

e-FILING REPORT COVER SHEET

REPORT NAME: 2016 Annual Meter Test and Certification Report

COMPANY NAME: Idaho Power Company

DOES REPORT CONTAIN CONFIDENTIAL INFORMATION? No Yes

If yes, please submit only the cover letter electronically. Submit confidential information as directed OAR 860-001-0070 or the terms of an applicable protective order.

If known, please select designation: RE (Electric) RG (Gas) RW (Water)
 RO (Other)

Report is required by: OAR 860-023-0015
 Statute 757.250
 Order
 Other

Is this report associated with a specific docket/case? No Yes
If Yes, enter docket number:

Key words:

If known, please select the PUC Section to which the report should be directed:

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- Economic and Policy Analysis
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LISA D. NORDSTROM
Lead Counsel
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May 11, 2017

Public Utility Commission of Oregon
Filing Center
201 High Street SE, Suite 100
P.O. Box 1088
Salem, Oregon 97301

Re: 2016 Annual Meter Test and Certification Report

Attention Filing Center:

Enclosed for filing is Idaho Power Company's 2016 Meter Test and Certification Report required by the Public Utility Commission of Oregon's Electric Utility Metering Policy that implements ORS 757.250 and OAR 860-023-0015.

If you have any questions about this report, please contact Regulatory Analyst Kristy Patteson at (208) 388-2982 or kpatteson@idahopower.com.

Very truly yours,



Lisa D. Nordstrom

LDN/kkt

Enclosure

**IDAHO POWER
COMPANY**

**2016 ANNUAL METER TEST
AND CERTIFICATION REPORT**

Idaho Power Company's ("Idaho Power" or "Company") advanced metering infrastructure ("AMI") meters record, display, read, and reset peak demand. In alignment with ANSI C12.1 2008, the meters would be subject to a periodic in-service test plan. The remaining solid state non-AMI meters qualify for random sampling or periodic maintenance programs. In alignment with ANSI standards, the Company made the decision to divide all of the meters in its Oregon service area into periodic meter groups ("PMG") by model and/or attribute.

The decision to place all of the Oregon meters into PMGs is in line with ANSI standards and industry practices, although ANSI C12.1 does not specifically address solid state meters or smart meters. Idaho Power recognizes that long-term grouping of all meters into PMGs is not practical or sustainable and that Idaho Power should develop and implement other in-service planned maintenance programs to be approved by the Public Utility Commission of Oregon ("Commission"). There are a number of meter maintenance programs currently being performed to validate meters in Oregon that are not required or addressed by ANSI or the Commission's Electric Metering Policy. A summary of meter validation programs being performed is provided in this report.

Management Review

The review of Idaho Power's metering policies, practices, and procedures, and the results of in-service meter maintenance and validations performed shows that the Company is in compliance with ANSI C12.1 2008 and the Commission's Electric Metering Policy.

All test equipment used to validate meter accuracy is traceable to the National Institute of Standards and Technology laboratory. Calibration standards are used to verify meter test equipment accuracy on a regularly scheduled interval of six months.

Significant Deficiencies

There were no significant meter defects found by Idaho Power through testing or inspection programs in 2016.

Metering Corrective Action Plans

No failed PMG meter lots were found by testing or inspection programs in 2016; therefore, no corrective action plans are necessary.

Listing of Homogenous Meter Groups and Periodic Meter Groups

Below is the listing of Idaho Power Oregon meters by PMG. The list includes PMG model, technology, i.e., AMI, Non-AMI, and offsite meter reading ("OMR"), along with a breakdown of the last test year. Idaho Power does not have any meters in homogeneous meter groups ("HMG") groupings.

Model	Technology	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
A1D	Non-AMI	1		1	3		3		5	4	61	52			22		152
A1D+	Non-AMI	16	6	1	14	15	4	1	4	5	70	58					194
A1R-AL	AMI														1		1
A1RL+	AMI	1						1		9	2	30	7	2	3	2	57
A1RL+	Non-AMI										1				1	1	3
A1TL+	Non-AMI								2								2
A3D	Non-AMI						5	10	1	2	13	4					35
A3R	AMI															1	1
A3RAL	AMI													12			12
AB1R	OMR								22	138	7	7			8		182
ALF	AMI					17		3	76	13681	247	405	229	119	204	149	15130
AXR-SD	AMI													794	3	91	888
AXS4	Non-AMI		3	8	4						7						22
AXS4	AMI			2	1	2	5	1	1								12
C1S	Non-AMI		11	6	3	16	20	10	7	54	80	14					221
C1SCT	Non-AMI		6		2			1		15							24
C1SD	Non-AMI		1	1	4	2	1	5	2	3							19
C1SR	OMR						6	4	6	51	51	59	2				179
C1SX	AMI						1										1
CN1SX	AMI							5									5
ION-8600	AMI									4	1		2		1		8
ION-8650	AMI											1			1	6	8
J5SR	OMR								6	81	2						89
KV2C	AMI								9	1376	94	127	168	177	292	130	2373
M5S9	AMI															5	5
Q4N-9	AMI															1	1
Total		18	27	19	31	52	45	41	141	15423	636	757	408	1104	536	386	19801

Metering Audits for PMGs

1. Voltage readings on AMI three-phase meters are taken three times daily. Any missing voltage is investigated onsite.
2. Automated communication meters are verified in the field if reading errors are detected or communication fails for two consecutive days.
3. Transformer-rated irrigation meter monthly billing kilowatts (“kW”) are compared to the connected horse power (“Hp”) ($kW = (Hp \times .746) \times .866$) deviations and are validated at the site.
4. All primary distribution service level meter sites are validated in the field every six months and a random selection of meters are tested annually.
5. Transmission level metering is validated every six months and meters are tested annually.

Inspections and Tests for HMGs

Idaho Power does not have any meters in HMG groupings. All meters are in solid state AMI, solid state non-AMI, or OMR PMG groups.

Uniquely Defective Meters

Idaho Power did not identify any uniquely defective meters through testing, inspection programs, or audits in 2016.

Metering Hazards and Defects

Idaho Power did not identify any metering hazards or defects through testing, inspection programs, or audits in 2016.

2016 Inspections for HMGs and PMGs

Idaho Power did not identify any PMGs that were due for testing in 2016. Idaho Power does not have meters in HMGs.

Metering Standard Practice Changes

There were no changes in 2016. Standard metering practices are in alignment with the Commission's Electric Utility Metering Policy. The deployment of all solid-state metering post-AMI deployment in 2012 has resulted in all meters being in PMGs and being tested on a 16-year cycle.

Multi-State Metering Programs

Idaho Power's meters, in all states, are audited as listed in "Metering Audits of PMGs". There are no multi-state HMG groupings of meters.

Qualified Meter Technicians

Idaho Power has assigned two meter technicians to the operational area covering its Oregon service territory.

Policy Changes Requiring Commission Approval

Under the current ANSI standards and the Commission's Electric Metering Policy, Idaho Power believes all of its Oregon meters are correctly identified in PMGs. The Company continues to believe that the ANSI C12.1 and the Commission's Electric Metering Policy do not adequately address the in-service maintenance requirements for solid-stated meters with automated communication capabilities. That could result in significant, unnecessary, and costly meter maintenance programs in 2026 because the AMI meters are currently on a 16-year periodic test cycle. Longer periodic test cycles or alternative inspection programs should be explored prior to 2026 to avoid unnecessary maintenance expenses.