

**STATE OF ILLINOIS  
ILLINOIS COMMERCE COMMISSION**

Central Illinois Light Company	)	
d/b/a AmerenCILCO	)	
Central Illinois Public Service Company	)	
d/b/a AmerenCIPS	)	
Illinois Power Company	)	
d/b/a AmerenIP	)	Docket No. 06-0338
Commonwealth Edison Company	)	
Interstate Power and Light Company	)	
Mt. Carmel Public Utility Company	)	
South Beloit Water, Gas and Electric Co.	)	
	)	
Petition for a declaratory ruling to	)	
determine an electric utility's obligations	)	
under 83 Ill.Adm.Code § 410.120 regarding	)	
meters originally installed prior to	)	
January 1, 2001, or, in the alternative, for a	)	
limited waiver of the requirements of	)	
83 Ill.Adm.Code § 410.120	)	

**DRAFT ORDER**

**I. Introduction**

On April 24, 2006, Central Illinois Light Company, d/b/a AmerenCILCO (“AmerenCILCO”), Central Illinois Public Service Company, d/b/a AmerenCIPS (“AmerenCIPS”), Illinois Power Company d/b/a AmerenIP (“AmerenIP”), Commonwealth Edison Company (“ComEd”), Mt. Carmel Public Utility Company (“Mt. Carmel”), Interstate Power Company (“IPC”) and South Beloit Water, Gas and Electric Company (“SBWGE”)<sup>1</sup> (collectively “Petitioners”), pursuant to 83 Ill.Adm.Code Section 200.220 filed their Petition for Declaratory Ruling, with supporting affidavits, requesting the Illinois Commerce Commission (“Commission” or “ICC”) to enter an Order confirming their interpretation of 83 Ill.Adm.Code Section 410.120, regarding an Illinois electric utility’s rights and obligations concerning electric meters originally placed into service prior to January 1, 2001. In the event the Commission would interpret Section

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<sup>1</sup> Interstate Power Company (“IPC”) and South Beloit Water, Gas and Electric Company (“SBWGE”) withdrew from the Petition.

410.120 differently than they suggest, Petitioners requested a limited waiver of Section 410.120, pursuant to Section 410.30.

## **II. Background**

Following the Staff's inspection of AmerenCILCO's and ComEd's meter facilities, Staff informed AmerenCILCO and ComEd that Subsection 410.120(e) means that an electric utility must be able to certify that the meters it *re-installs* meet the standards set forth in Section 4.7 of ANSI C12.1-1995.(emphasis supplied) 83

Ill.Adm.Code Section 410.120(e) provides that:

Meters installed after January 1, 2001 shall, at a minimum, meet the standards set forth in Section 4.7 of the American National Standards Institute's (ANSI) Code for Electricity Metering (1995 edition, approved June 12, 1995, published by the National Electrical Manufacturers Association, 1300 N. 17<sup>th</sup> Street, Suite 1847, Rosslyn, Virginia 22209). No later amendments or editions are incorporated.

As a consequence of Staff's interpretation of Subsection

410.120(e), Petitioners bring this Petition.

## **III. Request for Declaratory Ruling**

Petitioners seek a declaratory ruling from the Commission that an electric utility may return to service an electric meter originally installed prior to January 1, 2001, without certifying under 83 Ill.Adm.Code Section 410.120(e) that such meter meets the standards set forth in Section 4.7 of ANSI C12.1-1995.

### **A. Petitioners' Position**

Petitioners aver in the Petition, as part of providing electric service to their respective customers, they have collectively installed millions of electric meters, which are tested, installed, maintained and operated pursuant to the Public Utility Act ("Act") and the Commission's regulations. Of the meters installed, a large number were installed prior to January 1, 2001, and have been in accurate operation since that time. From time

to time these meters are removed from service, tested, upgraded, or otherwise maintained, and subsequently returned to service.

Meters installed prior to January 1, 2001, were not required to meet ANSI C12.1-1995 standards. Petitioners assert they have installed several different types of pre-1995 meters, and each of these types of meters has undergone numerous changes over time. Consequently, in order to comply with Subsection 410.120(e) as interpreted by Staff, Petitioners would have to test and certify each iteration of each type of pre-1995 meter, at great cost they allege. Therefore, the relevant question before the Commission is whether a meter installed prior to January 1, 2001, removed from service for any of a number of reasons, and subsequently returned to service, is a “meter installed after January 1, 2001” for the purpose of Section 410.120(e). Under Staff’s interpretation, a meter returned to service is a new installation such that the meter, which, while previously in service did not have to comply with the 1995 ANSI standards, now has to comply with such standards upon return to service.

