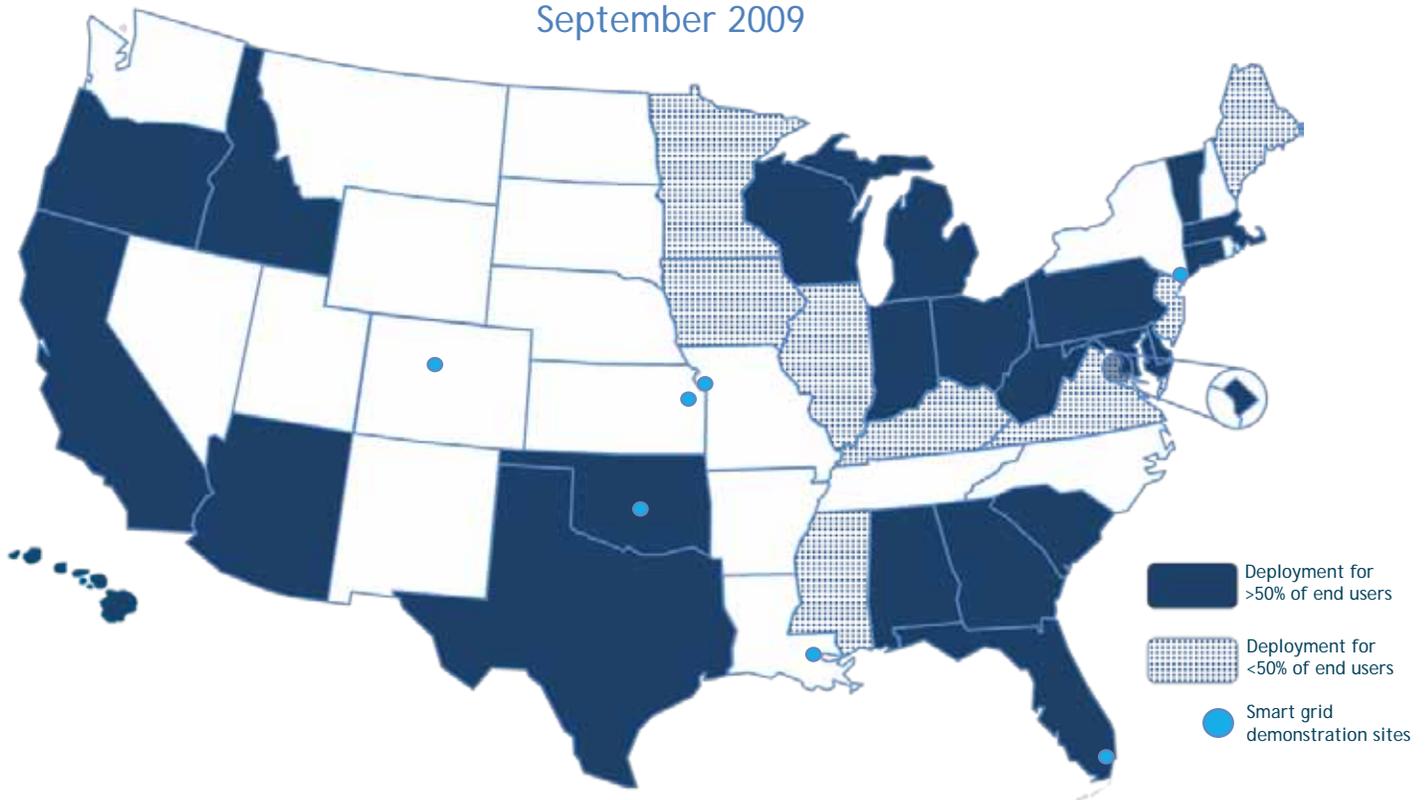


## Utility-Scale Smart Meter Deployments, Plans & Proposals September 2009



This map represents smart meter deployments, planned deployments, and proposals by investor-owned utilities and some public power utilities. Please note that smart meter deployments by rural electric cooperatives are not included in this table. A number of smart grid demonstration programs are highlighted in the second table on page four. This list is not a compilation of utility applications to the Department of Energy for Smart Grid funds made available through the American Reinvestment and Recovery Act (ARRA). An updated version will be released after those grants have been awarded. For more information, visit [www.edisonfoundation.net/IEE/](http://www.edisonfoundation.net/IEE/).

