ComEd
An Exelon Company

Date: June 29, 2012

To: Ms. Brenda Edwards
U.S. Department of Energy, Building Technologies Program
Mailstop EE–2J,
1000 Independence Avenue
Washington, DC 20585–0121
Phone: (202) 586–2945

cc: Michelle Blaise (VP, ComEd Engineering & Project Management)
Joseph Watson (Director, Federal Government Affairs)
Martin Rave (Prin Engineer, ComEd Distribution Standards)

From: Peter Tyschenko (Manager, ComEd Distribution Standards)
Two Lincoln Centre
Oakbrook Terrace, IL 60181-4260
Phone: (630) 576-6998

Subject: Supplemental Post-Notice of Proposed Rulemaking Analyses for Distribution Transformers, Docket Number EE–2010–BT–STD–0048, and Regulatory Identification Number (RIN) 1904–AC04

Dear Ms. Edwards,

Commonwealth Edison Company (ComEd) appreciates the opportunity to submit additional comments requested in Section 1-A.7 of Appendix 1-A – Summary of Supplemental Post-Notice of Proposed Rulemaking Analyses for Distribution Transformers (Supplemental Rulemaking Submission) issued by the Department of Energy (DOE) on May 29, 2012.

ComEd is an electric distribution company that serves approximately 3.8 million electric customers in Illinois.

ComEd annually adds or replaces approximately 2.5% of its transformer population per year (approximately 12,500 transformers per year of a total population of approximately 500,000 transformers).

ComEd strongly supports DOE's energy conservation standards program for consumer products and certain commercial and industrial equipment. We believe the program's value is not just in setting efficiency standards but in choosing efficiency levels that ensure that customers who purchase the product save money.

In addition to the comments submitted on April 10, 2012, ComEd would like to submit the following comments:

I. Comments on Specific Issues Raised by DOE

In the Supplemental Rulemaking Submission, DOE requested stakeholders to submit comments regarding four issues. Unless otherwise noted here, ComEd has no comments.

Issue 1: DOE requests comment on the new equipment class definitions.

Response: ComEd supports the concept of separating liquid filled distribution transformers into specific classes as defined in the Supplemental Rulemaking Submission. For example, "Pole Mounted", "Pad Mounted" and "Network and Vault" classifications are well-known in the utility industry and each class has specific challenges that need to be considered by DOE in determining the efficiency requirements.

Issue 2: DOE requests data on distribution transformer shipments for each of the presented equipment classes by kVA rating.

ComEd provides the table below for Liquid-Immersed medium voltage transformers. The table represents average annual usage between 2003 and 2011 based on material requests in our PassPort asset management system.

Estimated Annual Usage of Liquid-Immersed, Medium-Voltage Transformers, 2003-2011

		Average Annual Usage 2003-2011	
		1 Phase	3 Phase
Class	Capacity kVA	Qty	Qty
Network	500	0	2
	750	0	4
	1000	0	3
	1500	0	3
	2000	0	1
	2500	0	3
Overhead Pole-Mounted	10	284	0
	15	408	0
	25	1531	0
	37.5	1038	0
	50	964	0
	75	656	1
	100	451	0
	112.5	0	1
	150	0	1
	167	292	0
	225	0	3
	250	71	0
	300	0	2
	333	32	0
	500	37	4
Pad-Mounted	25	911	0
	37.5	1321	0
	50	1009	0
	75	534	233
	100	163	0
	112.5	0	228
	150	0	167
	167	60	0
	225	0	174
	300	0	167
	500	0	219
	750	0	87
	833	0	0
	1000	0	53
	1500	0	49
	2000	0	21
	2500	0	38

ComEd has only included network transformers in the network category. However, ComEd installs single phase and three phase transformers (non-network) in vaults. Due to their physical location, these transformers are neither designed or intended to be submersed. See an example photo below.

Issue 3: DOE requests comment on the appropriate efficiency levels for network/vault and ≥ BIL equipment classes.

Response: Due to the stringent size constraints on network and vault type transformers, ComEd supports maintaining the current efficiency standards for these types of transformers. The number of network and vault type transformers utilized by the utility industry is small compared to the total liquid filled distribution transformer usage. Generally, network/vault type transformers are installed in either building vaults or street or sidewalk vaults that are constrained by their surroundings. It is essential to maintain standards that do not increase the size of these transformers.

ComEd operates a uni-grounded 34kV system with a 200kV BIL rating. For ≥ 200 kV BIL transformers, ComEd has averaged an annual usage of approximately 70 single phase transformers and 18 three phase transformers. Thus, we also support maintaining the current efficiency standards for these types of transformers.

Issue 4: DOE requests from utilities pole replacement costs by transformer capacity.

Response: ComEd does not track pole replacement costs by transformer capacity. There are a number of factors, including, but not limited to, the size and weight of transformers, that affect pole replacement costs. Currently, telephone, cable TV and private communication companies utilize pole capacity on ComEd system. When we need to replace an existing transformer with a larger and/or heavier one, we need to perform extensive loading and clearance checks to ensure that we are meeting all applicable regulatory requirements. Thus, this type of installation often requires extensive work. Further, if the installation creates loading or clearance issue because of the increased size or weight of the transformer, then we are required to make sure that the entire installation (not just the transformer) meets applicable regulations. When poles need to be replaced, multiple utilities are affected, each one with related costs.

At ComEd, the average pole replacement cost is in the range of $4,000-$5,000. This does not include the cost of the transformer but does include the cost of the new pole along with any replacement material and labor used during the job.

Please contact me if you have any questions regarding our submission.

Supporting documents

ComEd Comments - NOPR DOE Docket EE

Sincerely,

Peter Tyschenko