Attachment A

# Smart Grid Legislative and Regulatory Proceedings

November 15, 2011

**Prepared by SAIC** 



Prepared for the Energy Information Administration

Contents		Minnesota	58
Table of Acronyms	iv	Mississippi	59
Executive Summary	v	Missouri	60
Introduction	1	Montana	62
Alabama	10	Nebraska	64
Alaska	11	Nevada	65
Arizona	13	New Hampshire	68
Arkansas	14	New Jersey	70
California	16	New Mexico	73
Colorado	21	New York	76
Connecticut	23	North Carolina	79
Delaware	25	North Dakota	81
District of Columbia	27	Ohio	83
Florida	29	Oklahoma	85
Georgia	30	Oregon	86
Hawaii	32	Pennsylvania	88
Idaho	34	Rhode Island	90
Illinois	36	South Carolina	92
Indiana	39	South Dakota	94
lowa	41	Tennessee	96
Kansas	43	Texas	97
Kentucky	45	Utah	100
Louisiana	47	Vermont	102
Maine	49	Virginia	105
Maryland	52	Washington	107
Massachusetts	54	West Virginia	109
Michigan	56	Wisconsin	111

Wyoming

113

# Table of Acronyms

	• 
Abbreviation	Name
АВ	Assembly Bill
ACC	Arizona Corporation Commission
ACEEE	American Council for an Energy-Efficient Economy
ADS	Association for Demand Response and Smart Grid
AEP	American Electric Power
AERS	Alternative Energy Resource Standard
AMI	Advanced Metering Infrastructure
APS	Arizona Public Service
ARRA	American Recovery and Reinvestment Act
BGE	Baltimore Gas & Electric
BPA	Bonneville Power Administration
BPU	Board of Public Utilities
CAISO	California Independent System Operator
СНР	Combined Heat and Power
CL&P	Connecticut Light and Power
СМР	Central Maine Power
СРР	Critical Peak Pricing
CVPS	Central Vermont Public Service
DG	Distributed Generation
DOE	Department of Energy
DPU	Department of Public Utilities
DRCC	Demand Response Coordinating Committee
DRWG	Demand Response Working Group
DSM	Demand Side Management
EDC	Electric Distribution Company
EERS	Energy Efficiency Resource Standard(s)
EISA	Energy Independence and Security Act
EPAct	Energy Policy Act
ETO	Energy Trust of Oregon
FEECA	Florida Energy Efficiency and Conservation Act
FERC	Federal Energy Regulatory Commission
FPL	Florida Power and Light
GW	Gigawatt
GWh	Gigawatt-hour
(	

Abbreviation	Name
НВ	House Bill
HCR	House Concurrent Resolution
HF	House File
HJR	House Joint Resolution
HOA	Homeowners Association
НР	House Paper
HR	House Resolution
HSB	House Study Bill
ICC	Illinois Commerce Commission
IOU	Investor Owned (Electric) Utility
IPL	Interstate Power and Light
IRP	Integrated Resource Plan
ISO	Independent System Operator
IUB	Iowa Utilities Board
IURC	Indiana Utility Regulatory Commission
ксс	Kansas Corporation Commission
KCP&L	Kansas City Power and Light
kV	Kilovolt
kW	Kilowatt
kWh	Kilowatt-hours
LB	Legislative Bill
LD	Legislative Decision
LR	Legislative Resolution
LEED	Leadership in Energy and Environmental Design
LIPA	Long Island Power Authority
MISO	Midwest Independent Transmission System Operator
MW	Megawatt
MWh	Megawatt-hour
NCEP	National Council on Electricity Policy
NCUC	North Carolina Utilities Commission
NEEA	Northwest Energy Efficiency Alliance
NPCC	Northwest Power and Conservation Council
OCC	Oklahoma Corporation Commission
PBF	Public Benefits Fund

Abbreviation	Name
PEPCO	Potomac Electric Power Company
PGE	Portland General Electric
PJM	Pennsylvania, New Jersey and Maryland (Interconnection)
PNM	Public Service Company of New Mexico
PRC	Public Regulation Commission
PSB	Public Service Board
PSC	Public Service Commission
PSO	Public Service Company of Oklahoma
PUC	Public Utility Commission
PURPA	Public Utility Regulatory Policies Act
PV	Photovoltaic
QF	Qualifying Facility
RCA	Regulatory Commission of Alaska
REC	Renewable Energy Credit(s)
REPS	Renewable Energy and Energy Efficiency Portfolio Standard(s)
RETA	Renewable Energy Transmission Authority
RIM	Ratepayer Impact Measure test
RMP	Rocky Mountain Power
RTP	Real Time Pricing
SB	Senate Bill
SCC	State Corporation Commission
SCR	Senate Concurrent Resolution
SCE	Southern California Edison
SEP	State Energy Plan
SEU	Sustainable Energy Utility
SGIC	Smart Grid Information Clearinghouse
SP	Senate Paper
SWEEP	Southwest Energy Efficiency Project
ТЕР	Tucson Electric Power
TOU	Time of Use
TVA	Tennessee Valley Authority
WUTC	Washington Utilities and Transportation Commission

## **Executive Summary**

This report reviewed available legislation and/or regulation related to smart grid available in open source information for all 50 States and the District of Columbia. Key findings are summarized with maps displaying the extent of legislative and regulatory actions.

#### Advanced Metering Infrastructure (AMI)

By mid-2011, more states are considering smart grid deployment incentives, customer savings and protection, and cyber security at the legislative level. According to the National Conference of State Legislatures, at least nine state legislatures (Colorado, Hawaii, Illinois, Kansas, Massachusetts, Maine, Mississippi, New York and North Carolina) discussed bills in the 2011 session that promote smart grid deployment or smart meter installations. <sup>1</sup> In the 2007 to 2008 timeframe most of the states have ruled against adopting the "Time-Based Metering and Communications" standards included in the federal PURPA Standard 14 enacted in the 2005 EPAct, instead deciding to review the utility plans on a case by case basis. Several states, like Hawaii, are pursuing legislation to form technical guidance concerning smart grid implementation and AMI. In the District of Columbia, an AMI Task Force formed by the PSC is designing a detailed customer education plan to ensure customers are kept informed of how to take advantage of new energy usage data widely becoming available through the large scale smart meter rollout underway by PEPCO. The plan will address interval energy usage data availability, meter reading and billing, service restoration and reliability, and remote connect and disconnect features. <sup>2</sup> Figure ES-1 provides a map of legislative and regulatory efforts to deploy AMI.

#### **Smart Meter Data Privacy**

States continue to form "working groups," "task forces," and other collaborative forums to open a discussion of smart meter data security and privacy. Three states (California, Colorado, and Oklahoma) have made significant progress in forming laws and regulations regarding smart meter data privacy. In California, Governor Edmund G. Brown Jr. signed Senate Bill 674 legislation into law in September 2011 declaring that an electrical corporation shall not share, disclose, or otherwise make accessible to any third-party a customer's electrical consumption meter data without the consent of the customer. Earlier in the year, the California Public Service Commission also outlined 1) rules governing access to customer usage data by customers and by authorized third-parties and 2) rules to protect the privacy and security of customer data through Rulemaking 08-12-009, Decision No. 11-07-056. In February 2011, the Colorado State Legislature passed HB 1191 on "Utility Resource Usage Data Sharing" requiring the Public Utility Commission to certify independent data aggregators in sharing aggregated customer data with the requirement that a customer's personally identifiable information is removed.<sup>3</sup> Oklahoma House Bill 1079 was passed which allows electric utilities to utilize customer-identifiable usage data for certain internal business purposes without customer consent.<sup>4</sup>

Twelve other states are also in the process of forming rules governing data privacy. Illinois formed the Statewide Smart Grid Collaborative to address data security among other issues. Maine passed Legislative Decision 756 which requires the Maine Public Utility Commission address regulatory gaps between federal and state law regarding smart meters, customer data, and cyber security.<sup>5</sup> The Louisiana Public Utility Commission has a docket proceeding underway to addresses the release or sharing of customer data

<sup>1</sup> States Providing for Smart Metering. Accessed 2/11/11. http://www.ncsl.org/?tabid=20672

<sup>&</sup>lt;sup>2</sup> DC PSC, Order No. 16484. Accessed 11/15/11. http://www.dcpsc.org/pdf\_files/commorders/orderpdf/orderno\_16484\_FC1056.pdf

<sup>3</sup> Colorado General Assembly, HB 1191. Accessed 9/20/11. http://www.leg.state.co.us/CLICS/CLICS2011A/csl.nsf/MainBills?openFrameset

<sup>4</sup> Oklahoma State Legislature, Bill Information for HB 1079. Accessed 9/16/11. http://www.oklegislature.gov/BillInfo.aspx?Bill=HB1079&Tab=0

<sup>5</sup> Maine PUC, HP0563, LD 756, Item 1, 125th Maine State Legislature. Accessed 9/15/11. http://www.mainelegislature.org/legis/bills/bills\_125th/billpdfs/HP056301.pdf

(Docket No. R-29213).<sup>6</sup> The states of Maryland, Massachusetts, Nevada, New York, Ohio, Oregon, Pennsylvania, Texas, and Vermont have opened similar proceedings in recent months to address data security and are currently gathering comments from stakeholders and holding public meetings and hearings, though finalized orders from the commissions have yet to be created.<sup>7</sup>

## Smart Meter "Opt-Out" Policy

The public outcry calling for smart meter alternatives earlier this year in California seems to have reverberated across the country regarding laws governing whether an "optout" choice must be provided. Four states have legislative or regulatory activity in this area; three states with pending laws and rules, and one state with finalized laws. Assembly Bill 37 pending passage in California would require utilities provide customers with a smart meter alternative. This particular bill has been in committee since May 2011, and may be brought forth again in the 2012 legislative session.<sup>8</sup> The Vermont Public Service Board has pending rules on an opt-out policy requiring a fee for declining smart meters. Massachusetts also has pending legislation for an opt-out choice. In one case, successful legislation has been passed. The passage of Maine Legislative Decision 756 allows a customer to decline the installation of the wireless smart meter or have a wired smart meter installed as an alternative to the wireless smart meter.<sup>9</sup>

#### **Encouragement of Net Metering and Distributed Generation**

In recent legislative sessions, bills have been proposed encouraging the development of distributed renewable generation. Section 20 CCR 2700 of California law now requires the California Energy Commission to implement regulations requiring sellers of production homes with subdivision maps completed after January 1, 2011 to offer a solar energy system option to all prospective homebuyers.<sup>10</sup> In July 2011, the Governor of Hawaii approved the creation of a working group to study the feasibility of requiring all new single-family residential construction to incorporate design elements and minimum equipment installation at the time of construction to facilitate the future adoption of a photovoltaic system.<sup>11</sup> California, Illinois, and Texas have already implemented laws preventing home owner associations (HOAs) from restricting the ability of homeowners to install solar electricity generation systems. Forty-seven States also have rules governing the interconnection of renewable distributed generation. Net metering enables customers to sell their distributed generation to utilities, but according to DSIRE six states (Texas, Idaho, South Dakota, Mississippi, Alabama, and Tennessee) do not have net metering policies, or have voluntary policies only.<sup>12</sup> Figure ES-2 provides a map of legislative and regulatory efforts to promote net metering and distributed generation.

### **Demand Response**

Figure ES-3 shows how prevalent energy efficiency laws and regulations are throughout the United States, while Dynamic Pricing efforts are just beginning. According to ACEEE, 21 states have yet to finalize energy efficiency resource standards.<sup>13</sup> A large portion of states with standards have updated their energy efficiency goals, and these updates are reflected in the individual state profiles.

9 Maine PUC, HP0563, LD 756, Item 1, 125th Maine State Legislature. Accessed 9/15/11. http://www.mainelegislature.org/legis/bills\_125th/billpdfs/HP056301.pdf

<sup>6</sup> Louisiana PSC, Docket No. R-29213 Subdocket A. Accessed 9/22/11. http://lpscstar.louisiana.gov/star/portal/lpsc/page/docket-docs/PSC/DocketDetails.aspx

<sup>7</sup> ADS, Demand Response & Smart Grid—State Legislative and Regulatory Policy Action Review: May 2010 – June 2011 Accessed 9/15/11. http://www.demandresponsesmartgrid.org/Resources/Documents/State%20Policy%20Survey/2010%20-%2011%20DR%20%20Scate%20Policy%20Survey\_11%2007%2007\_FINAL%20%282%29.pdf

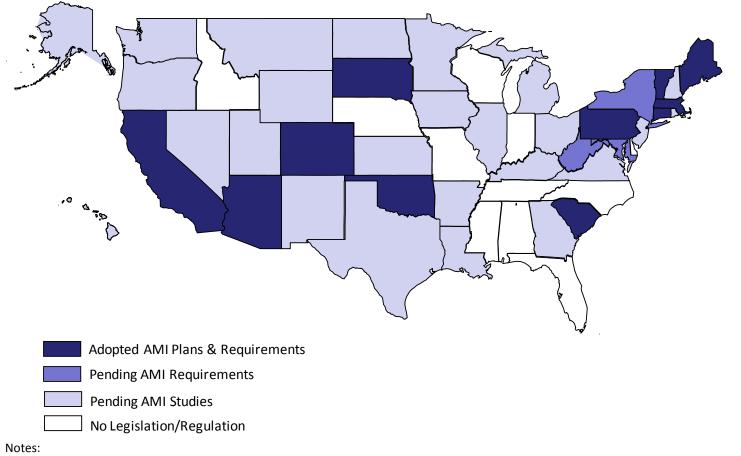
Illinois Statewide Smart Grid Collaborative. Accessed 9/15/11. http://www.ilgridplan.org/default.aspx

<sup>8</sup> California State Legislature, AB 37. Accessed 9/19/11. http://www.legislature.ca.gov/cgi-bin/port-postquery?bill\_number=ab\_37&sess=CUR&house=A&author=huffman

<sup>10</sup> California Energy Commission, Proposed Regulations for the Homebuyer Solar Option and Solar Offset Program. Accessed 9/14/11. http://www.energy.ca.gov/2010-SOPR-1/documents/Text\_of\_Modified\_Regulations\_15-Day\_Language.pdf 11Hawaii State Legislature, SB 181. Accessed 9/19/11. http://www.capitol.hawaii.gov/session2011/lists/measure\_indiv.aspx?billtype=SB&billnumber=181

<sup>12</sup> DSIRE, Net Metering Policies. Accessed 10/5/11. http://www.dsireusa.org/summarymaps/index.cfm?ee=1&RE=1

<sup>13</sup> ACEEE, Energy Efficiency Resource Standards. Accessed 10/5/11. http://www.aceee.org/topics/eers

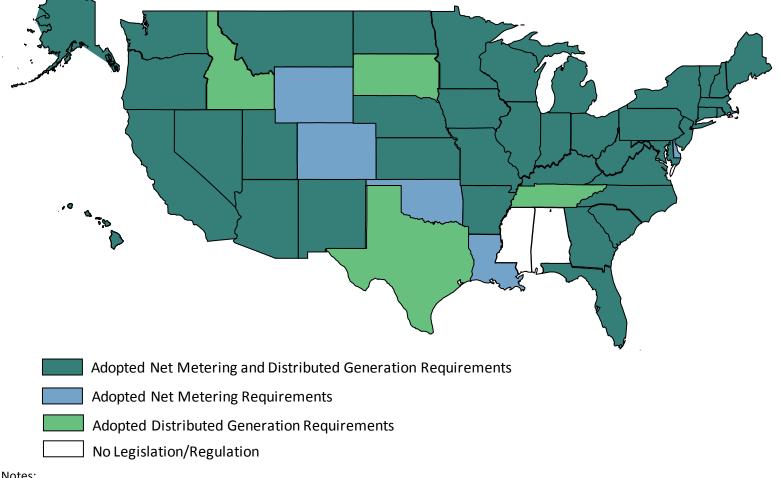


#### Figure ES-1. Advanced Metering Legislation & Regulation

Adopted AMI Requirements: In addition to direct orders to deploy AMI, this includes orders from the state public utility commissions directing utilities to file deployment plans. Does not include regulation or laws that serve only to authorize or simply promote AMI deployment. The state of Maine also has pending legislation to place a temporary moratorium on deployment.

**Pending AMI Studies:** Includes states in which the legislature or public utility commission is studying the effects of pilot programs and large scale deployments. This also includes the public utility commission decisions to study the effectiveness of requiring implementation of PURPA Standard 14 (Time-Based Metering and Communications) of EPAct 2005 on a utility-by-utility basis.

Source: SAIC

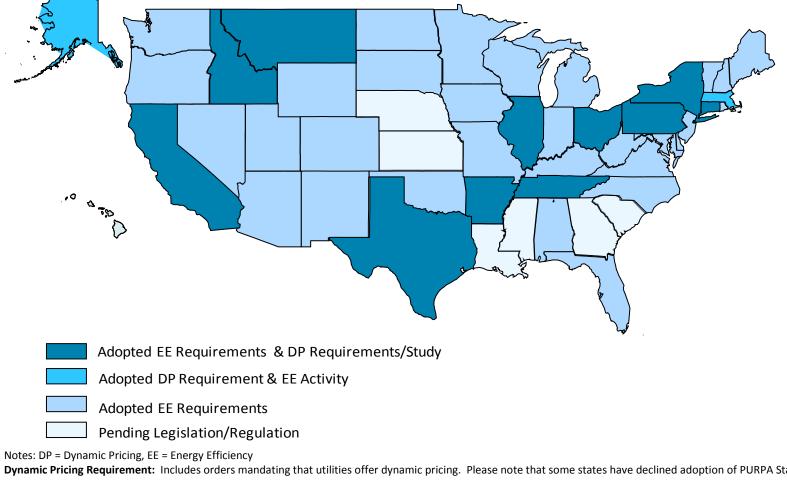


#### Figure ES-2. Net Metering & Distributed Generation Legislation & Regulation

Notes:

Net Metering or Distributed Generation Requirement: Includes rules requiring utilities to offer net metering or distributed generation and rules guiding which types of systems qualify. Some states' proceedings are specific to renewable energy sources or energy storage. This also includes the rules throughout the states supporting homeowners' rights to solar and wind access for creating distributed generation systems on their property. States have also passed laws governing the creation of loan programs, solar rebate programs, goals for achieving certain amounts of distributed generation by IOU customers, and other measures supporting renewable distributed generation which have been included.

Source: SAIC



#### Figure ES-3. Demand Response Legislation & Regulation

**Dynamic Pricing Requirement:** Includes orders mandating that utilities offer dynamic pricing. Please note that some states have declined adoption of PURPA Standard 14 (Time-Based Metering and Communications) of EPAct 2005 and have not implemented other dynamic pricing mandates since the utilities in the state already offer these options.

**Dynamic Pricing Study:** Includes states which have indicated in a proceeding to address adoption of PURPA Standard 14 of EPAct 2005 that they would investigate time of use (TOU) rates on a utility-by-utility basis.

**Energy Efficiency Requirement:** Includes rules requiring the development of programs, development of standards, and rules requiring the incorporation of energy efficiency into the Integrated Resource Planning (IRP) process. Also includes changes to rules governing how energy efficiency and conservation are measured by the public utility commissions in evaluating achievement of goals and standards. New rules governing cost recovery in energy efficiency programs are also included. Source: SAIC

## Introduction

This document, originally created in February and March 2011 and updated in September and October 2011, contains a summary of the smart grid legislative and regulatory proceedings at the state level as they relate to the smart grid programs. The review provides a high-level view of the most important and recent activities in the smart grid arena for each state. A table is provided for each state that summarizes significant and recent smart grid actions at the legislative and regulatory level. In additional, key smart grid initiatives are highlighted and described in more depth in a brief text overview provided for each state. Common sources referenced in this document include the Database of State Incentives for Renewable Energy (DSIRE) database, and the American Council for an Energy-Efficient Economy (ACEEE). The Smart Grid Information Clearinghouse (SGIC) website was frequently used in gathering information for the state legislation and regulation profiles. The U.S. Department of Energy selected the Virginia Tech Advanced Research Institute to develop and maintain the SGIC website as a source of information for demonstration projects, standards, legislation, policy, regulation, best practices, and other topics regarding smart grid technology. The Association for Demand Response and Smart Grid (ADS) report titled "State Legislative and Regulatory Policy Action Review: May 2010 – June 2011" and National Conference of State Legislatures' "2011 Smart Grid Legislation" webpage were also referenced in compiling the latest legislative and regulatory activities in each state.

This document also refers to the PURPA Standard 14 enacted in the 2005 Energy Policy Act (EPAct), which consists of the "Time-Based Metering and Communications" standards. This standard requires an electric utility provide a time-based rate schedule to consumers and enable the electric consumer to manage energy use and costs through smart meters.

In developing this document, the following topics were analyzed from a legislative and regulatory perspective for each U.S. state and the District of Columbia:

- Demand side management
- Demand response
- Energy efficiency projects
- Advanced/smart metering
- Net metering
- Distributed and intermittent generation interconnection
- Dynamic pricing

Three tables were created to characterize the types of regulatory and legislative activity currently existing or pending in each state. Many of the states have adopted legislation and/or regulations regarding Advanced Metering Infrastructure (AMI), net metering, distributed generation interconnections, and demand response. Where the law or regulation is proposed but not signed, it is called "pending," otherwise it is considered "adopted." To further differentiate the nature of the law, "Requirements" is used if goals or targets are set and "Study" is used if the law and/or regulation request that parties investigate an issue further and report back. "X" is shown in each cell to indicate what the legislation and/or regulation addresses in the subsequent pages organized by State.

- Table 1. Existing or Pending Legislative or Regulatory Activity for Advanced Metering Infrastructure (AMI)
- Table 2. Existing or Pending Legislative or Regulatory Activity for Net Metering and Distributed Generation/Interconnection
- Table 3. Existing or Pending Legislative or Regulatory Activity for Demand Response

		Adopted		Pending								
	AMI AMI Data Deployment Privacy/		AMI/Smart Meter Opt-	AMI Deployment			AMI Data Privacy/ Security			art Meter -Out		
STATE	Plans	Security Req't	Out Req't	Req't	Mora- torium	Study	Req't	Study	Req't	Study		
Alabama												
Alaska						Х						
Arizona	Х											
Arkansas						Х						
California	Х	Х				Х			Х			
Colorado		Х										
Connecticut	Х											
Delaware												
District of Columbia						Х						
Florida												
Georgia						Х						
Hawaii						Х						
Idaho												
Illinois						Х		Х				
Indiana												
lowa						Х						
Kansas						Х						
Kentucky						Х						
Louisiana						Х		Х				
Maine			Х		Х		Х					
Maryland				Х				Х				
Massachusetts	Х					Х	Х					
Michigan						Х						
Minnesota						Х						
Mississippi												
Missouri												
Montana						Х						
Nebraska												
Nevada						Х		Х				

## Table 1. Existing or Pending Legislative or Regulatory Activity for Advanced Metering Infrastructure (AMI)

		Adopted		Pending						
	AMI Deployment		AMI/Smart Meter Opt-	AMI	AMI Deployment			a Privacy/ urity		art Meter -Out
STATE	Plans	Security Req't	Out Req't	Req't	Mora- torium	Study	Req't	Study	Req't	Study
New Hampshire						Х				
New Jersey						Х				
New Mexico						Х				
New York				Х				Х		
North Carolina										
North Dakota						Х				
Ohio						Х		Х		
Oklahoma		Х								
Oregon								Х		
Pennsylvania	Х					Х		Х		
Rhode Island						Х				
South Carolina	Х									
South Dakota	Х									
Tennessee										
Texas						Х		Х		
Utah						Х				
Vermont	Х							Х		Х
Virginia						Х				
Washington						Х				
West Virginia				Х						
Wisconsin										
Wyoming						Х				

#### Notes:

Adopted AMI Deployment: In addition to direct orders to deploy AMI, this includes orders from the state public utility commissions directing utilities to file deployment plans. Does not include regulation or laws that serve only to authorize or simply promote AMI deployment. The state of Maine also has pending legislation to place a temporary moratorium on deployment. **Pending AMI Deployment**: Includes states in which the legislature or public utility commission is studying the effects of pilot programs and large scale deployments. This also includes the public utility commission decisions to study the effectiveness of requiring implementation of PURPA Standard 14 (Time-Based Metering and Communications) of EPAct 2005 on a utility-by-utility basis.

		Adopted		Pending					
	Net Metering	Distributed	Generation	Net M	etering		d Generation		
STATE	Req't	Req't	Study	Req't	Study	Req't	Study		
Alabama									
Alaska	Х	Х			Х				
Arizona	Х	Х							
Arkansas	Х	Х							
California	Х	Х							
Colorado	Х		х						
Connecticut	х	Х			Х				
Delaware	х								
District of Columbia	Х	Х							
Florida	Х	Х							
Georgia	Х	Х				Х			
Hawaii	Х	Х	Х						
Idaho		Х					Х		
Illinois	Х	Х		Х	Х				
Indiana	Х	Х							
lowa	Х	Х							
Kansas	Х	Х	Х						
Kentucky	Х	Х							
Louisiana	Х								
Maine	Х	Х							
Maryland	Х	Х							
Massachusetts	Х	Х							
Michigan	Х	Х							
Minnesota	Х	Х							
Mississippi									
Missouri	Х	Х							
Montana	Х	Х							
Nebraska	Х	Х							
Nevada	Х	Х							
New Hampshire	Х	Х							
New Jersey	Х	х							

## Table 2. Existing or Pending Legislative or Regulatory Activity for Net Metering and Distributed Generation/Interconnection

		Adopted		Pending					
	Net Metering	Distributed Generation			etering	Distribute	Distributed Generation		
STATE	Req't	Req't	Study	Req't	Study	Req't	Study		
New Mexico	Х	Х							
New York	Х	Х							
North Carolina	Х	Х							
North Dakota	Х	Х							
Ohio	Х	Х							
Oklahoma	Х								
Oregon	Х	Х							
Pennsylvania	Х	Х							
Rhode Island	Х	Х							
South Carolina	Х	Х							
South Dakota		Х							
Tennessee		Х							
Texas		Х							
Utah	Х	Х							
Vermont	Х	Х							
Virginia	Х	Х							
Washington	Х	Х							
West Virginia	Х	Х							
Wisconsin	Х	Х							
Wyoming	Х								

#### Notes:

**Net Metering or Distributed Generation Requirement**: Includes rules requiring utilities to offer net metering or distributed generation and rules guiding which types of systems qualify. Some states' proceedings are specific to renewable energy sources or energy storage. This also includes the rules throughout the states supporting homeowners' rights to solar and wind access for creating distributed generation systems on their property. States have also passed laws creating loan programs and other measures supporting renewable distributed generation.

**Net Metering or Distributed Generation Study**: Includes any current or pending study or investigation by the legislature or public utility commission into changes to net metering or distributed generation interconnection rules or other types of requirements stated above.

Table 5. Existing 0			dopted	-	Pending					
	Dynami	ic Pricing	Energy I	Efficiency	Dynam	ic Pricing	Energy	Energy Efficiency		
STATE	Req't	Study	Req't	Study	Req't	Study	Req't	Study		
Alabama			Х							
Alaska	Х						Х			
Arizona			Х							
Arkansas		Х	Х			Х		Х		
California	Х	Х	Х							
Colorado			Х	Х						
Connecticut	Х		Х							
Delaware			Х							
District of Columbia			Х							
Florida			Х							
Georgia						Х	Х	Х		
Hawaii							Х			
Idaho	Х		Х							
Illinois	Х		Х	Х		Х	Х			
Indiana			Х							
lowa			Х			Х				
Kansas				Х	Х					
Kentucky			Х		Х					
Louisiana				Х		Х				
Maine			Х							
Maryland			Х			Х				
Massachusetts	Х			Х			Х			
Michigan			Х			Х				
Minnesota			Х			Х				
Mississippi				Х			1			
Missouri			Х							
Montana	Х		Х			Х				
Nebraska				Х			1			
Nevada			Х				1			
New Hampshire			Х			Х				
New Jersey			Х				Х			
New Mexico			х				1			

## Table 3. Existing or Pending Legislative or Regulatory Activity for Demand Response

		Ac	lopted		Pending				
	Dynami	ic Pricing	Energy E	fficiency	Dynami	ic Pricing	Energy Efficiency		
STATE	Req't	Study	Req't	Study	Req't	Study	Req't	Study	
New York	Х		Х			Х			
North Carolina			х						
North Dakota			х			Х			
Ohio	Х		х						
Oklahoma			х						
Oregon			Х						
Pennsylvania	Х		Х						
Rhode Island			Х			Х			
South Carolina							Х		
South Dakota			Х						
Tennessee	Х		х						
Texas	Х		Х						
Utah			Х			Х			
Vermont			х						
Virginia			Х					Х	
Washington			Х	Х		Х			
West Virginia			Х						
Wisconsin			Х						
Wyoming			Х						

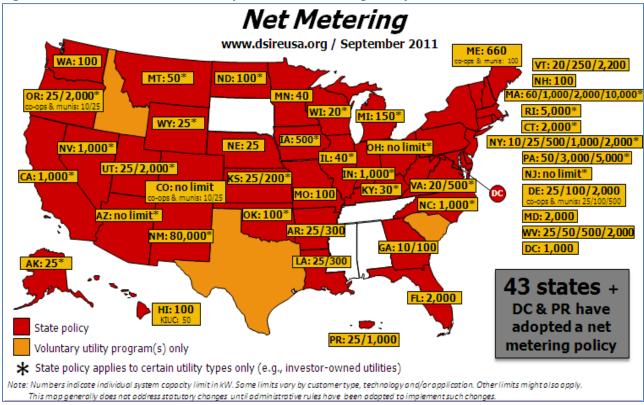
Notes:

**Dynamic Pricing Requirement:** Includes orders mandating that utilities offer dynamic pricing. Please note that some states have declined adoption of PURPA Standard 14 (Time-Based Metering and Communications) of EPAct 2005 and have not implemented other dynamic pricing mandates since the utilities in the state already offer these options.

**Dynamic Pricing Study:** Includes states which have indicated in a proceeding to address adoption of PURPA Standard 14 of EPAct 2005 that they would investigate time of use (TOU) rates on a utility-by-utility basis.

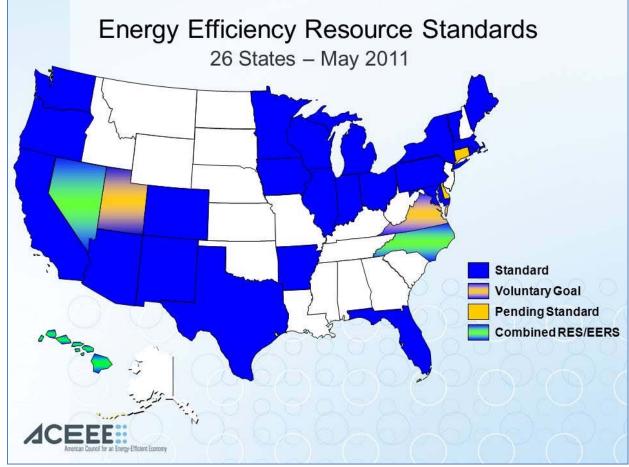
**Energy Efficiency Requirement:** Includes rules requiring the development of programs, development of standards, and rules requiring the incorporation of energy efficiency into the Integrated Resource Planning (IRP) process. Also includes changes to rules governing how energy efficiency and conservation are measured by the public utility commissions in evaluating achievement of goals and standards. New rules governing cost recovery in energy efficiency programs are also included.

Figures 1 and 2, created by DSIRE and ACEEE, were used as a source in creating Tables 2 and 3.



## Figure 1: U.S. States that Have Adopted a Net Metering Policy

Source: DSIRE







## Alabama

Item	Title	Dates	Description
Legislative			
None Identifie	ed		
Regulatory			
Docket No. 30066	EPAct/PURPA Standard 14	June 2007	The Alabama PSC evaluated the EPAct, PURPA Standard 14 for adoption as a state mandate and decided against adoption since TOU pricing and smart meters have already been made available to customers. <sup>14</sup>
Executive Order 33	Executive Order 33	May 2006	Requires state agencies to reduce energy consumption in all conditioned facilities by 10 percent by the end of 2008 and 20 percent by the end of 2010 from 2005 levels. An Energy Officer is to be assigned by each agency to oversee the implementation of energy efficiency programs. <sup>15</sup>

Alabama Power Company offers TOU rates to all customer classes in accordance with the 2005 EPAct, PURPA Standard 14 though the Alabama PSC decided not to adopt PURPA Standard 14.<sup>16</sup> Alabama Power began installing smart meters in the city of Birmingham, and completed its installations for all customers at the end of 2010.<sup>17</sup> Southern Company, which owns Alabama Power (along with Georgia Power, Gulf Power, and Mississippi Power), is currently developing a customer web portal that enables customers to program their thermostats remotely and view their energy usage via the Internet.<sup>18</sup>

Alabama's state government offers energy efficiency-related retrofit and audit incentives for industry and the public sector and funds educational programs.<sup>19</sup> Alabama's Local Government Energy Loan Program offers zero-interest loans to local governments and schools for renewable energy systems (biomass, hydropower, geothermal energy, wind energy, and solar energy) as well as energy efficiency improvements that will eventually have a payback through utility savings.<sup>20</sup>

<sup>&</sup>lt;sup>14</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/11/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final\_NCEP\_Report\_on\_DR\_and\_SM\_Policy\_Actiona\_08.12.pdf

<sup>&</sup>lt;sup>15</sup> Alabama Lead by Example Initiatives. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/Alabama/161/all/202</u>

<sup>&</sup>lt;sup>16</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/11/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>&</sup>lt;sup>17</sup>States Providing for Smart Metering. Accessed 2/11/11. <u>http://www.ncsl.org/?tabid=20672</u>

GreenBiz.com, Alabama Power Finds a New Benefit for Smart Meters: Disaster Recovery, 9/15/11. Accessed 9/26/11. <a href="http://www.greenbiz.com/news/2011/09/15/alabama-power-finds-new-benefit-smart-meters-disaster-recovery">http://www.greenbiz.com/news/2011/09/15/alabama-power-finds-new-benefit-smart-meters-disaster-recovery</a>

Southern Company, Championing Energy Efficiency. Accessed 9/26/11. <u>http://www.southerncompany.com/corporateresponsibility/electricity/championing.aspx</u>

<sup>&</sup>lt;sup>19</sup> State Energy Efficiency Policy Database, Alabama Utility Policies. Accessed 2/14/11. <u>http://www.aceee.org/sector/state-policy/alabama</u>

<sup>&</sup>lt;sup>20</sup> Alabama Clean Distributed Generation. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/Alabama/161/all/195</u>

## Alaska

Item	Title	Dates	Description				
Legislative							
HB 37	An Act Relating to the Net Metering of Electric Energy Utility's Retail Consumers	1/18/2011	Promotes private investment in renewable energy systems by giving customers a net metering option; allows customers to apply credits towards the following billing period or				
			sell unused credits back to the retailer. Referred to the Energy Committee on 1/18/2011. <sup>21</sup>				
HB 306	An act declaring a state energy policy	June 2010	Addressed Alaska's state energy policy, including a renewable electricity goal, and a goal				
			to reduce per capita electricity use in the state by 15 percent by 2020. This goal must be translated into specific requirements for utilities in order to qualify as an EERS. Signed				
			into law 7/9/2010. <sup>22</sup>				
SB 220	Energy Efficiency/ Alternative Energy	7/9/2010,	Mandates energy efficiency retrofits by 2020 of 25 percent of the state's public buildings				
		6/16/2010	that are 10,000 square feet or larger, not including legislative or court buildings. Signed into law 7/9/2010. <sup>23</sup>				
NA	State Energy Policy and Program	October	Recommendation of the Senate Energy Policy Group (including members of the Senate				
	Recommendations	2009	Resources Committee and Senate Energy Committee) that the state establish a larger pilot program to install smart meters in homes and businesses. <sup>24</sup>				
AK Statutes	Alaska Solar Easements	1980	Created contractual methods for entering into solar easements such that multiple parties				
34.15.145			can create contracts for the purpose of ensuring adequate exposure of a solar energy system. <sup>25</sup>				
Regulatory							
RCA Order R-09-	Order Adopting Regulations Implementing an	5/5/11	After declining to adopt the interconnection standard proposed by EPAct 2005, the RCA				
2(4)	Interconnection Standard		approved interconnection guidelines addressing liability insurance, external disconnect switches, and application details, and interconnection safety standards. <sup>26</sup>				
RCA, Article 3.	Net Metering Standards	2009	The RCA issued an order adopting finalized net metering rules. <sup>27</sup>				
Section 900, 910,							
920, 930, 940, 949							

In 1980 the state legislature addressed the need for DG by creating contractual methods for entering into solar easements for solar energy systems.<sup>28</sup> The RCA rules allow net metering up to 1.5 percent of each electric utility's average retail demand (roughly equivalent to 1 percent of peak demand). Systems must be owned or leased, and operated,

<sup>&</sup>lt;sup>21</sup> Alaska State Legislature. Accessed 9/21/11. <u>http://www.legis.state.ak.us/basis/get\_bill.asp?session=27&bill=HB37</u>

Alaska State House of Representatives, Sponsor Statement: HB 37, Net Energy Metering, Sponsored by Rep. Kurt Olson. Accessed 9/21/11. http://www.housemajority.org/spon.php?id=27HB37

<sup>&</sup>lt;sup>22</sup> Alaska Utility Policies. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/alaska/176/all/191</u>

<sup>&</sup>lt;sup>23</sup> Alaska Lead by Example Initiatives. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/Alaska/176/all/202</u>

<sup>&</sup>lt;sup>24</sup>Smart Grid Legal News, Alaska Resources. Accessed 10/3/11. http://www.smartgridlegalnews.com/alaska-resources.html

Alaska State Senate Resources and Energy Committees, State Energy Policy and Program Recommendations. Accessed 10/3/11. http://www.aksenate.org/energy/101909\_Draft\_E\_policies.pdf

<sup>&</sup>lt;sup>25</sup> DSIRE, Alaska Solar Easements. Accessed 2/4/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?lncentive\_Code=AK01R&re=1&ee=1</u>

<sup>&</sup>lt;sup>26</sup> DSIRE, Alaska – Interconnection Guidelines. Accessed 9/14/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=AK04R&currentpageid=3&EE=1&RE=1</u>

RCA, R-09-2 Order No. 4. Accessed 9/14/11. http://rca.alaska.gov/RCAWeb/ViewFile.aspx?id=e96a536c-91ed-47e6-9055-4d4598b824c2

<sup>&</sup>lt;sup>27</sup> Interstate Renewable Energy Council, "Alaska RCA Finalizes Net Metering Rules." Accessed 2/4/11. <u>http://irecusa.org/2010/01/alaska-rca-finalizes-net-metering-rules/</u>

<sup>&</sup>lt;sup>28</sup> SGIC. Accessed 2/4/11. <u>http://www.sgiclearinghouse.org/Legislation</u>

by the consumer, and have a cumulative nameplate capacity 25 kW or less.<sup>29</sup> According to the ACEEE there are very few utility customer energy efficiency programs in Alaska. Golden Valley Electric Association, Inc. has reported spending on energy efficiency programs such as business, residential, and consumer energy savings programs however the state government has been the main source of energy efficiency programs in the state.<sup>30</sup>

 <sup>&</sup>lt;sup>29</sup> Interstate Renewable Energy Council, "Alaska RCA Finalizes Net Metering Rules." Accessed 2/4/11. <u>http://irecusa.org/2010/01/alaska-rca-finalizes-net-metering-rules/</u>
 <sup>30</sup> State Energy Efficiency Policy Database. Alaska Utility Policies. Accessed 2/11/11. <u>http://www.aceee.org/sector/state-policy/alaska</u>

# Arizona

Item	Title	Dates	Description
Legislative			
HB 2122	Energy Policy Study Committee	1/18/11	Establishes an Energy Policy Study Committee to examine energy policy including energy supply, production, transportation, delivery, distribution, demand and prices. Promotes achievements supporting a reliable energy supply. The Committee will submit findings on or before September 30, 2013 to the governor and legislature. The bill is currently held in Committee. <sup>31</sup>
Arizona Revised Stat. Sec. 33-1816	Solar Energy Devices	9/19/2007	Addressed contractual methods for entering into solar easements for solar energy systems for the development of DG resources. <sup>32</sup>
Regulatory			
Docket No. RE- 00000C-09—0427, Decision No. 71436 and 71819	Proposed Rulemaking On Electric Energy Efficiency	July 2010, 12/18/2009	In 2009, the ACC issued an order that all IOUs and rural electric cooperatives achieve 1.25 percent annual savings as a percent of the retail energy sales in the prior calendar year, ramping up to two percent beginning in 2014. By 2020, the state should reach 20 percent cumulative savings, plus up to a two percent credit for peak demand reductions from demand response programs, for a total standard of 22 percent. In 2010, a ruling stated that demand response and load management may comprise up to two percentage points of the 22% energy efficiency standard. Utilities must file plans for DSM programs that meet the standard every two years and provide a progress report to the ACC in March of each year. <sup>33</sup>
ACC R14-2-2301 et seq. Decision No. 69877	Net Metering Rules EPAct/PURPA	May 2009 8/28/2007	Rules for IOUs and cooperative utilities specifying that net metering is available to customers who generate electricity using CHP technologies. Systems must be sized to meet all or part of a customer's electric load in that the system may not exceed 125 percent of the customer's total connected load. <sup>34</sup> ACC adopted a modified version of PURPA Standard 14 (Time-Based Metering and Communications) in EPAct 2005. <sup>35</sup>
	Standard 14	0, 20, 200,	

According to SWEEP, at least six utilities in Arizona currently offer electricity DSM programs, a significant expansion compared to previous years. These utilities include APS, TEP, Salt River Project, Dixie-Escalante Rural Electric Cooperative, Navopache Electric Cooperative, and Sulphur Springs Valley Electric Cooperative.<sup>36</sup>

The modified version of EPAct 2005, PURPA Standard 14 adopted by the ACC requires each utility to offer a time-based rate schedule to appropriate customer classes as well as report any variances in the utility's wholesale generation costs regarding these rates. Additionally, each utility must examine the feasibility and cost-effectiveness of implementing AMI and move forward in deploying the technology if feasible and cost-effective.<sup>37</sup>

Arizona Public Service (APS) and Tucson Electric Power (TEP) operate a variety of DSM and energy efficiency programs, funded uniquely by each utility. An APS request for a rate Increase in Docket No. E-01345A-08-0172S, was approved as part of its energy efficiency implementation plan. TEP also received approval for modifications made to its DSM Program Portfolio.<sup>38</sup>

<sup>&</sup>lt;sup>31</sup> Arizona State Legislature, HB 2122. Accessed 9/26/11. <u>http://www.azleg.gov//FormatDocument.asp?inDoc=/legtext/50leg/1r/bills/hb21220.asp&Session\_ID=102</u>

<sup>&</sup>lt;sup>32</sup> DSIRE, Arizona Solar Energy Covenant Restrictions, accessed 2/4/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?incentive\_Code=AZ07R&re=1&ee=1</u>

<sup>&</sup>lt;sup>33</sup> Arizona Utility Policies. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/arizona/177/all/191</u>, ACC, Docket No. RE-00000C-09—0427, Decision No. 71819, August 10, 2011. Accessed 9/15/11.

http://images.edocket.azcc.gov/docketpdf/0000116125.pdf

<sup>&</sup>lt;sup>34</sup> Arizona Clean Distributed Generation. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/Arizona/177/all/195</u>

<sup>&</sup>lt;sup>35</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008, accessed 2/4/11.

http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>&</sup>lt;sup>36</sup> SWEEP, Arizona Utility Energy Efficiency Programs, September 2011. Accessed 9/26/11. <u>http://www.swenergy.org/programs/utilities/arizona.htm</u>

<sup>&</sup>lt;sup>37</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008, accessed 2/4/11.

http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf <sup>38</sup> Arizona Utility Policies. Accessed 2/14/11. <u>http://www.acceee.org/energy-efficiency-sector/state-policy/arizona/177/all/191</u>

## Arkansas

Item	Title	Dates	Description
Legislative			
HB 1895, Act 910	To Amend The Utility Facility Environmental And Economic Protection Act; To Clarify Requirements For Major Utility Facilities; To Declare An Emergency; And To Make Technical Corrections	4/4/2011	The PSC may determine the need for additional energy supply and transmission resources by public utilities in an energy resource "declaration-of-need" proceeding (a utility-specific proceeding conducted by the PSC under certain rules) for the expeditious resolution of matters concerning the location, financing, construction, and operation of a major utility facility in a single proceeding to which access will be open to public bodies enabling them to participate in decisions. <sup>39</sup>
SB 721	Arkansas Clean Energy Act	3/23/2011	Requires a utility include renewable energy resources as an integral part of its energy resource plan by filing a feed-in tariff with the PSC. Specifies requirements for the tariff. Senate will review the bill in the next scheduled session. <sup>40</sup>
Regulatory			
Docket No. 10-102-U, Docket No. 10-103-U, Docket No. 10-104-U	Adoption of a Sustainable Energy Resources Action Plan	December 10, 2010	Arkansas PSC issues orders for monitoring smart grid projects in Arkansas by initiating a docket for the consideration of smart grid, AMI, and related demand response technologies. All three dockets remain open with the PSC seeking comments regarding these topics. <sup>41</sup>
HB 2325, Arkansas Code § 23-18-603 et seq. and HB 2334, AR PSC Order No. 8, Docket 06-105-U	Net-metering rules for certain renewable- energy systems	10/01/2001 and 11/27/2007	Defines the availability of net metering, capacity limit for non-residential systems, and clarifies the ownership of renewable-energy credits (RECs). <sup>42</sup>
Arkansas Code § 23-18- 603 et seq.	Interconnection Guidelines	11/27/2007, 10/01/2001	Defines the interconnection requirements of net-metered facilities to existing electric power systems that generate electricity using solar, wind, hydro, geothermal and biomass resources. <sup>43</sup>
Docket NO. 08-144-U	EPAct/PURPA Standard 14	August 2007	The Arkansas PSC decides not to adopt PURPA Standard 14 (Time-Based Metering and Communications) as enacted in EPAct 2005. <sup>44</sup>
Docket 06-004-R	Rules for Conservation and Energy Efficiency Programs	May 2007	Requires utilities to file energy efficiency plans to implement cost-effective energy efficiency programs. <sup>45</sup>
Docket 06-028-R	Guidelines on Resource Planning for Electric Utilities	January 2007	Requires utilities to consider all generation, transmission, and demand response options in the region including an investigation of energy efficiency, conservation, DSM, interruptible load, and price responsive demand. <sup>46</sup>

<sup>&</sup>lt;sup>39</sup> Arkansas State Legislature, HB 1895. Accessed 9/21/11. http://www.arkleg.state.ar.us/assembly/2011/2011R/Pages/BillInformation.aspx?measureno=HB1895

<sup>&</sup>lt;sup>40</sup> Arkansas State Legislature, The Clean Energy Act of 2011. Accessed 9/21/11. <u>http://www.arkleg.state.ar.us/assembly/2011/2011R/Pages/Billinformation.aspx?measureno=SB721</u>

<sup>&</sup>lt;sup>41</sup> APSC Sustainable Energy Resources (SER) Action Guide, December 2010, Arkansas Public Service Commission. Accessed 2/11/11. <u>http://www.apscservices.info/pdf/08/08-144-U 153 1.pdf</u>

<sup>&</sup>lt;sup>42</sup> DSIRE, Arkansas – Net Metering. Accessed 2/9/11. <u>www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=AR03R&re=1&ee=1</u>

<sup>&</sup>lt;sup>43</sup> DSIRE, Arkansas Interconnection Standards. Accessed 2/9/11. <u>www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=AR06R&re=1&ee=1</u>

<sup>&</sup>lt;sup>44</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/9/1. http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>&</sup>lt;sup>45</sup> Arkansas Utility Policies. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/Arkansas/178/all/191</u>

<sup>&</sup>lt;sup>46</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/9/1. http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

Arkansas has enacted legislation and Arkansas PSC approved expanded net-metering rules in 2007. Later the capacity limit for non-residential systems was raised from 100 kW to 300 kW and ownership of RECs was defined. The rules state that residential renewable-energy systems (solar, wind, hydroelectric, geothermal, biomass systems, fuel cells, and microturbines using renewable fuels) up to 25 kW in capacity and non-residential systems up to 300 kW are eligible for net metering.<sup>47</sup> Additionally systems must meet all performance standards established by local and national electric codes and utilities must use a PSC-approved standard interconnection agreement for interconnected facilities.<sup>48</sup>

In February 2010 the Arkansas PSC issued an order approving energy-efficiency plans filed by four electric utilities, including the administrators of their energy-efficiency education programs. The PSC also required utilities to report in detail on their current use of and future plans for smart grid, demand response, and AMI projects and investments in Arkansas such that the Commission could review all cases by the end of 2010. The PSC created its "Sustainable Energy Resources Action Guide" in December 2010 as a result of comments gathered through Docket No.08-144-U.<sup>49</sup>

On December 10, 2010 the Arkansas PSC issued 10 orders including 1) a docket for the consideration of smart grid, AMI and related demand response technologies and 2) a docket to consider (a) how electric vehicles will affect the electric grid and to explore whether policy changes are needed to address the charging of electric vehicles form the electric grid; and (b) the potential impact of natural gas vehicle fleets and to explore if policy changes are needed to address the fueling of natural gas vehicles from the natural gas distribution system; and 3) a docket to explore efficiency opportunities on the utility side of the meter. All three dockets remain open with the PSC seeking comments regarding these topics <sup>50</sup>

<sup>&</sup>lt;sup>47</sup> DSIRE, Arkansas – Net Metering. Accessed 2/9/11. <u>www.dsireusa.org/incentives/incentive.cfm?lncentive\_Code=AR03R&re=1&ee=1</u>

Arkansas PSC, Net Metering Rules. Accessed 9/26/11. http://www.apscservices.info/rules/net\_metering\_rules.pdf

<sup>&</sup>lt;sup>48</sup> DSIRE, Arkansas Interconnection Standards. Accessed 2/9/11. <u>www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=AR06R&re=1&ee=1</u>

<sup>&</sup>lt;sup>49</sup> Demand Response & Smart Grid—State Legislative and Regulatory Policy Action Review: October 2008 – May 2010, Prepared by the DRCC. Accessed 2/10/11,

http://www.demandresponsesmartgrid.org/Resources/Documents/State%20Policy%20Survey/2009 DR-SG Policy Survey FINAL 10.06.17%282%29.pdf

APSC Sustainable Energy Resources (SER) Action Guide, December 2010. Accessed 9/26/11. http://www.apscservices.info/pdf/08/08-144-U 153 1.pdf

<sup>&</sup>lt;sup>50</sup> APSC Sustainable Energy Resources (SER) Action Guide, December 2010, Arkansas Public Service Commission. Accessed 2/11/11. <u>http://www.apscservices.info/pdf/08/08-144-U 153 1.pdf</u>