Utility	State	Meters	Notes	Resources
<b>Southern Company</b>	AL, FL, GA, MS	4,300,000	The utility plans to deploy smart meters throughout its service area; GA Power has deployed 750K meters out of a planned 2.16M; Alabama Power has deployed 450K of 1.2M; projected to reach full deployment by 2012-13, but the utility is seeking ARRA funds to accelerate the program	GA Power smart meter page <sup>1</sup> ; AL Power smart meter page and rollout map <sup>2</sup> ; Reuters press release <sup>3</sup> ; Greentech Media article <sup>4</sup>
<b>AZ Public Service</b>	AZ	800,000	Expected completion in 2013. APS customers can enroll in the Time Advantage Plan, a time-of-use (TOU) rate structure.	APS News Release <sup>5</sup> ; <a href="http://www.aps.com/smartmeter/">www.aps.com/smartmeter/</a>
<b>Salt River Project</b>	AZ	400,000	Completed in 2008 (now seeking ARRA funds); coupled with a TOU rate	SRP Smart Meter Page <sup>6</sup> ; <a href="http://metering.com">metering.com</a> <sup>7</sup> ; Phoenix Business Journal article <sup>8</sup>

Utility	State	Meters	Notes	Resources
<b>Sacramento Municipal Utility District</b>	CA	620,000	The utility board approved a 30-month rollout of the meters in June 2009.	Sacramento Bee article <sup>9</sup>
<b>Southern California Edison</b>	CA	5,300,000	Deployment begun in June 2009, full deployment by 2012; Peak-time rebate (PTR) rate structure	SCE Presentation, IEE Issue Briefs page <sup>10</sup>
<b>Pacific Gas &amp; Electric</b>	CA	5,100,000	Full deployment by 2012; Critical peak pricing (CPP) rate structure, voluntary SmartRate program	PG&E Presentation, IEE Issue Briefs page <sup>10</sup>
<b>San Diego Gas &amp; Electric</b>	CA	1,400,000	Expected deployment by 2011; PTR rate structure	<a href="http://www.sdge.com/smartmeter/">http://www.sdge.com/smartmeter/</a>
<b>Connecticut Light &amp; Power</b>	CT	1,200,000	CL&P delaying deployment of 1.2 million smart meters until after a pilot is performed in 2009. The pilot includes TOU, CPP and PTR rates.	<a href="http://www.cga.ct.gov/">http://www.cga.ct.gov/</a>
<b>PEPCO Holdings</b>	DC, DE, MD, NJ, VA	1,900,000	Proposed for entire service area with a target date for full deployment of 2013; 258,000 deployed (as of 1/09) with a pricing pilot testing hourly pricing, CPP, and PTR rate structures; DC approved PR18-0311 for AMI	PEPCO press release <sup>11</sup> ; washingtoninformer.com article <sup>12</sup> ; www.dccouncil.washington.dc.us/
<b>FPL</b>	FL	4,400,000	FPL has performed two pilots of 50,000 meters each and plans to deploy smart meters throughout their service territory. The completion date has not been released.	<a href="http://www.fpl.com/">http://www.fpl.com/</a>
<b>HECO</b>	HI	430,000	HECO plans to complete smart meter deployment between 2009 and 2015	Energy Efficiency News <sup>13</sup> ; <a href="http://www.heco.com">http://www.heco.com</a>
<b>Alliant Energy</b>	IA, MN, WI	1,000,000	Deployment began in WI in 2008, expected to reach completion by 2011; deployment in IA & MN expected to begin in 2010	<a href="http://alliantenergy.com/ami">alliantenergy.com/ami</a>
<b>Idaho Power</b>	ID	475,000	Original 2007 pilot extended; full deployment expected by 2011	Idaho Power press release <sup>14</sup> & AMI FAQ page <sup>15</sup>
<b>Ameren</b>	IL	1,100,000	Ameren began their smart meter deployment in 2006 and reached 50% of their installation target by June 2008	Landis+Gyr press release <sup>16</sup>
<b>Commonwealth Edison</b>	IL	141,000	ComEd has chosen a smart meter manufacturer for a pilot in the greater Chicago area and is in the planning process for deployment through their service territory	<a href="http://www.exeloncorp.com">www.exeloncorp.com</a> ; Yahoo finance article <sup>17</sup>
<b>AEP<sup>18</sup></b>	IN, KY, MI, OH, OK, TX, VA, WV	5,000,000	Full deployment by 2015, one-fifth by 2010; partnered with GE to deploy equipment and technology	AEP Corporate Sustainability Report 2008 <sup>19</sup>
<b>Duke Energy</b>	KY, IN, OH, SC	2,400,000	KY: Seeking federal funding for 100,000 meters, awaiting approval; OH: 48,000 meters deployed out of 700,000 in entire service territory; IN: Filed in 2008 with a proposed five-year rollout of 800,000 meters, approval pending; SC: Filed in 2008 with an unidentified time frame for 800,000 meters, approval pending	Business Courier of Cincinnati <sup>20</sup> , Charlotte Business Journal <sup>21</sup> ; <a href="http://cincinnati.com">cincinnati.com</a> article <sup>22</sup>
<b>State Program</b>	MA	2,600,000	The MA Green Communities Act mandates that a smart meter pilot be conducted for 5,000 homes, potentially followed by a state-wide rollout.	<a href="http://www.mass.gov/">http://www.mass.gov/</a>

