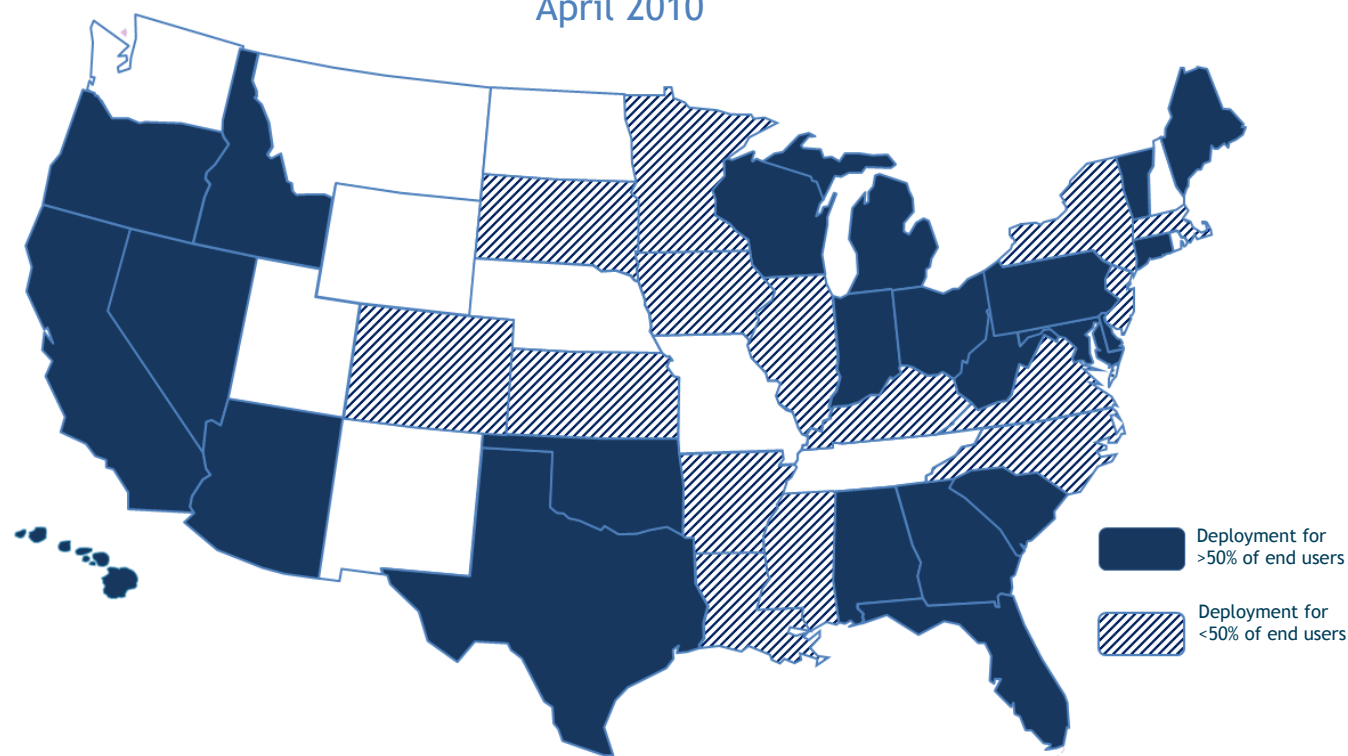


Utility-Scale Smart Meter Deployments, Plans & Proposals

April 2010



This map and table summarize smart meter deployments, planned deployments, and proposals by investor-owned utilities and some public power utilities. The program descriptions include the target number of meters to be deployed for each utility in the **Meters** column, with approximate numbers of meters deployed to date included in the **Notes** column whenever possible. When applicable, details of Smart Grid Investment Grants (SGIG) awards through the American Reinvestment and Recovery Act (ARRA) are included. Please note that smart meter deployments by rural electric cooperatives, though extensive, are not included in this table. For more information and other smart grid resources, please visit www.edisonfoundation.net/IEE/.

