

Re: Commonwealth Edison Company
Docket No. 01-0423
Errata to Exhibit DOE 1.0

The following changes should be made to the Direct Testimony of Dale E. Swan, Exhibit DOE-1:

- Page 15, line 293: Change Exhibit_(DOE-1) to Exhibit DOE 1.1.
- Page 16, line 304: Change Exhibit_(DOE-2) to Exhibit DOE 1.2.
- Page 25, line 497: Change Exhibit_(DOE-3) to Exhibit DOE 1.3.
- Page 26, line 510: Change Exhibit_(DOE-4) to Exhibit DOE 1.4.
- Page 26, line 525: Change Exhibit_(DOE-4) to Exhibit DOE 1.4.
- Page 27, line 531: Change Exhibit_(DOE-5) to Exhibit DOE 1.5.

/5801-1/des-errata_sheet.wpd

OFFICIAL FILE

I.C.C. DOCKET NO. 01-0423
DOE Exhibit No. 1.0A

Witness _____

Date 11/13/01 Reporter [Signature]

278 Q. WHY ARE THE DOE LABORATORIES OVERCHARGED BY SO MUCH
279 WHEN THE DISTRIBUTION FACILITIES CHARGE AND THE HVDS
280 CREDIT ARE BASED ON EMBEDDED COST?

281 A. There are two reasons. First, use of the Company's embedded cost study to determine
282 class revenues and design rates, as developed by the Company in its response to Staff
283 Data Request ML-1, shifts \$57.5 million to non-residential classes, an increase of nearly
284 8 percent. The class of customers⁴ above 10,000 kW would receive an additional \$28.7
285 million, a revenue requirement nearly 60 percent higher than under marginal cost-based
286 rates. Thus, assigning responsibility for the cost of the distribution system under an
287 embedded cost-based method will exacerbate the amount by which customers that do not
288 use the distribution system are overcharged.

289 The second reason has to do with the way in which the HVDS credit is calculated,
290 for that is the primary mechanism by which these high voltage customers get any relief
291 from the cost of the distribution system they don't use. The calculation of the embedded
292 cost-based HVDS credit for customers in the Over 10,000 kW class is provided in
293 Attachment 3 to the response to ML-1, which is provided as Exhibit DOE 1.1. The
294 method takes the distribution costs by type of facility that were allocated to the class as a
295 whole, and further allocates these costs to customers with service at or above 69 kV, and
296 to customers with service below 69 kV. The difference in the cost per kW between the
297 high voltage group and the low voltage group is used as the HVDS credit.

298 It is instructive to examine the distribution facilities costs that are allocated to the
299 high voltage group. It is allocated 100 percent of high voltage electric service station
300 (HV ESS) cost (\$12,825,925) and about half (\$1,510, 827) of high voltage distribution
301 lines cost. Finally, this high voltage group is allocated \$105,689 of high voltage
302 distribution substation cost. In response to City of Chicago COC 3.230, the Company
303 explains which customers use HV ESS and high voltage distribution substations. This
304 response is provided as Exhibit DOE 1.2. The Company states that a high voltage electric
305 service station “is a substation used to supply an individual customer from high voltage
306 lines (69,000 Volts or higher).” The Company further explains that a “high voltage
307 distribution substation . . . reduces high voltages (69,000 Volts or 138,000 Volts) to a
308 distribution voltage, (69,000, 34,000 or 12,500 Volts).”

309 While it may prove appropriate to impose these costs on many high voltage
310 customers, it is clearly inappropriate to do so for customers like Fermi and Argonne. To
311 my knowledge, neither of these national laboratories uses ComEd high voltage electric
312 service stations or high voltage distribution substations. Both Fermi and Argonne
313 maintain their own substations and take service directly from high voltage transmission
314 lines. The ComEd lines that serve these two laboratories are classified by ComEd as
315 transmission lines, not as high voltage distribution lines. In short, the credit is based on
316 the difference in the average cost of facilities used by low voltage customers and the cost
317 of facilities for high voltage customers, which are not used by Fermi and Argonne. Fermi
318 and Argonne incur the continuing cost of owning, maintaining and operating their own

486 A. No. The Company has incorrectly retained the same \$2.65 per kW-month HVDS credit
487 that it calculated using ratcheted billing demands. This is incorrect. The HVDS credit
488 must rise along with the distribution facilities charge when moving to rates based on
489 lower unratcheted demands. The HVDS credit was originally calculated based on the
490 reduced investment costs per kW of maximum annual demand associated with providing
491 service to high voltage customers. Thus, this credit initially reflected the differential
492 costs of serving high voltage and lower voltage customers based on ratcheted billing
493 demands. If another definition of demand is used, then the credit must be adjusted
494 accordingly.