# California

Item	Title	Dates	Description
Legislative	·		
SB 674	Telecommunications: master-metering: data security	9/7/2011	An electrical corporation shall not share, disclose, or otherwise make accessible to any third-party a customer's electrical consumption meter data without the consent of the customer. Signed into law by Gov. Edmund G. Brown Jr. 9/7/2011. <sup>51</sup>
Executive Order S-21-09, SBX1 2	NA	4/12/2011, 9/15/2009	Increases the renewable-energy resources requirement to 33% by 2020 for all utilities, including publicly-owned municipal utilities. Gov. Edmund Brown, Jr. signed additional legislation in 2011 requiring one-third of the state's electricity to come from renewable sources. <sup>52</sup>
AB 37	An Act to Add Section 8370 to the Public Utilities Code, Relating to Electricity, and Declaring the Urgency Thereof, to Take Effect Immediately	12/6/2010	Mandates that the PUC direct utilities to allow customers to decline the installation of smart meters, to offer alternative options to such customers, and suspend deployments until these requirements are met. The bill has been in committee since 5/9/2011. <sup>53</sup>
AB 2514	An Act to Amend Section 9620 of, and to Add Chapter 7.7 (Commencing With Section 2835) to Part 2 of Division 1 of, the Public Utilities Code, Relating to Energy.	9/29/2010	Establishes an energy-storage portfolio standard, signed into law by Gov. Arnold Schwarzenegger. Requires the PUC open a proceeding to determine targets for each load-serving entity to procure cost-effective energy storage systems. <sup>54</sup>
CA Pub Util Code § 2827, et seq., AB 510	An act to amend Section 2827 of the Public Utilities Code relating to energy.	2/26/2010, 1/1/1996	Requires all utilities, with one exception, to offer net metering to all customers for solar and wind-energy systems up to one MW. IOUs are also required to offer net metering for biogas-electric systems and fuel cells. <sup>55</sup>
AB 45	An act to add and repealChapter 4 of Division 1 of Title 7 of the Government Code, relating to land use.	9/2/2009	Authorized counties to adopt ordinances to provide for the installation of small wind systems. Bill was passed in 2009. <sup>56</sup>
AB 32	Global Warming Solutions Act of 2006	2006	Sets the 2020 greenhouse gas emissions reduction goal into law and directs the California Air Resources Board to develop actions to reduce greenhouse gases while preparing a scoping plan to identify how to reach the 2020 limit. Bill was passed in 2006. <sup>57</sup>

<sup>&</sup>lt;sup>51</sup> California State Legislature, SB 674. Accessed 9/20/11. <u>http://www.legislature.ca.gov/cgi-bin/port-postquery?bill\_number=sb\_674&sess=CUR&house=B&author=padilla
<sup>52</sup> Executive Orders S-21-09. Accessed 2/28/11. <u>http://www.pewclimate.org/docUploads/CA%20Exec%20order%20S-21-09.PDF</u></u>

Office of Gov. Edmund Brown Jr., Governor Brown Signs Legislation to Boost Renewable Energy. Accessed 9/19/11. http://gov.ca.gov/news.php?id=16974

 <sup>&</sup>lt;sup>53</sup> California State Legislature, AB 37. Accessed 9/19/11. <u>http://www.legislature.ca.gov/cgi-bin/port-postquery?bill\_number=ab\_37&sess=CUR&house=A&author=huffman</u>
 <sup>54</sup> California State Assembly, Bill Number: AB 2514. Accessed 9/19/11. <u>http://www.leginfo.ca.gov/pub/09-10/bill/asm/ab\_2501-2550/ab\_2514\_bill\_20100929\_chaptered.html</u>

<sup>&</sup>lt;sup>55</sup> DSIRE, California – Net Metering. Accessed 2/18/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=CA02R&re=1&ee=1</u>

<sup>&</sup>lt;sup>56</sup> DSIRE, California – Net Metering. Accessed 2/18/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=CA02R&re=1&ee=1</u>

<sup>&</sup>lt;sup>57</sup> California Air Resources Board, AB 32: Global Warming Solutions Act. Accessed 9/19/11. http://www.arb.ca.gov/cc/ab32/ab32.htm

Item	Title	Dates	Description
Legislative			
SB 1	An act to add Sections to, the Public Utilities Code, Relating to Solar Electricity	2006	Established the statewide California Solar Initiative, a solar rebate program for IOU customers with a goal to install approximately 1,940 MW of new solar generation capacity. <sup>58</sup>
CA Civil Code § 714 et seq., CA Health and Safety Code § 17959.1, CA Government Code § 65850.5	The Solar Rights Act	1/1/2005, 2003, 1978	Bars restrictions by HOAs on the installation of solar-energy systems, prohibits a public entity from receiving state grant funding or loans for solar-energy programs if the entity prohibits or places unreasonable restrictions on the installation of solar-energy systems, nullifies any restrictions relating to solar energy systems contained in the governing documents of a common interest development. <sup>59</sup>
Public Utilities Code §353.3(b), §393, and §739.11, and SB1976	An act relating to energy resources	2002	Legislation regarding demand response rates and technologies. Requires the CPUC look into the implementation of dynamic pricing for all customers as related to pilot programs with these rates. <sup>60</sup>
Regulatory			
CPUC Rulemaking 10-05- 004, Decision 11-09-015, SB 412	Modifying the Self-Generation Incentive Program and Implementing SB 412	9/8/2011	Modifies the Self-Generation Incentive Program for projects going forward, including eligibility criteria and incentive amounts and payment structures for eligible technologies. Participation is now based on greenhouse gas emissions reductions. Wind turbines, fuel cells, organic rankine cycle/waste heat capture, pressure reduction turbines, advanced energy storage, and combined heat and power gas turbines, micro-turbines, and internal combustion engines that achieve these reductions can be eligible. <sup>61</sup>
CPUC Rulemaking 07-01- 041	Administrative Law Judge's Ruling Soliciting Comments On Proposed Demand Response Rules	8/19/2011	Proceeding to address FERC order 719; IOU retail customers are prohibited from direct bidding of retail demand in CAISO market until rules are defined. In August 2011, the PUC proposed direct participation rules for bidding retail demand response into CAISO's wholesale markets governing interactions between IOUs as EDCs, load serving entities, demand response providers, meter service providers, and meter data management agents with all other entities performing these responsibilities. <sup>62</sup>
CPUC Rulemaking 08-12- 009, Decision 11-07-056, SB 1476	Decision Adopting Rules to Protect the Privacy and Security of the Electricity Usage Data of the Customers of Pacific Gas and Electric Company, SCE, and San Diego Gas & Electric Company	7/28/2011	Rules to protect the privacy and security of customer data and policy to govern access to customer usage data by customers and by authorized third-parties as ordered by SB 1476. <sup>63</sup>

<sup>&</sup>lt;sup>58</sup> California Energy Commission, Proposed Regulations for the Homebuyer Solar Offion and Solar Offset Program. Accessed 9/14/11. <u>http://www.energy.ca.gov/2010-SOPR-1/documents/Text of Modified Regulations 15-Day Language.pdf</u> About the California Solar Initiative. Accessed 9/14/11. <u>http://www.gosolarcalifornia.org/about/csi.php</u>

<sup>&</sup>lt;sup>59</sup> DSIRE, California Solar Rights Act. Accessed 2/18/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=CA45R&state=CA&CurrentPageID=1&RE=1&EE=1</u>

<sup>&</sup>lt;sup>60</sup> Rates and Technologies for Mass-Market Demand Response. Accessed 2/28/11. <u>http://www.osti.gov/bridge/purl.cover.jsp?purl=/890620-r4xDOW/</u>

<sup>&</sup>lt;sup>61</sup> California PUC, CPUC Improves and Streamlines Self-Generation Incentive Program. Accessed 9/20/11. <u>http://docs.cpuc.ca.gov/published/News\_release/142914.htm</u> <u>http://docs.cpuc.ca.gov/published/Final\_decision/143459-05.htm</u>

<sup>&</sup>lt;sup>62</sup> California PUC, Rulemaking 07-01-041. Accessed 9/19/11. <u>http://docs.cpuc.ca.gov/published/proceedings/R0701041.htm#decisions</u>

<sup>&</sup>lt;sup>63</sup> California PUC, Decision 11-07-056. Accessed 9/19/11. <u>http://docs.cpuc.ca.gov/PUBLISHED/FINAL\_DECISION/140369.htm#P95\_5541</u>

Item	Title	Dates	Description	
Regulatory				
FERC Docket No. RM11-2	Staff Seeks Authority to File Comments on FERC's docket on Smart Grid Interoperability Standards	April 2011	PUC submits comments: 1) supporting the goals of NIST/FERC; 2) indicating there is insufficient consensus on the five sets of smart grid standards for adoption; 3) recommending any standard adopted by FERC should be developed through a more inclusive, public process. <sup>64</sup>	
20 CCR 2700, et seq.	Proposed Regulations for the Homebuyer Solar Option and Solar Offset Program	3/24/2011	Requires the California Energy Commission to implement regulations requiring sellers of production homes with subdivision maps completed after January 1, 2011 to offer a solar energy system option to all prospective homebuyers. <sup>65</sup>	
Proceeding A0712009, Decision 10-12-031	Decision Denying the City And County of San Francisco's Petition to Modify Decision 09-03-026	12/17/2010	PUC denies San Francisco's petition requesting a suspension of Pacific Gas & Electric's smart meter deployment. <sup>66</sup>	
Rulemaking 09-08- 009, Decision 10- 07-044	Order Institutingalternative-fueled vehicle tariffs, infrastructure and policiesCalifornia's greenhouse gas emissions Reduction goals.	7/29/2010	Declares that people and facilities selling electric vehicle charging services do not qualify as utilities and therefore are not subject to regulation. Also established policies to overcome barriers to electric vehicle deployment <sup>67</sup>	
CPUC Rulemaking 08-12-009, Decision 10-06- 047, SB 17	Order Instituting Rulemaking to Consider Smart Grid Technologies Pursuant to Federal Legislation and on the Commission's own Motion to Actively Guide Policy in California's Development of a Smart Grid System	6/28/10, 1/1/10	The PUC is directed to determine the requirements for a smart grid deployment plan consistent with the policies set forth in SB 17 and federal law by July 1, 2010. The PUC provided criteria for the use, the development and the review of Smart Grid Deployment Plans required for all IOUs and municipalities. On 10/22/2010, Pacific Gas and Electric, SCE, and San Diego Gas and Electric distributed their report on "Consensus and Non-Consensus Smart Grid Metrics." A pre-hearing conference was scheduled for September 2011. <sup>68</sup>	
CPUC Rulemaking 08-12-009, Decision 09-09-029	Decision Establishing Commission Processes for Review of Projects and Investments by Investor- Owned Utilities Seeking Recovery Act Funding	9/10/09	Establishes PUC processes for review of grid modernization projects and investments by investor-owned utilities seeking ARRA funding. <sup>69</sup>	

<sup>&</sup>lt;sup>64</sup> ADS, Demand Response & Smart Grid—State Legislative and Regulatory Policy Action Review: May 2010 – June 2011 Accessed 9/15/11. <u>http://www.demandresponsesmartgrid.org/Resources/Documents/State%20Policy%20Survey/2010%20-</u> %2011%20DR%20%20SG%20State%20Policy%20Survey\_11%2007%2007\_FINAL%20%282%29.pdf

California PUC, http://docs.cpuc.ca.gov/PUBLISHED/REPORT/132240.htm

<sup>&</sup>lt;sup>65</sup> California Energy Commission, Proposed Regulations for the Homebuyer Solar Option and Solar Offset Program. Accessed 9/14/11. <u>http://www.energy.ca.gov/2010-SOPR-1/documents/Text\_of\_Modified\_Regulations\_15-Day\_Language.pdf</u> <sup>66</sup> California PUC, Proceeding A0712009. Accessed 9/19/11. <u>http://docs.cpuc.ca.gov/proceedings/A0712009.htm#decisions</u>

<sup>&</sup>lt;sup>67</sup> California PUC, Rulemaking 09-08-009, Decision 10-07-044. Accessed 9/19/11. <u>http://docs.cpuc.ca.gov/proceedings/R0918009.htm</u>

<sup>&</sup>lt;sup>68</sup> California PUC, Decision 10-06-047. Accessed 9/14/11. <u>http://docs.cpuc.ca.gov/word\_pdf/FINAL\_DECISION/119902.pdf</u>, <u>http://docs.cpuc.ca.gov/efile/RULINGS/129000.pdf</u>

<sup>&</sup>lt;sup>69</sup> California PUC, Decision 09-09-029. Accessed 9/14/11. http://docs.cpuc.ca.gov/word\_pdf/FINAL\_DECISION/106992.pdf

Item	Title	Dates	Description
Regulatory		•	
AB 1X, CPUC Order No. 719	Demand Response Barriers Study	2009, February 2001	Authorized the California Department of Water Resources to purchase power and sell it to retail customers on behalf of utilities in California. Capped electric rates for the first two tiers (up to 130% of baseline usage) at February 1, 2001 rate levels which restricts the ability of the PUC or utilities to implement anything but voluntary dynamic or CPP rates. Dynamic rates limited to non-residential customers. Allows energy service providers to continue to serve existing day-ahead customers, but prohibits enrollment of new customers. As of 2009, the PUC was considering whether these issues constitute a state rule or regulation that in effect prohibits direct participation of demand response in CAISO markets, per FERC Order 719. <sup>70</sup>
CPUC Decision No. 08-07-047	Order Instituting Rulemaking to Examine the Commission's Post-2005 Energy Efficiency Policies, Programs, Evaluation, Measurement, and Verification, and Related Issues	7/31/2008	Sets new energy efficiency goals for years 2012 through 2020 consisting of separate electricity savings and demand reduction requirements for each of the three investor-owned electrical utilities. <sup>71</sup>
CPUC Decision 03- 06-032	NA	6/5/2003	Adopted price-responsive demand response programs for large customers and set annual participation goals for utility demand response programs; initiated the exploration of AMI, RTP, and default CPP tariffs. <sup>72</sup>
NA	Energy Action Plan	5/8/2003	The California PUC and the California Power Authority prepared a plan which established the goal of achieving price-sensitive demand response capacity of 5 percent of annual peak loads by 2007. <sup>73</sup>

The Global Warming Solutions Act of 2006 set a 2020 greenhouse gas emissions reduction goal into law. The California Air Resources Board (ARB) was directed to develop a plan to reduce greenhouse gases. By Jan 1, 2011 the ARB completed major rulemakings for reducing greenhouse gases including market mechanisms. The ARB may revise the rules after 1/1/2011. On Jan 1, 2012 the rules adopted by the ARB are legally enforceable.<sup>74</sup>

California's 2010-2012 Energy Efficiency Plan sets targets for its four major electric and gas utilities. The plan calls for almost 1,500 MW of peak savings and 7,000 GWh to be saved over the three year period, or 0.94 percent of California's 2008 sales annually.<sup>75</sup>

California carried out the nation's first comprehensive dynamic pricing pilot program, known as the Statewide Pricing Pilot. This program involved approximately 2,500 residential, commercial and industrial customers. This provided information about the willingness of customers to lower their peak demand at different price levels. A large number of customers continued on the experimental rates despite a new metering charge, signifying that fully informed customers are more likely to participate in dynamic pricing programs.<sup>76</sup>

<sup>&</sup>lt;sup>70</sup> CAISO, CAISO Demand Response Barriers Study (per FERC Order 719), April 28, 2009. Accessed 9/14/11. http://www.caiso.com/2410/2410ca792b070.pdf

<sup>&</sup>lt;sup>71</sup> DSIRE – Energy Efficiency Resource Standard. Accessed 2/28/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=CA62R&re=1&ee=1</u>

<sup>&</sup>lt;sup>72</sup> PUC Continues Efforts to Improve Demand Response Programs for State to Help Meet Energy Needs. Accessed 2/28/11. <u>http://docs.cpuc.ca.gov/published/News\_release/63999.htm</u>

<sup>73</sup> CAISO, Demand Response Barriers Study, CAISO, April 2009. Accessed 2/18/11. http://www.caiso.com/2410/2410ca792b070.pdf.

<sup>&</sup>lt;sup>74</sup> AB 32: Global Warming Solutions Act. Accessed 3/2/11. <u>http://www.arb.ca.gov/cc/ab32/ab32.htm</u>

<sup>75</sup> California PUC. Rulemaking 06-04-010, Decision 08-07-021, Decision Approving 2010 to 2012 Energy Efficiency Portfolios and Budgets. Accessed 2/18/11. <a href="http://docs.cpuc.ca.gov/PUBLISHED/AGENDA\_DECISION/107378.htm">http://docs.cpuc.ca.gov/PUBLISHED/AGENDA\_DECISION/107378.htm</a>

<sup>&</sup>lt;sup>76</sup> Draft for Comment of the National Action Plan on Demand Response The Federal Energy Regulatory Commission Staff Docket No. AD09-10, Prepared with the support of The Brattle Group, GMMB, Customer Performance Group, David Lineweber. Accessed 2/4/11. http://www.ferc.gov/legal/staff-reports/03-12-10-demand-response.pdf

Southern California Edison (SCE) currently offers several demand response programs including "Automated Demand Responses" which enables eligible SCE customers to participate in SCE Demand Response programs by reducing electricity usage during periods of peak demand without manual intervention. Customers pre-select their levels of participation and automatically take part in a demand response event, permitting customers increased flexibility and ease-of-use. SCE also has the "TOU Base Interruptible Program" which requires participants choose a firm service level that reflects the amount of electricity the customer determines is necessary to meet their operational requirements during a TOU base interruptible program event.<sup>77</sup>

Pacific Gas and Electric currently implements demand response programs for all business sizes. This includes the Peak Day Pricing Plan for large businesses where consumers receive credits for accepting additional charges during peak hours on certain "event" days. The credits then can be used during the summer months. In the PeakChoice program large business consumers receive an incentive to reduce their facility's load to or below a level that is pre-selected by the consumer.<sup>78</sup>

San Diego Gas and Electric also offers demand response programs, including a Base Interruptible Plan, Capacity Bidding Plan, CPP Plan, and a Summer Saver Plan. In the Base Interruptible Plan customers reduce power usage to a pre-determined level and receive monthly bill credits. In the Capacity Bidding Plan customers earn monthly payments by pledging or "bidding" power reduction levels. In the Summer Saver Plan, customers can allow the utility to remotely reduce the run-time of their air conditioner on summer days with high temperatures.<sup>79</sup>

<sup>&</sup>lt;sup>77</sup> SCE website. Accessed 2/18/11. <u>http://www.sce.com/b-rs/demand-response-programs/</u>.

<sup>&</sup>lt;sup>78</sup> Pacific Gas and Electric website. Accessed 3/2/11. <u>http://www.pge.com/mybusiness/energysavingsrebates/demandresponse/</u>.

<sup>&</sup>lt;sup>79</sup> San Diego Gas and Electric website. Accessed 3/2/11. <u>http://www.sdge.com/aboutus/longterm/longtermDemandResponse.shtml</u>

# Colorado

ltem	Title	Dates	Description
Legislative			
SB 131	Concerning the Creation of a Smart Energy Grid In Colorado Recommendations of the Colorado Smart Grid Task Force.	03/17/2011	Seeks to address issues related to the development of a smart energy grid and to make recommendations for future legislation. Implements the smart grid task force's recommendations in its January 2011 report. Bill is postponed indefinitely. <sup>80</sup>
HB 1191	Utility Resource Usage Data Sharing	02/24/2011	Directs the PUC to certify independent data aggregators in sharing aggregated customer data with the requirement that a customer's personally identifiable information is removed. <sup>81</sup>
SB 10-180	An act Considering the Development of a Smart Grid in Colorado andConvening a Task Force	January 2011, May 2010	Addresses the creation of a smart grid task force. The task force is formed to recommend legislative and administrative measures to encourage the orderly implementation of smart grid technology. <sup>82</sup> In January 2011, the smart grid task force submits a report with consensus recommendations in the areas of: 1) challenges and opportunities in Colorado; 2) workforce and economic development; 3) consumer issues and data management; 4) distributed energy resources and grid management; 5) technical specifications; and 6) grid operations. The task force will meet annually to update the report. <sup>83</sup>
S. 39, 67th Gen. Assem., Reg. Sess. (Co. 2009) (amending CO Rev. Stat. § 40-9.5-106(2)	Cooperative Electric Associations, Prohibited Acts	8/5/2009	Includes legislation that permits cooperative electric associations to introduce inclining block rates for residential customers to promote energy efficiency. <sup>84</sup>
HB 1160	An act concerning net metering for customer-generators of electric utilities	3/26/2008	Requires municipal utilities with more than 5,000 customers and all cooperative utilities to offer net-metering. Signed into law by the Governor on 3/26/2008. <sup>85</sup>
HB 07-1037	An act concerning measures to promote energy efficiency	5/22/2007	Requires the Colorado PUC to establish energy savings goals for electric utilities as well as provide utilities with financial incentives for implementing cost-effective energy-saving programs. The PUC must annually report on the progress made by IOUs in working toward their DSM goals. Signed into law by the Governor on 5/22/2007. <sup>86</sup>

<sup>&</sup>lt;sup>80</sup> Colorado General Assembly, SB 131. Accessed 9/20/11. <u>http://www.leg.state.co.us/CLICS/CLICS2011A/csl.nsf/MainBills?openFrameset</u>

<sup>&</sup>lt;sup>81</sup> Colorado General Assembly, HB 1191. Accessed 9/20/11. http://www.leg.state.co.us/CLICS/CLICS/2011A/csl.nsf/MainBills?openFrameset

<sup>&</sup>lt;sup>82</sup>Smart Grid Deployment in Colorado: Challenges and Opportunities, University of Colorado at Boulder, Kevin Doran, Frank Barnes, Puneet Pasrich, eds. Accessed 2/9/11. http://cees.colorado.edu/sgreport.pdf SB 10-180. Accessed 2/16/11. http://rechargecolorado.com/images/uploads/pdfs/sb 10 180.pdf

<sup>&</sup>lt;sup>83</sup> ADS, Demand Response & Smart Grid—State Legislative and Regulatory Policy Action Review: May 2010 – June 2011 Accessed 9/15/11. <u>http://www.demandresponsesmartgrid.org/Resources/Documents/State%20Policy%20Survey/2010%20-%2011%20DR%20%20Scate%20Policy%20Survey 11%2007%2007 FINAL%20%282%29.pdf</u>

Smart Grid Task Force, Deploying Smart Grid in Colorado, Recommendations and Options. Accessed 9/15/11. http://rechargecolorado.com/images/uploads/pdfs/Deploying Smart Grid in Colorado Recommendations and Options.pdf

<sup>&</sup>lt;sup>84</sup> Draft for Comment of the National Action Plan on Demand Response The Federal Energy Regulatory Commission Staff Docket No. AD09-10, Prepared with the support of The Brattle Group, GMMB, Customer Performance Group, David Lineweber. Accessed 2/4/11. <u>http://www.ferc.gov/legal/staff-reports/03-12-10-demand-response.pdf</u>

<sup>&</sup>lt;sup>85</sup> DSIRE, Colorado - Net Metering. Accessed 2/14/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=CO26R</u>

<sup>&</sup>lt;sup>86</sup> Colorado Utility Policies. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/colorado/179/all/191</u>

Item	Title	Dates	Description				
Regulatory	Regulatory						
PUC Docket No. 10R-799E,	Rulemaking - Smart-	08/29/2011	Recommended decision to revise the current rules applicable to smart meter data privacy and disclosure				
Decision No. R11-0922	Grid Data Privacy		rules. Includes clarification of what constitutes customer data, data collection, cost of access to standard				
	Rules, 4 CCR 723-3		customer data associated with base rates, and rules regarding the sharing of customer data directly to a				
			third-party by the utility in compliance with a customer's request. <sup>87</sup>				
SB 51, C.R.S. 40-2-124, 4 CCR	Renewable energy	6/5/2010,	Net metering rules for solar thermal electric, PV, wind, biomass, hydroelectric, geothermal electric,				
723-3, Rule 3664, C.R.S. 40-	standard - net	9/1/2009,	recycled energy, small hydroelectric, fuel cells using renewable fuels. <sup>88</sup> SB 51 defined new rules for net				
9.5-118, HB 1342, PUC	metering	7/2/2006,	metering, which changed the insurance requirements for interconnection, and addressed utility concerns				
Decision C09-0990			with highly seasonal circuits and voltage flicker. <sup>89</sup>				
NA	EPAct/PURPA	March 2008	The Colorado PUC decided not to adopt PURPA Standard 14 (Time-Based Metering and Communications)				
	Standard 14		as enacted in EPAct 2005. <sup>90</sup>				
Executive Order D 005-05	Executive Order,	July 2005	Requires all state government agencies and departments to adopt the LEED rating system for existing and				
	Greening of State		new buildings to ensure reductions in energy use to the extent practical and cost effective. Also requires				
	Government		an energy management program within state agencies to monitor and manage utility use and costs. <sup>91</sup>				

The SWEEP is a public interest organization promoting greater energy efficiency in Arizona, Colorado, Nevada, New Mexico, Utah, and Wyoming that collaborates with utilities, state agencies, local governments, environmental groups, universities, private businesses, and other energy specialists. In 2010, SWEEP initiated new programs to improve energy efficiency in the industrial sector, and provide technical assistance to states, counties and cities that received federal stimulus funding for energy efficiency projects.<sup>92</sup>

The Colorado PUC is authorized to provide incentives for IOUs to provide DSM. <sup>93</sup>

Xcel Energy's Smart Grid City project in Boulder originally included plans to incorporate a web portal and in-home devices for customers to monitor energy use, including twoway meters for 25,000 residential and 300 commercial and industrial accounts. Currently 23,000 smart meters have been installed and the company has suffered some attrition regarding its dynamic pricing pilots associated with the project. On November 1, 2011, city residents will vote on two ballot measures which could lead to the creation of a municipal utility in Boulder, and effectively end the franchise agreement for Xcel Energy to supply power to Boulder.<sup>94</sup>

Poudre Valley Rural Electric Association has contracted with Landis & Gyr for the installation and deployment of AMI on the cooperative's 3,600 miles of power lines in Larimer, Weld, and Boulder counties. By the end of 2010 approximately 4,000 meters had been installed, and an additional 6,000-7,000 meters will be installed by the end of 2011. In 2014, all 36,000 meters will be deployed to customers.<sup>95</sup>

 <sup>&</sup>lt;sup>87</sup> Colorado PUC, Docket No. 10R-799E, Decision No. R11-0922. Accessed 9/15/11. <u>https://www.dora.state.co.us/pls/efi/EFI.Show\_Docket?p\_session\_id=&p\_docket\_id=10R-799E</u>
 <sup>88</sup> SGIC. Accessed 2/4/11, <u>http://www.sgiclearinghouse.org/Legislation</u>

<sup>&</sup>lt;sup>89</sup> Colorado Clean Distributed Generation. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/Colorado/179/all/195</u>

<sup>&</sup>lt;sup>90</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/9/1.

http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf <sup>91</sup> Colorado Lead by Example Initiatives. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/Colorado/179/all/202</u>

<sup>&</sup>lt;sup>92</sup> Southwest Energy Efficiency Project. Accessed 2/4/11, <u>http://www.aceee.org/about/index.html</u>

<sup>93</sup> Clean and Secure Energy Actions Report 2010 Update. Accessed 2/4/11, http://www.nga.org/Files/pdf/1008CLEANENERGYEFFICIENCYUTILITYDEMAND.PDF

<sup>&</sup>lt;sup>94</sup> Tour of Smart Grid Projects and State Policies by Lisa Schwartz, Presentation to the Oregon PUC, Smart Grid Workshop – September 9, 2009, RAPOnline, Source: Ethnie Groves, Xcel Energy. Accessed 2/7/11 http://www.sgiclearinghouse.org/Legislation?q=node/2303&lb=1

Colorado PUC, Decision No. C11-0869. Accessed 9/29/11. <u>https://www.dora.state.co.us/pls/efi/efi p2 v2 demo.show document?p dms document id=125674</u> Davidson, Michael, Lines Drawn in Boulder utility debate, Boulder County Business Report, September 2, 2011. Accessed 9/29/11. <u>http://www.bcbr.com/article.asp?id=59526</u> 95 Poudre Valley Rural Electric Association, Poudre Valley REA Is Installing Automated Meters. Accessed 9/26/11. <u>http://www.pvrea.com/programs/smartgrid.html</u>

# Connecticut

ltem	Title	Dates	Description
Legislative			
SB 1243, Public Act No. 11-80	An Act Concerning the Establishment of the Department Of Energy and Environmental Protection and Planning For Connecticut's Energy Future.	7/1/2011	Requires EDCs implement DSM, including energy efficiency, load management, demand response, CHP facilities, DG, and other emerging energy technologies. Creates the Department of Energy and Environmental Protection. Includes provisions related to peak demand reduction, a TOU pricing option, and notification of TOU meter availability. <sup>96</sup>
Public Act 07-242/HB 7432	An Act Concerning Electricity and Energy Efficiency	10/1/2007	Connecticut's two IOUs are required to provide net metering to customers that generate electricity using "Class I" renewable-energy resources up to two MW in capacity. Legislation enacted in June 2007 (HB 7432, Section 39) raised the individual system capacity limit to two MW (previously 100 kW) and extended net metering to all customer classes. <sup>97</sup> Mandates that every electric distribution company submit an AMI plan to the DPUC. Signed by the Governor on 6/4/2007 and took effect 10/1/2007. <sup>98</sup>
Public Act 98-28	An Act Concerning Electric Restructuring	1998	Created separate funds to support energy efficiency and renewable energy. The efficiency fund is known as the Energy Efficiency Fund, and the renewables fund is known as the Connecticut Clean Energy Fund. <sup>99</sup>
Conn. Gen. Stat. § 7- 233y	NA	NA	Requires municipal electric utilities to establish a fund to provide renewable energy, energy efficiency, conservation and load-management programs. <sup>100</sup>
Regulatory			
Docket 10- 03-13	Department of Public Utility Control (DPUC) Declaratory Ruling Concerning Net Metering	2010- 2011	In mid 2010, the DPUC opened a docket (Docket 10-03-13) to consider revisions to net metering in Connecticut, including the possibility of virtual net metering. A draft decision was planned to be issued by the end of January 2011 with a final decision delivered in February 2011, but the decision has yet to be rescheduled. <sup>101</sup>

Connecticut enacted electricity restructuring legislation in 1998 that put the state in a good position to handle smart grid developments. Net metering is available for any customer in the state where energy production exceeds the energy supplied. Connecticut's two IOUs, Connecticut Light and Power (CL&P) and United Illuminating Company, are required to provide net metering to customers that generate electricity using "Class I" renewable-energy resources, which include solar, wind, landfill gas, fuel cells, sustainable

<sup>&</sup>lt;sup>96</sup> ADS, Demand Response & Smart Grid—State Legislative and Regulatory Policy Action Review: May 2010 – June 2011 Accessed 9/15/11. http://www.demandresponsesmartgrid.org/Resources/Documents/State%20Policy%20Survey/2010%20-%2011%20DR%20%20SG%20State%20Policy%20Survey\_11%2007%2007\_FINAL%20%282%29.pdf

Colorado Department of Energy and Environmental Protection, SB 1243, Public Act No. 11-80. Accessed 9/15/11. http://www.cga.ct.gov/2011/ACT/PA/2011PA-00080-R00SB-01243-PA.htm

<sup>&</sup>lt;sup>97</sup> Database of State Incentives for Renewables and Efficiency (DSIRE). Accessed 2/8/11. <u>http://www.dsireusa.org/</u>

<sup>&</sup>lt;sup>98</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/9/1.

http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>&</sup>lt;sup>99</sup> Database of State Incentives for Renewables and Efficiency (DSIRE). Accessed 2/8/11. <u>http://www.dsireusa.org/</u>

<sup>&</sup>lt;sup>100</sup> Database of State Incentives for Renewables and Efficiency (DSIRE). Accessed 2/8/11. <u>http://www.dsireusa.org/</u>

<sup>&</sup>lt;sup>101</sup> Database of State Incentives for Renewables and Efficiency (DSIRE). Accessed 2/8/11. <u>http://www.dsireusa.org/</u> Colorado Department of Energy and Environmental Protection, Time Schedule for Docket No. 10-03-13. Accessed 9/15/11. <u>http://www.dpuc.state.ct.us/dockcurr.nsf/8e6fc37a54110e3e852576190052b64d/7785de2b9f280e818525773e005e3009?OpenDocument</u>

biomass, ocean-thermal power, wave or tidal power, low-emission advanced renewable-energy conversion technologies, and hydropower facilities up to two MW in capacity. Legislation enacted in June 2007 (HB 7432, Section 39) raised the individual system capacity limit to two MW and extended net metering to all customer classes.<sup>102</sup>

In summer 2009, CL&P initiated a pilot program for demand response in order to discover how to most effectively reduce electricity usage during peak periods when demand for electricity reaches a critical level. Data from this program has been analyzed and the results have led to a number of conclusions about customer response to prices, both with and without various enabling technologies.<sup>103</sup>

Each of Connecticut's municipal electric utilities is required by statute (Conn. Gen. Stat. § 7-233y) to establish a fund to provide renewable energy, energy efficiency, conservation and load-management programs.<sup>104</sup>

<sup>&</sup>lt;sup>102</sup> Database of State Incentives for Renewables and Efficiency (DSIRE). Accessed 2/8/11. <u>http://www.dsireusa.org/</u>

<sup>&</sup>lt;sup>103</sup> FERC. Accessed 2/8/11. <u>http://www.ferc.gov/legal/staff-reports/03-12-10-demand-response.pdf</u>

<sup>&</sup>lt;sup>104</sup> Database of State Incentives for Renewables and Efficiency (DSIRE). Accessed 2/8/11. <u>http://www.dsireusa.org/</u>

## Delaware

Item	Title	Dates	Description
Legislative			
SB 124	An Act to Amend Title 26 of the Delaware Code Relating to Delaware's REPS And Delaware- Manufactured Fuel Cells	7/7/2011	Amended sections of the REPS Act. Allows the energy output from fuel cells manufactured in Delaware that can run on renewable fuels to be an eligible resource to fulfill a portion of the requirements for a PSC-regulated utility under the REPS Act. Creates a regulatory framework by which the PSC will review a tariff to be filed by Delmarva deploying Delaware-manufactured fuel cells as part of a 30 MW project. The PSC shall consider the incremental cost of the fuel cell project to customers. Bill was signed by the Governor on 7/7/2011. <sup>105</sup>
26 DE C. § 1014(d), SB 267, CDR § 26-3000- 3001	Regulations Governing Service Supplied by Electrical Corporations	7/26/2010, 1/10/2010, 1999	Net metering is available to any customer that generates electricity using solar, wind or hydro resources, anaerobic digesters, or fuel cells powered by renewable fuels. Grid-interactive electric vehicles are also eligible for net metering treatment for electricity that they put on the grid, although these vehicles do not themselves generate electricity. The maximum capacity of a net-metered system is 25 kW for residential customers. <sup>106</sup>
SB 106	Energy Conservation and Efficiency Act of 2009	7/29/2009	Created EERS and set goals for consumption and peak demand for electricity and natural gas utilities. The goals are 15 percent peak reduction and electricity consumption savings and 10 percent natural gas consumption savings by 2015. Signed by the Governor on 7/29/2009. <sup>107</sup>
SB 8	An Act to Amend Title 26 of the Delaware Code Relating to Net Energy Metering	6/12/2007	Amends net energy metering standards to increase the net-metering capacity limit for non- residential facilities to 2 MW per Delmarva Power and Light meter, 500 kW per Delaware Electric Cooperative meter, and 500 kW per municipal electric meter. Allows net-metering customers to carry over excess energy credits from month to month during a 12 month period to account for seasonal variance in generation and consumption. All unused credits at the end of the 12 month period are forfeited to utilities to fund low-income energy assistance programs. Bill was substituted on 6/12/2007. <sup>108</sup>
HB 507	An Act to Amend Title 26 of the Delaware Code Relating to Net Metering and Billing	6/14/2006	Gives electric consumers, who own and operate an electric generation facility for the purposes of net energy metering, the right to demand that Delmarva personnel read their electric meter once per fiscal quarter and be billed based on the actual reading. Signed into law by the Governor on 6/14/2006. <sup>109</sup>

 <sup>&</sup>lt;sup>105</sup> State of Delaware, 144th General Assembly, SB 124. Accessed 9/22/11. <u>http://www.legis.delaware.gov/LIS/LIS146.NSF/vwLegislation/SB+124?Opendocument</u>
 <sup>106</sup> DSIRE, Delaware – Net Metering. Accessed 2/18/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive Code=DE02R&re=1&ee=1</u>
 <sup>107</sup> The Governor's Energy Advisory Council. Delaware Energy Plan, 2009-2014.
 <sup>108</sup> State of Delaware, 144th General Assembly, SB 8. Accessed 9/22/11. <u>http://www.legis.delaware.gov/LIS/LIS144.NSF/vwLegislation/SB+8?Opendocument</u>
 <sup>109</sup> State of Delaware, 143th General Assembly, HB 507. Accessed 9/22/11. <u>http://www.legis.delaware.gov/LIS/LIS143.NSF/vwLegislation/HB+507?Opendocument</u>

Item	Title	Dates	Description
Legislative			
НВ 6	An Act to Amend Title 26Oversight of Public Utilities that Distributed and Supply Electricity to Retail Electric Customers	4/06/2006	Amends the Electric Restructuring Act of 1999 with provisions to stabilize electricity pricing for consumers. Allows EDCs, subject to PSC approval, to own and operate facilities enabling them to generate electricity for supply to customers. Authorizes EDCs to obtain supply in ways that are not necessarily reflective of short-term regional market prices. EDCs must create programs designed to reduce or shift electric consumption by customers at times of peak usage or at other times. Signed into law by the Governor on 4/06/2006. <sup>110</sup>
SB 74	An Act to Amend Title 26 of the Delaware Code Relating to Renewable Energy Portfolio Standards	7/21/2005	Establishes REPS requiring electricity suppliers to supply a percentage of their total annual electricity sales from renewable energy resources. This percentage incrementally increases from 1% in 2007 to 10% by 2019. Includes solar, wind energy, geothermal, ocean energy, fuel cells, small hydropower, landfill gas and sustainable biomass. Establishes a market-based renewable energy credit trading system encouraging regional exchange of electricity. Signed into law by the Governor on 7/21/2005. <sup>111</sup>
Regulatory			
Docket No. Reg. 49, Order No. 7984	In the Matter of the Adoption of Rules and Regulations Competitive Market for Retail Electric Supply Service	7/7/2011	Approves the final net metering rules for implementation as required by SB 267. <sup>112</sup>
Docket Reg. 56, Order No. 8026	Rules and Procedures to Implement the REPS	6/6/2011	Order reopening docket to approve publication of proposed amended rules regarding implementation of the REPS Act, per SB 124, and establishing 11/3/2011 deadline for comments on the proposed amended rules. <sup>113</sup>
Docket No. 08- 414, Order No. 7502	EPAct/PURPA Standard 14	12/16/2008, January 2007	The Delaware PSC decided not to adopt PURPA Standard 14 (Time-Based Metering and Communications) as enacted in EPAct 2005. <sup>114</sup>

The nonprofit Sustainable Energy Utility (SEU) was created on June 28, 2007 through the passing of SB 18. The law created a nonprofit corporation under the direction of a State Energy Coordinator within the Delaware Energy Office, Department of Natural Resources and Environmental Control. The SEU's goals are to advance energy efficiency and affordable energy and to promote and help to achieve customer-sited renewable energy generation. The SEU has initiated an ENERGY STAR Appliance Rebate Program, Efficiency Plus Home Program, Efficiency Plus Business Program, the Low-Income Multi-family Housing Program, Home Lighting Discount Program, and a "Green for Green" program for building construction.<sup>115</sup>

Delmarva Power has a DSM program, Blueprint for the Future, contains a general awareness campaign which promotes customers DSM education, a home audit based program, HVAC efficiency, compact florescent lighting and high efficiency windows program, remotely controllable programmable thermostat, consulting/engineering services to improve building efficiency, site specific efficiency measures, and a web-based platform to facility participation in the PJM Demand Response Market.<sup>116</sup>In May 2011, Delmarva Power launched a new smart meter education campaign titled "Take Control" for educating its customers on the new technology and its capabilities. A key focus for the campaign is encouraging customers to sign up for My Account, a free online energy audit tool that can provide a personalized energy profile to help customers manage their energy use.<sup>117</sup>

<sup>&</sup>lt;sup>110</sup> State of Delaware, 143th General Assembly, HB 6. Accessed 9/22/11. <u>http://legis.delaware.gov/LIS/LIS143.NSF/vwLegislation/HB+6?Opendocument</u>

<sup>&</sup>lt;sup>111</sup> State of Delaware, 143th General Assembly, SB 74. Accessed 9/22/11. http://www.legis.delaware.gov/LIS/LIS143.NSF/vwLegislation/SB+74?Opendocument

<sup>&</sup>lt;sup>112</sup> Delaware PSC, 2011 Commission Orders. Accessed 9/22/11. <u>http://depsc.delaware.gov/orders/11orders.pdf</u>

<sup>&</sup>lt;sup>113</sup> Delaware PSC, 2011 Commission Orders. Accessed 9/22/11. http://depsc.delaware.gov/orders/11orders.pdf

<sup>&</sup>lt;sup>114</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/9/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>&</sup>lt;sup>115</sup> Delaware Utility Policies. Accessed 2/18/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/delaware/181/all/191</u>

<sup>&</sup>lt;sup>116</sup> Pepco and Delmarva Power. National Association of Regulatory Utility Commissioners/FERC Collaborative on Demand Response, 2007.

<sup>&</sup>lt;sup>117</sup> Delmarva Power, Delmarva Power Launches Smart Meter Education Campaign, 5/18/11. Accessed 9/29/11. <u>http://www.delmarva.com/welcome/news/releases/archives/2011/article.aspx?cid=1731</u>

# **District of Columbia**

Item	Title	Dates	Description
Legislative			
Code § 34-1431 et seq., DC Laws 18- 0303, 18-0223, B19-0384, B19-10	REPS, Clean and Affordable Energy Act, Emergency Distributed Generation Amendment Act, and the Distributed Generation Amendment Act	8/9/2011, 10/2008, 1/2005	REPS that applies to all retail electricity sales. Includes a schedule of minimum percentages from eligible renewable resources for the years 2007 through 2023. Also clarifies the certification requirements for non-residential solar thermal systems. Tier 1 renewable resources include solar, wind, biomass, landfill gas, wastewater treatment gas, geothermal, ocean and fuel cells. Tier 2 renewable resources include hydropower (other than pumped-storage generation) and municipal solid waste. <sup>118</sup>
Council Bill 17- 492, Code § 34- 1501 et seq., PSC Order No. 15837	Retail Electric Competition and Consumer Protection, Net Metering	6/18/2010, 10/2008	Net metering is currently available to residential and commercial customer owned generators with systems powered by solar, wind, tidal, geothermal, biomass, hydroelectric power and digester gas energy sources, CHP, fuel cells, and microturbines, with a maximum capacity of 1 MW. <sup>119</sup>
Regulatory		0/1/0011	
Order No. 16484, Case No. FC1056	In the Matter of the Application of PEPCO for Authorization toEstablish a DSM Collaborative and an AMI Advisory Group	8/4/2011	PSC requests the AMI Task Force determine a detailed customer education plan explaining how customers would be educated on the increased availability of energy usage data and the enablement of customer benefits, by November 1, 2011. PEPCO is directed not to utilize smart meters' remote disconnect and reconnect capability in any manner that deviates from the Commission procedures for termination of service as set out in the Consumer Bill of Rights. <sup>120</sup>
Order No. 15973, Case No. FC1056	In the Matter of the Application of PEPCO for Authorization toEstablish a DSM Collaborative and an AMI Advisory Group	9/13/2010	PSC hearing to address PEPCO's dynamic pricing proposal, particularly a bill protection mechanism, rationality of a phased approach, and critical peak rebate amounts. <sup>121</sup>
Order No. 15967, Case No. FC1083	In the Matter of the Investigation into the Policy Matters pertaining to the implementation of the Smart Grid	9/7/2010	Directs the PSC Office of the Commission Secretary to open a formal case to address policy matters pertaining to the implementation of the smart grid. <sup>122</sup>
Order No. 15182, DCMR 15-4000 et seq.	In the Matter of the Investigation of Implementation of Interconnection Standards	2/2009	Interconnection rules applying to all distributed generation systems of 10 MW or smaller operated in parallel with the electric distribution system that are not subject to the interconnection requirements of the PJM Interconnection. The rules set four levels of review for interconnection requests. <sup>123</sup>

<sup>&</sup>lt;sup>118</sup> DSIRE, District of Columbia - Renewables Portfolio Standard. Accessed 11/15/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=DC04R&re=1&ee=1</u>
<sup>119</sup> DSIRE, District of Columbia - Net Metering. Accessed 11/15/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=DC01R&re=1&ee=1</u>
<sup>120</sup> DC PSC, Order No. 16484. Accessed 11/15/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=DC01R&re=1&ee=1</u>
<sup>121</sup> DC PSC, Order No. 15973. Accessed 11/15/11. <u>http://www.dspc.org/pdf\_files/commorders/orderpdf/orderno\_16484\_FC1056.pdf</u>
<sup>122</sup> DC PSC, Order No. 15973. Accessed 11/15/11. <u>http://www.dspc.org/pdf\_files/commorders/orderpdf/orderno\_15973\_FC1083.pdf</u>
<sup>123</sup> PDF District of Columbia - Interconcenting Encoded 11/15/11. <u>http://www.dspc.org/pdf\_files/commorders/orderpdf/orderno\_15973\_FC1083.pdf</u>

<sup>&</sup>lt;sup>123</sup> DSIRE, District of Columbia – Interconnection Standards. Accessed 11/15/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=DC03R&re=1&ee=1</u>

Item	Title	Dates	Description
Regulatory			
Code § 8-1773.01 § 8-1774.01 et seq. , Code § 8- 1774.01, Order No. 15164, Case No. 945	Clean and Affordable Energy Act	10/2008	Creates the Sustainable Energy Trust Fund as part of the PSC requirement to establish a PBF to provide energy assistance to low-income residents, and support energy efficiency and renewable energy programs. Administered by a third party SEU and financed by a non-bypassable surcharge on the electric bills of utility customers. <sup>124</sup>
Order No. 14405, Case No. FC1049	EPAct/PURPA Standard 14	8/2007	PSC issued an order declining to adopt PURPA Standard 14 ("Time-Based Metering and Communications") prior to completing two related proceedings. One proceeding was to consider PEPCO's application to establish a comprehensive demand response, advanced metering, and energy efficiency plan, and the other proceeding was to investigate the procurement process for Standard Offer Service. <sup>125</sup>
NA	NA	3/2007	PSC forms a "Smart Metering Working Group" to discuss EPACT 1252. <sup>126</sup>

As part of the required actions associated with the Sustainable Energy Trust Fund, the SEU contract was awarded to the non-profit Vermont Energy Investment Corporation in March 2011. This SEU is required to implement energy-saving measures in low-income multifamily homes, to arrange for energy-saving installations in commercial buildings, and create green jobs, along with other initiatives. Vermont Energy Investment Corporation has contributed to similar programs in Vermont, Oregon, Delaware, and Maine.<sup>127</sup>

In July 2008, the PSC approved a smart-meter tariff proposed by PEPCO and the District of Columbia Smart Meter Pilot Program, Inc., for the PowerCentsDC program.<sup>128</sup> The PowerCentsDC pilot program concluded in 2009 and smart meters, smart thermostats, and three pricing options (hourly pricing, critical peak pricing, and critical peak rebate) were provided for approximately 900 of PEPCO's residential customers. In a final report released around September 2010, the program resulted in a 51% peak-demand reduction for all electric customers with smart thermostats on the critical peak pricing option. The report also indicated over 74% of participants were satisfied with the program.<sup>129</sup>

<sup>124</sup> DSIRE, District of Columbia – Sustainable Energy Trust Fund. Accessed 11/15/11. http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=DC05R&re=1&ee=1

<sup>&</sup>lt;sup>125</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 11/15/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf, http://www.dcpsc.org/pdf files/commorders/orderpdf/orderno 14405 FC1049.pdf

<sup>&</sup>lt;sup>126</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 11/15/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>&</sup>lt;sup>127</sup>DSIRE, District of Columbia – Sustainable Energy Trust Fund. Accessed 11/15/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=DC05R&re=1&ee=1</u>

<sup>&</sup>lt;sup>128</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 11/15/11.

http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>&</sup>lt;sup>129</sup> ADS, Demand Response & Smart Grid—State Legislative and Regulatory Policy Action Review: May 2010 – June 2011 Accessed 11/15/11. <u>http://www.demandresponsesmartgrid.org/Resources/Documents/State%20Policy%20Survey/2010%20-</u> %2011%20DR%20%20SG%20State%20Policy%20Survey 11%2007%2007 FINAL%20%282%29.pdf

# Florida

Item	Title	Dates	Description
Legislative		•	
SB 7100, SB 2106	Florida Energy and Climate Commission	5/26/2011	Eliminates the Florida Energy and Climate Commission and transfers its duties with respect to a tax credit, an incentive program, and renewable energy policy to the Department of Environmental Protection. Transfers the duties of the Florida Energy and Climate Commission with respect to developing the state's energy policy and its duties under the Florida Energy and Climate Protection Act to the Department of Environmental Protection. Vetoed by the Governor on 5/26/2011; a similar bill SB 2156 passed which discusses energy policy. <sup>130</sup>
Florida Legislature, HB 7135, 25-6.065, FAC, PUC Decision C09-0990	Interconnection and Net Metering of Customer- Owned Renewable Generation	3/4/2008	Interconnection rules for renewable-energy systems up to two MW in capacity; applies only to the state's IOUs. <sup>131</sup> This also includes rules for net metering and HB 7135 requires newly constructed/renovated buildings financed by the state to meet nationally recognized green building standards. <sup>132</sup>
Regulatory			
NA	Florida Energy Efficiency and Conservation Act (FEECA)	2008, 1980	Utilities with sales of 2,000 GWh or more are subject to FEECA; requires each utility to implement cost-effective energy efficiency programs and conduct energy audits. It also addresses improving the efficiency of generation, transmission and distribution systems. <sup>133</sup>
Docket Nos. 080407-EG 080413-EG; Order No. PSC-09-0855-FOF-EG	Commission review of numeric conservation goals	December 2009	The PSC created goals for electric utilities at 3.5 percent energy savings over 10 years; a goal less than half of the goal recommended by the Commission staff's own expert. <sup>134</sup>
Order No. PSC-07-0212- PAA-EU	EPAct/PURPA Standard 14	April 2007	The PSC decided not to adopt PURPA Standard 14 (Time-Based Metering and Communications) as enacted in EPAct 2005. <sup>135</sup>

