

Zpryme Smart Grid Insights Presents (part 3 of 3 part series):

# Smart Meter Uprising:

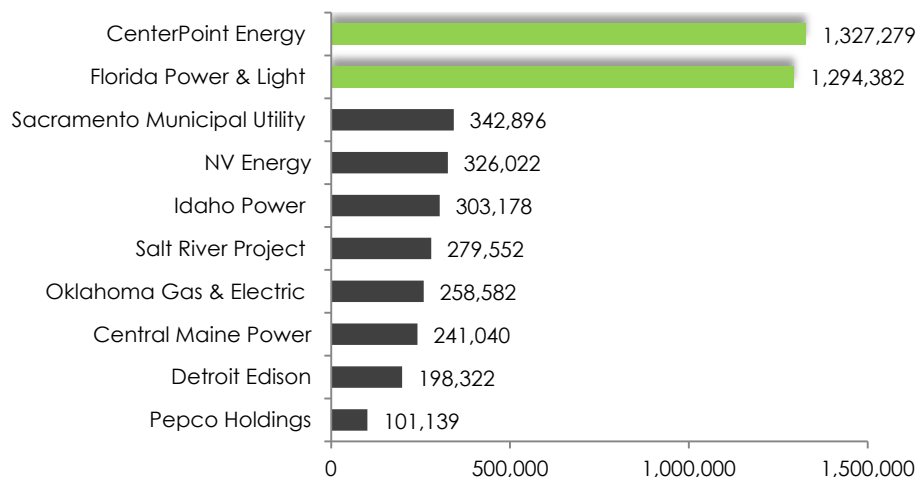
Led by CenterPoint and FPL, the top 10 SGIG projects by total expenditures and smart meters to date.

## U.S. Smart Meters at a Glance

Just days ago Oncor installed its two-millionth advanced smart meter in the Dallas suburb of Carrollton, Idaho Falls Power selected Elster for an AMI Smart Grid project, and Telvent was designated to implement Smart Grid solutions for Progress Energy Florida. Driven by Smart Grid Investment Grants (SGIG), these examples are just a taste of the wins that have manifested this past month in the U.S.

### Top 10 SGIG Projects by Total Smart Meters

as of August 30, 2011 (in millions)  
figure 1, source: smartgrid.gov



Back in 2009 the overall purpose of the SGIG was to accelerate the modernization of the U.S. electric transmission and distribution systems and promote investments in Smart Grid and related technology tentacles. Fast forward to September 2011 and utilities across the nation are finally starting to burst out of the

Smart Grid starting blocks. For example, CenterPoint Energy and Florida Power & Light (FPL) are the top 2 SGIG projects based on smart meters. Combined, CenterPoint and FPL have 2.6 million smart meters from their SGIG programs, 1.33 million and 1.29 million, respectively.

The smart meter roll-out is noticeably at a critical juncture. What the next-gen grid will be like a decade from now is still too difficult to predict, however the forces for change from both the public and private sector (and consumers) will be highly influential.

In this report Zpryme compiled and analyzed data from the 99 Smart Grid Investment Grant (SGIG) projects to identify the top 10 projects in terms of total expenditures to date, and by the number of smart meters that are installed and operational.

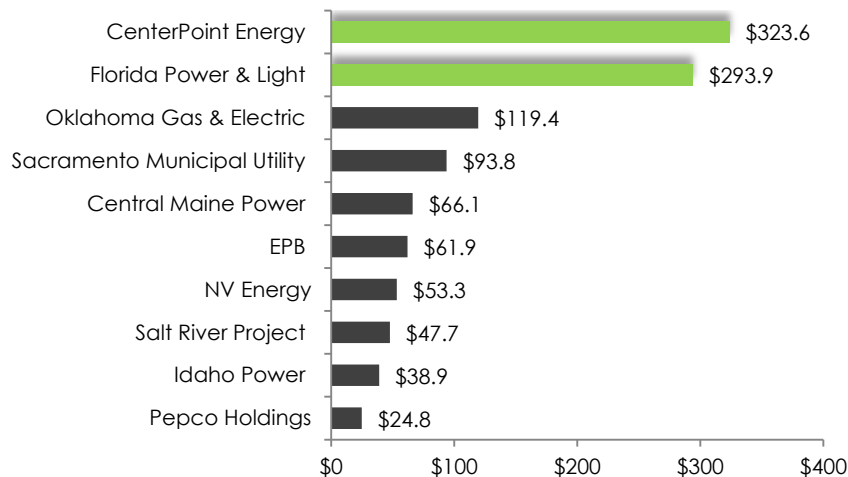
### Top 10 SGIG Projects by Total Expenditures to Date