495 Q. DOES THE COMPANY'S APPROACH MEET THE REVENUE
496 NEUTRALITY PRINCIPLE?

497 A. No. As is shown in Exhibit DOE 1.3, the group of 32 high voltage customers that are
498 part of the 10,000 and above class have an annual revenue requirement of \$5.5 million
499 under the Company's proposed rates based on ratcheted billing demands. This same
500 group of customers would have an annual revenue requirement of \$10.9 million under the
501 Company's approach to designing rates using unratcheted billing demands. This is an
502 increase of over 100 percent in this customer group's revenue responsibility, which is
503 hardly a revenue neutral approach to rate design.

504 Q. HAVE YOU DEVELOPED A RATE DESIGN FOR HIGH VOLTAGE
505 CUSTOMERS THAT RECEIVE THE HVDS CREDIT BASED ON THE USE
506 OF UNRATCHETED BILLING DEMANDS?

507 A. I have calculated the proper distribution facilities charge and the associated HVDS credit
508 for customers in the 10,000 kW and higher class, based on the unratcheted billing
509 demands provided by the Company. These calculations are provided on page 1 of
510 Exhibit DOE 1.4. The same procedure would apply to all other classes with customers
511 that qualify for the HVDS credit.

512 Q. PLEASE DESCRIBE YOUR CALCULATION OF THESE UNRATCHETED
513 RATES FOR THE 10,000 KW AND ABOVE CLASS.

514 A. I begin with the revenue responsibility of the high voltage customers under the
515 Company's ratcheted rate design. That is \$5,358,628. Next I calculate what the net
516 charge must be for the high voltage customers under an unratcheted design to recover the
517 same revenue as under the ratcheted rates. That is \$.52 per kW-month. I next determine
518 what the distribution facilities charge revenue requirement is for the low voltage
519 customers under the Company's ratcheted rate design and divide that by the reduced
520 unratcheted billing demands of the low voltage group, to arrive at the distribution
521 facilities unit charge for low voltage customers based on unratcheted billing demands.
522 That is \$4.22/kW-month. The HVDS credit is the difference between the \$4.22 rate for
523 low voltage customers and the \$.52 net rate for high voltage customers, or \$3.70/kW-
524 month.

525 The second page of Exhibit DOE 1.4 provides a revenue reconciliation between
526 the class revenue responsibility under the ratcheted and unratcheted rate designs. The
527 resulting revenues differ only by amounts due to rounding of the unit charges.

528 Q. HOW DO FERMI AND ARGONNE FARE UNDER YOUR DESIGN OF
529 UNRATCHETED RATES COMPARED TO THE COMPANY'S RATCHETED
530 AND UNRATCHETED RATES?

531 A. This comparison is provided in Exhibit DOE 1.5. Both Fermi and Argonne have much
532 more stable demands than does the class as a whole, which will cause the revenue
533 recovery from these two customers to increase when one moves from a ratcheted to an
534 unratcheted rate design. The annual distribution facilities charge revenue increases by
535 \$4,404 or 2 percent for Argonne and by \$83,520 or 29 percent for Fermi when moving
536 from the Company's ratcheted rates to my unratcheted rates. That is a reasonable
537 reflection of the intra-class revenue shift from customers with unstable demands to
538 customers with stable demands. The annual increase is \$222,733 or 103 percent for
539 Argonne and \$451,468 or 159 percent for Fermi when moving to the Company's
540 unratcheted rate design. These enormous increases are the result of an improper and
541 insufficient HVDS credit, and not simply the usual intra-class revenue shift from
542 customers with highly seasonal fluctuating demands to customers with stable month-to-
543 month demands.

544 Q. WHAT RECOMMENDATION DO YOU HAVE FOR THE COMMISSION IF
545 IT DECIDES THAT RATES SHOULD BE BASED ON UNRATCHETED
546 BILLING DEMANDS?