Delaware

Delaware's population was estimated by the U.S. Census Bureau as 935,614 in July 2014. This ranks it 45th among all 50 states. USDOE's Energy Information Administration estimates 2014 retail electricity sales as 11,179,000 megawatt-hours. That's 46th among all states and DC.

Residential switching has increased in the past few years to 10.5%. Nonresidential load switching increased from 68.6% in 2009 to 81.8% in 2014 (a slight decrease from 2013).

As of December 26, 2014, a total of 28,813 residential customer accounts (households) in Delaware received competitive electric service.

Active REPs and Retail Offers: Residential & Nonresidential

Delaware	**December 2014**		
Utility Service Territory	Residential Suppliers	Residential Offers	Nonresidential Suppliers
Delmarva Power Electric	52*	**	135*

* There are 52 certified electric suppliers for the residential sector and 135 certified electric suppliers for the commercial sector. Not all certified electric suppliers may be offering service; therefore, one-half of these figures is used as a proxy for calculating the ABACCUS score.

** The is no PSC website that lists the active suppliers and offers.

Switching Customers & Percents: Residential, Nonresidential & Total

Delaware	**December 2014**		
Utility Service Territory	Residential Customers	Nonresidential Sales (MWH)	Total Sales (MWH)*
Total	273,321	5,077,452	8,084,195
Switched	28,813	4,152,533	4,487,418
Percent	10.5%	81.8%	55.5%

* Annual data for the investor-owned utility. Does not include municipal and other electric utilities.

Background

In March 1999, Delaware enacted legislation (HB 10) mandating electric restructuring and a rate cut of 7.5% for most electric customers. Larger customers of Connectiv Power were eligible for choice October 1999, medium customers January 2000, and all residential and commercial customers became eligible October 2000 (26 Delaware Code, Chapter 10). In April 2001, Delaware Electric Cooperative's customers became eligible for the choice plan. Rate caps were lifted for Delaware Electric Cooperative in March 2005 and rates increased 8%.

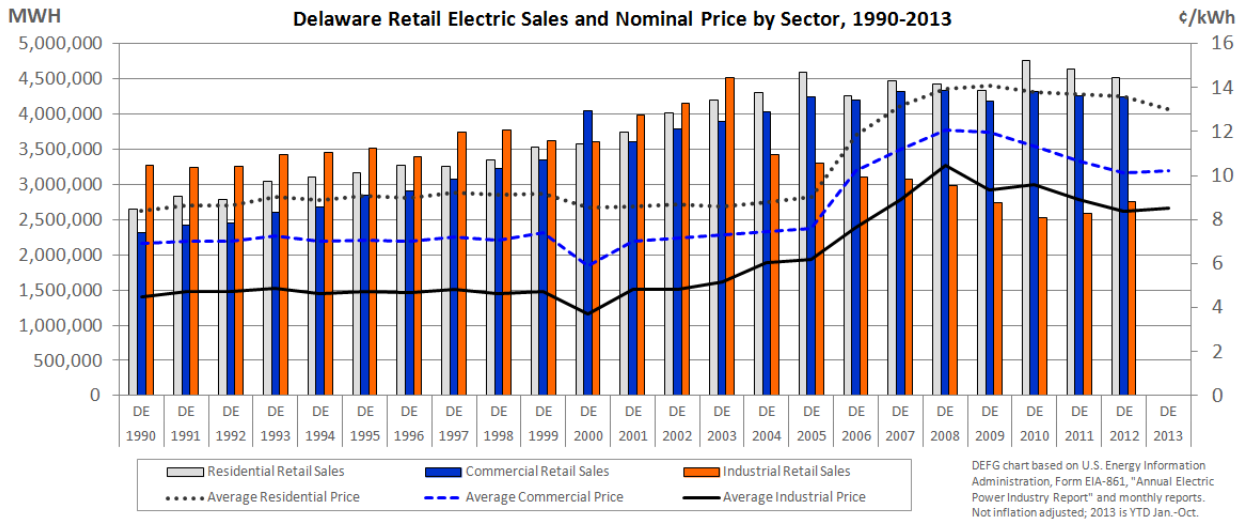
Delmarva Power & Light Company merged with Potomac Electric Power Company (PSC Docket No. 01-194) and the PSC (Order No. 5941 signed April 16, 2001) approved a rate cap extension for customers of Delmarva Power & Light Company until May 1, 2006. In October 2004, the Commission opened PSC Docket No. 04-391 to determine which

company would provide standard offer service (SOS) in Delmarva Power service territory after May 2006. Delmarva Power was selected. The Request for Proposal process results in one third of the power need acquired annually to reduce price volatility.

The Electric Utility Retail Customer Supply Act of 2006 requires Delmarva Power to file a proposal for long-term supply contracts. Electric distribution companies are designated as the standard offer service supplier in their territories. Electric distribution companies "enter into long- and short-term supply contracts, own and operate generation facilities, build generation and transmission facilities, make investments in demand-side resources" to diversify resources. On December 4, 2007, the Commission entered PSC Order No. 7318 to propose and take comments on Integrated Resource Planning regulations. IRP has a forward-looking 10-year time frame and is filed every two years starting with December 1, 2006.

In July 2012, the Delaware Public Service Commission issued Order No. 8187 to make rule changes to make electric choice more competitive, including changes to provide additional protection for customers, require electric suppliers to include additional details regarding the rates, terms, and conditions of service in their offers, and to make the certification process for Electric Suppliers more uniform. Stakeholder workshops were held in August and October 2012. Staff will propose amendments Supplier Rules and may propose changes to the SOS procurement process under PSC Docket No. 04-391. The Commission will then consider whether to accept the proposed amendments and/or revisions and create new rules.[56]

In 2014, the Delaware PSC opened Docket 14-0283 to review Delmarva's approach to providing Standard Offer Service. The PSC want "lower energy supply costs over the long-term for a period of 20 to 25 years."[57]



[56] Delaware Public Service Commission (2012). PSC Regulation Docket No. 49, Order No. 8187. http://www.depsc.delaware.gov/orders/8187.pdf.

[57] Energy Choice Matters (2015). It Begins (Part 2): Delaware to Review 'Long-Term Approaches to Secure Lower Priced Energy' for SOS. http://www.energychoicematters.com/stories/20141003b.html

District of Columbia

District of Columbia's population was estimated by the U.S. Census Bureau as 658,893 in July 2014. This ranks it 49th as compared to the 50 states. USDOE's Energy Information Administration estimates 2014 retail electricity sales as 11,192,000 megawatt-hours. That's 45th among all states and DC.

The types of offers include: fixed pricing for 3, 6, 9, 12, 18, 24 and 36 months; 1-month variable; 100% wind or 5% solar or 12%, 25% or 50% renewable.

During the early restructuring period (September 2002 to December 2003), residential customer switching was between 10.2% and 11.9%. By August 2009, it had fallen to 2.8%. Residential switching then increased to 14.2% by 2014 (decreased slightly from 2013). Nonresidential switching has been flat at about 80-83% for several years, but in 2014, it decreased to 77.5%

As of December 2014, a total of 34,448 residential customer accounts (households) in the District of Columbia received competitive electric service.

Active REPs and Retail Offers: Residential & Nonresidential

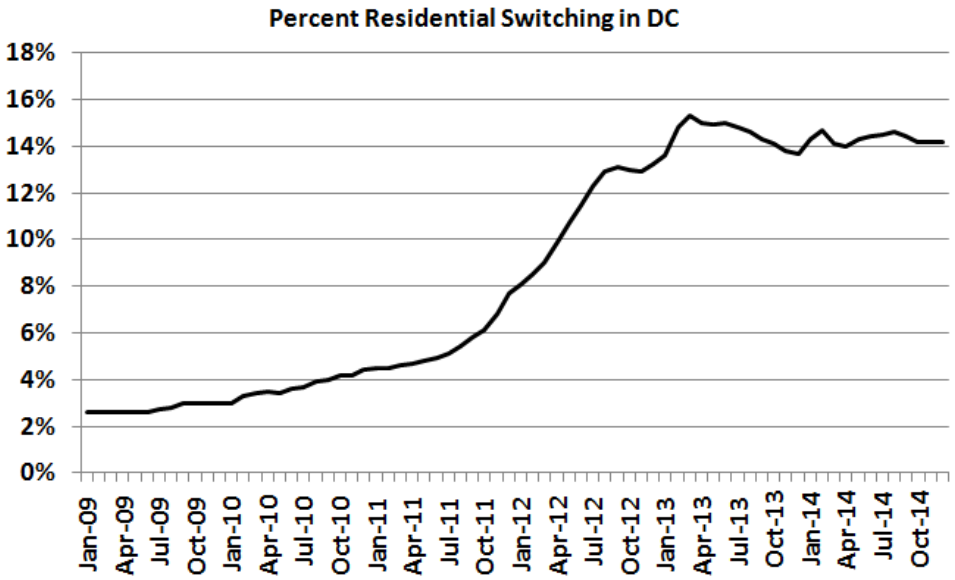
District of Columbia	**December 2014**		
Utility Service Territory	Residential Suppliers	Residential Offers	Nonresidential Suppliers
District of Columbia	23	34	28

Switching Customers & Percents: Residential, Nonresidential & Total

District of Columbia	**December 2014**		
Utility Service Territory	Residential Customers	Nonresidential Sales (MWH)	Total Sales (MWH)*
Total	243,431	524,726	687,534
Switched	34,448	406,430	428,069
Percent	14.2%	77.5%	62.3%

* One month of data for the investor-owned utility.

District of Columbia Residential Switching, 2009-2014



Background

The 1999 Retail Competition Act provided authority for retail choice. The District of Columbia Public Service Commission (DCPSC) issued Order Nos. 11576 (December 1999) and 11796 (September 2000) to allow all residential and commercial customers to choose an alternative electric supplier effective January 2001. Potomac Electric Power Company (PEPCO) is the sole electric distribution company. At the end of 1999, PEPCO made a decision to divest itself of generating units. A Code of Conduct working group was created in 2000 to work on competitive safeguards, with an interim decision to adopt Maryland's Code of Conduct, and a longer-term effort to develop a DC-specific Code of Conduct. DCPSC orders issued in 2001 addressed customer education, new electric supplier tariffs, and interim customer aggregation standards.

In 2002, the DCPSC issued an order and report on a Municipal Aggregation Program. The DCPSC also approved the PEPCO/Connectiv merger subject to conditions. Divestiture resulted in a sharing of proceedings with customers (the typical household received $80.42 of divestiture sharing credits in 2002). PEPCO has moved toward a holding company structure.

In 2003-04, the DCPSC examined the standard offer service (SOS) process (Order Nos. 12655 and 13118), including whether PEPCO should continue to provide SOS because its obligation to serve was set to expire at the end of 2004. A new process was adopted that relied on wholesale market prices to a greater degree. In March 2006, PEPCO filed for rates increases for SOS of about 10% to 12%. In July 2006, the DCPSC issued Order No. 14006 to adopt improvements in the procurement process for SOS, and to consider the benefits of a portfolio approach.

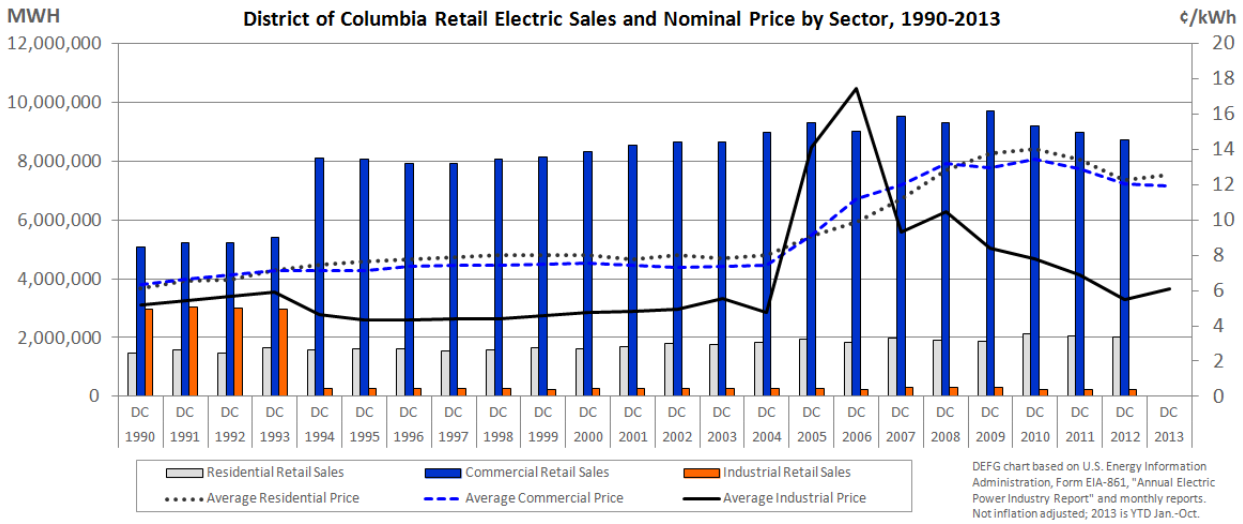
A Renewable Energy Portfolio Standard Act was enacted in 2005 which will require suppliers to acquire 11% of their energy from renewable resources by 2022. The DCPSC has increased the amount of information available to customers regarding energy efficiency.

The Clean and Affordable Energy Act of 2008 defines a Sustainable Energy Utility with authority to lower per capital energy use, increase the use of renewable energy resources, create “green collar jobs” and meet other objectives in the District of Columbia.

On June 1, 2012, the DCPSC approved the results of a competitive auction for electricity supply that will result in lower rates for SOS customers in March 2013. An electric bill for a residential SOS customer will decrease by 5.6% or about $4.89 per month for the average user of 685 kWh/month. The residential SOS summer rate declines from 9.7 to 8.7 cents per kWh, and the winter rate declines from 9.2 to 8.6 cents per kWh. Pepco’s SOS Program is the default source of

electrical energy for customers who have not chosen to purchase power through a certified competitive provider. The SOS Program is administered by Pepco under rules established by the PSC.[58]

In October 2014, the DC PSC considered placing additional requirements on the electric supplier prior to allowing a customer to switch service providers. This has been characterized as a "double verification" to prevent slamming.[59] Another proposal would require "informed" consent of the customer and a burden on the energy supplier if there is a contract dispute. Adding the one word "informed" to the requirements is expected to create uncertainty until the meaning is established in the context of energy transactions.[60]



[58] See: http://www.dcpsc.org/pdf_files/hottopics/PR_PSC_Announces_Lowers_SOS_Rates.pdf.

[59] Energy Choice Matters (2014). Proposed Rule Would Require Double Verification of Most Contracts: Signed Contract and TPV for Telesales, Door-to-Door Sales. http://www.energychoicematters.com/stories/20141020a.html

[60] Energy Choice Matters (2014). Proposed Rule Would Require 'Informed' Consent to Enter Into Retail Energy Contract. http://www.energychoicematters.com/stories/20141020b.html

Illinois

Illinois's population was estimated by the U.S. Census Bureau as 12,880,580 in July 2014. This ranks it 5th among all 50 states. USDOE's Energy Information Administration estimates 2014 retail electricity sales as 140,167,000 megawatt-hours. That's 7th among all states and DC.

Customers can shop on a website set up by Illinois state government: http://www.pluginillinois.org. The website displays the regulated supply "price to compare" (default service) from the electric distribution utility and the generation service price offered by alternative retail electric suppliers.

The types of offers include: fixed pricing for 6, 9, 12, 18, 24 and 36 months; 1-month variable pricing; renewable energy products; promotions with advanced thermostats; time of use (free power Saturdays or Sundays).

Residential customer switching increased dramatically between 2011 and 2012 from about 2% to 22.37%. By November 2013, more than three million residential consumers were taking power from a competitive supplier, many of these through municipal aggregation. The ORMD staff of the Illinois Commerce Commission estimated that, as of May 2014, about 26% of the switching reported for residential consumers in Illinois was the result of individual choice, not municipal aggregation.

As of December 31, 2014, a total of 2,743,881 residential customer accounts (households) in Illinois received competitive electric service.

Active REPs and Retail Offers: Residential & Nonresidential

Illinois	**December 2014**		
Utility Service Territory	Residential Suppliers	Residential Offers	Nonresidential Suppliers
Ameren Zone I	11	25	28
Ameren Zone II	10	23	28
Ameren Zone III	11	25	28
ComEd	28	70	64
MidAmerican	1	1	1

Switching Customers & Percents: Residential, Nonresidential & Total

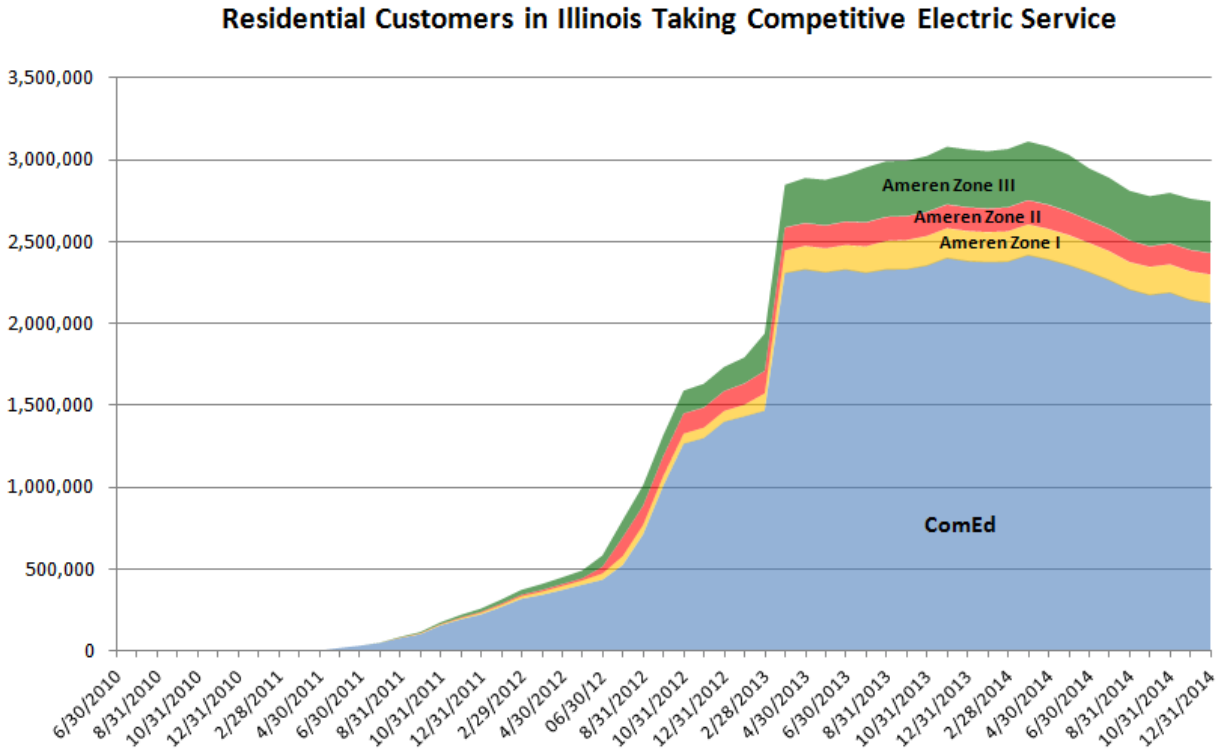
Illinois	December 2014				
Utility Service Territory	Residential Customers	Small C&I Sales (MWH) (< 25 kW)*	Medium C&I Sales (MWH) (25kW-1MW)	Large C&I Sales (MWH) (> 1 MW)*	Total Sales (MWH)**
Commonwealth Edison Company (ComEd) Total	3,463,377	1,031,291	1,756,712	2,303,540	7,543,015
ComEd Switched	2,124,093	628,829	1,473,620	2,218,005	5,857,459
Ameren Rate Zone I***	327,113	107,950	193,104	435,518	1,100,121
Ameren I Switched	177,131	62,826	154,699	349,201	761,797
Ameren Rate Zone II Total ***	189,343	41,205	84,344	152,561	468,324
Ameren II Switched	129,577	22,065	66,485	134,977	353,605
Ameren Rate Zone III Total***	544,096	144,028	261,240	642,523	1,552,349
Ameren III Switched	313,080	83,917	213,056	587,206	1,171,736
State Total	4,523,929	1,324,474	2,295,401	3,534,143	10,663,808
State Switched	2,743,881	797,637	1,907,860	3,289,390	8,144,596
ComEd Percent	61.3%	61.0%	83.9%	96.3%	77.7%
Ameren I Percent	54.1%	58.2%	80.1%	80.2%	69.2%
Ameren II Percent	68.4%	53.5%	78.8%	88.5%	75.5%
Ameren III Percent	57.5%	58.3%	81.6%	91.4%	75.5%
MidAmerican Energy Co. Percent	0.0%	2.8%	--	1.6%	1.5%
Mt. Carmel Percent	0.0%	0.0%	--	0.0%	0.0%
State Percent	60.7%	60.2%	83.1%	93.1%	76.4%

* Small C&I is defined as 0-100 kW for Commonwealth Edison, as “small C&I” for MidAmerican, and as “commercial” for Mt. Carmel. Large C&I is not necessarily “> 1 MW” for MidAmerican and “industrial” for Mt. Carmel.

** One month of data for four investor-owned utilities. Does not include municipal and other electric utilities.

*** Ameren Rate Zone I was formerly AmerenCIPS (Central Illinois Public Service); Ameren Rate Zone II was formerly AmerenCILCO (Central Illinois Light Company); Ameren Rate Zone III was formerly AmerenIP (Illinois Power Company).

Illinois Residential Switching, 2010-2014



Background

In 1997, the Illinois Public Utilities Act was amended to enact the Electric Service Customer Choice and Rate Relief Law of 1997. The amendments mandated rate cuts of 15% in 1998 and 5% in 2001. Rates were capped until 2007, providing relatively little incentive for mass market customers to switch. Large customers were allowed to choose their supplier in 1999, and other nonresidential customers were allowed to choose in 2000. Residential customers were allowed to choose a supplier in 2002 but no supplier offered residential service until 2009.

In 2007, Public Act 095-0481 created an independent agency, the Illinois Power Agency (IPA), to develop and manage a new electric supply procurement process for customers of Ameren Illinois and Commonwealth Edison (ComEd), and amended the Illinois Public Utilities Act to return certain rates to 2006 levels. The IPA oversees the procurement of power and energy for retail customers who receive fixed-price bundled service from ComEd or Ameren Illinois. The IPA prepares a plan, by August 15 of each year, to procure the necessary energy and power in the following year, and the ICC approves or modifies the annual IPA procurement plan. After overseeing the procurement of electric supply, the IPA directs the utilities to enter into wholesale electric supply contracts of various duration to purchase electric supply from different sources.

Section 16-111.5 of the Illinois Public Utilities Act contains various provisions relating to the procurement of the electricity by the largest of Illinois' electric utilities. Sub-section (e)(1) provides that, "The procurement administrator shall disseminate information to potential bidders to promote a procurement event, notify potential bidders that the procurement administrator may enter into a post-bid price negotiation with bidders that meet the applicable benchmarks, provide supply requirements, and otherwise explain the competitive procurement process. In addition to such other publication as the procurement administrator determines is appropriate, this information shall be posted on the Illinois Power Agency's and the Commission's websites."[61] Shortly after the conclusion of the procurement events,

[61] Electricity Procurement Processes links are provided here for each year: http://www.icc.illinois.gov/electricity/ElectricityProcurement.aspx.

Ameren Illinois and ComEd revise the base level of retail charges through which the costs of electricity and RECs are recovered from customers. Actual revenues and costs are monitored on a monthly basis, and rates are adjusted, as necessary, to minimize the accumulation of a revenue-cost imbalance. An annual audit and reconciliation proceeding is held.[62]

The Illinois Power Agency Act also declared competitive services in ComEd and Ameren Illinois areas whose peak demand is above 400 kW as of August 2007 (220 ILCS 5/16-113(f)). In addition, Section 16-113(g) gave both ComEd and Ameren Illinois the ability to declare the provision of power and energy to customers with peak demands of at least 100 kilowatts but less than 400 kilowatts to be competitive if certain conditions are met. In 2007, ComEd filed a petition for competitive declaration, and the Commission found that ComEd had satisfied the statutory requirements. Therefore the provision of power and energy to those customers has been declared competitive as of November 2007. As a result of the competitive declaration, after the end of the May 2010 billing period, all customers in the 100-400kW class, with the exception of some statutorily exempted condominium associations, are taking supply service from the utility on an hourly-pricing basis or they receive service from an alternative retail electric supplier. Similarly, in 2011 Ameren Illinois filed a petition for competitive declaration of its customers with peak demands above 150 kilowatts but less than 400 kilowatts. The Commission approved Ameren's petition, with the competitive declaration to be effective on May 1, 2011. Customers in this class continued to receive fixed-price bundled utility service until May 2014. As of June 2014, the only non-residential customers still receiving a fixed-price supply service from the utility are ComEd customers with demand below 100kW and Ameren Illinois customers with demand below 150kW. All other non-residential customers receive their power from a competitive supplier or they are on the utility's hourly-pricing option.

In April 2008, utilities in Illinois started offering net-metering (83 IL. Admin. Code Part 465) to eligible customers, that is, to retail customers who own or operate a solar, wind, or other eligible renewable electrical generating facility with a rated capacity of 2 MW or less. In addition, the ICC created rules that set standards for interconnection of direct generation to the distribution network (83 IL. Admin. Code Part 466).

The Illinois Office of Retail Market Development (ORMD), created in 2008, is to "actively seek input from all interested parties and to develop a thorough understanding and critical analyses of the tools and techniques used to promote retail competition in other states. The Office shall monitor existing competitive conditions in Illinois, identify barriers to retail competition for all customer classes, and actively explore and propose to the Commission and to the General Assembly solutions to overcome identified barriers."[63] The ORMD created and maintains the Commission's electric choice information website at PlugInIllinois.org.

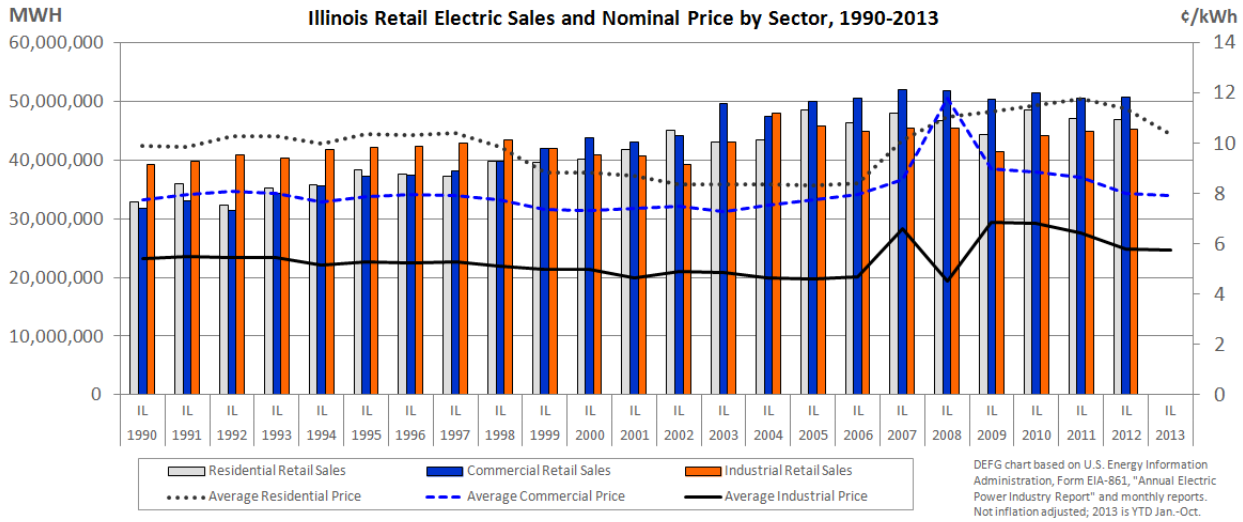
Both Ameren Illinois and ComEd offer a real time pricing (RTP) option to help residential customers. As with many tariffs labeled "real time," a series of hourly prices for electricity are posted one day in advance so that residential consumer who choose this option can determine the best time to operate appliances during the upcoming 24 hours. The real time pricing option requires a special meter. As of May 2015, about 21,000 customers participate in the RTP program. With the implementation of smart meters, the number of residences on time of use pricing is expected to increase.