In support for their interpretation, Petitioners offer that Part 410 does not define “installation”, and none of the on-the-record discussion in the Commission’s revision of Part 410 in Docket No. 00-0182 addressed the appropriate definition of “installation”. However, Petitioners argue that other provisions in Part 410 suggest that the Commission intended to differentiate between a new installation and reintroduction of a meter to service. Section 410.160 provides that a meter removed from service “shall be tested and inspected...before it is placed in service again”. If meters returned to service are a new installation for purposes of Section 410.120(e), Petitioners suggest the Commission need not have required tests equivalent to initial pre-installation tests in Section 410.160. Staff’s interpretation, Petitioners argue, makes Section 410.160’s requirements for testing meters prior to returning the meters to service mere surplusage, which cannot have been

the Commission's intent in promulgating the regulation. Stated another way, if the Commission intended the word "installation" universally to mean every instance of either a new purchase or installation and also a return to service, the Commission need not have separately spelled out the return-to-service scenario in this Section. It could have simply said "installation".

In addition, Petitioners claim that Section 410.155 requires post-installation tests within "90 days after installation *or exchange* of any meter with associated instrument transformers and/or phase-shifting transformers". (emphasis added) Petitioners argue that this Section demonstrates that the Commission intended to differentiate between installation of a meter and exchange of a meter. If any meter removed from service and later returned to service is to be considered a new installation, Petitioners state there is no need to provide for separate post-installation testing of exchanged meters. Again, Petitioners assert that if the Commission had wanted the word "installation" universally to mean new purchases and exchanges, it could have simply said "installation" and need not have differentiated installation versus exchange.

Further, Petitioners explain Staff's interpretation of Section 410.120(e) produces an unreasonable result, which again, was not the intended expectation by the Commission. Petitioners state that Staff's suggested interpretation makes any meter purchased prior to 1995 obsolete once it is removed from service for any reason. Petitioners allege that all electric meters have an expected useful life of at least 30 years, and there is no reason to believe the Commission intended that a meter purchased and installed in 1995 should be discarded if it is removed from and returned to service in 2005. By way of example of Staff's interpretation, a meter purchased in 1995 and installed in 1999, then removed and returned to service in 2002, would be discarded, even though it passed the required accuracy test.

Petitioners claim that, if the Commission's intent was to make electric meters manufactured prior to 1995 obsolete, such that they could not be returned to service once removed from service, it would have stated so directly. This is exactly what the Commission did with lagged demand meters. Section 410.151 requires that no lagged demand meters be installed after January 31, 2001 (just as Section 410.120 requires that meters not meeting the 1995 ANSI standard cannot be installed after January 1, 2001). However, Section 410.151 affirmatively requires that all lagged demand meters be removed from service by January 31, 2008. That Section 410.120(e) does not include the meter phase-out language included in Section 410.151, which indicates that the Commission views meters not meeting the ANSI standards differently from lagged demand meters, and would permit the pre-1995 meters to remain in, and be returned to service, is telling.

Petitioners conclude that, based on the entirety of the rule, the appropriate interpretation of Section 410.120(e) is that only meters originally installed after January 1, 2001, must meet the ANSI standard set forth in the regulation. Meters originally installed prior to January 1, 2001, are not required to meet this ANSI standard, and once installed, such meters may be removed from service and reinstalled without meeting such standards, provided that the installing utility follows the Commission's rules regarding pre and post-installation testing required for such reinstallations. Any other interpretation of the Section makes other parts of Part 410 mere surplusage and leads to an unreasonable result.

1. Ameren Companies' Additional Position

In further support for the aforesaid interpretation, Ameren witness James B. West, Superintendent, Meter Services, testified to the circumstances surrounding the rule changes that occurred in 1999. He recalled that utility participants in the workshop

specifically recommended adding the requirement for ANSI C12.1, to assure meters that were purchased for installation in the State of Illinois were designed and tested to meet a national standard. He explained this requirement was not in the previous revision of Part 410. There was a concern that meters not meeting a national standard could be purchased by Meter Service Providers (“MSP”) operating in Illinois. It was the general feeling that use of meters not meeting a national standard could degrade the accuracy and reliability of customer revenue metering within the state. The requirement to purchase ANSI compliant meters would then be required of all companies installing meters in Illinois. He testified there was no discussion of prohibiting reinstallation of ANSI compliant meters that were manufactured prior to 1995 during these workshops. If that had occurred there would have been an objection, because this would mean an Ameren Company, or any other utility, could not reinstall meters that were only five years old and still had a remaining life of 20-25 years. It was his understanding that meters that were ANSI compliant would be allowed to be reinstalled, noting the Section 410.120(e) only references meters that are being “installed”.

2. ComEd’s Additional Position

Mr. Woodson W. Scherer, Manager in its Field Meter Services Department for ComEd, testified that if the Commission had intended for an immediate change-out of meters originally placed into service prior to January 1, 2001, it would have created a blanket rule stating that all meters must be Section 4.7 certified by January 1, 2001, or, it would have specified a date by which the phase-out was to be completed. He cites, by way of example, the fact that Section 410.151 of the Commission’s rules established a phase-out of lagged demand meters. Mr. Scherer argues this shows the Commission intentionally refrained from stating such a date in this particular instance because the

Commission knew such an immediate total phase-out was unnecessary and would create burdensome costs impacting all customers that would drastically outweigh the benefits.