Energy efficiency is considered a resource in Florida. While setting energy savings goals in 2009, the FPSC used multiple cost-effectiveness tests – the Ratepayer Impact Measure (RIM) test, the Total Resource Cost test and the Participant Test. The 1980 FEECA required utilities to implement cost-effective energy efficiency programs. Florida utilities have established DSM conservation goals for summer and winter demand (MW) and annual energy sales (GWh). The Florida PSC reviews DSM goals for each utility and most of these DSM plans include residential, commercial, and industrial sectors. The utilities provide conservation education programs and efficiency incentives to their customers, and recover costs by adding a surcharge to customer bills.<sup>136</sup>

Gulf Power, a subsidiary of Southern Company, has been operating the Energy Select program since the early 1990s. This program includes an automated energy management system and a CPP tariff. Gulf Power estimates that the program induces a drop of 2 kW per participating customer, amounting to approximately 40 to 50 percent of customer load during the top 1 percent of the hours of the year. Gulf Power indicates that Energy Select is credited with reducing its summer peak demand by as much as 20 megawatts.<sup>137</sup> FPL's demand response program, known as On Call, is one of the largest load management systems in the nation. The system uses more than 900,000 load control transponders connecting more than 780,000 users. FPL uses a power line communications system with many control strategies enabled by a two-way communications feature. This system can be an attractive economic alternative when compared with the total cost of adding new peak load power generating plants. <sup>138</sup>

- 132 Florida Clean Distributed Generation. Accessed 2/14/11. http://www.aceee.org/energy-efficiency-sector/state-policy/Florida/2926/all/195
- <sup>133</sup> Florida Utility Policies. Accessed 2/14/11. http://www.aceee.org/energy-efficiency-sector/state-policy/florida/2926/all/191

<sup>&</sup>lt;sup>130</sup> The Florida Senate, SB 2106. Accessed 9/22/11. http://www.flsenate.gov/Session/Bill/2011/2106

<sup>&</sup>lt;sup>131</sup> DSIRE, Florida Interconnection Standards. Accessed 2/9/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?incentive\_Code=FL20R&re=1&ee=1</u>

<sup>&</sup>lt;sup>134</sup> SGIC. Accessed 2/4/11. <u>http://www.sgiclearinghouse.org/Legislation</u>

<sup>135</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/9/11.

http://www.demandresponsesmartgrid.org/Resources/Documents/Final\_NCEP\_Report\_on\_DR\_and\_SM\_Policy\_Actiona\_08.12.pdf <sup>136</sup> SGIC. Accessed 2/4/11. <u>http://www.sgiclearinghouse.org/Legislation</u>

<sup>137</sup> Gulf Power, Conserving Energy and the Environment with Energy Select. Accessed 9/26/11. http://www.gulfpower.com/energyselect/environmental impact.asp

<sup>138</sup> Draft for Comment of the National Action Plan on Demand Response The Federal Energy Regulatory Commission Staff Docket No. AD09-10, Prepared with the support of The Brattle Group, GMMB, Customer Performance Group, David Lineweber. Accessed 2/10/11. http://www.ferc.gov/legal/staff-reports/03-12-10-demand-response.pdf

# Georgia

Item	Title	Dates	Description
Legislativ	e	•	
HR 693	A Resolution urging developersto offer the installation of solar energy systems; and for other purposes.	3/23/2011	Urges developers and builders of residential property in Georgia to offer the installation of solar energy systems. Bill is pending passage in the House. <sup>139</sup>
HR 520	A Resolution Creating the House Study Committee on Renewable and Sustainable Energy in Georgia	3/11/2011	Forms the House Study Committee on Renewable and Sustainable Energy in Georgia to undertake a study of the conditions, needs, issues, and problems related to renewable energy advancement, and recommend any actions or legislation supporting renewable energy goals. <sup>140</sup>
HB 497	An Act to Amend Chapter 3A of Title 46 of the Official Code of Georgia Annotated, Relating to IRP for Certain Electric Suppliers	3/8/2011	Addresses requirements, reports, and recommendations for IRPs for certain electric suppliers, so as to provide for energy savings plans to optimize the use of demand-side capacity options. Bill is pending passage in the House . <sup>141</sup>
SB 147	An Act To Amend Title 46 of the Official Code of Georgia Annotated, Relating to Public Utilities, so as to Provide for Portfolio Standard Goals for Renewable and Recoverable Energy and Energy Efficiency	2/12/2009	Sets a renewable and recoverable energy sources energy portfolio standard goal, including a cumulative reduction in consumption in MWh by 10 percent of its annual net electricity sales by December 31, 2022. Goals can be met through use of electric power that is supplied by a new renewable energy facility or saved due to the implementation of DSM or energy efficiency options. Bill was referred to a committee in February 2009. <sup>142</sup>
0.C.G. § 46-3-50 et seq.	The Georgia Cogeneration and Distributed Generation Act of 2001	6/1/2002	Requires all utilities to offer net metering to customers. Eligible technologies include PV systems, fuel cells and wind turbines up to 10 kW in capacity for residential applications, and systems up to 100 kW for commercial applications. Utilities must offer bi-directional metering or single directional metering to customers, depending on how the customer's facility is connected to the grid. <sup>143</sup>
O.C.G. § 44-9-21 et seq.	Solar Easements	1978	Easements may be established to allow owners of solar-energy systems to negotiate for assurance of continued access to sunlight. <sup>144</sup>
Regulator	Y		
NA	EPAct/PURPA Standard 14	August 2006	The Georgia PSC indicated it would consider PURPA Standard 14 (Time-Based Metering and Communications) as enacted in EPAct 2005 through Georgia Power's 2007 IRP. Georgia Power was directed accordingly in its 2007 IRP. <sup>145</sup>

<sup>&</sup>lt;sup>139</sup>Georgia General Assembly, 2011-2012 Regular Session - HR 693. Accessed 9/22/11. <u>http://www.legis.ga.gov/legislation/en-US/display/33995</u>

<sup>&</sup>lt;sup>140</sup> Georgia General Assembly, 2011-2012 Regular Session - HR 520. Accessed Accessed 9/22/11. <u>http://www.legis.ga.gov/legislation/en-US/display/33587</u>

 <sup>&</sup>lt;sup>141</sup>Georgia General Assembly, 2011-2012 Regular Session – HB 497. Accessed 9/22/11. <a href="http://www.legis.ga.gov/legislation/en-US/display/33586">http://www.legis.ga.gov/legislation/en-US/display/33586</a>
 <sup>142</sup>Georgia General Assembly, 2009-2010 Regular Session - SB 147. Accessed 9/22/11. <a href="http://www.legis.ga.gov/legislation/en-US/display/26988">http://www.legis.ga.gov/legislation/en-US/display/33586</a>

<sup>&</sup>lt;sup>143</sup> DSIRE, Georgia – Net Metering. Accessed 2/18/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=GA02R&re=1&ee=1</u>

<sup>144</sup> DSIRE, Georgia Solar Easements. Accessed 2/18/11. http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=GA01R&re=1&ee=1

<sup>&</sup>lt;sup>145</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/9/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

Georgia Power currently offers 18 demand-response and energy efficiency programs to its customers, including a RTP, TOU and CPP program.<sup>146</sup> Around one million smart meters have been installed since January 2008, and installation of all meters is due to be complete by the end of 2012. The meters are being installed from north to south throughout the state.<sup>147</sup> Georgia EMCs provide a number of DSM and energy efficiency programs designed to reduce peak demand.<sup>148</sup>

Georgia Power participates in the national Change a Light program, supports Home Performance with ENERGY STAR, promotes ENERGY STAR appliances, helps customers with appliance recycling, provides free in-home audits, and runs home improvement programs for low-income customers. Tennessee Valley Authority (TVA) offers audits and incentives for residential and business customers and is encouraging industrial customers to install geothermal heat pumps. Many of the Georgia Electric Membership Corporation's cooperatives offer rebates for installation of certain energy-efficient appliances such as water heaters, heat pumps, programmable thermostats, and compact fluorescent light bulbs.<sup>149</sup>

<sup>&</sup>lt;sup>146</sup> Georgia Power, Environmental Commitment.Accessed 9/26/11. http://www.georgiapower.com/environment/report/environmentalreport.pdf

<sup>&</sup>lt;sup>147</sup> Georgia Power, Your Meter is About to Get Smarter, Accessed 2/18/11. <u>http://www.georgiapower.com/residential/smartmeter.asp</u>

<sup>&</sup>lt;sup>148</sup> Information regarding EMCs comes from Georgia Electric Membership Corporation. Accessed 2/18/11. <u>http://www.georgiaemc.com/documents/2010DSMReport-External.pdf</u>

<sup>&</sup>lt;sup>149</sup> Georgia Utility Policies. Accessed 2/18/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/georgia/183/all/191</u>

### Hawaii

ltem	Title	Dates	Description
Legislative		•	·
SB 181	Photovoltaic; New Construction; Residential; Feasibility Study	7/11/2011	Establishes a working group to study the feasibility of requiring all new single-family residential construction to incorporate design elements and minimum equipment installation at the time of construction to facilitate the future adoption of a photovoltaic system. Became law in July 2011. <sup>150</sup>
SB 367	Interisland High Voltage Electric Transmission Cable System	4/28/11	Establishes a regulatory structure for the installation and implementation of an interisland high voltage electric transmission cable system and for the construction of on-island transmission infrastructure. Effective July 1, 2030. Bill has reportedly "died in conference." <sup>151</sup>
SB 704	A Bill for an Act Relating To Renewable Energy	4/25/2011	Exempts certain third-party owners and operators of on-site renewable energy systems from regulation as public utilities by the PUC. Signed into law by Gov. Neil Abercrombie 4/25/11. <sup>152</sup>
SB 1346	Renewable Portfolio Standards	4/25/2011	Amends definition of renewable electrical energy to include, beginning 1/1/15, customer-sited, grid- connected renewable energy generation. Signed into law by Gov. Neil Abercrombie 4/25/11. <sup>153</sup>
SB 1456, HB 1518	Renewable Energy; Hawaii Electricity Reliability Council; Reliability and Interconnection Standards	2/9/2011	Establishes the Hawaii electricity reliability council to develop and implement grid reliability and interconnection standards for renewable energy, including development of technical guidance concerning smart grid implementation and AMI. The bill is pending and has been carried over to the 2012 session. <sup>154</sup>
HRS § 196-7	Placement of solar energy devices	2010	Provides solar rights for homeowners and prohibits restrictions on the installation and use of solar energy systems on residential dwellings. <sup>155</sup>
Regulatory		•	
Docket No. 2010- 0037, HB 1464	Instituting a Proceeding to Investigate Establishing EEPS	June 2009	PUC proceeding to examine the creation of EEPS pursuant to state law passed in 2009 through HB 1464. The PUC collected final comments by 9/23/2011, after which it will issue its decision. <sup>156</sup>
HRS § 269-101 et seq., HI PUC Order, Docket 2006-0084, SB 1003	Net energy metering	12/28/2008, 6/25/2001	Hawaii's original net-metering law, expanded by HB 2048, increased the eligible capacity limit of net- metered systems from 10 kW to 50 kW. Net metering is available on a first-come, first-served basis to residential and small commercial customers (including government entities) that generate electricity using solar, wind, biomass or hydro-electric systems. <sup>157</sup>
HRS § 269-121 et seq., Docket No. 2007-0323	Hawaii Revised Statutes pertaining to Hawaii's Public Benefits Fund	2008	Legislation to create a public benefits fund (PBF) for energy efficiency and DSM, to be approved by the Hawaii PUC. The PUC issued Docket No. 2007-0323, establishing the structure of the PBF. <sup>158</sup>

<sup>150</sup> Hawaii State Legislature, SB 181. Accessed 9/19/11. http://www.capitol.hawaii.gov/session2011/lists/measure\_indiv.aspx?billtype=SB&billnumber=181

<sup>151</sup> Hawaii State Legislature, SB 367. Accessed 9/19/11. http://www.capitol.hawaii.gov/session2011/lists/measure\_indiv.aspx?billtype=SB&billnumber=367

Senate Energy Bills – Highlights 2011. Accessed 9/19/11. http://www.hawaiicleanenergyinitiative.org/storage/media/1.HCEI%20Plenary%20Update\_5.02.11\_Senate%20Energy%20Bills.pdf

<sup>&</sup>lt;sup>152</sup> Hawaii State Legislature, SB 704. Accessed 9/19/11. http://www.capitol.hawaii.gov/session2011/lists/measure\_indiv.aspx?billtype=SB&billnumber=704

<sup>&</sup>lt;sup>153</sup> Hawaii State Legislature, SB 1346. Accessed 9/19/11. http://www.capitol.hawaii.gov/session2011/lists/measure\_indiv.aspx?billtype=SB&billnumber=1346

<sup>&</sup>lt;sup>154</sup> Hawaii State Legislature, SB 1456. Accessed 9/20/11. http://www.capitol.hawaii.gov/session2011/lists/measure\_indiv.aspx?billtype=SB&billnumber=1456

<sup>&</sup>lt;sup>155</sup> Placement of solar energy devices. Accessed 2/18/11. <u>http://www.capitol.hawaii.gov/hrscurrent/Vol03\_Ch0121-0200D/HRS0196/HRS\_0196-0007.htm</u>

<sup>&</sup>lt;sup>156</sup> ADS, Demand Response & Smart Grid—State Legislative and Regulatory Policy Action Review: May 2010 – June 2011 Accessed 9/15/11. <u>http://www.demandresponsesmartgrid.org/Resources/Documents/State%20Policy%20Survey/2010%20-</u> %2011%20DR%20%20SG%20State%20Policy%20Survey 11%2007%2007 FINAL%20%282%29.pdf

Hawaii PUC, Docket No. 2010-0037. Accessed 9/15/11. http://dms.puc.hawaii.gov/dms/DocketDetails?docket\_id=85+3+ICM4+LSDB9+PC\_Docket60+26+A1001001A10C04B44326F4341118+A10C04B44326F434112+184+1873&docket\_page=4

<sup>&</sup>lt;sup>158</sup> Public benefits fee authorization. Accessed 2/18/11. <u>http://www.capitol.hawaii.gov/hrscurrent/Vol05\_Ch0261-0319/HRS0269/HRS\_0269-0121.htm</u>

HECO began to implement a smart meter pilot program using Sensus FlexNet advanced metering technology. The meters were not configured to allow utility control over smart appliances. Problems with the first pilot of 9,400 meters led the Hawaii PUC to cancel a proposed second smart meter pilot program in 2010. HECO is now partnering with Maui Electric Company and the Hawaii Natural Energy Institute for the Maui Smart Grid Project. Organizers are looking for 200 volunteers for this voluntary program in which participants will have a smart meter installed in their home as well as access to a personalized, secure website displaying information on energy use measured by the new meter. They will also have the opportunity to try an in-home energy use display and a smart thermostat.<sup>159</sup>

Hawaiian Electric has implemented the EnergyScout Program in which the utility installs a free EnergyScout system that could turn off the participant's water heater during system emergencies. Typically, the water heater is not interrupted for more than one hour at a time. Hawaiian Electric is working to obtain PUC approval to expand the program.<sup>160</sup>

<sup>&</sup>lt;sup>159</sup>Maui Electric Company, Maui Smart Grid Project Now Recruiting Volunteers, 9/22/11. Accessed 9/26/11. <a href="http://www.mauielectric.com/vcmcontent/StaticFiles/Maui">http://maui Smart Grid Project Now Recruiting Volunteers, 9/22/11. Accessed 9/26/11. <a href="http://www.mauielectric.com/vcmcontent/StaticFiles/Maui">http://www.mauielectric.com/vcmcontent/StaticFiles/Maui Smart Grid Project Now Recruiting Volunteers.pdf</a> Various online sources. Accessed 2/18/11. <a href="http://www.mauielectric.com/vcmcontent/staticFiles/Maui">http://www.mauielectric.com/vcmcontent/StaticFiles/Maui Smart Grid Project Now Recruiting Volunteers.pdf</a> Various online sources. Accessed 2/18/11. <a href="http://www.mauielectric.com/vcmcontent/staticFiles/Maui">http://www.mauielectric.com/vcmcontent/StaticFiles/Maui Smart Grid Project Now Recruiting Volunteers.pdf</a> Various online sources. Accessed 2/18/11. <a href="http://www.mauielectric.com/vcmcontent/staticFiles/Maui">http://www.mauielectric.com/vcmcontent/staticFiles/Maui Smart Grid Project Now Recruiting Volunteers.pdf</a> Various online sources. Accessed 2/18/11. <a href="http://www.mauielectric.com/vcmcontent/staticFiles/mauielectric.com/vcmc

Various online sources. Accessed 2/18/11. http://na.sensus.com/Module/PressRelease/PressReleaseDetail/amr?id=34, http://gigaom.com/cleantech/hawaiian-electric-in-smart-meter-deal-with-sensus/, http://www.greentechmedia.com/articles/read/heco-requests-second-pilot-of-sensus-meters/, http://www.smartgridnews.com/artman/publish/Business\_Policy\_Regulation\_News/Hawaii-PUC-Kicks-Back-Smart-Meter-Project-Tells-Utility-to-Try-It-

Again-2795.html

<sup>100</sup> EnergyScout Program. Accessed 2/18/11. http://www.heco.com/portal/site/heco/menuitem.508576f78baa14340b4c0610c510b1ca/?vgnextoid=af3183a2e3576210VgnVCM1000005c011bacRCRD&vgnextfmt=default&cpsextcurrchannel=1

### Idaho

Item	Title	Dates	Description
Legislative	·		
HB 265	Industrial Wind Farm and Wind Turbine Moratorium	3/14/2011	Pending moratorium on certain industrial wind farms and wind turbines for a specific length of time to address questions surrounding the need for more intermittent power in the state. <sup>161</sup>
HCR 4	Energy, Environment And Technology Issues - Study	2/22/2011	Authorizes the Legislative Council to appoint a committee to complete a study of the 2007 Integrated State Energy Plan that provides for the state's power generation needs and make any recommendations for necessary changes in both state law and the plan, and monitor other energy, environment and technology related issues. <sup>162</sup>
SB 1035	An Act Relating to Renewable Energy Projects; Amending Title 61, Idaho Code, by the Addition of a New Chapter 18, Title 61, Idaho Code	1/21/2011	Provides an expedited permitting process from the state and local governments for renewable energy projects. Created in accordance with the Grow Green Idaho Jobs Act. Bill is pending passage in the Senate. <sup>163</sup>
NA	2007 Idaho Energy Plan	2007	Plan that establishes conservation, energy efficiency, and demand response as the highest priority resource for Idaho, and local renewable resources as the second highest priority. <sup>164</sup>
Idaho Code § 55-615	Solar Easements	NA	Idaho's solar easement provisions are defined regarding the development of DG resources. <sup>165</sup>
SB 1192, HB 106, Idaho Code § 67-8901 et seq.	Idaho Energy Resources Authority Act	4/6/2005	Legislation that allows independent (non-utility) developers of renewable energy projects in the state to request financing from the Idaho Energy Resources Authority, a state bonding authority created by the Environment, Energy and Technology Energy Resources Authority Act. SB 1192 extended the financing opportunities to independent renewable energy producers that are not qualifying facilities under PURPA. Signed by the Governor on 4/6/2005. <sup>166</sup>
Regulatory		•	
Docket No. GNR-E-08-04	Generic Electric EISA New PURPA Standards	12/18/2009	PUC reported it had previously adopted the same or comparable standards contained in 16 U. C. ~ 2621(16), (16), (17), and (17) of PURPA as amended by the EISA of 2007 regarding dynamic rates. The docket has been closed. <sup>167</sup>
IPC-E-08-10, Order No. 30722	Idaho Power Company, General Rate Case	3/6/2009	PUC approved a tiered-rate structure, which assesses higher rates on customers as consumption increases. <sup>168</sup>
Docket No. GNR-E-06-02	EPAct/PURPA Standard 14	January 2007	The Idaho PUC decided not to adopt PURPA Standard 14 (Time-Based Metering and Communications). <sup>169</sup>

<sup>&</sup>lt;sup>161</sup> State of Idaho Legislature, HB 265. Accessed 9/22/11. http://legislature.idaho.gov/legislation/2011/H0265.htm

 <sup>&</sup>lt;sup>162</sup> State of Idaho Legislature, HCR 4. Accessed 9/22/11. <u>http://legislature.idaho.gov/legislation/2011/HCR004.htm</u>
 <sup>163</sup>State of Idaho Legislature, SB 1035. Accessed 9/22/11. <u>http://legislature.idaho.gov/legislation/2011/S1035.htm</u>

<sup>&</sup>lt;sup>164</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/10/11.

http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf <sup>165</sup> DSIRE, Idaho Solar Easements. Accessed 2/4/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=ID02R&re=1&ee=1</u>

<sup>166</sup> DSIRE, Renewable Energy Project Bond Program. Accessed 2/16/11. http://www.dsireusa.org/incentives/incentive.cfm?Incentive Code=ID06F&re=1&ee=0

<sup>&</sup>lt;sup>167</sup> Idaho PUC, Docket No. GNR-E-08-04. Accessed 9/22/11. <u>http://www.puc.idaho.gov/internet/cases/summary/GNRE0804.html</u>

<sup>&</sup>lt;sup>168</sup> Idaho PUC, IPC-E-08-10, Order No. 30722. Accessed 9/22/11. <u>http://www.puc.idaho.gov/internet/cases/summary/IPCE0810.html</u>

In January 2007, the Idaho PUC decided not to adopt PURPA Standard 14 as enacted in EPAct 2005. The Commission summarized its position with this statement: "While we concur with the intent of the standard, its ubiquitous scope and implementation timeline are unrealistic....We find that requiring smart meters across the board for each utility has not been demonstrated to be cost effective. Although we decline to adopt this federal standard...we have implemented Smart Metering communication programs for all three utilities."<sup>170</sup>

In January 2009, Idaho Power began the three-year process of installing smart meters for nearly all of its electric customers. The utility plans to have the installations complete in Idaho and Oregon by the end of 2011. With the grant of \$47 million received through the federal Smart Grid Investment Grant Program, Idaho Power will be completing 11 other smart grid projects by April 1, 2013, including: 1) AMI Meter Data Management System; 2) AMI Stations Communication; 3) Customer Information System; 4) Enterprise Data Warehouse; 5) Energy Use Advising Tool; 6) Irrigation Load Control;7) Outage Management System; 8) Transmission Situational Awareness; 9) Renewable Integration Tool; 10) Self-Healing Network; and 11) Integration.<sup>171</sup>

Idaho's IOUs administer energy efficiency and other DSM programs with oversight from the Idaho PUC. There is no legislation requiring funding for energy efficiency programs. By 2006, the PUC required Idaho Power and Pacificorp (via operating companies in Idaho, Utah Power and Light and Rocky Mountain Power (RMP)) to file and implement a comprehensive DSM plan. Idaho's energy efficiency programs are supported and supplemented by regional organizations, including the Bonneville Power Administration (BPA), the Northwest Energy Efficiency Alliance (NEEA) and the Northwest Power and Conservation Council (NPCC). In recent years, Idaho has experimented with methods of providing incentives to utilities. The state does not have an EERS, though state energy plans consider energy efficiency to be a resource for utilities. RMP currently offers energy efficiency programs for residential, commercial and industrial customers.<sup>172</sup>

<sup>&</sup>lt;sup>169</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/9/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

Idaho PUC. Accessed 9/22/11. http://www.puc.idaho.gov/internet/cases/summary/GNRE0602.html

<sup>&</sup>lt;sup>170</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/9/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>&</sup>lt;sup>171</sup> States Providing for Smart Metering. Accessed 2/11/11. <u>http://www.ncsl.org/?tabid=20672</u>

Idaho Power, Smart Grid: Projects Information. Accessed 9/27/11. http://www.idahopower.com/AboutUs/CompanyInformation/SmartGrid/projectInfoUpdates.cfm

<sup>&</sup>lt;sup>172</sup> Idaho Utility Policies. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/idaho/185/all/191</u>

### Illinois

Item	Title	Dates	Description
Legislative		•	
SB 1652	Amendment to Public Utilities Act	9/12/2011	Establishes requirements for the Illinois Power Agency's procurement of renewable energy resources from renewable DG, including a requirement to solicit the use of third-party organizations to aggregate distributed renewable energy into groups of no less than one MW in installed capacity. Requires each utility file: 1) an energy efficiency and demand response plan to meet the energy efficiency and demand response standards for 2011 through 2013; and 2) a Smart Grid AMI Deployment Plan with the ICC. Includes new provisions concerning energy efficiency analysis and net metering. Allows an electric utility to undertake an infrastructure investment program and recover the expenditures through the ratemaking process. Adds provisions concerning the approval of the formula rate by the ICC, annual formula rate, revenue-neutral rate design changes, and performance plans. Establishes the Illinois Science and Energy Innovation Trust. <sup>173</sup> Vetoed by Governor Pat Quinn on September 12, 2011. <sup>174</sup>
HB 1422, HB 1913, HB 1943, HB 3493, Amendments to Illinois Public Utilities Act	Comprehensive Energy Strategy	5/9/2011	<ul> <li>Plan proposed by Gov. Pat Quinn. HB 1422: Requires the Illinois Power Agency to procure energy efficiency; offset the purchase of electricity by buying reductions in electricity consumption. HB 1913: Promotes distributed energy through net metering. HB 1943: Adds distributed generation to the REPS. HB 3493: Merges utility and alternative retail electric supplier REPS into a single initiative; solidification long term contracts for renewables. Bills have been referred to the Rules Committee since 5/31/11.<sup>175</sup></li> </ul>
HB 3754	Electric Vehicle Infrastructure Act	3/17/2011	Seeks input for the planning, deployment, and installation of electric vehicle public charging station infrastructure capable of being integrated with the electrical grid. Includes provisions concerning public charging station infrastructure standards. Since March 2011, bill has been referred to Rules Committee. <sup>176</sup>
HB 991 (Public Act 096-1436 and 097- 0105)	Homeowners' Solar Rights Act	7/14/2011	Prohibits HOAs, common interest community associations and condominium unit owners' associations from preventing homeowners from using or installing solar energy systems. Signed by the Governor 7/14/2011. <sup>177</sup>
SB 680	Public Act 095-0420, An Act Concerning Regulation	03/01/10, 08/25/08, 08/24/07	Requires IOUs in Illinois to offer net metering and requires the ICC establish standards for net metering and interconnection for renewable energy systems. <sup>178</sup>
2010 HB 6154	Amendment to Public Utilities Act	2010	Adds a requirement that the ICC adopt minimum standards for smart grid technology. Bill later failed in 2010. <sup>179</sup>

<sup>&</sup>lt;sup>173</sup> Illinois General Assembly, Bill Status of SB 1652. Accessed 9/14/11. <u>http://www.ilga.gov/legislation/BillStatus.asp?DocNum=1652&GAID=11&DocTypeID=SB&LegId=57620&SessionID=84&GA=97</u>

<sup>174</sup> Governor Quinn Vetoes SB 1652, Illinois Government News Network Press Release September 12, 2011. Accessed 9/14/11. http://www.illinois.gov/PressReleases/ShowPressRelease.cfm?SubjectID=2&RecNum=9719

<sup>&</sup>lt;sup>175</sup> Governor Quinn's Comprehensive Energy Strategy. Accessed 9/15/11. <u>http://www2.illinois.gov/gov/Documents/Strategy/Energy%20Plan%20BACKGROUND%20050911.pdf</u>

<sup>&</sup>lt;sup>176</sup> Illinois General Assembly, Bill Status of HB 3754. Accessed 9/20/11. <u>http://www.ilga.gov/legislation/billstatus.asp?DocNum=3754&GAID=11&GA=97&DocTypeID=HB&LegID=61290&SessionID=84</u>

<sup>&</sup>lt;sup>177</sup> DSIRE, Illinois - Homeowners' Solar Rights. Accessed 2/28/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=IL18R&re=1&ee=1</u>

<sup>&</sup>lt;sup>178</sup> DSIRE, Ilinois - Interconnection Standards. Accessed 9/13/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=IL15R&re=1&ee=1</u>

<sup>&</sup>lt;sup>179</sup>Smart Grid Deployment in Colorado: Challenges and Opportunities, University of Colorado at Boulder, Kevin Doran, Frank Barnes, Puneet Pasrich, eds. Accessed 2/9/11. <u>http://cees.colorado.edu/sgreport.pdf</u> National Conference of State Legislatures, Energy Security Legislative Update. Accessed 9/22/11. <u>http://www.ncsl.org/?tabid=22492</u>

Item	Title	Dates	Description
Legislative	•		
2010 HB 6202	Utilities – Net Metering	2010	Requires the creation of a net metering task force. <sup>180</sup>
SB 1592	Utilities – Electricity Rates	May 2011, August 2007	Directs utilities to reduce peak demand by 0.1 percent over prior year, for 10 years, through cost effective demand response and creates the Illinois Power Agency. <sup>181</sup> Creates utility energy efficiency programs in Illinois. <sup>182</sup> In May 2011, the bill was amended to allow the ICC to permit utilities to exceed a demand response spending cap to achieve target savings if the cap results in the utility foregoing cost-effective opportunities for savings that would otherwise create net aggregate bill reductions for its customers. <sup>183</sup>
Public Act 096- 0033, SB 1918, SB 1592	Illinois Power Agency Act	July 2007	Defines requirements for energy efficiency and demand response programs. With help from the Illinois Department of Commerce and Economic Opportunity, utilities must implement cost-effective energy efficiency programs and measures to achieve annual energy savings of 0.2 percent of energy delivered in 2008, increasing by 0.2 percent per year until 2012 and increasing 0.4 percent from 2012 until 2014 and reaching 2 percent savings in 2015. <sup>184</sup>
2005 III. Laws 977 (amending 220 III. Comp. Stat. Ann. 5/16-101A, 16-102, 16-107)	Amendment to The Illinois Customer Choice and Rate Relief Law of 1997	2006	Requires each utility with 100,000 customers or more to: 1) file a tariff providing customers with the option of RTP by January 2007; 2) describe their methodology for implementing the plan; and 3) provide customers with smart meters capable of recording hourly intervals. <sup>185</sup>
Regulatory	•		
Order in Docket No. 10-0563	Illinois Power Agency Petition for Approval of Procurement Plan	12/21/2010	ICC issued a final order approving a modified 2011 Power Procurement Plan submitted by the Illinois Power Agency, noting that demand response should not be considered an energy supply resource due to uncertainty in 1) cost-effectiveness and 2) effectiveness of reducing capacity in the plan. <sup>186</sup>
Order in Docket No. 07-0566	Proposed general increase in electric rates.	10/1/2010, September 2008	A September 2008 order from the ICC required the formation of the Illinois Statewide Smart Grid Collaborative, which submitted its report to the ICC on 10/1/2010. The report includes recommendations for addressing smart grid definitions, applications, data privacy, data access, remote connection and disconnection, utility rates, consumer education, recovery of utility costs, technical characteristics, and technical requirements. <sup>187</sup>

http://www.sgiclearinghouse.org/Legislation?q=node/2303&lb=1

<sup>180</sup> Smart Grid Deployment in Colorado: Challenges and Opportunities, University of Colorado at Boulder, Kevin Doran, Frank Barnes, Puneet Pasrich, eds. Accessed 2/9/11. http://cees.colorado.edu/sgreport.pdf 181 Tour of Smart Grid Projects and State Policies by Lisa Schwartz, Presentation to the Oregon PUC, Smart Grid Workshop – September 9, 2009, RAPOnline, Source: Ethnie Groves, Xcel Energy. Accessed 2/7/11.

<sup>&</sup>lt;sup>182</sup> Illinois Utility Policies. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/illinois/186/all/191</u>

<sup>183</sup> ADS, Demand Response & Smart Grid—State Legislative and Regulatory Policy Action Review: May 2010 – June 2011 Accessed 9/15/11. http://www.demandresponsesmartgrid.org/Resources/Documents/State%20Policy%20Survey/2010%20-%2011%20DR%20%20SG%20State%20Policy%20Survey 11%2007%2007 FINAL%20%282%29.pdf
<sup>184</sup> ADS, Demand Response & Smart Grid—State Legislative and Regulatory Policy Action Review: May 2010 – June 2011 Accessed 9/15/11. <a href="http://www.demandresponsesmartgrid.org/Resources/Documents/State%20Policy%20Survey/2010%20-">http://www.demandresponsesmartgrid.org/Resources/Documents/State%20Policy%20Survey/2010%20-</a>

<sup>%2011%20</sup>DR%20%20SG%20State%20Policy%20Survey 11%2007%2007 FINAL%20%282%29.pdf

<sup>&</sup>lt;sup>185</sup> Draft for Comment of the National Action Plan on Demand Response The Federal Energy Regulatory Commission Staff Docket No. AD09-10, Prepared with the support of The Brattle Group, GMMB, Customer Performance Group, David Lineweber. Accessed 2/10/11. http://www.ferc.gov/legal/staff-reports/03-12-10-demand-response.pdf

<sup>186</sup> ADS, Demand Response & Smart Grid—State Legislative and Regulatory Policy Action Review: May 2010 – June 2011 Accessed 9/15/11. http://www.demandresponsesmartgrid.org/Resources/Documents/State%20Policy%20Survey/2010%20-%2011%20DR%20%20SG%20State%20Policy%20Survey 11%2007%2007 FINAL%20%282%29.pdf

ICC, Final Order in Docket No. 10-0563. Accessed 9/15/11. http://www.icc.illinois.gov/e-docket/reports/browse/document\_view.asp?id=11119&no=10-0563&did=159790

<sup>187</sup> ADS, Demand Response & Smart Grid—State Legislative and Regulatory Policy Action Review: May 2010 – June 2011 Accessed 9/15/11. http://www.demandresponsesmartgrid.org/Resources/Documents/State%20Policy%20Survey/2010%20-%2011%20DR%20%20SG%20State%20Policy%20Survey 11%2007%2007 FINAL%20%282%29.pdf

Illinois Statewide Smart Grid Collaborative. Accessed 9/15/11. http://www.ilgridplan.org/default.aspx

Item	Title	Dates	Description				
Regulatory	Regulatory						
NA	Initiative on Plug-In Electric Vehicles	January 2011, September 2010	Formed initiative from the three Illinois IOUs to assess the potential impacts of electric vehicles on the electric system, to address grid preparation, and to determine future regulatory considerations. Ameren Illinois, ComEd and MidAmerican provided their assessments in December 2010 and January 2011. <sup>188</sup>				
Executive Order 7	Executive Order to Reduce Energy Consumption in State Facilities	April 2009	Directs the Department of Central Management Services to implement a program to increase energy efficiency, track and reduce energy usage, and improve energy procurement for all state-owned facilities. An energy efficiency committee is created which will oversee energy audits, implementation of recommendations, and other services designed to decrease energy consumption at these facilities. The Illinois Energy Efficiency Committee has been formed to perform study on energy performance of state-owned buildings. A report is due to the General Assembly by July 1, 2012. <sup>189</sup>				
Order No. 06-0526	EPAct/PURPA Standard 14	June 2007	The ICC concluded that Illinois utilities have complied with state standards that satisfy the federal tests for PURPA Standard 14 (Time-Based Metering and Communications) as enacted in EPAct 2005, and further analysis is required before the decision for adoption can be made. <sup>190</sup>				

The 2010 HB 6154 indicates the ICC must create minimum standards for smart grid technology for electric service and oversee enforcement of the standards. Since January 2011 the bill has made no further progress in the House or Senate.<sup>191</sup>

The ComEd System Modernization Projects involve a 200,000-meter pilot with two-way communication along with an assessment of the pilot and analysis for full-scale deployment of 4 million meters. ComEd submitted its smart grid plan with possible full-scale deployment in 2013. The ICC orders for this project also established foundational policies and a statewide smart grid collaborative. <sup>192</sup> Ameren Illinois Utilities pilot was also approved by the ICC and the statewide collaborative will recommend future steps regarding the project. <sup>193</sup> SB 1652 would have helped fund the ComEd and Ameren Illinois projects, but was vetoed by Pat Quinn on September 12, 2011. The bill now returns to the legislature for revisions and possible override of the Governor's veto. <sup>194</sup>

Prior to 2007, there was limited funding and activity for utility energy efficiency programs. Illinois had little involvement with utility energy efficiency programs, other than a small annual funding requirement created in the Illinois restructuring legislation (HB 262) to support some small programs administered by the state. Legislation enacted in 2007 as the "Illinois Power Agency Act" (SB 1592) requires the development of more electric utility energy efficiency programs. The legislation set an EERS savings goal – beginning at 0.2 percent of sales per year in 2008 and ramping up to 2.0 percent of sales per year by 2015.<sup>195</sup>

<sup>&</sup>lt;sup>188</sup> ICC, Initiative on Plug-In Electric Vehicles. Accessed 9/15/11. <u>http://www.icc.illinois.gov/electricity/pev.aspx</u>

<sup>&</sup>lt;sup>189</sup> Illinois Lead by Example Initiatives. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/Illinois/186/all/202</u>

Governor Quinn Signs Legislation to Study Energy Performance of State Buildings, SB 3429 Furthers Illinois' Efforts to Adopt More Environmentally-Friendly Building Standards, 5/22/10. Accessed 9/21/11. http://www.illinois.gov/PressReleases/PressReleasesListShow.cfm?RecNum=8467

<sup>&</sup>lt;sup>190</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>&</sup>lt;sup>191</sup> Bill Status of HB6154, 96th General Assembly. Accessed 2/10/11. <u>http://www.ilga.gov/legislation/BillStatus.asp?DocNum=6154&GAID=10&DocTypeID=HB&SessionID=76&GA=96</u>

<sup>&</sup>lt;sup>192</sup> Tour of Smart Grid Projects and State Policies by Lisa Schwartz, Presentation to the Oregon PUC, Smart Grid Workshop – September 9, 2009, RAPOnline, Source: Ethnie Groves, Xcel Energy. Accessed 2/7/11. http://www.sgiclearinghouse.org/Legislation?q=node/2303&lb=1

<sup>&</sup>lt;sup>193</sup> Tour of Smart Grid Projects and State Policies by Lisa Schwartz, Presentation to the Oregon PUC, Smart Grid Workshop – September 9, 2009, RAPOnline, Source: Ethnie Groves, Xcel Energy. Accessed 2/7/11. http://www.sgiclearinghouse.org/Legislation?g=node/2303&lb=1

<sup>&</sup>lt;sup>194</sup> Governor Quinn Vetoes SB 1652, Illinois Government News Network Press Release September 12, 2011. Accessed 9/14/11. <u>http://www.illinois.gov/PressReleases/ShowPressRelease.cfm?SubjectID=2&RecNum=9719</u>

<sup>&</sup>lt;sup>195</sup> Illinois Utility Policies. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/illinois/186/all/191</u>

### Indiana

ltem	Title	Dates	Description
Legislative			
SB 251	Clean Energy Portfolio Standard	5/10/11	Sets a voluntary goal of 10% clean energy by 2025, based on 2010 levels. Between January 1, 2013 and December 31, 2018, utilities must use an average of at least 4% qualifying clean energy. The average percentage increases to 7% between 2019 and 2024, and 10% in 2025. <sup>196</sup> Qualifying clean energy resources include energy storage as well as DSM initiatives that implement load management, demand response, or energy efficiency measures to shift customers' electric loads from periods of higher demand to periods of lower demand. <sup>197</sup>
Indiana Administrative Code, Title 170, Article 4	Electric utilities	2005	Indiana's interconnection regulations include three distinct tiers of interconnection, and CHP systems are eligible. <sup>198</sup>
Indiana Code § 32-23-4-1 et seq. and Indiana Code § 36-7-2-1 et seq.	Planning and regulation of real property; access to solar energy	7/01/2002, 1/1/1980	Allows parties to voluntarily enter into solar-easement contracts which are enforceable by law. <sup>199</sup>
Indiana Code 5-28-34-2	Green industry	NA	Revised the state definition of "green industry" to include smart grid related topics. <sup>200</sup>
Indiana Statute 8-1-2.5-1 et. Seq.	Alternative Utility Regulation, Legislative findings	NA	Allows for either shared savings or adjusted/bonus return on equity mechanisms as DSM incentives. <sup>201</sup>
Regulatory		7/20/2040	
Docket No. 43566	Investigation into Participation by Indiana End- Use Customers in Demand Response Programs Offered by the Midwest ISO and PJM interconnection	7/28/2010	End-use customers shall not be enrolled or otherwise participate in regional transmission organization demand response programs directly or through curtailment service providers or other aggregators. Respondent utilities that are members of PJM or Midwest ISO shall file tariffs or riders authorizing the participation of its retail customers in PJM or Midwest ISO demand response programs through the respondent utility; each utility must file an annual report with the IURC regarding this activity and report back in 2012 on its experience with any approved tariffs. <sup>202</sup>
IURC Case No. 42693	In the matter of the Commission's investigation Pursuant to IC § 8-1-2-58	12/09/2009	Requires electric utilities establish DSM electric savings goals leading to 2.0% reduction of electricity sales by the year 2019. Utilities must file three year DSM plans which indicate progress and plans for reaching the targets. The goal is to develop a uniform set of energy efficiency programs. <sup>203</sup>
NA	EPAct/PURPA Standard 14	8/2007	The IURC decided not to adopt PURPA Standard 14. <sup>204</sup>
170 IAC 4-4.2	Net Metering	10/22/2004	The IURC adopted rules for net metering requiring the state's IOUs to offer net metering to residential customers and K-12 schools; applies to solar, wind and hydroelectric projects with a maximum capacity of 10 kW. <sup>205</sup>

<sup>&</sup>lt;sup>196</sup> DSIRE, Indiana – Clean Energy Portfolio Goal. Accessed 9/14/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=IN12R&currentpageid=3&EE=1&RE=1</u>

<sup>&</sup>lt;sup>197</sup> ADS, Demand Response & Smart Grid—State Legislative and Regulatory Policy Action Review: May 2010 – June 2011 Accessed 9/15/11. <u>http://www.demandresponsesmartgrid.org/Resources/Documents/State%20Policy%20Survey/2010%20-</u> %2011%20DR%20%20SG%20State%20Policy%20Survey\_11%2007%2007\_FINAL%20%282%29.pdf

<sup>&</sup>lt;sup>198</sup> Indiana Clean Distributed Generation. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/Indiana/187/all/195</u>

<sup>&</sup>lt;sup>199</sup> Indiana Code IC 36-7-2. Accessed 2/6/11. http://www.in.gov/legislative/ic/code/title36/ar7/ch2.html

<sup>200</sup> Smart Grid Deployment in Colorado: Challenges and Opportunities, University of Colorado at Boulder, Kevin Doran, Frank Barnes, Puneet Pasrich, eds. Accessed 2/9/11. http://cees.colorado.edu/sgreport.pdf

<sup>&</sup>lt;sup>201</sup> Indiana Utility Policies. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/indiana/187/all/191</u>

<sup>&</sup>lt;sup>202</sup> IRUC, Docket No. 43566. Accessed 9/15/11. <u>http://www.in.gov/iurc/files/43566order\_072810.pdf</u>

<sup>&</sup>lt;sup>203</sup> DSIRE, Electric Efficiency Standard. Accessed 3/2/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=IN11R&re=1&ee=1</u>

<sup>204</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11.

http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>205</sup> DSIRE, Indiana - Net Metering. Accessed 2/18/11. http://www.dsireusa.org/incentives/incentive.cfm?Incentive Code=IN05R&re=1&ee=1

In August 2007, the IURC decided not to adopt PURPA Standard 14 (Time-Based Metering and Communications) as enacted in EPAct 2005. The Commission agreed that each electric utility be prepared to offer advanced technologies to their customers, but a solid foundation of demand response programs needed to be established first and included in the utilities' IRPs.<sup>206</sup>

American Electric Power (AEP) implemented a program, known as "gridSMART," which included the deployment of 110,000 advanced meters and provided customer access to prior day hourly data, TOU rates, remote connect/disconnect, some utility-scale battery storage, and a distributed management system with fault location identification.<sup>207</sup>

Duke Energy has offered DSM programs in Indiana since the 1990s and energy efficiency programs began to appear more frequently in the state after 2007. Both natural gas and electric utilities in Indiana operate DSM and energy efficiency programs. These utilities include Duke Energy, Vectren, Indiana Michigan Power Company, Northern Indiana Public Service Company, and Northern Indiana Fuel and Light. The IURC ordered all jurisdictional electric utilities to begin submitting three-year DSM plans in July 2010. Duke Energy's "Save-A-Watt" model was one of the programs proposed. Some of the submitted goals begin at 0.3 percent annual savings in 2010, increasing to 1.1 percent in 2014, and leveling at 2 percent in 2019. Load management and direct load control initiatives, including peak-shaving will be counted towards the goal. Utilities that do not meet the goals must demonstrate to the IURC how they plan to increase savings. In 2013, the IURC will review the utility DSM filings again to evaluate the energy savings objectives.<sup>208</sup>

The EERS in Indiana established a statewide third-party administrator for certain "Core Energy" efficiency programs. Duke Energy currently has an application pending in front of the IURC for approval of its "Core Plus" portfolio of DSM programs. The company operates its current "core" DSM programs until it finalizes a third-party administrator to take over program operations.<sup>209</sup>

<sup>&</sup>lt;sup>206</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>207</sup> AEP Ohio, About the Demonstration Project. Accessed 9/27/11. https://www.aepohio.com/save/demoproject/about/Default.aspx

<sup>&</sup>lt;sup>208</sup> Indiana Utility Policies. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/indiana/187/all/191</u>

<sup>&</sup>lt;sup>209</sup> IURC, Docket No.43955. Accessed 9/27/11. https://myweb.in.gov/IURC/eds/Guest.aspx?tabid=28

Duke Energy, Complying with Regulatory and Legislative Energy Efficiency Mandates, 1/12/11. Accessed 9/27/11. http://meeaconference.org/uploads/file/ppt2011/MES 2011-01-12 Duff.pdf

#### lowa

ltem	Title	Dates	Description
Legislative	1	1	
HF 561, H-1681, HSB 124	An Act Relating to the Permitting, Licensing, Construction, and Operation of Nuclear Generation Facilities	6/30/2011	Requires utilities board of the Department of Commerce conduct a study on baseload electrical generation options and costs and submit a final report by 1/1/2012. The board shall determine a long-term demand forecast and identify whether existing baseload generation, purchase power agreements, and DSM programs in this state are sufficient to meet the forecast. Bill was referred to Commerce Committee on 6/30/2011. <sup>210</sup>
HF 560, HB 158	A Bill For An Act Providing For The Installation And Operation Of An Automatic Metering And Termination Of Service System By Electric Utilities	4/1/2011	Permits an electric utility to install and operate, upon a customer's request a prepaid metering system and equipment. Requires the utility educate a customer in advance of installation concerning the use of the prepaid meter and the potential for disconnection. Bill was referred to Commerce Committee on $4/1/2011$ . <sup>211</sup>
IA Code § 476.6.16 (2009) and IA Code § 476.6.16(c)(2) (2009)	NA	2009, 2008	Requires utilities (rate-regulated IOUs) to develop energy efficiency programs including demand response. 212
SB 2386	A Bill for an Act Relating to Energy Efficiency	5/6/ 2008	Requires utilities to file energy efficiency goals. In accordance with this mandate, the Iowa Utilities Board (IUB) issued an order asking IOUs to submit plans to achieve goals, including a 1.5 percent annual electricity savings goal. Effective 5/6/2008. <sup>213</sup>
HF 918	An Act Establishing the Office of Energy Independence and the Iowa Power Fund	5/23/2007	Establishment of Office of Energy Independence to provide recommendations for energy independence, including smart grid deployment. Effective 5/23/2007. <sup>214</sup>
IA Code § 476.41 et seq.	Public Utility Regulation, Alternate Energy Production Facilities	7/27/1984	Net metering rules for the state of Iowa. <sup>215</sup>
Iowa Code § 564A	Access to Solar Energy	NA	Iowa's solar access easement provision. <sup>216</sup>
Regulatory			
Docket No. NOI-2011- 0001	Order Opening Inquiry on Prepaid Meters, Soliciting Comments, and Scheduling Workshop	6/29/2011	In response to recent legislation, the PSB opened a proceeding to investigate the use of prepaid metering in the electric and gas industries, with comments due in August 2011 and a workshop scheduled for the end of September 2011. <sup>217</sup>
IAC § 199-15.10, IAC § 199-15.10, Docket No. RMU-2009-0008 (NOI-06-4)	Electric Interconnection of Distributed Generation Facilities	May 2010	lowa's interconnection standards apply to DG facilities of up to 10 MW. The definition of a DG facility includes qualifying facilities (QFs) under PURPA and alternative energy production facilities as defined by lowa law. The lowa rules set four levels of review for interconnection requests. <sup>218</sup>
NA	EPAct/PURPA Standard 14	March 2007	The IUB decided not to adopt PURPA Standard 14 (Time-Based Metering and Communications) as enacted in EPAct 2005. <sup>219</sup>

<sup>&</sup>lt;sup>210</sup> lowa Legislature, HF 561. Accessed 9/22/11. <u>http://coolice.legis.state.ia.us/Cool-ICE/default.asp?Category=billinfo&Service=Billbook&menu=false&hbill=h1681</u>

<sup>211</sup> Iowa Legislature, HF 560. Accessed 9/22/11. http://coolice.legis.state.ia.us/Cool-ICE/default.asp?Category=billinfo&Service=Billbook&menu=false&hbill=hf560

<sup>212</sup> Draft for Comment of the National Action Plan on Demand Response The Federal Energy Regulatory Commission Staff Docket No. AD09-10, Prepared with the support of The Brattle Group, GMMB, Customer Performance Group, David Lineweber. Accessed 2/10/11. <u>http://www.ferc.gov/legal/staff-reports/03-12-10-demand-response.pdf</u>

<sup>213</sup> Iowa Utility Policies. Accessed 2/14/11. http://www.aceee.org/energy-efficiency-sector/state-policy/iowa/188/all/191

<sup>214</sup> Smart Grid Deployment in Colorado: Challenges and Opportunities, University of Colorado at Boulder, Kevin Doran, Frank Barnes, Puneet Pasrich, eds. Accessed 2/9/11. http://cees.colorado.edu/sgreport.pdf

<sup>215</sup> DSIRE, Iowa – Net metering. Accessed 2/7/11. http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=IA02R&re=1&ee=1

<sup>216</sup> DSIRE, Iowa Solar Easements. Accessed 2/7/11. http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=IA04R&re=1&ee=1

<sup>217</sup> Iowa PSB, Docket No. NOI-2011-0001. Accessed 9/22/11. https://efs.iowa.gov/efiling/groups/external/documents/docket/070758.pdf

<sup>&</sup>lt;sup>218</sup> Iowa Clean Distributed Generation. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/Iowa/188/all/195</u>

<sup>&</sup>lt;sup>219</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/7/11 http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

