

40	Customer complained that the tech was trespassing.	The issue was resolved by the Ameren team. Customer will be called prior to the visit, customer is aware of the exchange process.
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**There were no formal ICC complaints filed as a result of the AMI deployment.**

12. The reduction in gasoline consumption from the reduction in manual meter reading miles, and converted to a reduction in greenhouse gas emissions based on formulas provided by CUB / ELPC / EDF.

**The reduction in gasoline consumption for Ameren Illinois manual meter reading truck miles is 8,547 gallons. The reduction in gasoline consumption converted to a reduction in greenhouse gas emissions is 167,000 lbs of CO2.**

13. The annual combined load factor for all its AMI metered customers, and its entire system annual load factor. Annual load factor is defined as total consumption in MWH divided by the hourly peak demand at the time of system peak in MW multiplied by 8760 hours per year.

**The Ameren Illinois overall system annual load factor is 61.24%. For AMI metered customers in 2015 that had a full year's worth of AMI data (approximately 25,000 service points), the load factor is 39%. Please note the vast majority of these customers fall into the low summer/low winter usage load factor category. The overall load factor for the low summer/low winter usage load factor category is 39%.**

14. The number and percentage of 12 kV distribution circuits using data from AMI meters as part of a voltage / var control scheme.

**There are no 12 kV distribution circuits using data from AMI meters as part of a voltage/var control scheme.**

Ameren Illinois has not agreed to any additional tracking mechanisms at this time, but will continue to consider additional tracking mechanisms as appropriate in the future.

## Appendix 1 – Part 466.140 Distributed Generation Annual Report

**2016**  
**Annual Report of**  
**Ameren Illinois Company d/b/a Ameren Illinois**  
**Pursuant to Part 466.140**  
**of the 83 Illinois Administrative Code**  
**<=10 MVA Distributed Generation Annual Report**  
**Requests for Distributed Generation Interconnection**

	2013-2014 Data (as of 2-10-14)		2014-2015 Data (as of 2-10-15)		2015-2016 Data (as of 2-10-16)		<b>Totals as of 2-10-16</b>	
	<u>Completed</u>	<u>Under Review</u>	<u>Completed</u>	<u>Under Review</u>	<u>Completed</u>	<u>Under Review</u>	<u>Requests Received*</u>	
1) Requests Received	36	11	33	14	84	9	634	
Level 1	25	9	18	10	69	2	505	
Level 2	11	1	15	4	15	6	122	
Level 3	0	0	0	0	0	0	1	
Level 4	0	1	0	0	0	1	6	
							<u>Requests Approved*</u>	
2) Requests Approved	<u>Customers</u>	<u>kW</u>	<u>Customers</u>	<u>kW</u>	<u>Customers</u>	<u>kW</u>	<u>Customers</u>	<u>kW</u>
	46	423.9	53	1086.3	99	1647.5	552	15594.9
Level 1:	35	155.7	32	175.0	80	334.5	443	2181.4
Solar	28	135.0	30	161.7	79	332.7	353	1634.6
Wind	7	20.7	0	0.0	1	1.8	50	246.0
Both	0	0.0	2	13.4	0	0.0	40	300.8
Level 2:	11	268.2	21	911.3	19	1313.0	108	8613.5
Solar	11	268.2	19	857.2	17	1262.8	82	3715.2
Wind	0	0.0	0	0.0	0	0.0	17	4629.3
Both	0	0.0	2	54.1	2	50.1	9	268.9
Level 3:	0	0.0	0	0.0	0	0.0	0	0.0
Level 4:	0	0.0	0	0.0	0	0.0	1	4800.0
3) Requests Denied	<u>Customers</u>	<u>kW</u>	<u>Customers</u>	<u>kW</u>			<u>Customers</u>	<u>kW</u>
	0	0.0	0	0.0			0	0.0

Note:

Level 1 = Distributed generation facilities less than or equal to 10kVA

Level 2 = Lab certified interconnection equipment with nameplate capacity less than or equal to 2MVA.

Level 3 = Distributed generation facility does not export power. Nameplate capacity is less than or equal to 50kVA if connected to area network or less than or equal to 10 MVA if connected to a radial distribution feeder.

Level 4 = Nameplate capacity rating is less than or equal to 10 MVA and the distribution generating facility does not qualify for a

Level 1, 2 or 3 review, or the distribution generating facility has been reviewed but not approved under a Level 1, 2 or 3 review.