- Combined, the top 10 SGIG projects have spent \$1.12 billion to date on their smart grid programs. Smart meters and communications networks and IT systems account for 77% and 22% of total spending, respectively. A small fraction of the total has been spent on customer systems (0.5%).
- Figure 1 shows that CenterPoint Energy and Florida Power & Light (FPL) are the top 2 SGIG projects based on total expenditures. Combined, these two utilities have spent \$617.6 million on their smart grid programs. Based on expenditures, CenterPoint and FPL have already deployed half (51%) of their smart

grid programs. CenterPoint and FPL have spent \$225.5 million and \$255.9 million, respectively, on smart meters. They have also spent \$96.1 million and \$37.8 million, respectively, on AMI communication networks and IT systems. Please see table 1 for spending details for each of the top 10 projects.

**Top 10 SGIG Projects by Total Expenditures to Date**

as of August 30, 2011 (in millions)  
figure 2, source: smartgrid.gov



- Oklahoma Gas & Electric, Sacramento Municipal Utility, and Central Maine Power are the 3rd, 4th, and 5th largest projects based on total expenditures. Combined, these three utilities have spent \$279.3 million on their smart grid programs. Based on expenditures, these utilities have already deployed about one-third (33%, 30%, and 34%, respectively) of their smart grid programs.
- The combined total project value for top 10 SGIG projects is \$2.9 billion; 39% of the total award value

of all SGIG projects, and 34% (\$1.2 billion) of SGIG ARRA funding for SGIG projects.

- The top 10 projects account for 43% of the total SGIG expenditures spent to date (\$2.6 billion) across all 99 SGIG projects.
- The top 10 projects account for 68% of the total AMI expenditures spent to date (\$1.7 billion) across all SGIG projects.

**Top 10 SGIG Projects by Total Smart Meters**

- The top 10 SGIG projects have 4.6 million installed and operation smart meters; accounting for 82% of all smart meters that are installed across all 99 SGIG projects (5.7 million). Please see table 2 for AMI and Customer System details for each of the top 10 projects.
  - The majority are at residential customer sites (4.3 million), with only 388,803 and 1,706 at commercial and industrial sites, respectively.
  - All meters allow for interval reads and are tamper proof. Just over half (2.4 million) of the meters have remote connect and disconnect features, and allow for outage detection and report.
  - Among the top 10 projects, 3.3 million customers have access to a web portal, but only 1.45 million are actually enrolled in a web

portal program. They have 2,143 in-home displays, 116 home energy management systems, 67 direct load control devices, and 1,856 programmable thermostats.

- Figure 2 shows that CenterPoint Energy and Florida Power & Light (FPL) are the top 2 SGIG projects based on smart meters. Combined, CenterPoint and FPL have 2.6 million smart meters from their SGIG programs, 1.33 million and 1.29 million, respectively.
- Sacramento Municipal Utility, NV Energy, and Idaho Power Company are the 3rd, 4th, and 5th largest projects based on total smart meters. Combined, they have 972,096 smart meters from their SGIG programs, 342,896, 326,022, and 303,178, respectively.

## Methodology

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Zpryme compiled and analyzed data from the 99 Smart Grid Investment Grant (SGIG) projects to identify the top 10 projects in terms of total expenditures to date, and by the number of smart meters that are installed and operational. The data in this report is current as of August 30, 2011. The expense figures in this report reflect the total expenditures on smart grid projects which have been awarded SGIG funds. The figures include both expenses paid for by SGIG funds and from recipient cost share funds. Please note that the figures reported on the SGIG program on [smartgrid.gov](http://smartgrid.gov) often change on a daily basis, and thus may not match the data in this report.

Table 1. **SGIG Expenditures by Segment – Top 12 Projects Ranked by Total Expenditures**