In March 2007, the IUB decided that PURPA Standard 14 in EPAct 2005 was not cost-beneficial and that it would be difficult to regulate a single standard for advanced metering. However the IUB will discuss the possibilities of smart meter pilot programs, and whether current rates send accurate price signals to customers, with the utilities included in the proceeding.<sup>220</sup>

lowa's utilities administer energy efficiency programs regulated by the IUB with significant input from the Office of Consumer Advocate. In the last decade, the state has increased its commitment to energy efficiency programs. Municipal utilities and electric cooperatives were required to develop new energy efficiency plans and the IUB was required to report on these plans by January 1, 2011. Plans must include programs for all types of customers and must include performance standards in terms of energy and capacity savings.<sup>221</sup>

In March 2009, MidAmerican Energy Company received approval for its energy efficiency plan, under which it planned to achieve savings of 1.5 percent of retail electric sales by 2010. In June 2009, Iowa Power and Light Company received approval for a modified energy efficiency plan. IPL plans to achieve 1.3 percent electricity and 1.2 percent natural gas savings by 2013.<sup>222</sup>

<sup>&</sup>lt;sup>220</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/7/11 http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>&</sup>lt;sup>221</sup> Iowa Utility Policies. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/iowa/188/all/191</u>

<sup>222</sup> Iowa Clean Distributed Generation. Accessed 2/14/11. http://www.aceee.org/energy-efficiency-sector/state-policy/Iowa/188/all/195

#### Kansas

Item	Title	Dates	Description
Legislative	·		
HB 2303	Utilities; Rate-Making and Variable Time-Of-Day Pricing	3/4/2011	By July 1, 2012, any electric public utility that has deployed smart meters to a majority of its residential customers shall file a tariff for variable time-of-day pricing of electricity used in the electric public utility's service area in which the smart meters have been deployed. Bill is pending in the Committee on Energy and Utilities as of 3/4/2011. <sup>223</sup>
HCR 5012	Establishing Policy Goals for Energy Development, Consumption and Costs	2/10/2011	The KCC shall investigate the potential for energy storage to address transmission line constraint relief, DG reliability, electric distribution system reliability, and to firm renewable energy generation. KCC shall work with utilities to increase smart grid compliant distribution line segments and appurtenances and electric meters. Bill is pending in the Committee on Energy and Utilities as of 2/10/2011. <sup>224</sup>
HCR 5005	Establishing Targets for Energy Development, Consumption and Costs	1/21/2011	In cooperation with the KCC, electric utilities shall ensure that at least 70% of transmission and distribution line segments and appurtenances and at least 50% of all electric meters for each public utility are smart grid compliant. Bill is pending in the Committee on Energy and Utilities as of 1/21/2011. <sup>225</sup>
HB 2369, Kansas Statutes 66-1263, et seq. and K.A.R. 82- 17-1, et seq.	Net Metering	7/9/2010, 7/1/2009	Net metering rules for the state of Kansas. <sup>226</sup> The rules apply to renewable sources of DG and only apply to systems with capacities up to 200 kW. <sup>227</sup>
HR 6005-0	NA	2009	Establishment of goal of making 25 percent of electric meters smart grid compliant. <sup>228</sup>
Kansas Statute 58- 3801 et seq.	Solar Easement Provisions	7/15/1982	Solar easement provisions regarding DG resources. <sup>229</sup>
Regulatory			
Docket No. 08-GIMX- 441-GIV	General Investigation Regarding Cost Recovery and Incentives For Energy Efficiency Programs	11/14/2008	The KCC chose not to require energy efficiency programs from the state's electric and natural gas utilities but determined that it would collaborate with utilities as they pursue energy efficiency as a resource, including program proposals that included decoupling, cost recovery and shared savings performance incentives. <sup>230</sup>
NA	EPAct/PURPA Standard 14	August 2007	The KCC decided not to adopt PURPA Standard 14 (Time-Based Metering and Communications) as enacted in EPAct 2005. <sup>231</sup>

 <sup>&</sup>lt;sup>223</sup> Kansas Legislature, HB 2303. Accessed 9/20/11. <u>http://www.kslegislature.org/li/b2011 12/year1/measures/hb2303/</u>
 <sup>224</sup> Kansas Legislature, HCR 5012. Accessed 9/20/11. <u>http://www.kslegislature.org/li/b2011 12/year1/measures/hcr5012/</u>

<sup>&</sup>lt;sup>225</sup> Kansas Legislature, HCR 5005. Accessed 9/20/11. http://www.kslegislature.org/li/b2011 12/year1/measures/hcr5005/

<sup>&</sup>lt;sup>226</sup> DSIRE, Kansas – Net metering. Accessed 2/7/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=KS08R&re=1&ee=1</u>

<sup>&</sup>lt;sup>227</sup> Kansas Clean Distributed Generation. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/Kansas/189/all/195</u>

<sup>&</sup>lt;sup>228</sup> Smart Grid Deployment in Colorado: Challenges and Opportunities, University of Colorado at Boulder, Kevin Doran, Frank Barnes, Puneet Pasrich, eds. Accessed 2/9/11. <u>http://cees.colorado.edu/sgreport.pdf</u>

<sup>229</sup> DSIRE, Kentucky Solar Easements. Accessed 2/7/11. http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=KY01R&re=1&ee=1

<sup>&</sup>lt;sup>230</sup> Kansas Utility Policies. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/kansas/189/all/191</u>

<sup>231</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

In August 2007, the KCC decided not to adopt PURPA Standard 14 as enacted in EPAct 2005. The KCC encouraged voluntary pilot programs as the best vehicle for deploying smarting metering and TOU rates.<sup>232</sup>

Kansas City Power and Light (KCP&L) and Kansas City Board of Public Utilities (BPU) are the primary electric companies that offer energy efficiency programs in Kansas, and most are rebate or financing programs. Kansas does not have any laws or regulatory rules that mandate energy efficiency programs. KCP&L offers rebates for commercial and residential customers, home builders, and subdivision developers for energy-efficient electric heating and water heating systems, weatherization, free programmable thermostats, heat pumps, and load management programs. Kansas City BPU offers commercial customers rebates for lighting, air conditioning, motors and custom measures and offers residential customers rebates for air conditioning and programmable thermostats, as well as weatherization assistance and energy audits.<sup>233</sup>

 <sup>&</sup>lt;sup>232</sup> SGIC. Accessed 2/4/11. <u>http://www.sgiclearinghouse.org/Legislation</u>
 <sup>233</sup> Kansas Utility Policies. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/kansas/189/all/191</u>

KCP&L Programs & Services. Accessed 9/29/11. http://www.kcplsave.com/business/programs and services/default.html Kansas City BPU, Energy-Efficiency Programs for your Home. Accessed 9/28/11. http://www.bpu.com/customer\_service/energy\_eff\_residential.isp?zone=residential

# Kentucky

Item	Title	Dates	Description
Legislative			
HB 239	An Act Relating to Energy	2/2/2011	For each calendar year, beginning in 2013, all retail electric suppliers shall take energy efficiency measures and implement energy efficiency programs that achieve incremental and cumulative electricity savings. In calendar year 2021, the incremental electricity savings requirement shall be 2 percent and the cumulative savings achieved shall be 10.25 percent. Bill has been referred to Tourism Development & Energy Committee since February 2011. <sup>234</sup>
HB 240	An act relating to the promotion of the efficient use of energy	2/25/2010	Allows the state PSC to create requirements for DSM programs. Signed by Governor 2/25/2010. <sup>235</sup>
HB 1	Incentive for Energy Independence Act	7/9/2007	Attempts to eliminate impediments to the adoption by utilities of cost-effective demand- management strategies for addressing future demand prior to PSC consideration of any proposal for increasing generating capacity. Bill passed in 7/9/2007. <sup>236</sup>
KRS § 381.200	Deeds construed to include buildings and appurtenances - Solar easements	7/15/1982	Solar easement provisions regarding DG resources. <sup>237</sup>
Kentucky Revised Statute 278.285	Demand-side Management plans - Review and Approval of Proposed Plans and Mechanisms	NA	Allows utilities to recover the full costs of DSM programs via rates and encourages implementation of cost-effective DSM programs. <sup>238</sup>
Regulatory			
Case No. 2008- 00408	Consideration of the New Federal Standards of the EISA of 2007	3/17/2010- 3/2011, 11/13/2008	Smart grid and smart meter collaborative effort for the PSC to provide guidance to the associated parties regarding the smart grid and smart meter issues it believes should be addressed. Resulted in issuance of the report "Commission Staff Smart Meter and Smart Grid Guidance" on 2/19/2010. In March 2010 through March 2011, parties filed a response that encouraged smart grid pilots and trials built to understand customer behavior, and encouraged new efforts focused on customer education. The utilities also responded that smart grid investments should be treated the same as other utility investments. <sup>239</sup>
SB 83, KRS § 278.465 et seq. and KY PSC Order 2008-00169	Interconnection and Net Metering Guidelines - Kentucky	01/08/2009, 07/15/2008, 4/22/2004	Net metering rules for Kentucky. <sup>240</sup>

<sup>&</sup>lt;sup>234</sup> Kentucky Legislature, HB 239. Accessed 10/3/11. <u>http://www.lrc.ky.gov/record/11RS/HB239.htm</u>

 <sup>&</sup>lt;sup>235</sup> Kentucky Utility Policies. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/kentucky/190/all/191</u>

<sup>&</sup>lt;sup>236</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11, http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf <sup>237</sup> DSIRE, Kentucky Solar Easements. Accessed 2/7/11. http://www.dsireusa.org/incentives/incentive.cfm?Incentive Code=KY01R&re=1&ee=1

 <sup>&</sup>lt;sup>238</sup> Kentucky Utility Policies. Accessed 2/14/11. <a href="http://www.acceee.org/energy-efficiency-sector/state-policy/kentucky/190/all/191">http://www.acceee.org/energy-efficiency-sector/state-policy/kentucky/190/all/191</a>

<sup>239</sup> ADS, Demand Response & Smart Grid—State Legislative and Regulatory Policy Action Review: May 2010 – June 2011 Accessed 9/15/11. http://www.demandresponsesmartgrid.org/Resources/Documents/State%20Policy%20Survey/2010%20-%2011%20DR%20%20SG%20State%20Policy%20Survey 11%2007%2007 FINAL%20%282%29.pdf

Kentucky PSC, Case No. 2008-00408. Accessed 9/15/11. http://psc.ky.gov/Home/Library?type=Cases&folder=2008%20cases/2008-00408

<sup>&</sup>lt;sup>240</sup> DSIRE, Kentucky – Net metering. Accessed 2/7/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=KY07R&re=1&ee=1</u>

Item	Title	Dates	Description
Legislative			
NA	Intelligent Energy Choices for Kentucky's Future	November 2008	Gov. Steve Beshear's 7-point strategic energy action plan that provides a framework around existing policies to aggressively increase use of renewable energy sources, improve energy efficiency, develop cleaner methods to utilize fossil energy resources, and diversify electricity and transportation energy portfolios.
NA	EPAct/PURPA Standard 14	December 2006	The Kentucky PSC decided not to adopt PURPA Standard 14 (Time-Based Metering and Communications) as enacted in EPAct 2005. <sup>241</sup>

In April 2008, SB 83 expanded the state's net-metering law by requiring utilities to offer net metering to customers that generate electricity with PV, wind, biomass, biogas or hydroelectric systems up to 30 kW in capacity. The customer retains ownership of any RECs. When time-of-day or TOU metering is used, the electricity fed back to the grid by customers is net-metered and accounted for in accordance with the time-of-day or TOU billing agreement.<sup>242</sup>

Kentucky's regulated utilities administer and implement DSM programs with oversight from the Kentucky PSC. At least one IOU, Duke Energy, has offered DSM programs in Kentucky since 1996. Customers support DSM programs through utility surcharges. Kentucky's 2007 Energy Act recommended that utilities examine specific issues regarding energy efficiency. In 2008, Duke Energy proposed the "Save-A-Watt" program which makes energy efficiency a high-priority fuel choice in the company's Kentucky operations. Several publicly-owned utilities are also discussing energy efficiency programs with the Kentucky PSC. Owen Electric Cooperative is developing plans to expand its DSM programs and is one of 18 cooperatives participating in the Regional Smart Grid Demonstration Project headed by the National Rural Electric Cooperative Association researching distribution automation and DSM technologies, including a test of end-to-end demand management. Currently no EERS are in place and regulated utilities are required to prepare and file annual IRPs that consider how to use demand-side resources to meet forecasted requirements reliably and at the lowest possible cost.<sup>243</sup>

<sup>&</sup>lt;sup>241</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11, http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>&</sup>lt;sup>242</sup> DSIRE, Kentucky – Net metering. Accessed 2/7/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=KY07R&re=1&ee=1</u>

<sup>243</sup> Kentucky Utility Policies. Accessed 2/14/11. http://www.aceee.org/energy-efficiency-sector/state-policy/kentucky/190/all/191

Smartgrid.gov, NRECA Releases "Interoperability and Cyber Security Plan," June 2011. Accessed 9/27/11. http://www.smartgrid.gov/news/nreca\_releases %E2%80%9Cinteroperability\_and\_cyber\_security\_plan%E2%80%9D

### Louisiana

Item	Title	Dates	Description
Legislative			
SB 359, Act 543	To Amend and Reenact R.S. 51:3062(5)(b) and to Enact R.S. 51:3063(C), Relative to the Definition of "Net Energy Metering Facility"	9/17/2009, 6/30/2008	Revises the definition of "net energy metering facility." Adopted by City Council of New Orleans 9/17/2009. <sup>244</sup>
Executive Order BJ 2008-8, SB 240	Executive Branch – Green Government, Louisiana major facility project; energy efficiency and conservation; requirements	1/30/2008, 7/6/2007	Directs the Division of Administration to set energy efficiency goals for state facilities, office buildings, and complexes for 2009 to 2011. SB 240 requires state-funded facilities to be designed and built to exceed state energy codes by at least 30 percent and to develop or increase standards using ENERGY STAR as a minimum standard. Bill was signed by the Governor as Act 270 in 2007. <sup>245</sup>
Chapter 50, §3061. Acts 2003, No. 653, §1	Louisiana Renewable Energy Development Act	10/1/2003	Declares that the state should actively encourage the manufacture of new technologies through promotion of emerging energy technologies. Promotes net energy metering. <sup>246</sup>
Regulatory			
Docket No. R-31417, General Order 7-22- 11; Docket No. R- 27558	Re-examination of the Commission's Net Metering Rules Found in General Order No. R-27558	7/22/2011, 11/30/2005	Approved proposed changes to net metering rules for systems 100-300 kW. Large net metering projects are 1) limited to 2 MW per project; total of 10 MW installed nameplate capacity; 2) must meet other requirements of order; 3) must reimburse the utility for reasonable and necessary engineering analyses and/or studies performed prior to project approval; 4) must compensate the utility for necessary upstream and/or downstream system infrastructure improvements triggered by the net metering project. <sup>247</sup>
Docket No. R-28271, Sub Docket B, General Order 11- 12-10	The Commission Approved, with Modifications, the Staff's October 11 Revised Proposed Renewable Energy Pilot Program Implementation Plan	11/12/2010, 3/3/2009	Feasibility study of REPS. Outlines a "Renewable Energy Pilot Program Implementation Plan" as an experimental study of the resources available to utilities to meet a REPS goal. Utilities are to report findings on yearly basis to the PSC through 2012 after which the PSC will consider a possible mandatory REPS program. <sup>248</sup>

 <sup>&</sup>lt;sup>244</sup> Louisiana State Legislature, SB359 - 2008 Regular Session (Act 543). Accessed 9/22/11. <u>http://www.legis.state.la.us/billdata/streamdocument.asp?did=503709</u>
 <sup>245</sup> Louisiana Lead by Example Initiatives. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/Louisiana/191/all/202</u>
 <sup>246</sup> Louisiana PSC, Docket No. R-31417 Net Metering, Technical Conference 5/31/2011, Accessed 9/22/11. <u>http://www.lpsc.org/\_docs/\_General/Tech%20Conf%20Presentation%205%2031%20V2%20formatted.pdf</u>

<sup>247</sup> Louisiana PSC, Docket No. R-31417 Net Metering, Technical Conference 5/31/2011, Accessed 9/22/11. http://www.lpsc.org/ docs/ General/Tech%20Conf%20Presentation%205%2031%20V2%20formatted.pdf Louisiana PSC, Docket No. R-31417. Accessed 9/22/11. http://lpscstar.louisiana.gov/star/ViewFile.aspx?ld=da62f01f-aedc-4211-9a41-7b9d19ccbe18

<sup>248</sup> Louisiana PSC, Docket No. R-28271, Sub Docket B. Accessed 9/22/11. http://lpscstar.louisiana.gov/star/ViewFile.aspx?ld=15a3f0c9-af82-4047-ba71-ece80c7de9df

Item	Title	Dates	Description				
Regulatory	Regulatory						
Docket No. R-29213 Subdocket A	Investigation Time-Based Meters and Communication DevicesTime-Based Pricing Rate Schedules and Other Demand Response Programs	9/22/2009	Investigation to determine if electric utilities should install time-based meters and communication devices for each of their customers which enable such customers to participate in time-based pricing rate schedules and other demand response programs. Order issued 9/22/2009, section 3.7, addresses the release or sharing of customer data. Data sharing outside the customer-utility working relationship is not permitted without customer approval. Docket currently remains open with a "pending" status. <sup>249</sup>				
NA	EPAct/PURPA Standard 14	August 2007	The Louisiana PSC does not specifically adopt or reject PURPA Standard 14 (Time-Based Metering and Communications) as enacted in EPAct 2005 but chooses to adopt its staff rules. <sup>250</sup>				
LA R.S. 51:3061 et seq. and LA PSC Order, Docket No. R- 27558	Louisiana Renewable Energy Development Act	11/30/2005, 10/1/2003	Louisiana law requiring IOUs, municipal utilities and electric cooperatives to offer net metering to customers that generate electricity using solar, wind, hydropower, geothermal or biomass resources. <sup>251</sup>				

The Louisiana PSC chose to adopt its Staff's April 2007 Final Proposed Rule, which does not specifically adopt or reject PURPA Standard 14 as enacted in EPAct 2005. The PSC indicated that smart meters and demand response must be on a voluntary basis. The PSC provides guidance for the deployment of demand response programs and requires utilities implementing smart meters to file bi-annual reports with deployment details. Additionally, the smart meters must be compliant with standards developed by the American National Standards Institute. The PSC oversees investigations of new pilot programs.<sup>252</sup>

Entergy currently offers energy efficiency programs for New Orleans residential, small commercial, and industrial customers, though there are currently no EERS in place for the state. Entergy customers can get reduced interest home improvement loans to make energy-related improvements to their existing homes and the Louisiana Home Energy Rebate Option offers a cash payments for residents who build or improve homes to high levels of energy efficiency.<sup>253</sup>

http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdr
 Louisiana Utility Policies. Accessed 2/14/11. <a href="http://www.aceee.org/energy-efficiency-sector/state-policy/louisiana/191/all/191">http://www.aceee.org/energy-efficiency-sector/state-policy/louisiana/191/all/191</a>

<sup>249</sup> Louisiana PSC, Docket No. R-29213 Subdocket A. Accessed 9/22/11. <u>http://lpscstar.louisiana.gov/star/portal/lpsc/page/docket-docs/PSC/DocketDetails.aspx</u>

<sup>&</sup>lt;sup>250</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11, http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>251</sup> DSIRE, Louisiana – Net metering. Accessed 2/7/11. http://www.dsireusa.org/incentives/incentive.cfm?Incentive Code=LA02R&re=1&ee=1

<sup>&</sup>lt;sup>252</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11, http://www.demandresponsesmartgrid.org/Resources/Documents/Final\_NCEP\_Report\_on\_DR\_and\_SM\_Policy\_Actiona\_08.12.pdf

Entergy, Energy Efficiency Programs and Tax Credits. Accessed 9/27/11. http://www.entergy-louisiana.com/your home/rebuilding.aspx

#### Maine

Item	Title	Dates	Description
Legislative		•	
LD 756 (HP 563)	An Act To Limit the Use of Smart Meters	6/15/2011	Requires the PUC to open a proceeding to establish the terms and conditions under which a utility may install wireless smart meters. The customer must be allowed to decline the installation of the wireless smart meter or have a wired smart meter installed as an alternative to the wireless smart meter. Also requires the PUC address regulatory gaps between federal and state law regarding smart meters, customer data, and cyber security and report findings to the Joint Standing Committee on Energy, Utilities and Technology by January 15, 2012. Approved by the Governor In June 2011. <sup>254</sup>
LD 795	An Act To Expand Net Energy Billing	6/8/2011	Requires the PUC amend the net energy rules to address net energy billing and interconnection agreements. Allows the PUC to amend net energy billing rules following "routine technical rules" without sending the amendments to the legislature for approval. Gov. Paul LePage approved the net metering legislation in June 2011. <sup>255</sup>
LD 1396 (HP 1025)	An Act To RequireSafeguards to Consumers Prior To Installing Wireless Smart Meters	6/3/2011	Would have required the PUC to open a proceeding when a utility initiated plans to deploy wireless smart meters. Included additional customer protections related to installations and rate increases. Bill failed to pass in June 2011 and no further action has been taken. <sup>256</sup>
LD 1106 (HP 818)	An Act To Lower the Cost of Health Care through Improved Energy Efficiency	6/1/11	Certain capital expenditures before January 1, 2017 that meet certification standards adopted by the Efficiency Maine Trust as likely to produce energy cost savings through energy efficiency, renewable energy technology or smart grid technology would not require a certificate of need. Bill failed to pass in June 2011 and no further action has been taken. <sup>257</sup>
LD 620 (SP 201)	Resolve, To ProtectRatepayers Regarding the Installation of Smart Meters	4/14/2011	A transmission and distribution utility may not install a smart electric meter until one year after the effective date of the legislation. At customer request, a utility shall remove a smart electric meter from the customer's premises and replace it with an electric meter similar to the type installed previously for a fee not exceeding \$30. The PUC shall study the safety of smart electric meters, including, but not limited to, health risks to customers posed by smart meters. Bill was referred to the Senate in April 2011. <sup>258</sup>
HB 1535	An act to create a smart grid policy in the state	3/23/2010	Legislation to establish a smart grid policy in the state of Maine. Governor signed bill into law on 3/23/2010. <sup>259</sup>
HB 1079	NA	3/23/2010	Establishes a state policy on smart grid infrastructure including employment of a smart grid to improve reliability and efficiency of the power resource and delivery system, while reducing energy consumption. Includes adoption of technologies for smart metering. Governor signed bill into law on 3/23/2010. <sup>260</sup>

<sup>&</sup>lt;sup>254</sup> Maine PUC, HP0563, LD 756, Item 1, 125th Maine State Legislature. Accessed 9/15/11. <u>http://www.mainelegislature.org/legis/bills/bills\_125th/billpdfs/HP056301.pdf</u>

 <sup>&</sup>lt;sup>255</sup> State of Maine Legislature, Summary of LD 795. Accessed 9/27/11. <u>http://www.mainelegislature.org/LawMakerWeb/summary.asp?ID=280040031</u>
 <sup>256</sup> State of Maine Legislature, Summary of LD 1396. Accessed 9/20/11. <u>http://www.mainelegislature.org/LawMakerWeb/summary.asp?ID=280041059</u>
 <sup>257</sup> State of Maine Legislature, Summary of LD 1106. Accessed 9/20/11. <u>http://www.mainelegislature.org/LawMakerWeb/summary.asp?ID=280040620</u>
 <sup>257</sup> State of Maine Legislature, Summary of LD 1106. Accessed 9/20/11. <u>http://www.mainelegislature.org/LawMakerWeb/summary.asp?ID=280040620</u>

<sup>&</sup>lt;sup>258</sup> Maine PUC, LD 620 (SP 201). Accessed 9/15/11. http://www.mainelegislature.org/legis/bills/bills\_125th/billtexts/SP020101.asp

<sup>259</sup> Demand Response & Smart Grid—State Legislative and Regulatory Policy Action Review: October 2008 – May 2010, Prepared by the DRCC. Accessed 2/10/11. http://www.demandresponsesmartgrid.org/Resources/Documents/State%20Policy%20Survey/2009 DR-SG Policy Survey FINAL 10.06.17%282%29.pdf

Item	Title	Dates	Description
Legislative	•	•	
Public Law Chapter 518	An Act To Enhance Maine's Clean Energy Opportunities	March 2010	Sets the goal for the Efficiency Maine Trust to capture all cost-effective energy efficiency resources available for electric utility ratepayers. <sup>261</sup>
33 M.R.S. §1421 seq.	Solar Rights	9/30/2009	Solar access laws for the state of Maine. <sup>262</sup>
Public Law 372	An Act Regarding Maine's Energy Future	June 2009	Creates the Efficiency Maine Trust, an independent entity which, as of July 2010, creates, coordinates, and implements energy efficiency and alternative energy programs. <sup>263</sup>
MRS 3210-C (4)	Capacity resource adequacy	2007	An order that requires utilities to use energy efficiency before any other traditional resource. <sup>264</sup>
LD 2041	Maine's Energy Independence and Security Act	June 2006	Gives permission to the Maine PUC to incorporate cost-effective demand response and energy efficiency into standard offer supply. <sup>265</sup>
33 M.R.S. §1401 et seq.	Establishment of solar easements	1981	Solar easement provisions regarding DG resources. <sup>266</sup>
Regulatory			
Docket No. 2011 - 274	Maine Public Utilities Commission Inquiry Into Cyber Security and Privacy Issues Regarding Smart Meters	8/10/2011	PUC initiated an inquiry to obtain information and viewpoints regarding current cyber security and privacy requirements that exist under federal and state law, rules and utility policies and practices, and potential regulatory gaps that may exist regarding smart meters and related systems. <sup>267</sup>
Docket No. 2010- 345, 2010-389, 2010-398, 2010- 400, 2011-085	Request for Commission InvestigationSmart Meter Initiative	5/17/2011	Requires Central Maine Power (CMP), as a public utility that provides a monopoly service, to offer two opt-out options for the company's smart meter program: the availability of the smart meter with its transmitter turned off and the ability to retain the existing (or analog) meter. <sup>268</sup>
Docket No. 2010- 267, Docket No. 2011-138	Investigation into Need For Smart Grid Coordinator and Smart Grid Coordinator Standards	9/8/2010	As part of Maine's Smart Grid Policy Act 2010, the PUC is required to investigate whether it is in the public interest to have one or more smart grid coordinators at a state-wide or territory-wide level. A technical conference was held in June 2011 regarding the investigation. <sup>269</sup>

 <sup>&</sup>lt;sup>260</sup> States Providing for Smart Metering. Accessed 2/11/11. <u>http://www.ncsl.org/?tabid=20672</u>
 <sup>261</sup> Maine Utility Policies. Accessed 2/14/11. <u>http://www.accee.org/energy-efficiency-sector/state-policy/maine/192/all/191</u>

<sup>262</sup> DSIRE, Maine Solar Rights. Accessed 2/10/11. http://www.dsireusa.org/incentives/incentive.cfm?incentive Code=ME12R&re=1&ee=1

<sup>&</sup>lt;sup>263</sup> Maine Utility Policies. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/maine/192/all/191</u>

<sup>&</sup>lt;sup>264</sup> Maine Utility Policies. Accessed 2/14/11. http://www.aceee.org/energy-efficiency-sector/state-policy/maine/192/all/191

<sup>265</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11,

http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf <sup>266</sup> DSIRE, Maine Solar Easements. Accessed 2/10/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?lncentive\_Code=ME03R&re=1&ee=1</u>

<sup>&</sup>lt;sup>267</sup> Maine PUC, Docket No. 2011 - 274. Accessed 9/20/11. <u>http://mpuc.informe.org/easyfile/easyweb.php?func=easyweb\_query</u>

<sup>268</sup> MPUC Decides Smart Meter Investigation, May 17, 2011. Accessed 9/15/11. http://www.maine.gov/tools/whatsnew/index.php?topic=puc-pressreleases&id=245859&v=article08

<sup>&</sup>lt;sup>269</sup> Maine PUC, Docket No. 2010-267. Accessed 9/15/11. <u>http://mpuc.informe.org/easyfile/cache/easyfile doc230317.PDF</u>

Item	Title	Dates	Description
Regulatory	·		
Docket No. 210- 116	Review of Efficiency Maine Trust Triennial Plan	7/19/2010	Maine PUC provides conditional approval of Efficiency Maine Trust's Triennial Plan with a supplemental plan in October 2010 addressing programs, budgets, evaluation plans, and performance metrics. <sup>270</sup>
Docket No. 2009- 219	Order Adopting Small Generator Interconnection Forms and Agreements	January 2010	Maine's PUC adopted interconnection procedures applying to all transmission and distribution utilities operating in Maine. The interconnection procedures set four tiers of review for interconnection requests for all eligible technologies and systems. <sup>271</sup>
CMR 65-407-313 and LD 336	Net Energy Billing Rule To Allow Shared Ownership	04/30/2009	Defines net-metering standards for the state of Maine. <sup>272</sup>

In March 2010, Governor Baldacci signed legislation known as the "Act to Create a Smart Grid Policy in the State" to work toward creating a statewide smart grid policy. The smart grid policy goals include: 1) deployment and integration into the electric system of demand response technologies, demand-side resources and energy-efficiency resources; 2) deployment of smart grid technologies, including real-time, automated, interactive technologies that optimize the physical operation of energy-consuming appliances and devices, for purposes of metering, communications concerning grid operation and status and distribution system operations; 3) deployment and integration into the electric system of advanced electric storage and peak-reduction technologies, including plug-in electric and hybrid electric vehicles; and 4) identification and elimination of barriers to adoption of smart grid functions and associated infrastructure, technology and applications.<sup>273</sup>

In 2002, Maine established a state-wide public benefits energy efficiency program, known as Efficiency Maine, was became a division of the Maine PUC. Efficiency Maine administered a portfolio of energy efficiency programs available to all electric utility customers in Maine. Efficiency Maine also administered low-income programs. In 2010, the Efficiency Maine Trust replaced Efficiency Maine and a related program, the Energy and Carbon Savings Trust. An Act Regarding Maine's Energy Future, Public Law 372, was signed by the Governor in June 2009. It set up the Efficiency Maine Trust. The Efficiency Maine Trust plans to receive funding from many sources including the private sector, the ARRA, the Regional Greenhouse Gas Initiative, and an increased system benefits charge on utility bills.<sup>274</sup> The first triennial plan created by the Efficiency Maine Trust was approved by the PUC in July 2010, and will expire in June 2013. It aims to help Maine achieve 1) reductions in electricity and natural gas consumption of 30 percent within a decade; 2) reductions in oil heating use of 20 percent within a decade; and 3) weatherization of 100 percent of homes and 50 percent of businesses by 2030, with a focus on performance metrics such as net energy and carbon savings.<sup>275</sup>

All of Maine's electric utilities must offer net energy billing (net metering) for individual customers. IOUs are required to offer net metering to eligible facilities with capacity limits up to 660 kW. Customer owned utilities are required to offer net metering to customer-generators up to 100 kW, though they are authorized to offer net metering to eligible facilities with capacity limits up to 660 kW.

<sup>&</sup>lt;sup>270</sup> Maine PUC, Review of Efficiency Maine Trust Triennial Plan, July 19, 2010. Accessed 9/14/11. <u>http://www.dsireusa.org/documents/Incentives/MPUC2010-116.pdf</u>

<sup>271</sup> Maine Clean Distributed Generation. Accessed 2/14/11. http://www.aceee.org/energy-efficiency-sector/state-policy/Maine/192/all/195

<sup>272</sup> DSIRE, Maine – Net metering. Accessed 2/10/11. http://www.dsireusa.org/incentives/incentive.cfm?Incentive Code=ME02R&re=1&ee=1

<sup>&</sup>lt;sup>273</sup> Demand Response & Smart Grid—State Legislative and Regulatory Policy Action Review: October 2008 – May 2010, Prepared by the DRCC. Accessed 2/10/11. http://www.demandresponsesmartgrid.org/Resources/Documents/State%20Policy%20Survey/2009 DR-SG Policy Survey FINAL 10.06.17%282%29.pdf

<sup>&</sup>lt;sup>274</sup> Maine Utility Policies. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/maine/192/all/191</u>

<sup>&</sup>lt;sup>275</sup> Triennial Plan of the Efficiency Maine Trust 2011-2013, April 2010. Accessed 9/14/11. <u>http://www.efficiencymaine.com/docs/other/EMT\_Final\_Tri\_Plan.pdf</u>

<sup>&</sup>lt;sup>276</sup> Maine Clean Distributed Generation. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/Maine/192/all/195</u>

# Maryland

Item	Title	Dates	Description
Legislative		•	
HB 665, SB 557	Commission on Maryland Cybersecurity Innovation and Excellence	5/10/2011	Establishes the Commission on Maryland Cybersecurity Innovation and Excellence which shall conduct a comprehensive review of inconsistencies in policies, standards, and best practices for ensuring the security of computer systems and networks used by state government and organizations that work with health care records, personal identification information, public safety, and public service and utilities. Signed into law by Gov. Governor Martin O'Malley. <sup>277</sup>
HB 801 and HB 821, MD Public Utility Companies Code § 7-306	Electricity – Net Energy Metering – Credits…Fuel Cell	10/01/2010	Revised net-metering laws for bi-directional metering. <sup>278</sup> The rules apply to IOUs, electric cooperatives and municipal utilities and residents, businesses, schools or government entities with systems that generate electricity using micro-CHP resources are eligible for net metering. Bills were signed into law by the Governor in May 2010. <sup>279</sup>
Code of Maryland Regulations Title 20, Subtitle 50, Chapter 9	Small Generator Interconnection Standards	2009	Interconnection rules delineate four distinct tiers of interconnection, covering interconnection for systems up to 10 MW in size, and specifically allow for the interconnection of CHP. <sup>280</sup>
HB 368, SB 268	Regional Greenhouse Gas Initiative, Maryland Strategic Energy Investment Program Act	4/24/2008	Defines that the Maryland Strategic Energy Investment Program (housed in the Maryland Energy Administration) will fund demand response programs. <sup>281</sup>
SB 205/HB 374	Maryland's EmPOWER Maryland Energy Efficiency Act	4/5/2008	Sets goals for reductions in energy consumption and peak demand. <sup>282</sup> This includes a statewide goal of reducing both per capita electricity consumption and peak demand by 15 percent by the end of 2015. Maryland utilities are required to provide cost-effective energy efficiency and conservation programs. Bill passed on 4/5/2008. <sup>283</sup> Utilities filed plans with the PUC and funding was approved by the PSC in June 2011 for the Northeastern Energy Efficiency Partnership's Evaluation Monitoring and Verification Forum which will encourage the application of evaluation monitoring and verification practices in the utilities' EmPOWER Maryland programs. <sup>284</sup>

<sup>&</sup>lt;sup>277</sup> Maryland General Assembly, HB 665. Accessed 9/20/11. <u>http://mlis.state.md.us/2011rs/billfile/hb0665.htm</u>

 <sup>&</sup>lt;sup>278</sup> DSIRE, Maryland – Net Metering. Accessed 2/7/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive Code=MD03R&re=1&ee=1</u>

<sup>279</sup> Maryland Clean Distributed Generation. Accessed 2/14/11. http://www.aceee.org/energy-efficiency-sector/state-policy/Maryland/66/all/195

<sup>280</sup> Maryland Clean Distributed Generation. Accessed 2/14/11. http://www.aceee.org/energy-efficiency-sector/state-policy/Maryland/66/all/195

<sup>281</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11,

http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf 282 Draft for Comment of the National Action Plan on Demand Response The Federal Energy Regulatory Commission Staff Docket No. AD09-10, Prepared with the support of The Brattle Group, GMMB, Customer Performance Group, David Lineweber. Accessed 2/7/11. http://www.ferc.gov/legal/staff-reports/03-12-10-demand-response.pdf

<sup>283</sup> Maryland Utility Policies. Accessed 2/14/11. http://www.aceee.org/energy-efficiency-sector/state-policy/maryland/66/all/191

<sup>284</sup> ADS, Demand Response & Smart Grid—State Legislative and Regulatory Policy Action Review: May 2010 – June 2011 Accessed 9/15/11. http://www.demandresponsesmartgrid.org/Resources/Documents/State%20Policy%20Survey/2010%20-%2011%20DR%20%20SG%20State%20Policy%20Survey 11%2007%2007 FINAL%20%282%29.pdf

Item	Title	Dates	Description
Regulatory			
Order No. 84275, Case No. 9241	In The Matter of an Investigation of the Regulation of Curtailment Service Providers	8/22/2011	Curtailment service providers operating within Maryland qualify as "electricity suppliers" under PUA § 1-101(j) and shall be licensed as electricity suppliers as a condition of doing business in this State. Opens a discussion of proposed amendments to the electric supplier license application form and a discussion of data collection and dissemination with the PSC regarding curtailment service provider activities. <sup>285</sup>
Order No. 84262, Case No. 9236	In the Matter of an Investigation of Demand Response Billing Service by Electric Utilities to Federal End- User Customers	8/19/2011	Orders that: 1) each EmPower Maryland utility research expanding its demand response programs to more effectively engage customers, especially federal end-user customers, for the 2012-2014 planning cycle; and 2) each EmPower Maryland utility begin actively informing qualifying federal entities of the benefits of demand response programs offered through curtailment service providers or through the utility directly. <sup>286</sup>
Case No. 9059	EPAct/PURPA Standard 14	February 2007	The Maryland PSC deferred its decision about whether to adopt PURPA Standard 14 (Time-Based Metering and Communications) as enacted in EPAct 2005. <sup>287</sup>

The EmPower Maryland Energy Efficiency Act sets goals for efficiency and peak-demand reduction and requires utilities provide demand response plans for achieving the goal. The legislation also requires the Maryland PSC evaluate the cost effectiveness of mandating the integration of smart meters and other smart grid technologies into these plans. In 2009, the Maryland PSC approved plans from BGE, Delmarva Power and Light, PEPCO, and Southern Maryland Electric Cooperative. Allegheny Power offers two energy efficiency programs (load response during peak periods and interruptible load programs) for its large commercial and industrial customers as well as advanced meters.<sup>288</sup> In September 2011, the Maryland Energy Administration filed a report with the PSC assessing the performance of EmPower Maryland programs with suggestions for improvements. These suggestions included: 1) stronger utility management support and attention, structural changes in PSC program implementation, and greater investment in energy efficiency programs; 2) additional performance incentives and penalties, and a clearer definition of cost-effectiveness; and 3) the addition of new statewide programs including conservation voltage reduction and on-bill financing.<sup>289</sup>

BGE proposed a smart meter pilot program, including AMI, with initial plans to complete smart meter installations by 2012.<sup>290</sup> This includes approximately 2 million gas and electric meters for residential, industrial and commercial customers.<sup>291</sup> However, the Maryland PSC initially denied BGE's proposal stating that "the proposal asks BGE's ratepayers to take significant financial and technological risks and adapt to categorical changes in rate design, all in exchange for savings that are largely indirect, highly contingent and a long way off."<sup>292</sup> Approval was later granted by the PSC, and beginning in spring 2012, BGE will install digital electric meters in every home and small business in its service area. Smart energy pricing programs will also be introduced.<sup>293</sup>

The PEPCO Smart Community Plan included the deployment of power line sensors and smart meters in order to create a platform for customer program offerings and improve efficiencies of energy delivery. Between 2,500 and 3,500 selected customers were included in the demonstration project. <sup>294</sup> As part of its "Blueprint for the Future" plan, PEPCO will be installing smart meters to all District of Columbia customers through December 2011. Installations for all Maryland customers will take place through December 2012.<sup>295</sup>

<sup>&</sup>lt;sup>285</sup> Mayland PSC, Order No. 84275, Case No. 9241. Accessed 9/15/11. <u>http://webapp.psc.state.md.us/Intranet/Casenum/CaseAction\_new.cfm?CaseNumber=9241</u>

<sup>286</sup> Maryland PSC, Order No. 84262, Case No. 9236 . Accessed 9/16/11. http://webapp.psc.state.md.us/Intranet/Casenum/CaseAction\_new.cfm?CaseNumber=9236

<sup>&</sup>lt;sup>287</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11, http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>&</sup>lt;sup>288</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11, http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

Maryland Utility Policies. Accessed 2/14/11. http://www.aceee.org/energy-efficiency-sector/state-policy/maryland/66/all/191

Allegheny Power, Energy Conservation Programs. Accessed 2/16/11. <u>http://www.alleghenypower.com/Bus2Bus/Bus2BusEngEffeciency.asp</u>

<sup>289</sup> DemandResponseInfo.org, Maryland Energy Administration Recommends Improvements to EmPower Maryland Programs, 9/12/11. Accessed 9/16/11. http://www.demandresponseinfo.org/library/posting/3678/

<sup>&</sup>lt;sup>290</sup> States Providing for Smart Metering. Accessed 2/11/11. <u>http://www.ncsl.org/?tabid=20672</u>

<sup>291</sup> Smart Grid Maryland, Smart Grid Technologies and Programs, Maryland Energy Administration. May 2009. Accessed 2/14/11. http://www.smartgridmd.org/events/Documents/MSG%20Final%206-8-09.pdf

<sup>&</sup>lt;sup>292</sup> Order No. 83410. Accessed 3/2/11. <u>http://www.smartgridnews.com/artman/uploads/1/maryland\_psc\_order.pdf</u>

<sup>&</sup>lt;sup>293</sup> BGE, Smart Meters. Accessed 9/27/11. <u>http://www.bge.com/learnshare/smartgrid/smartmeters/Pages/default.aspx</u>

<sup>294</sup> Smart Grid Maryland, Smart Grid Technologies and Programs, Maryland Energy Administration. May 2009. Accessed 2/14/11. http://www.energetics.com/resourcecenter/products/studies/Documents/Smart-Grid-Maryland.pdf

<sup>&</sup>lt;sup>295</sup> PEPCO, Our Smart Grid Plan. Accessed 9/27/11. <u>http://www.pepco.com/energy/blueprint/</u>

#### Massachusetts

Item	Title	Dates	Description
Legislative			
HB 563	NA	NA	Requires the PUC establish provisions addressing the installation of smart meters, including an option to opt-out of installation or have smart meters removed. <sup>296</sup>
SB 201	NA	NA	Would impose a one-year moratorium on the installation of smart electric meters. Bill remains pending in the legislative process. <sup>297</sup>
SB 1670	An Act Relative to Utility Service Call Centers	1/20/2011	Requires every EDC and municipal lighting plant provide call center service assistance for certain services, including preparing meter and service orders and obtaining access to meters, investigating trouble order forms, and initiating high bill investigations. Bill remains pending in the legislative process. <sup>298</sup>
SB 1685	An Act to create a Repower Massachusetts Emergency Task Force	1/21/2011	Forms the RePower Massachusetts Emergency Task Force to develop a plan for meeting the target of 100% emission reductions by January 1, 2020, in part by reducing electricity demand through efficiency. Subcommittees shall evaluate the challenge of intermittency and smart grid, battery storage, and other solutions. Bill has been referred to the Joint Committee on Telecommunications, Utilities and Energy. <sup>299</sup>
HB 2024	An Act to repower Massachusetts	1/20/2011	Creates a special task force to study interim and longer-term actions necessary to reduce greenhouse gas emissions, including smart grid implementation. Bill has been referred to the Joint Committee on Environment, Natural Resources and Agriculture. <sup>300</sup>
SB 2768	An Act Relative to Green Communities	7/2/2008	Includes demand response, smart metering, and smart grid provisions mandating smart meter pilots. Bill was passed into law in 2008. <sup>301</sup> Requires the Department of Public Utilities (DPU) to review and approve mandatory EDC pilot programs that include TOU or hourly pricing for commodity service. <sup>302</sup>
M.G.L. ch. 187 § 1A.	Solar easements	NA	Solar access provisions allow for the creation of voluntary solar easements to protect solar exposure and authorize zoning rules that prohibit unreasonable infringements on solar access. <sup>303</sup>
Regulatory			
Docket No. 10-82	Smart Grid Pilot Evaluation Working Group	May 2011, 7/23/2010	DPU creates the Smart Grid Pilot Evaluation Working Group as a collaborative effort for the DPU, EDCs and other interested persons to develop uniform statewide smart grid evaluation approaches and standards. In May 2011, the Technical Subcommittee of the working group filed two survey documents with the DPU: 1) the "Smart Grid Collaborative Post-Installation Survey;" and 2) the "Smart Grid Collaborative Non-Participating Customer Survey" which could provide information to analyze results of smart grid pilots. <sup>304</sup>

<sup>&</sup>lt;sup>296</sup> National Conference of State Legislatures, Energy Security Legislative Update, April 2011. Accessed 9/26/11. <u>http://www.ncsl.org/default.aspx?TabId=22492</u>

<sup>&</sup>lt;sup>297</sup> National Conference of State Legislatures, Energy Security Legislative Opate, April 2011. Accessed 9/26/11. <u>http://www.ncsl.org/default.aspx?Tabld=22492</u>

<sup>&</sup>lt;sup>298</sup> 187th General Court of the Commonwealth of Massachusetts, Bill S.1670. Accessed 9/26/11. <u>http://www.malegislature.gov/Bills/187/Senate/S01670</u>

<sup>&</sup>lt;sup>299</sup> 187th General Court of the Commonwealth of Massachusetts, Bill S.1685. Accessed 9/20/11. http://www.malegislature.gov/Bills/187/Senate/S01685

<sup>&</sup>lt;sup>300</sup> 187th General Court of the Commonwealth of Massachusetts, Bill H.2024. Accessed 9/20/11. http://www.malegislature.gov/Bills/187/House/H02024

<sup>&</sup>lt;sup>301</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>&</sup>lt;sup>302</sup>D.T.E./D.P.U. 06-101. Accessed 2/28/11. http://www.env.state.ma.us/dpu/docs/electric/06-101/81408dpuord.pdf

<sup>&</sup>lt;sup>303</sup> DSIRE, Massachusetts Solar Access Laws. Accessed 2/18/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=MA02R&re=1&ee=1</u>

<sup>&</sup>lt;sup>304</sup> Massachusetts DPU, Docket No. 10-82. Accessed 9/16/11. <u>http://db.state.ma.us/dpu/qorders/frmDocketSingle.asp?docknum=10-82</u>

Item	Title	Dates	Description				
Regulatory	Regulatory						
M.G.L. ch. 164, § 1G et seq., SB 2768, 220 CMR 11.04, 220 CMR 18.00 et seq., 220 CMR 8.00 et seq., Net Metering Model Tariff, HB 2058	Manufacture and sale of gas and electricity	10/15/2010, 8/20/2009, 7/2/2008, 1997	Adoption of amended net-metering rules. <sup>305</sup>				
DPU 08-50-A	Investigation Updating its Energy Efficiency Guidelines Consistent with An Act Relative to Green Communities	3/16/2009	Addressed the criteria of energy efficiency program cost-effectiveness, shareholder performance incentive and penalty mechanisms, DPU review of rate and average bill impact analyses. <sup>306</sup>				
225 CMR 16.00, MA General Laws in Chapter 25A Section 11F and Section 11F1/2	Alternative Energy Portfolio Standard	3/2009	Created in response to the Green Communities Act (SB 2768); establishes the Alternative Energy Portfolio Standard requiring that 5% of the state's electric load be met with "alternative energy" by 2020. <sup>307</sup>				
DTE/DPU 06-101	Petitioninvestigation into dynamic pricing for basic service customers in Massachusetts.	8/14/2008	The DPU declines to vote to open an investigation of dynamic pricing for basic service customers at this time. Is reviewing commodity pricing options as part of broader mandate of the Green Communities Act, which currently requires review/approval of pilots that include TOU/hourly pricing for commodity service. <sup>308</sup>				
Case 07-50-A	Decoupling	7/16/2008	Orders utilities to develop, by end of 2012, base revenue adjustment mechanisms to fully decouple revenues from sale. Decides that full decoupling removes disincentives to demand resource deployment better than partial decoupling or other shareholder incentives. <sup>309</sup>				

ISO New England has conducted a study called Demand Response Reserve Pilot which was designed to test the ability of smaller demand response resources to respond to ISO dispatch instructions in a manner similar to operating reserve resources. Load reduction assets were directed to reduce the amount of energy their facilities used during an event. Generation assets would then start a behind-the-meter generator and direct load control assets would apply direct load control over a large number of small customers. The entities involved were categorized as grocery stores, manufacturing entities, large retail entities, education sector entities, wastewater treatment facilities, and aggregated air conditioning curtailment generators.