Mr. Scherer believes that Section 410.120(e) only applies to newly installed meters and not to meters that are temporarily taken out of service for testing and subsequently re-introduced into the system. To support this conclusion, Mr. Scherer stated that Section 410.120(e) should be viewed in light of the purpose of ANSI 12.1-1995 (“Section 4.7”). Section 4.7 outlines a series of tests to be performed by the manufacturer on newly designed meters in order for the manufacturer to be able to say to a statistically significant degree that the new meters will perform at an acceptable level of reliability and accuracy when they are introduced into a utility’s system. However, meters that are simply taken out of service for testing and re-introduced have each been in the real world for many years and have proven to be reliable and accurate. The purpose of Section 4.7 is to ensure real world reliability and accuracy on newly designed meters; however, this purpose is superfluous for meters that are re-introduced because they have already proven to operate successfully in the real world. Thus, Mr. Scherer reasons, Section 410.120(e) was only intended to apply to newly designed meters to provide some indicia of proof that the meters would perform at an acceptable level in the real world.

Finally, on this point, Mr. Scherer testified that to require the utilities to replace a pre-1995 meter taken out of service for routine testing pursuant to the Commission’s rules, would contradict the very purpose of the accuracy testing required by Section 410.170 – i.e., to permit meters to be returned to service after passing testing.

3. Mt. Carmel’s Additional Position

Mt. Carmel witness Mr. Larry Horrall testified it was his belief that the purpose of Section 4.7 of ANSI C12.1-1995 is to test new meters and new meter designs to meet an

industry standard. Section 4.7 of the ANSI Standard is for the purpose of having a utility or other MSP be able to safely purchase a new meter and know that it meets industry standards. It was his further belief that the requirements for the testing of meters by a utility company is set out in 83 Ill. Adm. Code Part 410.140; 410.150; 410.155; 410.160; and 410.170, and that the tests set out therein are different than those in Section 4.7 of the ANSI Standard. These referenced sections for testing are designed to protect the customer with the periodic testing standards to ensure accuracy of electric meters in service. Mr. Horrall also testified as further support that Staff witness Christel Templeton's testimony in ICC Docket No. 99-0580, implementing ANSI C12.1-1995(e) specified that ANSI C12.1-1995 was "a new provision specifically designed to ensure the use of meters manufactured according to modern standards. It does not have anything to do with entity testing schedules or in-service meters".

B. Staff's Position

In its Verified Response to Petition for Declaratory Ruling Staff observed that Petitioners support their position with a statutory construction argument aimed at the definition of "installation" and with an argument that Staff's interpretation leads to an unreasonable result.

Staff contends in its response to the Petition that its interpretation of Section 410.120(e) is consistent with the language of Section 410.160. Section 410.160 does not use the same language as that used in Section 410.120. Section 410.160 provides:

Initial tests are tests made before installation, regardless of whether the meter and associated devices have previously been in service. Each meter and associated devices (unless included in the sample testing plan in Section 410.180) shall be inspected and tested in the meter shop of the entity or other location that meets the requirements of this Part before being placed in service, and the accuracy of the meter shall be within the tolerances permitted by this Part. If a meter is removed from a customer's premises, except for field testing, it shall be tested and inspected as described above before it is placed

in service again. If creep or inaccuracy is discovered in a meter removed from service, the entity shall correct the metering data as detailed in Section 410.200.

This Section refers to “initial tests ... made before installation”. The rule then provides the clarification that “[i]f a meter is removed from a customer’s premises... it shall be tested and inspected as described above before being placed into service again”. Given the reference to “initial tests”, the amplification that if a meter is removed from the premises, it must be tested again before being placed in service, provides effective clarification about what is required. Section 410.160 which requires initial tests before each installation reflects the same policy as Staff’s interpretation, which applies the Section 410.120 requirement to each meter installation. Similarly, the clear meaning of Section 410.155, which requires a post-installation inspection after “installation or exchange of any meter”, is consistent with Staff’s interpretation of Section 410.120(e). In both Section 410.155 and Section 410.160 it is clear that the meter requirements apply each time a meter is installed, not only the first time it is installed.

Although the Petition states that Staff’s interpretation effectively makes any meter purchased prior to 1995 obsolete once it is removed from service (see Petition ¶ 10), Staff asserts that is not an accurate description of its interpretation of the rule. The rule requires that the meters meet the 1995 ANSI Standard; this is not the same as stating that the meters are obsolete.

In its verified response Staff offers there is a rational basis for the difference in Section 410.120 treatment of pre-1995 meters with regards to compliance with the 1995 ANSI Standard as opposed to the treatment afforded lagged demand meters in Section 410.151. In Section 410.151, the Commission not only prohibited lagged demand meters from being installed after January 31, 2001, it also required the removal of the meters from service by January 31, 2008. There is no requirement in Section 410.120 that meters not meeting the 1995 ANSI standard be removed from

service by a specific date, only a prohibition against the installation of such meters after January 1, 2001. With Subsection 410.120(e), the Commission allows utilities to phase out meters not meeting the 1995 ANSI standard in the process of conducting normal metering operations, such as during periodic or sample testing. The Commission's requirements within Section 410.120 minimize the impact on utilities with large meter populations, especially those that utilize sample testing procedures. Simply because the Commission did not state within Section 410.120 a date by which all meters not meeting the 1995 ANSI standard must be removed, the Petitioners assert that Section 410.120 requirements are significantly different than the Commission's requirements concerning lagged demand meters (see Petition ¶ 11). In contrast, Staff finds the difference to be minor.