\* - Total column reflects totals from the inception - April 1, 2008 to current.

## Appendix 2 – Part 466.140 Distributed Generation Annual Report – Net Metering Only

**2016**  
**Annual Report of**  
**Ameren Illinois Company d/b/a Ameren Illinois**  
**Pursuant to Part 466.140**  
**of the 83 Illinois Administrative Code**  
**<=10 MVA Distributed Generation Annual Report**  
**Requests for Distributed Generation Interconnection (Net Metering Customers Only)**

	2012-2013 Data (as of 2-10-13)		2013-2014 Data (as of 2-10-14)		2014-2015 Data (as of 2-10-15)		2015-2016 Data (as of 2-10-16)		<b>Totals as of 2-10-16</b>	
	<u>Completed</u>	<u>Under Review</u>	<u>Requests Received*</u>							
1) Requests Received	97	21	25	10	31	14	76	7	281	
Level 1	73	15	20	9	18	10	64	2	211	
Level 2	24	6	5	1	13	4	12	5	70	
Level 3	0	0	0	0	0	0	0	0	0	
Level 4	0	0	0	0	0	0	0	0	0	
									<u>Requests Approved*</u>	
2) Requests Approved	<u>Customers</u>	<u>kW</u>	<u>Customers</u>	<u>kW</u>	<u>Customers</u>	<u>kW</u>	<u>Customers</u>	<u>kW</u>	<u>Customers</u>	<u>kW</u>
	85	749.7	35	270.0	49	620.9	88	640.5	257	2281.0
Level 1:	66	366.8	30	146.1	31	170.0	72	329.0	127	1011.9
Solar	58	309.0	25	130.2	30	161.7	71	327.2	184	928.1
Wind	5	36.8	5	15.9	0	0.0	1	1.8	11	54.5
Both	3	21.0	0	0.0	1	8.4	0	0.0	4	29.3
Level 2:	19	383.0	5	123.9	18	450.9	16	311.5	42	1269.2
Solar	15	272.5	5	123.9	16	396.8	14	261.3	50	1054.5
Wind	3	72.3	0	0.0	0	0.0	0	0.0	3	72.3
Both	1	38.2	0	0.0	2	54.1	2	50.1	5	142.4
Level 3:	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Level 4:	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
									<u>Requests Denied*</u>	
3) Requests Denied	<u>Customers</u>	<u>kW</u>	<u>Customers</u>	<u>kW</u>	<u>Customers</u>	<u>kW</u>	<u>Customers</u>	<u>kW</u>	<u>Customers</u>	<u>kW</u>
	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Note:

Level 1 = Distributed generation facilities less than or equal to 10kVA

Level 2 = Lab certified interconnection equipment with nameplate capacity less than or equal to 2MVA.

Level 3 = Distributed generation facility does not export power. Nameplate capacity is less than or equal to 50kVA if connected to area network or less than or equal to 10 MVA if connected to a radial distribution feeder.

Level 4 = Nameplate capacity rating is less than or equal to 10 MVA and the distribution generating facility does not qualify for a

Level 1, 2 or 3 review, or the distribution generating facility has been reviewed but not approved under a Level 1, 2 or 3 review.

\* - Total column reflects totals from the inception - Feb 10, 2012 to current.

## Appendix 3 – Time Required for Connection of Distributed Resources

2016  
 Annual Report of  
 Ameren Illinois Company d/b/a Ameren Illinois  
 Pursuant to Part 466.140  
 of the 83 Illinois Administrative Code  
 <=10 MVA Distributed Generation Annual Report  
 Requests for Distributed Generation Interconnection (Net Metering Customers Only)\*\*\*

<u>Customer #</u>	<u>Duration: Time from a Completed Application Until Energy Flows from Project to Grid (Live Date) in Actual Days</u>
1	26
2	80
3	12
4	62
5	93
6	29
7	24
8	70
9	45
10	16
11	6
12	14
13	67
14	299
15	120
16	78
17	22
18	38
19	55
20	58
21	38
22	51
23	20
24	40
25	34
26	100
27	92
28	76
29	33
30	65
31	263
32	7
33	76
34	96
35	64
36	16
37	16
38	15
39	73
40	56
41	11
42	50
43	7
44	6