National Grid, reports that a total of 388,221 customers participated in the company's 2009 energy efficiency programs. Participants included 377,076 residential customers, 9,239 low-income customers, and 1,906 commercial and industrial customers.<sup>311</sup> In March 2011, a total of 225,000 electric customers were enrolled in the Home Energy Report program, which allows randomly selected National Grid customers to view the past twelve months of their household energy usage and anonymously compare and contrast their energy consumption and costs with others in the same neighborhood.<sup>312</sup>

<sup>&</sup>lt;sup>305</sup> DSIRE, Massachusetts – Net metering. Accessed 2/18/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=MA01R&re=1&ee=1</u>

<sup>&</sup>lt;sup>306</sup> D.P.U. 08-50-A. Accessed 2/28/11. <u>http://www.ma-eeac.org/docs/DPU-filing/08-50-A%20Order.pdf</u>

<sup>&</sup>lt;sup>307</sup> Massachusetts Executive Office of Energy and Environmental Affairs, 225 CMR 16.00. Accessed 9/14/11. http://www.mass.gov/Eoeea/docs/doer/rps/rps-225-cmr16-mar-12-2009.pdf

<sup>&</sup>lt;sup>308</sup> D.T.E./D.P.U. 06-101. Accessed 2/28/11. <u>http://www.env.state.ma.us/dpu/docs/electric/06-101/81408dpuord.pdf</u>

<sup>&</sup>lt;sup>309</sup> State Regulatory Update: Energy Efficiency, Edison Electric Institute, September 2008. Accessed 2/28/11. <u>http://www.eei.org/ourissues/EnergyEfficiency/Documents/state\_reg\_update\_efficiency.pdf</u>

<sup>310</sup> ISO New England Inc.. ISO New England Load Response Program Manual, Revision 12. Effective Date: October 1, 2007. Accessed 2/18/11. http://www.iso-ne.com/rules\_proceds/isone\_mnls/MLRP/index.html

<sup>&</sup>lt;sup>311</sup> 2009 Energy Efficiency Annual Report, Massachusetts Electric Company, Nantucket Electric Company d/b/a National Grid, August 2010. Accessed 2/18/11. http://www.nationalgridus.com/non\_html/eer/ma/MECO%202009%20Annual%20Report\_Vol1.pdf

<sup>&</sup>lt;sup>312</sup> National Grid, National Grid Receives Top Honor for Energy Efficiency Program, Powergrid International Magazine Names Company's 'Home Energy Report' Program 'Best Energy Efficiency / Demand Response Project of the Year, 3/10/11. Accessed 9/27/11. <a href="http://www.nationalgridus.com/masselectric/a3-1">http://www.nationalgridus.com/masselectric/a3-1</a> news2.asp?document=5903

# Michigan

Item	Title	Dates	Description
Legislative	•		·
HB 5524	An act to amend 1939 PA 3	10/6/2008	Incorporates energy efficiency into the IRP process. Approved by the Governor on 10/6/2008. <sup>313</sup>
HB 5525 and HB 5548	Energy Efficient Michigan Act	June 2008	Legislation that would foster the deployment of demand response and would reduce peak demand.
			Bills were referred to Committee on Education and Committee on Energy Policy And Public Utilities in 2008. <sup>314</sup>
Regulatory			
Case No. U-15278	Commencing proceeding to implement smart grid infrastructure initiatives	May 2011, 4/24/2007	PSC forms a Smart Grid Collaborative requiring all regulated EDCs to participate in establishing criteria and standards that require pilot programs or broader deployment when cost-effective and practical. Has resulted in the need for additional forums to discuss coordinating pilot projects in AMI, dynamic pricing, load control and distribution automation. A Smart Grid Symposium of panel sessions was held in May 2011. <sup>315</sup>
Public Act 295 (2008), PSC Order, Docket U- 15787, SB 213	Public Act 295 (2008), Energy Optimization Savings Standard	5/27/2009, 10/06/2008	Formal adoption of revised net metering and interconnection rules. Authorizes net metering for renewable energy systems using solar, wind, biomass, geothermal, anaerobic digester gas, landfill gas, municipal solid waste, and moving water. <sup>316</sup> Also requires all electric providers (other than alternative electric suppliers) and all rate-regulated natural gas utilities to file energy efficiency programs with the Michigan PSC. <sup>317</sup>
Temporary Order in Case No. U-15800	Formats of Renewable Energy Plans	12/4/2008	Addressed filing requirements for the utility energy efficiency plans. <sup>318</sup>
Executive Directive 2006-02	Michigan's 21st Century Energy Plan	January 2007	Sets forth targets to reduce energy consumption and peak demand for the utilities and/or load serving entities operating as a regulatory or legislative action to encourage demand response and energy efficiency. <sup>319</sup>
NA	EPAct/PURPA Standard 14	January 2007	The Michigan PSC did not use language in its January 2007 order specifically indicating that it was deciding not to adopt PURPA Standard 14. <sup>320</sup>
Case # U-13745	Commission's Own Motion (electric interconnection)	9/11/2003	Michigan's interconnection standard delineates five separate tiers of interconnection, and covers systems of all sizes with the largest interconnection tier – 2 MW systems and above. Utilities are the final arbiters of which types of systems and sizes are suitable for their distribution systems. <sup>321</sup>

<sup>313</sup> Michigan Utility Policies. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/michigan/194/all/191</u>

314 Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11,

http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>315</sup> Michigan PSC, Case No. U-15278. Accessed 9/16/11. <u>http://efile.mpsc.state.mi.us/efile/viewcase.php?casenum=15278</u>

ADS, Demand Response & Smart Grid—State Legislative and Regulatory Policy Action Review: May 2010 – June 2011 Accessed 9/15/11. http://www.demandresponsesmartgrid.org/Resources/Documents/State%20Policy%20Survey/2010%20-%2011%20DR%20%20SG%20State%20Policy%20Survey 11%2007%2007 FINAL%20%282%29.pdf

<sup>316</sup> DSIRE, Michigan – Net metering. Accessed 2/7/11. http://dsireusa.org/incentives/incentive.cfm?Incentive\_Code=MI15R&re=1&ee=1

<sup>&</sup>lt;sup>317</sup> Michigan Utility Policies. Accessed 2/14/11. http://www.aceee.org/energy-efficiency-sector/state-policy/michigan/194/all/191

<sup>318</sup> Michigan Utility Policies. Accessed 2/14/11. http://www.aceee.org/energy-efficiency-sector/state-policy/michigan/194/all/191

<sup>&</sup>lt;sup>319</sup> Draft for Comment of the National Action Plan on Demand Response The Federal Energy Regulatory Commission Staff Docket No. AD09-10, Prepared with the support of The Brattle Group, GMMB, Customer Performance Group, David Lineweber. Accessed 2/10/11. <u>http://www.ferc.gov/legal/staff-reports/03-12-10-demand-response.pdf</u>

<sup>&</sup>lt;sup>320</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11,

http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>&</sup>lt;sup>321</sup> Michigan Clean Distributed Generation. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/Michigan/194/all/195</u>

In January 2007, the Michigan PSC submitted its 21st Century Electric Energy Plan. One of the recommendations in the energy plan is that Michigan's PSC be authorized to require the use of active load management measures by utilities. The plan also recommends pilot programs employing AMI to provide RTP information to customers.<sup>322</sup>

DSM programs are currently being designed and implemented by Consumers Energy and Detroit Edison. In Consumers Energy's Balanced Energy Initiative, the company forecasted that load management, demand response, and interruptible load programs would reduce retail peak by 9.3 percent by 2030. The reduction would be implemented through a comprehensive AMI program that includes central air conditioning load management and demand response programs for residential and small commercial customers. Consumers Energy also plans to conduct a demand response and information pilot aimed at assessing customer behavior in the smart grid environment. The pilot program places AMI-enabled customers into various dynamic pricing and information treatments while comparing them with strategic control groups.<sup>323</sup> Detroit Edison maintains a significant Direct Load Control Interruptible Air Conditioning program.<sup>324</sup> In July 2008 the Michigan PSC issued standards for a previously approved AMI pilot program.<sup>325</sup>

Energy efficiency programs are supported by customer rates via a volumetric charge for residential customers and monthly per meter charges for commercial and industrial customers. SB 213 establishes an EERS for utilities. Electric utilities must achieve 0.3 percent savings in 2009; 0.5 percent in 2010; 0.75 percent in 2011; and 1.0 percent in 2012 and each year thereafter. There is no penalty for failing to achieve the savings amounts, but incentives are provided for exceeding the targets.<sup>326</sup>

<sup>&</sup>lt;sup>322</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11,

http://www.demandresponsesmartgrid.org/Resources/Documents/Final\_NCEP\_Report\_on\_DR\_and\_SM\_Policy\_Actiona\_08.12.pdf

<sup>&</sup>lt;sup>323</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11,

http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

Draft for Comment of the National Action Plan on Demand Response The Federal Energy Regulatory Commission Staff Docket No. AD09-10, Prepared with the support of The Brattle Group, GMMB, Customer Performance Group, David Lineweber. Accessed 2/4/11. <u>http://www.ferc.gov/legal/staff-reports/03-12-10-demand-response.pdf</u>

<sup>&</sup>lt;sup>324</sup> Draft for Comment of the National Action Plan on Demand Response The Federal Energy Regulatory Commission Staff Docket No. AD09-10, Prepared with the support of The Brattle Group, GMMB, Customer Performance Group, David Lineweber. Accessed 2/10/11. http://www.ferc.gov/legal/staff-reports/03-12-10-demand-response.pdf

<sup>&</sup>lt;sup>325</sup> States Providing for Smart Metering. Accessed 2/11/11. <u>http://www.ncsl.org/?tabid=20672</u>

<sup>&</sup>lt;sup>326</sup> Michigan Utility Policies. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/michigan/194/all/191</u>

#### Minnesota

ltem	Title	Dates	Description	
Legislative	·			
Chapter 110	2009 Energy Policy Act	2010	Modifies the criteria the Minnesota PUC uses to set energy conservation incentives. <sup>327</sup>	
Chapter 136–	Next Generation Energy	May 2007	Changes how conservation is measured from the amount spent on conservation to the amount of electricity	
S.F.No. 145	Act of 2007		conserved. Load management is considered to be a conservation measure. <sup>328</sup>	
MN Stat. §	Net energy billing rate	2000, 1983	Minnesota's net-metering law applies to all IOUs, municipal utilities and electric cooperatives. All qualifying	
216B.164, MN			facilities less than 40 kW in capacity are eligible. <sup>329</sup>	
R. 7835.3300,				
7835.9910				
Minn. Stat. §	Solar or wind easements	1978	Provides for the creation of solar and wind easements (voluntary contracts) for solar and wind-energy systems.	
500.30			Also allows local zoning boards to restrict development for the purpose of protecting access to sunlight. <sup>330</sup>	
Regulatory				
Docket No.	In the MatterDemand	February	Order prohibits bidding of demand response into organized markets by aggregators of retail customers and	
E999/CI-09-	Response Bid Directly into	2011,	requires further filings by utilities. In February 2011, a second PUC order affirms the potential benefit of	
1449	the MISO Markets by	5/18/2010,	allowing utilities to consider expansion of demand response options through contracts with third-parties. Xcel	
	Aggregators of Retail	1/13/2010	Energy, Minnesota Power, IPL, and Otter Tail Power are to file comments about expanding options to achieve	
	Customers under FERC		demand response potential by September 2011. 331	
	Orders 719 and 719-A			
NA	EPAct/PURPA Standard 14	August 2007	The Minnesota PUC decided not to adopt PURPA Standard 14) as enacted in EPAct 2005 but did adopt a	
			modified version which it will apply on a utility-by utility basis. <sup>332</sup>	

Due to the Next Generation Energy Act of 2007, utilities were required to achieve 1.5 percent annual energy savings through DSM and efficiency. To achieve this Interstate Power and Light (IPL) provides cash rebates to residential customers for energy efficient appliances, air conditioners, and CFLs, as well as professional home energy audits, appliance recycling, and low-interest financing.<sup>333</sup> IPL implemented an AMI program in 2007.<sup>334</sup> Minnesota Power's Power of One program offers rebates and savings to customers for a variety of efficiency measures.<sup>335</sup> Otter Tail Power Company offers a program for residential customers where they can receive rebates for installing residential demand controllers which notify their owners of high demand and automatically shut off certain appliances during peak periods to maintain preset demand levels.<sup>336</sup>

<sup>&</sup>lt;sup>327</sup>Minnesota Utility Policies. Accessed 2/18/11. <u>http://www.aceee.org/sector/state-policy/minnesota</u>

<sup>&</sup>lt;sup>328</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11, http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>&</sup>lt;sup>329</sup> DSIRE, Minnesota – Net Metering. Accessed 2/18/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?incentive\_Code=MN01R&re=1&ee=1</u>

<sup>&</sup>lt;sup>330</sup> DSIRE, Minnesota Solar and Wind Easements. Accessed 2/18/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=MN02R&re=1&ee=1</u>

<sup>&</sup>lt;sup>331</sup> Minnesota PUC, Docket No. E999/CI-09-1449. Accessed 9/16/11. <u>https://www.edockets.state.mn.us/EFiling/edockets/searchDocuments.do?method=showPoup&documentId={B1A67D22-C1F8-4FD0-B63C-D692D589A592}&documentTitle=20111-58690-01</u>

ADS, Demand Response & Smart Grid—State Legislative and Regulatory Policy Action Review: May 2010 – June 2011 Accessed 9/15/11. <u>http://www.demandresponsesmartgrid.org/Resources/Documents/State%20Policy%20Survey/2010%20-</u> %2011%20DR%20%20SG%20State%20Policy%20Survey 11%2007%2007 FINAL%20%282%29.pdf

<sup>&</sup>lt;sup>332</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11, http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>333</sup> Alliant Energy's success in promoting energy efficiency. Accessed 2/18/11. http://www.alliantenergy.com/wcm/groups/wcm\_internet/documents/contentpage/016942.pdf

<sup>334</sup> Interstate Power and Light (Minnesota) AMI Project. Accessed 2/18/11. http://www.sgiclearinghouse.org/ProjectMap?q=node/2064, http://www.alliantenergy.com/UtilityServices/CustomerService/MeterReading/016361

<sup>&</sup>lt;sup>335</sup> 2011 Rebates and Energy Saving Tools. Accessed 2/18/11. http://www.mnpower.com/powerofone/one\_home/energystar/special\_offers/index.php

<sup>&</sup>lt;sup>336</sup> Otter Tail, Conservation Improvement Program. Accessed 2/18/11. <u>http://www.otpco.com/SaveEnergyMoney/ConservationImproveProg.asp</u>

# Mississippi

Item	Title	Dates	Description		
Legislative					
SCR 665, HCR 120	A Concurrent Resolution Urging All State Agencies to Define the Smart Grid	3/30/2011	Urges all agencies to define the smart grid as one that applies technologies, tools and techniques available now to 1) bring knowledge to power, making the grid work more efficiently 2) maintain its affordability; 3) reinforce global competitiveness; 4) fully accommodate renewable and traditional energy sources; 5) reduce carbon footprint; and 6) introduce advancements yet to be envisioned. Legislation signed by Gov. Barbour. <sup>337</sup>		
HB 1356	NA	2010	Encouragement for utilization of smart grid systems by utilities, regulated by the PSC. This bill is listed with a "failed" status in the state legislature. <sup>338</sup>		
Regulatory					
None Identified					

Utilities in Mississippi offer few energy efficiency programs. South Mississippi Electric Power Association and Mississippi Power Company accounted for all MWh of savings reported to the EIA in 2008. TVA has reported energy efficiency savings in 2008. Mississippi Power Company offers loans for residential customers. There are currently no EERS in place for the state.<sup>339</sup>

As part of the ARRA, Mississippi was allocated over \$40 million dollars in funds to implement the State Energy Plan (SEP). The SEP will provide assistance to public and private entities to move toward greater energy efficiency. The Mississippi Development Authority Energy Division is responsible for administering the program.<sup>340</sup>

<sup>337</sup> Mississippi Legislature 2011 Regular Session, SCR 665. Accessed 9/20/11. http://billstatus.ls.state.ms.us/2011/pdf/history/SC/SC0665.xml

<sup>338</sup> Smart Grid Deployment in Colorado: Challenges and Opportunities, University of Colorado at Boulder, Kevin Doran, Frank Barnes, Puneet Pasrich, eds. Accessed 2/9/11. http://cees.colorado.edu/sgreport.pdf

<sup>&</sup>lt;sup>339</sup> Mississippi Utility Policies. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/mississippi/196/all/191</u>

<sup>&</sup>lt;sup>340</sup> Mississippi Clean Distributed Generation. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/mississippi/196/all/195</u>

### Missouri

Item	Title	Dates	Description
Legislative			
SB 376	Missouri Energy Efficiency Investment Act	July 2009	Modifies provisions relating to energy and energy efficiency. The PSC must allow electric companies to implement and recover costs related to the approved energy efficiency programs. The act prohibits any customer from participating in a company's energy efficiency program that offers a monetary reward for participating if the customer has received a tax credit through the low-income housing or historic preservation tax credit programs.
SB 54, HB 869, Revised Statute MO § 386.890 and 4 CSR 240-20.065Easy Connection Act, Net Metering		02/28/2009	Establishes net metering rules for the state of Missouri. <sup>342</sup>
R.S. MO § 442.012 Solar energy is a property right - eminent domain not permitted - easement requirements		1979	Solar easement provisions regarding DG resources. <sup>343</sup>
Regulatory			
File No. EX-2010- 0368	In the Matter of the Consideration and Implementation of Section 393.1075, the Missouri Energy Efficiency Investment Act	2/9/2011	Order adopting four rules regarding electric utility DSM program investment mechanisms, programs filing and submission requirements, investment mechanisms filing and submission requirements, and DSM programs to meet requirements of the Missouri Energy Efficiency Investment Act. <sup>344</sup>
File No. EW-2010- 0187			PSC initiated proceeding to investigate its obligations regarding the Missouri Energy Efficiency Investment Act (SB 376) and respond to FERC Order 719 (Dockets AD07-7 and RM07-19). PSC order states that demand response load reductions of customers of the four regulated electric utilities are prohibited from being transferred to ISO or regional transmission organization markets directly by retail customers or third-party aggregators of retail customers. <sup>345</sup> The PSC issued a draft rule in January 2011 further addressing aggregators of retail customers and demand response, and as of April 2011 the PSC continued to collect informal comments. <sup>346</sup>
Docket No. 070022- EPAct/PURPA Standard 14 EU, Order No. PSC- 07-0273-CO-EU		July 2007	The Missouri PSC decided not to adopt PURPA Standard 14 (Time-Based Metering and Communications) as enacted in EPAct 2005. <sup>347</sup>

<sup>341</sup>SB 376, Current Bill Summary. Accessed 2/11/11. http://www.senate.mo.gov/09info/BTS\_Web/Bill.aspx?SessionType=R&BillID=834581

<sup>&</sup>lt;sup>342</sup> DSIRE, Missouri – Net Metering. Accessed 2/8/11. http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=M007R&re=1&ee=1

 <sup>&</sup>lt;sup>343</sup> DSIRE, Missouri Solar Easements. Accessed 2/8/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?lncentive Code=M001R&re=1&ee=1</u>
 <sup>344</sup> Missouri PSC, File No. EX-2010-0368. Accessed 9/16/11. <u>http://pre.psc.mo.gov/orders/2011/031410368.htm</u>

<sup>&</sup>lt;sup>345</sup> Missouri PSC, Order Temporarily Prohibiting the Operation of Aggregators of Retail Customers. Accessed 9/16/11. https://www.efis.psc.mo.gov/mpsc/commoncomponents/viewdocument.asp?DocId=935484458

<sup>346</sup> ADS, Demand Response & Smart Grid—State Legislative and Regulatory Policy Action Review: May 2010 – June 2011 Accessed 9/15/11. http://www.demandresponsesmartgrid.org/Resources/Documents/State%20Policy%20Survey/2010%20-%2011%20DR%20%20SG%20State%20Policy%20Survey 11%2007%2007 FINAL%20%282%29.pdf 347 Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11.

http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

In July 2007, the Missouri PSC decided not to adopt PURPA Standard 14 as enacted in EPAct 2005 because utilities already provide time-based rates.<sup>348</sup>

Fundamental rules have been in place since the early 1990s for IRPs and DSM, though utilities have increased DSM spending only recently. Missouri utilities such as AmerenUE have begun implementing a portfolio of residential and commercial energy efficiency programs. AmerenUE's approved 2009 budgets for electric efficiency programs in the commercial, residential, and industrial sectors totaled \$22.7 million, according to the Consortium for Energy Efficiency. According to an AmerenUE DSM Market Potential Study released in January 2010, the achievable savings from demand response programs are in the range of 914 to 1,126 MW and a realistic achievable potential from energy efficiency is 3,165 GWh by the year 2030.<sup>349</sup> Through its "Act On Energy" programs, AmerenUE offers rebates on energy efficient products for residential and business customers, however the company recently closed its Business Energy Efficiency Incentive Programs on August 31, 2011.<sup>350</sup>

There are currently no EERS in place, though SB 376 requires timely cost-recovery for utilities investing in energy efficiency programs.<sup>351</sup>

<sup>&</sup>lt;sup>348</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final\_NCEP\_Report\_on\_DR\_and\_SM\_Policy\_Actiona\_08.12.pdf

<sup>&</sup>lt;sup>349</sup> AmerenUE DSM Market Potential Study Volume 1: Executive Summary, Global Report Number 1287-1, January 2010. Accessed 9/27/11. http://www.ameren.com/sites/aue/Environment/Renewables/Documents/AmerenUEVolume1ExecutiveSummary.pdf

<sup>&</sup>lt;sup>350</sup> AmerenUE, Act On Energy. Accessed 9/27/11. <u>http://www.ameren.com/sites/aue/UEfficiency/Pages/home.aspx</u>

<sup>&</sup>lt;sup>351</sup> Missouri Utility Policies. Accessed 2/14/11. http://www.aceee.org/energy-efficiency-sector/state-policy/missouri/197/all/191

### Montana

Item	Title	Dates	Description		
Legislative					
SB 305	Revise Energy Policy	5/12/2011	Promotes 1) the generation of low-cost electricity with large-scale utility wind generation and small-scale distributed generation; 2) building new transmission lines in the state if not otherwise mitigated through energy efficiency, distributed energy, demand response, and smart grid technologies; 3) increasing capacity of existing transmission lines in existing corridors and maximizing the potential of existing transmission lines; 4) using compressed air energy storage, batteries, flywheels, hydrogen production, smart grid, smart garage, and intrahour balancing services to address wind integration. Signed by Gov. Schweitzer. <sup>352</sup>		
SB 104	Limiting a Public Utility's Ability to Implement Inverted Block Rates	04/28/2011, 12/30/2010	Prohibits the PSC from prescribing inverted block rate structures unless a utility's actual costs justify an inverted block rate; indicates that inverted block rate structures can create discrimination between electric customers in similar rate classes. Bill failed in Standing Committee in April 2011 and was declared "dead." <sup>353</sup>		
SB 49, MCA § 17-7-213	High-performance building standards	4/1/2009	Creates energy efficiency standards for state-owned and state-leased buildings. Signed into law by Governor on $4/1/2009$ . <sup>354</sup>		
2009 Drafts 51	Advanced metering infrastructure	2009	Requires the creation of a smart grid task force to consider and develop smart grid deployment plans. Draft bill currently is listed with cancelled status. <sup>355</sup>		
Montana Code Annotated Sec. 69-8-419(2)	Electricity Supply Resource PlanningCommission Rules	2007	The electricity supply procurement process must evaluate the full range of cost-effective electricity supply and DSM options. <sup>356</sup>		
SB 390, SB 337, State statute Chapter 55	The Green Electricity Buying Cooperative Bill	2007	Established a universal system benefits charge for each customer meter assessed by the utility for energy efficiency program funding. SB 337 failed in Standing Committee, but additional activity commenced in March 2009 by the PSC in response to successful legislation. <sup>357</sup>		
MT Code § 69-8-601 et seq. and MT Code § 69-8-601 et seq.	Net Metering	1999	Establishes Montana's net-metering laws. Systems up to 50 kW in capacity that generate electricity using solar, wind or hydropower are eligible. <sup>358</sup>		

<sup>&</sup>lt;sup>352</sup> Montana Legislature, SB 305. Accessed 9/20/11.

http://laws.leg.mt.gov/laws11/LAW0203WSBSRV.ActionQuery?P BLTP BILL TYP CD=SB&P BILL NO=305&P BILL DFT NO=&Z ACTION=Find&P SBJ DESCR=&P SBJ T SBJ CD=&P LST NM1=&P ENTY ID SEC= <sup>353</sup> Montana Legislature, SB 104. Accessed 9/16/11.

http://laws.leg.mt.gov/laws11/LAW0203W\$BSRV.ActionQuery?P BLTP BILL TYP CD=SB&P BILL NO=104&P BILL DFT NO=&Z ACTION=Find&P SBJ DESCR=&P SBJ CD=&P LST NM1=&P ENTY ID SEQ= ADS, Demand Response & Smart Grid—State Legislative and Regulatory Policy Action Review: May 2010 – June 2011 Accessed 9/15/11. http://www.demandresponsesmartgrid.org/Resources/Documents/State%20Policy%20Survey/2010%20-%2011%20DR%20%20SG%20State%20Policy%20Survey 11%2007%2007 FINAL%20%282%29.pdf <sup>354</sup> Montana Lead by Example Initiatives. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/Montana/198/all/202</u>

<sup>355</sup> Smart Grid Deployment in Colorado: Challenges and Opportunities, University of Colorado at Boulder, Kevin Doran, Frank Barnes, Puneet Pasrich, eds. Accessed 2/9/11. http://cees.colorado.edu/sgreport.pdf Montana Legislature, Bill Draft Number: LC0051. Accessed 9/21/11.

http://laws.leg.mt.gov/laws09/LAW0203W\$BSRV.ActionQuery?P BLTP BILL TYP CD=&P BILL NO=&P BILL DFT NO=51&P CHPT NO=&Z ACTION=Find&P SBJ DESCR=&P SBJ CD=&P LST NM1=&P ENTY ID SEQ=

<sup>&</sup>lt;sup>356</sup> Montana Utility Policies. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/montana/198/all/191</u>

<sup>&</sup>lt;sup>357</sup> Montana Utility Policies. Accessed 2/14/11. http://www.aceee.org/energy-efficiency-sector/state-policy/montana/198/all/191

<sup>358</sup> DSIRE, Montana – Net Metering. Accessed 2/8/11. http://www.dsireusa.org/incentives/incentive.cfm?Incentive Code=MT05R&re=1&ee=1

Item	Title	Dates	Description		
Legislative	Legislative				
MT Code 69-3-712	Commission to include conservation in rate base – rate of return	1983	Statute that allows the Montana PSC to add 2 percent to the authorized rate of return for DSM investments. <sup>359</sup>		
MCA § 70-17-301 et seq.	Solar and Wind Energy Easements	1983, 1979	Establishes Montana's solar and wind easement provisions. <sup>360</sup>		
Regulatory	Regulatory				
NA	EPAct/PURPA Standard 14	December 2006	The Montana PSC deferred a decision to adopt PURPA Standard 14 (Time-Based Metering and Communications) as enacted in EPAct 2005. <sup>361</sup>		

In December 2006, the Montana PSC deferred a decision to adopt PURPA Standard 14 as enacted in EPAct 2005. The PSC indicated it will consider whether to adopt the standard for each utility in each utility's next general rate case.<sup>362</sup>

Customer energy efficiency programs in Montana are provided by utilities or by a state agency. Programs receive funding from a universal system benefits charge paid by all customers of competitive electricity providers and cooperative utilities. The Montana PSC oversees the programs and the Montana Department of Revenue ensures all of the money is spent on qualifying programs. Each utility or cooperative responsible for collecting the universal system benefits charge can choose to conduct the energy efficiency and renewable energy programs itself or turn the funds over to the Montana Department of Environmental Quality to administer.<sup>363</sup>

Western Montana is included in the activities of the NPCC and the NEEA. NorthWestern Energy is participating in a five-year smart grid demonstration project, extending through 2014, initiated by the BPA with support from the U.S. DOE. The pilot includes conservation voltage reduction, volt/ Value-at-Risk optimization, and distribution automation on the utility side, and the deployment of interval meters and home area networks for a sample of customers in Helena and Philipsburg, Montana.<sup>364</sup> NorthWestern Energy currently offers rebates to residential customers for energy efficient products and home improvements, including the installation of programmable thermostats.<sup>365</sup>

<sup>&</sup>lt;sup>359</sup> Montana Utility Policies. Accessed 2/14/11. http://www.aceee.org/energy-efficiency-sector/state-policy/montana/198/all/191

<sup>360</sup> DSIRE. Montana Solar and Wind Easements. Accessed 2/8/11. http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=MT03R&re=1&ee=1

<sup>361</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf <sup>362</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11.

http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>&</sup>lt;sup>363</sup> Montana Utility Policies. Accessed 2/14/11. http://www.aceee.org/energy-efficiency-sector/state-policy/montana/198/all/191

<sup>&</sup>lt;sup>364</sup> Montana Utility Policies. Accessed 2/14/11. http://www.aceee.org/energy-efficiency-sector/state-policy/montana/198/all/191

Northwestern Energy, Smart Grid Demonstration Project. Accessed 9/27/11. http://www.northwesternenergy.com/display.aspx?Page=Smart Grid&Item=429

<sup>&</sup>lt;sup>365</sup> Northwestern Energy, Efficiency Plus (E+). Accessed 9/27/11. <u>http://www.northwesternenergy.com/NWEplus/at-work/rebates.aspx</u>

### Nebraska

Item	Title	Dates	Description		
Legislative					
LB 1048	For An Act Relating to Power Generation	4/12/2010	Encourages the development, ownership and operation of renewable energy facilities for the export of wind energy from Nebraska. Allows the Nebraska Power Review Board to approve wind energy operations designed to export energy. Approved by the Governor on 4/12/2010. <sup>366</sup>		
LR 195	NA	2010	The Natural Resources Committee of the Legislature shall conduct an interim study to examine energy efficiency. <sup>367</sup>		
R.R.S. 70-2001, et seq. and LB 436	Legislative findings	5/13/2009	Established statewide net metering rules applying to electricity generating facilities which use solar, methane, wind, biomass, hydropower or geothermal energy, and have a rated capacity at or below 25 kW. LB 436 includes implementation guidelines of smart metering systems. <sup>368</sup>		
R.R.S. 66-901 et seq. and LB 568	Legislative findings	1979, May 2009	Nebraska's solar and wind easement provisions allow property owners to create binding solar and wind easements for the purpose of protecting and maintaining proper access to sunlight and wind. <sup>369</sup>		
Regulatory	•	•			
None Identified					

Nebraska's electric utilities are all publicly-owned and there is limited utility-sector energy efficiency activity statewide, with the Omaha Public Power District accounting for the majority of utility program spending in the state. The Nebraska Energy Office administers a loan program for energy efficiency improvements using federal and state funding. The Energy Office also drafts energy plans. There are few utility customer energy efficiency programs in Nebraska. In its draft 2009 Energy Plan, the Nebraska Energy Office encouraged energy efficiency in buildings by enforcing building codes and designing programs to improve energy performance in residential, commercial, and public buildings. The 2011 Energy Plan includes a strategy to increase opportunities for DSM and energy efficiencies, with the greatest opportunity for DSM through the management of irrigation resources. There are currently no EERS in place for the state.<sup>370</sup>

Omaha Public Power District has recently expanded its Watt Detector Program, which allows customers to check out watt meters from local libraries. The meters can measure energy consumption of household appliances in kWh so that customers can better manage their energy use.<sup>371</sup>

<sup>366</sup> Office of Gov. Dave Heineman, Gov. Heineman Signs Bill Promoting Wind Energy. Accessed 9/22/11. http://www.governor.nebraska.gov/news/2010/04/12 wind energy.html

<sup>&</sup>lt;sup>367</sup> Nebraska Legislature, LR 195. Accessed 9/22/11. http://www.legislature.ne.gov/FloorDocs/101/PDF/Intro/LR195.pdf

<sup>&</sup>lt;sup>368</sup> DSIRE, Nebraska – Net Metering. Accessed 2/10/11. http://www.dsireusa.org/incentives/incentive.cfm?incentive\_Code=NE07R&re=1&ee=1

<sup>369</sup> DSIRE, Nebraska Solar and Wind Easements. Accessed 2/10/11. http://www.dsireusa.org/incentives/incentive.cfm?incentive\_Code=NE01R&re=1&ee=1

<sup>&</sup>lt;sup>370</sup> Nebraska Utility Policies. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/nebraska/199/all/191</u>

Nebraska Energy Office, 2011 Energy Plan. Accessed 9/27/11. http://www.neo.ne.gov/Energyplan2011.pdf

<sup>&</sup>lt;sup>371</sup> Omaha Public Power District, Watt Detector Program. Accessed 9/27/11. <u>http://www.oppd.com/AimGreen/EnergyInformationCenter/22</u>006850, <u>http://www.oppd.com/prodconsump10g/groups/web/documents/webcontent/22</u>007075.pdf

### Nevada

Item	Title	Dates	Description
Legislative		•	
SB 426	An Act Relating to Energy; Eliminating the Renewable Energy and Energy Efficiency Authority	6/13/2011	A previously enacted law established a Renewable Energy and Energy Efficiency Authority headed by the Nevada Energy Commissioner. This bill repeals these authorities and requires the Office of Energy and its Director to assume the duties of those entities. Requires addition of members to the New Energy Industry Task Force. Bill was approved by the Governor on 6/13/2011. <sup>372</sup>
SB 59	An Act Relating to Public Utilities	6/2/2011	Requires a public utility that supplies electricity to offer net metering to the customer- generators operating within the service area of the utility until the cumulative capacity of net metering systems operating within the service area exceeds 5 percent (increased from 1 percent) of the peak capacity of the utility. Signed into law by the Governor on 6/13/2011. <sup>373</sup>
AB 150	An Act Relating to Energy; Revising the Definition of "Energy Efficiency Measure" for the Purposes of the Portfolio Standard for Providers of Electric Service	5/18/2011	Revises the definition of the REPS "energy efficiency measure" to include any measure that: 1) is installed or implemented on or after 1/1/2005 at the service location of (or for) a retail customer; 2) reduces the consumption of energy by one or more retail customers; and 3) the costs of the acquisition, installation or implementation of which are directly reimbursed, in whole or in part, by the provider of electric service. The term does not include any demand response measure or load limiting measure that shifts the consumption of energy by a retail customer from one period to another period. Bill became law 5/18/2011. <sup>374</sup>
AB 287	An Act Relating to Energy; Creating the Nevada RETA	3/16/2011	Creates the Nevada RETA to facilitate the rapid development of renewable energy resources through the identification and establishment of corridors for the transmission of electricity and the financing, planning, acquisition, maintenance and operation of eligible facilities. As of 6/6/2011 no further action was taken regarding bill passage. <sup>375</sup>
NRS § 111.370 et seq., NRS § 111.239 et seq., NRS § 278.0208 , NRS § 116.2111 and SB 114	Creation of easement by grant Prohibition against prohibiting or unreasonably restricting use of system for obtaining solar energy.	5/29/2009	Provides owners of solar and wind energy systems protection against restrictions that would otherwise prevent them from installing these systems on their property. <sup>376</sup>
2009 SCR 19	Committee on energy, infrastructure and transportation	June 2009	Creation of a committee to conduct a study reviewing smart grid technologies and their suitability in the state. Adopted in June 2009. <sup>377</sup>
SB 358	An act relating to energy; creating the Renewable Energy and Energy Efficiency Authority	5/28/2009	Raised the REPS to 25 percent by 2025. In any given year, energy efficiency savings can meet up to a quarter of the total standard. Bill was signed into law by the Governor on 5/28/2009. <sup>378</sup>

<sup>&</sup>lt;sup>372</sup> Nevada Legislature, SB 426. Accessed 9/23/11. <u>http://www.leg.state.nv.us/Session/76th2011/Reports/history.cfm?ID=1065</u>

<sup>&</sup>lt;sup>373</sup> Nevada Legislature, SB 59. Accessed 9/23/11. <u>http://www.leg.state.nv.us/Session/76th2011/Reports/history.cfm?ID=147</u>

 <sup>&</sup>lt;sup>374</sup> Nevada Legislature, AB 150. Accessed 9/23/11. <u>http://www.leg.state.nv.us/Session/76th2011/Reports/history.cfm?lD=358</u>
 <sup>375</sup> Nevada Legislature, AB 287. Accessed 9/23/11. <u>http://www.leg.state.nv.us/Session/76th2011/Reports/history.cfm?lD=603</u>

<sup>&</sup>lt;sup>376</sup> DSIRF, Nevada Solar and Wind Easements, Accessed 2/8/11. http://www.dsireusa.org/incentives/incentive.cfm?incentive\_Code=NV03R&re=1&ee=1

<sup>&</sup>lt;sup>377</sup> Smart Grid Deployment in Colorado: Challenges and Opportunities, University of Colorado at Boulder, Kevin Doran, Frank Barnes, Puneet Pasrich, eds. Accessed 2/9/11. <u>http://cees.colorado.edu/sgreport.pdf</u>

<sup>&</sup>lt;sup>378</sup> Nevada Utility Policies. Accessed 2/14/11. http://www.aceee.org/energy-efficiency-sector/state-policy/nevada/200/all/191

ltem	Title	Dates	Description
Legislative	·	•	·
NRS 331.095	Program to track use of energy in buildings owned by state or occupied by state agency.	May 2009	Directs the Chief of the Buildings and Grounds Division of the Department of Administration to establish a program to track the use of energy in public buildings, allowing for comparison of utility bills as well as the identification and projection of energy costs and savings. <sup>379</sup>
NRS 704.766 et seq. and NAC 704.8901 et seq.	Net Metering Systems and System of Portfolio Energy Credits	2004, 7/1/1997	Net-metering law for renewable-energy systems; systems up to one MW in capacity that generate electricity using solar, wind, geothermal, biomass and certain types of hydropower are generally eligible. <sup>380</sup>
Regulatory			
Docket No. 11-08019	Investigation to further an integrated analysis of resource acquisition related to conventional power plants, renewable energy, and DSM	8/22/2011	The PUC will develop an integrated analytical framework to help Nevada Power Company, or other power companies, in establishing priorities among demand and supply to assist with evaluation of issues related to resource planning in the areas of conventional power plants, renewable energy, and DSM. <sup>381</sup>
NA	NA	2010	The PUC is investigating effects on the existing Consumer Bill of Rights with regard to remote disconnection and service termination. A customer must be \$50 and 30 days behind in payments before termination is considered. With the implementation of smart meters, the PUC may revise the disconnection requirements upon investigation completion. <sup>382</sup>
Nevada Administrative Code §704.934	Preparation, contents and submission of demand side plan; annual analyses regarding programs for energy efficiency and conservation.	1/31/2008	Directs each regulated utility to submit a plan for conservation and load management as part of its resource plan. <sup>383</sup>
NA	EPAct/PURPA Standard 14	January 2007	The Nevada PUC issued an order closing a proceeding it opened in consideration of whether to adopt PURPA Standard 14 (Time-Based Metering and Communications) as enacted in EPAct 2005 concluding that more research was needed before adopting the standard. No additional dockets have been opened regarding EPAct 2005, PURPA Standard 14. <sup>384</sup>
Docket No. 02-5030	In re-investigation and rulemaking into revision of resource planning regulations	May 2004	The revised regulations for DSM allow electric utilities to earn an extra 5 percent return-on- equity for applicable, approved DSM costs. <sup>385</sup>

<sup>379</sup> Nevada Lead by Example Initiatives. Accessed 2/15/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/Nevada/200/all/202</u> <sup>380</sup> DSIRE, Nevada – Net Metering. Accessed 2/8/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=NV04R&re=1&ee=1</u>

http://pucweb1.state.nv.us/wx/ISubmitQuery.aspx?Credentials=28:94C2FC7D931B3F4ECAA4F41A202064580941F8BE7B063F5F90AC2B4B1AA9F42A1E483018485F7BA4D1AD8041ACA6CC5CE3C73A69C61B0D3339207AEDD5626ACD&DSN=PUCN%20Ima ging&Appname=DOCKETS 2010 THRU PRESENT&DOCKET%20NUMBER=11-08019&~~field1=on&~~field2=on&~~field3=off&~~field4=on&~~field5=on&~~field6=on&~~field7=on&~~field8=off&~~field9=off&~~field10=on <sup>382</sup> Nevada PUC, Smart Meters. Accessed 9/23/11. http://pucweb1.state.nv.us/pucn/SmartHome.aspx

383 Nevada Utility Policies. Accessed 2/14/11. http://www.aceee.org/energy-efficiency-sector/state-policy/nevada/200/all/191

<sup>&</sup>lt;sup>381</sup> Nevada PUC, Docket No. 11-08019. Accessed 9/21/11.

Las Vegas Review Journal, NV Energy's plan for future power gets early approval, 9/5/10. Accessed 9/23/11. http://www.lvrj.com/business/plan-to-obtain-and-finance-electricity-on-track-for-approval-99041659.html

<sup>384</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11.

http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>&</sup>lt;sup>385</sup> Nevada Utility Policies. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/nevada/200/all/191</u>

In May 2009 legislation was signed that expands the state's REPS. Whereas the standard previously had a cap of 20 percent, the law changed it so that by 2025 electricity providers must generate electricity from renewable resources or reduce consumption through energy efficiency in an amount that equals 25 percent of the total electricity sold to retail customers that year.<sup>386</sup>

The levels of funding and program services have grown rapidly since Nevada reestablished requirements for energy efficiency programs provided by the state's electric utilities. Nevada's vertically integrated IOUs are required to perform IRP and related DSM programs. The utility companies administer the energy efficiency programs with oversight by the Nevada PUC. Nevada Power Company and Sierra Nevada Power (now known as NV Energy after a merger in 2008) administer customer energy efficiency programs that are funded by a systems benefits charge on customer bills.<sup>387</sup>

NV Energy smart meter installations began in September 2010 in southern Nevada and will begin in December 2011 in northern Nevada. The deployments are scheduled to be completed by December 2012.<sup>388</sup>

<sup>&</sup>lt;sup>386</sup>Demand Response & Smart Grid—State Legislative and Regulatory Policy Action Review: October 2008 – May 2010, Prepared by the DRCC. Accessed 2/10/11. <u>http://www.demandresponsesmartgrid.org/Resources/Documents/State%20Policy%20Survey/2009\_DR-SG\_Policy\_Survey\_FINAL\_10.06.17%282%29.pdf</u>

<sup>&</sup>lt;sup>387</sup> Nevada Utility Policies. Accessed 2/14/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/nevada/200/all/191</u>

<sup>&</sup>lt;sup>388</sup> NV Energize, Rollout. Accessed 9/27/11. <u>http://www.nvenergy.com/NVEnergize/</u>

## **New Hampshire**

Item	Title	Dates	Description
Legislative			
HB 381	An Act Authorizing Net Metering for Micro-CHP Systems	5/18/2011	Redefines "eligible customer-generator" in order to authorize net metering for micro-CHP systems. Limits the total rated generated capacity from CHP systems to no more than 2 MW of total rated generating capacity. Bill has been approved by the Governor. <sup>389</sup>
HB 1377	Permitting Utilities to Establish Loan Programs	5/19/2010	Permits utilities to establish loan programs for owners of residential and business property engaging in renewable energy and energy efficiency projects. Establishes a committee to study methods of encouraging the installation and use of small scale renewable energy resources by homeowners and businesses. Bill has been approved by the Governor. <sup>390</sup>
NH Statutes §362-A:1-a, NH Statutes § 362-A:9, NH Admin. Rules, HB 1353	Limited Electrical Energy Producers Act	8/13/2010, 2007, 2001	Net-metering policy requiring all utilities selling electricity in the state to offer net metering to homeowners and small businesses that generate electricity using renewable-energy systems up to 100 kW in capacity. <sup>391</sup>
SB 451	An act authorizing rate recovery for electric public utilities investments in distributed energy resources.	July 2008	Authorizes rate recovery for utility investments in distributed energy resources to stimulate public-utility investment in distributed resources. Bill was approved by the Governor. <sup>392</sup>
NH Statutes § 477:49 et seq.	Solar Skyspace Easements	1985	Solar skyspace easement provisions allow property owners to create solar easements in order to create and preserve a right to unobstructed access to solar energy. <sup>393</sup>
Regulatory		•	
Executive Order No. 2011-1	An Order For State Government to Continue to Lead-by-Example in Energy Efficiency	4/15/2011	Orders 25 percent reduction in fossil fuel use by state agencies. Directs agencies to make smart investments in state facilities that will result in costs savings and reduce energy usage. When renovating or building new state facilities, the state must use the most cost-effective, energy efficient designs and include renewable energy components when practicable. <sup>394</sup>
NA	EPAct/PURPA Standard 14	January 2008	The New Hampshire PUC issued an order in its proceeding to consider adopting PURPA Standard 14 (Time-Based Metering and Communications) as enacted in EPAct 2005 in which it deferred the actual creation and implementation to future proceedings and directed its Staff to create a working group regarding AMI and time-based rates. <sup>395</sup>

<sup>389</sup> New Hampshire General Court, HB 381. Accessed 9/23/11. http://www.gencourt.state.nh.us/bill\_Status/bill\_status.aspx?lsr=454&sy=2011&sortoption=&txtsessionyear=2011&txttitle=meter

<sup>390</sup> New Hampshire General Court, HB 1377. Accessed 9/23/11. http://www.gencourt.state.nh.us/bill\_Status/bill\_status.aspx?lsr=2471&sy=2010&sortoption=genstat&txtsessionyear=2010&txttitle=renewable&txtgstatus=05

<sup>&</sup>lt;sup>391</sup> DSIRE, New Hampshire – Net Metering. Accessed 2/8/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=NH01R&re=1&ee=1</u>

<sup>392</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11,

http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf <sup>393</sup> DSIRE, New Hampshire Solar Easements. Accessed 2/8/11. http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=NH02R&re=1&ee=1

<sup>394</sup> State of New Hampshire By His Excellency John H. Lynch, Governor, Executive Order No. 2011-1. Accessed 9/23/11. http://www.governor.nh.gov/media/orders/documents/2011-01.pdf

<sup>395</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11,

Item	Title	Dates	Description		
Regulatory	Regulatory				
Order No. 23,982 in	Order Approving Settlement	5/31/2002	Approves the implementation of core energy efficiency programs by the state's electric utilities		
Docket No. DE 01-057	Agreement and Authorizing		through 2003. This order established the basis for the "NHsaves" statewide energy efficiency		
	Implementation of Programs		program. <sup>396</sup>		
Chapter PUC 900	Net metering for customer-owned	January	Established interconnection rules for net-metered systems. Only CHP systems fueled by		
	renewable energy generation	2001	renewable sources are permitted to interconnect under these standards. <sup>397</sup>		
	resources of 100 kW or less				

In 2008 the New Hampshire legislator created the Energy Efficiency & Sustainable Energy Board to promote and coordinate energy efficiency, demand response, and sustainable energy programs in the state. <sup>398</sup> New Hampshire's regulated electric distribution utilities jointly develop and offer customers energy efficiency programs under a statewide umbrella program, NHSaves. These programs are funded via a system benefits charge included in customer rates. The New Hampshire PUC reviews and approves program plans and budgets submitted by the utilities. Utilities can earn performance incentives based on successful implementation of their programs. According to the Vermont Energy Investment Corporation's September 2011 report "New Hampshire Independent Study of Energy Policy Issues" (required for SB 323) the 10 years of utility administered energy efficiency programs which cost around \$17-18 million per year (funded through the system benefits charge) have resulted in 70,000 MWh per year in savings and \$90 million per year in total benefits per utility filings. There are currently no EERS in place for the state. <sup>399</sup>

The Enterprise Energy Fund is a revolving loan funded through New Hampshire's State Energy Program (under the ARRA) to help business owners and non-profit organizations make energy improvements in their buildings. The New Hampshire Business Resource Center was the co-creator of the Renewable Energy and Energy Efficiency Business Loan Program offering reduced interest loans for structural and equipment upgrades to reduce energy consumption.<sup>400</sup>

<sup>&</sup>lt;sup>396</sup> New Hampshire Utility Policies. Accessed 2/15/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/new%20hampshire/201/all/191</u>

<sup>&</sup>lt;sup>397</sup> New Hampshire Clean Distributed Generation. Accessed 2/15/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/New%20Hampshire/201/all/195</u>

<sup>398</sup> Title X Public Health, Chapter 125-o Multiple Pollutant Reduction Program. Accessed 2/15/11. http://www.gencourt.state.nh.us/rsa/html/X/125-0/125-0-5-a.htm

<sup>&</sup>lt;sup>399</sup> New Hampshire Utility Policies. Accessed 2/15/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/new%20hampshire/201/all/191</u> Vermont Energy Investment Corporation, New Hampshire Independent Study of Energy Policy Issues, September 2011. <u>http://www.puc.nh.gov/EESE%20Board/20110909Mtg/NH%20Independent%20Study%20of%20Policy%20Issues%20for%20EESE%20Board%209-9-11%20Final.pdf</u>

<sup>&</sup>lt;sup>400</sup> New Hampshire Clean Distributed Generation. Accessed 2/15/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/New%20Hampshire/201/all/195</u>

### **New Jersey**

Item	Title	Dates	Description
Legislative			
AB 912	Limits Electric Public Utility Cost Recovery to Equipment or Software that is Compatible with, and Capable of Interoperating With, a Smart Grid System	2010	Establishment of cost-recovery mechanism for equipment compatible with smart grid. Bill has been reported out of Assembly Committee since 3/4/2010.
AB 915	Authorizes Creation Of Local Renewable Energy Collaboratives and Central Renewable Energy Generation Systems, and Provides for Sale of Renewable Power Generation	2010	Establishes AMI standards and regulations. In September 2010 the bill was sent out of the Assembly Committee with amendments. <sup>402</sup>
AB 3071	NA	6/24/2010	Includes re-allocation of \$158 million of ratepayer funds, which had been dedicated to energy efficiency and alternative energy programs, from the Clean Energy Fund to help balance the state budget. Bill has been referred to the Assembly Budget Committee as of 6/24/2010. <sup>403</sup>
LB A2507/S1932	An Act concerning the use of revenue from the retail margin assessed on certain classes of basic generation service customers and amending P.L.1999, c.23. <sup>404</sup>	3/31/2009	Authorizes New Jersey's Board of Public Utilities (BPU) to use the Retail Margin Fund to provide grants for CHP production, energy efficiency projects, and programs promoting renewable energy and energy efficiency. Bill was approved by the Governor on 3/31/2009. <sup>405</sup>
NJ Stat. § 45:22A- 48.2	Solar collectors on certain roofs, homeowners association authority limited	08/21/2007	Legislation preventing homeowners associations from prohibiting the installation of solar collectors on certain types of residential properties. <sup>406</sup>
NJ Administrative Code 14:4-9	Net metering and interconnection standards for class I renewable energy systems	2006	Interconnection of DG systems, including CHP at the discretion of the applicable EDC. These standards are applicable to the state's IOUs. There are three separate levels of interconnection, and systems up to two MW in size are covered by the interconnection standard. <sup>407</sup>
NJ Stat. § 48:3-87, NJ A.C. 14:8-5.1 et seq.	Energy Rate Competition, Environmental disclosure requirements; standards; rules and Interconnection of Class I Renewable Energy Systems.	10/04/2004, 09/13/2004, 1999	Interconnection guidelines for solar, wind, fuel cells powered by renewable fuels, geothermal technologies, wave or tidal action, landfill gas, anaerobic digester gas, and sustainable biomass. <sup>408</sup>

<sup>&</sup>lt;sup>401</sup> Smart Grid Deployment in Colorado: Challenges and Opportunities, University of Colorado at Boulder, Kevin Doran, Frank Barnes, Puneet Pasrich, eds. Accessed 2/9/11. <a href="http://cees.colorado.edu/sgreport.pdf">http://cees.colorado.edu/sgreport.pdf</a> 402 Smart Grid Deployment in Colorado: Challenges and Opportunities, University of Colorado at Boulder, Kevin Doran, Frank Barnes, Puneet Pasrich, eds. Accessed 2/9/11. http://cees.colorado.edu/sgreport.pdf 
 http://www.nileg.state.nj.us/bills/BillView.asp

 403
 New Jersey Utility Policies. Accessed 2/15/11. 

 http://www.acceee.org/energy-efficiency-sector/state-policy/new%20jersey/202/all/191

 <sup>&</sup>lt;sup>404</sup> Senate, No. 1932, State of New Jersey, 213th LEGISLATURE. Accessed 2/15/11. <u>http://www.nijeg.state.nj.us/2008/Bills/S2000/1932 11.HTM</u>
 <sup>405</sup> New Jersey Clean Distributed Generation. Accessed 2/15/11. <u>http://www.accee.org/energy-efficiency-sector/state-policy/New%20Jersey/202/all/195</u>

<sup>406</sup> DSIRE, New Jersey Residential Solar Access Law. Accessed 2/8/11. http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=NJ15R&re=1&ee=1

<sup>407</sup> New Jersev Clean Distributed Generation. Accessed 2/15/11. http://www.aceee.org/energy-efficiency-sector/state-policy/New%20Jersey/202/all/195

<sup>408</sup> DSIRE, New Jersey Interconnection Standards. Accessed 2/8/11. http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=NJ11R&re=1&ee=1