As discussed above, Staff's interpretation of the rule requires that all meters installed after January 1, 2001, be certified that they meet the 1995 ANSI Standard. Staff's interpretation of the rule does not affect the pre-1995 meters unless they have been removed from service. Under Staff's interpretation of Section 410.120(e), no meter may be installed unless it complies with the 1995 ANSI standard. Thus, if a pre-1995 meter has been removed from service, the meter would have to be certified to be in compliance with the 1995 ANSI standards before reinstallation.

It is the utilities' interpretation of "installed" which becomes nonsensical when applied to other subparts of Section 410.120, Staff argues. A reading of Section 410.120(c) or (d) incorporating the meaning the Petitioners seek to have the Commission attach to "install" in Section 410.120(e) would lead to truly unreasonable results. Section 410.120(c) provides as follows:

No meter shall be installed that is known to be mechanically or electrically defective or that has not been tested in accordance with this Subpart and shown to comply with the accuracy requirements in this Subpart.

Staff maintains that it would be unreasonable to interpret the rule to prohibit mechanically or electrically defective meters from being installed in new installations, but allow a mechanically or electrically defective meter to be reinstalled. (See Petition ¶ 7) Similarly, Staff argues that Petitioners' suggested interpretation, when applied to Section 410.120(d) produces an absurd result. Section 410.120(d) provides:

Meters shall be installed so as to be accessible to metering personnel for reading, testing, and making adjustments and repairs.

It would be unreasonable to require meters to be installed so as to be accessible the first time they were installed, but allow them to be installed in such a way as to be inaccessible if they were reinstalled.

In direct testimony Staff witness Rockrohr comments that Petitioners argue that whether or not a meter may be installed depends upon whether the meter had previously been installed prior to January 1, 2001, rather than upon the characteristics of the meter. Subsection 410.120(e) states that meters installed after January 1, 2001, must meet the standards set forth in Section 4.7 of ANSI C.12-1995. Subsection 410.120(e) does not contemplate when meters were procured or initially installed as that information is not necessarily indicative of the meters' performance.

Furthermore, Mr. Rockrohr explains that the routine accuracy testing that each of the Petitioners performs is important, but the testing is typically not conducted in the same environment as exists where the meter is installed. Petitioners' routine accuracy testing determines whether an individual meter is calibrated correctly; whereas Section 4.7 testing establishes whether a particular meter type from a particular manufacturer can be expected to perform in an acceptable manner even if subjected to a wide variety of internal and external influences. Mr. Rockrohr states that all meters, even meter types that have been shown to meet the standards set forth in Section 4.7, must be subjected to

Petitioners' accuracy testing to verify individual meter calibration.

Staff asserts that a fair reading of Section 410 in its entirety results in an interpretation of Section 410.120(e), consistent with Staff's interpretation: that an electric utility must be able to certify that meters it re-installs meet the standards set forth in Section 4.7 of ANSI C12.1.

In rebuttal testimony Staff witness Rockrohr stated that Ameren Companies' witness West's, comments about the Commission's Part 410 workshops appear to indicate that all workshop participants might not have fully understood the consequences associated with the language being proposed for Subsection 410.120(e) that was ultimately adopted. While it is regrettable disagreements over the appropriate language for Subsection 410.120(e) were apparently not fully thrashed out during the Commission's 1999 workshop process, at this point Mr. Rockrohr's understanding is that a rule-making proceeding, not a declaratory ruling, would be necessary to modify Subsection 410.120(e). However, since he believes the existing rule is reasonable and desirable as written, Mr. Rockrohr does not believe a rule-making for the purpose of modifying Subsection 410.120(e) language is warranted.

Staff witness Rockrohr further testified that he agrees with ComEd witness Scherer that had the Commission intended for an immediate change-out of meters originally placed into service prior to January 1, 2001, it would have specified a date by which the phase-out was to be completed. Mr. Rockrohr asserts that he never stated or indicated that he believes Subsection 410.120(e) required an immediate change-out of meters originally placed into service prior to January 1, 2001. Rather, Subsection 410.120(e) sets a firm date, January 1, 2001, after which utilities can no longer install meters that do not meet the standards set forth in ANSI C12.1-1995. Mr. Rockrohr contends that Subsection 410.120(e) allows utilities time to eliminate such meters

through the ordinary course of its business; for example, when removed for testing, or replaced due to changed billing requirements. Mr. Rockrohr maintains that the absence of a specific date by which all such meters must be removed is not a valid reason to find that Subsection 410.120(e) has a meaning different than its plain language meaning.

Finally, Mr. Rockrohr explains that he agrees with Staff witness Christel Templeton's testimony in ICC Docket No. 99-0580 that Subsection 410.120(e) has nothing to do with a utility's testing schedules. Staff witness Rockrohr further explains that Ms. Templeton's statement should not be interpreted as an indication that a utility-owned meter that has not been shown to meet the specifications set forth in Section 4.7 of ANSI C12.1-1995 can be continually reinstalled simply because it had originally been installed by the utility prior to January 1, 2001.