**Assumptions:**

1. The clock will start upon receipt of a complete application from customer. An application is considered complete when all required documentation, information, application fees, etc. has been received and application can be forwarded to engineering. (instructions - use Column Q in spreadsheet)
2. The clock will end based on the date when the bi-directional (dual channel) meter is installed or re-programmed. The customer is not authorized to operate the system until the application has been reviewed and approved by Engineering, an inspection and site-test completed and a bi-directional (dual channel) meter installed. (Instructions - use column AC in spreadsheet)
3. Ameren Illinois Policy is to install a bi-directional (dual channel) meter for every distributed generation installation.
4. It should be noted some systems will NOT have energy flow into the grid. These systems were designed for load sharing to reduce billable energy consumption (e.g. some smaller systems were installed in school science labs for educational purposes only.)
5. Time is represented in actual days, not business days.

\*\*\* - This represents the total # of net metering customers that completed their installations from Feb 10, 2015 to Feb 10, 2016.

## Appendix 3 – Time Required for Connection of Distributed Resources

2016  
 Annual Report of  
 Ameren Illinois Company d/b/a Ameren Illinois  
 Pursuant to Part 466.140  
 of the 83 Illinois Administrative Code  
 <=10 MVA Distributed Generation Annual Report  
 Requests for Distributed Generation Interconnection (Net Metering Customers Only)\*\*\*

<u>Customer #</u>	<u>Duration: Time from a Completed Application Until Energy Flows from Project to Grid (Live Date) in Actual Days</u>
45	14
46	62
47	19
48	54
49	243
50	243
51	243
52	243
53	243
54	243
55	243
56	243
57	243
58	243
59	243
60	243
61	243
62	243
63	243
64	243
65	243
66	243
67	243
68	243
69	243
70	243
71	17
72	33
73	41
74	33
75	45
76	42
77	86
78	58
79	14
80	11
81	78
82	91
83	167
84	4
85	7
86	69
87	102
88	19

**Assumptions:**

1. The clock will start upon receipt of a complete application from customer. An application is considered complete when all required documentation, information, application fees, etc. has been received and application can be forwarded to engineering. (instructions - use Column Q in spreadsheet)
  2. The clock will end based on the date when the bi-directional (dual channel) meter is installed or re-programmed. The customer is not authorized to operate the system until the application has been reviewed and approved by Engineering, an inspection and site-test completed and a bi-directional (dual channel) meter installed. (Instructions - use column AC in spreadsheet)
  3. Ameren Illinois Policy is to install a bi-directional (dual channel) meter for every distributed generation installation.
  4. It should be noted some systems will NOT have energy flow into the grid. These systems were designed for load sharing to reduce billable energy consumption (e.g. some smaller systems were installed in school science labs for educational purposes only.)
  5. Time is represented in actual days, not business days.
- \*\*\* - This represents the total # of net metering customers that completed their installations from Feb 10, 2015 to Feb 10, 2016.

## Appendix 4 – Non-Standard Metering Biannual Report

Each year beginning in 2015, on or before April 1 and on or before October 1, Ameren Illinois shall file with the ICC a semi-annual report that summarizes information pertaining to Customers that have refused AMI metering. The semi-annual report shall provide (1) the number of Customers that have refused AMI metering and the reason for the refusal; (2) a description of the Company’s efforts to address such Customers; and (3) identification of the Company’s costs associated with providing service to such Customers. The report due by April 1 shall be included in the Advanced Metering Infrastructure (AMI) annual report filed by the Company that requires the Company to file a report by April 1 of each year “regarding the progress it has made toward completing implementation of its AMI Plan”, pursuant to Section 16-108.6(e) of the Public Utilities Act.

Within 30 days after the Company files the fourth semi-annual report described above, the Company shall file a petition with the ICC requesting authority to continue the use of this Rider and applicable charges. The petition will include the information provided in the previously submitted semi-annual reports.

### Summary

For the period of June 2014 through December 2015, 197 AMR and AMI customers requested non-standard metering. Due to the prior AMR medical exemption process, 6 customers have been grandfathered into non-standard metering. These customers are not included in the 197 and do not receive the monthly advanced meter refusal charge. There were 12 Ameren Illinois customers enrolled in non-standard metering as a result of Unable-to-Complete AMI meter deployments.