Item	Title	Dates	Description
Legislative			
NJ Stat. § 46:3-24 et seq.	Solar easements	1978	Provides for the creation of solar easements to ensure that proper sunlight is available to those who operate solar-energy systems. Also establishes requirements for certain types of information that must be included in the easement agreement. <sup>409</sup>
Regulatory			
SB 2936, NJ Stat. § 48:3-87, NJ A.C. § 14:8-4.1 et seq., AB 3520, NJ BPU Order, Docket No. EX09110910	An act concerning electric power net metering, safety and power quality interconnection standards, and renewable energy credit rules, and amending P.L.1999, c.23.	7/6/2010, 7/01/2010, 10/4/2004, 1999	Required EDCs to offer net metering to residential and small commercial customers with PV and wind-energy systems. Amendments were made to the net metering law, most notably extending net metering to large commercial and industrial customers and expanding the list of eligible technologies to include all "Class I" renewable energy resources. <sup>410</sup>
NA	New Jersey BPU Energy Master Plan	2008	Sets targets to reduce energy consumption and peak demand for the utilities and/or load serving entities to encourage demand response and energy efficiency. <sup>411</sup> Public hearings were held and additional comments were requested by the BPU in August 2011 regarding the 2011 Draft Energy Master Plan which includes promotion of a diverse portfolio of new, clean, in-state generation, REPS of 22.5% by 2021, opposition to new coal-fired generation, support for energy efficiency, energy conservation and cost-effective renewable resources, and support for emerging technologies for transportation and power production. <sup>412</sup>

NJ Clean Energy Plan, also known as the New Jersey's Clean Energy Program, promotes increased energy efficiency and the use of clean, renewable sources of energy including solar, wind, geothermal, and sustainable biomass. Customers can support renewable energy through the program's New Jersey CleanPower Choice Program which offers green pricing.<sup>413</sup>

The New Jersey Demand Response Working Group (DRWG), formed in June 2007, was charged with developing a demand response procurement program that would enable the deployment of demand response. The group recommended a pilot program that would procure 300 MW of demand response. The DRWG stated that the costs of the pilot program should be funded by the EDC's "Retail Margin collections" and recommended any demand response program be offered statewide to all EDC customers. The New Jersey BPU Energy Master Plan with the state's strategy through 2020 was created shortly thereafter in April 2008.<sup>414</sup>

<sup>&</sup>lt;sup>409</sup> DSIRE, New Jersey Solar Easements. Accessed 2/8/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=NJ01R&re=1&ee=1</u>

<sup>&</sup>lt;sup>410</sup> DSIRE, New Jersey Interconnection Standards. Accessed 2/8/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=NJ11R&re=1&ee=1</u>

<sup>&</sup>lt;sup>411</sup> Draft for Comment of the National Action Plan on Demand Response The Federal Energy Regulatory Commission Staff Docket No. AD09-10, Prepared with the support of The Brattle Group, GMMB, Customer Performance Group, David Lineweber. Accessed 2/10/11. <u>http://www.ferc.gov/legal/staff-reports/03-12-10-demand-response.pdf</u>

<sup>&</sup>lt;sup>412</sup> ADS, Demand Response & Smart Grid—State Legislative and Regulatory Policy Action Review: May 2010 – June 2011 Accessed 9/15/11. <u>http://www.demandresponsesmartgrid.org/Resources/Documents/State%20Policy%20Survey/2010%20-</u> %2011%20DR%20%20SG%20State%20Policy%20Survey 11%2007%2007 FINAL%20%282%29.pdf

<sup>&</sup>lt;sup>413</sup> About New Jersey's Clean Energy Program. Accessed 2/11/11. <u>http://www.njcleanenergy.com</u>

<sup>&</sup>lt;sup>414</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

Energy efficiency and renewable energy programs in New Jersey are administered by the Office of Clean Energy within the BPU under the New Jersey Clean Energy Program. A collaborative called the New Jersey Clean Energy Council, provides input on programs. The BPU has yet to pursue a binding EERS that would require each electricity supplier/provider to meet energy efficiency goals.<sup>415</sup>

The New Jersey Clean Energy Solutions Capital Investment program is intended to provide grants and loans for end-use energy efficiency, CHP, and state-of-the-art electricity production projects, including renewable energy projects that use "Class I" and "Class II" resources as defined under the state REPS. To qualify, applicants must be New Jersey-based commercial, industrial, or institutional entities.<sup>416</sup>

In August 2011, Gov. Christie created a new \$20 million pilot program designed to promote self-investment in energy efficiency and CHP DG projects at the state's largest commercial and industrial facilities using New Jersey BPU Clean Energy Program pilot program funds. To be eligible, large energy users must demonstrate that their 2010 contributions to the societal benefit charge, collected through the state's utility bills, totaled at least \$300,000.<sup>417</sup>

<sup>&</sup>lt;sup>415</sup> New Jersey Utility Policies. Accessed 2/15/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/new%20jersey/202/all/191</u>

<sup>&</sup>lt;sup>416</sup> New Jersey Clean Distributed Generation. Accessed 2/15/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/New%20Jersey/202/all/195</u>

<sup>417</sup> New Jersey BPU, Energy Efficiency Pilot Program Launched for Large Energy Users, 8/18/11. Accessed 9/27/11. http://www.nj.gov/bpu/newsroom/news/pdf/20110818.pdf

### **New Mexico**

Item	Title	Dates	Description
Legislative	•		
NMAC 17.9.570	Governing cogeneration and small power production	10/15/2008	Extends the availability of net metering to systems up to 80 MW in capacity. Net metering is available to all qualifying facilities (QFs), as defined by the federal 1978 PURPA, which generally include CHP systems. Previously, net metering in New Mexico was limited to systems up to 10 kW in capacity. <sup>418</sup>
HB 305	An act relating to energy; amending sections of the NMSA 1978 to provide for energy efficiency and load management for public utility customers.	2/27/2008	Directs utilities to include load management and energy efficiency programs in their resource portfolio along with a minimum threshold for action. Utilities must report on the effectiveness of programs associated with load management and energy efficiency. Signed into law by the Governor 2/27/2008. <sup>419</sup>
NMSA § 47-3-1 et seq.	New Mexico's Solar Rights and Solar Recordation Acts in 1977	2007, 1977	Addressed DG and reduces a county or municipality's ability to place restrictions on solar access. $^{\rm 420}$
NM Stat. 6-21D-1	Energy Efficiency and Renewable	2007, April	Authorizes up to \$20 million in bonds to finance energy efficiency and renewable energy
et seq. (Amended	Energy Bonding Act	2005	improvements in state government and school district buildings. A state agency or school district
2007)			may install or enter into contracts for the installation of energy efficiency measures on the building identified in an assessment. <sup>421</sup>
NM Stat. § 62-17-1 et seq., NMAC 17.7.2	Efficient Use of Energy Act	2005	Directed utilities to develop and implement cost-effective DSM programs, established cost recovery mechanisms for electric utilities, and directed the New Mexico Public Regulation Commission (PRC) to remove financial disincentives for utilities to reduce customer energy use through DSM programs. <sup>422</sup>
N.M.S.A. 1978, § 62-17-7	Alternative energy efficiency provider	NA	Restrains third-party arrangements for energy efficiency services. Alternative energy efficiency providers must get utility and PRC consent to provide ratepayer-funded energy efficiency and load management to the utility's customers. <sup>423</sup>

<sup>&</sup>lt;sup>418</sup> DSIRE, New Mexico – Net Metering. Accessed 2/8/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=NM01R&re=1&ee=0</u>

<sup>419</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11,

http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

New Mexico Legislature, 2008 Regular Session, HB 305. Accessed 9/21/11. http://www.nmlegis.gov/lcs/ session.aspx?Chamber=H&LegType=B&LegNo=305&year=08

<sup>420</sup> DSIRE, New Mexico Solar Access Laws. Accessed 2/8/11. http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=NM02R&re=1&ee=1

<sup>&</sup>lt;sup>421</sup> DSIRE, Energy Efficiency & Renewable Energy Bond Program. Accessed 2/8/11. <u>http://www.dsireusa.org/incentives/incentives/incentive.cfm?Incentive Code=NM07F&re=1&ee=0</u> <sup>422</sup> New Mexico Utility Policies. Accessed 2/15/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/new%20mexico/203/all/191</u>

<sup>423</sup> Galvin Electricity Initiative, Smart Grid Issues in State Law and Regulation Ashley Brown, Esq. and Raya Salter, Esq., October 2010. Accessed 9/28/11. http://galvinpower.org/sites/default/files/SmartGridIssuesInStateLawAndRegulation Whitepaper Final.pdf

N.M.S.A. 1978, § 62-17-7. Accessed 9/28/11. http://law.justia.com/codes/new-mexico/2009/chapter-62/article-17/section-62-17-7/

ltem	Title	Dates	Description
Regulatory			
Executive Order	New Mexico Task Force on Statewide	July 2010	Formed the Statewide Electricity Transmission Task Force to assist the New Mexico RETA in
2010-27	Electricity Transmission Planning		creating a blueprint of the future renewable energy transmission system to prepare recommendations and steps for statewide transmission grid enhancements, including collector systems, construction financing, and cost-recovery options. Its first report was released in November 2010 with a recommendation for 1) RETA to be the statewide independent transmission planning authority for all transmission lines greater than 240 kV and 2) transmission development cost-recovery through customer bills. <sup>424</sup>
Executive Order 2010-001	New Mexico Clean Energy Economy Action	1/12/2010	Legislation to encourage high penetration of renewables into the smart grid, through collaboration with Los Alamos and Sandia National Laboratories, New Mexico's research universities, congressional delegation, and other stakeholders. Sets goal of 100% smart grid with as much clean and renewable energy resources as current fossil energy resources. Signed by Gov. Richardson in 1/12/2010. <sup>425</sup>
NA	Energy efficiency rules	4/8/2010	The PRC established new energy efficiency rules that encourage electric utilities to look toward low-cost energy efficiency programs before building costly and potentially unnecessary power plants to meet the state's energy demand. <sup>426</sup>
New Mexico PRC rules 568 (NMAC 17.9.568) and 569 (NMAC 17.9.569)	Interconnection of Generating Facilities with a Rated Capacity Up to and Including 10 MW Connecting to a Utility System	July 2008	Defines interconnection requirements of qualifying facilities up to 10 MW in capacity, and specifically allows for the interconnection CHP. Four levels of capacity are distinguished, with smaller capacity systems requiring less stringent interconnection processes. <sup>427</sup>
NA	EPAct/PURPA Standard 14	January 2007	The New Mexico PRC opened a proceeding to consider whether to adopt PURPA Standard 14 (Time-Based Metering and Communications) as enacted in EPAct 2005 and New Mexico utilities were asked to file white papers on AMI and time-based rates before coming to a decision on adoption. <sup>428</sup>

In February 2008, legislation was signed that directs utilities to include load management and energy efficiency programs in their resource portfolio (HB 305). It also sets a minimum threshold for action: By 2014, savings of 5 percent of total 2005 retail kWh sales; by 2020, savings of 10 percent of total 2005 retail kWh sales. The new law mandates public utilities to file every three years with the New Mexico PRC a comprehensive measurement, verification and program evaluation report that evaluates energy and demand savings, cost-effectiveness of programs, and how well public utilities implement programs.<sup>103</sup> A utility that cannot achieve the energy saving requirements shall report to the PRC and propose alternative requirements based on acquiring all cost-effective and achievable energy efficiency and load management resources. The rules adopted in April 2010 provide a financial bonus to utilities for energy savings achieved through their approved efficiency programs.<sup>429</sup>

 <sup>&</sup>lt;sup>424</sup> Governor Richardson's Task Force on Statewide Electricity Transmission Planning, New Mexico Electricity Transmission Planning Report. Accessed 9/16/11. <a href="http://www.emnrd.state.nm.us/main/documents/NMElectricityTransmissionReport.pdf">http://www.emnrd.state.nm.us/main/documents/NMElectricityTransmissionReport.pdf</a>
 <sup>425</sup> Gov. Richardson, Governor Bill Richardson Sets Bold Agenda for Future of New Mexico's Green Economy, 1/12/10. Accessed 9/27/11.
 http://www.brandapmiller.com/NMGrandson/Sets Bold Agenda for Future of New Mexico's Green Economy, 1/12/10. Accessed 9/27/11.

http://www.brendanmiller.com/NMgreen/NMGreenformywebsite/www.edd.state.nm.us/greenEconomy/overview/20100113EO.PDF 426 New Mexico Utility Policies. Accessed 2/15/11. http://www.aceee.org/energy-efficiency-sector/state-policy/new%20mexico/203/all/191

<sup>&</sup>lt;sup>427</sup> New Mexico Clean Distributed Generation. Accessed 2/15/11. <u>http://www.accee.org/energy-efficiency-sector/state-policy/New%20Mexico/203/all/195</u>

<sup>&</sup>lt;sup>428</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11, http://www.demandresponsesmartgrid.org/Resources/Documents/Final\_NCEP\_Report\_on\_DR\_and\_SM\_Policy\_Actiona\_08.12.pdf

<sup>&</sup>lt;sup>429</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11, http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

The New Mexico PRC approved an agreement regarding DSM programs to be implemented by Public Service Company of New Mexico (PNM). The agreement called for PNM to spend \$14 million per year on nine DSM programs starting in July 2009. PNM currently offers the Peak Saver Program and Power Saver programs to residential and large commercial customers to reduce peak demand. PNM is also collaborating with the Electric Power Research Institute, Mesa del Sol, Sandia National Laboratories, the University of New Mexico and Northern New Mexico Community College as a host site for a smart-grid demonstration project that will combine DSM, energy storage and solar PV to study integration technologies and standards required for energy efficiency and mass deployment of renewables at the utility distribution level. <sup>430</sup>

 <sup>&</sup>lt;sup>430</sup> New Mexico Utility Policies. Accessed 2/15/11. <u>http://www.acceee.org/energy-efficiency-sector/state-policy/new%20mexico/203/all/191</u>
 PNM, Rebates and Discounts. Accessed 9/28/11. <u>http://www.pnm.com/rebates/home.htm?source=col4</u>
 PNM, Climate Change: What We're Doing. Accessed 9/28/11. <u>http://www.pnm.com/climate/we-doing.htm</u>

### **New York**

ltem	Title	Dates	Description
Legislative			
SB 4149, AB 2144, SB 3466, AB	An Act to Amend the Public	6/7/2011	Establishes the Nodal Metering Initiative Demonstration Project to select appropriate
6484	Authorities Law Establishing		nodal points along the transmission and distribution grids for the installation of smart
	the Nodal Metering Initiative		meters to measure the electricity consumption within a community of the Northern
	Pilot Demonstration Project		Westchester Energy Action Consortium, carry out test and operation procedures, and
SB No. 3000	An Act to Amend the Public	2/4/2011	provide results for evaluation. As of 6/7/2011 bill was "committed to finance." <sup>431</sup> Abolishes the use of a market clearing price relating to the buying of electricity at an auction
3B NO. 3000	Service Law "Fair Electricity	2/4/2011	held by the ISO. As of 2/4/2011 bill was referred to the Energy And Telecommunications
	Auction Market Act"		Committee. <sup>432</sup>
AB 2441	An Act to Amend the Executive	1/18/2011	Establishes a New York State Energy Transportation and Storage Security Program for disaster
	Law, in Relation to Local	, -, -	preparedness plans. Bill has remained in Governmental Operations Committee since
	Disaster Preparedness Plans		1/18/2011.433
AB 1656	An Act to the Public	1/11/2011	Establishes smart grid as the policy of the state, where smart grid systems will allow two-
	Authorities Law, In		way digital communication between electric utilities, their distribution grid and
	Relation to Smart Grid Systems		customers, with the goal of improving efficiency and reliability of the electrical
			distribution system and decreasing electric prices. Bill referred to corporations, authorities
			and commissions on 1/11/2011. 434
AB 296	An Act to Amend the Energy	1/5/2011	Authorizes tenants to request the installation of smart or advanced meters where the
	Law, in Relation to the		building they occupy is being converted to an electric meter that measures usage of any end-
	Installation of Smart or		use customer of electricity services. Bill referred to Energy Committee on 1/5/2011. 435
	Advanced Meters		
SB 1084	An Act to Amend the Public	1/5/2011	Provides residential electric customers with an option for greater control of the cost of
	Service Law Providing Real		electricity service by the installation of real time smart meters; establishes sales, rental and
	Time Smart Metering		service providers to be certified by the PSC. Bill referred to Energy and Telecommunications
	Technology to Residential		Committee on 1/5/2011. <sup>436</sup>
	Electricity Customers	4004 4070	
NY CLS Real Property § 335-b,	Recording of solar energy	1981, 1979	Real property laws allow for the creation of solar easements (voluntary contracts) in order to
NY CLS General City § 20 (24),	easements		ensure uninterrupted solar access for solar energy devices. <sup>437</sup>
NY CLS Town § 263, NY CLS VIII			
§ 7-704		1	

<sup>&</sup>lt;sup>431</sup> New York State Assembly, SB 4149. Accessed 9/20/11. <u>http://assembly.state.ny.us/leg/?default\_fld=&bn=S04149&term=2011&Summary=Y&Actions=Y&Votes=Y&Memo=Y&Text=Y}</u> <sup>432</sup> New York State Assembly, SB No. 3000. Accessed 9/16/11. <u>http://assembly.state.ny.us/leg/?default\_fld=&bn=S03000&term=2011&Summary=Y&Actions=Y&Text=Y</u>

 <sup>&</sup>lt;sup>433</sup> New York State Assembly, AB 2441. Accessed 9/26/11. <u>http://assembly.state.ny.us/leg/?default\_fid=&bn=A02441&term=2011&Summary=Y&Actions=Y&Votes=Y&Memo=Y&Text=Y
 <sup>434</sup> New York State Assembly, AB 1656. Accessed 9/20/11. <u>http://assembly.state.ny.us/leg/?default\_fid=&bn=A01656&term=2011&Summary=Y&Actions=Y&Votes=Y&Memo=Y&Text=Y
</u></u>

<sup>&</sup>lt;sup>435</sup> New York State Assembly, AB 296. Accessed 9/20/11. <u>http://assembly.state.ny.us/leg/?default\_fld=&bn=A00296&term=2011&Summary=Y&Actions=Y&Votes=Y&Memo=Y&Text=Y}</u>

<sup>&</sup>lt;sup>436</sup> New York State Assembly, SB 1084. Accessed 9/20/11. <u>http://assembly.state.ny.us/leg/?default\_fld=&bn=S01084&term=2011&Summary=Y&Actions=Y&Votes=Y&Memo=Y&Text=Y</u>

<sup>&</sup>lt;sup>437</sup> DSIRE, New York Solar Easements. Accessed 2/18/11. http://www.dsireusa.org/incentives/incentive.cfm?Incentive Code=NY01R&re=1&ee=1

Item	Title	Dates	Description
Regulatory			
Case No. 09-E-0310	Order Granting Reconsideration and Modifying Two-Prong Test	4/19/2011	Grants Con Edison's petition for reconsideration and modifying the "two-prong test" for cost recovery which was originally specified in the PSC order "Establishing Recovery Mechanisms" issued 10/19/2010. The new order addressed potential for a double recovery of labor costs associated with ARRA projects. <sup>438</sup>
NY PSC Order, Case 94-E-0952, NY PSC Order, Case 02-E-1282, Case 10-E-0406, AB 2442	New York Standard Interconnection Requirements (SIR)	12/20/2010, 2/13/2009, 11/17/2004, 12/31/1999	Standard Interconnection Requirements (SIR) that address technical guidelines for interconnection and application procedures. The SIR contains two separate sets of interconnection procedures and processes. All systems up to 25 kilowatts (kW) are governed by a simplified six-step process, while larger systems up to 2 MW generally use an 11-step process. <sup>439</sup>
Matter No. 10-01355, Case No. 10-E-0285	Proceeding on Motion of the Commission to Consider Regulatory Policies Regarding Smart Grid Systems and the Modernization of the Electric Grid.	8/18/2011, 7/16/2010	Proceeding to investigate the regulatory policies needed to encourage the development of the smart grid, particularly to address questions surrounding: 1) a vision for the smart grid design; 2) implementation priorities; 3) engaging customers; 4) benefit-cost analysis; 5) cost uncertainties; 6) interoperability/cyber-security standards; 7) consumer data privacy/access; 8) communications; and 9) timing. The PSC has directed all utilities to file comments, and subsequently closed a related case, Case No. 09-M-0074. On 8/18/2011, the PSC released a policy statement that would establish regulatory policies and set forth guidelines for regarding the development of smart electric grid systems, mentioning that it expects smart grid technologies will utilize a hybrid of both public and private networks (carrier networks).
NY CLS Public Service § 66-j and § 66-l, NY PSC Order Case 08-E-1305 et al., NY PSC Order Case 09-E-0284 et al., NY PSC Order Case 09-E-0819 et al.	Net energy metering for residential solar, farm waste, non-residential solar electric generating systems	02/26/2010, 07/01/2009, 02/27/2009, 08/02/1997	Net metering is available to customers of the state's major IOUs, subject to technology, system size and aggregate capacity limitations. Publicly-owned utilities are not obligated to offer net metering; however, the Long Island Power Authority (LIPA) offers net metering on terms similar to those in the state law. <sup>441</sup>

<sup>&</sup>lt;sup>438</sup> New York PSC, In the Matter of the American Recovery and Reinvestment Act of 2009 - Utility Filings for New York Economic Stimulus. Accessed 9/16/11. <u>http://documents.dps.state.ny.us/public/Common/ViewDoc.aspx?DocRefId={78A80D43-F9C4-</u> 4C9E-981F-7BC1E97739E0}

ADS, Demand Response & Smart Grid—State Legislative and Regulatory Policy Action Review: May 2010 – June 2011 Accessed 9/15/11. http://www.demandresponsesmartgrid.org/Resources/Documents/State%20Policy%20Survey/2010%20-%2011%20DR%20%20SG%20State%20Policy%20Survey 11%2007%2007 FINAL%20%282%29.pdf
<sup>439</sup> DSIRE – Interconnection Standards. Accessed 2/28/11. <a href="http://www.dsireusa.org/incentives/incentive.cfm?Incentive">http://www.dsireusa.org/incentives/incentive.cfm?Incentive</a> Code=NY02R&re=1&ee=1

<sup>440</sup> New York PSC, Matter Number: 10-01355, Case Number: 10-E-0285. Accessed 9/16/11. http://documents.dps.state.ny.us/public/MatterManagement/CaseMaster.aspx?MatterSeg=34399

 $http://www3.dps.state.ny.us/pscweb/WebFileRoom.nsf/ArticlesByCategory/8FC200347CDAEF6C852578F00056D875/\\SFile/pr11069.pdf?OpenElement$ 

<sup>&</sup>lt;sup>441</sup> DSIRE, New York – Net Metering. Accessed 2/18/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=NY05R&re=1&ee=1</u>

Item	Title	Dates	Description
Regulatory	•		
NA	New York State Smart Grid Consortium	8/25/2009	Governor's order establishing the New York State Smart Grid Consortium comprised of leaders from government, utility companies and universities, as well as consumers. Formed to develop a strategic vision on how best to deploy secure, efficient and reliable smart grid technologies in New York. Published report in 2009 indicating that all of New York's stimulus proposals submitted under the DOE smart grid funding solicitations complement one another. <sup>442</sup>
Cases 09–E–0310 and 09-M-0074	In the Matter of Advanced Metering Infrastructure	7/27/2009	Directs utilities, unless otherwise waived, to adhere to the AMI minimum functional requirement that customers or their competitive providers will be able to access meter data in an open, standard, nonproprietary format. <sup>443</sup>
NY PSC Order, Case 07-M-0548; Case 07-M-0748	Proceeding on Motion of the Commission Regarding an Energy Efficiency Portfolio Standard.	5/19/2009	Sets an energy efficiency goal of reducing electricity usage in New York by 15% from projected electricity usage in 2015. <sup>444</sup>
NA	EPAct/PURPA Standard 14	July 2007	The New York PSC decided not to adopt PURPA Standard 14 (Time-Based Metering and Communications) as enacted in EPAct 2005. Time-based metering and communications standard comparable to PURPA already exist for the state. The PSC has mandated and voluntary dynamic rates for various customer classes. <sup>445</sup>
Case 03-E-0641	Proceeding on Motion of the Commission Regarding Expedited Implementation of Mandatory Hourly Pricing for Commodity Service	4/2006, 4/2003	The PSC evaluates comments on the need for changes to the utilities' RTP tariffs to more effectively reduce demand and peak period pricing and to encourage conservation. Directs utilities to: 1) develop comprehensive evaluation plans, including the impact on New York's electricity demand profile and the future potential for mandatory hourly pricing; 2) submit evaluation plans to the PUC; and 3) to survey each of its eligible hourly pricing customers after the first six months following each tariff's implementation. <sup>446</sup>

The New York Power Authority and LIPA have energy efficiency and DSM programs, including audits and rebates for residential and commercial customers.<sup>447</sup> Consolidated Edison measured the effectiveness of demand response programs for 3.2 million customers in the City of New York and Westchester County. Demand response programs in that area were designed so that customers can participate in multiple programs at once and these included a distribution load relief program, direct Load control, mandatory hourly pricing and voluntary TOU pricing. In a December 2010 report submitted to the PSC by Consolidated Edison, data from the new peak load shaving programs was not complete enough to evaluate whether the programs were cost or operationally effective. With the distribution load relief program, 18% of the Consolidated Edison networks had an achieved reduction impact of 2% or greater and 88% of the networks and load areas achieved some level of load reduction. In a July 2011 order, the PSCs staff recommended the PSC give Consolidated Edison permission to provide all commercial participants in demand response programs the ability to directly view 15 minute meter demand data during notification periods and demand response events over the Internet, with plans for the for the system to be fully functional and reliable prior to May 2012. Consolidated Edison is required to submit another program evaluation report in December 2011.<sup>448</sup>

<sup>&</sup>lt;sup>442</sup> New York Governor's Office, Governor Paterson Announces Kick-Off Of "Smart Grid" Consortium to Promote State-Of-The-Art, Reliable and Cost-Effective Power Delivery System. Accessed 9/16/11. http://www.governor.ny.gov/archive/paterson/press/press\_0825091.html

ADS, Demand Response & Smart Grid—State Legislative and Regulatory Policy Action Review: May 2010 – June 2011 Accessed 9/15/11. http://www.demandresponsesmartgrid.org/Resources/Documents/State%20Policy%20Survey/2010%20-%2011%20DR%20%20SG%20State%20Policy%20Survey 11%2007%2007 FINAL%20%282%29.pdf

<sup>&</sup>lt;sup>443</sup>In the Matter of the Application of PEPCO for Authorization to Establish a DSM Surcharge and an AMI Surcharge and to Establish a DSM Collaborative and an AMI Advisory Group. Accessed 2/28/11. <u>http://www.energymarketers.com/Documents/nem\_pepco\_dynamic\_pricing\_final.pdf</u>

 <sup>&</sup>lt;sup>444</sup> DSIRE, New York - Energy Efficiency Portfolio Standard. Accessed 2/28/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=NY19R&re=1&ee=1</u>
 <sup>445</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final\_NCEP\_Report\_on\_DR\_and\_SM\_Policy\_Actiona\_08.12.odf

<sup>446 03-</sup>E-0641: Mandatory Hourly Pricing. Accessed 2/28/11. http://www3.dps.state.ny.us/W/PSCWeb.nsf/All/521076489C0E55EE85257687006F38C3?OpenDocument

<sup>&</sup>lt;sup>447</sup> Long Island Power Authority programs. Accessed 2/18/11. <u>http://www.lipower.org/efficiency/</u>

<sup>448</sup>New York PSC, Case No. 09-E-0115: Demand Response Initiative. Accessed 2/18/11. <u>http://www3.dps.state.ny.us/W/PSCWeb.nsf/All/A424588D473ED4EF85257687006F3900?OpenDocument, http://documents.dps.state.ny.us/public/Common/ViewDoc.aspx?DocRefId={CC7D6608-389B-4EFF-9ED3-68A25B4BB14E}</u>

Consolidated Edison, Evaluation of Program Performance and Cost Effectiveness of Demand Response Programs, 12/1/2010. Accessed 9/28/11. <u>http://documents.dps.state.ny.us/public/Common/ViewDoc.aspx?DocRefId={B389CA60-E5A9-4E8E-B42D-29AE291DDC61}</u>

# **North Carolina**

Item	Title	Dates	Description
Legislative			
SB 671, HB 872	Smart Grid Job Creation and Retention Act	4/19/2011	A taxpayer that develops smart grid technology is eligible for a credit equal to a percentage of the taxpayer's qualifying expenses (determined as provided) that exceed \$50,000. Bill referred to Commerce and/or Finance Committee on 4/20/2011. <sup>449</sup>
HB 1387 / Session Law 2009- 553	Limitations on regulating solar collectors	8/28/2009, 10/1/2007	Cities and counties generally may not adopt ordinances prohibiting the installation of a solar collector that gathers solar radiation as a substitute for traditional energy for water heating, active space heating and cooling, passive heating, or generating electricity for residential property. Deed restrictions, covenants or similar binding agreements that run with the land recorded on or after October 1, 2007 that would prohibit the installation of solar-energy collectors for residential property on land subject to the deed restriction, covenant or agreement are void and unenforceable. Signed into law by the Governor on 8/28/2009. <sup>450</sup>
SB 3/Session Law 2007-397	Renewable Energy and Energy Efficiency Portfolio Standard	8/20/2007	Considers demand response to be an eligible activity for cooperative and municipal utilities to meet the REPS. Public utilities may not use demand response to meet the REPS/EERS. Signed into law by the Governor on 8/20/2007. <sup>451</sup>
Regulatory			
Docket No. E-100, Sub 113, Docket No. E-100, Sub 121	Order Amending Rules R8-64 Through R8-69 and Approving Final Operating Procedures for NC-RETS	1/31/2011	Order amending REPS/EERS rules (Rules R8-64 through R8-69). Includes a new requirement for utilities to report peak-demand reduction. <sup>452</sup>
NCUC Order, Docket No. E- 100, Sub 83	Order Adopting Net Metering	6/1/2009, 7/6/2006, 12/27/2005, 10/20/2005	Requires the three investor-owned utilities to make net metering available to customers that own and operate systems generating electricity using solar, wind, hydropower, ocean or wave energy, biomass resources, CHP using waste heat derived from eligible renewable resources, hydrogen derived from eligible renewable resources, or battery storage. The individual system capacity limit is one MW. <sup>453</sup>
NA	EPAct/PURPA Standard 14	August 2007	The North Carolina Utilities Commission (NCUC) decided not to adopt PURPA Standard 14 (Time-Based Metering and Communications) as enacted in EPAct 2005. The NCUC stated that it did not adopt the PURPA standard because it the Commission and the utilities have been actively promoting time-based rates for at least the last three decades. Utilities already offer a variety of programs essentially identical to all but one of those suggested by EPAct 1252. <sup>454</sup>

<sup>449</sup> North Carolina General Assembly, SB 671. Accessed 9/20/11. <u>http://www.ncleg.net/gascripts/BillLookUp/BillLookUp.pl?Session=2011&BillID=SB671&submitButton=Go</u> <sup>450</sup> North Carolina General Assembly, HB 1387 / S.L. 2009-553. Accessed 9/21/11. <u>http://www.ncleg.net/gascripts/BillLookUp/BillLookUp.pl?Session=2009&BillID=h1387</u>

<sup>451</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final\_NCEP\_Report\_on\_DR\_and\_SM\_Policy\_Actiona\_08.12.pdf

452 NCUC, Docket No. E-100, Sub 113, Docket No. E-100, Sub 121. Accessed 9/16/11. http://www.ncuc.net/selorder/rules/KJ013111.pdf

453 DSIRE, North Carolina – Net Metering. Accessed 3/2/11. http://dsireusa.org/incentives/incentive.cfm?Incentive\_Code=NC05R&re=1&ee=1

454 Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

The IOUs and cooperatives of Virginia offer a variety of different energy efficiency and DSM programs to their customers. Dominion offers three DSM rate tariffs that provide participant incentive payments for load reductions that Dominion can call for when capacity is needed. <sup>455</sup> In its September 2011 Biennial Report, the NCUC indicates Dominion intends to file applications for a Commercial Energy Audit Program and a Voltage Conservation Program after they have been approved by the Virginia SCC. After a review, Dominion decided not to file applications for a Curtailment Service Program, Energy Management System Program, In-Home Energy Display Program, Programmable Thermostat Program or a Residential Water Heater Cycling Program, among others. Dominion reports that the companies ICF, Power Secure and GoodCents may act as third-party vendors to assist Dominion in evaluating and delivering DSM and EE programs. <sup>456</sup>

In 2009, the NCUC approved Duke Energy's Save-A-Watt program. The proposal estimated the program would pay Duke 90 percent of the costs it avoids by not having to build new plants or buy additional electricity.<sup>457</sup> In the last two years, Duke Energy Carolinas has had several programs and pilots approved by the NCUC including a Smart Energy Now Pilot Program (Envision Charlotte), Residential Energy Management System Pilot, and a PowerShare Call Option for Non-Residential Load Curtailment.

Progress Energy Carolinas has recently added three DSM programs in response to legislation in SB 3: 1) Residential EnergyWise Home; 2) Commercial, Industrial, and Governmental Demand Response Automation; and 3) Distribution System Demand Response.<sup>458</sup>

<sup>&</sup>lt;sup>455</sup> North Carolina Utilities Commission. Biennial Report, 2009.

<sup>&</sup>lt;sup>456</sup> North Carolina Utilities Commission, Biennial Report 9/1/11. Accessed 9/28/11. http://www.ncuc.net/reports/EE-DSM%20Report.pdf

<sup>457</sup> North Carolina Utility Policies. Accessed 2/18/11. http://www.aceee.org/energy-efficiency-sector/state-policy/north%20carolina/205/all/191

<sup>&</sup>lt;sup>458</sup> North Carolina Utilities Commission, Biennial Report 9/1/11. Accessed 9/28/11. <u>http://www.ncuc.net/reports/EE-DSM%20Report.pdf</u>

### North Dakota

ltem	Title	Dates	Description
Legislative	•		
SB 2186	An Act to Amend and Reenact Section 54- 35-18 of the North Dakota Century Code, Relating to the Energy Development And Transmission Committee	4/19/2011	The legislative management shall appoint an energy development and transmission committee that will study the impact of a comprehensive energy policy and the development of each facet of the energy industry, from the obtaining of the raw natural resource to the sale of the final product in this state, other states, and other countries. The study may include the review of and recommendations relating to policy affecting extraction, generation, processing, transmission, transportation, marketing, distribution, and use of energy. The bill was approved on 4/19/2011. <sup>459</sup>
ND Cent. Code, § 47- 05-01.1 et seq.	Solar easement	1977	Allows a property owner to obtain a solar easement from another property owner for the purpose of ensuring adequate exposure of a solar-energy system to sunlight. <sup>460</sup>
ND Cent. Code, § 17- 04-02 et seq.	Wind easement	2005	Allows property owners to grant an easement that ensures adequate exposure of a wind-energy system to the wind. <sup>461</sup>
Regulatory		T	
Case No. PU- 08-884	Electric DSM Rulemaking	10/14/2010, 11/20/2008	The PSC announced a workshop to explore policies and methodology for evaluating electric utility energy efficiency and load management programs, including goals, cost-benefit tests, policy goals, policy goals, and dynamic pricing couples with AMI. Comments were gathered through 2009, and the case was closed on 10/14/2010. <sup>462</sup>
Case No. PU- 09-20, Case No. PU-08- 884	EPAct/PURPA Standard 14	12/18/2009, August 2007	The North Dakota PSC issued an order announcing that it would initiate a rulemaking to pursue a modified version of PURPA Standard 14 (Time-Based Metering and Communications) as enacted in EPAct 2005 indicating it anticipates mandating utilities to offer TOU pricing, CPP, RTP, and credits for customers with pre-established load reduction programs—to large C&I customers, provide a time-based meter to reflect the rate, and create a progress report of its effort toward making smart metering available for all customers. In December 2009, the PSC ruled that no further action will be taken to adopt the EISA standards; it will continue to consider deployment of smart grid technologies on a case-by-case basis. <sup>463</sup>

<sup>&</sup>lt;sup>459</sup> North Dakota State Government, Senate Measure No. 2186. Accessed 9/23/11. <u>http://www.legis.nd.gov/assembly/62-2011/bill-actions/ba2186.html</u>

<sup>460</sup> DSIRE, North Dakota Solar Easements. Accessed 2/8/11. http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=ND02R&re=1&ee=1

 <sup>&</sup>lt;sup>461</sup> DSIRE, North Dakota Solar Easements. Accessed 2/8/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive Code=ND05R&re=1&ee=1</u>
 <sup>462</sup> North Dakota PSC, Case No. PU-08-884. Accessed 9/23/11. <u>http://www.psc.nd.gov/database/docket\_view\_list.php?s\_dept=PU&s\_year\_case=08&s\_seq\_num=884&s\_company\_name=Public+Service+Commission</u>

<sup>463</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

North Dakota PSC, Case No. PU-09-020. Accessed 9/21/11. http://www.psc.nd.gov/database/docket view list.php?s dept=PU&s year case=09&s seq num=20&s company name=Public+Service+Commission

Item	Title	Dates	Description			
Regulatory						
ND Century Code § 49-02-24 et	Renewable electricity and	March	Establishes an objective that 10 percent of all retail electricity sold in the state be obtained from			
seq., ND Admin. Code 69-09-08,	recycled energy credit	2007	renewable energy and recycled energy by 2015. This objective is voluntary; there is no penalty or			
ND PSC Order, Case No. PU-07-	trading and tracking		sanction for a retail provider of electricity that fails to meet the objective. Eligible resources include			
318	system		recycled energy systems producing electricity from currently unused waste heat resulting from			
			combustion or other processes. <sup>464</sup>			
ND Administrative Code 69-09-	Rates for Purchases	5/1/1991	The net-metering policy applies to renewable-energy systems and CHP systems up to 100 kW. Net			
07-09			metering is available to all customers of IOUs, but is not available to customers of municipal			
			utilities or electric cooperatives. 465			

North Dakota's utilities historically have generally not funded or offered energy efficiency programs to their customers, with the exception of a few publicly owned utilities. In January 2009, the PSC held a workshop to explore policies and methodologies for evaluating utility energy efficiency and load management programs. In February 2009, Otter Tail Power Company submitted a two-year energy efficiency plan and cost recovery mechanism. The plan proposed to save 7,400 MWh annually. Funds allocated to Otter Tail Power Company by the State of North Dakota through the ARRA are no longer available, however in the first half of 2011 the company offered customers special rebates for installing select energy-efficient electric technologies. <sup>466</sup>

In November 2008, the Commission approved a DSM Program and cost recovery rider proposed by Xcel Energy in Case PU-08-171. Customers can save on electric base rates by allowing Xcel Energy to control (interrupt) their primary electric heat source during peak heating times (in October through May) in the Backup Relief program. Residential customers can also receive a special off-peak rate when they run appliances during off-peak hours in the late evening and early morning in the company's Time of Day program. In the Limited Off-Peak program, customers can pay an off-peak rate for operating specific electric equipment at off-peak times. There is currently no EERS in place for North Dakota.<sup>467</sup>

<sup>464</sup> North Dakota Clean Distributed Generation. Accessed 2/15/11. http://www.aceee.org/energy-efficiency-sector/state-policy/North%20Dakota/206/all/195

<sup>465</sup> DSIRE, North Dakota - Net Metering. Accessed 3/2/11. http://dsireusa.org/incentives/incentive.cfm?Incentive\_Code=ND01R&re=1&ee=1

<sup>&</sup>lt;sup>466</sup> North Dakota Utility Policies. Accessed 2/15/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/north%20dakota/206/all/191</u>

Otter Tail Power Company, Big Rebates, 4/11. Accessed 9/28/11. http://www.otpco.com/NewsInformation/InsertsNewslettersPDF/2011AprilND\_ARRArebates.pdf, http://www.otpco.com/SaveEnergyMoney/ARRA\_ND\_FAQs.asp <sup>467</sup> North Dakota Utility Policies. Accessed 2/15/11. http://www.acceee.org/energy-efficiency-sector/state-policy/north%20dakota/206/all/191 Xcel Energy, Rate Options Directory . Accessed 9/28/11. http://www.xcelenergy.com/Save\_Money & Energy/For Your Home/Rate\_Options

# Ohio

ltem	Title	Dates	Description
Legislative			
SB 232	Renewable Energy Facilities- Property Tax Exemption/Payments in Lieu of Taxes	6/17/2010	Amends the tax code as applied to energy efficiency and renewable energy projects and clarifies that alternative energy resources supported by a revolving loan may be used to meet Ohio's energy-efficiency and peak demand reduction standards established by SB 221. <sup>468</sup>
Chapter 4901:1- 22	Interconnection Services	06/29/2009, 10/22/07, 9/18/00,	Interconnection standards (applicable to DG, including CHP) are separated into three tiers. A third tier provides a process for generators up to 20 MW. <sup>469</sup>
ORC § 5301.63	Solar access easement requirements.	8/14/1979	Solar-easement provisions regarding DG. 470
Regulatory			
Case No. 11-277- GE-UNC	Review of the Consumer Privacy Protection, Customer Data Access, and Cyber Security IssuesAdvanced Metering and Smart Grid Programs	1/18/2011	Order soliciting comments regarding whether the PUC should consider, develop, and adopt additional rules, policies, and procedures addressing smart grid related privacy or data access issues. As of July 2011, parties continue to submit comments to the PUC. <sup>471</sup>
ORC 4928.67, 4901:1-10-28, 4901:1-21-13, Finding and Order Docket 06-0653- EL-ORD	Standard contract or tariff providing for net energy metering.	6/29/2009, 9/18/2000, 10/5/1999	Requires electric distribution utilities to offer net metering to customers who generate electricity using wind energy, solar energy, biomass, landfill gas, hydropower, fuel cells or microturbines. <sup>472</sup>
Substitute SB 221, ORC 4928.66 et seq., Case No. 08- 777-ELORD	Implementing energy efficiency programs.	7/31/2008, May 2008	Encourages time-differentiated pricing and AMI; requires EDCs to file Electric Security Plans that may propose a Distribution Infrastructure Modernization Plan with single issue rate-making and incentives; requires time-differentiated and dynamic pricing options to be offered. <sup>473</sup> Established the Ohio Alternative Energy Resource Standard (AERS). <sup>474</sup> Ohio utilities are also required to meet cumulative energy savings and peak demand reduction goals. <sup>475</sup>

http://www.sgiclearinghouse.org/Legislation?q=node/2303&lb=1

<sup>&</sup>lt;sup>468</sup> ADS, Demand Response & Smart Grid—State Legislative and Regulatory Policy Action Review: May 2010 – June 2011 Accessed 9/15/11. <u>http://www.demandresponsesmartgrid.org/Resources/Documents/State%20Policy%20Survey/2010%20-</u> %2011%20DR%20%20SG%20State%20Policy%20Survey 11%2007%2007 FINAL%20%282%29.pdf

Gov. Ted Strickland, Governor Continues to Lay Foundation for New Energy Jobs in Ohio. Accessed 9/16/11. <u>http://www.tedstrickland.com/6-17-10-governor-continues-to-lay-foundation-for-new-energy-jobs-in-ohio/</u>

 <sup>&</sup>lt;sup>469</sup> Ohio Clean Distributed Generation. Accessed 2/15/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/Ohio/207/all/195</u>
 <sup>470</sup> DSIRE, Energy Efficiency Portfolio Standard. Accessed 2/8/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=OH16R&re=1&ee=1</u>

<sup>&</sup>lt;sup>471</sup> Ohio PUC, Case No. 11-277-GE-UNC. Accessed 9/16/11. <u>http://dis.puc.state.oh.us/CaseRecord.aspx?CaseNo=11-0277</u>

 <sup>&</sup>lt;sup>472</sup> DSIRE, Ohio – Net Metering. Accessed 2/8/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?lncentive\_code=0H02R&re=1&ee=1</u>

 <sup>&</sup>lt;sup>473</sup> Tour of Smart Grid Projects and State Policies by Lisa Schwartz, Presentation to the Oregon PUC, Smart Grid Workshop – September 9, 2009, RAPOnline, Source: Ethnie Groves, Xcel Energy. Accessed 2/7/11.

<sup>&</sup>lt;sup>474</sup> DSIRE, Energy Efficiency Portfolio Standard. Accessed 2/8/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=OH16R&re=1&ee=1</u>

<sup>475</sup> Ohio Clean Distributed Generation. Accessed 2/15/11. http://www.aceee.org/energy-efficiency-sector/state-policy/Ohio/207/all/195

Item	Title	Dates	Description			
Legislative	Legislative					
NA	EPAct/PURPA Standard 14	March 2007	The PUC of Ohio issued a Finding and Order that adopts the Staff's recommendations regarding PURPA Standard 14 (Time-Based Metering and Communications) as enacted in EPAct 2005. Their findings state all EDUs should offer tariffs to all customer classes which are, at a minimum, differentiated according to on and off -peak wholesale periods. TOU meters should be made available to customers subscribing to the on and off -peak tariffs. Staff should analyze the cost benefit of AMI deployment strategies and hold a series of			
			technical conferences to discuss further associated issues. 476			

AEP implemented the smart grid pilot "gridSMART" with a supervisory control and data acquisition system expansion, remote station surveillance and advanced sensing. The pilot will run from 2009 through 2011 with AMI and HAN for 110,000 meters and distribution automation on 90 circuits. The PUC approved a rider to recover costs, but required AEP to seek federal stimulus funds for 50 percent of project cost. AEP was awarded federal funds in November 2009. In September 2011, AEP announced an available rebate on ENERGY STAR refrigerators as part of the "gridSMART" pilot. As part of the project, AEP is also installing and testing 80 Community Energy Storage battery units that will serve up to 300 homes in northeast Central Ohio. The Community Energy Storage battery units are expected to be operational by the end of 2011. <sup>477</sup>

Dayton Power & Light had their electric security plan approved by the PUC, which extends their existing generation rate plan through Dec. 31, 2012. First Energy and AEP have had performance incentives approved. Duke Energy was also approved for more than a dozen residential and commercial DSM programs and related cost recovery. <sup>478</sup>

In May 2008, Ohio enacted broad electric industry restructuring legislation (SB 221) containing energy efficiency requirements for the state's electric distribution utilities and electric service companies. SB 221 established the Ohio AERS, requiring utilities to obtain 12.5 percent of their energy for distribution from alternative and renewable resources by 2025, and the Ohio EERS. This requires electric utilities implement cost-effective demand response measures to meet the goals. Failure to comply with energy efficiency or peak demand reduction requirements will result in PUC of Ohio assessing a forfeiture upon the utility.<sup>479</sup>

The Ohio Energy Resources Division oversees the Advanced Energy Fund, which supports energy efficiency programs throughout the state. These mostly consist of commercial and industrial projects. The Advanced Energy Fund supports an Energy Efficiency Revolving Loan Fund that is administered by the state. The Ohio Department of Development's Ohio Energy Office is offering grants for both the installation of new distributed energy resources projects and the implementation of certain manufacturing energy efficiency projects. Eligible distributed energy resources projects include industrial heat recovery and CHP, microturbines, and clean-burning reciprocating engines. The Ohio Energy Resources Division indicates that support through the Advanced Energy Fund for individual projects will not be at the same incentive level or offered in the same manner as in previous years, due to limited funding, though new programs are expected to be released in fall 2011. <sup>480</sup>

<sup>&</sup>lt;sup>476</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP. Report on DR and SM Policy Actiona 08.12.pdf

AEP, New Technologies. Accessed 9/28/11. <u>https://www.aepohio.com/save/demoproject/newtechnology/CES.aspx</u>

AEP, gridSMART from AEP Ohio Offers ENERGY STAR\* Refrigerator Rebate, 9/26/2011. Accessed 9/28/11. https://aepohio.com/info/news/ViewRelease.aspx?releaseID=1133

<sup>&</sup>lt;sup>477</sup> Tour of Smart Grid Projects and State Policies by Lisa Schwartz, Presentation to the Oregon PUC, Smart Grid Workshop – September 9, 2009, RAPOnline, Source: Ethnie Groves, Xcel Energy. Accessed 2/7/11. http://www.sgiclearinghouse.org/Legislation?q=node/2303&lb=1

<sup>&</sup>lt;sup>478</sup> Ohio Utility Policies. Accessed 2/15/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/ohio/207/all/191</u>

<sup>479</sup> DSIRE, Energy Efficiency Portfolio Standard. Accessed 2/8/11. <u>http://www.dsireusa.org/incentives/incentive\_cfm?Incentive\_Code=OH16R&re=1&ee=1</u>

<sup>&</sup>lt;sup>480</sup> Ohio Clean Distributed Generation. Accessed 2/15/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/Ohio/207/all/195</u>

Ohio Energy Resources Division, Advanced Energy Fund Grants, 7/15/11. Accessed 9/28/11. http://www.development.ohio.gov/Energy/Incentives/AdvancedEnergyFundGrants.htm

# Oklahoma

ltem	Title	Dates	Description
Legislative		•	
HB 1079	Electric Utility Data Protection Act	5/24/2011	Allows electric utilities to utilize customer-identifiable usage data for certain internal business purposes without customer consent. Electric utilities must provide access to a customer's standard usage data upon written request from the customer. Utilities may collect a fee for nonstandard usage data requests. Bill authorizes the disclosure of customer information to third-parties under certain circumstances and allows electric utilities to use aggregate usage data for internal or other business purposes under certain circumstances. Signed into law by the Governor 5/24/2011. <sup>481</sup>
HB 3028	Oklahoma Energy Security Act	5/26/2010	Defines development of renewable energy standards, including promotion of DSM. <sup>482</sup> The goal calls for 15 percent of the total installed generation capacity in Oklahoma to be derived from renewable sources by 2015 (no interim targets, does not extend past 2015). Eligible renewable energy resources include wind, solar, hydropower, hydrogen, geothermal, biomass, and other renewable energy resources approved by the Oklahoma Corporation Commission (OCC). Energy efficiency can also be used to meet up to 25 percent of the goal. The standard also counts as eligible for certain DSM applications, including the reuse of energy from exhaust gases. Bill was approved by the Governor in 5/26/2010. <sup>483</sup>
Regulatory			
Case RM 200700007; ID: 4010862	Notice of Proposed Rulemaking	12/4/2008	The OCC issued a Notice of Proposed Rulemaking to amend its current rules for electric utilities as set forth in Oklahoma Administrative Code. The OCC is proposing to add a subchapter to the Administrative Code entitled Demand Programs, which would establish demand response and other DSM requirements for utilities. The OCC adopted proposed rules by 12/4/08. <sup>484</sup>
O.A.C. § 165:40-9, OCC Order 326195	Optional Net Energy Billing Purchase Rate	5/23/1988	Requires investor-owned utilities and electric cooperatives under the OCC's jurisdiction file net-metering tariffs for customer- owned renewable-energy systems and CHP facilities up to 100 kW. Net metering is available to all customer classes with no limit on the amount of aggregate net-metered capacity. <sup>485</sup>

Public Service Company of Oklahoma (PSO) has begun to implement energy efficiency programs; a shift from no activity in the state. In 2008, the OCC initiated a "Demand Programs Collaboration" to examine issues associated with the funding and provision of customer energy efficiency programs by the state's energy utilities. The OCC also approved a portfolio of DSM programs proposed by PSO in accordance with a 2006 order. According to PSO, the PSO Cool Rewards pilot program, which reduces electricity usage during the high demand summer months by "cycling" central air conditioners of participating customers, was so successful that it has reached its capacity and is unable to accept new customers. Approximately 14,000 smart meters have been installed in homes and businesses in the Owasso, Oklahoma area as part of the PSO's gridSMART Owasso Pilot Project. The company is also installing automated equipment and controls on the distribution system as part of the project. <sup>486</sup> Currently no EERS exist for Oklahoma.