#### **IV. Request for Exemption**

In the event the Commission does not grant declaratory judgment in their favor, Petitioners request that they be exempt from application of the requirements of Section 410.120(e) to meters originally installed prior to January 1, 2001, and subsequently removed from and returned to service.

##### **A. Petitioners' Position**

Petitioners point out that 83 Ill. Adm. Code Section 410.30 provides that the Commission may modify the requirements of or exempt the application of any provision of Part 410 “upon showing that the modification or exemption is economically and technically sound and will not compromise safety, reliability or the service obligations of the entity” requesting such modification or exemption.

##### **1. Ameren Companies' Position**

Ameren Companies' witness West testified that the Ameren Companies have approximately 400,000 single phase meters in service that were manufactured prior to

1995. If these meters are to be retired when removed from service as Staff would require based on its interpretation of the rule, the additional cost to be borne by ratepayers will be in the approximate range of \$6 to \$10 million based on current meter pricing. This cost figure is derived from present new meter costs.

Mr. West further stated the Ameren Companies anticipate removing from service and reusing approximately 150,000 meters manufactured prior to 1995 over the next four years. If the Ameren Companies must use new meters rather than reusing functional and reliable meters manufactured prior to 1995, the additional annual cost will be in the range of \$500,000 to \$1 million. This computation is based on purchasing 37,500 meters each year over the next four years at the current new meter cost. If the Ameren Companies cannot reuse the remaining 250,000 pre 1995 meters after the four year period outlined above, an annual cost of in the range of \$125,000 to \$200,000 will be incurred. This annual cost is based on the assumption that approximately 3.3% of the remaining 250,000 pre 1995 meters, or approximately 8,250 meters each year will be removed from service but cannot be retested and placed back into service. Thus 8,250 new meters will need to be purchased which at current meter pricing would result in an ongoing cost as previously described. Accordingly, if the exemption is approved, Ameren Company customers will financially benefit from not having to pay for additional meters that remain sound and functioning.

The Ameren Companies routinely test the pre 1995 meters. As explained in the affidavit in support of the Petition and Mr. West's testimony, the GE I70 and Landis + Gyr MS/MS-II meter sample test results for pre 1995 meters tested accurately:

Company	# of pre-1995 meters pulled for 2004 sample	Mean Weighted % Reg.	Standard Deviation
AmerenCILCO	110	100.02	.211
AmerenCIPS	165	100.13	.427
AmerenIP	116	100.04	.270

Company	# of pre-1995 meters pulled for 2004 sample	Mean Weighted % Reg.	Standard Deviation
AmerenCILCO	150	99.993	0.333
AmerenCIPS	75	99.911	0.324
AmerenIP	100	100.101	0.383

Based on these test results for mean weighted average and standard deviation, the meters would meet the accuracy requirements of Section 410.180. That is, less than 2.5% of the MS/MS-II and 2.5% of the pre 1995 I70 would exceed Section 410.180 accuracy requirements of +/- 2%. These meters were tested and reinstalled in 2004. The Ameren Companies are not aware that these meters are failing in any respect, at least not anymore than any other meters installed in a different time period, according to Mr. West.

Ameren Exhibits 1.2 and 1.3 provide the 2005 I70 and MS/MS-II test results for Illinois tests of these meters as required by Section 410.110(c). The table below details the results of the 2005 I70 testing:

Test Reason	Total Tested	Total Pre-1995 Tested	Total Tested Outside of Limits	Pre-1995 Outside of Limits
Sample	441	433	0	0
Periodic	2135	1738	16	16
Customer Request	110	96	0	0
Total	2686	2267	16	16

Only 16 out of the 2267 pre-1995 meters tested outside of accuracy limits, or .7%. All MS/MS-II meters were manufactured prior to 1995. Only two out of 986 meters tested outside of the accuracy limits, and this represents only .2% of the total. The table below lists results of the 2005 MS/MS-II testing:

Test Reason	Total Tested	Total Tested Outside of Limits
Sample	332	0
Periodic	593	2
Customer Request	61	0
Total	986	2

Further, the Ameren Companies do not have the capability to perform the tests required in ANSI C12, which specifies the testing that would be required if Staff prevails. They would have to contract with a testing laboratory or the original meter manufacturer to have these tests performed. Ameren Services Company, as agent for the Ameren Companies, contacted General Electric and Landis + Gyr to obtain more detailed estimates for these costs than what was obtained for Mr. John Luth's affidavit in support of the Petition. He stated then the cost is estimated to be approximately \$20,000 to \$25,000 for each test. However, Mr. West sought an update and due to meter design changes to the I70 and MS/MS-II meters, several separate complete ANSI tests for each meter would be required. There are at least three complete ANSI tests for the I70 and two complete ANSI tests for the MS/MS-II. This would mean a total of five complete ANSI tests at a total cost of \$100,000 to \$125,000.