Utility	State	Target Number of Meters	Notes	Resources
AEP ¹	IN, KY, MI, OH, OK, TX, VA, WV	5,000,000	AEP plans on deploying smart meters to all customers within their service territory and have deployed 10,000 meters to customers in South Bend, IN, and are presently deploying another 700,000 to AEP-Texas customers. Timing for the remaining deployments will depend on specific conditions in each of the seven operating company subsidiaries.	AEP Corporate Sustainability Report 2009 ²
Allegheny Power	MD, PA, WV	700,000	Allegheny launched pilots in Morgantown, WV and Urbana, MD to test smart meters and thermostats (1,140 meters installed). In PA, Act 129 (2008) requires electric distribution companies with more than 100,000 customers to file a smart meter technology procurement and installation plan for Commission approval. Allegheny's plan to deploy smart meters throughout their service territory was rejected in October 2009 and a revised smart meter plan is currently being drafted.	Allegheny Power 2008 Annual Report ³ , MD H.B. 1072

Utility	State	Target Number of Meters	Notes	Resources
Allete (d/b/a Minnesota Power)*	MN	8,000	Minnesota Power was awarded \$1.54 million (total project value, \$3.08 M) to expand its existing smart meter network by deploying another 8,000 meters in northeastern MN. The utility will also begin a dynamic pricing program.	www.energy.gov/recovery/
Alliant Energy	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	alliantenergy.com/ami
Ameren	IL	1,100,000	Ameren began their smart meter deployment in 2006 and reached 50% of their installation target by June 2008. Full deployment is expected by 2011-12.	Landis+Gyr press release ⁴
Austin Energy	TX	234,000	Austin Energy's smart meter program was approved in 2008, full deployment is underway and is expected to reach completion in 2010.	metering.com ⁵
AZ Public Service	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 ⁶ ; www.aps.com/smartmeter/
Baltimore Gas & Electric	MD	2,000,000	BG&E began with a smart meter pilot of 3,000 meters in 2008 and was awarded \$200M in SGIG funds (\$452M total project value) to deploy 1.1M smart meters, coupled with dynamic pricing. The utility aims to deploy smart meters throughout their service territory with a planned completion date of 2014, approval pending.	www.energy.gov/recovery/ ; Constellation (BG&E) press release ⁷ ; Baltimore Business Journal ⁸
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
Black Hills/Colorado Electric Utility Co.	CO	42,000	The utility received \$6.1M in SGIG funds (\$12.2M total project value) to install meters and communications infrastructure.	www.energy.gov/recovery/
Black Hills Power	SD	69,000	Black Hills was awarded \$5.59M in ARRA funds (\$11.2M total project value) to install smart meters, upgrade ICT infrastructure, and other equipment. The upgrades will also benefit customers in MN and SD.	www.energy.gov/recovery/
CenterPoint	TX	2,200,000	CenterPoint Houston received approval in 2008 to install an advanced metering system across its service territory, and was awarded \$200M in SGIG funds (\$639M total project value) to complete installation of meters throughout its service territory.	CenterPoint 2008 Annual Report ⁹ ; www.energy.gov/recovery/
Central Maine Power Company	ME	650,000	The utility was awarded \$96M in SGIG funds (\$196M total project value) to install a smart meter network for all customers in their service territory.	www.energy.gov/recovery/
Central VT Public Service/VT Transco	VT	300,000	A SGIG award of \$69M (\$138M total project value) is designed to help expand the deployment of smart meters from the present 28,000 to 300,000, along with installation of demand response technologies and other infrastructure.	www.energy.gov/recovery/ ; CVPS press release ¹⁰
Cleco Power	LA	275,000	\$20M in SGIG funds (\$62.5M total project value) were awarded to the utility to install a smart meter network for the utility's entire service territory.	www.energy.gov/recovery/