484 Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11.

http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf National Town Meeting on Demand Response and Smart Grid. Policy Overview by Dan Delurey. 7/13/2009. Accessed 9/21/11.

http://www.smartgridtownmeeting.com/presentations/ppt/2009/Dan%20Delurey%20DC%20Policy%20Presentation%2009.07.13.ppt

<sup>&</sup>lt;sup>481</sup> Oklahoma State Legislature, Bill Information for HB 1079. Accessed 9/16/11. <u>http://www.oklegislature.gov/BillInfo.aspx?Bill=HB1079&Tab=0</u>

<sup>482</sup> Smart Grid Deployment in Colorado: Challenges and Opportunities, University of Colorado at Boulder, Kevin Doran, Frank Barnes, Puneet Pasrich, eds. Accessed 2/9/11. http://cees.colorado.edu/sgreport.pdf

<sup>483</sup> Oklahoma Clean Distributed Generation. Accessed 2/15/11. http://www.aceee.org/energy-efficiency-sector/state-policy/Oklahoma/208/all/195

<sup>&</sup>lt;sup>485</sup> DSIRE, Oklahoma - Net Metering. Accessed 3/2/11. http://dsireusa.org/incentives/incentive.cfm?incentive Code=OK01R&re=1&ee=1

<sup>&</sup>lt;sup>486</sup> Oklahoma Utility Policies. Accessed 2/15/11. <u>http://www.aceee.org/energy-effic</u>iency-sector/state-policy/oklahoma/208/all/191

PSO, Residential Programs. Accessed 9/28/11. https://www.psoklahoma.com/save/programs/

PSO, gridSMART Owasso Pilot Project. Accessed 9/28/11. https://www.psoklahoma.com/save/SmartMeters/

<sup>&</sup>lt;sup>487</sup> Oklahoma Utility Policies. Accessed 2/15/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/oklahoma/208/all/191</u>

# Oregon

Item	Title	Dates	Description
Legislative			
HB 3156	An Act Relating to Solar Energy Generation by Retail Electricity Consumers	6/21/11	Simplifies the permitting process for commercial, residential, multi-family residential sectors as long as 1) the solar system does not expand the footprint or peak height of the residential or commercial structure on which it is installed and 2) is aligned so that it is parallel to the slope of the roof. <sup>488</sup>
HB 2626	Energy Efficiency and Sustainable Technology Act	2009	Establishes the Oregon Energy Efficiency and Sustainable Technology loan program which provides financing for residential and commercial energy efficiency and renewable energy projects through 100% upfront long term loans to property owners. <sup>489</sup>
SB 80	Printed pursuant to Senate Interim Rule 213.28Relating to Greenhouse Gas Emissions	2009	Establishment of Climate Policy Advisory Council to coordinate state agency actions, including smart grid measures, to reduce green house gas emissions. Bill has been referred to committee as of 6/29/2009. <sup>490</sup>
Funding Opportunity No. DE-FOA- 0000091	Oregon Smart Grid Resiliency Initiative	9/14/2009	Preparation of Workforce Development Plan to investigate aspects of smart grid applications, strengths, and weaknesses. The plan will address smart grid applications and vulnerabilities, critical infrastructure interdependencies, cyber security, energy supply systems, energy data analysis, and communications. <sup>491</sup>
OR Revised Statutes 757.300, OR Admin. R. 860- 039, 860-022- 0075	General Rate Revisions	7/24/2007, 11/30/2005, 9/1/1999	Established separate net-metering programs for the state's primary investor-owned utilities (PGE and PacifiCorp), and for its municipal utilities and electric cooperatives. <sup>492</sup>
SB 838	Oregon Renewable Energy Act	6/6/2007	Oregon's public purpose charge funds energy efficiency, renewable energy, and low-income programs in Oregon. This funding supports the Energy Trust of Oregon's (ETO) electric programs as well as electric low-income programs provided by Oregon Housing and Community Services, a state agency. SB 838 extended the public purpose charge through 2025. Bill was signed into law by the Governor on 6/6/2007. <sup>493</sup>

<sup>&</sup>lt;sup>488</sup> 76th OREGON LEGISLATIVE ASSEMBLY, 2011 Regular Session Enrolled HB 3516. Accessed 9/14/11. <u>http://www.leg.state.or.us/11reg/measpdf/hb3500.dir/hb3516.en.pdf</u>

<sup>&</sup>lt;sup>489</sup> Oregon Energy Efficiency and Sustainable Technology. Accessed 9/14/11. <u>http://www.oregon.gov/ENERGY/LOANS/EEAST/</u>

<sup>&</sup>lt;sup>490</sup> Smart Grid Deployment in Colorado: Challenges and Opportunities, University of Colorado at Boulder, Kevin Doran, Frank Barnes, Puneet Pasrich, eds. Accessed 2/9/11. <u>http://cees.colorado.edu/sgreport.pdf</u>

<sup>491</sup> Smart Grid Deployment in Colorado: Challenges and Opportunities, University of Colorado at Boulder, Kevin Doran, Frank Barnes, Puneet Pasrich, eds. Accessed 2/9/11. http://cees.colorado.edu/sgreport.pdf

Oregon Energy Assurance Initiative, The Enhancing State Government Energy Assurance Capabilities and Planning for Smart Grid Resiliency Initiative. Accessed 9/28/11. <u>http://www.oregon.gov/ENERGY/Recovery/ODOE\_application.pdf?ga=t</u> <sup>492</sup> DSIRE, Oregon - Net Metering. Accessed 2/28/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=OR03R&re=1&ee=1</u>

<sup>&</sup>lt;sup>493</sup> Oregon Utility Policies. Accessed 2/15/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/oregon/209/all/191</u>

ltem	Title	Dates	Description
Legislative			
SB 1149 and ORS 757.612 et seq.	Requirements for public purpose expenditures; electric bill payment assistance charge; rules	7/23/1999	Established the Oregon Energy Trust as part of the electric utility restructuring. The Oregon Energy Trust provides funds to support renewable at a rate of 17.1 percent of the funds collected by the trust. <sup>494</sup> The Energy Trust's renewable energy programs include financial incentives for small-scale and utility-scale projects that generate energy from solar, wind, hydro, biomass and geothermal resources. Efficiency programs include incentives for improvements to residential, commercial and new buildings, retrofit, appliances and manufacturing processes. Bill was signed into law by the Governor on 7/23/1999. <sup>495</sup>
ORS § 105.880 et seq., 215.044 et seq., 227.190 et seq.	Conveyance prohibiting use of solar energy systems void; Solar access ordinances	1981, 1979	Oregon legislation and laws regarding access to solar and wind resources. <sup>496</sup>
Regulatory	·	•	
Order No. 07- 319, Oregon Revised Stat. Chapter 757	Rulemaking to Adopt Rules Related to Net Metering	2007	Oregon has two separate interconnection standards: one for its IOUs, Portland General Electric (PGE) and PacifiCorp, and one for municipal utilities and electric cooperatives. These rules delineate standards for systems up to two MW in size for businesses, and 25 kW for all residential customers. The PGE and PacifiCorp standard delineates multiple levels, or tiers, of interconnection. Systems that are appropriately vetted and 25 kW or smaller can be interconnected under the first level without fee. <sup>497</sup>

In May 2008, the Oregon PUC approved PGE's plan to deploy over 850,000 smart meters using a wireless fixed network operating on a licensed radio frequency spectrum to deliver meter readings daily from residential and commercial meters. Deployment was completed in September 2010. PGE will use the smart meters to facilitate future demand response and direct-load-control programs. The project includes creating a web portal through which customers using the smart meters can access information about their daily energy consumption. When the system is released in late 2011, PGE's new Energy Tracker program will enable customers to monitor their energy usage online. <sup>498</sup>

Oregon's 1999 restructuring law, SB 1149, established a public purpose charge to support electric energy efficiency, renewable energy, and low-income programs. The ETO, a nonprofit organization established by the Oregon PUC in 2002, administers most of the statewide energy efficiency and renewable energy programs. Oregon's energy efficiency programs are also supported by strong regional organizations—the BPA, the NEEA, and the NPCC. Some utilities also provide programs. The ETO has been successful in its goal and developed and implemented a comprehensive menu of programs and services for customer energy efficiency. The NPCC has identified energy efficiency and conservation as the priority resource for meeting load growth in the region and expects that this resource can address all load growth through 2012 and about 85 percent of all load growth through 2030.<sup>499</sup>

The NEEA is a non-profit organization working to maximize energy efficiency to meet future energy needs. NEEA is supported by, and works in collaboration with the BPA, Energy Trust of Oregon and more than 100 Northwest utilities on behalf of more than 12 million energy consumers. <sup>500</sup>

<sup>494</sup> DSIRE, Oregon Energy Trust. Accessed 2/11/11. http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=OR05R&re=1&ee=1

<sup>495</sup> DSIRE, Oregon Energy Trust. Accessed 2/11/11. http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=OR05R&re=1&ee=1

<sup>&</sup>lt;sup>496</sup> DSIRE, Oregon Solar and Wind Access Laws. Accessed 2/9/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=OR02R&re=1&ee=1</u>

<sup>&</sup>lt;sup>497</sup> Oregon Clean Distributed Generation. Accessed 2/15/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/Oregon/209/all/195</u>

<sup>&</sup>lt;sup>498</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11. <u>http://www.demandresponsesmartgrid.org/Resources/Documents/Final\_NCEP\_Report\_on\_DR\_and\_SM\_Policy\_Actiona\_08.12.pdf</u>

PGE, FAQs, Capabilities and Benefits of Smart Meters. Accessed 9/28/11. http://www.portlandgeneral.com/our\_company/news\_issues/current\_issues/smart\_meters\_faq.aspx

<sup>&</sup>lt;sup>499</sup> Oregon Utility Policies. Accessed 2/15/11. <u>http://www.accee.org/energy-efficiency-sector/state-policy/oregon/209/all/191</u>

<sup>&</sup>lt;sup>500</sup> About NEEA. Accessed 2/15/11. <u>http://neea.org/aboutus/index.aspx</u>

### Pennsylvania

ltem	Title	Dates	Description
Legislative			
73 P.S. § 1648.2 et seq. and 52 PA Code Chapter 75, Subchapter B	Interconnection standards for customer- generator facilities	11/29/2008	Net-metering rules and interconnection standards for net-metered systems and other forms of DG. Systems eligible include those using PV, solar-thermal energy, wind energy, hydropower, geothermal energy, biomass energy, fuel cells, CHP, municipal solid waste, waste coal, coal-mine methane, other forms of DG and certain DSM technologies. <sup>501</sup>
Act 129 (66 Pa. C.S. § 2807(f), Docket No. M-2009-2092655	Pennsylvania's Act 129	11/14/08	Requirement that utilities with 100,000 or more customers establish smart meter installation plans. <sup>502</sup> It also set goals for reductions in energy consumption and peak demand. <sup>503</sup> Each EDC with at least 100,000 customers must reduce energy consumption by a minimum 1 percent by May 31, 2011, increasing to 3 percent by May 31, 2013. Peak demand must be reduced by 4.5 percent by May 31, 2013. Failure to achieve the reductions required (load and/or peak demand) subject the EDC to a civil penalty of not less than \$1M and not to exceed \$20M. <sup>504</sup>
HB 2200	An Act amending Title 66 (Public Utilities) of the Pennsylvania Consolidated Statutes	10/15/2008	Requires smart meter deployment within the state. EDCs are required to file a smart meter deployment plan that would provide smart meters to all customers within 10 years. Bill was approved by the Governor on 10/15/2008. <sup>505</sup>
Regulatory			
Docket No. Docket No. M-2009-2092655	Tentative Order , Smart Meter Implementation Order	6/30/2011	PUC discussion on the development of Smart Meter Data Exchange Standards to comply with Pennsylvania's Act 129. <sup>506</sup>
Docket No. M 00051865	Implementation of the Alternative Energy Portfolio Standards Act of 2004: Standards for the Participation of Demand Side Management Resources – Technical Reference Manual 2011 Update	2/24/2011	Annual update of Energy Efficiency and DSM Rules for Pennsylvania's Alternative Energy Portfolio Standard, Technical Reference Manual. The Technical Reference Manual standards will be used to measure and verify applicable DSM/energy efficiency measures used by EDCs to meet the Act 129 consumption and peak demand reduction targets in 2011-2012. <sup>507</sup>

<sup>&</sup>lt;sup>501</sup> DSIRE, Pennsylvania – Net Metering. Accessed 2/9/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=PA03R&re=1&ee=1</u>

<sup>502</sup> Smart (Find Deployment in Colorado: Challenges and Opportunities, University of Colorado at Boulder, Kevin Doran, Frank Barnes, Puneet Pasrich, eds. Accessed 2/9/11. http://cees.colorado.edu/sgreport.pdf

<sup>&</sup>lt;sup>503</sup> Draft for Comment of the National Action Plan on Demand Response The Federal Energy Regulatory Commission Staff Docket No. AD09-10, Prepared with the support of The Brattle Group, GMMB, Customer Performance Group, David Lineweber. Accessed 2/10/11. <u>http://www.ferc.gov/legal/staff-reports/03-12-10-demand-response.pdf</u> <sup>504</sup> Pennsylvania Utility Policies. Accessed 2/15/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/pennsylvania/210/all/191</u> <sup>505</sup> States Providing for Smart Metering. Accessed 2/11/11. <u>http://www.ncsl.org/?tabid=20672</u>

<sup>506</sup> Pennsylvania PUC, EDEWG Proposal for the Development of Smart Meter Data Exchange Standards (Preliminary Proposal), Tentative Order, June 2011. Accessed 9/28/11. http://www.puc.state.pa.us/electric/Act129/Smart\_Meter\_Technology.aspx

<sup>&</sup>lt;sup>507</sup> Pennsylvania PUC, Technical Reference Manual. Accessed 9/16/11. <u>http://www.puc.state.pa.us/electric/Act129/TRM.aspx</u>

Item	Title	Dates	Description
Regulatory			
73 P.S. § 1648.5, 52 Pa. Code § 75.21 et seq.,	Net Metering	4/4/2009,	Interconnection rules for net-metered DG systems. <sup>508</sup>
52 Pa. Code § 69.2101 et seq., PUC Opinion		2/27/2009	
and Order Docket M-00051865		12/16/2006	
Docket No. M-00061984	Demand-Side	September 2006	Pennsylvania PUC reconvened of the "Demand-Side Response Working Group" to
	Response Working		analyze demand response programs and investigate the development and timeline
	Group		and standards that should be established for AMI. <sup>509</sup>

Pennsylvania's Act 129 requires electric EDCs with more than 100,000 customers to file smart meter installation plans for PUC approval. The technology must be capable of bidirectional communication and record electricity usage at least hourly, must provide customers direct information on hourly consumption, and enable TOU rates and RTP. Additional minimum functionality requirements include upgrade capabilities with technological advances. As of June 30, 2011, Duquesne Light Company, Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company, West Penn Power Company (collectively FirstEnergy), PECO Energy Company and PPL Electric Utilities Corporation filed a Smart Meter Technology Procurement and Installation Plan with the PUC for approval, and all received approval except West Penn Power Company. In Docket No. Docket No. M-2009-2092655 the PUC is seeking comments on proposed Smart Meter Data Exchange Standards to be developed by the Electronic Data Exchange Working Group in collaboration with the EDCs.<sup>510</sup>

Pennsylvania has developed a multi-sector portfolio of efficiency programs within three years. This is one of the fastest expansions of any state in the country according to ACEEE. Under the new legislation, the EDCs' energy efficiency and conservation plans propose a cost-recovery tariff mechanism to fund the energy efficiency and conservation measures and to ensure recovery of reasonable costs. The utilities can also recover the costs through a reconcilable adjustment mechanism.<sup>511</sup>

<sup>&</sup>lt;sup>508</sup> DSIRE, Pennsylvania Interconnection Standards. Accessed 2/9/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=PA07R&re=1&ee=1</u>

<sup>&</sup>lt;sup>509</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>&</sup>lt;sup>510</sup> Tour of Smart Grid Projects and State Policies by Lisa Schwartz, Presentation to the Oregon PUC, Smart Grid Workshop – September 9, 2009, RAPOnline, Source: Ethnie Groves, Xcel Energy. Accessed 2/7/11. http://www.sgiclearinghouse.org/Legislation?g=node/2303&lb=1

Pennsylvania PUC, EDEWG Proposal for the Development of Smart Meter Data Exchange Standards (Preliminary Proposal), Tentative Order, June 2011. Accessed 9/28/11. http://www.puc.state.pa.us/electric/Act129/Smart\_Meter\_Technology.aspx <sup>511</sup> Pennsylvania Utility Policies. Accessed 2/15/11. http://www.acces.org/energy-efficiency-sector/state-policy/pennsylvania/210/all/191

### **Rhode Island**

Item	Title	Dates	Description
Legislative			
SB 721	An Act Relating to Public Utilities And Carriers - Statewide Interconnection Standards	6/29/2011	Establishes statewide interconnection standards for small generator facilities and expedites the application process for renewable DG resources. Bill was signed by the Governor on 6/29/2011. <sup>512</sup>
НВ 5939	An Act Relating to Public Utilities And Carriers - Renewable Energy Standard	6/29/2011	Increases the maximum allowable DG capacities and provides for public/private partnerships and multi-municipal nonprofit energy consortiums. Bill was signed by the Governor on 6/29/2011. <sup>513</sup>
SB 457	An Act Relating to Public Utilities and Carriers - Renewable Energy Standard	6/29/2011	Raises the cap on net-metering, provides further definition to net-metering facilities and related crediting mechanisms, and provides incentives for municipal and other governmental authorities to invest in renewable generation facilities. Bill was signed by the Governor on 6/29/2011. <sup>514</sup>
SECTION 1. Section 39-2-1.2 of the General Laws, Chapter 39-2; HB 5281	Duties of Utilities and Carriers; An Act Relating to Public Utility - Rates	5/27/2011	Addresses cost recovery through base rates associated with advertising for DSM and renewable energy programs to harmonize electric and natural gas energy efficiency funding with the provisions of the least-cost procurement law. Updates were approved by the Governor on 5/27/2011. <sup>515</sup>
SB 327	An Act Relating to Towns and Cities - Clean Energy Programs	5/10/2011	Authorizes municipalities to provide loans to property owners to finance clean energy installation and improvement projects. Bill has been pending in Committee as of 5/10/2011. <sup>516</sup>
HB 5461	An Act Relating to Public Utilities and Carriers - Renewable Energy Standard	7/15/2009	Provides that EDCs operating within the state are authorized to propose and implement smart metering and smart grid demonstration projects within the state, subject to the approval of the state's PUC. Bill was signed into law by the Governor on 7/15/2009. <sup>517</sup>
SB 485	An Act Relating to Public Utilities and Carriers - Renewable Energy Standard	7/9/2009	Development of renewable energy generation by promoting smart grid demonstration projects, including implementation of smart meters. Bill was signed into law by the Governor on 7/9/2009. <sup>518</sup>
SB 2851	Renewable Energy Standard (establish net metering to measureelectricity delivered by an EDC and electricity generated by a solar or wind net metering facility)	7/08/2008	Amendment to implement smart meters and smart grid demonstrations. Bill became effective 7/08/2008. <sup>519</sup>

 <sup>&</sup>lt;sup>512</sup> Rhode Island General Assembly, SB 721. Accessed 9/23/11. <u>http://www.rilin.state.ri.us/billtext11/senatetext11/s0721a.pdf</u>
 <sup>513</sup> Rhode Island General Assembly, HB 5939. Accessed 9/23/11. <u>http://www.rilin.state.ri.us/billtext11/housetext11/h5939.pdf</u>

<sup>&</sup>lt;sup>514</sup> Rhode Island General Assembly, SB 457. Accessed 9/23/11. <u>http://www.rilin.state.ri.us/billtext11/senatetext11/s0457.pdf</u>

 <sup>&</sup>lt;sup>515</sup> Rhode Island General Assembly, SB 327. Accessed 9/23/11. <u>http://www.rilin.state.ri.us/billtext11/housetext11/h5281.pdf</u>
 <sup>516</sup> Rhode Island General Assembly, SB 327. Accessed 9/23/11. <u>http://www.rilin.state.ri.us/billtext11/senatetext11/s0327.htm</u>

<sup>&</sup>lt;sup>517</sup> States Providing for Smart Metering. Accessed 2/11/11. http://www.ncsl.org/?tabid=20672

<sup>&</sup>lt;sup>518</sup> Smart Grid Deployment in Colorado: Challenges and Opportunities, University of Colorado at Boulder, Kevin Doran, Frank Barnes, Puneet Pasrich, eds. Accessed 2/9/11. <u>http://cees.colorado.edu/sgreport.pdf</u>

<sup>519</sup> Smart Grid Deployment in Colorado: Challenges and Opportunities, University of Colorado at Boulder, Kevin Doran, Frank Barnes, Puneet Pasrich, eds. Accessed 2/9/11. http://cees.colorado.edu/sgreport.pdf

Item	Title	Dates	Description		
Legislative					
HB 8025 Substitute A	Comprehensive Energy Conservation, Efficiency and Affordability Act of 2006	2006	Creates the Rhode Island Energy Efficiency and Resources Management Council which advises the Office of Energy Resources about demand response. The law directs for the standards and guidelines for demand response to be created. <sup>520</sup>		
R.I. Gen. Laws § 34-40 and R.I. Gen. Laws § 45-24-33	NA	1981	Establishes rules regarding solar easements and solar access for DG. <sup>521</sup>		
Regulatory	Regulatory				
R.I. Gen. Laws § 39-1-27.7, R.I. Gen. Laws § 39-26-6, Rhode Island PUC Order 19821, Docket No. 4079, National Grid Tariff Docket No. 4079	System reliability and least-cost procurement and Renewable Energy Standard.	9/30/2009, 7/2/2007, 2006	Defines that net metering is available to customers that generate electricity using solar or wind resources. The PUC has approved an interconnection tariff for National Grid customers that generate electricity using net-metered systems and certain other forms of DG. <sup>522</sup>		
Docket No. 4052, Order No. 19766	EPAct/PURPA Standard 14	9/22/09, February 2008	The Rhode Island PUC opened a proceeding to consider adoption of PURPA Standard 14 (Time-Based Metering and Communications) as enacted in EPAct 2005 and creates the "Rhode Island Distributed Generation Working Group" as a result. <sup>523</sup> PUC issued Order No. 19766 to close docket 4052 because the requirements of the EISA have or are being considered in other dockets. <sup>524</sup>		

In June 2006, legislation for the Comprehensive Energy Conservation, Efficiency and Affordability Act of 2006 was signed and the new law includes several provisions that foster demand response, particularly the creation of the Rhode Island Energy Efficiency and Resources Management Council that is to address demand response. Each EDC is directed to file a plan triennially with the PUC for system reliability and for energy efficiency and conservation procurement that addresses demand response.

Narragansett Electric (National Grid) administers and operates a portfolio of energy efficiency programs for its customers, which account for 99 percent of statewide sales of electricity. The company offers rebates and in-home energy assessments. Pascoag Utility District also operates its own programs, including ENERGY STAR rebates and compact fluorescent light bulb recycling. Utility programs are funded by a conservation and load adjustment factor, a rider assessed on all customer rates established as part of Rhode Island's restructuring legislation. The Rhode Island PUC annually reviews and authorizes utility DSM program plans, including budget amounts.<sup>526</sup>

<sup>&</sup>lt;sup>520</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>&</sup>lt;sup>521</sup> DSIRE, Rhode Island Solar Easements. Accessed 2/9/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=RI02R&re=1&ee=1</u>

<sup>&</sup>lt;sup>522</sup> DSIRE, Rhode Island – Net Metering. Accessed 2/9/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive Code=RI01R&re=1&ee=1</u>

<sup>&</sup>lt;sup>523</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

 <sup>&</sup>lt;sup>524</sup> Rhode Island PUC, Docket No. 4052 - Commission's Review into Smart Grid Pursuant to the PURPA (1978), as amended by the federal EISA. Accessed 9/21/11. <u>http://www.ripuc.ri.gov/eventsactions/docket/4052page.html</u>
 <sup>525</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11.
 http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.odf

<sup>&</sup>lt;sup>526</sup> Rhode Island Utility Policies. Accessed 2/15/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/rhode%20island/211/all/191</u>

National Grid – Rhode Island, Energy Efficiency . Accessed 9/28/11. <u>https://www.powerofaction.com/rireenergywise/</u> Pascoag Utility District. Accessed 9/28/11. <u>http://www.pud-ri.org/</u>

# South Carolina

Item	Title	Dates	Description
Legislative			
SB 719	Bill to Amend Title 58 of the 1976 Code, Relating to Public Utilities, Services, and Carriers, By Adding Chapter 39 to Establish REPS	3/22/11	Establishes REPS target of generating 20 percent of total retail sales of electricity from eligible renewable energy resources by December 31, 2022. Standards are measured as a percentage of annual retail sales: 4% in 2015, 7% in 2016, 10% in 2017, 12% in 2018, 14% in 2019, 16% in 2020, 18% in 2021, and 20% in 2022. As of 3/22/11 the bill was referred to the Judiciary Committee. <sup>527</sup>
SB 547	Energy Efficiency Resource Standards	June 2010, 03/10/2009	Legislation to set EERS, define the funding sources for programs, establish cost recovery for regulated utilities, and create an energy efficiency resource credit certification and tracking plan. SB 547 was referred to Committee on Agriculture and Natural Resources on 3/10/2009. <sup>528</sup>
SB 1096	Ann act to amend the code of laws of South Carolina, 1976, by adding section 58-37-50, so as to authorize electricity providersto implement financing agreements for the installation of energy efficiency and conservation improvements.	3/31/2010	Authorized electric cooperatives and municipal electric utilities to implement financing systems for energy efficiency improvements. Bill was signed into law by the Governor on 3/31/2010. <sup>529</sup>
Regulatory			
Docket No. 2005-386-E, Order No. 2007-618	EPAct/PURPA Standard 14 - Order on Consideration of the Appropriated Standards to Be Used for Net Metering and Smart Metering in South Carolina	August 2007	The South Carolina PSC decided not to adopt PURPA Standard 14 (Time- Based Metering and Communications) as enacted in EPAct 2005. The Commission stated that all regulated utilities within the state already offer time-based rates. <sup>530</sup>
PSC Order, Docket No. 2005-387-E	Order Adopting Model Interconnection Standard	12/19/2006	In 2006, the South Carolina PSC enacted interconnection standards for small DG with a maximum capacity of 100 kW for non-residential systems. The standards do not apply to three-phase generators, and only apply to the state's four IOUs. <sup>531</sup>

In August 2007, the South Carolina PSC decided not to adopt PURPA Standard 14 as enacted in EPAct 2005. The PSC stated that all regulated utilities within the state already offer time-based rates, though there is a "lack of focus" on residential and commercial smart metering, which may be due to a lack of awareness. The PSC directed utilities to

<sup>&</sup>lt;sup>527</sup> South Carolina Legislature, Session 119 (2011-2012), SB 719. Accessed 9/23/11. <u>http://www.scstatehouse.gov/cgi-</u>

bin/query.exe?first=DOC&querytext=%22metering%22&category=Legislation&session=ALL&conid=6704209&result\_pos=40&keyval=1190719 528 South Carolina Utility Policies. Accessed 2/15/11. http://www.aceee.org/energy-efficiency-sector/state-policy/south%20carolina/212/all/191

<sup>529</sup> South Carolina Utility Policies. Accessed 2/15/11. http://www.aceee.org/energy-efficiency-sector/state-policy/south%20carolina/212/all/191

<sup>530</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11.

http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>531</sup> South Carolina Clean Distributed Generation. Accessed 2/15/11. http://www.aceee.org/energy-efficiency-sector/state-policy/South%20Carolina/212/all/195

continue to make smart meters available to all customers and to propose within 180 days a campaign to educate consumers about smart metering. In February 2008, South Carolina Electric & Gas Company, Duke Energy Carolinas, and Progress Energy Carolina complied with the August 2007 Order and filed their plans. <sup>532</sup>

In June 2010, the South Carolina Legislature was considering SB 547, which would set EERS, define the funding sources for programs, establish cost recovery for regulated utilities, and create an energy efficiency resource credit certification and tracking plan. The bill has remained in the Committee on Agriculture and Natural Resources since that time.

Some of the utilities have incorporated DSM and energy efficiency programs, though such programs are not currently required. The commission has approved a portfolio of energy efficiency programs for Duke Energy and experimental programs for Progress Energy Carolinas. Progress Energy Carolinas provides energy audits and loans and operates the "Save the Watts" website and some limited residential and commercial programs. In July 2011, Progress Energy announced the launch of a new energy-efficiency program consisting of 50,000 randomly selected customers that will receive reports with their electricity usage patterns and their home's energy profile. In addition, customers will receive an anonymous comparison of their usage to similar nearby households. Progress Energy expects the program will reduce annual electricity usage by more than 14 million kWh.<sup>533</sup>

Cooperatives offer residential efficiency programs as well. Funding for DSM and energy efficiency programs is included in the utilities' base rates.<sup>534</sup>

<sup>&</sup>lt;sup>532</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>533</sup> South Carolina Utility Policies. Accessed 2/15/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/south%20carolina/212/all/191</u>

Progress Energy, Progress Energy Reports Aim to Help Customers to Save Energy and Money, 7/5/11. Accessed 9/28/11. <u>https://www.progress-energy.com/company/media-room/news-archive/press-release.page?title=Progress+Energy+reports+aim+to+help+customers+to+save+energy+and+money&pubdate=07-05-2011</u>

<sup>&</sup>lt;sup>534</sup> South Carolina Utility Policies. Accessed 2/15/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/south%20carolina/212/all/191</u>

# South Dakota

Item	Title	Dates	Description
Legislative			
SB 58	An Act to Revise Certain Real Property Taxes For Small Renewable Energy Facilities	3/29/2010	Simplifies tax incentives and tax assessment procedures for small renewable energy projects that are less than 5 MW of capacity. Designed to reduce property tax and ensure fair prices for the sale of excess energy for owners of small renewable energy facilities. Signed by the Governor on 3/29/2010. <sup>535</sup>
SD Codified Laws § 43-13-16, et seq. and HB 1263	Wind easement defined and an act to revise certain provisions relating to the terms of wind easements and wind energy leases.	3/29/2010, 1996	Guidelines conveying that any property owner in South Dakota may grant a wind easement with the same effect as a conveyance of an interest in real property. <sup>536</sup> Revises certain provisions relating to the terms of wind easements and wind energy leases. Gives developers of large wind projects that involve building transmission lines up to 12 years to start construction, rather than the standard five years allowed before wind easements expire. Signed by the Governor on 3/29/2010. <sup>537</sup>
SB 61	An Act to RequireRates for Purchases of Electricity Produced by Small Renewable Power Facilities		Requires each electric utility file with the PUC the electric utility's minimum rates for purchases of electricity generated from renewable resources produced by a small renewable power facility that has a capacity of 100 kW or less. Signed by the Governor on 3/11/2010. <sup>538</sup>
2009 SB 60	NA	3/12/2009	Authorization of PUC to implement smart grid policies pursuant to 2007 EISA. Approved by the Governor on 3/12/2009. <sup>539</sup>
HB 1123, SDCL § 49-34A-101 et seq., SB 57, SDCL § 49-34A-94 et seq.	State renewable, recycled, and conserved energy objective established.	2/21/2008	Establishes a voluntary objective that 10 percent of all retail electricity sales in the state be obtained from renewable and recycled energy by 2015. This policy was modified by also allowing conserved energy to meet the objective. The objective applies to all retail providers of electricity in the state. Approved by the Governor on 2/21/2008. <sup>540</sup>
Regulatory	•		
Docket No. EL1 0-003	Order Prohibiting Customers and Aggregators from Participating in Wholesale Electric Markets	5/25/2010	Demand response load reductions of retail customers of regulated electric utilities are prohibited from being bid or transferred into any wholesale market, either directly or through an aggregator of retail customers. <sup>541</sup>

 <sup>&</sup>lt;sup>535</sup> South Dakota Legislature, SB 58. Accessed 9/26/11. <u>http://legis.state.sd.us/sessions/2010/Bill.aspx?Bill=58</u>
 <sup>536</sup> DSIRE, South Dakota PUC, New PUC legislation is friendly to small renewable energy systems. Accessed 9/26/11. <u>http://puc.sd.gov/News/2010/040710.aspx</u>
 <sup>536</sup> DSIRE, South Dakota Wind Easements. Accessed 2/9/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?incentive Code=SD06R&re=1&ee=1</u>
 <sup>537</sup> South Dakota Legislature, HB 1263. Accessed 9/26/11. <u>http://legis.state.sd.us/sessions/2010/Bill.aspx?Bill=1263</u>
 <sup>538</sup> South Dakota Legislature, SB 61. Accessed 9/26/11. <u>http://legis.state.sd.us/sessions/2010/Bill.aspx?Bill=61</u>
 <sup>539</sup> Os (100 Dakota Legislature, SB 61. Accessed 9/26/11. <u>http://legis.state.sd.us/sessions/2010/Bill.aspx?Bill=61</u>

<sup>539</sup> Smart Grid Deployment in Colorado: Challenges and Opportunities, University of Colorado at Boulder, Kevin Doran, Frank Barnes, Puneet Pasrich, eds. Accessed 2/9/11. http://cees.colorado.edu/sgreport.pdf

<sup>&</sup>lt;sup>540</sup> DSIRE, Renewable, Recycled and Conserved Energy Objective. Accessed 2/9/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=SD02R&re=1&ee=1</u>

<sup>541</sup> South Dakota PUC, Docket No. EL1 0-003. Accessed 9/26/11. http://puc.sd.gov/commission/orders/electric/2010/el10-003b.pdf

Item	Title	Dates	Description	
Regulatory				
Docket No. EL08-028	Order Adopting Modified Electric PURPA Standards	12/18/2009	PUC adopts modified versions of the Integrated Resource Planning standard, the Rate Design Modifications to Promote Energy Efficiency Investments standard, and the Consideration of Smart Grid Investments standard included among the four EISA federal PURPA standards. Each electric utility shall file an annual report with the PUC that sets forth smart grid deployment opportunities, why or why not deployment was made, the extent of the deployment, possible deployments that could be made in the forthcoming year, and what considerations affect deployment. <sup>542</sup>	
Rule 20:10:36	Small Generator Facility Interconnection	May 2009	Interconnection standards, which apply to customers of IOUs, delineate four levels of interconnection for systems up to 10 MW in capacity. <sup>543</sup>	
NA	EPAct/PURPA Standard 14	July 2007	The South Dakota PUC decided not to adopt PURPA Standard 14 (Time-Based Metering and Communications) as enacted in EPAct 2005. <sup>544</sup>	
Statute 49-34A-93, SL 2006, ch 240, § 1; SL 2009, ch 240, § 1.	Implementation of and compliance with certain federal energy acts. <sup>545</sup>	2009	State statutes were updated to comply with changes to federal laws which empower the PUC to implement a variety of energy efficiency measures (Chapter 240). <sup>546</sup>	

In July 2007, the South Dakota PUC decided not to adopt PURPA Standard 14 as enacted in EPAct 2005. The PUC claimed it arrived at this decision since there was little evidence presented that demonstrated the adoption of this standard at this time would meet the PURPA goals of energy conservation, efficiency of facilities and resources and equitable consumer rates. The PUC believed that adoption of the standard could result in the utilities being required to offer uneconomic programs that result in higher rates.<sup>547</sup>

Historically, South Dakota's utilities have not funded or offered many customer energy efficiency programs. The South Dakota Energy Smart Initiative is bringing together partners to pledge their support of improving energy efficiency in South Dakota. Partners include both investor-owned and publicly owned utilities, which report numerous plans and new efforts to offer energy efficiency programs and services to their customers. In July 2008, the South Dakota PUC approved a one-year pilot energy efficiency program for Otter Tail Power which began in the fall of 2008. In March 2009, the commission also approved a revised portfolio of energy efficiency programs proposed by MidAmerican Energy Company. Xcel Energy also filed proposed energy efficiency plans, and Northwestern Energy has created its own DSM plan. There are currently no EERS in place for the state.<sup>548</sup>

<sup>542</sup> South Dakota PUC, Docket No. EL08-028. Accessed 9/26/11. http://puc.sd.gov/commission/orders/electric/2009/el08-028C.pdf

<sup>543</sup> South Dakota Clean Distributed Generation. Accessed 2/15/11. http://www.aceee.org/energy-efficiency-sector/state-policy/South%20Dakota/213/all/195

<sup>&</sup>lt;sup>544</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>545</sup> South Dakota Legislature, South Dakota Codified Laws, 49-34A-93. Accessed 2/15/11. <u>http://legis.state.sd.us/statutes/DisplayStatute.aspx?Statute=49-34A-93&Type=Statute</u>

<sup>546</sup> South Dakota Utility Policies. Accessed 2/15/11. http://www.aceee.org/energy-efficiency-sector/state-policy/South%20Dakota/213/all/191

<sup>&</sup>lt;sup>547</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>548</sup> South Dakota Utility Policies. Accessed 2/15/11. http://www.aceee.org/energy-efficiency-sector/state-policy/South%20Dakota/213/all/191

### Tennessee

Item	Title	Dates	Description			
Legislative	Legislative					
HJR Number 472	A resolution urging the Board of Directors of the Tennessee Valley Authority to pursue energy efficiency efforts.	6/18/2007	Calls for TVA to initiate large-scale efforts to improve energy efficiency. Noted energy conservation can easily meet and exceed the growing demand for electricity. TVA used energy efficient means of creating power in the 1970s to supplant the need to build new power plants. Therefore, the legislature urged TVA to consider using energy efficiency to address the state's growing demand for electricity. Approved by the Governor on 6/18/2007. <sup>549</sup>			
Tenn. Code § 66-9-201 et seq.	Solar Access Law of 1979	1979	Law that allows for the creation of easements for the purpose of ensuring access to direct sunlight. <sup>550</sup>			
Regulatory	l					
NA	Wholesale Rate Change	April 2011	TVA approves a change in the wholesale rate structure, including options for TOU rates that more closely reflect the cost of electricity production, for the purpose of encouraging energy efficiency and peak demand reduction. <sup>551</sup>			
NA	EPAct/PURPA Standard 14	January 2007, August 2006	The Tennessee Regulatory Authority determined that Entergy Arkansas's rates and services already met the standard set by PURPA Standard 14 and EPAct 1252 so there was no need to adopt it. <sup>552</sup>			

The majority of rates that have an impact on smart grid come from Entergy Arkansas, however Entergy Arkansas only serves approximately 22 accounts in Tennessee. TVA is the primary electricity provider in Tennessee. In the past, TVA had provided few energy efficiency programs and services to its customers. In 2006, TVA's directors established a task force that examined energy conservation needs and made recommendations for an energy conservation plan for low-income households. In June 2007, the Tennessee Legislature approved a joint resolution calling for TVA to initiate large-scale efforts to improve energy efficiency. HJR number 472 urged TVA to consider using energy efficiency to address the state's growing demand for electricity. In response, TVA has released a suite of pilot energy efficiency programs, including in-home energy auditing programs, Energy Star appliance rebates and prescriptive incentive programs for HVAC technologies.<sup>553</sup>

Based on a DOE Industrial Loan program, Pathway Lending's Energy Efficiency Loan Program provides Tennessee business and non-profit entities with below market loans for energy efficiency and renewable energy improvements. Through September 30, 2011 borrowers could received a reduced interest rate of 3% (down from 5%) for financing up to 100% of their energy efficiency project costs - including retrofits, building upgrades, replacement purchases or other energy efficiency or renewable energy projects. <sup>554</sup>

<sup>&</sup>lt;sup>549</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final\_NCEP\_Report\_on\_DR\_and\_SM\_Policy\_Actiona\_08.12.pdf

<sup>550</sup> DSIRE, Tennessee Solar Easements. Accessed 2/9/11. http://www.dsireusa.org/incentives/incentive.cfm?Incentive Code=TN01R&re=1&ee=1

<sup>&</sup>lt;sup>551</sup> TVA Chief Executive Officer Outlines TVA's Vision and Strategy for Future Operations, August 20, 2010. Accessed 9/19/11. <u>http://www.tva.gov/news/releases/julsep10/0820\_board.html</u>

<sup>&</sup>lt;sup>552</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11.

http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf <sup>553</sup> Tennessee Utility Policies. Accessed 2/15/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/tennessee/214/all/191</u>

TVA, EnergyRight Solutions. Accessed 9/28/11. http://www.energyright.com/

<sup>&</sup>lt;sup>554</sup> Tennessee Clean Distributed Generation. Accessed 2/15/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/Tennessee/214/all/195</u> Pathway Lending, Summer Rate Sale. Accessed 9/28/11. <u>https://www.pathwaylending.org/loans/energy/summer-rate-sale</u>

#### Texas

Item	Title	Dates	Description	
Legislative				
SB 943, PUC Project No. 39657	Relating to the Classification, Use, and Regulation of Electric Energy Storage Equipment or Facilities.	6/17/2011	Establishes energy storage equipment and facilities as generation assets. Requires the PUC amend §25.5 Definitions, and §25.109 Registration of Power Generation Companies and Self-Generators to add references to energy storage equipment and facilities and address the registration, interconnection, and operation of electric energy storage equipment and facilities. Signed into law by Gov. Rick Perry 6/17/2011. <sup>555</sup>	
НВ 362	An Act Relating to the Regulation by a Property Owners' Association of the Installation of Solar Energy Devices and Certain Roofing Materials on Property	6/17/11	Prohibits an HOA from including or enforcing provisions within their regulations or by-laws that restrict homeowners from installing a solar energy device unless the device is illegal or violates public health and safety. <sup>556</sup>	
SB 1125, HB 3693, Texas Utilities Code § 39.905, Texas PUC Electric Rules §25.181	EERS	9/01/2011, 2008, June 2007	Encourages utilities to deploy demand response and requires the PUC adopt rules allowing load participation in all energy markets (residential, commercial, and industrial). The EERS applies to residential and commercial customers and directs utilities to reduce their customers' consumption. <sup>557</sup> The standard was been updated in 2008 and 2011 to 20% peak demand reduction in annual growth in demand 2010 and 2011; 25% reduction in annual growth in demand 2012; 30% reduction in annual growth in demand 2013 and beyond. Amendment was adopted by the PUC in an August 2010 order. <sup>558</sup>	
Ordinance No. 040527- 79, Council Vote Distributed Generation Ordinance	An Ordinanceto Add Distributed Generation from Renewable Sources Rider	9/16/2010, 6/7/2004	Austin Energy offers net metering for renewable energy systems up to 20 kW to all of its retail electricity customers. The definition of renewable includes solar, wind, geothermal, hydroelectric, wave and tidal energy, biomass, and biomass-based waste products, including landfill gas. The City of Brenham passed an ordinance adopting net metering and interconnection procedures. Customer generators up to 10 MW are eligible to participate. <sup>559</sup>	
HB 2129	An act relating to energy-saving measures that reduce the emission of air contaminants	6/18/2005	Promotes the integration of demand response technologies by allowing the PUC of Texas to set a non-bypassable surcharge for a utility to recover costs incurred from deploying DSM technologies. Bill was signed by the Governor on 6/18/2005. <sup>560</sup>	

<sup>&</sup>lt;sup>555</sup> Texas Legislature Online, SB 943. Accessed 9/19/11. <u>http://www.capitol.state.tx.us/billlookup/history.aspx?legsess=82r&bill=sb943</u>

Texas PUC, Project No. 39657. Accessed 9/19/11. http://www.puc.state.tx.us/industry/projects/rules/39657/39657.aspx

<sup>&</sup>lt;sup>556</sup> DSIRE – Texas – Solar Rights. Accessed 9/14/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=TX33R&currentpageid=3&EE=1&RE=1</u>

<sup>&</sup>lt;sup>557</sup> Demand Response and Smart Metering or Jose the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11. http://www.demandresponsesmartarid.org/Resources/Documents/Final\_NCEP\_Report\_on\_DR\_and\_SM\_Policy\_Actiona\_08\_12.pdf

http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf <sup>558</sup> DSIRE, Texas – Energy Efficiency Goal. Accessed 9/14/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=TX28R&currentpageid=3&EE=1&RE=1</u>

<sup>559</sup> DSIRE – Texas Incentives/Policies for Renewables & Efficiency. Accessed 2/28/11. http://www.dsireusa.org/incentives/index.cfm?re=1&ee=1&spv=0&st=0&srp=1&state=TX

<sup>&</sup>lt;sup>560</sup> Report to the 82<sup>nd</sup> Texas Legislature – A Report on Advanced Metering as Required by HB 2129, PUC of Texas, September 2010. Accessed 2/18/11. http://www.puc.state.tx.us/electric/reports/AMS/Commission Report on Advanced Metering 2010.pdf

Item	Title	Dates	Description
Regulatory			
PUC Project No. 39537, HB 971	Rulemaking to Implement HB 971Certificate of Convenience and Necessity for an Electric Transmission Project	9/23/11	HB 971 requires the PUC establish criteria for evaluating a certificate of convenience and necessity for an electric transmission project that serves the Electric Reliability Council of Texas power region, that is not necessary to meet state or federal reliability standards, and that does not serve a competitive renewable energy zone. Criteria must include a comparison of the estimated cost and savings that may result. Proposed rules are expected 9/23/11. <sup>561</sup>
PUC Project No. 34610	Implementation Project Relating to Advanced Metering	September – December 2011, 11/28/2007	PUC forms the "Advanced Metering Implementation Team" to identify and implement changes needed in retail and wholesale markets as a result of advanced metering, including topics of web portals, security, home area networks, demand response, and customer education. Future meetings are scheduled for 9/17/2011, 10/24/2011, 11/29/2011, and 12/6/2011. <sup>562</sup>
PUC Project No. 38674	Amendments to Customer Protection Rules Relating to Advanced Meters	5/13/2011	Amendments to relevant customer protection rules, including expansion of the days and hours that advanced metering system service requests will be processed and an option for customers to switch retail electric providers within one business day. <sup>563</sup>
PUC Case 39191-12	Order Adopting Amendments to §25.507 on an Emergency Basis	3/25/2011	Amendments to emergency interruptible load service rules on an emergency basis: 1) removing the 90- day notice requirement for announcing changes to the contract period schedule; and 2) modifying the contract so as to enable additional emergency interruptible load service capacity procurement. <sup>564</sup>
PUC Project No. 38053	Smart Meter Testing: Monitoring and Evaluation of Deployment of Advanced Meters.	7/30/2010	In response to customer complaints of higher electric bills, a PUC investigation revealed the smart meters being deployed in Texas by Oncor, AEP and Centerpoint Energy are accurately measuring electricity usage, and the new meters are more accurate than those they replaced. <sup>565</sup>
Project No. 31418 and 32854, PURPA §§14.001, 14.002, and 39.107	EPAct/PURPA Standard 14, Rulemaking Related to Advanced Metering	5/30/2007	Initiated a proceeding to consider amendments part of EPAct, PURPA Standard 14 for net metering, time-based pricing, smart metering, and interconnection standards. The PUC accepted the TOU pricing standard and addressed cost information required for AMI surcharge requests. <sup>566</sup>
SB 7, Substantive Rule 25.181	Energy Efficiency Rule	2004, 1999	The Texas Legislature passed SB 7 which required utilities to administer energy savings programs, provide access to energy efficiency alternatives, among other requirements. These requirements lead the PUC of Texas to respond with Substantive Rule 25.181, outlining energy efficiency goals and guidelines. These guidelines set the goal of demand reductions of 136 MW in 2003 and 147 MW in 2004. <sup>567</sup>
Texas Administrative Code Title 16, Part 2, §25.211 and §25.212	Texas Public Utility Regulatory Act	2001, 1999	Determined that on-site generation was an entitlement to all customers. The PUC of Texas developed generous interconnection regulations. The rules allow the interconnection of DG, including CHP, up to 10 MW, and do not establish a limit on the total interconnected DG capacity at any one facility. <sup>568</sup>

 <sup>&</sup>lt;sup>561</sup> Texas PUC, Project No. 39537. Accessed 9/19/11. <u>http://www.puc.state.tx.us/industry/projects/rules/39537/39537.aspx</u>
 <sup>562</sup> Texas PUC, Project No.34610. Accessed 9/19/11. <u>http://www.puc.state.tx.us/industry/projects/electric/34610/34610.aspx</u>

<sup>&</sup>lt;sup>563</sup> Texas PUC, Project No. 38674. Accessed 9/19/11. <u>http://www.puc.state.tx.us/industry/projects/rules/38674/38674.aspx</u>

<sup>&</sup>lt;sup>564</sup> Texas PUC, Case 39191-12. Accessed 9/19/11./ http://interchange.puc.state.tx.us/WebApp/Interchange/application/dbapps/filings/pgSearch\_Results.asp?TXT\_CNTR\_NO=39191&TXT\_ITEM\_NO=12

<sup>565</sup> Texas PUC, Filings for 38053. Accessed 9/19/11. http://interchange.puc.state.tx.us/WebApp/Interchange/application/dbapps/filings/pgSearch\_Results.asp?TXT\_CNTR\_NO=38053&TXT\_ITEM\_NO=17

<sup>566</sup> Tour of Smart Grid Projects and State Policies by Lisa Schwartz, Presentation to the Oregon PUC, Smart Grid Workshop – September 9, 2009. Accessed 2/28/11. http://www.raponline.org/docs/RAP\_Schwartz\_SmartGridProjectsandPoliciesORwks\_2009\_09\_09.pdf

<sup>&</sup>lt;sup>567</sup> PUC of Texas, "Independent Audit of Texas Energy Efficiency Programs in 2003 and 2004", 2006. Accessed2/18/11. http://www.puc.state.tx.us/electric/reports/EEP/EEP\_Audit\_Rpt\_03-04.pdf.