### Ameren Illinois Non-Standard Metering Refusals

Refusal Reason	Number of Customers
Does not want Gas AMI	1
Health	39
Higher Bills	4
No reason provided	128
Privacy	8
Safety	5
Unable to Complete Advanced Meter Install	12
<b>Total</b>	<b>197</b>

**There are two ways for customers to enroll in Non-Standard Metering:**

**1. Customer Request for Non-Standard Metering**

Residential Customers have the option of refusing the installation of Advanced Metering or requesting the removal of previously installed Advanced Metering by contacting the Ameren Illinois Contact Center.

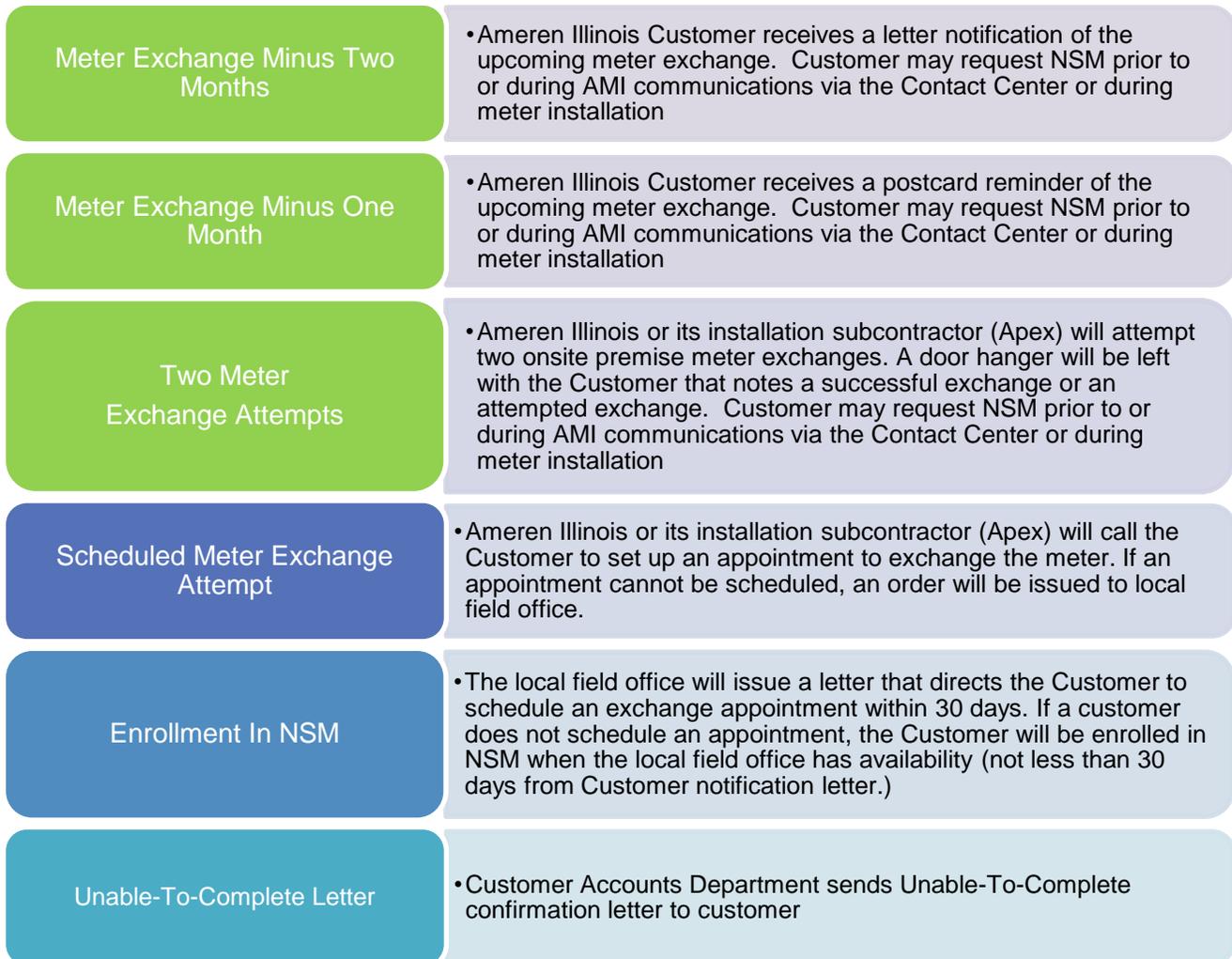
The enrollment process is as follows:



## 2. Customer is enrolled due to Unable-To-Complete Meter installations

As stated in the Non-Standard Metering Rider, if Ameren Illinois is unable to complete an Advanced Metering installation at eligible premises for reasons including but not limited to, locked gates or doors, physical blockages of meters, or unrestrained dogs, Ameren Illinois will treat these situations as Advanced Metering refusal. Ameren Illinois will contact the customer 6 times prior to enrolling them in non-standard metering.

