Refueling Property Credit through 2011, a credit for 30% of the purchase and installation costs of the charging equipment, up to $30,000 for businesses. (http://www.gpo.gov/fdsys/pkg/BILLS-111hr4853enr/pdf/BILLS-111hr4853enr.pdf)

[40] ComEd Ex. 6.0 at 20:440-442

[41] ComEd Response to Staff Data Request DTR 1.20 (Staff Ex. 9.1 at 65): http://www.udel.edu/V2G/page13/files/page13_2.xls ("EV Lifecycle Cost Spreadsheet") Delmarva Power © 9-2005 and 6-2009 Pepco Holdings and Len Beck (Staff Ex. 9.1 at 57-59)

Delaware created an EV Lifecycle Cost Spreadsheet that is designed to be used as an analysis tool for "organizations to learn the potential results of replacing gas-powered vehicles with all-electric vehicles equipped with vehicle-to-grid (V2G) technology." (Staff Ex. 9.1 at 57-59) The EV Lifecycle Cost Spreadsheet analysis tool allows users to take into account the value of federal and state tax credits for electric vehicles in the analysis as well as all the inputs Mr. McMahan's ComEd EV Benefits Spreadsheet workpaper takes into account. (Staff Ex. 9.1 at 6, 58) In addition, the EV Lifecycle Cost Spreadsheet analysis tool allows users to take into account the regulation[42] service rate per megawatt-hour ("MWh") based on PJM regulation history and the estimated regulation service gross income per year, as well as other regulation service related inputs. (Staff Ex. 9.1 at 58) Some of the revenue-related default values contained in the EV Lifecycle Cost Spreadsheet[43] include: $40.48 for the *Regulation Service Rate per MWh* and $6,501 for the *Estimated Regulation Service Gross Income per year*.[44] (Staff Ex. 9.1 at 58)

I am not sure of all the possible revenue streams, but I would point out that Mr. McMahan's ComEd EV Benefits Spreadsheet workpaper and the Rate ACEP tariff do not include any provision for *potential* PJM Ancillary Services[45] Market

[42] PJM Interconnection defines "Regulation" as "The capability of a specific resource with appropriate telecommunications, control and response capability to increase or decrease its output in response to a regulating control signal to control for frequency deviations." (http://www.pjm.com/Home/Glossary.aspx)

[43] See Staff Ex. 9.1 at 59 for baseline data explanations.

[44] Many of the default input values in the EV Lifecycle Cost Spreadsheet are not accurate in relation to ComEd's proposed EV Pilot. For example, ComEd does not plan to have its EVs plugged in 22 hours per day. "They must be available a minimum of 8 hours per day". (ComEd Ex. 7.0 at 8:153)

[45] "In December 2009, three plug-in electric vehicles (PEVs) began receiving payment for participation in the PJM Ancillary Services Market." (http://www.pjm.com/about-pjm/exploring-tomorrows-grid/phev/evp-ancillary-serv-market.aspx)

revenues, and ComEd has made no offer to reduce the budget to reflect this potential revenue. (Staff Ex. 9.1 at 6; ComEd Ex. 1.2) The potential net financial loss of $606,420 [=($13,476)*45] (Staff Ex. 9.1 at 61)[46] to ComEd and its customers[47] means that ComEd should include additional language in its Rate ACEP tariff to net out any revenue the Company could receive from implementation of the EV Pilot in the approved EVP (or any other project under Rate ACEP). If net financial benefits materialize, customers can benefit from them in the form of reduced budgeted costs.[48]

Q. What is your recommendation on this issue?

A. I recommend that ComEd include additional language in its Rate ACEP tariff in its surrebuttal testimony to net out any revenue the Company could receive from implementation of the EV Pilot in the approved EVP (or any other project under Rate ACEP). This is consistent with ComEd's Rider AMP's treatment of applying

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PJM Interconnection defines "Ancillary Services" as "Those services that are necessary to support the transmission of Capacity and energy from resources to loads, while maintaining reliable operation of the Transmission Provider's Transmission System in accordance with Good Utility Practice." (http://www.pjm.com/Home/Glossary.aspx)

Additionally, PJM Interconnection currently operates two markets for ancillary services: (1) "Synchronized Reserve" supplies electricity if the grid has an unexpected need for more power on short notice. (2) "Regulation" is a service that corrects for short-term changes in electricity use that might affect the stability of the power system. (http://www.pjm.com/markets-and-operations/ancillary-services.aspx)

[46] See ComEd's Budget-Based Alternative Regulation Plan subsection above for explanation of the changes made to Mr. McMahan's original workpaper in the calculation of this estimate.