SGIG Project/Utility	Total Project Value	ARRA Funding	Total Expenditures To Date	% of Total Project Value	Smart Meters	AMI Communication Networks and Data Systems		Customer Systems, Devices and Equipment			
						Backhaul and Meter comm. Network	Head end server/Meter data analysis system / Other IT systems and applications	In-home Displays	Direct Load Control Devices	Programmable Thermostats	Smart Appliances
CenterPoint Energy	\$639,187,435	\$200,000,000	\$323,648,168	51%	\$225,454,274	\$53,425,294	\$42,652,860	\$2,115,740	-----	-----	-----
Florida Power & Light Company	\$578,963,314	\$200,000,000	\$293,906,228	51%	\$255,904,034	\$7,220,682	\$30,539,118	\$234,852	-----	-----	\$7,542
Oklahoma Gas and Electric	\$357,376,037	\$130,000,000	\$119,421,512	33%	\$94,390,630	\$18,908,848	\$3,072,666	\$1,016,597	-----	\$2,032,771	-----
Sacramento Municipal Utility District	\$308,406,477	\$127,506,261	\$93,754,466	30%	\$81,553,502	\$4,047,394	\$8,153,570	-----	-----	-----	-----
Central Maine Power Company	\$191,716,614	\$95,858,307	\$66,135,584	34%	\$49,095,274	\$12,740,212	\$4,300,098	-----	-----	-----	-----
EPB	\$226,707,000	\$111,567,606	\$61,949,000	27%	\$16,000,000	\$44,168,000	\$1,781,000	-----	-----	-----	-----
NV Energy, Inc.	\$275,755,812	\$137,877,906	\$53,314,554	19%	\$46,805,416	\$6,509,138	-----	-----	-----	-----	-----
Salt River Project	\$114,003,719	\$56,859,359	\$47,682,116	42%	\$47,682,116	-----	-----	-----	-----	-----	-----
Idaho Power Company	\$94,000,000	\$47,000,000	\$38,942,581	41%	\$31,008,977	\$6,688,060	\$1,215,998	-----	\$29,546	-----	-----
Pepco Holdings, Inc.-DC	\$89,161,098	\$44,580,549	\$24,811,596	28%	\$20,654,592	\$1,713,688	\$2,443,316	-----	-----	-----	-----
Pacific Northwest Generating Coop.	\$39,172,987	\$19,576,743	\$24,615,012	63%	\$15,608,964	\$8,705,838	\$274,980	-----	\$25,230	-----	-----
Detroit Edison Company	\$169,133,271	\$83,828,878	\$23,955,090	14%	\$23,831,180	-----	\$123,910	-----	-----	-----	-----

Source: Data compiled by Zpryme from smartgrid.gov as August 30, 2011.

Table 2. **SGIG AMI and Customer System Metrics for Top 12 Projects – Ranked by Total Smart Meters**

SGIG Project/Utility	Smart Meters Installed and Operational				AMI Smart Meter Features				Web Portal Deployed and Operational		Customer Systems, Devices and Equipment			
	Residential	Commercial	Industrial	Total	Interval reads	Remote connect/disconnect	Outage detection reporting	Tamper detection	Customers with access to web portal	Customers enrolled in web portal	In home displays	Energy MNGT. devices	Direct load control devices	Programmable thermostats
CenterPoint Energy	1,163,845	163,434	-----	1,327,279	1,327,279	1,163,845	1,163,845	1,327,279	1,314,659	5,274	504	-----	-----	-----
Florida Power & Light Company	1,221,524	72,805	53	1,294,382	1,294,382			2,161,439	1,294,382	1,294,382	195	116		116
Sacramento Municipal Utility District	326,687	16,209	-----	342,896	342,896	137,695	342,896		5,053	321	-----	-----	-----	-----
NV Energy, Inc.	326,022	-----	-----	326,022	326,022	321,535	326,022	326,022	73	73	-----	-----	-----	-----
Idaho Power Company	252,247	50,931	-----	303,178	303,178	-----	-----	-----	409,380	86,726	-----	-----	67	-----
Salt River Project	252,781	26,771	-----	279,552	279,552	243,949	-----	279,552	279,552	65,290	-----	-----	-----	-----
Oklahoma Gas and Electric	232,134	25,433	1,015	258,582	258,581	237,147	258,581	258,581	2,289	2,289	1,444	-----	-----	1,740
Central Maine Power Company	218,663	21,739	638	241,040	241,040	-----	-----	-----	-----	-----	-----	-----	-----	-----
Detroit Edison Company	187,892	10,430	-----	198,322	198,322	187,892	198,322	198,322	-----	-----	-----	-----	-----	-----
Pepco Holdings, Inc.-DC	100,088	1,051	-----	101,139	101,139	100,088	101,139	101,139	-----	-----	-----	-----	-----	-----
EPB	56,937	3,741	-----	60,678	60,678	-----	60,678	-----	-----	-----	-----	-----	-----	-----
Pacific Northwest Generating Coop.	29,249	4,055	1,204	34,508	34,504	918	15,956	19,516	-----	-----	-----	-----	11	-----

Source: Data compiled by Zpryme from smartgrid.gov as August 30, 2011.

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