Utility	State	Target Number of Meters	Notes	Resources
Commonwealth Edison	IL	131,000	ComEd is running a pilot in the greater Chicago area to install smart meters in 131,000 homes, including a customer applications experiment for approximately 8,500 households where combinations of dynamic pricing and in-home displays will be tested during 2010. This pilot will help determine full deployment throughout service territory.	www.exeloncorp.com ; Yahoo finance article ¹¹
Connecticut Light & Power	CT	1,200,000	Based on results of their 2009 pilot, CL&P has filed plans to deploy smart meters to all 1.2 million of its customers between 2012 and 2016. Under the plan, all CL&P customers would also automatically switch to “opt-out” dynamic prices: PTR rates for low-income customers and TOU rates for all other customers.	http://www.cga.ct.gov/
Dominion	VA	200,000	Dominion has installed smart meters in Midlothian and is currently installing smart meters in Charlottesville to test the technology before moving forward with future deployments. Plans for 2010 installations are currently under development, pending Commission approval.	www.dom.com ; metering.com ¹²
DTE	MI	4,000,000	DTE initially tested 30,000 meters in Grosse Ile Township and was awarded \$84M in SGIG funds (\$168M total project value) to deploy a network of 660,000 smart meters. A dynamic pricing pilot for 5,000 customers will also be implemented. The grant will support DTE’s “SmartCurrents” program, which the utility hopes to scale to full deployment of smart meters.	www.energy.gov/recovery/ ; DTE press release ¹³ ; annarbor.com article ¹⁴
Duke Energy	KY, IN, OH, NC, SC	2,400,000	Duke was awarded \$200M in SGIG funds (\$851M total project value) for a grid modernization project, including the deployment of 1.4M smart meters. The funding helps move Duke’s plans to deploy meters throughout its service territory. 48,000 meters have already been deployed in OH and they filed a proposal for a five-year rollout of 800,000 meters in IN.	www.energy.gov/recovery/ ; Business Courier of Cincinnati ¹⁵ ; Charlotte Business Journal ¹⁶ ; cincinnati.com article ¹⁷
Entergy New Orleans	LA	11,000	The utility was awarded \$5M (\$10M total project value) to install smart meters, coupled with dynamic pricing, in low-income households in New Orleans.	www.energy.gov/recovery/
FPL	FL	4,400,000	FPL was awarded \$200M in SGIG funds (\$578M total project value) to move forward with their Energy Smart Florida program, which includes 2.6M smart meters for customers in south Florida. FPL plans to deploy smart meters throughout their service territory.	www.energy.gov/recovery/ ; http://www.fpl.com/
Hawaii Electric Company	HI	450,000	HECO was awarded ARRA funds, but did not include smart meters in their proposal. However, the utility is planning to deploy smart meters throughout their service territory by mid-decade.	Energy Efficiency News ¹⁸ ; http://www.heco.com
Idaho Power	ID	475,000	Original 2007 pilot extended to the entire service territory. Idaho Power received \$47M (\$94M total program cost) of SGIG funds to install meters and other infrastructure, with full deployment expected by 2011.	Idaho Power press release ¹⁹ & AMI FAQ page ²⁰

Utility	State	Target Number of Meters	Notes	Resources
Indianapolis Power & Light	IN	28,000	IP&L was awarded \$20M in SGIG funds (total program cost, \$48.78M) to deploy smart meters along with complementary technologies in their service territory.	www.energy.gov/recovery/
Madison Gas & Electric	WI	1,750	\$5.5M in SGIG funds (\$11M total project value) were awarded to the utility to install a smart grid network, including meters, EV charging stations, and in-home charging management systems.	www.energy.gov/recovery/
National Grid	MA, NY	54,400	Under the MA Green Communities Act, all four utilities must submit plans for a smart grid pilot. National Grid's is currently being considered by the Commission and, if approved, would deploy 15,000 smart meters to customers in the Worcester area. National Grid has also proposed a smart grid demonstration program in the Syracuse area, that includes a planned deployment of 39,400 meters.	www.smartmeters.com ²¹ ; www.mass.gov/dpu
NSTAR	MA	3,000	NSTAR has submitted a plan to the Commission for a pilot project in Newton and Hopkinton. A decision is pending.	www.smartmeters.com ²¹ ; www.mass.gov/dpu
NV Energy	NV	1,300,000	\$138M in SGIG funds (\$298M total project value) was awarded to the utility to integrate smart grid technologies, including smart meters for 1.3M customers.	www.energy.gov/recovery/
Oklahoma Gas & Electric	OK, AR	771,000	OGE was awarded \$130M in SGIG funds (\$293M total project value) to deploy a smart grid network to the entire service territory, including meters and dynamic pricing options.	www.energy.gov/recovery/
Oncor	TX	3,000,000	Originally a deployment of 600,000, program expanded for all customers in north Texas; full deployment expected by 2012.	Dallas Morning News ²²
Pacific Gas & Electric	CA	5,100,000	The utility expects to reach full deployment by 2012. A critical peak pricing (CPP) rate structure is in place for some customers along with a voluntary SmartRate program.	PG&E Presentation, IEE Issue Briefs page ²³
PECO Energy Company	PA	600,000	PECO received the maximum ARRA award of \$200M (\$422M total project value) to upgrade communication infrastructure and support a smart meter network for 600,000 customers. Depending on the success of the program, PECO is planning on extending smart meters to all 1.6M customers.	www.energy.gov/recovery/
PEPCO Holdings	DC, DE, MD, NJ, VA	1,900,000	PEPCO received \$149.4M in SGIG funds (\$298M total combined value for two projects) for smart grid investments, including 280,000 smart meters for DC customers and 570,000 meters for MD customers. PEPCO originally proposed deployment for the entire service area with a target date for full deployment of 2013; 258,000 were deployed by January 2009 with a pricing pilot testing hourly pricing, CPP, and PTR rate structures.	www.energy.gov/recovery/ ; PEPCO press release ²⁴ ; washingtoninformer.com article ²⁵ ; www.dccouncil.washington.dc.us/
Portland General Electric	OR	850,000	PGE's program was approved in 2008, full deployment is expected to be completed by the fall of 2010.	PGE Earnings Report ²⁶ ; PGE Smart Meters web page ²⁷