<sup>568</sup> Texas Clean Distributed Generation. Accessed 2/18/11. http://www.aceee.org/energy-efficiency-sector/state-policy/Texas/215/all/195

HB 2129 laid out specific requirements for AMI deployed by a utility, including that the AMI must have the capability to provide direct, real time access of customer usage data to the customer and the residential energy provider, and must have a means by which the residential energy provider can provide price signals to the customer.<sup>569</sup>

Oncor intends to install 3.4 million smart meters by 2012, and as of August 2011, has installed its two millionth advanced meter in its service territory. AEP Texas has a 4 year plan to install smart meters in its Texas North and Texas Central markets, with 78,705 smart meters installed as of August 2010 and 335,000 installed as of August 2011. CenterPoint Energy has also deployed 1.5 million smart meters in Texas as of August 2011.<sup>570</sup>

TXU Energy and Reliant Energy also offer TOU programs to customers to help encourage customers to shift their demand to lower prices off-peak time periods.<sup>571</sup>

<sup>569</sup> Report to the 82nd Texas Legislature – A Report on Advanced Metering as Required by HB 2129, PUC of Texas, September 2010. Accessed 2/18/11. http://www.puc.state.tx.us/electric/reports/AMS/Commission Report on Advanced Metering 2010.pdf <sup>570</sup> Report to the 82nd Texas Legislature – A Report on Advanced Metering as Required by HB 2129, PUC of Texas, September 2010. Accessed 2/18/11.

http://www.puc.state.tx.us/electric/reports/AMS/Commission Report on Advanced Metering 2010.pdf

Oncor, Oncor Installs Two Millionth Advanced Meter , 8/22/11. Accessed 9/28/11. http://www.oncor.com/news/newsrel/detail.aspx?prid=1310

ERCOT Board of Directors, Smart Meter Functionality Implementation Update, 8/16/2011. http://www.puc.state.tx.us/industry/projects/electric/34610/presentations/ERCOTBoard 0811.ppt <sup>571</sup> Report to the 82nd Texas Legislature – A Report on Advanced Metering as Required by HB 2129, PUC of Texas, September 2010. Accessed 2/18/11.

http://www.puc.state.tx.us/electric/reports/AMS/Commission Report on Advanced Metering 2010.pdf

### Utah

Item	Title	Dates	Description
Legislative		-	
SB 47	Electrical Utility Amendments - Efficiency And Conservation Tariff	3/30/2010	Addresses PSC approval of a tariff proposed by an electrical utility for DSM or energy efficiency programs including direct load control programs. Vetoed by Governor in March 2010. <sup>572</sup>
NA	Smart Grid Work Force Training Programs	April 2010	Development of program to train over 30,000 workers to modernize smart grid and implement new technologies. <sup>573</sup>
Utah Admin Code R746-312	Electrical Interconnection	4/1/2010	Interconnection rules based on the FERC interconnection standards for small generators. Includes provisions for three levels of interconnection for systems up to 20 MW, based on system complexity. An eligible facility includes waste gas and waste heat capture or recovery. <sup>574</sup>
Utah Code 54-17-101 et seq., Utah Code 10- 19-101 et seq., HB 192, HB 28, SB 104	Energy Resource Procurement Act, Municipal Electric Utility Carbon Emission Reduction Act	5/29/2010, 3/29/2010, 3/23/2010	A renewable portfolio goal which requires that utilities only need to pursue renewable energy to the extent that it is cost-effective. Adjusted retail sales include the total kWh of retail electric sales reduced by the kWh attributable to nuclear power plants, DSM measures, and fossil fuel power plants that sequester their carbon emissions. The first compliance year is 2025. Eligible renewables include electric generation facilities that became operational after 1/1/1995, and produce electricity from solar, wind biomass, hydroelectric, wave, tidal or ocean-thermal energy, geothermal, or waste gas and waste heat, and solar-thermal installations, along with additional energy source types. HB 192 and SB 104 were approved by the Governor on 5/23/2010 and 5/29/2010 respectively. <sup>575</sup>
HJR 9	Joint resolution on cost effective energy efficiency and utility DSM	3/19/2009	Urges the Utah PSC to set energy savings goals of at least 1 percent per year for regulated electric utilities and at least 0.5 percent per year for gas utilities. The bill does not penalize utilities that do not meet the savings goals, as long as they make good faith efforts. A docket is open at the PSC (09-035-T08) that is reviewing a wide range of DSM policies including the issues addressed in the resolution. Bill passed and was enrolled on 3/19/2009. <sup>576</sup>
Utah Code 57-13 and Utah Code 10-9a-610	Solar Easements	1979	Utah's solar easement law states that parties may voluntarily enter into written solar easement contracts that are enforceable by law. State law also stipulates that local zoning authorities may adopt regulations that mandate solar access and specifically grants governing bodies the right to refuse any plat or subdivision plan if deed restrictions, covenants or other agreements running with the land prohibit or have the effect of prohibiting reasonably sited and designed solar collectors. <sup>577</sup>

 <sup>&</sup>lt;sup>572</sup> Utah State Legislature, SB 47. Accessed 9/19/11. <u>http://le.utah.gov/search.jsp?Sess=2010GS&String=sb+47&Submit=Find</u>
 <sup>573</sup> Smart Grid Deployment in Colorado: Challenges and Opportunities, University of Colorado at Boulder, Kevin Doran, Frank Barnes, Puneet Pasrich, eds. Accessed 2/9/11. <u>http://cees.colorado.edu/sgreport.pdf</u>
 <sup>574</sup> Utah Clean Distributed Generation. Accessed 2/15/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/Utah/216/all/195</u>
 <sup>575</sup> Utah Incentives/Policies for Renewables & Efficiency. Accessed 2/15/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/utah/216/all/191</u>

 <sup>&</sup>lt;sup>576</sup> Utah Utility Policies. Accessed 2/15/11. <u>http://www.acces.org/energy-efficiency-sector/state-policy/utah/216/all/191</u>
 <sup>577</sup> DSIRE, Utah Local Option Solar Access Law. Accessed 2/9/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?lncentive\_code=UT01R&re=1&ee=1</u>

Item	Title	Dates	Description
Regulatory			
Item	Title	Dates	Description
Utah Code § 54-15-101	Net Metering of Electricity	5/10/2010.	Requires their only IOU, RMP, and most electric cooperatives to offer net metering to
et seq., PSC Order,		4/1/2009,	customers who generate electricity using solar energy, wind energy, hydropower, hydrogen,
Docket No. 08-035-78,		5/6/2002	biomass, landfill gas or geothermal energy. Net metering is available for residential systems up
Utah Admin Code R746-			to 25 kW in capacity and non-residential systems up to two MW in capacity. A February 2009
312-15, HB 145			order issued by the PSC changed some of the net metering rules for RMP, but the cooperatives are not obligated to adopt them. <sup>578</sup>
Docket No. 08-999-05	In the Matter of the	8/28/08	A Utah Commission EISA proceeding in process. PSC has requested utilities work with the DSM
	Consideration of the		Advisory Group to fully discuss remaining concerns regarding home energy reports. The PSC is
	Amendment of Title 16 U.S.C.		also gathering comments regarding its 12/17 2009 determination concerning the PURPA Smart
	2621(d) and the Addition of Title		Grid Investment and Smart Grid Information Standards and the discussions in the March 30,
	42 USC 6344 by the US EISA of		2010 technical conference pertaining to smart grid monitoring reporting. 579
	2007		
NA	EPAct/PURPA Standard 14	February 2007	The Utah PSC declined to adopt PURPA Standard 14 within EPAct 2005. The PSC directed RMP
			to file a report summarizing the results of its survey of utilities with advanced metering, and
			other studies and data supporting the company's conclusion that it is not cost-effective, for
			review by DSM advisory group. <sup>580</sup>

In February 2007, the Utah PSC decided not to adopt PURPA Standard 14 as enacted in EPAct 2005. The PSC determined the standard is unnecessary because RMP, the only PURPA-covered utility, already offers TOU rates which are mandatory for customers using more than one MW, seasonal rates, and a peak-load reduction program. The PSC also stated that the timeframe for consideration and implementation of the standard is unrealistic.<sup>581</sup>

Utah's utilities administer and implement energy efficiency programs as required and approved by the Utah PSC. Its largest electric utility, RMP, serves around 80 percent of Utah's population. These programs are part of IRPs that are filed biennially by the utilities. Programs are funded via a 3 percent tariff rider on customer bills. In September 2009, the PSC approved RMP's request to increase its utility bill surcharge to pay for DSM programs. RMP currently offers energy efficiency rebates and tiered rates during the summer months. Utah's funding and commitment to energy efficiency programs has increased significantly over the past several years.<sup>582</sup>

<sup>578</sup> DSIRE, Utah – Net Metering. Accessed 2/9/11. http://www.dsireusa.org/incentives/incentive.cfm?Incentive Code=UT04R&re=1&ee=1

<sup>&</sup>lt;sup>579</sup> Tour of Smart Grid Projects and State Policies by Lisa Schwartz, Presentation to the Oregon PUC, Smart Grid Workshop – September 9, 2009, RAPOnline, Source: Ethnie Groves, Xcel Energy. Accessed 2/7/11. http://www.sgiclearinghouse.org/Legislation?q=node/2303&lb=1

Utah PSC, Docket Number: 08-999-05. Accessed 9/21/11. http://www.psc.utah.gov/utilities/misc/miscindx/0899905indx.html

<sup>&</sup>lt;sup>580</sup> Tour of Smart Grid Projects and State Policies by Lisa Schwartz, Presentation to the Oregon PUC, Smart Grid Workshop – September 9, 2009, RAPOnline, Source: Ethnie Groves, Xcel Energy. Accessed 2/7/11. http://www.sgiclearinghouse.org/Legislation?q=node/2303&lb=1

<sup>&</sup>lt;sup>581</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final\_NCEP\_Report\_on\_DR\_and\_SM\_Policy\_Actiona\_08.12.pdf

<sup>&</sup>lt;sup>582</sup> Utah Utility Policies. Accessed 2/15/11. http://www.aceee.org/energy-efficiency-sector/state-policy/utah/216/all/191

RMP, Efficiency Programs & Incentives. Accessed 9/28/11. http://www.rockymountainpower.net/res/sem/epi.html

#### Vermont

Item	Title	Dates	Description
Legislative	_		
SB 78	An Act Relating to the Advancement of Cellular, Broadband and Other Technology Infrastructure in Vermont	5/27/2011	Establishes policies and programs designed to facilitate statewide cellular, smart grid, and broadband deployment by the end of 2013. Bill was signed by the Governor on 5/27/2011. <sup>583</sup>
НВ 56	Energy; Public Service; Taxation; Air Quality; Renewable Electricity Generation; Energy Efficiency; Heating Oil; Sulfur Content	May 2011	Amends Vermont's net metering policy. Utilities may offer additional credits or incentives to net metering customers beyond the benefits provided by net metering itself. Utilities will be required offer additional credits of \$0.20 per kWh minus the highest residential rate for solar net metering customers. Bill was enacted in May 2011. <sup>584</sup>
30 V.S.A. § 219a, Rule 5.100, HB 781, 10 V.S.A. § 6523	Self-generation and net metering	6/4/2010, 1998	Establishes Vermont's original net-metering legislation and creates the Vermont's Clean Energy Development Fund. Net metering is generally available to systems up to 250 kW in capacity that generate electricity using eligible renewable-energy resources, and to micro-CHP systems up to 20 kW. Net metering is also available under a TOU metering arrangement. <sup>585</sup>
2009 SB 288	An act relating to the Vermont recovery and Reinvestment Act of 2010	4/15/2010	Applicant may propose and board may approve or require applicant to adopt a rate design that includes dynamic pricing. Bill was signed by Governor on 4/15/2010. <sup>586</sup>
27 V.S.A. § 544	Energy devices based on renewable resources	05/27/2009	Forbids ordinances, deed restrictions, covenants, declarations or similar binding agreements from prohibiting (or having the effect of prohibiting) the use of solar collectors or other energy devices based on renewable resources. <sup>587</sup>
2009 HB313	An Act Relating to Near-Term and Long-Term Economic Development	6/1/2009	Pursuit of ARRA funding opportunities by the department of public service to implement smart grid technologies, projects, and workforce training. Bill was signed by Governor on 6/1/2009 <sup>588</sup>
HB 446	Vermont Energy Act of 2009	2009	Directs the Vermont Department of Public Service to create a self-managed energy efficiency pilot program for select transmission and industrial utility customers whose individual contributions to the public benefits fund exceeded \$1.5 million in 2008. Program guidelines were released late 2009 by the PSB. <sup>589</sup>
HB 520, SB 2009	Energy Efficiency and Affordability Act of 2008	March 2008	Directs Vermont's Public Service Board (PSB) to investigate opportunities for Vermont electric utilities cost effectively to install advanced smart metering equipment capable of sending two way signals and sufficient to support advanced TOU pricing during periods of critical peaks or hourly differentiated TOU pricing. After its investigation, the PSB is to require each utility to file plans for deploying smart meters and TOU pricing. HB 520 was vetoed by the Governor on 6/06/2007. <sup>590</sup>

 <sup>&</sup>lt;sup>583</sup> Vermont Legislature, SB 78. Accessed 9/21/11. <u>http://www.leg.state.vt.us/database/status/summary.cfm?Bill=S.0078&Session=2012</u>
 <sup>584</sup> HB 56, . Accessed 9/28/11. <u>http://www.leg.state.vt.us/docs/2012/bills/Passed/H-056.pdf</u>

<sup>585</sup> DSIRE, Vermont – Net Metering. Accessed 2/9/11. http://www.dsireusa.org/incentives/incentive.cfm?incentive\_Code=VT02R&re=1&ee=1

<sup>586</sup> Smart Grid Deployment in Colorado: Challenges and Opportunities, University of Colorado at Boulder, Kevin Doran, Frank Barnes, Puneet Pasrich, eds. Accessed 2/9/11. http://cees.colorado.edu/sgreport.pdf Vermont Legislature. Accessed 9/21/11. <u>http://www.leg.state.vt.us/database/status/summary.cfm?Bill=S.0288&Session=2010</u> <sup>587</sup> DSIRE, Vermont Renewable Energy Access Law. Accessed 2/9/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=VT10R&re=1&ee=1</u>

<sup>588</sup> Smart Grid Deployment in Colorado: Challenges and Opportunities, University of Colorado at Boulder, Kevin Doran, Frank Barnes, Puneet Pasrich, eds. Accessed 2/9/11. http://cees.colorado.edu/sgreport.pdf

<sup>&</sup>lt;sup>589</sup> Vermont Utility Policies. Accessed 2/15/11. http://www.aceee.org/energy-efficiency-sector/state-policy/vermont/217/all/191

<sup>590</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

Item	Title	Dates	Description
Legislative			
CVR 30 000 048.	Interconnection Rules	9/10/2006	Outlines separate interconnection standards for net-metered energy systems that are 150 kW or
5.500			less, and for distributed-generation systems that are net metered but greater than 150 kW (up to
			250 kW) as well as systems that are not net-metered. DG systems that meet certain technical
			screening criteria are eligible for the fast track interconnection process. <sup>591</sup>
Regulatory			
PSB Public Hearing	Investigation into Vermont Electric	9/15/2011	The PSB is collecting input from the public on issues related to smart meter data privacy and
No.7307	Utilities' Use of Smart Metering and		cybersecurity. The PSB also will address the opt-out policy requiring a monthly fee if the customer
	Time-Based Rates		chooses to retain the traditional electric meters. 592
NA	EPAct/PURPA Standard 14	February	The Vermont PSB decided not to adopt PURPA Standard 14 (Time-Based Metering and
		2007	Communications) as enacted in EPAct 2005. Instead, it will consider the standard's applicability on a
			utility-specific basis in a future rate case or rate-design case, as appropriate. 593

One of the many proposed ARRA Projects is eEnergy Vermont which is a utility consortium proposing wireless broadband from substations to devices and for data backhaul, 300,000 or more smart meters, meter data management system, information technology integration, dynamic pricing trials, in-home displays, smart thermostats, smart appliances, usage data on Web, grid automation (fiber, sensors, breakers, reclosers) integrated with an AMI and outage management system. In 2010, a \$68.9 Million Smart Grid Investment Grant was secured for the project and plans for deployment in 2011 and 2012 were approved. <sup>594</sup>

Green Mountain Power, an IOU operating in Vermont, offers a bonus payment to customers with net-metered PV systems. In addition to the benefits of net metering, Green Mountain Power customers with a PV system receive a payment of \$0.06 per kWh of electricity generated by the system. This payment is available to all customers of Green Mountain Power, which serves roughly one-quarter of Vermont's population. This program, known as Solar GMP, took effect in July 2008. HB 56 may significantly change or eliminate this program due to pending revisions in the net metering rules. <sup>595</sup>

In August 2008, Central Vermont Public Service (CVPS) and the Vermont Department of Public Service launched a collaborative smart-grid pilot program open to participation by any utility in the state. The collaboration, according to the utility and the state agency, establishes templates and standards for new meter and communications technology. It also develops CVPS SmartPower, a systematic program to analyze and install the latest in metering technology over several years. CVPS SmartPower is expected to run through 2013, with meters installed in late 2011 and 2012. CVPS and the Vermont Department of Public Service expect that ultimately CVPS SmartPower will yield expanded time-of-day rate programs and new real-time rate programs.<sup>596</sup>

Vermont Legislature. Accessed 9/21/11. http://www.leg.state.vt.us/database/status/summary.cfm?Bill=H.0520&Session=2008

<sup>&</sup>lt;sup>591</sup> DSIRE, Vermont Interconnection Standards. Accessed 2/9/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=VT01R&re=1&ee=1</u>

<sup>&</sup>lt;sup>592</sup>Battleboro Reformer, State hearing to address smart meters and privacy concerns, 9/14/2011. Accessed 9/19/11. <u>http://www.reformer.com/ci 18889150?source%253Dmost viewed.20F88DA3D7D369F5BB70F372987EAE1F.html</u> Vermont PSB, No.7307 Public Hearing. Accessed 9/19/11. <u>http://psb.vermont.gov/node/811</u>

<sup>&</sup>lt;sup>593</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>&</sup>lt;sup>594</sup> Tour of Smart Grid Projects and State Policies by Lisa Schwartz, Presentation to the Oregon PUC, Smart Grid Workshop – September 9, 2009, RAPOnline, Source: Ethnie Groves, Xcel Energy. Accessed 2/7/11. http://www.sgiclearinghouse.org/Legislation?q=node/2303&lb=1

SAIC, eEnergy Vermont (ARRA) Update. Accessed 9/28/11. http://www.uvm.edu/~vtsandia/conference/pdfs/SmartMeters\_Allen.Stamp.pdf

<sup>595</sup> DSIRE, Vermont – Net Metering. Accessed 2/9/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=VT02R&re=1&ee=1</u>

<sup>596</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11.

http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

CVPS SmartPower, Implementation Plan. Accessed 9/28/11. http://www.cvps.com/ProgramsServices/smartpower/ImplementationPlan/index.asp

Energy efficiency programs were run by the state's utilities under jurisdiction of the Vermont PSB, but in 1999 the PSB transferred operations to Efficiency Vermont, a statewide energy efficiency utility supported by public benefits funding. In late 2006, Efficiency Vermont began to expand its programs, targeting four areas of the state with significant transmission and distribution constraints. Efficiency Vermont now provides a comprehensive portfolio of services and has achieved significant success in meeting its objectives. Efficiency Vermont is run by a competitively selected contractor, namely the nonprofit Vermont Energy Investment Corporation.<sup>597</sup>

<sup>&</sup>lt;sup>597</sup> Vermont Utility Policies. Accessed 2/15/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/vermont/217/all/191</u>

## Virginia

Item	Title	Dates	Description
Legislative		•	
2009 HJR	NA	2009	Requirement that the SCC review and evaluate an increase in implementation of smart grid
704			technologies, specifically smart meters, in the state. As of 2/10/2009 the bill has been left in the Committee on Rules. <sup>598</sup>
2009 SB	An Act to Direct The SCC to Conduct a	4/8/2009	Requirement that SCC develop a study that considers other states' smart grid deployment
1348	Proceeding to Determine Appropriate Energy Conservation and Demand Response Targets		measures and evaluates smart grid technologies. Approved by Governor and enrolled on 4/8/2009. <sup>599</sup>
HB 2506	An Act to Amend and Reenact §§ 56-576, 56- 585.1, and 56-585.3 of the Code of Virginia, Relating to Base Rates of Return for Certain Types of Electrical Generation	4/8/2009	Authorized IOUs to recover the costs of designing, implementing, and operating energy efficiency programs by adjusting their rates, if such programs are found to be in the public interest. Approved by Governor and enrolled on 4/8/2009. <sup>600</sup>
HB 2531	2009 VA Acts of Assembly, Chapters 855 & 752	3/30/2009	Directed the SCC to conduct a proceeding to determine achievable, cost-effective energy conservation and demand response targets through DSM portfolios of generating electric utilities, including a cost-benefit analysis. Approved by the Governor on 3/30/09. <sup>601</sup>
VA Code § 67-700 et seq.	Covenants Restricting Solar Energy Collection Devices	7/1/2008	Solar-access law stating community associations generally may not prohibit a homeowner from installing or using a solar energy collection device on their property. <sup>602</sup>
SB 596 and SB 1416	Virginia Electric Utility Regulation Act	5/12/2008, April 2007	Renews the state's "Commission on Electric Utility Restructuring" and tasks the SCC with educating retail electricity consumers about demand response. The law requires the SCC to convene a working group pertaining to demand response, DSM, efficiency, and conservation. Supports further deployment of load management. SB 596 was approved by the Governor on 5/12/2008. <sup>603</sup>
VA Code § 55-352 et seq.	Virginia Solar Easements Act	1978	Allows property owners to create binding solar easements for the purpose of protecting and maintaining proper access to sunlight. <sup>604</sup>

<sup>598</sup> Smart Grid Deployment in Colorado: Challenges and Opportunities, University of Colorado at Boulder, Kevin Doran, Frank Barnes, Puneet Pasrich, eds. Accessed 2/9/11. http://cees.colorado.edu/sgreport.pdf Virginia Legislative Information System. Accessed 9/21/11. http://lis.virginia.gov/cgi-bin/legp604.exe?ses=091&typ=bil&val=hj704

<sup>599</sup> Smart Grid Deployment in Colorado: Challenges and Opportunities, University of Colorado at Boulder, Kevin Doran, Frank Barnes, Puneet Pasrich, eds. Accessed 2/9/11. http://cees.colorado.edu/sgreport.pdf Virginia Legislative Information System. Accessed 9/21/11. http://lis.virginia.gov/cgi-bin/legp604.exe?ses=091&typ=bil&val=sb1348

<sup>&</sup>lt;sup>600</sup> Virginia Utility Policies. Accessed 2/15/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/virginia/67/all/191</u>

Virginia Legislative Information System. Accessed 9/21/11. http://lis.virginia.gov/cgi-bin/legp604.exe?ses=091&typ=bil&val=hb2506

 <sup>&</sup>lt;sup>601</sup> Virginia Lullity Policies. Accessed 2/15/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/virginia/67/all/191</u>
 <sup>602</sup> DSIRE, Virginia Solar Access Laws. Accessed 2/9/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?incentive\_Code=VA15R&re=1&ee=1</u>

<sup>603</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11.

http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>&</sup>lt;sup>604</sup> DSIRE, Virginia Solar Easements. Accessed 2/9/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?incentive\_Code=VA08R&re=1&ee=1</u>

ltem	Title	Dates	Description
Regulatory			
VA Code § 67-102, SB 862	An Act to amend the Code of Virginia Relating To The Commonwealth Energy Policy; Local Renewable Energy Facility Siting Ordinances.	03/28/11	Enacts broad guidelines for local ordinances for solar and wind. Any local ordinance related to the siting of solar or wind energy facilities must: 1) be consistent with the Commonwealth Energy Policy; 2) provide reasonable criteria for wind and solar energy siting while promoting wind and solar development; and 3) must include reasonable requirements for noise limitations, buffer areas, set backs, and facility decommissioning. <sup>605</sup>
VA Code § 56-594, 20 VAC 5- 315-10 et seq., HB 2155, SCC Order Adopting Net Metering Regulations (PUE-2009-00105)	Net energy metering provisions	4/28/2010, 5/25/2000, 7/1/2000	Net-metering applying to residential generating systems up to 10 kW in capacity and non-residential systems up to 500 kW in capacity (utilities may choose to offer net metering to larger non-residential systems). Permits customers that are served on TOU tariffs to participate in net metering. <sup>606</sup> The qualifying generator must use as its total source of fuel renewable energy. <sup>607</sup>
NA	EPAct/PURPA Standard 14	July 2006	The Virginia SCC decided not to adopt PURPA Standard 14 (Time-Based Metering and Communications) as enacted in EPAct 2005. The Commission is not convinced that adoption of this standard is in the public interest. <sup>608</sup>

In December 2007 the SCC reported to the Governor and the General Assembly how to meet the legislation's goal of reducing electricity consumption by 10 percent (of 2006 levels) by 2022 through DSM, conservation, energy efficiency, and load management programs. SCC's working group concluded with the single recommendation that utilities should provide the SCC with an expansion plan that weighs the avoided costs accrued from the implementation of a DSM program such as demand response.<sup>609</sup>

Dominion Virginia Power offers a small set of energy efficiency programs for its residential and commercial customers. The Virginia SCC issued an order on January 17, 2008 approving nine pilot projects proposed by Dominion Virginia Power. The nine pilots included: 1.) Standard Residential In-Home Energy Audits; 2) ENERGY STAR Qualified Homes Energy Audits; 3) Energy Efficiency Welcome Kits; 4) a PowerCost Monitor pilot; and 5) Small Commercial On-Site Energy Audits. Four DSM response/load management pilots were also created: 1) Direct Load Control — Outdoor Air-Conditioning Control Device; 2) Programmable Thermostats — Indoor Air-Conditioning Control Device; 3) Programmable Thermostats with AMI and CPP; and 4) DG/Load Curtailment Pilot. On July 11, 2011 the SCC approved Dominion's plans for an electric vehicle recharging pilot program with two experimental rate options designed to test whether electric vehicle owners will choose to recharge their vehicles during off-peak hours.

<sup>605</sup> DSIRE, Virginia - Guidelines for Solar and Wind Local Ordinances. Accessed 9/14/11. http://www.dsireusa.org/incentives/incentives/incentive\_Code=VA22R&currentpageid=3&EE=1&RE=1

<sup>606</sup> DSIRE, Virginia – Net Metering. Accessed 2/9/11. http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=VA02R&re=1&ee=1

<sup>&</sup>lt;sup>607</sup> § 56-594. Net energy metering provisions. Accessed 2/11/11. <u>http://leg1.state.va.us/000/cod/56-594.HTM</u>

<sup>&</sup>lt;sup>608</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11. <u>http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf</u>

<sup>&</sup>lt;sup>609</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11. <u>http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf</u> <sup>610</sup> Virginia Utility Policies. Accessed 2/15/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/virginia/67/all/191</u>

Dominion News, Dominion Virginia Power Moving Forward with Electric Vehicle Recharging Pilot, 7/26/2011 . Accessed 9/28/11 <a href="http://dom.mediaroom.com/index.php?s=43&item=1005">http://dom.mediaroom.com/index.php?s=43&item=1005</a>

### Washington

Item	Title	Dates	Description		
Legislative		•			
HB 1639, SB 5464	Creating the Clean Energy Partnership	4/26/2011	Establishes a clean energy partnership as a joint endeavor between the Washington Technology Center and Spokane Intercollegiate Research and Technology Institute that will implement the strategy and recommendations of the clean energy leadership council regarding energy efficiency, green buildings, integration of renewable energy, and smart grid. Bill remains with pending status in the state legislature. <sup>611</sup>		
RCW 64.04.140 and SB 5136	Legislative Declaration; Solar Energy Systems; Solar Easements Authorized and Homeowners' Associations – Governing Documents—Solar Energy Panels	7/26/2009, 1979	Solar easement laws that allow parties to enter into solar easement contracts voluntarily for the purpose of ensuring adequate exposure of a solar-energy system. In April 2009, Washington enacted SB 5136, restricting homeowner's associations from prohibiting the installation of solar energy panels. Signed into law by the Governor on 4/10/2009. <sup>612</sup>		
2009 HB 2289	NA	5/11/2009	Modification of energy freedom program to receive federal funding to implement smart grid technologies. <sup>613</sup> It also expands the state's Energy Freedom Program to include innovative energy technology for smart grid and/or smart metering. Signed into law by the Governor on 5/11/2009. <sup>614</sup>		
2009 HB Amendment to SB 5735	NA	2009	Allowance for qualifying utilities to count investments in smart grid technologies at three times base value. The Senate ruled the bill as "failed" on January 26, 2010. <sup>615</sup>		
Washington Administrative Code, Chapter 480- 108	Electric companies — interconnection with electric generators	4/6/06	The Washington Utilities and Transportation Commission (WUTC) has adopted interconnection standards for DG systems, including CHP, up to 20 MW in size. Two separate tiers for interconnection exist; the first tier applies to systems smaller than 300 kW. The second tier applies to systems between 300 kW and 20 MW, and generally follows the interconnection standards promulgated by FERC. <sup>616</sup>		
Washington State Initiative 937	An act relating to requirements for new energy resources; adding a 2 new chapter to Title 19 RCW; and prescribing penalties.	2006	Initiative that set new requirements for electricity resources, including use of renewable energy and energy conservation: The new REPS of 15 percent by 2020 excludes hydropower. The energy conservation section requires each qualifying utility (those with more than 25,000 customers in Washington) to pursue all available conservation that is cost-effective, reliable and feasible. High efficiency cogeneration is included as part of conservation and the term is defined in the law. Utilities are directed to determine their achievable cost-effective conservation potential through 2019, and a set of biennial acquisition targets for acquiring these resources. <sup>617</sup>		

<sup>&</sup>lt;sup>611</sup> Washington State Legislature, HB 1639. Accessed 9/26/11. <u>http://apps.leg.wa.gov/billinfo/summary.aspx?bill=1639</u>

<sup>&</sup>lt;sup>612</sup> DSIRE, Washington Solar Easements & Access Law. Accessed 2/9/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=WA02R&re=1&ee=1</u>

Washington State Legislature. Accessed 9/21/11. http://apps.leg.wa.gov/billinfo/summary.aspx?bill=5136&year=2009

<sup>&</sup>lt;sup>613</sup> Smart Grid Deployment in Colorado: Challenges and Opportunities, University of Colorado at Boulder, Kevin Doran, Frank Barnes, Puneet Pasrich, eds. Accessed 2/9/11. <u>http://cees.colorado.edu/sgreport.pdf</u> <sup>614</sup> States Providing for Smart Metering. Accessed 2/11/11. <u>http://www.ncsl.org/?tabid=20672</u>

Washington State Legislature. Accessed 9/21/11. http://apps.leg.wa.gov/billinfo/summary.aspx?bill=2289&year=2009

<sup>615</sup> Smart Grid Deployment in Colorado: Challenges and Opportunities, University of Colorado at Boulder, Kevin Doran, Frank Barnes, Puneet Pasrich, eds. Accessed 2/9/11. <u>http://cees.colorado.edu/sgreport.pdf</u> Washington State Legislature. Accessed 9/21/11. <u>http://apps.leg.wa.gov/billinfo/summary.aspx?bill=5735&year=2009</u>

<sup>&</sup>lt;sup>616</sup> Washington Clean Distributed Generation. Accessed 2/15/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/Washington/218/all/195</u>

<sup>&</sup>lt;sup>617</sup> Washington Utility Policies. Accessed 2/15/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/Washington/218/all/191</u>

Item	Title	Dates	Description	
Legislative				
Rev. Code WA § 80.60	Net metering of electricity	1998	Applies to systems up to 100 kW in capacity that generates electricity using solar, wind, hydro, biogas from animal waste, or CHP technologies (including fuel cells). All customer classes are eligible, and all utilities, including municipal utilities and electric cooperatives, must offer net metering. The utility must provide a single, bi-directional meter and the customer must provide the current transformer enclosure. The production incentive law states that customer-generators retain ownership of RECs. <sup>618</sup>	
Regulatory				
RCW 80.01.040 and 80.04.160. 10-08- 001 (Docket U- 090222, General Order R-559), § 480- 100-505	Smart grid technology report	4/24/10	Establishes requirements for each electric utility to submit periodic reports to the WUTC with the utility's evaluation of smart grid technologies that are, or will be, available and any plans for implementing smart grid technologies affecting ratepayers. Each utility was directed to file a report in September 2010. Subsequent reports must be filed no later than September 1st of each even-numbered year thereafter through 2016. <sup>619</sup>	
Docket No. U- 090222, WAC 480- 100-505	Washington Commission Staff proposal	3/24/2010, 7/30/09	The WUTC Staff rules that further work to consider a rule requiring electric utilities to report on their activity and evaluations regarding smart grid technology. WUTC current regulations meet some of the standards for the Smart Grid Information Standard, but questions whether additional standards for time-varying pricing make sense. The WUTC provided its ruling on 3/26/2010 regarding smart grid technology report requirements, and closed the docket. <sup>620</sup>	
NA	EPAct/PURPA Standard 14	August 2007	The WUTC decided not to adopt PURPA Standard 14 (Time-Based Metering and Communications) as enacted in EPAct 2005. The WUTC determined that it is inappropriate to generally require utilities to deploy smart metering and time-based rates and that its existing policy created in response to the 1980 PURPA standards is sufficient relative to EPAct 1252. The WUTC plans to consider smart metering and time-based rates on a case-by-case basis. <sup>621</sup>	

Customers in Washington are served by a wide variety of utilities and energy efficiency programs are provided by many types of utilities. The IOUs carry out DSM programs with regulatory oversight by the WUTC. The NEEA, a regional organization seeking to transform markets for energy efficiency, helps to promote individual utility programs offered across the state, such as services for consumer products and building design, construction and operation. BPA also plays a strong leadership role in supporting individual utilities' efforts. Washington is a non-restructured state and has no public benefits funding to support programs.

<sup>618</sup> DSIRE, Washington – Net Metering. Accessed 2/9/11. http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=WA01R&re=1&ee=1

<sup>&</sup>lt;sup>619</sup> ADS, Domand Response & Smart Grid–State Legislative and Regulatory Policy Action Review: May 2010 – June 2011 Accessed 9/16/11. <u>http://www.demandresponsesmartgrid.org/Resources/Documents/State%20Policy%20Survey/2010%20-</u> %2011%20DR%20%20SG%20State%20Policy%20Survey 11%2007%2007 FINAL%20%282%29.pdf

Washington State Legislature, WAC 480-100-505. Accessed 9/16/11. http://apps.leg.wa.gov/wac/default.aspx?cite=480-100-505

<sup>&</sup>lt;sup>620</sup> Tour of Smart Grid Projects and State Policies by Lisa Schwartz, Presentation to the Oregon PUC, Smart Grid Workshop – September 9, 2009, RAPOnline, Source: Ethnie Groves, Xcel Energy. Accessed 2/7/11. http://www.sgiclearinghouse.org/Legislation?q=node/2303&lb=1

WUTC, Docket No. U-090222. Accessed 9/21/11. <u>http://www.wutc.wa.gov/rms2.nsf/177d98baa5918c7388256a550064a61e/2e5c4853f76fed5c882576f200666075!OpenDocument</u>

<sup>621</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11,

http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>&</sup>lt;sup>522</sup> Washington Utility Policies. Accessed 2/15/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/washington/218/all/191</u>

### West Virginia

Item	Title	Dates	Description
Legislative		•	
HB 2980, HB 2025, HB 3088	Updates to West Virginia Energy Efficiency Act	1/12/2011, 3/6/2009	The PSC shall evaluate whether AMI and digital automation of the components of the entire power supply system are cost-effective in reducing consumption and peak demand of electricity. If found to be cost-effective, the PSC may require each electric utility to implement smart grid technology in its service territory. Bill has remained pending in the House Government Organization Committee since 1/12/2011. <sup>623</sup>
2010 HB 4012	West Virginia Energy Efficiency Act	2010	Requires PSC evaluate cost effectiveness of smart grid technologies in reducing consumption and peak demand of electricity. Bill has been referred to the Committee on Finance. <sup>624</sup>
SB 350	An act to amend and reenact §24-2F-3 of the Code of West Virginia, 1931 alternative and renewable energy portfolio standard	4/2/2010	Categorizes smart metering and smart grid technologies as recycled energy for the purpose of purchasing energy resource credits. Bill has been referred to the Committee on Finance. <sup>625</sup>
HB 103	An Act to Amend the Code of West VirginiaAlternative and REPS	7/1/2009	Addresses awarding of credits for certain energy efficiency and demand-side energy initiative projects. Requires the PSC adopt certain net metering and interconnection rules and standards, and consider extending alternative and renewable resource credits to EDCs or electric generation suppliers other than electric utilities. Authorizes interagency agreements. Signed into law by 2009 Gov. Joe Manchin. <sup>626</sup>
NA	West Virginia Smart Grid Implementation Plan	July 2008	Assessment of current electric grid technologies to evaluate potential of implementing smart grid technologies within the state. <sup>627</sup>
Regulatory			
WV Code § 24- 2F-1 et seq., General Order No. 258, General Order No. 258.1	Net metering and interconnection standards	12/27/2010, 8/30/2010, 7/1/2009	Net metering is available to all retail electricity customers. Systems that generate electricity using alternative or renewable energy resources are eligible for net metering, including PV, wind, geothermal, biomass, landfill gas, run of the river hydropower, biofuels, fuel cells, and recycled energy sources. <sup>628</sup>
NA	EPAct/PURPA Standard 14	December 2006	The PSC of West Virginia decided not to adopt PURPA Standard 14 (Time-Based Metering and Communications) as enacted in EPAct 2005, stating that it instead had adopted the collective recommendations of the parties to the proceeding. Electric utilities will explore making smart metering available as an option for all tariff classes in their next rate case, if the utility is not already providing this service. <sup>629</sup>

<sup>&</sup>lt;sup>623</sup> West Virginia Legislature, H. B. 2980. Accessed 9/20/11. <u>http://www.legis.state.wv.us/Bill\_Text\_HTML/2009\_SESSIONS/RS/Bills/hb2980%20intr.htm</u>

<sup>&</sup>lt;sup>624</sup> Smart Grid Deployment in Colorado: Challenges and Opportunities, University of Colorado at Boulder, Kevin Doran, Frank Barnes, Puneet Pasrich, eds. Accessed 2/9/11. <u>http://cees.colorado.edu/sgreport.pdf</u> West Virginia Legislature. Accessed 9/21/11. http://www.legis.state.wv.us/Bill Text HTML/2010 SESSIONS/RS/Bills/hb4012%20intr.htm

<sup>&</sup>lt;sup>625</sup> States Providing for Smart Metering. Accessed 2/11/11. <u>http://www.ncsl.org/?tabid=20672</u>

West Virginia Legislature. Accessed 9/21/11. http://www.legis.state.wv.us/Bill Text HTML/2010 SESSIONS/RS/Bills/SB350%20eng.htm <sup>626</sup> West Virginia Legislature, H. B. 103. Accessed 9/20/11. http://www.legis.state.wv.us/Bill Text HTML/2009 SESSIONS/1X/Bills/hb103%20ENR.htm

<sup>&</sup>lt;sup>627</sup> Smart Grid Deployment in Colorado: Challenges and Opportunities, University of Colorado at Boulder, Kevin Doran, Frank Barnes, Puneet Pasrich, eds. Accessed 2/9/11. <u>http://cees.colorado.edu/sgreport.pdf</u> 628 DSIRE, West Virginia – Net Metering. Accessed 2/9/11. http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=WV03R&re=1&ee=1

<sup>629</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11,

http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

There are currently no EERS in place for West Virginia. A DSM/Energy Efficiency Task Force was associated with a case relating to the construction of an Integrated Gasification Combined Cycle electric generating unit proposed by AEP in Case Number 06-0033-E-CS. The PSC allowed the task force to craft energy efficiency programs for utility customers in multiple sectors in Case Number 06-0033-E-CN. <sup>630</sup>

West Virginia enacted REPS in 2009 that requires IOUs with more than 30,000 residential customers to supply 25% of retail electric sales from eligible alternative and renewable energy resources by 2025.<sup>631</sup>

<sup>630</sup> West Virginia Utility Policies. Accessed 2/18/11. http://www.aceee.org/energy-efficiency-sector/state-policy/west%20virginia/219/all/191

<sup>631</sup> DSIRE, West Virginia - Alternative and Renewable Energy Portfolio Standard. Accessed 9/28/11. http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=WV05R&re=1&ee=1

#### Wisconsin

Item	Title	Dates	Description
Legislative			
WI Stat. § 66.0401 et seq., WI Stat. § 700.41, WI Stat. § 236.292, WI Stat. § 844.22, SB 185	Regulation relating to solar and wind energy systems, solar and wind access, obstruction of solar or wind energy system	10/1/2009, 1993, 1982	Protects a resident's right to install and operate a solar or wind energy system. Local governments, counties, towns, cities and villages may not place any restriction on the installation or use of solar or wind energy systems unless certain conditions are met. It voids all restrictions on platted land that prevent or unduly restrict the construction or operation of solar and wind energy systems. <sup>632</sup>
81.122 CFDA	Wisconsin Energy Assurance and Smart Grid Resiliency Plan	2008	Plan to acquire federal funding to better coordinate and communicate smart grid reliability and security. <sup>633</sup>
Act 141	Energy Efficiency, Renewable Resources, and Energy Policy	2005	Requires the program, Focus on Energy, be transferred to the PSC. Requires IOUs spend 1.2 percent of their annual gross operating revenues on energy efficiency and renewable resource programs. Requires municipal and retail electric cooperative utilities collect an average of \$8 per meter to fund energy efficiency programs. <sup>634</sup>
Regulatory			
PSC Docket 5-GF-191 Order	Quadrennial Planning Process	11/9/2010	Sets annual targets for electricity reductions for the period 2011 to 2014. The utilities' statewide energy efficiency program, Focus on Energy, receives funding from ratepayers to achieve goals. Funding levels will increase each year. <sup>635</sup>
PSC Docket 5-UI -116	Alternative Electric and Natural Gas Rate Design and Load Management Options	10/9/2009	In response to FERC orders 719 and 719-A, prohibits the operation of aggregators of retail customers to prevent potential discrimination and to allow the PSC more time to gather more information regarding aggregators, their compensation and the tariff provisions of the MISO. Comments are currently being collected. <sup>636</sup>
WI Stat. § 196.496 enacted 08/30/2001 and Chapter PSC 119 effective 02/01/2004	Distributed generation facilities and rules for interconnection distributed generation facilities	02/01/2004	Interconnection standards for DG systems up to 15 MW in capacity. All IOUs and municipal utilities are required to abide by the standard provisions. Electric cooperatives are encouraged, but not required, to adopt the state standards. The rules categorize DG systems by capacity and provide for several levels of interconnection review. <sup>637</sup>
PSC Order, Docket No. 05- EP-6	Wisconsin Net Metering	9/18/1992	Requires all investor-owned utilities and municipal utilities to file tariffs allowing net metering to customers that generate electricity with systems up to 20 kW in capacity, with no limit on total enrollment. <sup>638</sup>

<sup>&</sup>lt;sup>632</sup> DSIRE, Wisconsin Solar and Wind Access Laws. Accessed 2/9/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=WI04R&re=1&ee=1</u>

<sup>&</sup>lt;sup>633</sup> Smart Grid Deployment in Colorado: Challenges and Opportunities, University of Colorado at Boulder, Kevin Doran, Frank Barnes, Puneet Pasrich, eds. Accessed 2/9/11. <u>http://cees.colorado.edu/sgreport.pdf</u>

<sup>&</sup>lt;sup>634</sup> Wisconsin Utility Policies. Accessed 3/2/11. <u>http://www.aceee.org/energy-efficiency-sector/state-policy/wisconsin/220/all/191</u>

<sup>635</sup> Wisconsin PSC, Quadrennial Planning Process. Accessed 9/14/11. <u>http://www.dsireusa.org/documents/Incentives/PSC Ref 141173.pdf</u>

DSIRE, Wisconsin - Energy Efficiency Resource Standard . Accessed 9/14/11. http://www.dsireusa.org/incentives/incentive.cfm?Incentive Code=WI17R&currentpageid=3&EE=1&RE=1

<sup>636</sup> ADS, Demand Response & Smart Grid—State Legislative and Regulatory Policy Action Review: May 2010 – June 2011 Accessed 9/15/11. http://www.demandresponsesmartgrid.org/Resources/Documents/State%20Policy%20Survey/2010%20-%2011%20DR%20%20Scate%20Policy%20Survey 11%2007%2007 FINAL%20%282%29.pdf

Wisconsin PSC, Docket ID: 5-UI -116. Accessed 9/19/11. http://psc.wi.gov/initiatives/globalWarming/index-loadManagement.htm

<sup>637</sup> DSIRE, Wisconsin Interconnection Standards. Accessed 2/9/11. http://www.dsireusa.org/incentives/incentive.cfm?Incentive Code=WI11R&re=1&ee=1

<sup>638</sup> DSIRE, Net Metering. Accessed 3/2/11. <u>http://dsireusa.org/incentives/incentive.cfm?Incentive\_Code=WI03R&re=1&ee=1</u>

A group known as Focus on Energy (Wisconsin) works with eligible Wisconsin residents and businesses to install cost effective energy efficiency and renewable energy projects with the goal of implementing projects that otherwise would not be completed, or to complete projects sooner than scheduled.<sup>639</sup> The Wisconsin Division of Energy Services administers statewide low income household energy assistance programs involving electric and heating bill payment assistance, as well as benefits and services to assist with energy crisis situations.<sup>640</sup>

In February 2007, the PSC of Wisconsin released its biennial strategic energy assessment titled "Strategic Energy Assessment—Energy 2012." The assessment describes demand response as a tool to provide rate stability to energy customers. In its latest biennial report, the PSC indicates the overall trend in peak demand growth (as estimated by the state's utilities) is approximately 2.1 percent per year through 2014, though increased use of energy efficiency and conservation will likely decrease this rate.<sup>641</sup>

 <sup>&</sup>lt;sup>639</sup> Focus on Energy, About Us Overview. Accessed 2/18/11. <u>http://www.focusonenergy.com/About-Us/</u>
 <sup>640</sup>State of Wisconsin, Division of Energy Services. Accessed 2/18/11. <u>http://www.doa.state.wi.us/index.asp?locid=5</u>

<sup>641</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf PSC of Wisconsin, Biennial report, 2007-2009. Accessed 9/28/11. http://www.doa.state.wi.us/docview.asp?docid=7891&locid=0

# Wyoming

Item	Title	Dates	Description
Legislative	•		
HB 0179	Energy Improvement Program	7/1/2011, 3/3/2011	Permits a local government (municipality, county or joint powers board) to designate an energy improvements area and establish an energy improvements program to make loans to property owners within the area for cost-effective energy improvements to existing residential, commercial or industrial buildings on the property. Signed by the Governor on 3/3/2011, effective on 7/1/2011. <sup>642</sup>
HB 0072	Regulation Of Wind Energy Facilities	7/1/2010	Establishes the minimum standards that counties must apply when issuing the required permits for facilities generating electricity from wind power. Signed by the Governor on 3/10/2010, effective on 7/1/2010. <sup>643</sup>
HB 0156	Energy Performance Contracting	7/1/2009	Establishes the Wyoming energy conservation improvement program for the support, development and implementation of energy performance contract projects. Provides for energy efficient audits and measures for local governmental entities. Energy services companies must provide facility owners with an annual reconciliation of guaranteed energy savings. Approved by the Governor. <sup>644</sup>
WY Stat. § 37-16- 101 et seq.	Net Metering	2003, 07/01/2001	Establishes statewide net metering. The law applies to IOUs, electric cooperatives and irrigation districts. Eligible technologies include solar, wind, biomass and hydropower systems up to 25 kW in capacity. <sup>645</sup>
Regulatory			•
Docket No. 90000-106-XO-8	Wyoming PSC response for EISA 2007 order	7/10/2009	Wyoming PSC declined to adopt smart grid standards. <sup>646</sup>
Docket No. 90000-95-XR-06 (Record No. 10719)	EPAct/PURPA Standard 14	January 2007	The Wyoming PSC decided not to adopt PURPA Standard 14 (Time-Based Metering and Communications) as enacted in EPAct 2005. <sup>647</sup>

In January 2007, the Wyoming PSC decided not to adopt PURPA Standard 14 as enacted in EPAct 2005. The PSC concluded there was no support for this section since there is no real opportunity for Wyoming ratepayers to take advantage of smart metering due to the economic and social makeup of the state. The PSC planned to hold a technical conference on the subject of smart metering. Further, the PSC found adoption of Section 328(D), regarding third-party marketers' ability to sell electric energy to retail customers, illegal in Wyoming. The PSC noted that 16 U.S.C. § 2623(a)(1)requires the PURPA standards, if adopted, to be consistent with state law.<sup>648</sup> In Docket No. 90000-106-XO-8, the PSC ordered the utilities to file an annual report regarding developments in smart grid technologies starting in January 2010.

<sup>&</sup>lt;sup>642</sup> Wyoming Legislative Service Office, HB 0179. Accessed 9/26/11. <u>http://legisweb.state.wy.us/2011/Digest/HB0179.htm</u>

<sup>&</sup>lt;sup>643</sup> Wyoming Legislative Service Office, HB 0072. Accessed 9/26/11. <u>http://legisweb.state.wy.us/2010/Digest/HB0072.htm</u>

<sup>644</sup> Wyoming Legislative Service Office, HB 0156. Accessed 10/3/11. http://legisweb.state.wy.us/2009/Summaries/HB0156.htm

<sup>&</sup>lt;sup>645</sup> DSIRE, Wyoming – Net Metering. Accessed 2/9/11. <u>http://www.dsireusa.org/incentives/incentive.cfm?Incentive\_Code=WY01R&re=1&ee=1</u>

<sup>&</sup>lt;sup>646</sup> Tour of Smart Grid Projects and State Policies by Lisa Schwartz, Presentation to the Oregon PUC, Smart Grid Workshop – September 9, 2009, RAPOnline, Source: Ethnie Groves, Xcel Energy. Accessed 2/7/11. http://www.sgiclearinghouse.org/Legislation?q=node/2303&lb=1

<sup>647</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11.

http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

<sup>&</sup>lt;sup>648</sup> Demand Response and Smart Metering Policy Actions Since the EPAct of 2005: A Summary for State Officials, Prepared by the U.S. DRCC for the NCEP, Fall 2008. Accessed 2/6/11. http://www.demandresponsesmartgrid.org/Resources/Documents/Final NCEP Report on DR and SM Policy Actiona 08.12.pdf

Wyoming PSC approved six DSM programs for RMP that began January 1, 2009. These programs represent the state's first significant energy efficiency activity. The current programs offered to residential customers include rebates for energy efficient appliances and products, low-Income weatherization for qualifying customers, and inverted rates. The inverted rates reward customers with a rate reduction for keeping their electricity usage at or below a 500 kWh per month threshold, and charge customers more than the standard rate for each kWh they use above the threshold.<sup>649</sup>

<sup>&</sup>lt;sup>649</sup> Wyoming Utility Policies. Accessed 2/18/11. <u>http://www.accee.org/energy-efficiency-sector/state-policy/wyoming/221/all/191</u> RMP, Efficiency Programs & Incentives. Accessed 9/28/11. <u>http://www.rockymountainpower.net/res/sem/epi.html</u>