[47] The potential net financial loss from the proposed Nissan Leafs and their associated charging station investments in ComEd's EV Pilot is discussed in ComEd's Budget-Based Alternative Regulation Plan subsection above.

[48] The potential net financial loss based on ComEd's budgeted amounts in the EV Pilot for the Nissan Leafs and the corresponding charging stations is $595,080 [=($13,224)*45]. (Staff Ex. 9.0 (Rev.) at 10-11:fn 27)

any payments it could receive for in-home devices as reduction to costs recovered under Rider AMP. (ILL C.C. No. 10, 1st Revised Sheet No. 235)

D. <u>Hybrid Bucket Truck Costs</u>

Q. How does Mr. McMahan react to the hybrid bucket truck cost estimate provided in Staff Ex. 2.0?

A. Mr. McMahan states:

> Given that ComEd's budget is based on hybrid trucks with a variety of aerial equipment, the average $250,000 per hybrid bucket truck is a more realistic cost estimate because it is more reflective of the range of potential costs for these vehicles (between $215,000 and $266,000 for prior purchases), whereas the $215,000 used by Ms. Hinman reflects only the lower-end of the cost spectrum.

(ComEd Ex. 7.0 at 3:51-56)

Q. How do you respond to Mr. McMahan's reaction to the hybrid bucket truck cost estimate?

A. In ComEd Response to Staff Data Request JLH 1.09(b), ComEd indicates that it intends to buy the TA40 model of aerial equipment for the hybrid bucket trucks. (ComEd Response to Staff Data Request JLH 1.09(b); Staff Ex. 9.1 at 36) In his response to my discussion of the hybrid bucket truck budget, Mr. McMahan suggests the plan is to purchase hybrid bucket trucks with a variety of aerial equipment whose composition is unknown. (ComEd Ex. 7.0 at 3:38-44) In other words, ComEd's plan to purchase hybrid bucket trucks with a variety of aerial equipment indicates that the EV Pilot program budget is not as transparent as previously thought. (Staff Ex. 2.0 at 22:423-425) There is no objective method to

determine an appropriate budget for an unknown assortment of trucks of different models and capabilities.

Q. Mr. McMahan further claims that your "estimated cost for a hybrid bucket truck reflects the low end of the cost spectrum for such vehicles, versus the mid-range cost budgeted by ComEd." (ComEd Ex. 7.0 at 14:260-261) How do you respond to Mr. McMahan's comment?

A. To be clear, as stated in my direct testimony, the minimum cost of a hybrid bucket truck purchased by ComEd is $181,138[49] while the maximum cost is $266,118. (Staff Ex. 2.0 at 8:141-142) Thus, the $215,000 estimate is not at the "low end" of the cost spectrum as Mr. McMahan states. (ComEd Ex. 7.0 at 14:260-261) Indeed, within this range ComEd's estimate of $250,000 appears to be at the high-end of the cost spectrum.

Q. Mr. McMahan states, "The $250,000 estimated cost per unit provided by ComEd in its budget is an average cost for a hybrid bucket truck." (ComEd Ex. 7.0 at 3:48-49) How do you respond?

A. ComEd's average cost estimates for hybrid bucket trucks seem to vary widely. For example, the attachment to ComEd's Response to Staff Data Request JLH 1.08(c) labeled JLH 1.08_Attach 1 ("'Clean Cities Project' grant proposal") disaggregates grant share and cost estimates for vehicles and charging infrastructure. (Staff Ex. 9.1 at 32-33) In ComEd's "Clean Cities Project" grant proposal, ComEd estimates

[49] This is the 2005/2006 nominal price. I have not adjusted any bucket truck prices for inflation. However, due to the economic downtown since 2005/2006, adjustment for inflation could be minimal. I acknowledge that the real price (in today's dollars) may be somewhat higher than $181,138, but by how much is unknown.

a $230,000 cost per unit for a hybrid bucket truck, $175,000 for the standard diesel vehicle and $55,000 for the incremental hybrid cost. (Staff Ex. 9.1 at 31-33) As a result, ComEd estimates the cost per unit for a hybrid bucket truck at a $20,000 higher cost in its Alt Reg proposal than it estimates in its "Clean Cities Project" grant proposal. ComEd does not explain these differences in cost estimates. (ComEd Ex. 2.0 at 5:86; Staff Ex. 9.1 at 31-33)