Mr. West testified if the exemption is granted, the only meters manufactured prior to 1995, the Ameren Companies would reinstall would be GE I70 meters and L+G MS and MS-II meters. Every meter removed from the field is tested prior to reinstallation as required by Section 410.160. Each of these retested meters must meet the accuracy requirements of Section 410.150. If these accuracy requirements cannot be met, the meter is retired. In this way customers are assured that the meter services being provided accurately assess their energy usage.

On rebuttal, in response to Mr. Rockrohr's claim that the exemption was not technically sound because of certain tests being avoided, Mr. West explained that meters manufactured between 1985 and 1994 were tested to meet the then current ANSI C12.1 requirements. The testing requirements in the previous ANSI C12.1 standards were very similar to those required in the ANSI C12.1 1995. Since the meters were manufactured prior to 1995, they were tested to meet the ANSI C12.1 requirements that were current during the time of their manufacture. Meters manufactured from 1985 through 1987 were manufactured and tested using ANSI C12.1-1982; those manufactured from 1988 through 1994 were manufactured and tested using ANSI C12.1-1988.

The testing requirements of the 1982 and 1988 editions of ANSI C12.1 were similar to what was required in the 1995 edition. The only tests required in the 1995 revision that were not required in the 1982 and 1985 revisions for electromechanical meters were tests Test 29 through 36. Tests 29 through 36 attempts to simulate the actual "real world" conditions of inclement weather, temperature, humidity and transportation/handling. The meters for which Petitioners are requesting an exemption have been in the "real world" environment for between 10 to 21 years and are performing very well. The actual operating environment that these meters have been operating in over the past 10-21 years is a much more severe test than the seven day simulation required in some of Tests 29 through 36 in Section 4.7. Tests 29 through 36 have no requirements to test accuracy after the test is completed; they only require verification that the meter is mechanically and electrically sound.

Mr. West argued if the Petitioners were to reinstall I70, MS and MS-II meters manufactured between 1985-1994, that they would be meeting their service obligations under Part 410 and Sections 8-101 and 8-401 of the Act. The types of meters for which

Petitioners are seeking an exemption underwent almost identical testing as required by Section 4.7 of ANSI C12.1 – 1995.

Mr. West went on to testify that when a meter manufacturer designs a new meter or makes substantial changes to an existing meter that had previously passed the ANSI C12.1 Section 4.7 testing, the manufacturer selects several new meters to undergo the ANSI Section 4.7 tests. These meters must then pass all the required tests with some exceptions allowed. Once the new or redesigned type has satisfactorily passed all the Section 4.7 requirements, this design is considered ANSI C12.1 compliant. Meters subsequently manufactured and shipped to customers using this design do not go through the extensive testing required in Section 4.7.

Mr. West further testified that the testing required in Section 4.7 is not used to ensure the continuing accuracy of the meters. The continuing accuracy of meters is accomplished through the annual sample testing, which is the same testing for all meters regardless of when manufactured, installed or reinstalled. This is the testing required in Section 410.180, and as further required by this section, annual reports are sent to the Commission regarding the results of this testing. The meter installed pre -1995 undergoes the same rigorous testing for accuracy as does the meter installed last week. Mr. West argues that the focus Mr. Rockrohr places on Section 4.7 is only applicable for new meter designs, however, the testing specific to new meter designs is virtually the same as was in place for meters manufactured between 1982 through 1994.

Mr. West states that the meters the Ameren Companies are seeking an exemption to reinstall, MS, MS-II and I70 meters manufactured between 1985 to 1994, were tested to meet the requirements of the 1982 and 1988 ANSI C12.1 standard and the testing requirements in these standards are almost identical to those required in the Section 4.7 of the 1995 revision of C12.1. Testing procedures and requirements for meter performance

due to voltage variations, heat and magnetic fields are almost identical. There are no material differences.

Finally, in response to Mr. Rockrohr's recommendation of a limited exemption that would allow the Petitioners to reinstall meters that are not fully depreciated and meet the standards set forth in ANSI C12.1-1982 or ANSI C12.1-1988 as later discussed, the Ameren Companies agreed to this recommendation as a compromise only. Mr. West reaffirmed the Ameren Companies position regarding its interpretation of the subject rule.

2. ComEd's Position

ComEd witness Scherer testified as to the importance of a ruling that the requirements of Section 410.120(e) of the Commission's rules apply only to meters *originally* installed after January 1, 2001, and not to the re-introduction of meters *originally* installed prior to January 1, 2001, which have been removed from service, tested pursuant to the Commission's rules and found to be accurate. Specifically, Mr. Scherer testified that a contrary result would cause ComEd to incur significant expenditures to replace meters that are perfectly useful and found to be accurate when tested in accordance with the Commission's testing rules.

Mr. Scherer explained as part of providing electric service, ComEd has installed millions of electric meters, which have been tested, installed, maintained and operated pursuant to the Commission's regulations. A large number of these meters were originally put in service prior to January 1, 2001, and have been in accurate operation since. However, as part of the ordinary course of business, and, pursuant to the Commission's meter testing rules, ComEd from time to time removes electric meters from service, tests, upgrades, or otherwise maintains the meters, and subsequently returns the meters to service. Meters originally installed prior to January 1, 2001, were not

required to meet ANSI C12.1-1995 standards and the manufacturers of those meters will not certify that any meter manufactured before 1995 meets this standard.