Municipal Aggregation. Public Act 96-0176 amended the Illinois Power Agency Act effective January 1, 2010 to allow municipalities and counties to aggregate electrical load. Municipal corporate authorities and county boards can adopt an ordinance to aggregate residential and small commercial electrical loads and solicit bids for the sale and purchase of electricity. A referendum is required to determine whether or not the aggregation shall be an opt-out program. In March 20, 2012, 306 communities voted on opt-out aggregation referenda, with 245 referenda passing. By October 2013, 672 municipalities in Illinois participated in aggregation programs. As of May 2015, less than 600 municipalities participate, as several communities have elected not to renew the aggregation contracts given the convergence of price offerings.

[62] ORMD (2012). Annual Report. http://www.icc.illinois.gov/reports/.

[63] Illinois Public Utilities Act. (220 ILCS 5/20-110). P.A. 94-1095, eff. 2-2-07.

In September 2014, the ICC initiated an inquiry into the retail electric market in order to explore such matters as: definitions for the terms "fixed," "variable," "green" and "renewable" pricing and products; necessary disclosures regarding variable pricing; and uniform methods of price comparison.[64]



[64] ICC (2014). Notice of Inquiry regarding retail electric market issues, Docket No. 14-NOI-01.

Maine

Maine's population was estimated by the U.S. Census Bureau as 1,330,089 in July 2014. This ranks it 41th among all 50 states. USDOE's Energy Information Administration estimates 2014 retail electricity sales as 11,991,000 megawatt-hours. That's 44th among all states and DC.

Customers can shop on a website set up by the Maine Office of the Public Advocate: http://www.maine.gov/meopa/utilities/electric/supply.html. The website displays the regulated standard offer service (default service) price offered by alternative retail electric suppliers. The types of offers include: fixed pricing for 6, 12, 18, 24 and 36 months; and 25%, 50% and 100% renewable energy products. The Maine PUC annual report also mentions a time-of-use option for residential and small commercial customers.[65]

Residential switching increased dramatically from 2.1% in 2011 to 22.4% in 2014. Medium C&I switching increased from 36% in 2008 to 61.1% in 2014. Large C&I has increased to 96.1% in 2014. As of December 2014, a total of 171,894 residential and small commercial consumers in Maine received competitive electric service.

Active REPs and Retail Offers: Residential & Nonresidential

Maine	**December 2014**		
Utility Service Territory	Residential Suppliers	Residential Offers	Nonresidential Suppliers
Emera Maine-Bangor Hydro	14*	22*	34**
Central Maine Power	15*	23*	34**
Emera Maine-Maine Public	10*	18*	19**

* Calculated from the number of licensed suppliers and number of supplier and offers that appear on the website of the Maine Office of the Public Advocate.

** Number of licensed suppliers. Not all licensed suppliers may be offering service. These data are used as a proxy for calculating the ABACCUS score.

[65] State of Maine Public Utilities Commission 2014 Annual Report (2015). p. 24.

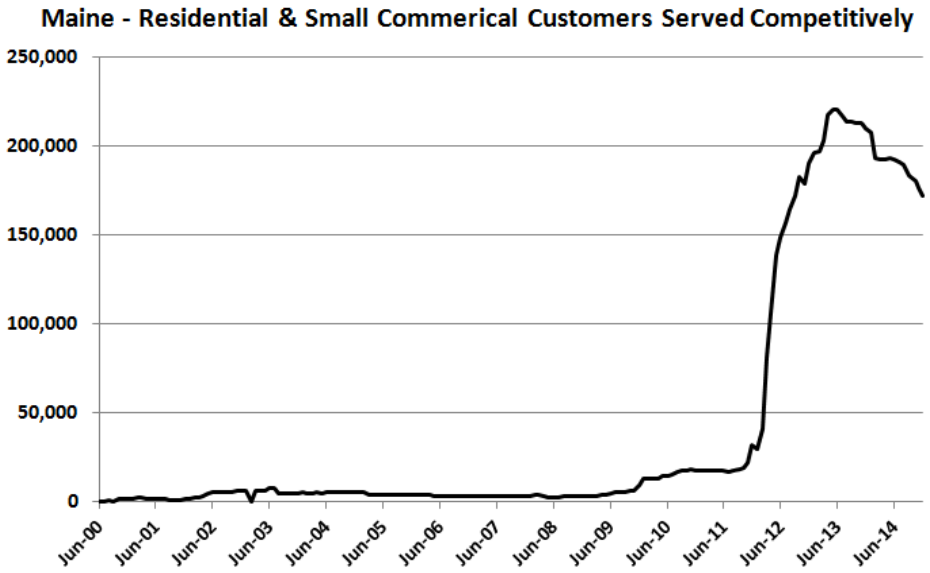
Switching Customers & Percents: Residential, Nonresidential & Total

Maine	December 2014			
Utility Service Territory	Residential and Small Commercial Customers*	Medium C&I Load (MWH)	Large C&I Load (MWH)	Total Sales (MWH)**
Emera Maine-Bangor Hydro District (EM Bangor Hydro) Total	122,299	1,199	582	4,177
EM Bangor Hydro Switched	12,167	737	578	1,588
Central Maine Power Total	607,151	5,339	8,046	25,747
Central Maine Switched	159,680	3,363	7,722	14,728
Emera Maine-Maine Public District (EM Maine Public) Total	37,129	225	352	1,499
EM Maine Public Switched	47	34	336	337
State Total	766,579	6,764	8,991	31,374
State Switched	171,894	4,134	8,635	16,693
EM Bangor Hydro Percent	9.9%	61.4%	99.2%	38.0%
Central Maine Percent	26.3%	63.0%	96.0%	57.2%
EM Maine Public Percent	0.1%	15.3%	95.3%	26.0%
State Percent	22.4%	61.1%	96.1%	53.2%

* This category Includes residential and small commercial customers < 25 kW in BHE, < 20 kW in CMP and < 50 kW in MPS. Large C&I is defined as > 400 kW in CMP and > 500 kW in BHE and MPS. “Medium C&I” falls between these two categories.

** One month of data for three investor-owned utilities. Does not include municipal and other electric utilities.

Maine Residential Switching, 2000-2014



Background

In May 1997, the Maine Legislature passed Directive 1804 to require divestiture of utility generation assets and initiate retail choice in March 2000. The Legislature imposed a 33% market share cap on investor-owned utilities in their old service areas, and instituted a renewable energy portfolio requirement of 30% (including hydroelectric power). Maine's law (Title 35-A, Chapter 32: Electric Industry Restructuring), allows retail consumers to purchase electricity supply from licensed competitive electricity providers, and requires customers not served competitively to accept standard offer electricity regulated by the Maine Public Utilities Commission (MPUC).

The MPUC has considered bids for resources to serve default customers. In 1999, the MPUC rejected bids and reissued a request in 2000 under amended rules in an attempt to attract more bidders. The MPUC set standard offer rates and ordered Central Maine Power to provide standard offer service from March 2000 to March 2002 for medium and large nonresidential customers. The MPUC also approved a transmission/distribution rate scheme for restructuring submitted by Maine Public Service Company (in far northern Maine, and isolated on the grid) that separated MPS's revenue requirements into a transmission component under FERC jurisdiction and a distribution component under MPUC jurisdiction.

The MPUC revisited standard offer service in 2002. To further connect the standard offer to market prices, the MPUC shortened the time period for its current medium and large standard offer categories to six months. That is, the winning bid sets the standard offer at start of the six-month period, with prices changing each month. In December 2002, the MPUC reported to the legislature that retail access had been a success for commercial and industrial customers in Maine, and that some residential customers had switched to renewable resource suppliers. At that time, 47% of the electricity in Maine was bought from competitive suppliers—the highest percentage in the nation. The MPUC stated that until retail markets mature, the legislature must keep standard offer service in place beyond the scheduled termination date of March 2005.

In late 2004, an auction produced standard offer rates with a nearly 30% increase in the generation price due to conditions in the wholesale market. In more recent auctions, the MPUC goes to the market each year for one-third of the load in a three-year contract. In January 2008, the MPUC accepted a one-year contract for one-third of the load at Central Maine Power and Bangor Hydro-Electric. As a result, in 2009, there was a need to replace two-thirds of the load (the 2006 and 2008 contracts). Standard offer rates have increased between 2% and 3% for each of the past two years for these two utilities, weighing together the net effect of power costs and decreases in stranded costs.

MPS with approximately 5% of the state's load is directly connected to the New Brunswick system, and is connected to the New England Power Pool through New Brunswick. There is only one competitive supplier serving the MPS service territory, and MPS filed an application in 2008 for new transmission facilities to better connect with the rest of the state. Cost allocation for the investment will be an issue.

In addition to the 30% RPS requirement, Maine requires "new renewable resources" to be 1% of the portfolio in 2008 (and growing by 1% a year). In 2007, Maine created an Energy Conservation Board to assist the MPUC with energy conservation as it relates to carbon dioxide reductions. In 2011, Public Act 413 was adopted which requires the PUC to study the renewable portfolio standard. The PUC engaged London Economic International and the results were published in January 2012 in the comprehensive report, MPUC RPS Report 2011 - Review of RPS Requirements and Compliance.

In June 2009, the MPUC determined that ratepayers are best served by allowing the utilities' agreement with ISO- New England to automatically renew for a two-year term. The MPUC had earlier assessed whether the ISO-NE's cost allocation was equitable. The MPUC found that the ISO-NE structure benefits Maine's markets and consumers through operational control of the grid, market design and operation, and development of demand response programs. The MPUC directed Maine's two largest utilities to aggressively pursue reforms of their relationship with the ISO-NE.

In October 2009 the MPUC approved the first long-term contract since electric restructuring began by approving a 20-year contract with a wind developer delivery of the 60-megawatt Rollins wind project in Penobscot County. The criteria for election included energy and capacity benefits, hedging against fossil fuel prices, and resource diversity. Central Maine Power and Bangor Hydro Energy will share the contract 80%-20%, respectively. The Legislature gave the MPUC authority in 2006 to direct electric utilities to enter into long-term electric generation contracts.

In 2010, the MPUC approved the installation of advance metering infrastructure (CMP Docket No. 2007-215(II), BHE Docket No. 2006-661(II)). CMP received approximately $96 million in funding under the Department of Energy (DOE)'s Smart Grid Investment Grant Program (~50% of the cost). The Commission also opened proceedings for both CMP and BHE to consider the pricing programs that should be implemented when AMI is fully installed and operational (CMP Docket No. 2010-132; BHE Docket No. 2010-14). The commission also considered a transition plan for displaced employees.[66]

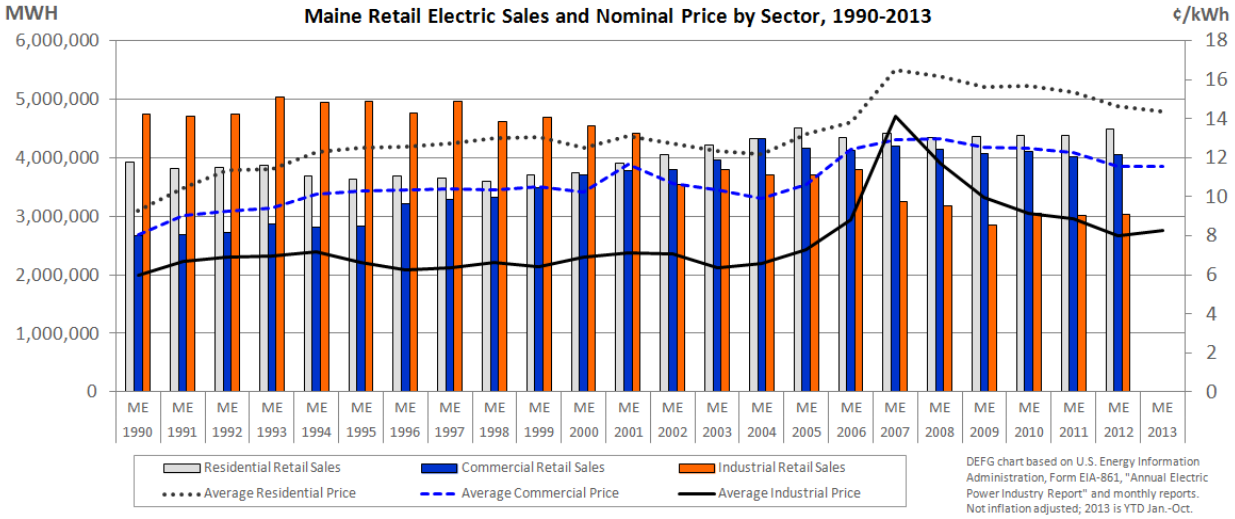
In July 2012, the MPUC set prices for standard offer electricity supply service for medium and large C&I customers of CMP and BHE, effective in September. The bids accepted reflect average prices over of 6.4 cents/kWh for CMP customers and 6.3 cents/kWh for BHE customers, which are 16% and 18% higher than current standard offer prices, respectively, but lower than the same period last year. The bids accepted for large C&I customers are indexed to the market, and prices will be set by the PUC in advance of each month based on current market prices.[67] Standard offer prices for residential and small commercial customers remain at current levels until March 2013. In September 2012, the MPUC issued an RFP for electricity for residential and small commercial customers in the territories CMP and BHE for service beginning March 2013.

In April, 2013, the MPUC opened Docket No. 2013-00200, Commission Initiated Inquiry into Residential and Small Commercial Standard Offer Service and Customer Protection. An order was issued on November 13, 2013. The MPUC determined that there are now more choices in the competitive retail electricity market in Maine, and that changes should be made to make the Standard Offer Service more market reflective, and to serve as a stop-gap service rather than a standard service.

[66] Maine PUC annual report. http://www.maine.gov/mpuc/about/annual_report/documents/annualreport.pdf.

[67] For more information on standard offer service prices: http://www.maine.gov/mpuc/electricity/standardofferrates/index.html

In July 2014, as a result of increased activity in the residential sector and increased complaints, the Commission initiated a rulemaking regarding changes to its Competitive Electricity Provider (CEP) licensing and consumer protection rules.[68]



[68] Maine PUC (2014). Amendments to Licensing Requirements, Annual Reporting, Enforcement and Consumer Protection Provisions for Competitive Provision of Electricity (Chapter 305), Docket No. 2014-00214.

Maryland

Maryland's population was estimated by the U.S. Census Bureau as 5,976,407 in July 2014. This ranks it 19th among all 50 states. USDOE's Energy Information Administration estimates 2014 retail electricity sales as 61,655,000 megawatt-hours. That's 24th among all states and DC.

Customers can shop on a website set up by Maryland state government: http://167.102.231.189/electricchoice/shop-and-compare/. The website requests the utility name and estimates monthly usage. It then displays cost per kWh, estimated monthly supply charge, type of plan (variable or fixed) and information about how to contact the supplier. The types of offers include: Fixed pricing for 4, 6, 9, 12, 18, 24 and 36 months; variable pricing (1-month price and wholesale rate plus 5%); 20%, 25%, and 100% renewable energy products.

Residential switching increased from 3% in 2008 to 26.1% in 2013. It decreased slightly to 23.9% in 2014. Mid-sized C&I switching increased from 62.3% in 2008 to 73.0% in 2014, while large C&I has been 92-94% during the same period. As of December 2014, a total of 484,909 residential customer accounts (households) in Maryland received competitive electric service.

Active REPs and Retail Offers: Residential & Nonresidential

Maryland	**December 2014**		
Utility Service Territory	Residential Suppliers	Residential Offers	Nonresidential Suppliers
Potomac Edison (First Energy)	10	25	28*
Baltimore Gas and Electric	21	60	54*
Delmarva Power & Light	17	51	38*
Potomac Electric Power	20	54	43*
Southern Maryland Electric Cooperative (SMECO)	2	2	--

* Number of Electric Suppliers Serving Enrolled Customers, Mid C&I, reported on the PSC's Electric Choice Enrollment Monthly Report.

Switching Customers & Percents: Residential, Nonresidential & Total

Maryland	December 2014				
Utility Service Territory	Residential Customers	Small C&I Sales (MWH) (< 25 kW)*	Medium C&I Sales (MWH) (25kW-1MW)	Large C&I Sales (MWH) (> 1 MW)	Total Sales (MWH)**
Potomac Edison (First Energy) Total	226,936	93	339	249	1,493
Potomac Edison Switched	32,275	24	217	229	587
Baltimore Gas and Electric Total	1,125,317	353	1,735	1,298	7,294
Baltimore Gas and Electric Switched	307,565	127	1,297	1,228	3,770
Delmarva Power & Light Total	175,538	80	242	120	988
Delmarva Power & Light Switched	28,490	33	174	114	423
Potomac Electric Power Total	500,603	97	995	754	3,551
Potomac Electric Power Switched	116,579	42	729	709	1,902
State Total	2,028,394	622	3,311	2,421	13,326
State Switched	484,909	226	2,417	2,280	6,683
Potomac Edison	14.2%	26.2%	63.9%	91.9%	39.3%
Baltimore Gas and Electric	27.3%	36.1%	74.7%	94.6%	51.7%
Delmarva Power & Light	16.2%	41.5%	72.0%	95.2%	42.8%
Potomac Electric Power	23.3%	43.0%	73.3%	94.0%	53.6%
State Percent	23.9%	36.4%	73.0%	94.2%	50.1%

* Class contribution to peak load in the reported month for four investor-owned utilities. Does not include municipal and other electric utilities.

Background

In April 1999, Maryland adopted the Electric Customer Choice and Competition Act of 1999 (SB300 and HB703). The bill mandated retail access and a rate reduction. Customers of the investor-owned utilities became eligible for choice in July 2000, and customers of electric cooperatives became eligible at the end of 2001. Five municipal utilities remain locally controlled and are not required to offer retail choice.

Standard offer service design and rate levels have been a point of contention. The initial standard offer service remained in effect until July 1, 2003. A subsequent case (Case No. 8908) determined that standard offer service would remain in effect from 2004 to 2008. During this period, utilities, as the default service providers, acquired 1, 2, and 3-year power contracts to meet the needs of residential customers. Commercial customers received a more variable price, and large customers received hourly pricing over a one-year period. If numerous customers remained with standard offer service, the utilities applied an alternative price of service – the PJM hourly price.

Rate caps were scheduled to expire, but the anticipated price increases resulted in numerous alternative rate mitigation proposals. For example, in anticipation of 72% rate increases in the Baltimore Gas and Electric (BGE) service territory, the legislature considered bills in 2005 and 2006 to limit the immediate increase to 5% to 25%, with future recovery of deferred costs through a new transition charge. In Case No. 9056, the Maryland Public Service Commission (MDPSC) determined that everyone other than the smallest commercial customers would be moved to quarterly bidding and quarterly pricing. In Case No. 9064, residential customers were changed from to a two-year bidding framework, with one-fourth of the load bid every six months. In the BGE service territory, a Rate Stabilization Charge will collect a set amount over the next 10 years.

In December 2008, the MDPSC issued a report ordered by the State General Assembly in 2007. The report stated that Maryland should not try to repurchase generating units that were sold at the beginning of electric market restructuring. The MDPSC urged new laws to protect consumers and partial re-regulation by shifting the jurisdiction of future power plants to the State of Maryland.

In February 2009, the Maryland State Finance Committee introduced Senate Bill 795, the "Maryland Electricity Reregulation and Energy Independence Act of 2009" with the support of the governor. The bill stated that competitive retail electric markets did not developed as envisioned. In April, Maryland's House Economic Matters Committee voted nearly unanimously to kill the bill. In January 2010, Governor O'Malley stated that he would not submit legislation to re-regulate energy markets in the upcoming legislative session, but would instead rely on the Public Service Commission to use existing authority to build new power generation as needed.[69]

Maryland is pursuing climate change and energy efficiency issues. A significant portion of the revenues derived from a carbon auction in 2008 will be dedicated to energy efficiency activities and will be administered by the Maryland Energy Administration. Although advanced metering has not penetrated mass markets in Maryland, demand response remains important with approximately 1,000 MW of direct load control programs using smart switches, smart thermostats and radio frequency signals in PJM. State officials continue to work on reliability and resource adequacy issues, including the need for power plant construction in the state.

In December 2011, the MDPSC adopted a comprehensive set of regulations designed to improve reliability for electric distribution systems. The MDPSC adopted the System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI) metrics for 2012-2015. The utilities are required to submit annual performance reports. The first performance review will be concluded by July 2013.

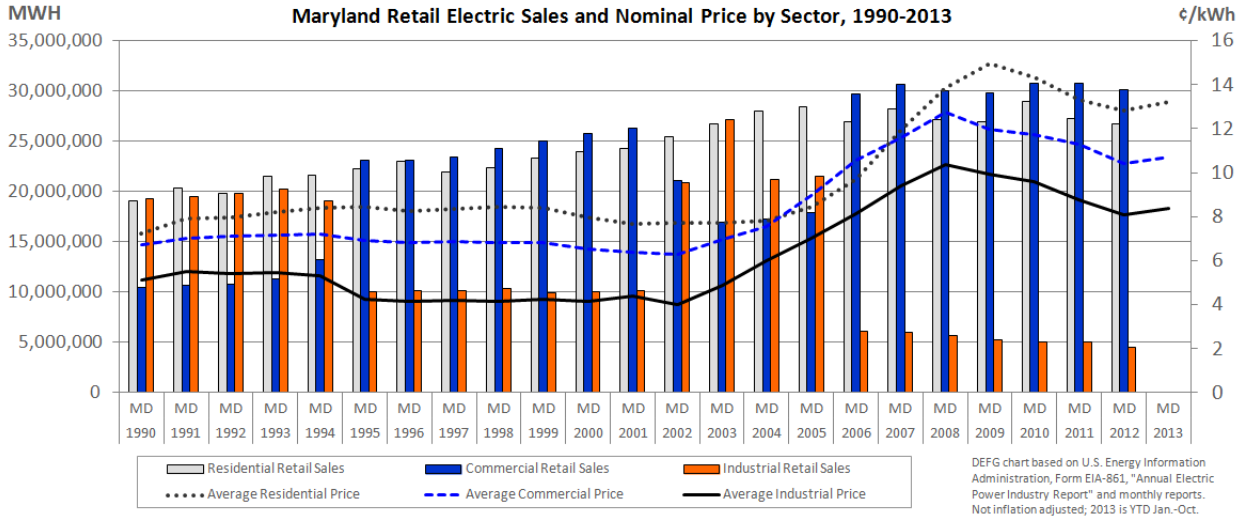
In December 2011, the state announced that a settlement concerning the Exelon - Constellation merger would result in "$1 billion in investment into the Maryland economy over the next decade and create more than 6,000 jobs." The total megawatts of energy generation to be built increased from 25 MW to 285-300 MW.. The PSC also retains the ability to

[69] Source: Office of Governor Martin O'Malley, http://www.governor.maryland.gov/.

spin-off BGE at some later date if Exelon "experiences significant financial difficulty, experiences a nuclear disaster, or repeatedly violates PSC Orders."

In April 2012, the MDPSC awarded a 20-year contract to Competitive Power Ventures to build a 661-MW natural gas combined-cycle power plant. This award was in response to an RFP seeking up to 1,500 MWs of new gas plants to be built by 2015. The MDPSC had already gotten Exelon and Constellation to build a 120-MW combustion turbine as part the merger deal. Controversy continues between Maryland and PJM as stakeholder talks have begun on revisions to the RTO's "minimum offer pricing rule." Stakeholders are concerned with states that subsidize new generation capacity and would reduce prices in the capacity market with capacity that is supported by mandatory wires charges that all customers must pay.[70]

The PSC Maryland reported that by year-end 2014, 2.2 million electric and gas “smart meters” had been installed. Two utilities report 96% and 99% deployment; a third is just beginning. BGE reports 73% deployment with plans to complete deployment by the middle of 2015.[71]



[70] See: "Maryland PSC awards RFP plant deal to Competitive Power Ventures," Restructuring Today, April 13, 2012.

[71] PSC Maryland (2015). 2014 Annual Report. p. 23. http://167.102.231.189/commission-reports/.

Massachusetts

Massachusetts's population was estimated by the U.S. Census Bureau as 6,745,408 in July 2014. This ranks it 14th among all 50 states. USDOE's Energy Information Administration estimates 2014 retail electricity sales as 53,487,000 megawatt-hours. That's 26th among all states and DC.

Residential switching has increased from 11.2% to 16.9% over the past several years. C&I has switching increased in each size category over the period. Overall, statewide switching was 54.8% of electricity sales. As of December 2014, a total of 598,105 residential customer accounts (households) in Massachusetts received competitive electric service.

Active REPs and Retail Offers: Residential & Nonresidential

Massachusetts	**December 2014**		
Utility Service Territory	Residential Suppliers	Residential Offers*	Nonresidential Suppliers
National Grid (Massachusetts Electric, Nantucket Electric)	7	7	34
NSTAR Electric (Eversource) (Boston Edison, Cambridge Electric, Commonwealth Electric)	21	21	71
Northeast Utilities (Western Massachusetts Electric)	6	6	13
Unitil (Fitchburg Gas & Electric Light)	12	12	21

* Based on number of reported suppliers in each utility service territory.

Switching Customers & Percents: Residential, Nonresidential & Total

Massachusetts	December 2014				
Utility Service Territory	Residential Customers	Small C&I Load (MWH)	Medium C&I Load (MWH)	Large C&I Load (MWH)	Total Sales (MWH)*
National Grid (Massachusetts Electric, Nantucket Electric) Total	2,135,476	162,893	221,031	627,282	2,162,854
National Grid Switched	332,518	55,225	137,019	562,673	946,524
NSTAR Electric (Boston Edison, Cambridge Electric, Commonwealth Electric) Total	1,002,364	122,770	262,805	680,634	1,551,676
NSTAR Electric Switched	238,777	64,686	142,541	584,287	909,365
Northeast Utilities (Western Massachusetts Electric) Total	184,810	73,771	33,387	59,407	276,923
Northeast Utilities Switched	22,652	42,302	24,068	54,453	136,800
Unitil (Fitchburg Gas & Electric Light) Total	24,821	401	7,687	13,798	34,965
Unitil Switched	4,158	117	3,392	11,962	18,342
State Total	3,347,471	359,834	524,909	1,381,121	4,026,418
State Switched	598,105	162,329	307,022	1,213,375	2,011,031
National Grid	15.6%	33.9%	62.0%	89.7%	48.9%
NSTAR Electric	23.8%	52.7%	54.2%	85.8%	61.0%
Northeast Utilities	12.3%	57.3%	72.1%	91.7%	52.3%
Unitil	16.8%	29.2%	44.1%	86.7%	48.1%
State Percent	17.9%	45.1%	58.5%	87.9%	54.8%

* One month of data for four investor-owned utilities. Does not include municipal and other electric utilities.

Background

In November 1997, the state legislature enacted HB 5117 to restructure the electric power industry, granting rate cuts of 10% at first, and another 5% after 18 months, with full recovery of stranded costs over a 10-year transition period. In March 1998, the Massachusetts Department of Telecommunications & Energy (now housed within the Office of Energy and Environmental Affairs and called the Department of Public Utilities) issued final decisions and regulations to open the electricity market to retail competition. The law included a provision for a systems benefits charge, and Massachusetts has adopted advanced plans for energy efficiency and renewable energy.

Generation service became competitive, but transmission, distribution and customer services remained regulated monopoly services. Standard offer service was created as a transitional service for existing electricity customers. The standard offer set at 2.8 cents with a trajectory to rise to 5.2 cents per kWh in 2005 (projected to be above market in 2005). These were administratively determined numbers (not market based) and included fuel triggers to increase if necessary.

When markets opened, the 2.8 cents per kWh standard offer service rate was too low for competitors, stifling competition until the standard offer service rate was scheduled to rise in 1999. Utilities divested themselves of generation and natural gas plants were constructed. In 2000, standard offer rates were increased in response to market price increases.

As of 2005, standard offer service expired. These customers were transferred to default service which had been designed for customers who were new to the system but had not selected a competitive service provider. (In Massachusetts, “standard offer” and “default service” have distinct meanings.) Default service for smaller customers relies on twice a year procurement of 50% of the load for one-year terms. Default service for larger customers is procured four times a year, 100% of load at a time.