In addition, ComEd's Response to Staff Data Request JLH 1.08(c)(ii) states that ComEd is party to the Transportation Electrification Grant that covers the incremental plug-in hybrid electric vehicle ("PHEV") cost of bucket trucks. (Staff Ex. 9.1 at 31) ComEd plans to deploy 25 PHEV bucket trucks and estimates the base vehicle costs $106,000. (Staff Ex. 9.1 at 31) While ComEd does not disaggregate the hybrid bucket truck cost for its Alt Reg proposal in terms of base vehicle and incremental hybrid cost, I note that the $106,000 base vehicle cost for the Transportation Electrification Grant is $69,000 less than the standard diesel vehicle cost for ComEd's "Clean Cities Project" grant proposal. (Staff Ex. 9.1 at 31-33) Again, ComEd does not explain these differences in cost estimates.

As stated in my direct testimony, details such as model numbers and technical specifications that are missing from the proposed program budgets can significantly impact ComEd's final investment expenditure amounts. (Staff Ex. 2.0 at 9:144-146) Different models and manufacturers of virtually the same type of vehicle can vary significantly in costs. (Staff Ex. 2.0 at 9:151-152) Mr. McMahan further expands on this important fact and states, "Bucket truck costs vary widely depending on the mounted aerial equipment (e.g., TA40, TA45, TA50), as well as

other components such as lighting, storage boxes, and ladder racks." (ComEd Ex. 7.0 at 3:49-51) Yet, ComEd still expects the Commission to be able to determine whether the proposed Rate ACEP budgets are reasonable in cost given the high level overview of the assets to purchase under the programs.

Q. Do you have any observations about your experience investigating the hybrid bucket truck budget?

A. Yes. Upon investigation, ComEd's hybrid bucket truck budget proved not to contain sufficient information for the Commission to make a judgment.[50] (ComEd Ex. 7.0 at 3:41-44) In arguing that my estimate was wrong, Mr. McMahan does not describe with enough precision the specific vehicles ComEd proposes to buy. This makes estimating the budget, in addition to making the determinations required in the Rate ACEP tariff, problematic. (ComEd Ex. 1.2 at Original Sheet No. X+1) In the end, the situation is far from Dr. Hemphill's concept of "assumptions and numbers [that] can be double checked, and the budgets [that] can be altered if appropriate." (ComEd Ex. 6.0 at 13:283-284) In truth, a better characterization of Rate ACEP might be that ComEd is asking the Commission to place a great deal of trust in ComEd's Alt Reg proposal and Rate ACEP budget estimates.

E. <u>ComEd's Existing Fleet of Alternative Fueled Vehicles</u>

Q. McMahan states, "Prius PHEVs are after-market conversions that were converted primarily for ComEd to begin studying the use of smart grid

[50] A judgment with respect to the determinations in the "APPROVAL OF RECOVERY" section in the Rate ACEP tariff. (ComEd Ex. 1.2 at Original Sheet No. X+1)

technology to manage EV charging." (ComEd Ex. 7.0 at 5:77-80) How do you respond?

A. ComEd's Response to Staff Data Request JLH 1.12 states that ComEd "has no internal reports based on the electric vehicles or bucket trucks currently deployed by ComEd[.]"[51] But ComEd has also claimed, "Most of this information [data to collect and analyze for the EV Pilot] is available from ComEd's existing fleet management system." (ComEd Response to Staff Data Request 1.04(c); Staff Ex. 9.1 at 22) It is thus unclear what ComEd's purpose was in converting the Prius hybrids to plug-ins. (Staff Ex. 9.1 at 47) That is, the data is available, but it has not been analyzed.

Q. Does ComEd explain why it does not have any studies based on its current fleet of EV-related assets?

A. No, ComEd failed to address this concern[52] in its rebuttal. However, through data request responses, ComEd points out, "two hybrid bucket trucks do not provide a sufficient sample size to understand the overall operational impacts and benefits of hybrid service vehicles as compared to their non-hybrid counterparts in a large commercial fleet."[53] It is inconsistent to argue the two hybrid bucket trucks are an insufficient sample size, when its own EV Pilot proposes to buy only two PHEV

[51] Regarding ComEd's current EV related fleet, Staff requested in part, "any relevant documents associated with the purchase, use, maintenance, and cost savings of each asset [currently owned]" and "Please provide all workpapers related to these assets." (Staff Data Request JLH 1.10(a), 1.10(f); Staff Ex. 9.1 at 44)

