



What Are We Protecting Against?



Data Mining Incident Reports As Key Performance Indicators

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U.S. DEPARTMENT OF
ENERGY

Department of Energy

OE-417

Electric Emergency Incident & Disturbance Report

- **DOE mandatory reporting requirements for electric emergency incidents & disturbances**
- **DOE collects information from electric power industry as part of their overall national security responsibilities**
- **Form OE-417 must be used to report any disturbances**





Disturbance Reporting – OE-417

DOE requires Form OE-417 (Schedule 1 and lines 13-17 of Schedule 2) must be submitted within one hour of any of the following events:

1. Physical attack that causes major interruptions or impacts to critical infrastructure facilities or to operations
2. Cyber event that causes interruptions of electrical system operations
3. Complete failure or shutdown of the transmission or distribution system
4. Electric system separation “Islanding”
5. Uncontrolled loss of 300 MW or more of firm load for more than 15 minutes from a single incident
6. Load shed of 100 MW or more implemented under emergency operational policy
7. System-wide voltage reductions of 3 percent or more
- 3 8. Public appeals for reduction in electrical usage





Disturbance Reporting – OE-417

DOE requires Form OE-417 (Schedule 1 and lines 13-17 of Schedule 2 must be submitted within six hours of any of the following events:

9. Physical attack or vandalism that could potentially impact electric power system adequacy or reliability
10. Cyber event that could potentially impact electric power system adequacy or vulnerability
11. Loss of electric service to more than 50,000 customers for 1 hour or more
12. Fuel supply emergencies that could impact power system adequacy or reliability





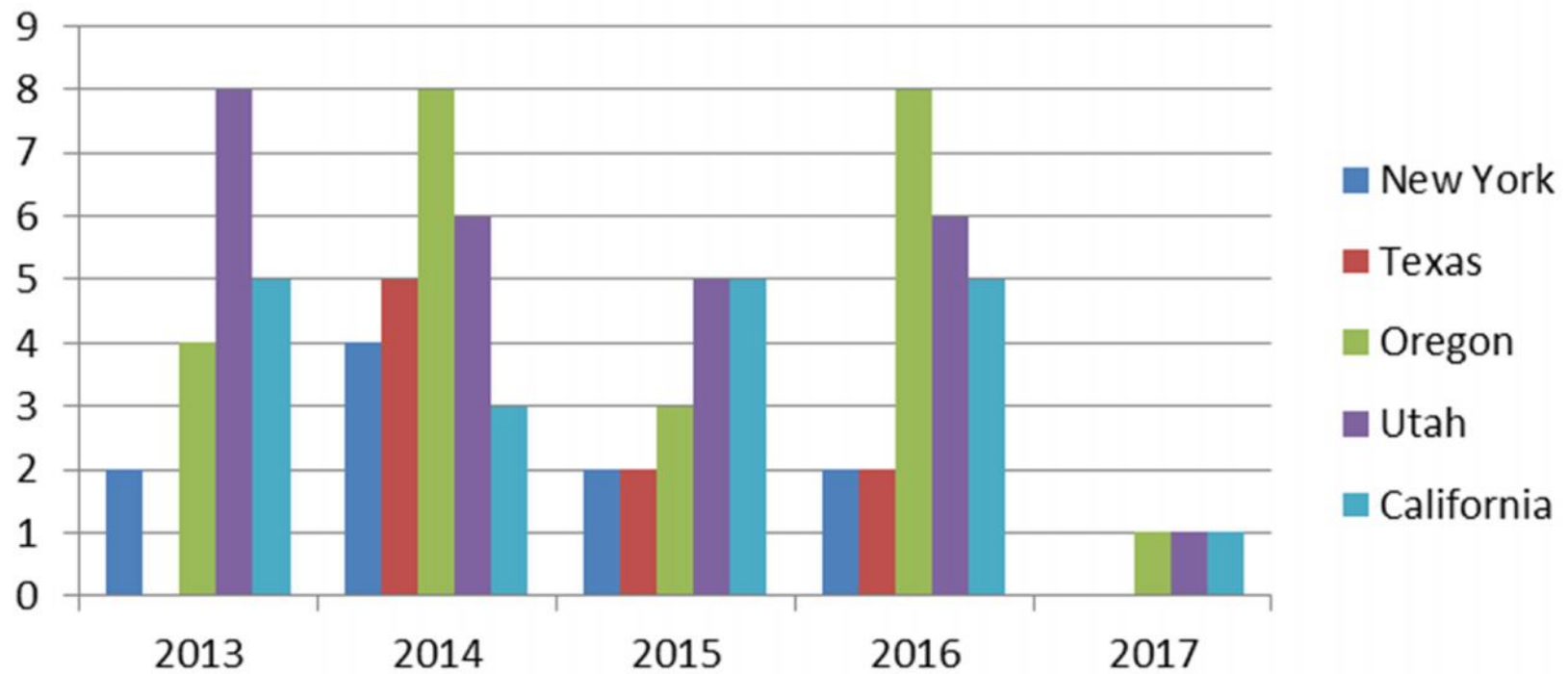
OE-417 Reported Physical & Cyber Security Events in California For 2016

Month	Area Effected	Event Type	Demand Loss	Customers Affected
October	Mendicino Co.	Actual Physical Event	0	0
October	Imperial Co.	Vandalism	0	0
November	Stanislaus Co. San Joaquin Co. Alameda Co. Tuolumne Co.	Cyber Attack	0	0
November	California	Vandalism	0	0
December	Riverside Co.	Cyber Event	0	0





EIA OE-417 Annual Report - Number of Physical Security Incidents by State





OE- 417 Reporting System Observations

- No apparent quality control
- Status of program not clear, webpage is dated 2012
- Data entries inconsistent
- No ability for followup or to find more information on recorded incident
- No indication of type of facility
- Limited value for evaluating physical security risks





CPUC Emergency Report

Reporting Requirements

Electric Utilities must report, within two hours during working hours and four hours outside of working hours, any incident which results in:

- Fatality or personal injury rising to the level of in-patient hospitalization;
- Are the subject of significant public attention or media coverage; or,
- Damage to property of the utility or others estimated to exceed \$50,000 and are attributable or allegedly attributable to utility owned facilities.