Community aggregation on Cape Cod (eastern MA) has operated since 1997 with the Cape Light Compact serving 200,000 customers. Cape Light accounts for approximately one-third of the residential customer switching in Massachusetts. Customers who do not wish to participate can opt out of the aggregation program. As of October, 2014, Massachusetts has 19 approved municipal aggregations which include 39 municipalities. In addition, 35 municipalities are currently seeking approval of their respective municipal aggregation plans.[72]

In August 2012, Governor Patrick signed S. 2395, “An Act Relative to Competitively Priced Electricity in the Commonwealth” intended to "protect ratepayers while providing greater reliability and energy independence." The bill extends long-term renewable energy contracts, raises the cap on net metering, and emphasized energy efficiency.[73] Also in 2012, the MDPU approved the NSTAR-NU merger and required purchases from the Cape Wind project.[74] In July 2012, the gas and electric distribution companies and municipal aggregator “program administrators” submitted a three year plan to the Energy Efficiency Advisory Council (EEAC) regarding energy efficiency plans. The plan is an integrated attempt to provide innovative energy efficiency services, deliver on savings goals, maintain Massachusetts’ "first-in-the-nation energy efficiency status."[75]

In December 2014, the MDPU opened an investigation into the retail electric competitive supply market. The intent is to "provide customers with information regarding competitive supply products that is accurate, transparent, and understandable" and "improve customer protections ..." The Department proposes “initiatives to enhance the value that the retail electric competitive supply market provides to customers, particularly residential and small commercial and

[72] LEAN Energy US (Local Energy Aggregation Network). http://www.leanenergyus.org/cca-by-state/

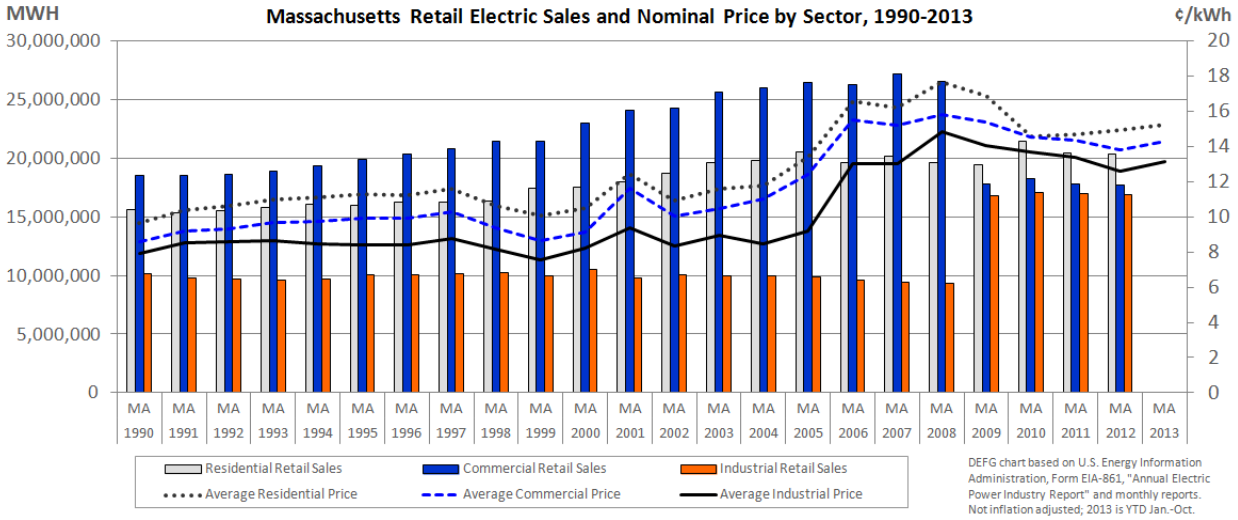
[73] Source: http://www.mass.gov/governor/pressoffice/pressreleases/2012/2012803-governor-patrick-signs-energy-bill.html.

[74] Source: http://www.mass.gov/eea/pr-2012/ma-dpu-announces-approval-of-nstar-nu-merger.html.

[75] See: http://www.mass.gov/eea/energy-utilities-clean-tech/energy-efficiency/policies-regs-for-ee/energy-efficiency-advisory-council-eeac.html and
http://www.ma-eeac.org/docs/7.10.12/Gas%20and%20Electric%20PAs%20July%202%20Plan%207-2-12.pdf.

industrial customers, by: (1) developing a 'shopping for competitive supply' website ...; (2) revising the existing information disclosure label ...; (3) eliminating the basic service bill recalculation provision for residential and small C&I customers ...; (4) establishing reporting requirements for door-to-door marketing ...; and (5) establishing reporting requirements and rules for the assignment of customers to another competitive supplier ..."[76]

In April 2015, the MDPU opened an investigation into the provision of basic service (procurement of default service), citing increases in electricity prices. The Department also cited the successes in the C&I market as a reason to conduct the investigation. ("... in recent years, Massachusetts distribution companies have experienced declining participation by wholesale suppliers to basic service solicitations, particularly for medium and large commercial and industrial ('C&I') customers, with potential negative impacts for customers."[77]



[76] Massachusetts Department of Public Utilities (2014). D.P.U. 14-140, Vote and Order Opening Investigation. Investigation by the Department of Public Utilities on its own Motion into Initiatives to Improve the Retail Electric Competitive Supply Market.

[77] Massachusetts Department of Public Utilities (2015). D.P.U. 15-40, Vote and Order Opening Investigation. Investigation by the Department of Public Utilities on its own Motion into the Provision of Basic Service. Page 1.

Michigan

Michigan's population was estimated by the U.S. Census Bureau as 9,909,877 in July 2014. This ranks it 10th among all 50 states. USDOE's Energy Information Administration estimates 2014 retail electricity sales as 102,701,000 megawatt-hours. That's 12th among all states and DC.

Active REPs and Retail Offers: Residential & Nonresidential

Michigan	**December 2014**		
Utility Service Territory	Residential Suppliers	Residential Offers	Nonresidential Suppliers
Consumers Energy (CMS Energy)	*	*	7**
Detroit Edison (DTE Energy)	*	*	10**
Indiana Michigan Power (AEP)	*	*	1**
Upper Peninsula Power	*	*	3**
Wisconsin Electric Power Company	*	*	1**
Wisconsin Public Service Corporation	*	*	1**
Cloverland Electric Cooperative	*	*	1**

* The number of residential choice customers participating in the electric choice program is negligible. One supplier has a waiting list of 300 residential customers.

** Based on number of alternative electric suppliers serving customers.

Switching Customers & Percents: Residential, Nonresidential & Total

Michigan	December 2014		
Utility Service Territory	Residential Customers*	Nonresidential Load (MWH)**	Total Load (MWH)*
Consumers Energy (CMS Energy) Total	-	-	36,331,256
Consumers Energy Switched	-	-	3,948,370
Consumers Energy Load in Queue	-	-	6,188,136
Detroit Edison (DTE Energy) Total	-	-	47,714,848
Detroit Edison Switched	-	-	5,154,814
Detroit Edison Load in Queue	-	-	5,379,877
Indiana Michigan Power (AEP) Total	-	-	2,835,050
Indiana Michigan Power Switched	-	-	0
Indiana Michigan Power Load in Queue	-	-	0
Upper Peninsula Power Company (UPPCo) Total	-	-	836,194
UPPCo Switched	-	-	87,947
UPPCo Load in Queue	-	-	42,417
Wisconsin Electric Power Company (WEPCo) Total	-	-	2,496,185
WEPCo Switched	-	-	2,084,930
WEPCo Load in Queue	-	-	3,208
Wisconsin Public Service Corporation (WPSC) Total	-	-	282,845
WPSC Switched	-	-	21,431
WPSC Load in Queue	-	-	0
Cloverland Electric Cooperative (Cloverland) Total	-	-	824,820
Cloverland Switched	-	-	82,344
Cloverland Load in Queue	-	-	0
State Total	-	-	91,321,198
State Switched	-	-	11,379,836
State Load in Queue	-	-	11,613,638
Consumers Energy Percent	-	-	10.90%
Detroit Edison Percent	-	-	10.80%
Indiana Michigan Power Percent	-	-	0.00%
UPPCo Percent	-	-	10.50%
WEPCo Percent	-	-	83.50%
WPSC Percent	-	-	7.60%
Cloverland Percent	-	-	10.00%
State Percent	-	-	12.50%

* The number of residential choice customers participating in the electric choice program is negligible.

** Annual data for these seven electric utility. Does not include municipal and other electric utilities.

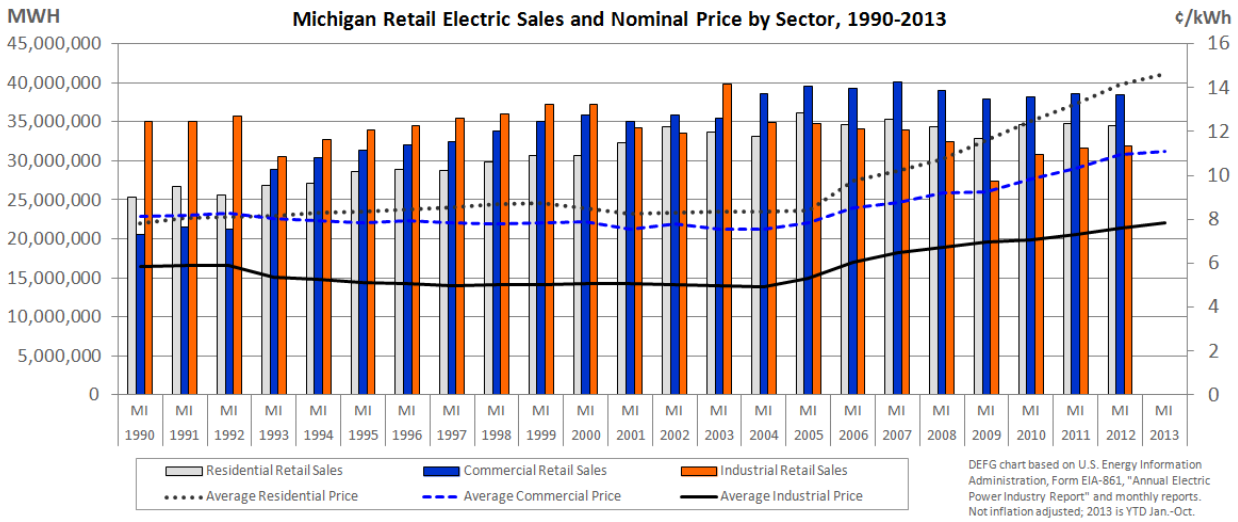
Background

The Michigan Public Service Commission (MPSC) initially ordered retail choice pilot programs in 1998 and 1999. Michigan's Customer Choice and Electricity Reliability Act (2000 Public Act 141), enacted June 2000, introduced competition into the electric industry by offering Michigan customers the opportunity to choose to purchase their electric generation services from an alternative electric supplier (AES). While access for a few large customers began in 1999, all large customers (loads of greater than 1 MW) of Detroit Edison, Consumers Energy, and the electric cooperatives obtained retail access in January 2001. In December 2001, the MPSC issued nine orders to advance Michigan's competitive electric environment. Among the decisions: Detroit Edison and Consumers Energy could not change their depreciation accrual rates and practices until January 2006; rules would be drafted for service quality and reliability standards for electric distribution systems; standards were adopted for the disclosure of customer information, fuel mix and environmental characteristics; and net stranded costs for utilities were determined. Rate cuts were mandated for some default service tariffs.

Michigan is the first state to have independent transmission company ownership of virtually all its high-voltage transmission facilities. Trans-Elect owns Consumers Energy's 5,400 miles of transmission, and Kohlberg Kravis Roberts and Trimaran Capital Partners own DTE Energy's (Detroit Edison) 3,000 miles of transmission.

In Michigan, a bill introduced in December 2007 (HB 5524) has become law and more or less rescinds restructuring, placing a utility-specific load cap of 10%. On October 6, 2008, Governor Granholm signed a pair of bills. HB 5524 (2008 Public Act 286) amended the Customer Choice and Electricity Reliability Act, and SB 231 (2008 Public Act 295) addressed energy planning and renewable energy. Customers are required to give notice of a return to regulated service, and pay the higher (for one year) of average rates or market prices at the time of return. New customer would not be eligible for choice and would receive standard tariff service. HB 5524 would require customers to declare within 90 days whether they would continue to receive power from an alternative electric supplier. Upon selection of this option, customers would be required to give notice to return to regulated service, and would pay the higher of average rates or market prices at the time of return for one year. Other customers would receive on standard tariff service. New customers would not be eligible for choice and would receive standard tariff service. The proposed legislation would also limit the market share of non-incumbent suppliers to 10% of sales. (This states that "no more than 10% of an electric utility's average weather-adjusted retail sales for the preceding calendar year may take service from an alternative electric supplier at any time.")

While customer choice is available to all customers (excluding electric cooperative members with loads of one MW or less), competitive retail providers do not offer services in any utility service territories other than Consumers Energy and Detroit Edison. Commercial and industrial customers in the service territories of Detroit Edison and Consumers Energy accounted for all of the participation in the electric choice programs during 2011. In the Consumers Energy service territory, nearly 11% of the load has switched and within the DTE Energy service territory, more than 11% of load has switched. Pressure remains on the state legislature to re-visit the cap provisions, particularly in light of heightened customer interest.


MWH
Michigan Retail Electric Sales and Nominal Price by Sector, 1990-2013
¢/kWh
45,000,000
40,000,000
35,000,000
30,000,000
25,000,000
20,000,000
15,000,000
10,000,000
5,000,000
0
16
14
12
10
8
6
4
2
0
MI 1990
MI 1991
MI 1992
MI 1993
MI 1994
MI 1995
MI 1996
MI 1997
MI 1998
MI 1999
MI 2000
MI 2001
MI 2002
MI 2003
MI 2004
MI 2005
MI 2006
MI 2007
MI 2008
MI 2009
MI 2010
MI 2011
MI 2012
MI 2013
Residential Retail Sales
Commercial Retail Sales
Industrial Retail Sales
Average Residential Price
Average Commercial Price
Average Industrial Price
DEFG chart based on U.S. Energy Information Administration, Form EIA-861, "Annual Electric Power Industry Report" and monthly reports. Not inflation adjusted; 2013 is YTD Jan.-Oct.

Montana

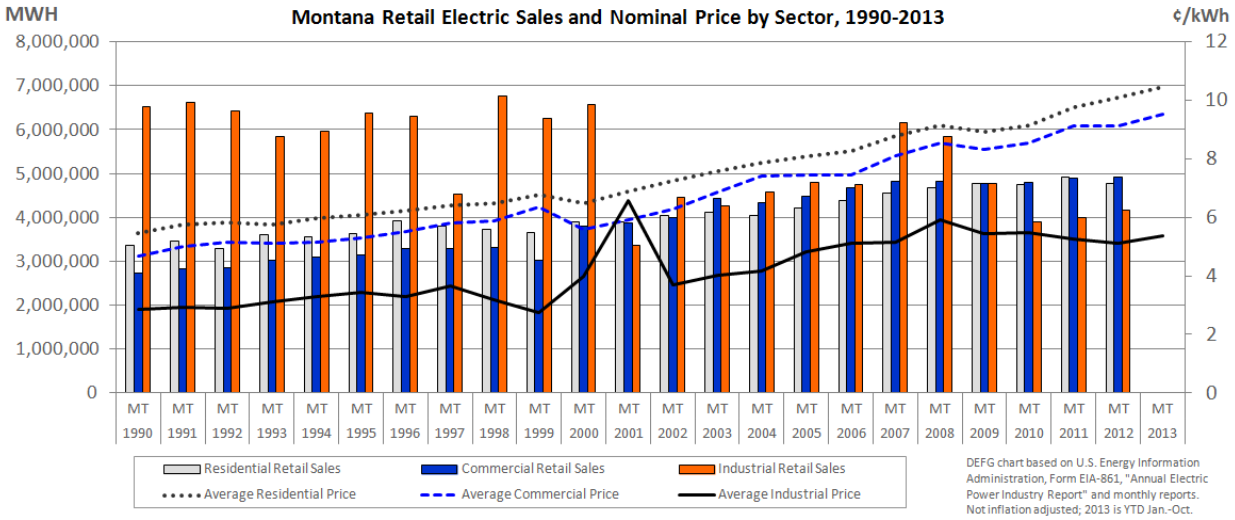
Montana's population was estimated by the U.S. Census Bureau as 1,023,579 in July 2014. This ranks it 44th among all 50 states. USDOE's Energy Information Administration estimates 2014 retail electricity sales as 14,028,000 megawatt-hours. That's 42nd among all states and DC.

In May 1997, Montana enacted SB 390, the Electric Utility Industry Restructuring and Customer Choice Act, and gave larger consumers the ability to choose their power supplier in 1998. Under the Act, electricity suppliers must file an application and obtain a license from the Montana Public Service Commission (MPSC) before offering electricity for sale to retail customers. Legislation in 1999 (SB 406) allowed residential and small business customers to combine their buying power by forming a cooperative. The law exempts electricity suppliers from laws that prohibit cooperatives from expanding into cities of more than 3,500 persons. A standard information facts label was required for sales to residential and small commercial customers. The MPSC web site provides consumer protection information.

The MPSC decided in 2000 to delay full customer choice until 2004. Montana's investor-owned utility voluntarily divested its generation in December, 1999, and acquired default supply through competitive bidding. Additional legislation in 2001 (HB 474) altered the existing legislation and extended the transition period to July 2007. Rates were increased and the MPSC was criticized for not exerting enough control over the market participants.

Every two years, NorthWestern Energy must submit a plan detailing how it will secure electricity. The utility remains the default service provider and the MPSC conducts proceedings to consider the utility's Electricity Supply Procurement Plan. Montana-Dakota Utilities (MDU) was not required to restructure pursuant to the Electric Utility Industry Restructuring and Customer Choice Act. All aspects of electricity service provided by MDU to Montana retail customers remains fully regulated.

In September 2012, the MPSC released a report on utility planning and procurement. The draft rule suggests changes to improve consumer protections for NorthWestern Energy. Specifically, it suggests that the MPSC require all generators to compete with one another in competitive solicitations rather than be offered standard rates established by the MPSC. The report proposes updates to integrated resource planning rules.[78]



[78] See http://psc.mt.gov/news/pr/20120925_PSC_Releases_Report_on_Utility_and_Procurement_Practices.pdf and Docket N2012.5.56 at http://www.psc.mt.gov.

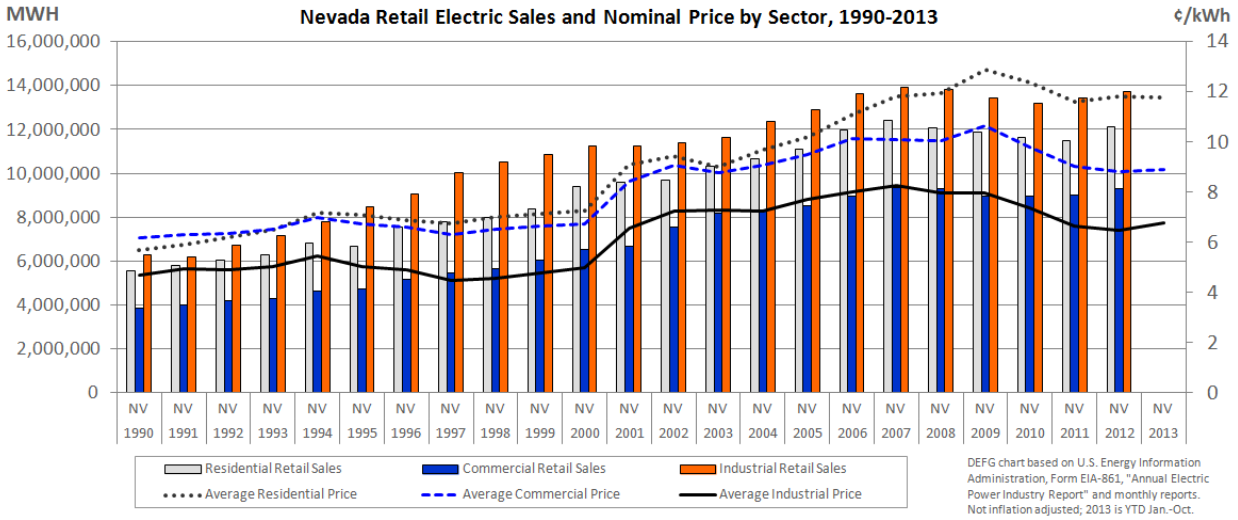
Nevada

Nevada's population was estimated by the U.S. Census Bureau as 2,839,099 in July 2014. This ranks it 35th among all 50 states. USDOE's Energy Information Administration estimates 2014 retail electricity sales as 34,424,000 megawatt-hours. That's 33rd among all states and DC.

In July 1997, Assembly Bill 366 was enacted adopting retail access. Larger customers became eligible in 2000. A settlement from a challenge by the Nevada utilities to the state's electric restructuring statue resulted in an agreement that the companies would not seek stranded cost recovery. In October 2000, the governor delayed implementation of the choice plan for residential customers until September 2001.

In March 2001, the governor issued the Nevada Energy Protection Plan, a strategy to provide energy reliability, consumer protection, and long-term rate stability. In April 2001, AB 369 rejected retail access for small customers, returned utilities to regulation, and barred the sale of power plants before July 2003. Electric utility deregulation was halted because of high demand, low supply, and unstable prices. Also in 2001, Assembly Bill 661 revised and repealed certain provisions of Nevada's restructuring law. The law allowed each "eligible customer" (>1 MW average load) to choose an alternative supplier for power with permission from the State PUC. By March 2003, nine large commercial customers (e.g., casinos) were approved to purchase power from competitive sources.

Electric utility triennial IRPs set forth an energy supply plan and the utility is required to file an energy supply update each year regarding cost and volatility mitigation using hedging for fuel and power purchases.[79]



[79] Source: http://pucweb1.state.nv.us/PDF/Admin/Biennialreport.pdf.

New Hampshire

New Hampshire's population was estimated by the U.S. Census Bureau as 1,326,813 in July 2014. This ranks it 42th among all 50 states. USDOE's Energy Information Administration estimates 2014 retail electricity sales as 10,975,000 megawatt-hours. That's 47th among all states and DC.

Active REPs and Retail Offers: Residential & Nonresidential

New Hampshire	**December 2014**		
Utility Service Territory	Residential Suppliers	Residential Offers	Nonresidential Suppliers
Eversource (Public Service Company of New Hampshire)	8	8*	23
Liberty Utilities (Algonquin Power & Utilities Corp) (formerly Granite State Electric Co. and National Grid)	2	2*	17
Unitil Energy Systems	2	2*	18
New Hampshire Electric Cooperative	1	1*	11
* Based on number of active suppliers in the utility service territory.			

Switching Customers & Percents: Residential, Nonresidential & Total

New Hampshire	December 2014				
Utility Service Territory	Residential Customers	Small C&I Load (MWH)*	Medium C&I Load (MWH)	Large C&I Load (MWH)	Total Sales (MWH)*
Eversource (Public Service Company of New Hampshire) Total	427,462	141,046	139,820	104,098	668,738
Eversource (PSNH) Switched	82,910	59,095	93,893	90,490	306,675
Liberty Utilities Total	34,885	7,045	13,312	50,274	92,096
Liberty Utilities Switched	2,479	1,370	5,829	42,662	52,209
State Total	462,347	148,091	153,132	154,372	760,834
State Switched	85,389	60,465	99,722	133,152	358,884
Eversource (PSNH) Percent	19.4%	41.9%	67.2%	86.9%	45.9%
Liberty Utilities Percent	7.1%	19.4%	43.8%	84.9%	56.7%
State Percent	18.5%	40.8%	65.1%	86.3%	47.2%

* One month of data for two investor-owned utilities. Does not include municipal and other electric utilities.

Background

In May 1996, legislation (HB 1392) was enacted for retail choice: statute RSA 374-F. In July 1998, Granite State Electric opened its retail load to competition. Litigation in state and federal courts tied up implementation for Public Service Company of New Hampshire (PSNH). Additional legislation (SB 472) passed in May 2000, breaking the deadlock with PSNH. PSNH did not implement customer choice until May 2001. Legislation mandated rate reductions and divestiture of generation. The other three electric distribution utilities restructured between 1998 and 2002. Competitive suppliers are welcome to provide service in restructured areas, but most residential customers receive Transition Service (available to customers who do not immediately select a supplier) or Default Power Service (safety net service which is always available).

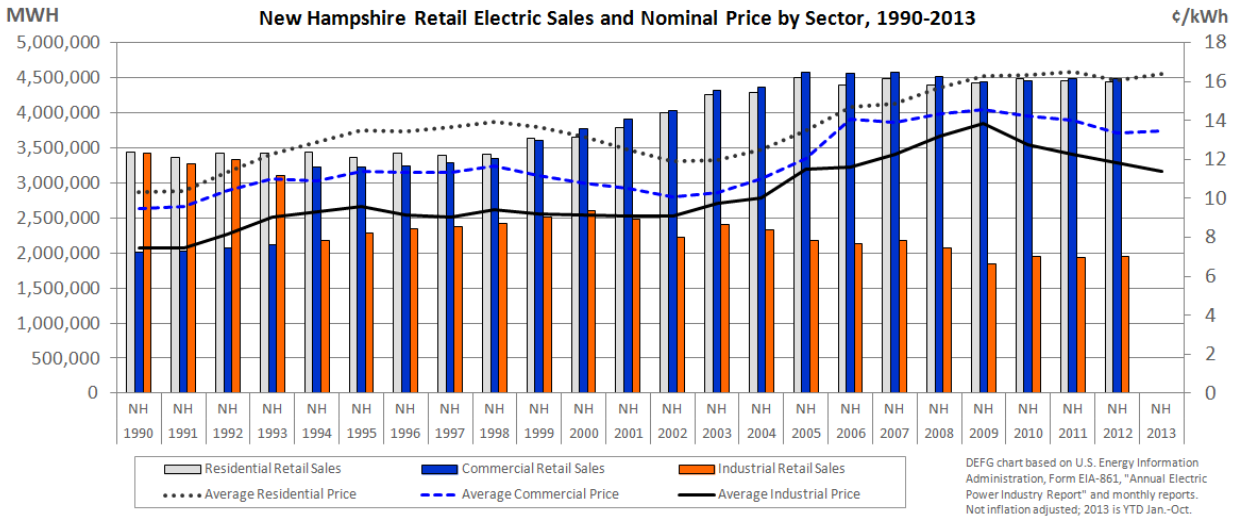
The focus in recent years in New Hampshire has been on the development of comprehensive energy efficiency programs and the effective use of a system benefits charge. In its October 2009 report to the legislature, the New Hampshire Public Utilities Commission (NHPUC) stated that the current SBC of 3.3 mills per kilowatt-hour was split between energy efficiency and low income assistance. EE funds were used for cost effective measures, market transformation and demand response. (About 3% of program revenues came from payments from the ISO-NE's Forward Capacity Market.) A January 2009 study indicated significant EE potential remains in NH.

A September 2011 report, "Independent Study of Energy Policy Issues," discussed energy efficiency, sustainability and conservation of resources. The report was to include "The appropriate role of regulated energy utilities, providers of energy and energy efficiency, and others … to achieve the state's energy efficiency potential for all fuels …" However,

the report made no statement about competitive retail energy markets and did not mention "competitive energy suppliers" in 350 pages.

In September 2012, Granite State Electric Company filed pursuant to a settlement in Docket No. DE 05-126 with regard to its default service rates for medium and large C&I customers and for 100% of requirements for residential and small commercial customers. The bill impact for large customers will be 19-24% and for residential customers (500 kWh) would see an increase from $60.54 to $68.75 (13.6%).[80]

In its 2013 report, the staff of the New Hampshire Public Utilities Commission compared the default service pricing practices of several utilities to its major utility, PSNH. The report observed the impact of default service on the activities of competitive suppliers, stating "[t]he recently vibrant competitive market for residential customers in PSNH's service territory results directly from PSNH's current situation of owning and operating its generation fleet," which is in contrast with other utilities which "obtain competitive bids to supply their respective default service loads. The resulting retail rates therefore more closely follow the trends in market prices."[81]



[80] Source: http://www.puc.state.nh.us/Regulatory/Orders/2012orders/25416e.pdf.

[81] Public Service Company of New Hampshire (2013). Report on Investigation into Market Conditions, Default Service Rate, Generation Ownership and Impacts on the Competitive Electricity Market. IR 13-020. Jointly prepared by the staff of the New Hampshire Public Utilities Commission and The Liberty Consulting Group. p. 24.

New Jersey

New Jersey's population was estimated by the U.S. Census Bureau as 8,938,175 in July 2014. This ranks it 11th among all 50 states. USDOE's Energy Information Administration estimates 2014 retail electricity sales as 73,541,000 megawatt-hours. That's 21st among all states and DC.