[52] Staff Ex. 2.0 at 20:370-381

[53] ComEd Response to Staff Data Request JLH 1.01; Staff Ex. 9.1 at 18

digger-derricks. (ComEd Ex. 2.0 at 5-6) Note that ComEd states, "While we are proposing the pilot period conclude at the end of 2013, ComEd believes it will have collected enough data by that time to develop a total life cycle cost of ownership for each class of vehicle as well as data on how the vehicles performed." (ComEd Ex. 2.0 at 6:107-109, emphasis added)[54]

F. Nissan Leaf Costs

Q. Mr. McMahan states, "In developing a budget for the EV Pilot, ComEd cannot rely on a tax credit that may or may not be available when the vehicles are available for purchase." (ComEd Ex. 7.0 at 6:109-110) How do you respond?

A. In the quoted discussion of developing a budget for the EV Pilot, Mr. McMahan insists that ComEd cannot assume the $7,500 tax credit will be available without an explanation of why it can be part of the cost savings calculation when estimating[55] "benefits", but not part of the cost calculation itself when estimating "budgets". (ComEd Ex. 7.0 at 6:108-115) Absent justification, it is inconsistent of Mr. McMahan to believe it is justified to assume tax credits are available when estimating whether the EV Pilot has the potential to result in net financial benefits to ComEd and its customers, while at the same time contending that ComEd cannot assume tax credits are available when it comes to estimating the EV Pilot program budgets that, according to ComEd, are supposed to be used as the benchmark by

[54] ComEd Response to Staff Data Request JLH 1.04(c) and JLH 1.08(e); Staff Ex. 9.1 at 22, 29

[55] Mr. McMahan's ComEd EV Benefits Spreadsheet workpaper shows net financial benefits in terms of cost savings of $6,304 over ten years from employing an electric-powered Nissan Leaf (at a cost of $32,700) versus a gas-powered Ford Focus (at a cost of $16,640), assuming a $7,500 tax credit with the breakeven point occurring in year seven. (Staff Ex. 9.1 at 6)

the Commission to determine whether the projects will result in net benefits to customers. (ComEd Ex. 6.0 at 11:238-12:251)

Without the federal tax credit in Mr. McMahan's ComEd EV Benefits Spreadsheet workpaper,[56] the Nissan Leaf owner pays a premium of $16,060 [=($32,700 – $16,640)]. This premium exceeds the expected ten-year lifetime fuel and maintenance cost savings for the Focus. (Staff Ex. 9.1 at 60) The net financial benefits[57] from the Nissan Leaf investment disappear after removing the $7,500 tax credit and result in a net financial loss of $1,196 over ten years. (Staff Ex. 9.1 at 60) These results are presented in the "Modified ComEd EV Benefits Spreadsheet – no tax credit" in Staff Ex. 9.1. (Staff Ex. 9.1 at 60) Therefore, without more information, Mr. McMahan's assertion regarding the assumption of tax credits with respect to budget estimates is unreasonable. ComEd could have proposed to alter the budgets for EVs initially as they eventually agreed to do after Staff's recommendation.

Q. ComEd agrees with the Nissan Leaf's MSRP equal to $32,780, but kept its cost estimate at $36,000 to account for tax, title, and freight costs. How do you respond to Mr. McMahan's rebuttal testimony regarding the Nissan Leaf cost estimates?[58]

[56] Staff Ex. 9.1 at 6

[57] The net financial benefits from employing an electric-powered Nissan Leaf (at a cost of $32,700) instead of a gas-powered Ford Focus (at a cost of $16,640), holding constant the rest of the ComEd-specific assumptions in Mr. McMahan's workpaper. (Staff Ex. 9.1 at 6)

[58] ComEd Ex. 6.0 at 6

A. While I do not dispute Mr. McMahan's $700 freight cost estimate, he fails to address whether the MSRP is the appropriate cost to consider or whether fleet discounts in fact are available[59] to ComEd that should be considered in estimating the EV Pilot budget.

G. Charging Infrastructure Costs

Q. Does Mr. McMahan provide any supporting documentation for ComEd's estimated installation costs to alleviate the concerns that you expressed with the budget?

A. No.[60] Rather than provide a basis for ComEd's installation cost estimates, Mr. McMahan discusses why the only publicly available study of EV charging station installation costs[61] does not apply to ComEd's proposed EV Pilot program. (ComEd Ex. 7.0 at 7-13)

Q. Mr. McMahan asserts that you do not cite several assumptions used in the 2008 U.S. DOE Study and did not consider how realistic those assumptions were for ComEd. (ComEd Ex. 7.0 at 11:208-210) How do you respond?