Mr. Scherer estimated that it would cost ComEd an additional \$5 million over the next five years to purchase additional meters if ComEd could not re-introduce meters that have not been certified as compliant with the 1995 ANSI Standard. He stated since January 1, 2001, ComEd re-introduced approximately 49,000 commercial meters that were manufactured prior to 1995 that were not certified as compliant with the 1995 ANSI Standard. He stated to replace those meters would cost over \$5.4 million in equipment costs and an additional \$2.5 million in labor costs to do the change-out.

In ComEd’s experience, there has there been nothing wrong about the performance of these pre-1995 certified meters. In support, Mr. Scherer stated ComEd tests a sample of meters (for accuracy) annually and reports the result to the Commission.

The results for the GE 170 series and the Landis & Gyr MX meter are as follows:

TYPE	# IN SERVICE	# TESTED	# DEFECTIVE	% DEFECTIVE	AVG. ACCURACY
170S1	244,201	560	2	0.36	99.90%
170ST	119,666	315	0	0.00	99.90%
MX	38,855	315	0	0.00	99.89%

From an accuracy and reliability perspective, electric utilities should not be precluded from re-introducing non-1995 ANSI certified meters that have passed Commission accuracy testing. In ComEd’s experience, the expected useful life for electromechanical meters is 30 years. To require utilities to throw away perfectly good meters when they come out of service for routine accuracy testing or otherwise, is a waste of perfectly good equipment and imposes unnecessary costs that would ultimately be borne by ratepayers. He stated ComEd will retest every pre-1995 certified meter prior to reinstalling the meter as required by Section 410.60 of the Commission’s rules. All

meters are required to meet Part 410's testing, inspection and accuracy requirements, Mr. Scherer observed. The exemption of meters from Section 410.120 will not compromise safety, reliability or the service obligations that are attendant in Part 410.

Mr. Scherer noted that if ComEd was required to replace the pre-1995 meters in question, it would have to replace 15,000 General Electric I7 Category meters and 35,000 General Electric V6 Category meters. He stated these meters are between 11 and 21 years old and were first purchased between 1985 and 1995, and that they are reliable and accurate, with average test result accuracy between 99.89% and 99.90%. Moreover, Mr. Scherer testified these meters have been certified to comply with either ANSI 1982 or ANSI 1988, depending on whether the meters were installed between 1985 and 1987, or 1988 and 1995. Of the 36 Tests in ANSI C12.1-1995, Tests 1 through 28 were included in the 1985 and 1988 standards and Tests 29 through 36 were added to the 1995 standard in order to simulate many real world conditions to ensure the meters would operate correctly outside of the laboratory. Nonetheless, Mr. Scherer testified that he does not believe ANSI C12.1-1995 certified meters would operate more effectively than the 50,000 ComEd meters in question. He bases this conclusion on the fact ComEd meters in question have already operated accurately in the real world for many years.

Mr. Scherer offered that a favorable ruling on the Petition (including a waiver or exemption) would not compromise ComEd's service obligations because ComEd's 1984-1995 meters operate at a high degree of accuracy and there is no evidence that the meters' certification with the earlier standards and many years of operating accurately in the real world is in any way a lesser insurer of meter accuracy than compliance with the 1995 would be standard.

Finally, Mr. Scherer responded to Staff witness Rockrohr's recommendation that the Commission grant Petitioners a limited exemption from the rule, applicable to meters

they already own which are not yet fully depreciated and meet the standards set forth in ANSI C12.1-1982 or ANSI C12.1-1988. Mr. Scherer stated he agreed with Mr. Rockrohr's recommendation. He stated the 50,000 of ComEd's meters at issue have been certified to comply with one of those earlier standards, that they are depreciated on a 30-year schedule, and at the end of each of the meter's depreciable life, ComEd would be prepared to replace the meter with a new meter that is Section 4.7 certified.

3. Mt. Carmel's Position

Mt. Carmel witness Horrall stated it cost approximately \$6.88 to test a meter, whereas the cost of a new meter at that time was \$30.00. Mr. Horrall states in direct testimony that pre-1995 meters are tested for accuracy and junked if they do not test consistently. Replacing all 3500 pre-1995 meters, would cost Mt. Carmel \$129,080. Mr. Horrall testified that this is a large amount of money for no more benefit than would be attained.

Finally, in his surrebuttal testimony Mr. Horrall points out that ComEd and Ameren both have 30 year depreciation schedules and Mt. Carmel has a 20 year depreciation schedule. Mr. Horrall testified that it appears Mr. Rockrohr's recommendation adopts the reasonable accuracy of the pre-1995 meters. It is his understanding the Commission has the duty to weigh reliability and accuracy as well as the cost efficiency. By limiting Mt. Carmel's exemption to the 20 year depreciation schedule, it requires the meters to be replaced more quickly and, therefore, costs Mt. Carmel and ultimately its customers more money. Mr. Horrall states having all three companies use the 30 year benchmark, and not the depreciation schedule, would be most appropriate and most beneficial to the customers from an economic standpoint.