Residential customer switching increased from 2.1% in 2010 to 16.0% in 2013. It decreased to 13.7% in 2014. Small C&I customer switching (< 500 kW) rose in New Jersey from nearly 39.1% in 2010 to 53.4% in 2014, while large C&I has remained about 85% in recent years. As of November 2014, a total of 464,078 residential customer accounts (households) in New Jersey received competitive electric service.

Active REPs and Retail Offers: Residential & Nonresidential

New Jersey	**December 2014**		
Utility Service Territory	Residential Suppliers	Residential Offers	Nonresidential Suppliers
Atlantic City Electric Company	58*	58**	83*
Jersey Central Power & Light	58*	58**	84*
Public Service Electric and Gas Co.	67*	67**	94*
Rockland Electric Company	58*	58**	44*

* The state does not maintain a website to facilitate price comparison shopping; therefore, one-half of these figures is used as a proxy for calculating the ABACCUS score. Businesses that maintain electricity shopping websites display approximately ten residential energy suppliers and twenty competitive product offerings.

** Based on number of reported suppliers in each utility service territory.

Switching Customers & Percents: Residential, Nonresidential & Total

New Jersey	November 2014			
Utility Service Territory	Residential Customers	C&I Load < 500 kW (MW)	C&I Load >500 kW (MW)	Total Load (MW)*
Atlantic City Electric Company (ACE) Total	480,052	683	364	2,496
ACE Switched	66,091	419	319	951
Jersey Central Power & Light (JCP&L) (First Energy Corp.) Total	973,808	1,815	1,348	6,766
JCP&L Switched	195,647	1,107	1,146	3,077
Public Service Electric and Gas Company (PSE&G) Total	1,859,393	4,162	2,383	11,505
PSG&E Switched	195,818	2,037	2,077	4,680
Rockland Electric Company (RECO) Total	63,332	123	63	478
RECO Switched	6,522	60	57	152
State Total	3,376,585	6,783	4,158	21,246
State Switched	464,078	3,622	3,598	8,859
ACE Percent	13.8%	61.3%	86.6%	38.1%
JCP&L Percent	20.1%	61.0%	85.0%	45.5%
PSE&G Percent	10.5%	48.9%	87.2%	40.7%
RECO Percent	10.3%	48.8%	90.5%	31.8%
State Percent	13.7%	53.4%	86.5%	41.7%

* Contribution to peak load in the reported month for four investor-owned utilities. Does not include municipal and other electric utilities.

Background

In February 1999, New Jersey adopted the Electric Discount and Energy Competition Act (EDECA) (AB 10/SB 5) which authorized the New Jersey Board of Public Utilities (NJBPU) to permit competition in the electric and gas marketplace, allowed electric utilities to divest themselves of electric generation assets, allowed securitization of stranded cost recovery that could be collected through a non-bypassable wires charge, provided an immediate rate reduction of 5% (10% by year four) and established a social benefits charge for the collection of monies for demand-side management

programs. Utilities were allowed to use deferred accounting for expenses that were not collected under the rate cap. All customers in New Jersey can purchase their electricity from a third party supplier rather than the local utility company. Shopping credits, the rates against which outside suppliers must compete, were set at about 5 to 6 cents per kWh, depending on the rate class and utility.

In December 2000, the NJ Supreme Court upheld a decision upholding the NJBPU restructuring and securitization orders for PSE&G. By 2002, the difference between the market cost of electricity and the mandated rates, known as "deferred balances," had grown to approximately $1 billion, largely because competition in New Jersey had not occurred as anticipated. A task force on deferred balances was convened by the governor.

Under EDECA, there was a requirement for a provider of last resource for basic generation service (BGS). BGS has been provided by the electric utilities since 2002-03. In February 2006, rate increases of 12% to 13.7% were announced as a result of the 2006 auction for BGS. The 2008 auction covers hourly-priced service for Commercial and Industrial Energy Pricing (CIEP) Customers for one year beginning June 1, 2008. The fixed price customer auction is for a supply period of three years, with approximately one-third of each utility's total load requirements acquired each year. The winning fixed price contracts averaged 11.15 to 12.05 cents per kWh. These supplies replace the 2005 contracts and will result in residential customer price increases of 11.5% to 17.3% in the various service areas.

In late 2009, the 2010 auction is underway. In the JCP&L service area, for example, there is a transition toward more tranches of approximately 100 MW each. There will be 18 tranches this year, but by the 2012 auction there will be 53 tranches. The average BGS price next year will include power procured in the 2008, 2009 and 2010 auctions, with 2010 auction fixed-price contracts replacing those from 2007.

The social benefits charge includes incentives for energy efficiency programs and renewable resource programs. The state adopted a renewable portfolio standard that includes a solar set aside (2.12% solar capacity by 2020). New Jersey has almost 1,000 MW of installed solar capacity and uses Solar Renewable Energy Certificate (SREC) trading to help finance solar projects. In 2007, New Jersey adopted the Global Warming Response Act (A3301) which set greenhouse gas emissions targets. The state has programs implemented by investor-owned utilities that have transitioned to third-party program management.

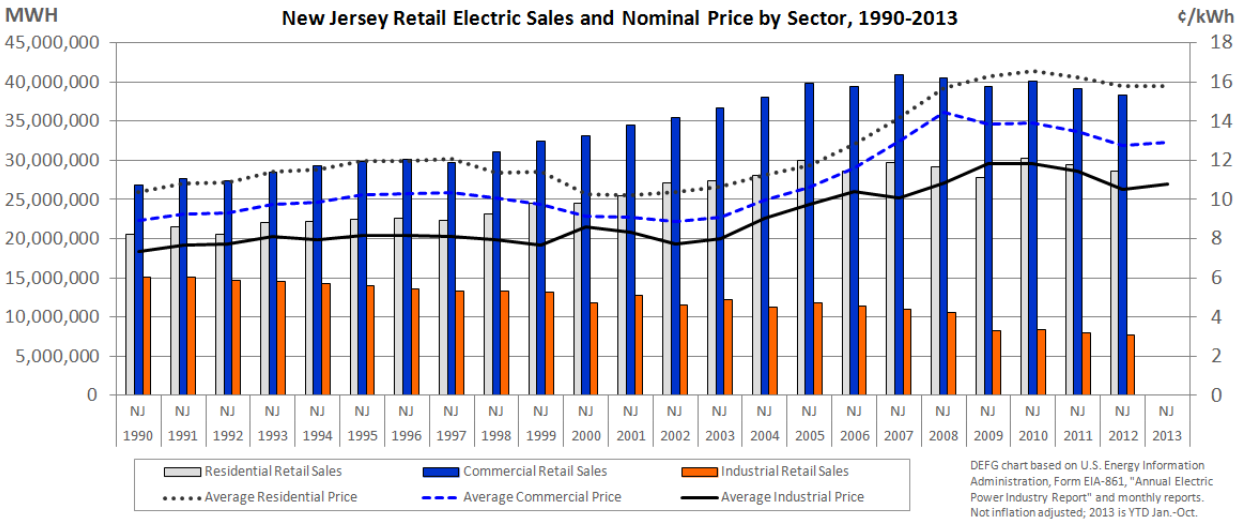
In July 2012, Governor Christie signed legislation to "strengthen and encourage the continued growth of New Jersey's solar industry, while protecting ratepayers from increased costs." S-1925 modifies the "solar alternate compliance payments" to lower costs by an approximately $1 billion over 15 years. The fixed megawatt requirement was changed to a percentage of overall energy usage, rising and falling with overall energy use. Almost 2% of electricity in NJ now comes from solar energy.[82]

In February 2013, the NJBPU approved the state's twelfth annual electricity auction for Basic Generation Service (BGS). This year's auction resulted in a .05% increase in PSE&G's residential rate, but decreases in the other three utilities residential rate of 3% - 5%. As is the state's practice, this auction will be used to satisfy one-third of the state's residential and small business electric demand over the next three years. The remaining two-thirds was acquired in prior year auctions, 2011 and 2012. The state's four electric distribution utilities do not earn a profit on the cost of the generation. PJM's capacity market price (the Reliability Pricing Model or RPM) has increased the capacity portion of the auction, and the NJBPU is advocating before PJM to address what it considers inequities of the RPM. For larger customers, the "Commercial and Industrial Energy Pricing" (CIEP) price is for C&I customers not served by third-party suppliers. As of August 2013, almost 90% of the large C&I load was provided through individual competitive contracts with third-party suppliers. The CIEP customers access supply in the hourly energy market.[83]

[82] Source: http://nj.gov/bpu/pdf/announcements/2012/20120723.pdf.

[83] Source: http://www.bpu.state.nj.us/bpu/newsroom/BGS2012release020912.pdf.

New Jersey began to use community aggregation in 2013 in Tom's River, Montgomery County, Monroe, and Plumsted Townships. Five other communities are in the planning stage.[84]



[84] LEAN Energy US (Local Energy Aggregation Network). http://www.leanenergyus.org/cca-by-state/

New York

New York's population was estimated by the U.S. Census Bureau as 19,746,227 in July 2014. This ranks it 4th among all 50 states. USDOE's Energy Information Administration estimates 2014 retail electricity sales as 145,759,000 megawatt-hours. That's 6th among all states and DC.

Customers can shop on a website set up by New York state government: http://www.newyorkpowertochoose.com/. The website requests the customer Zip Code and it provides a list of suppliers and price offers. The site provides the cost per kWh, type of plan (variable or fixed) and information about how to contact the supplier. The types of offers include: fixed pricing for 6, 12, 18, 24, 36 and 60 months; variable pricing (1-month price); and renewable energy products.

Residential switching was up and down in various utility service territories and was 22.8% for the state as a whole. Among small to medium C&I customers, 67.6% of loads have switched. Among the largest industrial customers, switching is 83% of total loads. As of December 2014, a total of 1,325,106 residential customer accounts (households) in New York received competitive electric service.

Active REPs and Retail Offers: Residential & Nonresidential

New York	**December 2014**		
Utility Service Territory	Residential Suppliers	Residential Offers	Nonresidential Suppliers*
Central Hudson	31	70	64
Consolidated Edison	76	166	130
National Grid (formerly Niagara Mohawk)	45	99	80
New York State Electric & Gas	41	85	71
Orange & Rockland Utilities	45	101	64
Rochester Gas & Electric	41	86	69

* Number of suppliers serving nonresidential customers. These data are used as a proxy for calculating the ABACCUS score.

Switching Customers & Percents: Residential, Nonresidential & Total

New York	December 2014			
Utility Service Territory	Residential Customers	Small Nonresidential Sales (MWH)	Large Nonresidential TOU Sales (MWH)	Total Sales (MWH)*
Central Hudson Gas & Electric Total	256,099	149,262	96,555	203,475
CHG&E Switched	42,579	85,613	86,732	407,973
Consolidated Edison Total	2,828,692	2,019,224	543,934	3,667,259
ConEd Switched	693,403	1,300,883	500,549	2,094,564
National Grid Total	1,442,391	957,351	595,033	2,573,648
National Grid Switched	261,246	709,799	402,851	1,347,926
New York State Electric & Gas Total	757,510	309,710	380,059	1,386,680
NYSE&G Switched	174,281	201,794	347,762	720,429
Orange & Rockland Utilities Total	195,295	123,528	66,520	322,912
ORU Switched	78,186	100,864	38,646	199,506
Rochester Gas & Electric Total	331,078	145,071	235,826	608,727
RG&E Switched	75,411	105,184	215,710	385,302
State Total	5,811,065	3,704,147	1,917,927	8,967,199
State Switched	1,325,106	2,504,137	1,592,250	4,951,202
Central Hudson Gas & Electric	16.6%	57.4%	89.8%	49.9%
Consolidated Edison	24.5%	64.4%	92.0%	57.1%
National Grid*	18.1%	74.1%	67.7%	52.4%
New York State Electric & Gas	23.0%	65.2%	91.5%	52.0%
Orange & Rockland Utilities	40.0%	81.7%	58.1%	61.8%
Rochester Gas & Electric	22.8%	72.5%	91.5%	63.3%
State Total	22.8%	67.6%	83.0%	55.2%

* One month of data for six investor-owned utilities. Does not include Long Island Power Authority, municipalities that purchase from the New York Power Authority and other electric utilities.

Background

The New York Public Service Commission (not the state legislature) ordered restructuring of the electric utilities in May 1996. The NYPSC implemented a plan for restructuring by approving utility plans in 1997 and 1998. The entire market is now open. Residential consumers can elect to receive service through the regulated tariff of the local electric distribution company, or through an aggregation program, or directly from a competitive retailer known in New York as an energy service company (ESCO). Switching rates appear in the table below. Although New York does not use the term "default service," a majority of residential consumers receive electric service through the regulated tariff of the local electric distribution utility.

The NYPSC played a key role in the development of national uniform business practices. The NYPSC approved standards governing the electronic exchange of routine business information and data among electricity and natural gas service providers in New York in June 2001. The NYPSC also issued an order to establish uniform retail access billing and payment processing practices that facilitates a single bill option for customers.

In 2002, New York made important progress in enhancing retail competition in the areas of customer protection, information disclosure, and demand responsiveness. Under a 2002 law, the customers of ESCO receive the same protections as those of the utilities. The ESCOs lobbied for these provisions because they now have a greater chance of getting payment from customers, and customers have equal protection from all ESCOs and utilities. Electricity consumers now receive information in electric bills about the types of generating fuels and related air emissions. These steps encourage green power offerings in New York. ESCOs are participating in demand response programs. Electricity use curtailment competes directly with generation during periods of high electricity consumption.

Competitive electric metering and electric meter data services are permitted in New York for certain customers. New York is considering the deployment of an advanced metering infrastructure to realize the State's energy policy goals for time-differentiated pricing and energy efficiency.

In May 2007, the NYPSC initiated a proceeding (Case 07-M-0548) to investigate an Energy Efficiency Portfolio Standard (similar to a renewable resources portfolio standard) to advance the Governor's goal of 15% reduction in electricity use by 2015. The existing systems benefit charge is used, in part, to fund energy efficiency incentive programs administered by the New York State Energy Research and Development Administration (NYSERDA). In March 2012, an order established an incentive mechanism for utilities administering the Energy Efficiency Portfolio Standard (EEPS). This revised the current mechanism and runs from 2012-15.[85]

The New York PSC is considering a requirement for a consumer disclosure statement, timelier dispute resolution and training of retailer representatives. In New York, nearly three-quarters of the industrial consumers and over one-half the commercial customers are purchasing power from competitive suppliers. Numerous electric rate offerings are available including guaranteed savings programs, fixed and variable prices, and green power. New York benefits from an intrastate independent system operator with advanced policies regarding demand response. These policies allow retail customers to participate directly in the bulk power market and to provide services needed for the operation of the transmission system. Like Texas, New York is fine tuning its market rules. The PSC has recently required a number of additional consumer protection provisions. New York is working on timelier dispute resolution and training of retailer representatives. New York also has in place an extensive set of programs that encourage energy efficiency, renewable resources and on-site generation, including combined heat and power. The NYPSC has adopted modifications to the Uniform Business Practices (UBP) and an ESCO Consumers Bill of Rights (ECBR) to provide to prospective residential customers and any customers marketed to through door-to-door sales.[86]

In Case 10–E–0285, Proceeding on Motion of the Commission to Consider Regulatory Policies Regarding Smart Grid Systems and the Modernization of the Electric Grid, the commission decided (August 2011) not to prescribe a particular

[85] Source: http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={93BC3B51-B317-461C-876E-0ED5962DBBA9}.

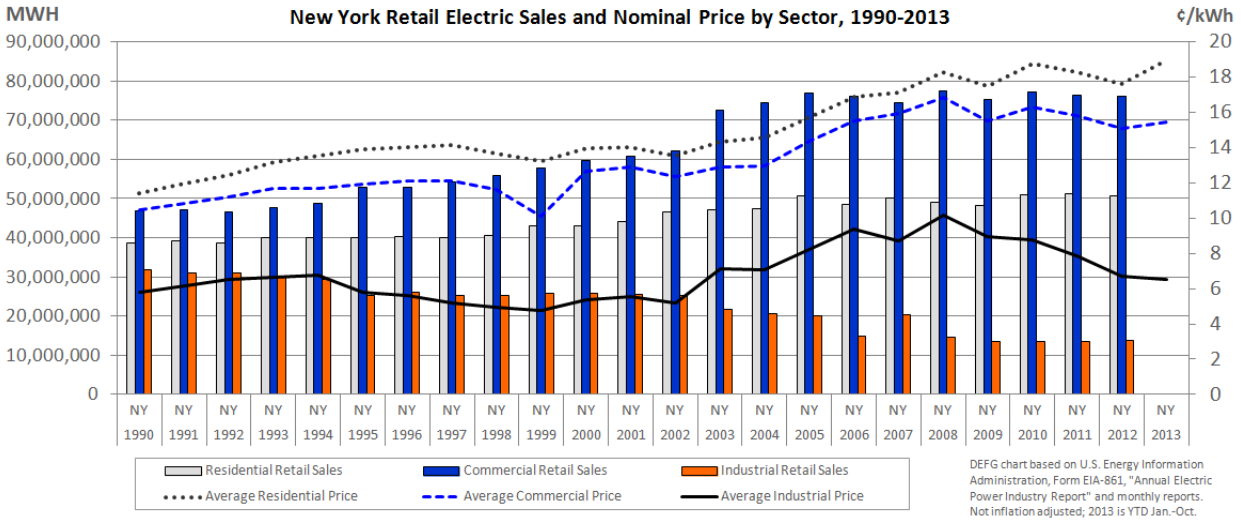
[86] Source: http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7B328751D7-8DE4-4D5E-852F-60A69A2134B5%7D.

end-state or deployment schedule for smart grid. The policy framework—addressing customer data privacy/access, interoperability/cyber-security standards and communications—enables utilities to avail themselves of the opportunities in this area.[87]

In 2014, the NYPSC opened its Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision. The "REV" will lead to regulatory changes to promote energy efficiency, energy management products, demand elasticity, renewable energy resources, and distributed energy resources, including micro-grids, on-site power, and storage. The Commission noted six policy objectives: 1. Enhanced Customer knowledge and tools that will support effective management of their total energy bill; 2. Market animation and leverage of ratepayer contributions; 3. System wide efficiency; 4. Fuel and resource diversity; 5. System reliability and resiliency; and 6. Reduction of carbon emissions.[88]

Two tracks were identified: (1) a collaborative process to examine the role of distribution utilities in enabling market-based deployment of distributed energy resources to promote load management and greater system efficiency, including peak load reductions and (2) examine changes in current regulatory, tariff, and market designs and incentive structures to better align utility interests with achieving the Commission's policy objectives.

In February 2015, the NYPSC adopted a new regulatory framework and a plan for its implementation. The core of the new framework is a "reformed electric system ... driven by consumers and non-utility providers, and it ... enabled by utilities acting as Distributed System Platform (DSP) providers."[89] Track two will focus on the regulatory ratemaking process in order to achieve incentives for utilities to have earnings based on creating value for customers and in achieving the six policy objectives. New York has now set forth a new regulatory framework that keep utilities involved with competitive markets, but which turns attention from the wholesale power market to the distribution system, retail consumer and distributed energy resources.



[87] Source: http://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?MatterCaseNo=10-E-0285.

[88] New York Public Service Commission (2014). Order Instituting Proceeding. Case 14-M-0101, Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision. Page 2.

[89] New York Public Service Commission (2015). Order Adopting Regulatory Policy Framework and Implementation Plan. Case 14-M-0101, Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision. Page 12.

Ohio

Ohio's population was estimated by the U.S. Census Bureau as 11,594,163 in July 2014. This ranks it 7th among all 50 states. USDOE's Energy Information Administration estimates 2014 retail electricity sales as 148,557,000 megawatt-hours. That's 4th among all states and DC.

Customers can shop on an "apples to apples" comparison website set up by Ohio state government: http://energychoice.ohio.gov/. The website requests the name of the electric distribution utility and it provides a list of suppliers and price offers. The site provides the cost per kWh, type of plan (variable or fixed) and information about how to contact the supplier. The types of offers include: fixed pricing for 6, 12, 18, 24, 27, 34, and 36 months; variable pricing (1-month price); and renewable energy products.

Residential switching was up in the state to 53.7%. Commercial and industrial customers have switched about 85.0% of their loads. As of September 30, 2014, a total of 2,253,140 residential customer accounts (households) in Ohio received competitive electric service.

Active REPs and Retail Offers: Residential & Nonresidential

Ohio	**December 2014**		
Utility Service Territory	Residential Suppliers	Residential Offers	Nonresidential Suppliers
First Energy-Cleveland Electric Illuminating	19	63	47*
Duke Energy Ohio	34	95	56*
AEP Ohio	23	85	49*
Dayton Power and Light	18	62	35*
First Energy-Ohio Edison	21	64	47*
First Energy-Toledo Edison	19	63	47*

* Number of active Competitive Retail Electric Service (CRES) providers by electric distribution utility service territory.

Switching Customers & Percents: Residential, Nonresidential & Total

Ohio	September 2014			
Utility Service Territory	Residential Customers	Commercial Sales (MWH)	Industrial Sales (MWH)	Total Sales (MWH)*
First Energy Corp. (Cleveland Electric Illuminating Company) Total	658,899	585,327	559,483	1,624,959
First Energy-Cleveland Electric Illuminating Switched	502,997	515,410	483,304	1,366,169
Duke Energy Ohio Total	617,725	588,179	465,392	1,860,720
Duke Energy Switched	301,290	485,216	443,202	1,398,012
American Electric Power Ohio (Columbus Southern Power Company and Ohio Power Company) Total	1,274,180	1,314,549	1,272,318	3,802,926
AEP Ohio Switched	389,130	1,107,301	1,016,672	2,522,100
Dayton Power and Light Company Total	455,401	342,818	325,735	1,227,808
Dayton Power and Light Switched	202,066	281,866	318,186	892,657
First Energy Corp. (Ohio Edison Company) Total	918,666	600,497	674,807	2,188,352
First Energy-Ohio Edison Switched	661,417	521,023	797,389	1,763,874
First Energy Corp. (Toledo Edison Company) Total	270,029	178,176	410,566	932,374
First Energy-Toledo Edison Switched	196,240	152,053	535,162	720,853
State Total	4,194,900	3,609,546	3,955,479	11,637,139
State Switched	2,253,140	3,062,869	3,346,737	8,663,665
First Energy-Cleveland Electric Illuminating Percent	76.3%	88.1%	86.4%	84.1%
Duke Energy Ohio Percent	48.8%	82.5%	95.2%	75.1%
AEP Ohio Percent	30.5%	84.2%	79.9%	66.3%
Dayton Power and Light Percent	44.4%	82.2%	97.7%	72.7%
First Energy-Ohio Edison Percent	72.0%	86.8%	84.6%	80.6%
First Energy-Toledo Edison Percent	72.7%	85.3%	76.7%	77.3%
State Percent	53.7%	84.9%	84.6%	74.4%

* One month of data for six investor-owned utilities. Does not include municipal and other electric utilities.

Background

Legislation (Senate Bill 3) was enacted in July 1999. On January 1, 2001, this legislation freed Ohio's utility-owned generation from economic regulation, caused utilities to unbundle rates into generation, transmission and distribution components, and initiated retail customer choice of generation suppliers. In April 2008, Ohio Senate Bill 221 modified but did not repeal Senate Bill 3. All aspects of retail customer choice were preserved under SB221, including process mechanics, certification of suppliers, etc.

SB3 required a 5% residential rate reduction and a rate freeze for 5 years to allow a transition to competitive markets. The legislation contained consumer protections, environmental provisions, and labor protections; empowered the Public Utilities Commission of Ohio (PUCO) to determine the amount and recovery period for stranded costs; required that property taxes utilities paid would be replaced with an excise tax on consumer bills; and required that utilities spend $30 million over six years on consumer education programs. Ohio's law allowed communities to aggregate and strengthen their bargaining power in establishing electricity prices. Under aggregation, residents received a postcard in the mail notifying them of their new electricity choice, and those who choose to opt out and continue buying power from their current supplier had 21 days to act. Ohio was a model for aggregation with over 800,000 consumers receiving power in that manner in 2004-5.

As the end of the five-year transition approached, the PUCO was concerned that the market had not developed sufficiently to quickly move to market based rates. PUCO adopted rate stabilization plans of three to five years duration for each utility, which went into effect in 2006.

In May 2008, Ohio enacted electric industry legislation (SB 221) containing energy efficiency requirements for investor-owned utilities and establishing the Ohio Alternative Energy Portfolio Standard (AEPS) which set 2025 goals for renewable resources and advanced resources. SB221 fundamentally changed the way standard service offer (SSO) rates were set. Electric distribution utilities were required to choose one of two competitive approaches. They may offer SSO service based on an "electric security plan" (ESP), or based on a "market rate offer" (MRO) that is determined through competitive wholesale procurement. The focus is on disciplining price either by empowering the electric utilities to fully compete in the retail marketplace via the ESP, or by enabling them to channel wholesale competitive prices to retail SSO customers via the MRO.

Under the ESP option the utility proposes a retail rate for some term (generally three years) along with a comprehensive package of terms and conditions. The ESP itself is a competitive offering. There is no requirement or expectation that the ESP should be cost based. The proposed ESP is subject to a full hearing process. In order to be approved the Commission must determine that the rate plan is better in the aggregate than a market rate option. If approved by the Commission the ESP retail price offer then serves as a price cap with fuel cost adjustment allowed so long as the cap is not exceeded. Retail choice serves as a check against ESP SSO prices being too high. A high rate will invite retail competitors to enter the market and undercut the utility's price. This has happened over the last two years during which customer switching has gone from virtually nil at the outset of the first round of ESPs to 42% of sales in the commercial and industrial sector, and to 22% of sales for the residential sector on a statewide basis in June of 2010.

If the utility elects the MRO approach, then SSO rates will be based upon some wholesale market procurement mechanism such as a declining clock auction. The PUCO must approve the procurement mechanism and the result. The PUCO has approved such procurements and the resulting SSO prices, which are in effect for some utilities today. In addition to changing the way in which SSO rates are established, SB221 promulgated portfolio standards for renewable and advanced generation technologies, and portfolio standards for energy efficiency gains and peak demand reductions. These provisions address classic market failures for providing innovation and demand side management. Renewable benchmarks (mandated levels) apply to both utilities and competitors alike, while distribution utilities are responsible for reducing peak load and energy intensity of all wires customers.

Certain safeguards are specified in SB221, such as a prohibition against including generation costs in unbundled distribution rates. In addition, the law includes a new safeguard – the Significantly Excessive Earnings Test. This test applies at the enterprise level to serve as a check against all business segments, including generation, transmission and

distribution, charging excessive rates. If the commission finds that earnings are excessive, it can end an ESP and take necessary measures to smooth the transition to another arrangement.

AEP filed an ESP application in January 2011 and in December 2011 the PUCO modified and approved a September 2011 agreement. Under the agreement, AEP would have transitioned to a market-based generation rate structure between January 2012 and May 2016. In February 2012, the PUCO revoked the ESP and directed AEP to file a modified ESP application. In March 2012, AEP-Ohio filed a modified ESP application that proposed to separate generation assets from distribution and transmission assets. In August 2012, the PUCO modified and approved AEP's ESP application. The PUCO ruling allows AEP to transition to a fully competitive market based structure by June 1, 2015, with base generation rates frozen through May 2015. AEP will auction increasing amounts of its standard service offer beginning in 2013. By June 2014, 60 percent will be provided by competitive auctions, and by January 2015 it will be 100% auctioned. A 12% rate increase cap was set during the term of the ESP.[90]

Between 2008 and 2010, the number of residential consumers participating in aggregation programs rose from 202,000 to 910,000. Nearly one quarter of the state's residential consumers participate in an aggregation program. Just over one million residential consumers have switched, and 91% of these participate through aggregation. Residential switching in three utility territories of First Energy Corp.—Cleveland Electric Illuminating, Ohio Edison, and Toledo Edison—increased dramatically, while residential switching in the Duke Energy Ohio area doubled in the past 12 months. Commercial and industrial switching increased in these areas and Dayton Power and Light, rising to more than a third of all state-wide sales. Almost all of the industrial switching was by individual companies, while 74% of commercial switching was the result of an aggregation program. The PUCO web site provides "apples to apples" price comparisons for natural gas and electricity. One region – Duke Energy Ohio – displays two price offers as alternatives to default service.