Utility	State	Meters	Notes	Resources
Allegheny Power	MD, PA, WV	1,140 installed; 708,000 planned	Allegheny launched pilots in Morgantown, WV and Urbana, MD to test smart meters and thermostats. The utility has submitted a plan to deploy smart meters to their entire PA service territory (August 2009).	Allegheny Power 2008 Annual Report <sup>23</sup> , MD H.B. 1072
Baltimore Gas & Electric	MD	2,000,000	BG&E began with a smart meter pilot of 3,000 meters in 2008; aims to deploy smart meters throughout their service territory with a planned completion date of 2014, approval expected by December 2009	Constellation (BG&E) press release <sup>24</sup> ; Baltimore Business Journal <sup>25</sup>
Bangor Hydro-Electric	ME	120,000	BHE has deployed 2-way smart meters to 97% of their service territory and plan to complete deployment to the remaining 3% in 2009-10.	Email correspondence (04/17/09), www.bhe.com
DTE	MI	4,000,000	30,000 tested in Grosse Ile Township; Full deployment expected to begin in 2009 and be completed by 2014	DTE press release <sup>26</sup>
Portland General Electric	OR	850,000	Approved in 2008, full deployment expected to be completed in 2010	PGE Earnings Report <sup>27</sup>
State Program	PA	6,000,000	Act 129 (signed 10/15/2008) mandates that EDCs with >100,000 customers must provide smart meters either to customers that request one, for newly constructed buildings, or to all customers within fifteen years. PECO Energy is seeking approval to install 1.6M smart meters within ten years. Duquesne Light will offer 8,000 meters to customers by 2013.	PA Act 129 <sup>28</sup> , smartmeters.com article <sup>29</sup> ; SNLi article <sup>30</sup> ; Pittsburgh Tribune-Review <sup>31</sup>
Austin Energy	TX	234,000	Approved in 2008, full deployment underway and expected to be complete by January 2010	metering.com <sup>32</sup> ;
CenterPoint	TX	2,000,000	CenterPoint Houston received approval in 2008 to install an advanced metering system across its service territory; 45K installed as of August 2009, to be completed by 2014	CenterPoint 2008 Annual Report <sup>33</sup>
Oncor	TX	3,000,000	Originally a deployment of 600,000, program expanded for all customers in north Texas; full deployment by 2012	Dallas Morning News <sup>34</sup>
Texas New Mexico Power	TX	230,000	A trial of 10,000 meters was announced in early 2009; utility seeks to expand meters to entire service territory by 2013	TNMP press release <sup>35</sup>
Dominion	VA	200,000	Deployment to begin in 2009 for a pilot project in northern Virginia	metering.com <sup>36</sup>
Central VT Public Service	VT	156,000	CVPS deployment expected between 2011-2013	CVPS press release <sup>37</sup> ;
Vermont utilities, Efficiency Vermont	VT	174,000 (excl. CVPS)	VT Department of Public Service worked with VT's 20 utilities to extend smart grid technologies across the state;	Burlington Free Press <sup>38</sup>
<b>Total</b>		<b>58,283,000</b>		