B. Staff's Position

In direct testimony Staff witness Rockrohr recommended that the Commission not grant the exemption Petitioners request, explaining his recommendation was based on a comparison of Section 410.30 to information Petitioners provided in filings and responses to data requests. After considering the Section 410.30 requirements Mr. Rockrohr stated that he initially determined the requested exemption a) would be economically sound; b) would not be technically sound; c) would not compromise safety or reliability; and d) might compromise the Petitioners' service obligations. .

Mr. Rockrohr reasoned that to be technically sound, the exemption must not negatively impact the Petitioners' electric metering accuracy. Section 4.7 of ANSI C12.1-1995, titled, "Performance requirements", includes 38 individual tests to determine how internal and external influences will affect a meter's operation. Mr. Rockrohr initially concluded that the exemption Petitioners request would not be technically sound because meter types never subjected to the tests listed in Section 4.7 might not measure energy consumption accurately when placed in environments that are similar in nature to the environments that Section 4.7 tests emulate.

Mr. Rockrohr further stated his conclusion that the requested exemption could compromise the Petitioners' service obligations, based on his review of Sections 8-101(220 ILCS 5/8-101) and 8-401 (220 ILCS 5/8-401) of the Act. Section 8-101 states the following, in part:

"A public utility shall furnish, provide, and maintain such service instrumentalities, equipment, and facilities as shall promote the safety, health, comfort, and convenience of the patrons, employees, and public and as shall be in all respects adequate, efficient, just, and reasonable."

Section 8-401 states the following:

"Every public utility subject to this Act shall provide service and facilities which are in all respects adequate, efficient, reliable and environmentally safe and

which, consistent with these obligations, constitute the least-cost means of meeting the utility's service obligations."

Mr. Rockrohr opined that if the testing required by Section 4.7 is not performed, the utility's service obligations may be compromised.

At the time of his direct testimony, Mr. Rockrohr concluded that if Petitioners wish to reinstall meters that have not been shown to meet the standards set for the in Section 4.7 of ANSI C12.1-1995, then Petitioners should subject those meter types to the Section 4.7 testing. Mr. Rockrohr stated Petitioners should then provide Staff with the test results for each of the meter types that they wish to reinstall that have been shown to meet the standards set forth in Section 4.7 through the testing. If any meter types do not meet the standards set forth in Section 4.7, Petitioners should not reinstall those meters because, though it might be economical to do so, those meters would not be "in all respects adequate", as required by Section 8-401 of the PUA (220 ILCS 5/8-401).

In rebuttal, Mr. Rockrohr explained that as a result of Petitioners' rebuttal testimony, he revised his recommendation regarding an exemption. Ameren Companies' witness West and ComEd's witness Scherer explained in their rebuttal testimony that the meter types their respective companies wish to reinstall were manufactured to meet the standards set forth in either ANSI C12.1-1982 or ANSI C12.1-1988, and Ameren Exhibit 2.1 illustrates that these earlier versions of ANSI C12.1 included most of the tests included in Section 4.7 of ANSI C12.1-1995. Mr. Rockrohr noted that Tests 37 and 38 were not mentioned by the Companies and stated that Tests 29-38 from Section 4.7 of ANSI C12.1-1995 were not part of the two earlier ANSI revisions. Parties agreed that tests added in Section 4.7 of ANSI C12.1-1995 explored the effects of weather and transport on meters. This information presented in Petitioners' rebuttal testimony regarding reinstalling meters that met the standards set forth in previous ANSI standards caused Mr. Rockrohr to reconsider his opinion that an exemption of any kind would not

be technically sound. He concluded that granting a limited exemption would be technically sound and unlikely to compromise Petitioners' service obligations.

Staff recommends that the Commission grant a limited exemption covering specific meters that Petitioners already own. The exemption should cover only meters that are not yet fully depreciated that meet the standards set forth in ANSI C12.1-1982 or ANSI C12.1-1988.

Mr. Rockrohr recommended that the same limited exemption apply to each of the Petitioners, including Mount Carmel, even though Mount Carmel did not identify specific non-compliant meter types it wished to reinstall in the same manner as the Ameren Companies and ComEd.

**V. Commission's Conclusion**

**VI. Findings and Ordering Paragraphs**

The Commission, having given due consideration to the entire record herein and being fully advised in the premises, is of the opinion and finds that:

- (1) AmerenCILCO, AmerenCIPS, AmerenIP, ComEd, and Mt. Carmel are Illinois corporations engaged in the distribution and sale of electricity to the public in Illinois, are public utilities as defined in Section 3-105 of the Act, and are electric utilities as defined in Section 16-102 of the Act;
- (2) the Commission has jurisdiction over the parties hereto and the subject matter herein;
- (3) the recitals of fact and conclusions of law reached in the prefatory portion of this Order are supported by the evidence of record, and are hereby adopted as findings of fact and conclusions of law.