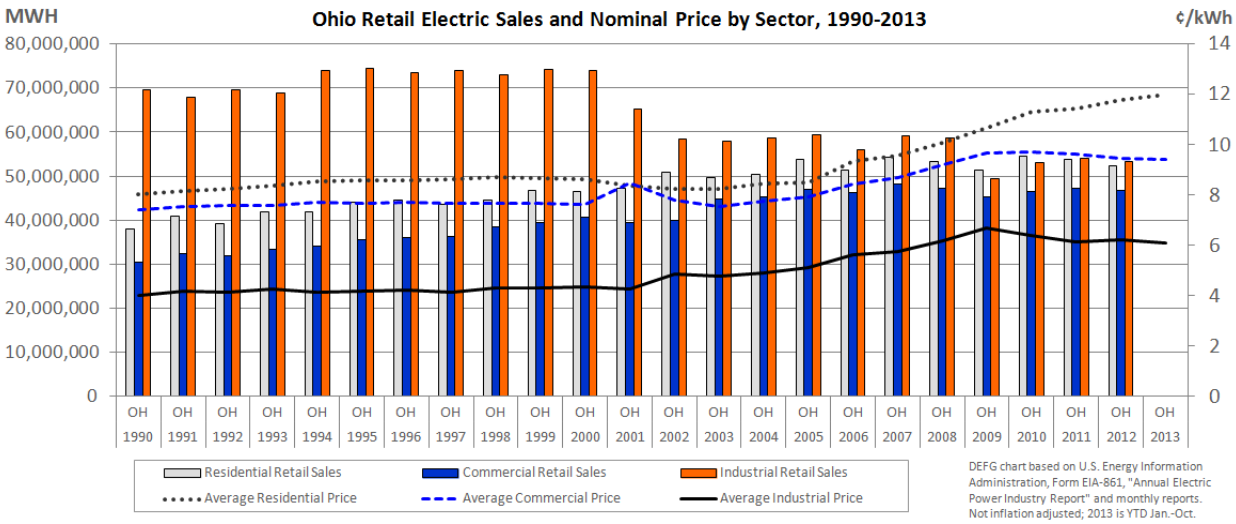
In 2012, legislation (S.B. 289 and S.B. 315) added new technologies to the list of eligible Renewable Energy Resources and Advanced Energy Resources. In July 2012, the PUCO created Docket 12-2156-EL-ORD to implement the changes.

On December 12, 2012, the PUCO initiated an investigation into its retail electric market. The PUCO "seeks comments addressing questions about market design and corporate separation with a focus on ensuring that no undue barriers exist that prevent a fully competitive market from operating."[91] PUCO case number 12-3151-EL-COI sets forth market design questions, labeled (a) through (k), and corporate separation questions, labeled (a) through (h). In March 2014, the PUCO issued an order setting forth several decisions developed over the course of fifteen months. These related to standardizing the retail market, corporate separation, standard offer service, purchase of receivables, electronic data interchange, seamless moves and contract portability (warm transfer process), bill formats, customer enrollment, advanced metering infrastructure and customer energy usage data, and multi-state standardization.[92]

[90] Source: http://www.puco.ohio.gov/puco/index.cfm/consumer-information/consumer-topics/aep-ohioe28099s-electric-security-plan/.

[91] "PUCO initiates electric retail market investigation," press release, PUC of Ohio, December 12, 2012.

[92] Public Utilities Commission of Ohio (2014). Finding and Order. Case No. 12-3151-EL-COI, In the Matter of the Commission's Investigation of Ohio's Retail Electric Service Market.


MWH
Ohio Retail Electric Sales and Nominal Price by Sector, 1990-2013
¢/kWh
80,000,000
70,000,000
60,000,000
50,000,000
40,000,000
30,000,000
20,000,000
10,000,000
0
14
12
10
8
6
4
2
0
OH 1990
OH 1991
OH 1992
OH 1993
OH 1994
OH 1995
OH 1996
OH 1997
OH 1998
OH 1999
OH 2000
OH 2001
OH 2002
OH 2003
OH 2004
OH 2005
OH 2006
OH 2007
OH 2008
OH 2009
OH 2010
OH 2011
OH 2012
OH 2013
Residential Retail Sales
Commercial Retail Sales
Industrial Retail Sales
Average Residential Price
Average Commercial Price
Average Industrial Price
DEFG chart based on U.S. Energy Information Administration, Form EIA-861, "Annual Electric Power Industry Report" and monthly reports. Not inflation adjusted; 2013 is YTD Jan.-Oct.

Ontario

Ontario's population was estimated by Statistics Canada to be 13,678,700 in July 2014. This ranks it 1st among all 13 provinces and territories. (If it were a U.S. state, it would rank 6th, just ahead of Illinois.) Ontario's Independent Electricity System Operator (IESO) estimates 2014 retail electricity sales as 139,800,000 megawatt-hours. (If it were a U.S. state, it would rank 7th, just ahead of Illinois.)

Time-of-use electricity pricing is the default service product in Ontario. Consumers who do not have an advanced meter are placed on a tiered pricing plan (increasing block pricing). This approach assumes that increased use is associated with increased use during peak or high-cost periods. The size of the usage blocks varies for different classes of customers. Electricity consumers can sign a contract with a competitive retailer and pay a fixed rate that is not based on time-of-use or tiered pricing. Switching statistics (data regarding the number or percent of consumers who have chosen a pricing plan other than the default price) are not accessible on the Ontario Energy Board website and not provided to the public.[93]

Active REPs and Retail Offers: Residential & Nonresidential

Ontario	**December 2014**		
Utility Service Territory	Residential Suppliers	Residential Offers	Nonresidential Suppliers
Province	14*	14**	47***

* List of licensed active electricity retailers for low volume consumers.

** Based on number of active suppliers in the utility service territory.

*** Licensed electricity retailers; therefore, one-half of these figures is used as a proxy for calculating the ABACCUS score.

Background

In 1998, legislation was enacted to provide authority for retail restructuring in Ontario. In April 1999, Ontario Hydro's assets were split into five successor entities. Ontario Power Generation, Inc. (OPG) assumed the generation business formerly operated by Ontario Hydro. Hydro One Inc. (formerly Ontario Hydro Services Company) assumed the network business and operated the transmission, distribution, and energy services businesses. The remaining three, operating on a not-for-profit basis, were the Electrical Safety Authority (the industry's safety inspection agency), the Independent Market Operator (responsible for operating and administering the new market and ensuring reliability and access to transmission and distribution systems), and the Ontario Electricity Financial Corporation (responsible for managing and retiring Ontario Hydro's outstanding debt and other obligations).

While future stranded costs were prohibited at that time, two types of payments by users were used to retire stranded costs incurred before restructuring: (1) a phased divestiture of the generation assets over a 10-year period to mitigate Ontario Power Generation's market power in Ontario, and (2) a per-kilowatt-hour charge (referred to as debt retirement charge) on the monthly bills to all electricity users to retire the outstanding debt held by the Ontario Electricity Financial Corporation.

In May 2002, Ontario opened its retail electricity market to all consumers. A high switching rate was attributed to the establishment of a formal Electronic Business Transactions (EBT) process, which included retail customer enrollment, testing, and scrubbing prior to market open. Ontario identified and corrected a large number of errors prior to full implementation. Ontario also initiated competitive billing and pass-through of default provider price risk, where

[93] A formal data request was refused by OEB staffers.

majority of default providers sought exemption from a fixed reference price. In July 2002, the Energy Consumers' Bill of Rights came into effect, creating new rules to protect low-volume consumers.

Record temperatures in summer of 2002 drove up the demand and market price. Concerns over these prices led to the passage in December 2002 of the Electricity Pricing Conservation and Supply Act 2002. This act mandated a fixed generation price of 4.3 cents per kWh for the electricity of low-volume consumers. Refunds were to be provided for amounts paid above 4.3 cents, retroactive to May 2002. Taxpayers were expected to make up the difference between market price and the capped rate.

In December 2004, the Government of Ontario passed the Electricity Restructuring Act of 2004, which reorganized the province's electricity sector, amended the Ontario Energy Board Act of 1998, and the Electricity Act of 1998. The act created a new Ontario Power Authority to ensure supply adequacy, created a new Conservation Bureau to set targets for conservation and renewable energy, redefined the role of the Independent Electricity Market Operator and renamed it the Independent Electricity System Operator (IESO), and regulated certain prices to ensure price stability.

The Regulated Price Plan (RPP) sets stable prices for small consumers with an inverted block schedule (use more, pay more) and a seasonal schedule that is updated every six months. In April 2008, the May 2008 – April 2009 prices were set. The prices are based on forecast hourly prices with an adjustment for the balancing account (unexpected variance) for past months. Customers with advanced meters are exposed to different prices than those with conventional meters. Effective May 1, 2012, the lower tier price is 7.1 cents and the higher tier price is 8.8 cents. This amount is reflected on the "electricity" line on consumer's bills. The price threshold is 600 kWh per month in the summer and 1,000 kWh per month in the winter.

Ontario has a Smart Metering Initiative to create a culture of conservation and a platform for demand management. Province-wide deployment of smart meters is almost complete through the Smart Metering System Implementation Program (SMSIP). A pilot time-of-use rate was available to residential customers. The local distribution utilities own the meters, and the IESO maintains the interfaces and the meter data management and data repository (MDM/R) functions. On August 4, 2010, the Board issued a determination (EB-2010-0218) under section 1.2.1 of the Standard Supply Service Code to mandate time-of-use pricing for RPP customers.

As of June 2012, there were 4,770,289 installed smart meters, 4,424,439 meters enrolled with the MDM/R and 4,258,094 customers on TOU billing. (That is, 99% of Regulated Price Plan (RPP) eligible consumers have a smart meter installed, 92% have a smart meter that is enrolled with the MDM/R and 89% are on TOU pricing.)[94] The "Regulated Price Plan (RPP) Time-of-use (TOU)" prices are currently (Sept. 2012) 6.5 cents off peak, 10.0 cents mid-peak, and 11.7 cents on peak. (Average power costs for the province were 8.2 cents according to the OEB's "2011 Yearbook of Electricity Distributors" dated September 12, 2012.) These prices are reviewed every May 1 and November 1 by the Ontario Energy Board (OEB). The OEB reviews the rates based on electricity prices over the previous six months, as well as its forecast of future prices over the next year.[95]

The Energy Consumer Protection Act, 2010 (ECPA), adopted May 18, 2010, became effective on January 1, 2011. ECPA established a new framework for greater consumer protection and for the regulation of licensed electricity retailers. On October 27, 2010 the Board issued a letter to stakeholders regarding "A Renewed Regulatory Framework for Electricity." The letter described significant levels of investment in generation (especially renewable resources), transmission and distribution over the next few years. The Board will focus on long-term outcomes that ensure that the Province's electricity system provides value to consumers.

Under new legal and regulatory requirements that come into force on January 1, 2011, licensed electricity retailers/suppliers may not enter into, renew, amend or extend the term of a contract with a low-volume consumer until such time as the supplier has filed with the Board a "Certificate of Compliance" and received written acknowledgement of it. The certificate of compliance sets forth the marketing approaches to be used (door to door, direct mail, Internet,

[94] Source: http://www.ontarioenergyboard.ca/OEB/_Documents/SMdeployment/Monthly_Monitoring_Report_June2012.pdf.

[95] Source: OEB website http://www.ontarioenergyboard.ca/OEB/Consumers/Electricity/Smart+Meters.

telephone, etc.) and the protections relating to disclosures, verifications, contract renewals, and remediation processes. The OEB lists the companies serving low volume consumers, and several of these only sell related energy services, such as the “greening” of default service power.

Most residential and small business customers in Ontario are on time-of-use electricity pricing. Customers that lack an advanced meter are placed on tiered pricing (also referred to as increasing or inverted block pricing). With tiered pricing, the cost of electricity increases when the monthly usage rises above a level defined for that class of customers. That is, the first block of use in a month is billed at one rate, and all additional usage is billed at a higher rate. Consumers can avoid time-of-use pricing and tiered pricing by signing a contract with a competitive retailer.

Oregon

Oregon's population was estimated by the U.S. Census Bureau as 3,970,239 in July 2014. This ranks it 27th among all 50 states. USDOE's Energy Information Administration estimates 2014 retail electricity sales as 46,930,000 megawatt-hours. That's 31st among all states and DC.

Active REPs and Retail Offers: Residential & Nonresidential

Oregon	**December 2014**		
Utility Service Territory	Residential Suppliers	Residential Offers	Nonresidential Suppliers
Portland General Electric	0*	0*	4
PP&L (PacifiCorp)	0*	0*	4

* Residential customers do not have direct access to product and service choices from competitive electricity service suppliers.

Switching Customers & Percents: Residential, Nonresidential & Total

Oregon	**July 2014**		
Utility Service Territory	Residential Customers*	Nonresidential Load**	Total Load *
Portland General Electric Total	815,680	--	--
Portland General Electric Switched	0	--	--
PP&L (PacifiCorp) Total	555,747	--	--
PP&L (PacifiCorp) Switched	0	--	--
State Total	1,371,427	--	--
State Switched	0	--	--
Portland General Electric Percent	0%	13.9%	--
PP&L (PacifiCorp) Percent	0%	1.4%	--
State Percent	0%	--%	--

* Residential consumers in Oregon have choices among several utility portfolio options that relate to the resources used to generate electricity (wind, biomass and new low-impact hydro), and basic service that includes a mix of resources, and time-of-use rates that are based on high-, medium- and low-priced periods. Residential customers do not have direct access to offers from competitive retail energy providers.

** Direct access customer switching data for two investor-owned utilities. Does not include municipal and other electric utilities.

Background

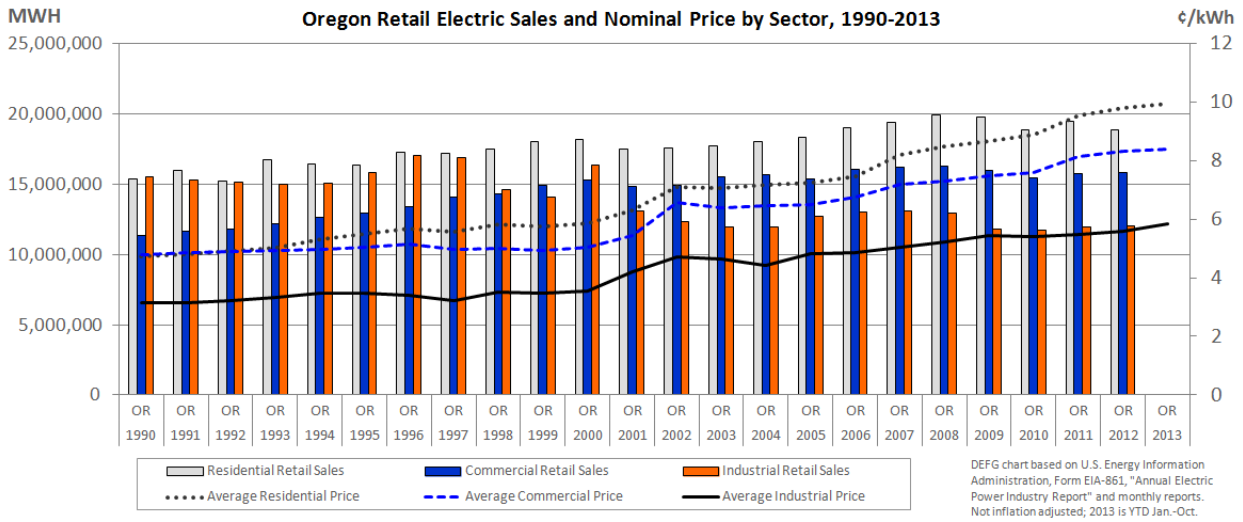
In late 1997 Portland General Electric proposed a pilot project to allow customers to select a generation supplier. A few months later, PacifiCorp proposed a pilot that would allow customers to select from a portfolio of pricing and resource options, including a Cost-of-Service (COS) rate called the Standard Offer Service. These pilots set the stage for SB 1149, the restructuring bill, enacted in July 1999. SB 1149 offered energy supplier choice to nonresidential customers by October 2001. Residential customers would be offered a portfolio of options including green power. In August 2001, two new bills amended the restructuring law (delaying the implementation date to March 2002 for nonresidential customers) and gave the Oregon PUC new powers to balance the interests of utility shareholder with electric customers.

Under the portfolio approach, residential customers can choose among renewable energy pricing plans that rely on existing geothermal and wind sources, or contribute to salmon habitat restoration, or purchase new wind resources. As of April 2008, approximately 7.9% of residential customers in Oregon were served through one of these options (106,366 of these options have been selected, with some double counting as one customer selects more than one option).

The Oregon PUC has conducted rate cases for both major utilities to resolve default service and stranded cost issues, and put in place programs for codes of conduct. At first, the transition charge was variable, and large customers were required to commit to not return to standard offer service for five years. There were also limitations with respect to when switching could occur. As a result, no switching occurred at first. By late 2002, the transition charge had been stabilized. Direct access-eligible (nonresidential) customers may choose service from an alternative electric service supplier for 1, 3, 4, in some cases a 5 year period.

Like many other states, Oregon is engaged in a consideration of climate change issues. Under a proposed rule, utilities would be required to handle CO2 risk by examining values that range from zero dollars to $40 per ton.

In January 2012, PGE, industrial customers, and retail suppliers entered into a stipulation to eliminate the 3rd and 4th quarter shopping windows (retaining the annual and second quarter window). Parties asked for a statewide investigation of direct access. Parties also asked the PUC to consider wholesale-based open access program for customers of 10 MW or greater.[96] In March 2012, the PUC opened an investigation into issues relating to direct access (Docket Order No. 12-057).



[96] Source: http://apps.puc.state.or.us/orders/2012ords/12-057.pdf.

Pennsylvania

Pennsylvania's population was estimated by the U.S. Census Bureau as 12,787,209 in July 2014. This ranks it 6th among all 50 states. USDOE's Energy Information Administration estimates 2014 retail electricity sales as 146,492,000 megawatt-hours. That's 5th among all states and DC.

Customers can shop on a price comparison website set up by Pennsylvania state government: http://www.papowerswitch.com/. The website requests your Zip Code or a click on the name of your electric distribution utility, followed by the selection of the type of service your receive (all electric tariff, etc.). It provides a list of suppliers, price offers, terms of service, fees, and the ability to specify criteria to narrow your search. The types of offers include: Fixed pricing for 3, 6, 12, 18, 24 and 36 months; variable pricing (1-month price); introductory prices; renewable energy products; and time-of-use products.

Residential switching declined slightly to 36.0% in 2014. As of December 31, 2014, a total of 1,793,574 residential customer accounts (households) in Pennsylvania received competitive electric service.

Active REPs and Retail Offers: Residential & Nonresidential

Pennsylvania	**December 2014**		
Utility Service Territory	Residential Suppliers*	Residential Offers	Nonresidential Suppliers*
West Penn Power (formerly Allegheny Power)	45	51	50
Duquesne Light	57	72	68
Met-Ed (formerly MetEd, now First Energy Corp.)	50	69	55
Penelec (formerly Penelec, now First Energy Corp.)	48	63	48
PECO Energy	79	103	84
Penn Power	23	36	30
PPL Electric	88	110	100
UGI	3	3	6
Pike County	3	3	3
Citizen's Electric	1	1	1
Wellsboro Electric	0	0	0

* Source: "PA Retail Electricity Choice Activity Report at Docket L-00070184: EDC Quarterly Reports—4th Quarter 2013 and 2014"

Switching Customers & Percents: Residential, Nonresidential & Total

Pennsylvania	December 2014			
Utility Service Territory	Residential Customers	Commercial Load (MWH)	Industrial Load (MWH)	Total Load (MWH)*
Duquesne Light Total	527,731	17,819	8,201	36,930
Duquesne Light Switched	215,677	14,284	7,804	26,827
Met-Ed Total	487,280	3,341,437	5,622,584	14,982,513
Met-Ed Switched	161,607	2,361,641	5,504,806	10,087,524
PECO Energy Total	1,421,764	2,351,155	2,360,596	8,392,143
PECO Energy Switched	468,431	1,646,957	2,272,362	5,211,087
Penelec Total	500,319	4,130,641	6,079,549	15,180,163
Penelec Switched	176,234	2,761,137	5,796,155	10,481,397
Penn Power Total	140,795	1,646,526	1,641,810	5,173,420
Penn Power Switched	41,862	1,023,558	1,579,143	3,304,021
Pike County Total	3,655	31,280	12,791	72,603
Pike County Switched	2,029	16,188	7,116	40,005
PPL Total	1,228,088	13,180,766	7,652,787	34,005,178
PPL Switched	554,099	11,703,236	7,542,563	25,907,088
UGI Total	55,493	354,698	116,511	1,062,775
UGI Switched	125	161,106	95,453	257,131
West Penn Power Total	615,061	4,950,324	8,611,375	21,632,871
West Penn Power Switched	173,510	3,036,250	7,880,855	13,519,681
State Total	4,980,186	30,004,646	32,106,204	100,538,596
State Switched	1,793,574	22,724,357	30,686,257	68,834,761
Duquesne Light	40.9%	80.2%	95.2%	72.6%
Met-Ed	33.2%	70.7%	97.9%	67.3%
PECO Energy	32.9%	70.0%	96.3%	62.1%
Penelec	35.2%	66.8%	95.3%	69.0%
Penn Power	29.7%	62.2%	96.2%	63.9%
Pike County	55.5%	51.8%	55.6%	55.1%
PPL	45.1%	88.8%	98.6%	76.2%
UGI	0.2%	45.4%	81.9%	24.2%
West Penn Power	28.2%	61.3%	91.5%	62.5%
State Total	36.0%	75.7%	95.6%	68.5%

* Annual data for nine investor-owned utilities. Does not include municipal and other electric utilities.

Background

The Electricity Generation Customer Choice and Competition Act (HB 1509) was enacted in December 1996. A pilot phase began in late 1997, and then a phase-in allowed one-third of consumers to join each year. Different utilities received different treatment with respect to initial rate decreases and the size of stranded cost recovery and competitive transition charge. A shopping credit was advertised to allow customers to compare competitive rates with the "price to compare" or "shopping credit."

After several years the Pennsylvania Public Utility Commission (PUC) approved a change in default service rates because some consumers were gaming the system by returning to the utility rate for the summer when competitive prices typically rose, making default service rates more attractive. Under the revised system, utilities were able to impose switching restrictions and exit fees (a market based penalty called the "generation rate adjustment") to discourage this gaming.

Competitive Default Service was authorized for 2001 for PECO Energy customers and allowed customers to be assigned to a new supplier, New Power Company. PECO retained the customers after this non-utility provider left the state. Several other utilities had similar experiences with price caps in place. In March 2002, Duquesne Light became the first Pennsylvania utility to send bills without a competitive transition charge. Duquesne was no longer subject to the rate cap. Shopping credits rise as the CTC decreases, and thus customers have a greater opportunity to find suppliers who can sell below the default service price. Most residential customer rates were capped through 2010.

Load serving entities are required to satisfy the state's Alternative Energy Portfolio Standard which will rise to 18% of load over time. While the state as a whole is not using advanced metering, the PPL Electric service area has 100% penetration of AMI which could support competitive offers in the future. Pennsylvania committed $5 million dollars for consumer education, including education relating to retail choice and conservation of energy.

Like several other states, Pennsylvania is pursuing additional energy efficiency programs while aggressively fostering retail market development. In October 2008, HB 2200 became law as Act 129 of 2008. The Act expanded the PUC's responsibilities regarding the reduction of energy consumption and demand. The PUC must adopt an Energy Efficiency and Conservation Program, conduct rigorous evaluation of the program and analyze the costs and benefits subject to the total resource cost test. In the future the PUC is required to address electric distribution utility and default service provider responsibilities, conservation service providers, smart meter technology, time-of-use rates, real-time pricing plans, default service procurement, market misconduct, alternative energy sources, and cost recovery. Meetings in September and October 2009 addressed the draft audit plan for the statewide program. The PUC approved default service plans for PPL, PECO, and MetEd/Penelec, which include market-reflective pricing, purchase of receivables, and other tools to foster retail market development.

In February 2012, Governor Corbett signed Act 11 of 2012 amending Title 66 (Public Utilities) of Pennsylvania Consolidated Statutes. Utilities can petition the commission for approval to implement a Distribution System Improvement Charge (DSIC). This gives utilities an additional rate mechanism to recover the capitalized utility infrastructure costs.[97]

Pennsylvania initiated a major new project by order entered on April 29, 2011 to "assess the status of the current retail market and explore what changes need to be made to allow customers to best realize the benefits of competition." (*Investigation of Pennsylvania's Retail Electricity Market*, I-2011-2237952.) The Office of Competitive Market Oversight (OCMO) is studying how best to deal with issues relevant to the success of the retail market, including the phase out or elimination of default service. "The commission's goal is to make Pennsylvania the most competitive electricity market in the country," said PUC Chairman Robert Powelson. "I believe the order being voted on today provides an excellent

[97] Source: http://www.puc.state.pa.us/filing_resources/issues_laws_regulations/system_improvement_charges_act_11_.aspx.

roadmap for the commission's next steps toward achieving that goal."[98] The PUC provides regular updates of its Retail Markets Investigation on its website.[99]

Phase I of the project included presentations to the commission in a June 2011 *en banc* hearing, followed by comments in response to eleven questions regarding barriers to competition, the role of local distribution companies, and the design, delivery and future of default service. On July 28, 2011, the Commission issued and order and opinion and began Phase II of the project. The Commission concluded that Pennsylvania's retail market for electricity requires change in order to bring about the robust competitive market envisioned by the Electricity Generation Customer Choice and Competition Act in 1996. Phase II will be conducted by the OCMO to address the long range steps and structural changes to default service. OCMO will conduct technical conferences and present recommendations to the Commission. In its Phase I order, the commission rejected the notion that all consumers are participating in competitive electric supply markets based on the status of the wholesale market. The Commission further emphasized the need to make near-term reforms to market structure to address information access and switching; to make near-term and long-term changes to default service, and to address consumer education.

On Feb. 14, 2013, the Pennsylvania Public Utility Commission adopted a final order with default service program recommendations from its statewide Retail Markets Investigation (RMI).[100] RMI was intended to enhance the state's retail electricity market, and its recommendations were designed to ensure that the state's regulatory framework is one that encourages a market where consumers have continued choices for electric supply. The Commission upgraded and increased visitors to PAPowerSwitch.com through new renewable energy and ways to save energy pages, improved sorting and filtering, and a new "Shop for Your Small Business" page to empower small businesses (peak demand of 25 kW or less) to shop for their electric generation on PAPowerSwitch.com in the same manner as residential customers. With the completion of RMI, the PUC has further advanced competitive markets.

The PUC's order made necessary changes to how default service electricity is purchased and provided to non-shopping customers. The PUC implemented Standard Offer Programs in August 2013 to allow electric distribution companies to refer non-shopping customers to a voluntary program that guarantees 7% off the utility's "Price to Compare" at the time of enrollment. This gave non-shopping electric customers a simple way to enter the competitive market. In July 2014, the PUC reminded people about the program's website, http://www.papowerswitch.com/standard-offer-program, and announced that residential and small-business customers would annually save nearly $19 million.[101]

In April 2014, the PUC implemented accelerated switching. Originally, switching could take from 16 to 45 days. PUC had already reducing the confirmation period from 10 days to five days in 2011. The PUC now believes that switching regulations can updated in the context of advanced metering technology without endangering safeguards to protect customers against slamming or unauthorized switching. Switching will now occur within 3 business days.[102]

Also in April 2014, the PUC amended its regulations to ensure that future competitive supplier disclosure statements would include a summary of key contractual terms and conditions, additional information regarding variable-priced

[98] Restructuring Today, July 29, 2011.