The utility should follow up with an email or fax update within 24-hours and a final report within 20 days. See excerpt from [Appendix B to D.06-04-055](#).





Insured Metal Theft Claims Take Dramatic Dive

**Metal Theft Claims from January 1, 2013 through
December 31, 2015**

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NICB: Insured Metal Theft Claims Take Dramatic Dive

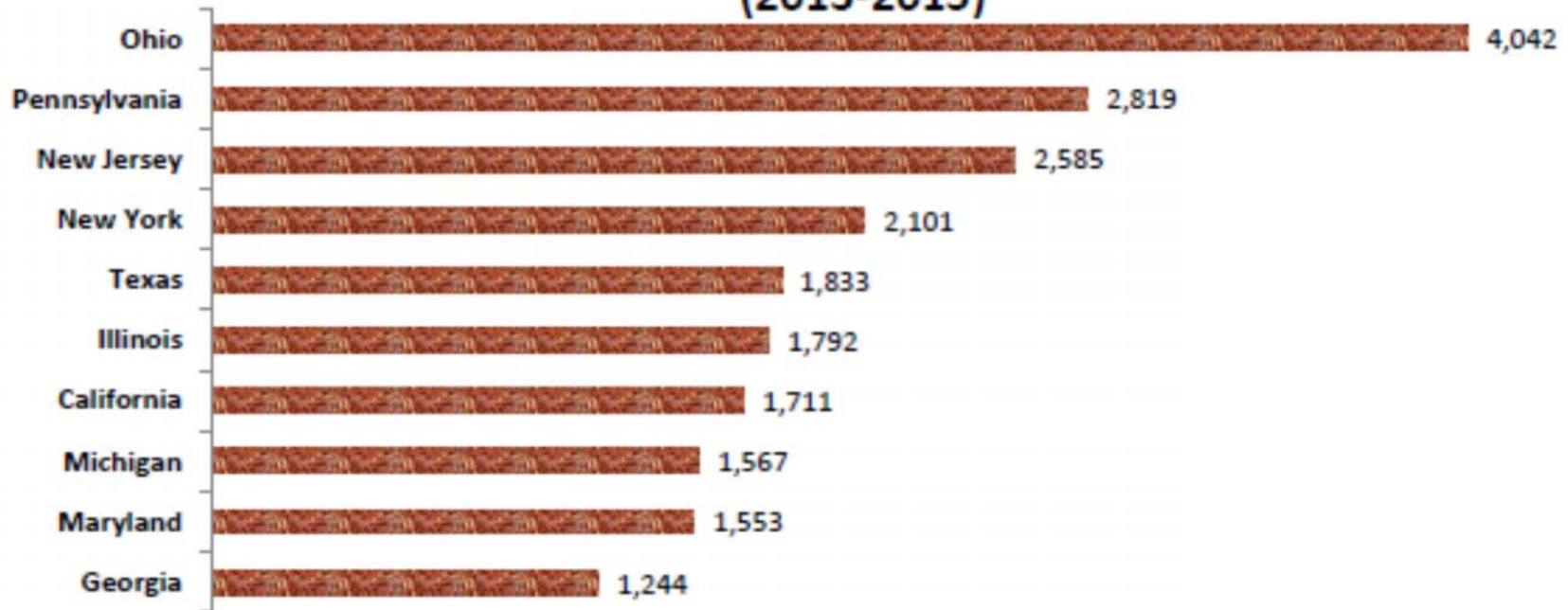
2015 Claims Decrease 23 Percent from 2014 Levels

DES PLAINES, Ill., Nov. 17, 2016 — In a dramatic drop-off that extends a multi-year trend, insured metal theft claims in 2015 were down 23 percent from 2014 levels and 29 percent over the past two years.





Ten States with Most Metal Theft Claims in ISO ClaimSearch (2013-2015)





Ten States with Most Metal Theft Claims in ISO ClaimSearch Per 100,000 Residents (2013-2015)





National Insurance Crime Bureau 2013-2015 Metal Theft Claims Per State

State	Claims	Population	Claims / 100,000 Resider	Rank by Number of Claims	Rank by Claims / 100,000 Resider
Nevada	395	2,890,845	13.664	23	16
New Mexico	254	2,085,109	12.182	33	18
New York	2101	19,795,791	10.613	4	24
Nebraska	162	1,896,190	8.543	38	27
Arizona	467	6,828,065	6.839	22	32
Texas	1833	27,469,114	6.673	5	33
Washington	342	7,170,351	4.770	25	38
Colorado	239	5,456,574	4.380	34	40
California	1711	39,144,818	4.371	7	41
Utah	93	2,995,919	3.104	43	43
North Dakota	11	756,927	1.453	47	44
Idaho	23	1,654,930	1.390	45	45
Oregon	48	4,028,977	1.191	44	47
Wyoming	4	586,107	0.682	51	48
Montana	7	1,032,949	0.678	48	49
Alaska	5	738,432	0.677	49 (tie)	50
South Dakota	5	858,469	0.582	49 (tie)	51





In Conclusion

- Current OE-417, CPUC Reporting applies only to major events
- Insurance industry use of metal theft claims could be example of potential key performance indicator for physical security
- Benchmarking of physical security on annual basis could be a vehicle for identifying highest priority distribution substations and meeting SB 699 reporting requirements