A. While I did not repeat all assumptions in the publicly available DOE Study (ComEd Ex. 7.0 at 11:208-210), the section referred to responds to Mr. McMahan's direct testimony that provides no assumptions behind his estimates beyond the $10,000

[59] Available in the form of discounts for bulk purchases or tax credits.

[60] ComEd Response to Staff Data Request JLH 1.09(d) provides a link to the installation guide for ComEd's proposed Level 2 charging stations. (Staff Ex. 9.1 at 36) Additionally, the installation guide is presented, in part, in Staff Ex. 9.1. (Staff Ex. 9.1 at 67-105) Part 4 "Installing a Wall Mount" is excluded from the installation manual in Staff Ex. 9.1 because Mr. McMahan indicates in his rebuttal testimony, "wall-mounted units are not applicable". (ComEd Ex. 7.0 at 12:225-226)

[61] 2008 DOE Study

per charging station and $50,000 for incidental equipment and contingency. (ComEd Ex. 2.0 at 5) It was only in response to Staff Data Request DLH 2.04 for workpapers supporting ComEd's exhibits that ComEd produced a document disaggregating the Level 2 charging station costs into $5,000 for the charging station and $5,000 for installation of the charging station. (Staff Ex. 9.1 at 1-5) Mr. McMahan's workpaper provides no breakdown of the component costs[62] for the charging station and its installation, let alone any assumptions behind those numbers. (Staff Ex. 9.1 at 1-5) Once again, ComEd simply asks the Commission to place trust in ComEd's estimate of what the budgeted cost for charging station installations should be. Given the paucity of information provided by ComEd regarding the locations of the charging stations, there is insufficient information to allow a proper analysis. (Staff Ex. 9.1 at 36)

Q. Mr. McMahan states, "While specific installation factors will vary from site to site, ComEd feels that its $5,000 estimate for installation is more reasonable than those cited by Ms. Hinman from the 2008 U.S. Department of Energy Study." (ComEd Ex. 6.0 at 13:234-236) How do you respond?

A. Mr. McMahan supports these cost estimates by stating, "per-unit costs for charging infrastructure are based on estimates generated from conversations with charging infrastructure providers, and not actual quotes for work." (ComEd Ex. 7.0 at 13:243-345) These statements are not verifiable.

[62] Components such as conduit, conductors, service panels, breakers, and cement.

Q. Mr. McMahan states, "[T]he $50,000 included for incidental equipment and contingency reflects the level of variability in the actual costs for installing the infrastructure for 55 Level 2 charging stations." (ComEd Ex. 6.0 at 13:239-241) What is your response?

A. There is no verifiable evidence in the record to support his estimate for charging station installation costs. A $50,000 "variability" fund in no way reflects actual charging station installation costs. It is unsupported and simply provides a cushion that may inflate the cost that customers ultimately have to pay.

IV. Conclusion

Q. Mr. McMahan concludes, "[T]he analysis relied upon by Ms. Hinman to contend that ComEd's EV Pilot budget is inflated by an estimated $1.1 million… fails to consider actual costs." (ComEd Ex. 7.0 at 14:254-256) How do you respond?

A. First, for most items, actual costs are not publicly available. Second, specificity of all assets[63] and underlying verifiable sources of the unit cost estimates are lacking. (ComEd Ex. 2.0 at 5, 9; Staff Ex. 9.1 at 3-4) ComEd does not provide an exact and complete list of which trucks it plans to buy. ComEd only lists, in many cases, generic names of assets. (ComEd Ex. 2.0 at 5:86, 9) Although in some cases, it lists the unit cost for each asset and the number it plans to purchase. (ComEd Ex. 2.0 at 5:86; Staff Ex. 9.1 at 3-4) Mr. McMahan may criticize outside cost estimates

[63] Or at least a list of the most likely assets (including model numbers and other technical specifications) to purchase for each asset category accompanied with a detailed explanation.

that contradict those put forward by ComEd, because ComEd leaves open the details of all of the projects proposed involving assets.

Q. Based on rebuttal testimonies provided by ComEd witnesses Dr. Hemphill (ComEd Ex. 6.0) and Mr. McMahan (ComEd Ex. 7.0), have your concerns about employing a Budget-Based Alternative Regulation Plan[64] for the EV Pilot been ameliorated?

A. No, they have not.

Q. Does this complete your rebuttal testimony?

A. Yes.

[64] ComEd Ex. 6.0 at 11:237