[99] See: http://www.puc.state.pa.us/utility_industry/electricity/retail_markets_investigation.aspx

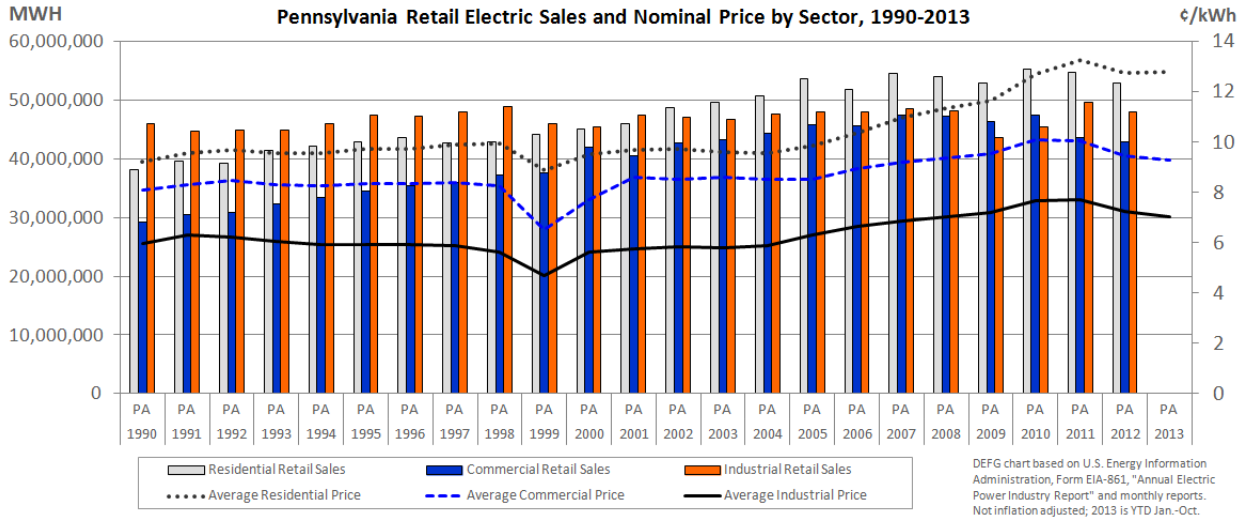
[100] Pennsylvania Public Utility Commission (2013). Final Order, Investigation of Pennsylvania's Retail Electricity Market: End State of Default Service, Docket No. I-2011-2237952, February 22, 2013.

[101] Pennsylvania Public Utility Commission. July 28, 2014 Press Release: "PUC Reminds Consumers that Award-Winning Electric Choice Standard Offer Program Offers Immediate Savings."

[102] Pennsylvania Public Utility Commission (2014). Final-Omitted Rulemaking Order, Rulemaking to Amend the Provisions of 52 Pa. Code, Chapter 57 Regulations Regarding Standards For Changing a Customer's Electricity Generation Supplier, L-2014-2409383.

products, disclosing the price for the first billing cycle, giving customer access to historical information, providing more specific explanation of the limits on variability.[103]

In May 2014, the PUC decided to require the inclusion of the electric generation supplier's (EGS) logo on the electric utility bill, to expand the messaging space on the bill allotted to the EGSs, and to include a Shopping Information Box. These actions were taken to aid customers in developing a stronger relationship with their EGS, and to increase customer awareness of the competitive retail electric market.[104]



[103] Pennsylvania Public Utility Commission (2014). Final-Omitted Rulemaking Order, Rulemaking to Amend the Provisions of 52 Pa. Code, Section 54.5 Regulations Regarding Disclosure Statement for Residential and Small Business Customers and to Add Section 54.10 Regulations Regarding the Provision of Notices of Contract Expiration or Changes in Terms for Residential and Small Business Customers, L-2014-2409385.

[104] Pennsylvania Public Utility Commission (2014). Final Order, Investigation of Pennsylvania's Retail Electricity Market: Joint Electric Distribution Company–Electric Generation Supplier Bill, M-2014-2401345.

Rhode Island

Rhode Island's population was estimated by the U.S. Census Bureau as 1,055,173 in July 2014. This ranks it 43th among all 50 states. USDOE's Energy Information Administration estimates 2014 retail electricity sales as 7,643,000 megawatt-hours. That's 49th among all states and DC.

Active REPs and Retail Offers: Residential & Nonresidential

Rhode Island	**December 2014**		
Utility Service Territory	Residential Suppliers	Residential Offers	Nonresidential Suppliers
National Grid	13	13*	16
* Based on number of reported suppliers in each utility service territory.			

Switching Customers & Percents: Residential, Nonresidential & Total

Rhode Island	**June 2014**		
Utility Service Territory	All Customers	Nonresidential Load	Total Load
National Grid Total	493,408*	--	1,241,252**
National Grid Switched	35,946*	--	3,763,698**
State Total	7.3%*	--	33.0%
* All customer accounts, including residential and business customers. ** One-half year of sales data.			

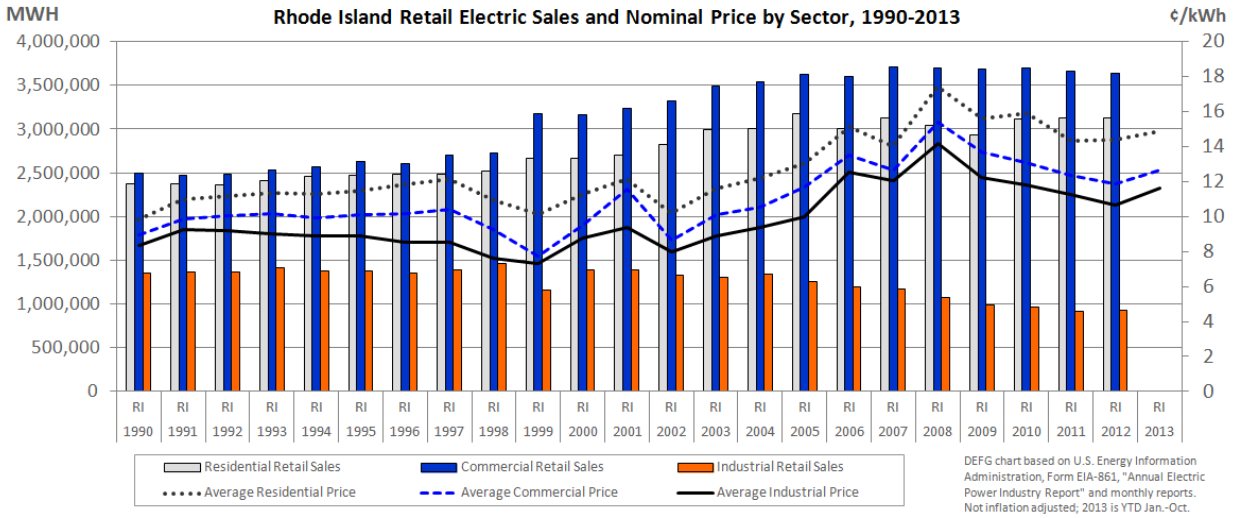
Background

In August 1996, legislation (HB 8124) passed, and Rhode Island became the first state to begin phase-in of statewide retail wheeling in July 1997 for industrial customers. Residential consumers were guaranteed retail access by July 1998. Very few customers switched because of the low standard offer service rate. SB 881, enacted May 2001, enabled non-residential customers enrolled in last resort service the option to return to standard offer service. These customers are required to sign a two-year agreement prohibiting self-generation during non-emergency conditions and prohibiting remarketing of purchased electricity.

In February 2012, National Grid filed the proposed Standard Offer Service (SOS) and RES Procurement plans for 2013. National Grid proposed to continue to procure SOS through a combination of full requirements service contracts and spot purchases, with the mix of long-term and spot to depend on the customer group. The RI PUC issued an order in August 2012, stating that there is "no evidence in the record that the electricity supply market has changed in a way that would necessitate a change."[105]

[105] Source: http://www.ripuc.org/eventsactions/docket/4315page.html.

The Rhode Island Energy Aggregation Program is part of the Rhode Island League of Cities. REAP facilitates group energy purchasing for the municipal loads of 37 cities and 4 school districts.[106]



[106] LEAN Energy US (Local Energy Aggregation Network). http://www.leanenergyus.org/cca-by-state/

Texas

Texas's population was estimated by the U.S. Census Bureau as 26,956,958 in July 2014. This ranks it 2nd among all 50 states. USDOE's Energy Information Administration estimates 2014 retail electricity sales as 378,726,000 megawatt-hours. That's 1st among all states and DC.

Residential customers shop for electric service on a website set up by Texas state government: http://www.powertochoose.org. The website displays the competitive offers by electric distribution utility service territory. The prices displayed include all services (generation, transmission, distribution and retail service). The types of offers include: Fixed pricing for 3 to 36 months; variable pricing (changing market price after the first billing cycle); time-of-use prices; electric vehicle recharging prices; solar buy-back prices; promotional rates, money-back offers and cash discounts; guaranteed cost-per-month contracts; prepaid energy service; renewable energy prices.

Switching rates continued to rise in Texas, reaching 76.2% of eligible retail sales in the state in June 2013. The remainder is provided by the traditional incumbent ("affiliated") REPs at competitive rates. Over 80% of electricity sales to commercial and industrial customers are provided by a non-incumbent REPs.

In 2012, the ABACCUS report stated that there was no longer any meaningful distinction to be made in Texas between the traditional incumbent REPs ("affiliated REPs") and other REPs, especially with regard to reporting switching statistics. (This is not to suggest that the retail electricity market does not require oversight.) Texas has effectively achieved 100% switching—all eligible customers are in the competitive retail market. In the five years between the end of regulated default service and 2012, there was been continued growth in the number of suppliers and offers, continued erosion of customers remaining with the affiliated REP.

As of December 2014, a total of 5,958,547 residential customer accounts (households) in Texas received competitive electric service.

Active REPs and Retail Offers: Residential & Nonresidential

Texas	**December 2014**		
Utility Service Territory	Residential Suppliers	Residential Offers	Nonresidential Suppliers
Oncor Electric Delivery	53	314	*
CenterPoint Energy	50	316	*
AEP Texas Central	50	281	*
AEP Texas North	42	255	*
Texas-New Mexico Power Company	45	263	*
Nueces Electric Cooperative	2	7	*
Sharyland Utilities	18	206	*

* Published data are not available.

Switching Customers & Percents: Residential, Nonresidential & Total

Texas*	December 2014			
Utility Service Territory	Residential Customers	Small Commercial Load (MWH)	Large Industrial Load (MWH)**	Total Load (MWH)***
Oncor Electric Delivery Total	2,832,423	3,440,938	**	6,525,789
Oncor Electric Switched	1,713,588	2,849,977	**	8,629,571
CenterPoint Energy Total	2,068,311	2,412,797	**	6,052,089
CenterPoint Energy Switched	1,304,843	1,902,435	**	4,670,615
AEP Texas Central Total	707,746	577,054	**	2,007,935
AEP Central Switched	525,998	564,268	**	1,843,601
AEP Texas North Total	151,096	164,534	**	454,645
AEP North Switched	109,605	160,086	**	415,746
Texas-New Mexico Power Company (TNMP)	198,971	274,592	**	742,456
TNMP Switched	160,500	273,729	**	774,362
State Total	5,958,547	6,869,914	5,291,516	17,918,601
State Switched	3,814,534	5,750,494	4,695,954	14,198,208
Oncor Electric Percent	60.5%	82.8%	**	75.6%
CenterPoint Percent	63.1%	78.8%	**	77.2%
AEP Central Percent	74.3%	97.8%	**	91.8%
AEP North Percent	72.5%	97.3%	**	91.4%
TNMP Percent	80.7%	99.7%	**	95.9%
State Percent	64.0%****	83.7%	88.7%	79.2%

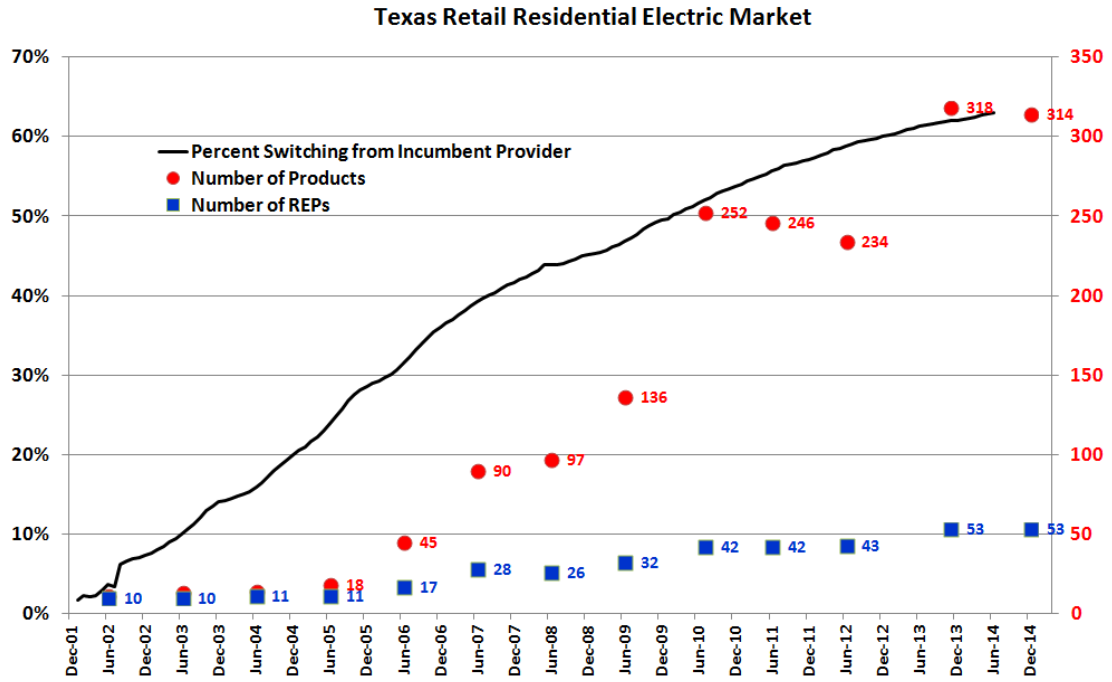
* The regulated default service tariff (referred to in Texas as the "price to beat") was offered by affiliated REPs as a regulated transition mechanism from 1/1/2002 through 12/31/2006. Starting in 2007, all eligible retail customers received service at a competitive price in the direct retail access portions of Texas. The reported switching statistics indicate those customers and loads that are no longer served by the incumbent retail electricity provider ("affiliated REP").

** Large customer switching information is not separately reported to protect the privacy of large industrial customers.

*** One month of data for five investor-owned utilities. Does not include municipal and other electric utilities in ERCOT. Does not include utilities, including four investor-owned utilities, outside of ERCOT but within Texas.

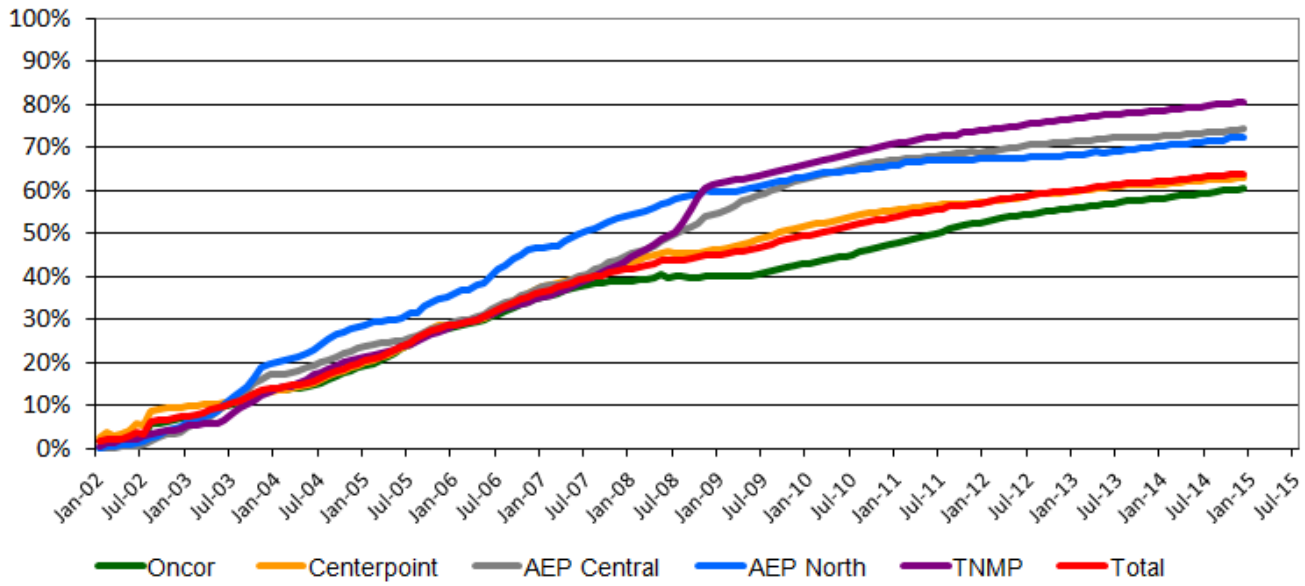
**** An August 2014 ERCOT report found that 90% of the eligible residential market had observably chosen a retail electricity provider. The ABACCUS report considers 100% as participating in the competitive retail market.

Texas Residential Switching, REPs and Offers, 2001-2014



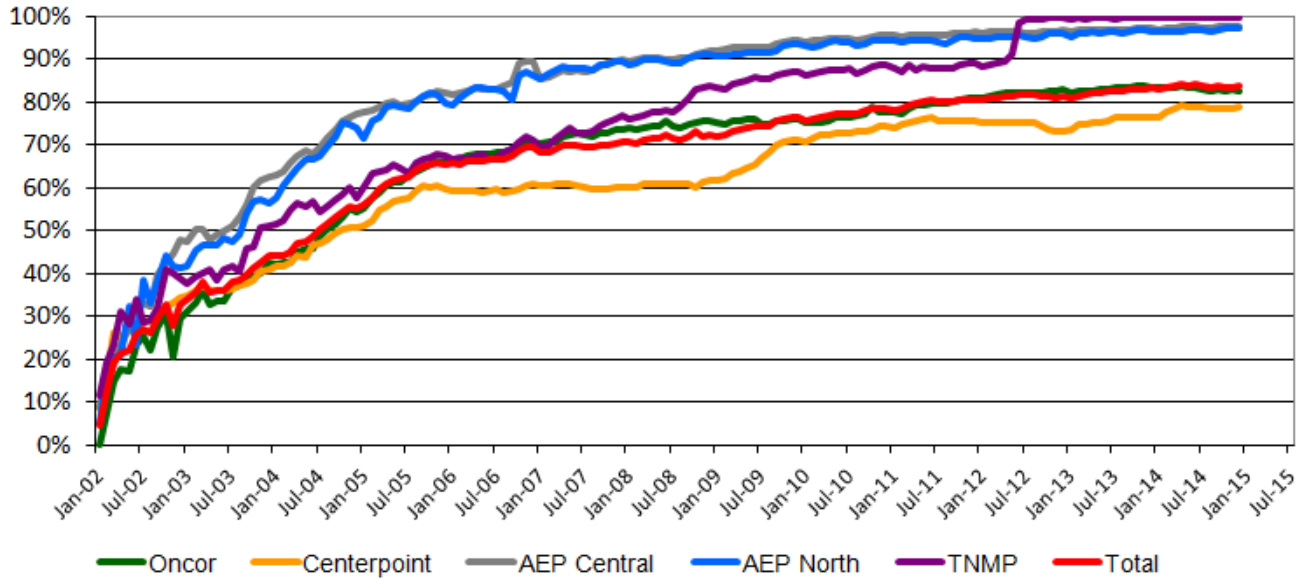
Trend data by class for the ERCOT portion of the state since January 2002 is compelling. The percentage of customers served by a non-incumbent retail electricity provider (REP) has grown steadily as shown in monthly reports prepared by the Public Utility Commission of Texas.[107]

Texas Residential Switching: Customers Served by Non-Legacy REPs by Service Territory

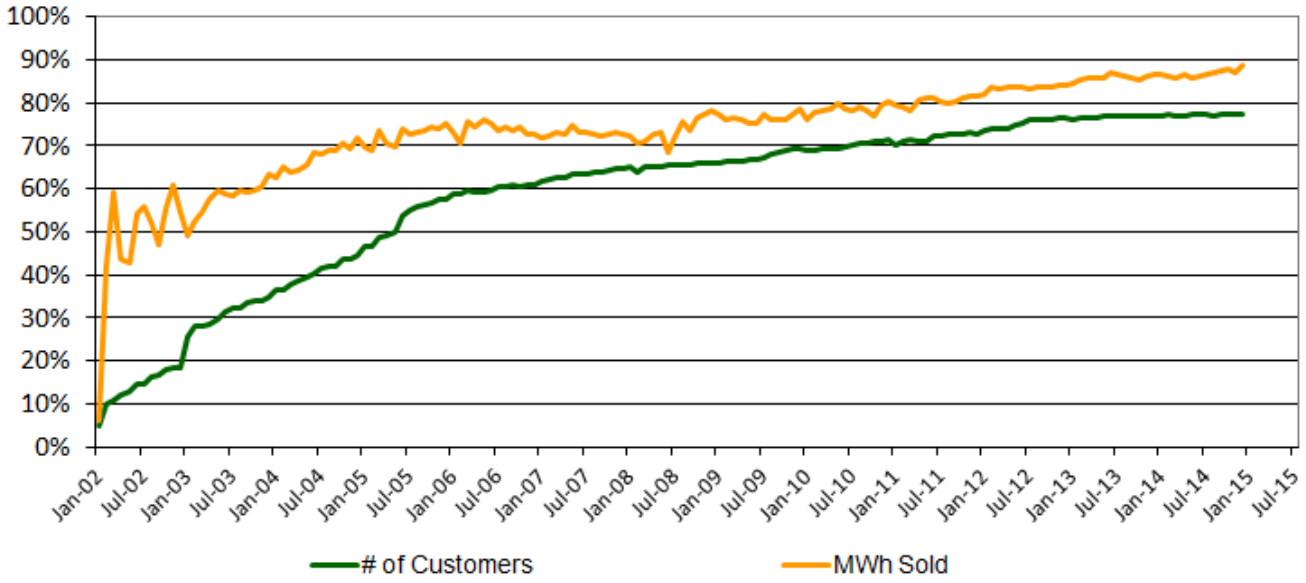


[107] These three charts are taken from the Public Utility Commission of Texas, Market Share Data report which is updated monthly. Available at: http://www.puc.texas.gov/industry/electric/reports/RptCard/Default.aspx

Texas Nonresidential Switching: Secondary Voltage MWh Served by Non-Legacy REPs by Service Territory



Texas Nonresidential Switching: Primary Voltage Customers and MWh Served by Non-Legacy REPs



Background

Texas developed a strong independent power industry in the 1980s as a result of growth in industrial cogeneration. The implementation of the goals of the federal law (PURPA) under Texas law (PURA) resulted in rapid cogeneration project development. The open-access transmission regime that began in 1996 is operated by the Electric Reliability Council of Texas (ERCOT), subject to the jurisdiction of the Public Utility Commission of Texas (PUCT). Legislation for retail choice was enacted in 1999 (SB 7), which set out to initiate competition with a pilot project in mid 2001, to be followed with a

mandatory 6% rate cut and full customer choice implementation in January 2002. During 2001 pilot project enrollment, commercial and industrial classes exceeded the 5% participation limit, resulting in a lottery to determine who would be eligible. The pilot project started in the summer of 2001. Full retail choice began on January 1, 2002 for customers of investor-owned utilities within the ERCOT region of Texas. During the first eighteen months of competition there were some transitional issues primarily associated with customer switching and new service hookups, but these problems were resolved and the market moved forward.

Electric cooperative utilities and municipal electric utilities may decide whether and when to opt into retail competition. Customers currently outside of ERCOT, but within Texas, do not have retail choice. The statute gives the PUCT authority to determine when retail choice can be implemented. These areas include El Paso Electric Company, Entergy Texas (southeast Texas), AEP's Southwest Electric Power Company (northeast Texas) and Xcel's Southwest Public Service Company (Panhandle region). The decision for when to implement retail competition is dependent on the appropriate development of a competitive wholesale market. A little more than one third of retail electric sales in Texas are ineligible because they are in service territories outside of ERCOT or provided by municipal electric utilities or electric cooperative utilities.

In most of Texas, ERCOT operates the high-voltage transmission wires, manages congestion, ensures that ancillary services are adequate, provides a market platform for wholesale competition, performs settlement, administers retail customer switching and administers the renewable energy certificate program. ERCOT's zonal congestion management system was replaced with a nodal pricing and congestion management system in 2010.

SB 7 required each investor-owned utility within ERCOT to separate its retail sales, generation, and wires (transmission and distribution) business functions. However, a holding company's business units can provide retail electric service to customers, own and operate generating units, and provide transmission and distribution service. The law also required electric distribution utilities (which remain price regulated) to refrain from retail marketing or the provision of competitive services. Texas has achieved a high degree of structural separation that has reduced the incentives for corporate integration, and reduced the concerns of competitors that the incumbent utility holds unfair competitive advantage.

At the opening of the market, residential and small commercial customers could either remain a customer of the competitive retail electric provider (REP) affiliated with the incumbent utility, or switch to an alternative REP. Those who remained with the utility affiliate received regulated default service (this was called the "price-to-beat" or PTB) with a rate that could be adjusted up to twice a year. Default service was scheduled to last for five years, and ended in December 2006. Provider of last resort (POLR) is a separate service primarily for customers whose provider goes out of business. POLR service is the only remaining fully-regulated electricity rate in the areas of Texas open for retail choice. POLR price is determined by a PUCT-approved formula based on short-term wholesale energy costs.

In addition to a supportive wholesale market structure, the success of Texas' renewable portfolio standard (RPS) and renewable energy certificate (REC) trading program has provided the impetus (along with a federal renewable energy tax credit) for rapid growth in wind turbine generation. Texas leads the nation in installed wind turbine capacity (more than 12,000 MW of capacity) and wind energy production (36 million MWH in ERCOT or more than 10% of production).

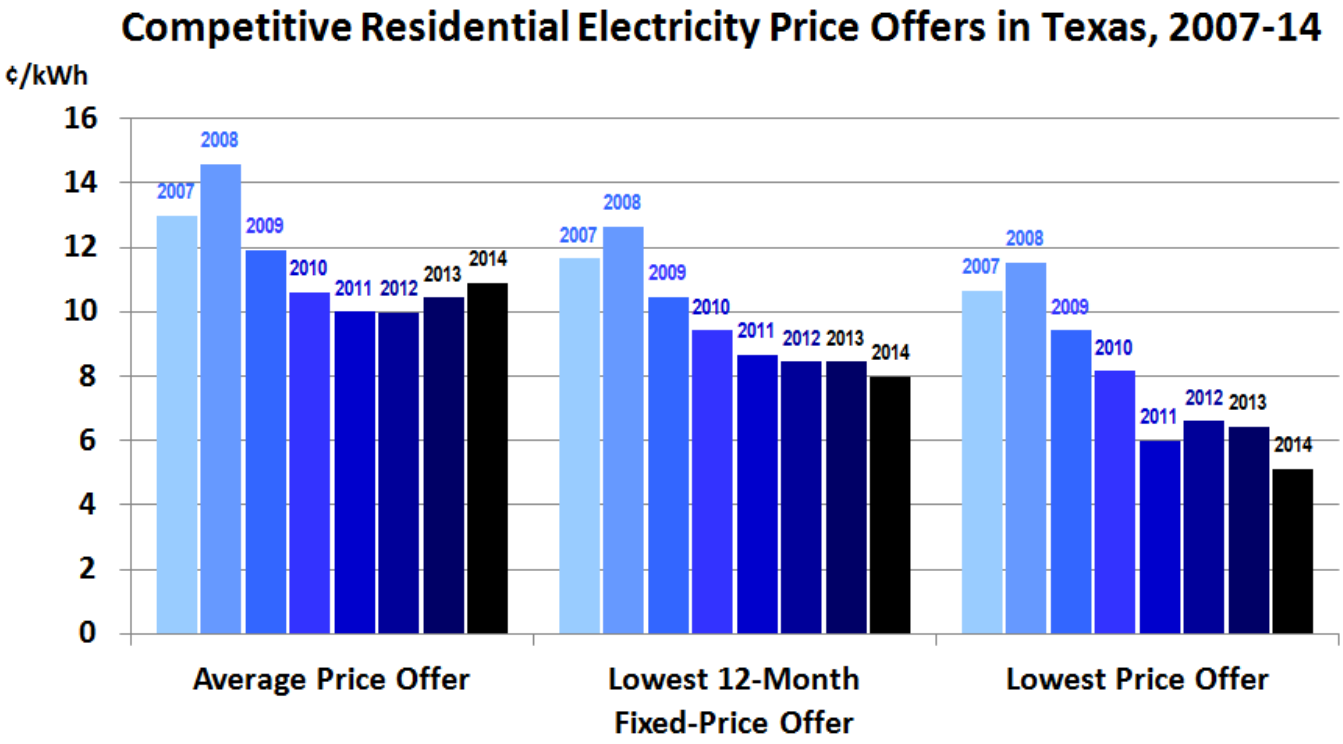
One of the issues related to wind power is transmission line capacity necessary to move wind energy from west Texas, where it is primarily produced, toward the population centers in central and southeast Texas. Competitive Renewable Energy Zones (CREZ) with the greatest potential for renewable energy development were identified in west Texas. In 2008, the PUCT selected its preferred plan to designate and expedite the certification process to build over 18,000 MW of transmission capacity to these zones.