The contact process is as follows:



**Ameren Illinois Customers with 2015 NSM Charges**

There were 104 Ameren Illinois customers who received monthly charges as a result of Non-Standard Metering through December 2015. The NSM rider includes all automated metering, both AMI and AMR customers. There are 9 AMR AND 95 AMI customers with NSM charges.

Service(s)	Number of Customers
Electric & Gas	21
Gas	8
Electric	76
<b>Total</b>	<b>104</b>

**Customer Refusal Method**

Department	Cost
Enrolled after Meter Installation	3
AMI Refusal During Deployment	76
Customer Contact Center	106
Unable to Complete	12
<b>Total</b>	<b>197</b>

**Ameren Illinois' Costs Summary**

Department	Cost
Meter Reading	11,608
Field and Meter Services	210
Deployment	2,015
AMI Operations	1,241
Customer Experience	2,554
Billing	2,687
<b>Total</b>	<b>\$20,315</b>

**Ameren Illinois' Estimated Costs Descriptions**

**Meter Reading:** Ameren Illinois incurred an estimated \$11,608 of meter reading costs for 104 customers who received NSM charges through 2015.

Manual Meter Reading costs:

Service(s)	#Reads	Calculation
Electric	319	#Reads * monthly fee = 7,216
Gas	16	#Reads * monthly fee = 363
Both	304	#Reads * monthly fee = 4,028
<b>Total</b>	<b>639</b>	<b>\$11,608</b>

**Field and Meter Services:** Ameren Illinois incurred an estimated \$210 of Field and Meter Services cost for customers' meter exchanges.

Meter Exchange order costs:

#Customers	Calculation
3	#Customers * Exchange Fee 3 * \$70 = \$210
<b>Total</b>	<b>\$210</b>

**Deployment:** Ameren Illinois incurred an estimated \$2,015 of Deployment costs for 76 customers who refused AMI during deployment and 12 Unable to Complete installs:

Subcontractor Installer Costs:

#Subcontractor Rate	Calculation
\$22.90	Rate * #Customers \$22.90 * 88 = \$2,015
<b>Total</b>	<b>\$2,015</b>

**AMI Operations:** Ameren Illinois incurred an estimated \$1,241 of Operations costs for 12 Unable to Complete installs and 79 customers who requested NSM during meter installation or after meter installation (exchange):

Operations Support Costs:

OSR Rate	Time to Support	Cost to Support	Calculation
\$81.86	10 minutes/Customer	\$13.64/Customer	Cost to Support * #Customers \$13.64 * 91 = \$1,241
<b>Total</b>			<b>\$1,241</b>

**Customer Experience:**

- Ameren Illinois incurred an estimated \$1,446 of costs for 106 customers who contacted the Ameren Illinois Customer Contact Center to request NSM.
- Ameren Illinois incurred postage and labor costs of \$108 for all 197 customers who requested NSM.

Rate		Cost to Support	Calculation
Contact Center \$81.86/hr	10 Minutes/Customer	\$13.64/Customer	Cost to Support * #Customers \$13.64 * 106 = \$1446
Postage \$0.55/letter	1 Letter/Customer	\$0.55/Customer	Cost to Support * #Letters \$0.55/letter * 197 = \$108
Total			<b>\$1,554</b>

**Billing:** Ameren Illinois incurred an estimated \$2,687 of cost for all 197 customers who requested Non-Standard metering through December 2015.

Customer Accounts department (CAD) Costs:

CAD Rate	Time to Support	Cost to Support	Calculation
\$81.86	10 minutes/Customer	\$13.64/Customer	Cost to Support * #Customers \$13.64 * 197 = \$2,687
Total			<b>\$2,687</b>