This table illustrates planned and proposed deployments of smart meters across the United States in the next decade. If full deployment for each of these proposals is achieved, a **total of 58,283,000 meters will be installed and operable by 2019**. According to EIA's forecast for 2020, **this represents roughly 45% of U.S. households**.<sup>39</sup>

## Smart Grid Demonstration Projects

A number of smart grid demonstration projects are either underway or have been proposed that are designed to investigate how a combination of smart grid technologies, such as advanced distribution technologies, web portals, in-home displays, automation, and smart appliances, will impact consumers' energy use. Unlike the utility-scale deployments summarized above, demos are typically smaller and focus on a single municipal area.

Utility	Location	Details
<b>Xcel</b>	Boulder, CO	The "SmartGrid City" pilot aims to connect the entire city population (100,000) with smart grid technology, including smart meters, in-home automation, and web portals (pending ARRA funding).
<b>Kansas City Power &amp; Light</b>	Kansas City, MO	KCP&L's "Green Impact Zone" will target a 150-block area in Kansas City to reduce CO <sub>2</sub> emissions and energy bills through weatherization, smart meters, and demand response.
<b>Westar</b>	Lawrence, KS	The "SmartStar Lawrence" concept will include installation of "smart" meters, interactive Web access, technology enhancements and improved service in Lawrence.
<b>Florida Power &amp; Light</b>	Miami, FL	FPL's "Energy Smart Miami" program aims to deploy smart grid technology to 1M+ customers in their Miami/Dade County service territory by 2011.
<b>Entergy New Orleans</b>	New Orleans, LA	Pending the assignment of ARRA funds, Entergy will deploy 11,500 smart meters and other smart grid technology to low-income households in New Orleans.
<b>Consolidated Edison</b>	New York, NY	Con Edison announced a smart grid pilot for northwest Queens in August 2009 to test AMI, web portals and in home automation for about 1,500 customers.
<b>Oklahoma Gas &amp; Electric</b>	Norman, OK	The "Positive Energy® Smart Power Program" is part of OG&E's planned deployment of 42,000 smart meters. 2,000 of those customers will have devices installed to help them track their energy use more closely.

*Note: This list will continue to expand as smart grid funds are awarded by DOE. For further details or to submit information on additional demonstration projects, please contact Matthew McCaffree, Manager of Electric Efficiency, at [mmccaffree@edisonfoundation.net](mailto:mmccaffree@edisonfoundation.net).*

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*Note: This map shows the extent of smart meter deployments by electric utilities that are either completed, underway, or planned with a completion date of 2019 or before. For the purposes of this reference, smart meters are defined as advanced meters that allow for two-way communication and real-time analysis of electricity consumption. This map does not include automatic meter reading (AMR) installations. Information was compiled using the latest public data available as of August 31, 2009. Readers are encouraged to verify the most recent developments by contacting the appropriate utility.*

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