In 2005, six REPs defaulted, and in 2008, five more went out of business, forcing some customers to take POLR service until they selected a new REP. Some of the failed REPs did not pay their energy bills to ERCOT, totaling more than $11 million in losses in the two years. In response to these and other issues, the PUCT opened four new projects to consider market rule revisions. In Project No. 35767, Rulemaking Relating to Certification of Retail Electric Providers, the PUCT strengthened the certification requirements and further protected customer deposits. In Project No. 35768, Rulemaking

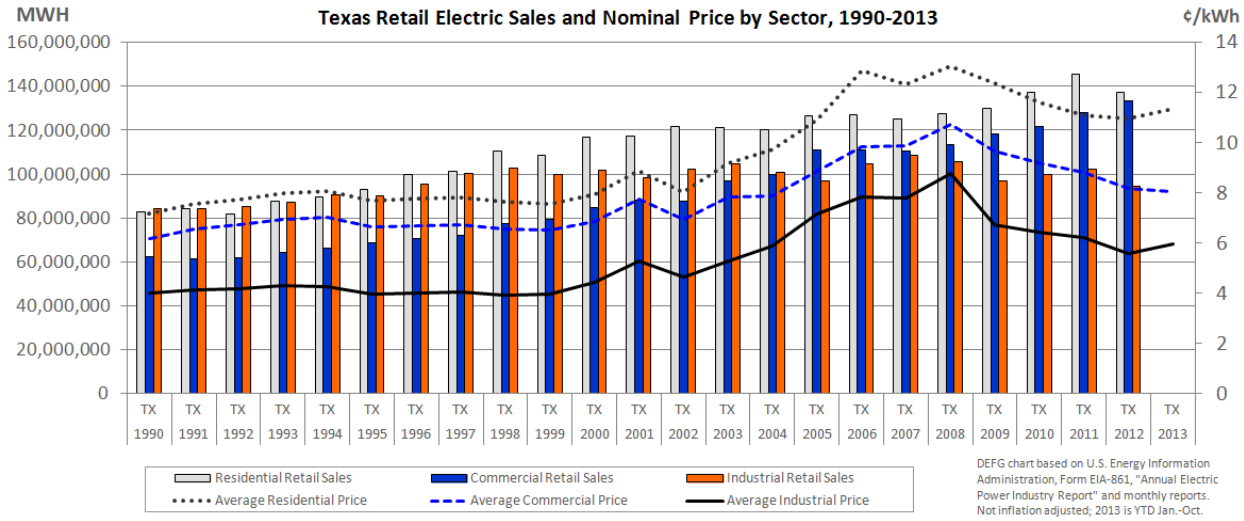
Relating to Retail Electric Providers Disclosures to Customers, the PUCT created three types of products (fixed, variable, and indexed), restricted certain changes in pricing, and established another rulemaking to reduce the amount of time it takes to complete a customer's switch request, among other items. In Project No. 35769, Rulemaking Relating to Electric Providers of Last Resort, the PUCT established additional protections for customers and for the REPs that provide POLR service. Project No. 36131, Rulemaking Relating to Disconnection of Electric Service and Deferred Payment Plans, updated protections for at-risk customer segments.

On issues relating to energy efficiency, advanced metering and innovation, the PUCT has submitted several reports for consideration by the Texas Legislature in recent years. Advanced metering (AMI) deployment is complete in the Oncor Electric Delivery (Dallas-Fort Worth) and CenterPoint Energy (Houston) transmission and distribution service provider areas and nearing completion in the AEP service territory. Deployment continues moving forward in the TNMP service territory. These deployments are helping facilitate a new wave of customer-focused innovation in ERCOT. The Texas market has already seen several innovations related to smart meters to date such as: more time-of-use rates, more prepay options, and more energy management devices and services. The Texas market has also produced several other innovations in the past few years including: new offers for residential customers to lease rooftop solar systems, a new kind of rate plan that has its price capped but can go down if natural gas prices fall, and an all-in fixed price for residential that will not change for any reason during the contract term, among others.

Retail electricity prices can adjust to commodity market conditions in a timely manner. That is, consumers (demand) and generators (supply) interact fairly efficiently. REPs help manage the risks of extreme prices for small consumers. The following data are from the online price comparison tool, www.powertochoose.org. The data represent the average of weekly observations, aggregated in three ways.



Compettiive electricity price offers in Texas include all wires and regulatory charges. Each bar represents the average of the specified offers from each of the five largest utility service areas--Oncor, Centerpoint, AEP North, AEP Central and TNMP--calculated at 1000 kWh monthly usage and based 52 weeks of offers each year. Source: PowerToChoose.com data. Graphic: DEFG.


MWH
Texas Retail Electric Sales and Nominal Price by Sector, 1990-2013
¢/kWh
160,000,000
140,000,000
120,000,000
100,000,000
80,000,000
60,000,000
40,000,000
20,000,000
0
14
12
10
8
6
4
2
0
TX 1990
TX 1991
TX 1992
TX 1993
TX 1994
TX 1995
TX 1996
TX 1997
TX 1998
TX 1999
TX 2000
TX 2001
TX 2002
TX 2003
TX 2004
TX 2005
TX 2006
TX 2007
TX 2008
TX 2009
TX 2010
TX 2011
TX 2012
TX 2013
Residential Retail Sales
Commercial Retail Sales
Industrial Retail Sales
Average Residential Price
Average Commercial Price
Average Industrial Price
DEFG chart based on U.S. Energy Information Administration, Form EIA-861, "Annual Electric Power Industry Report" and monthly reports. Not inflation adjusted; 2013 is YTD Jan.-Oct.

Virginia

Virginia's population was estimated by the U.S. Census Bureau as 8,326,289. This ranks it 12th among all 50 states. USDOE's Energy Information Administration estimates 2014 retail electricity sales as 111,841 megawatt-hours. That's 10th among all states and DC.

In July 1999, legislation (SB 1269) was enacted that permitted choice for retail electric customers in the state. Virginia's pilot program began in 2000 for the two largest investor-owned utilities (Dominion and American Electric Power) and one cooperative. Full retail access began to be phased-in during January 2002, with full choice to be implemented no later than January 2004. Utilities were required to functionally separate, and Allegheny Power and Connective voluntarily divested generation as part of the functional separation case.

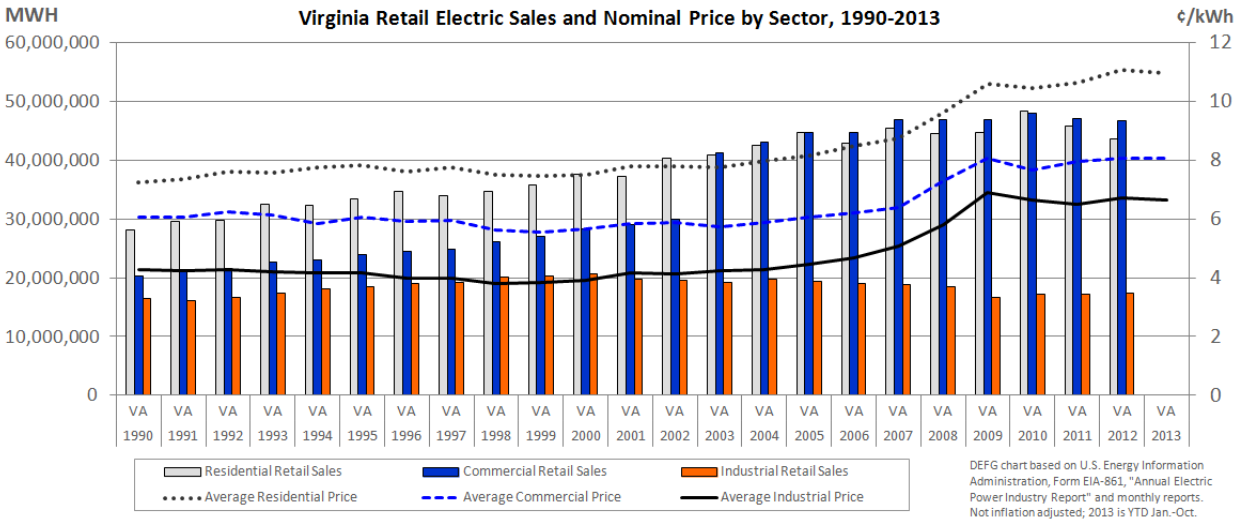
Competitive suppliers are licensed by the State Corporation Commission (SCC) and must register with each utility. In 2001, the Virginia General Assembly amended portions of restructuring legislation to cap default service rates only until January 2007. If there are capped rates, the utility is the default provider. After January 2007, the SCC would set rates based on competitive regional electricity markets. The Legislature created a Transition Task Force and Consumer Advisory Board, which worked collaboratively with SCC. The Legislation authorized alternative providers to directly bill customers beginning January 2003. Competitive metering began January 2002 for large commercial and industrial customers, and on January 2003 for residential and small commercial customers.

The practical result of below-market capped rates was that there was no ability to choose a lower-cost alternative provider in Virginia. Only about 2,500 residential and 24 small commercial customers were served by an alternative supplier (green power choice for residential customers). A contract was awarded for a statewide consumer education program. A survey indicated that awareness was raised, but given the slow development of actual competition, the budget for the second year was reduced. The SCC issued orders to address competitive metering, consolidated billing, minimum stay provisions, distributed generation, aggregation, and market price determination.

In early 2003, legislative activity included a bill to allow Kentucky Utilities to suspend retail choice in five counties in Virginia (HB 2637); a bill to allow the SCC to experiment with "opt in" options for municipalities (HB 2319); and a bill that defers a requirement to join an RTO to the utility with an adequate showing (HB 2453). In 2007, HB 3068 and SB 1416 were enacted and signed by Governor Kaine, and Virginia suspended retail choice.

Since December 2008, most consumers cannot purchase electric generation service from competing suppliers. Large customers (> 5 MW) can purchase power from competitive service providers (CSP). Nonresidential customers can aggregate load up to 5 MW with commissioner approval. Residential consumers can seek competitive power that is 100% renewable if the utility does not offer power that is 100% renewable. Currently, no competitive service providers serve customers in Virginia.[108]

[108] Source: http://www.scc.virginia.gov/comm/reports/2012_veur.pdf.


MWH
Virginia Retail Electric Sales and Nominal Price by Sector, 1990-2013
¢/kWh
60,000,000
50,000,000
40,000,000
30,000,000
20,000,000
10,000,000
0
12
10
8
6
4
2
0
VA 1990
VA 1991
VA 1992
VA 1993
VA 1994
VA 1995
VA 1996
VA 1997
VA 1998
VA 1999
VA 2000
VA 2001
VA 2002
VA 2003
VA 2004
VA 2005
VA 2006
VA 2007
VA 2008
VA 2009
VA 2010
VA 2011
VA 2012
VA 2013
Residential Retail Sales
Commercial Retail Sales
Industrial Retail Sales
Average Residential Price
Average Commercial Price
Average Industrial Price
DEFG chart based on U.S. Energy Information Administration, Form EIA-861, "Annual Electric Power Industry Report" and monthly reports. Not inflation adjusted; 2013 is YTD Jan.-Oct.

Appendix D: ABACCUS Methodology

Introduction

The Annual Baseline Assessment of Choice in Canada and the United States (ABACCUS) was created to compare and contrast the states and provinces in North America with regard to their electric industry structure and performance. The states and provinces are social science laboratories; that is, we can observe the outcomes of alternative regulatory and energy policies and attempt to draw conclusions about the relative value of different regulations and alternative policies.

Electricity is fundamental to the economies of the U.S. and Canada and it is hard to imagine our way of life without it. A great deal of money has been invested in the electric industry. Much value is at stake as we determine whether regulatory reforms are needed, what reforms are best, and what changes to market structure are appropriate. There are contentious debates over the rights of different market participants. This is to be expected because different companies with different business plans are interested in different business opportunities, and the laws establish the property rights.

ABACCUS should help states and provinces look beyond ideology. We can assess what works well and what does not work very well. If a decision is made to implement direct access or retail electricity choice, then ABACCUS should act as a guide to policy makers as they seek to establish good laws and effective practices.

A hallmark of the ABACCUS methodology is the breadth of the issues explored. The ABACCUS methodology presumes that retail electricity markets cannot be assessed in terms of one metric such as the average price of the electric commodity. ABACCUS relies on 49 metrics—referred to as attributes—to assess each jurisdiction from the perspective of residential consumers, and then applied again from the perspective of commercial and industrial consumers.

This section describes each attribute and the question that it answers. It explains the options under each attribute. Some questions apply to all consumers; some are specific to residential consumers; and others only apply to C&I consumers. Each option is scored on a zero- to ten-point scale. Options associated with successful retail electricity markets are assigned more points. After scoring each options, weights are assigned to reflect the different level of importance each attribute. The weighted scores produce a ranking, and the rankings indicate whether a jurisdiction is improving or falling behind in its implementation of competitive retail electricity markets relative to other jurisdictions.

How is success measured? As noted, many industry observers like to rely on the average electricity prices in the jurisdictions, and then attribute success to these commodity prices, almost without regard to other factors. While the price of the commodity is important, the ABACCUS methodology is focused on the underlying market structures, regulatory policies, rules and business practices that influence electricity pricing and electric service over the longer term. ABACCUS is focused on the many outcomes that are important to consumers, including greater choice, the types of products and services that are available, and greater freedom in making choices. Other measures of performance include greater switching and increased opportunities for retail energy providers. ABACCUS puts a premium on the development of highly differentiation services for consumers, innovation in technologies, the delivery of services that consumers prefer, and future opportunities.

Energy markets are volatile, and short- to mid-term price changes may tell us more about past decisions than about future opportunities and future market performance. The ABACCUS report monitors long-term price changes in charts presented in the state-by-state description portion of the report. It is useful to observe long-term trends. However, year-over-year price changes are not as instructive if you are interested in the success of electricity restructuring.

Grouping of Attributes

Each attribute is associated with an important question. Some of these questions relate to market structure, such as "what entities are permitted to sell electricity?" or "who can own power plants and sell power?" Another set of attributes relates to the regulated prices ("default service rates") that are designed to protect consumers during a transition period, especially the degree to which regulated prices interfere with the emerging competitive market. A third set of questions relate to the day-to-day operation of the market, such as "can a customer switch providers whenever s/he wants to?" or "do retail energy providers have access to customer lists for marketing purposes?" or "who keeps track of customer switching details so that the market associates the right meter with the appropriate energy provider?" Fourth, there are questions about facilitating the market and the new market participants. For example, "has the state created a platform where consumers can compare prices?" and "what has the jurisdiction done to encourage investment in on-site generation or new services that rely on advanced metering infrastructure?" Finally, there are questions relating to the performance of the retail electricity markets, such as "how many retail electric providers can I choose from?" or "how many product or service choices are there?" or "what percentage of consumers have switched to away from the default service provider?"

The attributes fall into one of five groups:

- **Market Structure** ... relating to the fundamental rights and responsibilities of the market participants (attributes 1-13)
- **Default Service** ... relating to the design of the regulated basic, standard or default electric service available to retail consumers (attributes 14-25)
- **Transactions** ... relating to the day to day transactions that market participants perform to buy and sell electricity (attributes 26-36)
- **Facilitation** ... relating to policies and rules that encourage or frustrate retail energy providers as they interact with retail consumers and the T&D utilities (attributes 37-40)
- **Performance** ... relating to the outcomes which we use to talk about how the health of the competitive market (attributes 41-49)

If you are familiar with past reports, you will notice that the 2012 methodology was updated for the 2014 report. To begin with, the two methodologies—residential and C&I—were merged into one. (This reduces repetition since several attributes apply to both the residential and C&I sectors.) If an attribute only applies to the residential market, then the weight assigned to it for the residential ABACCUS calculation is positive, while the weight assigned to it for the C&I calculation is 0%. Where an attribute applies to both, then the weights are positive for both the residential and C&I calculations. These assigned weights may not be the same for residential and C&I. References below to "new metric" refer to changes made in January 2014.

Terminology

The terms used to describe electric utilities and retail energy providers vary by jurisdiction. In this report, we have adopted the acronym "EDU" to refer to the electric distribution utility and "REP" to refer to the retail energy provider. Commercial and industrial consumers are referred to as "C&I." See Appendix B.

Electric distribution utilities are also called transmission and distribution utilities or local distribution companies or just "the wires company" in various jurisdictions. Each jurisdiction has a widely-adopted term, and the laws in each jurisdiction may make small, important distinctions that can be confusing if you do not know the details of the administrative laws and the legal precedents in the jurisdiction.

- "EDU," as used here, is intended to generically refer to all entities that provide wires services to connect power generating units to consumers. "EDU" includes all utilities without regard to size, ownership, management or regulatory framework. That is, EDUs may include government utilities (municipal, state and federal), electric cooperatives (member owned), and investor-owned utilities (traded or privately held). It is significant to note that if someone refers to a "utility" or to a "wires-only company," they may or may not be referring to a company that offers services other than power delivery.
- "REP" as used here, refers to the "retail energy provider." The term "retail electric provider" is used in Texas, and this has been broadened in this report to include all retail energy sales and services. The "REP" is a competitive supplier that sells electricity, natural gas or other energy-related commodities and services. REPs go by a variety of names in other jurisdictions (see Appendix B), which can create confusion. The acronym "REP," or a similar term, will become widely adopted throughout North America as retail energy markets become more common.

Tables of Attributes

Table of Groups, Metrics and Key Issues

No.	Group	Metric or Attribute	Key Issue
1	Market Structure	EDU Divestiture	Must the EDU divest itself of all generating capacity?
2	Market Structure	EDU Generation Ownership	Does the EDU or its affiliates own or control generating assets in the applicable market?
3	Market Structure	EDU Obligation to Serve	Is the EDU responsible for power delivery, metering service, and electricity sales?
4	Market Structure	EDU Sale of Electricity	Does the EDU sell electricity to retail consumers?
5	Market Structure	EDU Provision of Premises Services	Does the EDU provide premises-based service to the consumer?
6	Market Structure	Competitive Safeguards	Does the EDU operate under a code of conduct that governs relations with its affiliates and is that code consistently enforced?
7	Market Structure	Residential Eligibility	What percentage of residential consumers in the jurisdiction is eligible?
8	Market Structure	C&I Eligibility	What percentage of C&I electricity sales in the jurisdiction are eligible?

No.	Group	Metric or Attribute	Key Issue
9	Market Structure	Market Size	What are the annual electricity sales? (How large are the business opportunities?)
10	Market Structure	Bulk Power Market Structure	How is the relevant bulk power market organized?
11	Market Structure	Open Market Criteria	Does the relevant bulk power market satisfy nationally-established criteria for open-market competition?
12	Market Structure	Market Monitor	Is the market monitoring function conducted in an independent, transparent and thorough manner?
13	Market Structure	Demand Response Programs	Has the ISO developed a comprehensive set of demand response programs to facilitate load participation in bulk power markets?
14	Default Service	Residential Default Supplier	Who provides default service to residential consumers?
15	Default Service	Medium C&I Default Supplier	Who provides default service to medium C&I consumers?
16	Default Service	Large C&I Default Service	Is default service offered to large C&I loads, but only below a certain size limit?
17	Default Service	Residential Default Service Product Options	Is residential default service a substitute for choices in the competitive market?
18	Default Service	Medium C&I Default Service Product Options	Is medium C&I default service a substitute for choices in the competitive market?
19	Default Service	Residential Default Price Adjustment	How frequently is the default service price adjusted to the market price?
20	Default Service	Medium C&I Default Price Adjustment	How frequently is the default service price adjusted to the market price?
21	Default Service	Large C&I Default Price Adjustment	How frequently is the default service price adjusted to the market price?
22	Default Service	Residential Default Resource Portfolio	Does the default service provider hedge the resource portfolio?
23	Default Service	Medium C&I Default Resource Portfolio	Does the default service provider hedge the resource portfolio?
24	Default Service	Residential Default Cost Allocation	Does the default service rate reflect the cost of service?
25	Default Service	Medium C&I Default Cost Allocation	Does the default service rate reflect the cost of service?
26	Transactions	Residential Default Switching Restrictions	Are consumers restricted in any way from switching from default service to a competitive supplier?
27	Transactions	Medium C&I Default Switching Restrictions	Are consumers restricted in any way from switching from default service to a competitive supplier?
28	Transactions	Residential Switching Period	What is the minimum number of days necessary to switch a residential consumer to a new provider?
29	Transactions	Residential Billing	Who bills the residential customer?
30	Transactions	Treatment of Bad Debt	Who is responsible for bad debt?
31	Transactions	Standard Electronic Data Exchange	Does the jurisdiction require the use of a standard electronic data exchange (EDI) for business transactions?
32	Transactions	Uniformity of Standards	Does the jurisdiction apply uniform standards for the operation of competitive retail markets?
33	Transactions	Administration of Switching	Does a central, fully-independent organization handle all customer switching requests?
34	Transactions	Access to Residential	Do qualified retailers have easy access to basic customer

No.	Group	Metric or Attribute	Key Issue
		Customer Information	information?
35	Transactions	Access to Customer Usage Data	Do retailers have timely access to detailed electricity usage data?
36	Transactions	Electricity Usage Data Security and Customer Privacy	Has the jurisdiction established clear policy and practice regarding the security of customer usage data, customer data privacy, and the appropriate uses of customer usage data?
37	Facilitation	Jurisdiction Commitment to Electric Competition	Is the jurisdiction committed to implementation of a competitive market?
38	Facilitation	Consumer Access to Price Comparisons	Does the jurisdiction maintain a website for residential consumers with: a) up-to-date prices and offers from all REPs, b) price and attribute comparison functionality, and c) links to REP terms and conditions and to the REP website.
39	Facilitation	Advanced Metering Infrastructure	To what level has the jurisdiction deployed advanced metering infrastructure?
40	Facilitation	On-site Generation Alternatives	Do C&I customers have interconnection and distribution system access that facilitates the use of DG as an alternative?
41	Performance	Number of REPs Making Residential Offers	How many REPs are making offers to residential customers?
42	Performance	Number of REPs Making Medium C&I Offers	How many REPs are making offers to medium C&I customers?
43	Performance	Number of REPs Making Large C&I Offers	How many REPs are making offers to large C&I customers?
44	Performance	Number Residential Offers	How many distinct offers are available from REPs to residential customers?
45	Performance	Types of Residential Offers	How many different product and service types do REPs offer to residential customers?
46	Performance	Residential Net Switching to Competitive Service	What percentage of eligible residential customers receive service on a competitive product?
47	Performance	Annual Switching Percentage	What percentage of eligible residential customers changed service providers during the past 12 months?
48	Performance	Medium C&I Net Switching to Competitive Service	What percentage of eligible medium C&I customers receive service on a competitive product?
49	Performance	Large C&I Net Switching to Competitive Service	What percentage of eligible large C&I customers receive service on a competitive product?

Table of Metrics and Weights

No.	Metric or Attribute	ABACCUS Residential Weights	ABACCUS C&I Weights
1	EDU Divestiture	--	2%
2	EDU Generation Ownership	--	2%
3	EDU Obligation to Serve	1%	2%
4	EDU Sale of Electricity	1%	2%
5	EDU Provision of Premises Services	2%	3%
6	Competitive Safeguards	2%	3%

No.	Metric or Attribute	ABACCUS Residential Weights	ABACCUS C&I Weights
7	Residential Eligibility	3%	--
8	C&I Eligibility	--	3%
9	Market Size	3%	4%
10	Bulk Power Market Structure	3%	2%
11	Open Market Criteria	3%	3%
12	Market Monitor	--	3%
13	Demand Response Programs	2%	8%
14	Residential Default Supplier	8%	--
15	Medium C&I Default Supplier	--	4%
16	Large C&I Default Service	--	4%
17	Residential Default Service Product Options	6%	--
18	Medium C&I Default Service Product Options	--	4%
19	Residential Default Price Adjustment	10%	--
20	Medium C&I Default Price Adjustment	--	4%
21	Large C&I Default Price Adjustment	--	4%
22	Residential Default Resource Portfolio	10%	--
23	Medium C&I Default Resource Portfolio	--	4%
24	Residential Default Cost Allocation	6%	--
25	Medium C&I Default Cost Allocation	--	4%
26	Residential Default Switching Restrictions	6%	--
27	Medium C&I Default Switching Restrictions	--	4%
28	Residential Switching Period	3%	--
29	Residential Billing	1%	--
30	Treatment of Bad Debt	1%	--
31	Standard Electronic Data Exchange	2%	3%
32	Uniformity of Standards	2%	3%
33	Administration of Switching	2%	3%
34	Access to Residential Customer Information	3%	--
35	Access to Customer Usage Data	2%	--
36	Electricity Usage Data Security and Customer Privacy	2%	3%
37	Jurisdiction Commitment to Electric Competition	2%	--
38	Consumer Access to Price Comparisons	2%	--
39	Advanced Metering Infrastructure	2%	--
40	On-site Generation Alternatives	--	3%
41	Number of REPs Making Residential Offers	4%	--
42	Number of REPs Making Medium C&I Offers	--	4%
43	Number of REPs Making Large C&I Offers	--	4%
44	Number Residential Offers	2%	--
45	Types of Residential Offers	1%	--
46	Residential Net Switching to Competitive Service	3%	--
47	Annual Switching Percentage	--	--
48	Medium C&I Net Switching to Competitive Service	--	4%
49	Large C&I Net Switching to Competitive Service	--	4%

Market Structure

Market structure relates to the fundamental rights and responsibilities of the market players. In creating a market structure, government determines who can and cannot generate electricity; who can and cannot sell electricity; who can and cannot interact in various ways with the independent system operator, and whether there will be an ISO; who can and cannot provide the monopoly services, and what other services a regulated entity is allowed to provide; and who bears the responsibility to maintain sufficient reserve capacity, or whether there will be such requirements.

Each of these decisions may affect the performance of the retail electricity market. For example, as long as there are regulated, monopoly providers of distribution service, government must determine whether such utilities have a responsibility to reliability deliver power, or whether they are responsible to provide other electric services. These may seem similar, but reliably delivering power to a meter is different than reliability selling electricity and providing the associated basic services (billing, customer service, call center) or advanced services (alternative pricing plans, risk management services, energy efficiency information or programs, mobile phone apps, in-home energy management devices) or service innovations (price risk management, flat monthly billing, promotions and discounts, advanced in-home technologies).

Market structure extends as well to the issue of which customers are eligible to purchase electricity from competitive providers (are the consumers of municipal utilities and electric cooperatives included?), and the structure and oversight of the bulk power market from which power is acquired.

The market structure portion of the ABACCUS methodology is comprised of attributes 1-13.

1. EDU Divestiture

(Similar to 2012 Residential Methodology: D.1 Distribution Utility Structure and 2012 C&I Methodology: D.1 Electric Distribution Utility Structure)

1	Market Structure	EDU Divestiture	Must the EDU divest itself of all generating capacity?

Options and Points

Complete corporate divestiture	10
EDU divests / affiliate may own	9
EDU allowed to own generating assets	0

This attribute assesses the *right* of the EDU or its affiliates to own and operate competitive generation assets or provide power services. (Actual ownership of generating assets is considered in the next attribute.)

A market structure that limits EDU activities to the provision of monopoly transmission and distribution services (power delivery services) creates a clean separation between the regulated and competitive functions and services. The wires-only EDU can then conducts all transactions with all market participants—including its affiliates—on an equal, arm's-length basis. No stakeholder need be concerned about competing with the EDU if the EDU is restricted to providing monopoly services.

2. EDU Generation Ownership

(This is a new metric.)

2	Market Structure	EDU Generation Ownership	Does the EDU own or control generating assets in the applicable market?

Options and Points

EDU does not own generating assets	10
EDU owns incidental generating assets	7
EDU selling off generating assets	4
EDU owns generating assets	0

This attribute assesses whether the EDU *owns and operates* competitive generating assets or provides power services in the applicable market. It is possible to have the right to own and operate generating assets but not to exercise that right. (The legal right to own and operate generating assets is considered in the previous attribute.)

A EDU that owns and operates generating assets is providing competitive services that may affect the way it provides wires services. Its activities may affect the decisions of other stakeholders because they may be concerned about competing with the EDU. Incidental generating assets are assets that operate to enable and facilitate the reliable delivery of power and which do not operate in competitive power markets.