Utility	State	Target Number of Meters	Notes	Resources
Progress Energy	NC, SC	160,000	The multi-state utility was awarded \$200M in SGIG funds (\$520M total project value) for a smart grid virtual power plant, including installation of smart meters throughout its service territory in the Carolinas.	www.energy.gov/recovery/
Sacramento Municipal Utility District	CA	620,000	The utility board approved a 30-month rollout of the meters in June 2009 and the utility was awarded \$127.5M in SGIG funds (\$307.7M total project value) to install meters throughout their service territory along with dynamic pricing, 100 EV charging stations, and 50,000 demand response controls.	Sacramento Bee article ²⁸ ; www.energy.gov/recovery
Salt River Project	AZ	935,000	The utility received an additional \$56.8M in SGIG funds (total program cost, \$114M) to add an additional 540,000 smart meters to the nearly 400,000 already deployed. The program will also include dynamic pricing structures.	SRP Smart Meter Page ²⁹ ; metering.com ³⁰ ; Phoenix Business Journal article ³¹
San Diego Gas & Electric	CA	1,400,000	SDG&E was awarded \$28.1M in SGIG funds (\$60.1M total project value) to deploy smart meters throughout their service territory.	http://www.sdge.com/smartmeter/
Southern California Edison	CA	5,300,000	Deployment began in June 2009, with full deployment expected by 2012. A peak-time rebate (PTR) rate structure available to some customers.	SCE Presentation, IEE Issue Briefs page ²³
Southern Company	AL, FL, GA, MS	4,300,000	Southern Co. was awarded \$165M in SGIG funds (total program cost, \$330M) to upgrade necessary infrastructure. Plans to deploy smart meters throughout its service area continue; 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.	www.energy.gov/recovery ; GA Power smart meter page ³² ; AL Power smart meter page ³³ ; Reuters press release ³⁴ ; Greentech Media article ³⁵
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. Duquesne Light will offer 8,000 meters to customers by 2013.	PA Act 129 ^{28,36} , smartmeters.com article ³⁷ ; SNLi article ³⁸ ; Pittsburgh Tribune-Review ³⁹
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 ⁴⁰
Vermont utilities, Efficiency Vermont	VT	174,000	VT Department of Public Service worked with VT's 20 utilities to extend smart grid technologies across the state. This program was launched prior to the SGIG funds awarded to VT Transco in October 2009.	Burlington Free Press article ⁴¹
Westar Energy	KS	48,000	Westar was awarded \$19.04M in SGIG funds (total project value, \$39.29M) to transition Lawrence, KS into a smart energy city, including smart meter installation and other smart infrastructure. It is expected to take between 24 and 36 months to implement.	Marketwire.com article ⁴²
Total		59,940,150		

This table illustrates planned and proposed deployments of smart meters across the United States in the next decade, including meter deployments funded through Smart Grid Investment Grants awarded through the Department of Energy. If full deployment for each of these proposals is achieved, a total of 59,940,150 meters will be installed and operable by
www.edisonfoundation.net/IEE

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1. AEP also has service territories in AR, TN, and LA but have not been included in the map due to the small number of customers they represent in terms of the total number of end-users in those states. AEP customers in these service territories will also receive smart meters under the utility's plan.
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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 February 1, 2010. Readers are encouraged to verify the most recent developments by contacting the appropriate utility or regulatory body.

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