3. EDU Obligation to Serve

(Similar to 2012 C&I Methodology: D.3 Electric Distribution Utility Types of Services)

3	Market Structure	EDU Obligation to Serve	Is the EDU responsible for power delivery, metering service, and electricity sales?

Options and Points

EDU has an obligation to deliver power	10
EDU has an obligation to deliver and meter power	9
EDU has an obligation deliver, meter and sell power	0

This attribute assesses whether EDU is obligated to *provide electric service* to consumers in its service territory, or whether it is obligated to just *deliver power* to the meter. (The actual provision of electric service is assessed in the next attribute.)

A EDU that is obligated to provide electric service to retail consumers will act quite differently from a EDU that is obligated to just deliver the power to an electric meter on the consumers' premises. The obligation to provide electric service carries with it a significant relationship with the retail consumer. This consumer-EDU relationship may affect others who wish to develop relationships with retail

consumers. The consumer-EDU relationship places the EDU in the role of incumbent. Any effort to overcome the tendency toward permanent incumbency will require additional regulation of the EDU. Encouraging the development of a competitive retail electric market will benefit from less regulation and greater opportunities for new entrants. Further, consumers will be less confused if the transition to competition is clearly marked by the end of the existing consumer-EDU relationship and the beginning of new relationships with new retail energy providers.

4. EDU Sale of Electricity

(Similar to 2012 C&I Methodology: D.3 Electric Distribution Utility Types of Services)

4	Market Structure	EDU Sale of Electricity	Does the EDU sell electricity to retail consumers?

Options and Points

EDU only delivers power	10
EDU engages in incidental electricity sales	9
EDU sells electricity to retail consumers	0

This attribute assesses whether EDU sells electricity to retail consumers. It is possible to satisfy an obligation to serve by outsourcing the sale of electricity to another company, hence the distinction. (The obligation of provide electric service is assessed in the previous attribute.)

A EDU that provides electric service to retail consumers will act quite differently from a EDU that does not sell electricity. The sale of electricity carries with it a significant relationship with retail consumers. This consumer-EDU relationship may affect others who wish to develop relationships with retail consumers. The incidental sale of electricity refers to a small number of legacy relationships that are not yet fully competitive. It is expected that these will diminish with time.

5. EDU Provision of Premises Services

(This is a new metric.)

5	Market Structure	EDU Provision of Premises Services	Does the EDU provide premises-based service to the consumer?

Options and Points

EDU does not provide or administer any premises services	10
EDU administers government-mandated programs	8
EDU administers portfolio of branded programs	5
EDU offers standard portfolio of branded programs	3
EDU offers innovative portfolio of branded	0

programs	

This attribute measures the degree to which the EDU provides services to retail consumers on the consumers' premises. In general, all services provided on the consumers' premises are competitive in nature, and there are no impediments to offering consumers these services. We are referring to the sale, maintenance, operation and financing of appliances, energy monitoring devices, appliance controls, demand response services, conservation and energy efficiency services, distributed renewable energy generation, backup generators, power storage devices, power conditioning equipment, risk management services, energy budgeting, energy swaps, products and services relating to buildings and building services. For customers of all sizes, it includes price risk management. For larger customers, premises services could include construction and maintenance of electric power substations. Where allowed, it could include competitive metering functions.

As you consider that list, you may readily identify services that depend upon the cooperation or assistance of the EDU. Distributed generation is the classic example that requires interaction with the EDU, and many jurisdictions have created rules that spell out the rights and responsibilities of the parties when there is a need to interconnect DG. Other services, such as energy management and load control, rely on rules to permit access to markets.

A EDU that provides services to retail consumers on the consumers' premises may behave in a manner that is different from a EDU that does not offer such services. The provision of premises services carries with it a significant relationship with the retail consumer. This consumer-EDU relationship may be positioned to affect relationships that retail consumers may develop with other parties. In fact, this consumer-EDU relationship could adversely affect existing competitive services, including the existing relationships between retail energy consumers and businesses that have not traditionally been considered part of any energy utility business. Air conditioning and heating contractors, lighting contractors and other small, local enterprises that perform services for homeowners and businesses, may be affected by utility demand side management programs, for example.

EDUs that provide competitive on-premises services may use their network services to affect the behavior of consumers and limit the business opportunities of others. If EDU affiliates offer competitive services, then, at a minimum, there is the perception of unfair practices. A formal separation of regulated business units from competitive affiliates is appropriate.

6. Competitive Safeguards

(2012 Residential Methodology: D.2 Competitive Safeguards)

6	Market Structure	Competitive Safeguards	Does the EDU operate under a code of conduct that governs relations with its affiliates and is that code consistently enforced?

Options and Points

EDU subject to strict code with all prohibitions	10
EDU subject to adequate code with most prohibitions	8

EDU subject to weak code of conduct	6
EDU not restricted by code of conduct	0

The greater the degree of separation between EDU service and other functions, the greater the likelihood that new entrants will not feel threatened by a EDU. Separation may be through corporations or through the creation of affiliates of through the application of a strict code of conduct. Regulation of affiliate relationships through a code of conduct will help to address the any concerns of competitive market participants.

This attribute considers the degree to which EDUs can interact with other business units or affiliates as is normally done, or whether an arm's length relationship is established through a strict code of conduct. A code of conduct must be consistently enforced and include: a prohibition on sharing employees and assets, a prohibition on an affiliate using the creditworthiness of the EDU, a prohibition on joint marketing and advertising, and restrictions on use of the EDU's names and logos.

7. Residential Eligibility

(2012 Residential Methodology: A.1 Eligibility of Residential Customers)

7	Market Structure	Residential Eligibility	What percentage of residential consumers in the jurisdiction is eligible?

Options and Points

More than 95%	10
More than 85%	9
More than 75%	8
More than 65%	7
More than 55%	6
More than 45%	5
More than 35%	4
More than 25%	3
More than 15%	2
More than 5%	1
Less than 5%	0

Each jurisdiction receives a numeric data entry equal to the number of eligible residential electricity consumers in the jurisdiction divided by the total number of residential electricity consumers in the jurisdiction. This ratio is converted to percent, and rounded to the nearest 10%.

In several states, "100% eligibility" may slightly overstate reality. A few residential consumers served by municipal utilities or electric cooperatives may be exempt from competition, but under this methodology, all percents greater than 95% are rounded to 100%. In other instances, a small percentage of the rural population may be located off the main transmission grid, raising the distinction between percent on the grid and percent on or off the grid. While these details are important to each jurisdiction, these differences are not significant for ABACCUS scoring.

Eligibility is important. Each jurisdiction ought to open its electric markets to all retail consumers. A larger percentage of eligible consumers increases the market size and opportunities.

8. C&I Eligibility

(2012 C&I Methodology: A.1 Eligibility of C&I Customer Load)

8	Market Structure	C&I Eligibility	What percentage of C&I electricity sales in the jurisdiction are eligible?

Options and Points

More than 95%	10
More than 85%	9
More than 75%	8
More than 65%	7
More than 55%	6
More than 45%	5
More than 35%	4
More than 25%	3
More than 15%	2
More than 5%	1
Less than 5%	0

Each jurisdiction receives a numeric data entry equal to the amount of eligible C&I electricity load in the jurisdiction divided by the total C&I electricity load in the jurisdiction. This ratio is converted to percent, and rounded to the nearest 10%.

Eligibility is important. Each jurisdiction ought to open its electric markets to all C&I consumer load. A larger percentage of eligible load increases the market size and opportunities.

9. Market Size

(2012 Residential Methodology: A.5 Market Size and 2012 C&I Methodology: A.7 Market Size)

9	Market Structure	Market Size	What are the annual electricity sales? (How large are the business opportunities?)

Options and Points

More than 100,000 GWh	10
More than 90,000 GWh	9
More than 80,000 GWh	8
More than 70,000 GWh	7
More than 60,000 GWh	6
More than 50,000 GWh	5

More than 40,000 GWh	4
More than 30,000 GWh	3
More than 20,000 GWh	2
More than 10,000 GWh	1
Less than 10,000 GWh	0

Each jurisdiction receives a numeric data entry equal to the GWH sales to retail consumers in a recent year, rounded to the nearest 10,000 GWH sales. The level "100,000 GWH or greater" is a proxy for "a large retail market." (The annual retail sales in Michigan are approximately 100,000 GWH. Twelve states are at this level or higher.) Smaller jurisdictions will receive fewer points in proportion to this standard level of 100,000 GWH in annual sales.

A large market is attractive to entrepreneurs and investors. "How large is large enough?" or "how large is not large enough?" is not a perfect science. For this measure, a threshold has been established equal to the size of the electricity market in Michigan. This is effectively a small-state penalty which should focus attention on the need for very small jurisdictions to establish policies and practices which are the same as other states. Such consistency will reduce transactions costs and lower the costs of entering a market.

10. Bulk Power Market Structure

(Similar to 2012 C&I Methodology: B.1 RTO/ISO Existence)

10	Market Structure	Bulk Power Market Structure	How is the relevant bulk power market organized?

Options and Points

Organized energy-only market	10
Organized capacity market	10
Developing market	4
Utility operated	0

This attribute recognizes the existence of an independent system operator and records the type of market based on the degree of government intervention in the market. Capacity markets and energy-only markets are treated separately, but are scored the same for now. Energy-only markets send the clearest time-differentiated market price signals with the least administrative interference. Energy-only markets can be volatile, and are actually comprised of several markets for energy transactions and for the related or ancillary services. The time-differentiated pricing signal are strong and can result in the development of a variety of on-site or premises-based services for customers. Capacity markets are also recognized as providing clear market signals and opportunities for REPs to create products for retail customers. Other bulk power markets are indicated as emerging or "developing." An RTO may not exist, but the market may not have developed the tools that REPs need to create products and services for consumers or to manage risk. Key portions of the market remain centrally planned and administered, thus limited the opportunities for the creation of new customer services. These three categories of organize markets can be contrasted with the utility-dominated markets. Utility-dominated markets lack and RTO or ISO and utilities may restrict new entrants through one or several mechanisms: the utility

controls the rules; little energy is openly traded; there are few opportunities to provide power to utilities in open-bidding solicitations or through the centrally-administered IRP process.

11. Open Market Criteria

(Similar to 2012 Residential Methodology: B.1 Wholesale Market Competition)

11	Market Structure	Open Market Criteria	Does the relevant bulk power market satisfy nationally-established criteria for open-market competition?

Options and Points

Advanced, organized power market	10
Mixed types of power markets	7
Emerging RTO or ISO	5
Utility-dominated subject to FERC Order 888	0

Electric regions in North America have made progress during the past 20 years to adopt practices that enhance bulk power competition. Open access transmission service facilitates power transactions and supports the operation of a reliable grid. REP access to competitive bulk power markets is important to the success of retail electric competition.

An advanced and organized bulk power market operates with a FERC-approved Regional Transmission Organization (RTO) or Independent System Operator (ISO) with the following characteristics: 1) market-based congestion management, 2) markets for balancing energy, regulation, and reserves, 3) congestion management based on a nodal design, and 4) FERC exemption from PURPA purchase requirements. A state such as Texas, which has different systems in different parts of the state is labeled as mixed. Bulk power markets that are dominated by utilities that operate their own systems and operate in a manner consistent with FERC Order 888 are not given any credit. However, those regions that are working toward an RTO or ISO are assigned some points.

12. Market Monitor

(2012 C&I Methodology: B.2 Market Monitor)

12	Market Structure	Market Monitor	Is the market monitoring function conducted in an independent, transparent and thorough manner?

Options and Points

Robust market monitoring	10
Adequate market monitoring	8
Some controversy in market monitoring	6
No independent market monitor	0

Effective, independent market monitoring is essential to the proper functioning of the bulk power market. There are issues beyond the mere existence of the market monitor regarding the independence with which budgets are approved and funding is provided that may affect the ability of the monitor to be objective. Fortunately, market monitors in North America are adequate.

This attribute draws a distinction between the market monitors that are adequate and those that have demonstrated effectiveness and independence. More significantly, this attribute does not award points to those regions that have not yet developed sufficiently to create a market monitor position.

13. Demand Response Programs

(Similar to 2012 Residential Methodology: B.2 Demand Response and 2012 C&I Methodology: B.3 Reliability Demand Response; B.4 Economic Demand Response; B.5 Ancillary Services)

13	Market Structure	Demand Response Programs	Has the ISO developed a comprehensive set of demand response programs to facilitate load participation in bulk power markets?

Options and Points

Advanced DR market (fast-acting ancillary services)	10
Robust DR (day ahead and real time; ancillary services)	8
Limited economic and reliability DR	6
Reliability/emergency DR only	4
No DR at ISO / RTO	0

Each jurisdiction receives a data entry that indicates the degree to which demand response is integrated into ISO activities. The number of points assigned to each option is set forth in the table.

Direct participation in a bulk power open opportunities for consumers of all sizes, as well as for the creativity of the REPs that serve the customers. We are aware of the system benefits of demand response: to reduce the frequency and severity of price spikes, to reduce the ability of the owners of generating units to exercise market power, and to provide entirely new resources for grid reliability and stability (e.g., loads on under-frequency relays). Full integration of demand and supply is essential for healthy and robust competition. Certain ancillary services can be provided more efficiently and at lower cost to the bulk power market, and retail consumers can enjoy a greater degree of service differentiation.

In a perfect world, all economic demand response would occur in the competitive market place without any need for administered programs. We are in a development phase, however, and the scope of centrally controlled and administered DR programs is important. Emergency DR will likely always remain an administered program, subject to the central planning functions of the system operator and reliability council.

This attribute assess the degree to which various DR programs and platforms have been created to allow customers of all sizes to participate in markets for energy, capacity and ancillary services. We examine whether there are reliability and economic markets, day-ahead and real time markets for energy, operating and responsive reserve markets for ancillary services.

Default Service

Default service relates to the design of the regulated basic, standard or default electric service available to retail consumers in many jurisdictions.

Fully-competitive retail electric markets have numerous REPs which offer varied products and services. There is no need for government-regulated electric service. However, the electric industry has been regulated for a century and consumers have become accustomed to regulated tariffs and limited choices. Changes in consumer behavior, including comfort with a competitive retail electric market, may take time, especially when consumers are sent conflicting signals about regulated default service and competitive offerings.

Legislators and utility regulators in North America have decided to ensure that basic, standard or default service should be offered to consumers during a transition period. In many markets, the transition has become ten years or fifteen years or more, and some consumers have made little, if any, effort to become educated about their choices in the market place. We are left with the classic "chicken and egg" problem: which comes first, the end of regulated service? or the beginning of customer choice?

In two notable instances—retail natural gas service in Georgia and retail electricity service in much of Texas—a decision was made to directly move consumers to competitive retailers at the start of the process, and to do so with consumer protections in place. There remain reasonable issues regarding the appropriate period of time for a market to mature, and for the maintenance of transitional tariffs. However, there no longer seems to be a reasonable issues about whether it is possible to make a clean break from regulated tariffs to retail competition. It has been successfully accomplished.

Most jurisdictions in North American have selected a long or undefined transition period, and regulated default service persists. In these places, a competitive market may be considered successful as long as the percentage of customers receiving regulated default service grows smaller each year. That is, the larger the percent of consumers who receive services from competitive REPs, the healthier the market is likely to be. We have created a performance-related attribute to measure that effect (see: "Residential Net Switching to Competitive Service").

In this section we make a distinction between "default service" and "provider of last resort." Default service is available to everyone. Provider of last resort (POLR) is a specialized emergency service for consumers who lose their provider. For example, if a REP goes out of business and does not make arrangements to transfer its consumers, all the consumers are assigned to the POLR without any interruption of service. Service from the POLR is likely to be undesirable (costly) because there is great uncertainty as to when and how many consumers are to be served. For that reason, consumer who find themselves on POLR service will quickly select a new REP.

14. Residential Default Supplier

(2012 Residential Methodology: C.1 Default Service Provider)

14	Default Service	Residential Default Supplier	Who provides default service to residential consumers?

Options and Points

No default service (limited POLR service)	10
Competitive REP	9
Affiliate of EDU	5
EDU	2

Limited or no retail choice	0

Each jurisdiction is assessed with regard to the type of company that provides default service, and its relationship to utilities and other companies. Some jurisdictions require default service to be provided by the EDU, while others rely on an entity other than the EDU. The use of non-utility or non-affiliated entity to provide default service is likely to give greater confidence to new REPs about whether they will be treated fairly. Default service may be assigned to a competitive affiliate of the utility (as in Texas), or a competitive bidding process may be held to select the default service provider.

15. Medium C&I Default Supplier

(2012 C&I Methodology: C.3 Default Service Provider Medium C&I)

15	Default Service	Medium C&I Default Supplier	Who provides default service to medium C&I consumers?

Options and Points

No default service (limited POLR service)	10
Competitive REP	9
Affiliate of EDU	5
EDU	2
Limited or no retail choice	0

See: Residential Default Supplier.

16. Large C&I Default Service

(2012 C&I Methodology: C.1 Default Service for Large C&I)

16	Default Service	Large C&I Default Service	Is default service offered to large C&I loads, but only below a certain size limit?

Options and Points

No default service (limited POLR service)	10
Default service offered below 200 kW	8
Default service offered below 500 kW	6
Default service offered below 1000 kW	4
Default service for all but a few large consumers	2
Default service available to all large C&I	0
Limited or no retail choice	0

See: Residential Default Supplier. Some jurisdictions have determined that larger consumers are fully capable of navigating the competitive market and that default service is not necessary for them to be served. A few jurisdictions are lowering the eligibility limits over time, reducing the upper limit for which default service is available.

17. Residential Default Service Product Options

(2012 Residential Methodology: C.2 Default Service Product Options)

17	Default Service	Residential Default Service Product Options	Is residential default service a substitute for choices in the competitive market?

Options and Points

No default service (limited POLR service)	10
Default service is one plain vanilla offering	8
Default service mimics several historical tariff offerings	4
Default service includes a range of offers and competes with the market	0
Limited or no retail choice	0

Default service that is simple and basic is rewarded with more points. Simple or basic services that do not mimic or compete with the competitive market are preferred if the jurisdiction is interested in the success of the competitive market. The existence of default service is an impediment to competition because residential customers may stay with default service due to inertia, uncertainty or because it is meeting all their needs. If a jurisdiction wants regulated service to meet consumer needs, it does not need to attempt to create a competitive market. Greater differentiation and complexity in default service will infringe upon the creativity and innovation of pricing options and services that competitive retailers would provide in a competitive market.

Each jurisdiction is assessed as to whether default service is designed as basic service, or whether the jurisdiction has determined that default service ought to mimic the differentiated services that the regulated market used to provide in the past, or that a fully competitive market may provide in the future. The number of points assigned to each option is set forth in the table.

18. Medium C&I Default Service Product Options

(2012 C&I Methodology: C.5 Default Service Product Options Medium C&I)

18	Default Service	Medium C&I Default Service Product Options	Is medium C&I default service a substitute for choices in the competitive market?

Options and Points

No default service (limited POLR service)	10
Default service is one plain vanilla offering	8
Default service mimics several historical tariff offerings	4
Default service includes a range of offers and competes with the market	0
Limited or no retail choice	0

See: Residential Default Service Product Options.

19. Residential Default Price Adjustment

(2012 Residential Methodology: C.3 Default Service Rate Mechanism)

19	Default Service	Residential Default Price Adjustment	How frequently is the default service price adjusted to the market price?

Options and Points

No default service (limited POLR service)	10
Aligned to market hourly	9
Aligned to market monthly	8
Aligned to market quarterly	6
Aligned to market every six months	4
Aligned to market annually	2
Aligned to market every few years	0
Frozen or regulated cost-of-service rates	0

Each jurisdiction receives a data entry that reflects the manner in which default service prices are aligned to the cost of power in the wholesale market. The greater frequency of adjustment means that retail customers who take default service are exposed to wholesale market prices to a greater degree. That is, default service that is designed to track the cost of power in the wholesale market is considered an effective way to provide basic service without added services, especially risk management services. Default service provides a substitute to competitive offers, and averaging the costs over time provides a price risk management service that competitive retailers are able to provide. Rates that are frozen or set below cost may prevent retail competition from taking hold by moving cost recovery to future time periods and by using regulatory powers, not market mechanisms, to recover costs.

20. Medium C&I Default Price Adjustment

2012 C&I Methodology: C.4 Default Service Cost Tracking Medium C&I

20	Default Service	Medium C&I Default Price Adjustment	How frequently is the default service price adjusted to the market price?

Options and Points

No default service (limited POLR service)	10
Aligned to market hourly	9
Aligned to market monthly	8
Aligned to market quarterly	6
Aligned to market every six months	4
Aligned to market annually	2

Aligned to market every few years	0
Frozen or regulated cost-of-service rates	0

See: Residential Default Price Adjustment.

21. Large C&I Default Price Adjustment

2012 C&I Methodology: C.2 Default Service Cost Tracking Large C&I

21	Default Service	Large C&I Default Price Adjustment	How frequently is the default service price adjusted to the market price?

Options and Points

No default service (limited POLR service)	10
Aligned to market hourly	9
Aligned to market monthly	8
Aligned to market quarterly	6
Aligned to market every six months	4
Aligned to market annually	2
Aligned to market every few years	0
Frozen or regulated cost-of-service rates	0

See: Residential Default Price Adjustment.

22. Residential Default Resource Portfolio

(2012 C&I Methodology: C.4 Default Service Resource Portfolio)

22	Default Service	Residential Default Resource Portfolio	Does the default service provider hedge the resource portfolio?

Options and Points

No default service (limited POLR service)	10
Provider matches price adjustment	7
Provider hedges (multi-year)	3
Mix of hedged purchases and own resources	1
EDU relies on its own resources	0

Each jurisdiction is assessed with regard to the degree to which the default provider hedges a portfolio to serve default service customers. Default service that tracks the term of the service contract (monthly or shorter) with the term of power contracts in wholesale markets is awarded more points. Hedging provides risk management services that competitive REPs can provide. Consumers will find a variety of hedging services through the market that are not available in a regulated default rate, and any hedged, regulated product serves as a barrier to the development of new services.

23. Medium C&I Default Resource Portfolio

(2012 C&I Methodology: C.7 Default Service Resource Hedging Medium C&I)

23	Default Service	Medium C&I Default Resource Portfolio	Does the default service provider hedge the resource portfolio?

Options and Points

No default service (limited POLR service)	10
Provider matches price adjustment	7
Provider hedges (multi-year)	3
Mix of hedged purchases and own resources	1
EDU relies on its own resources	0

See: Residential Default Resource Portfolio.

24. Residential Default Cost Allocation

(2012 Residential Methodology: C.6 Residential Default Service Cost Allocation)

24	Default Service	Residential Default Cost Allocation	Does the default service rate reflect the cost of service?

Options and Points

No default service (limited POLR service)	10
Includes "gross margin" and "competitive elements" (bad debt)	9
Includes "gross margin"	7
Includes "competitive elements" (bad debt)	5
Power costs only	3
Capped rate (not cost of service)	0
Regulated cost-of-service rates	0

Each jurisdiction is assessed regarding the degree to which default service is priced at full retail cost so that residential customers can compare services and prices in a fair environment. Default service that is designed to fully reflect wholesale power costs, and include the full retail costs incurred in competitive markets (e.g., bad debt, marketing, administration, etc.) is considered more likely to result in a competitive market. Rates that are capped below the cost of service are detrimental to retail competition. Rates that are frozen or set below cost may prevent retail competition from taking hold by moving cost recovery to future time periods and using regulatory powers, not market mechanisms, to recover costs.

25. Medium C&I Default Cost Allocation

(2012 C&I Methodology: C.6 Default Service Cost Allocation Medium C&I)

25	Default Service	Medium C&I Default Cost Allocation	Does the default service rate reflect the cost of service?

Options and Points

No default service (limited POLR service)	10
Includes "gross margin" and "competitive elements" (bad debt)	9
Includes "gross margin"	7
Includes "competitive elements" (bad debt)	5
Power costs only	3
Capped rate (not cost of service)	0
Regulated cost-of-service rates	0

See: Residential Default Cost Allocation.

Transactions

Transactions relate to the day-to-day interactions that market participants (consumers, utilities, REPs, etc.) perform each day to buy and sell electricity. First we consider the switching transaction from the retail consumer perspective. (Is switching restricted? How quickly does switching occur?) Then we turn to the REP perspective to examine billing and the treatment of bad debt. (Can the REP bill the consumer or is the utility still involved? Who bears the responsibility for collections? Is the cost of bad debt socialized?) Next we look at the manner in which information is exchanged among the parties. Finally we look at REP access to basic customer data and customer usage data. Rules matter, and rules that increase costs and limit creativity will stifle a competitive retail market.

26. Residential Default Switching Restrictions

(2012 Residential Methodology: C.5 Default Service Switching Options)

26	Transactions	Residential Default Switching Restrictions	Are consumers restricted in any way from switching from default service to a competitive supplier?

Options and Points

Open exit, no fees, next billing cycle	10
Monthly exit, no fees	8
Monthly exit, fees apply	6
Annual exit, no fees	4
Annual exit, fees apply	2

Periodic, administered, multi-year window	1
Cap on switching or other restrictions	0

Each jurisdiction receives a data entry that reflects the degree to which switching away from the default provider is restricted. The number of points assigned to each option is set forth in the table. Jurisdictions that allow customers to switch at any time without penalty or fee receive are encouraging behaviors consistent with a market. Free movement of consumers will allow them to learn about new services and to contract for the terms and conditions that are preferred. Restrictions on the switching away from default service should be avoided.

27. Medium C&I Default Switching Restrictions

(2012 C&I Methodology: C.8 Default Service Switching Options)

27	Transactions	Medium C&I Default Switching Restrictions	Are consumers restricted in any way from switching from default service to a competitive supplier?

Options and Points

Open exit, no fees, next billing cycle	10
Monthly exit, no fees	8
Monthly exit, fees apply	6
Annual exit, no fees	4
Annual exit, fees apply	2
Periodic, administered, multi-year window	1
Cap on switching or other restrictions	0

See: Residential Default Switching Restrictions.

28. Residential Switching Period

(This is a new metric.)

28	Transactions	Residential Switching Period	What is the minimum number of days necessary to switch a residential consumer to a new provider?

Options and Points

One day	10
Two to three days	8
Four to seven days	5
Start of next regular meter read	2
Cap on switching or other restrictions	0

Acquiring a new customer, and receiving revenue as soon as possible is important to retail energy providers. New entrants must address cash flow issues in order to survive. Also important is the speed

of switching to the consumer. Not only would the consumer receive the preferred service, but there is a stronger sense of the appropriate functioning of a market place if the results of a transaction are close in time to the decision.

Is was recommended by the ABACCUS Advisory Board in 2013 that we add a metric to assess the minimum residential switching period. An ability of switch a consumer rapidly reflects a willingness to create and support a system that works to the advantage of the market makers – the consumers and the retail energy providers who serve them. Delays – whether intentional or due to bureaucracy – serve the interests of those who are satisfied with choices made a long time ago.

29. Residential Billing

(Similar to 2012 Residential Methodology: D.7 Billing Protocols)

29	Transactions	Residential Billing	Who bills the residential customer?

Options and Points

REP must bill	10
REP has the option to bill or use EDU	8
REP has the option to bill separately for the commodity	4
Both REP and EDU must bill separately	2
EDU must do the billing	0

Billing is a significant function in the electric sector, especially because the product—electric service—is not carried home in a box like other retail products. When retail electric service billing is fully competitive, the retail energy provider must take responsibility for managing all aspects of these transactions with retail consumers. This presents risks and opportunities. No one knows what new business models are likely to arise in the electric sector, but it is generally agreed that flexibility will allow and encourage experimentation.

In the jurisdictions where electricity is treated as a commodity, the regulated utility often maintains the primary role as billing agent, and the competitive portion—the electric commodity—appears as a line item on electric bill. There is relatively little opportunity for the competitive provider to use the billing transaction as a means to communicate information, engage consumers or provide new services. If only the commodity portion of the bill is competitive, then other services and charges—for metering service, distribution service, and certain value-added services—remains regulated. This limits the ability of the retail energy provider to innovate, bundle services, or discount the cost of regulated services.

Several jurisdictions are working to increase the ability of the retail energy provider to have access to the electric bill. This includes adding their logo or providing space for information.

This attribute scores the options with respect to the development of a competitive market. In past ABACCUS reports, we was stated that, “There is no consensus on whether utility billing or retailer billing is an essential component of retail electricity choice.” In the January 2014 report, we broke with that sentiment, and distinguish between “utility consolidated billing” (UCB)—a system that allowed the utility to continue to bill customers on behalf of retail suppliers—and a billing approach in which retail energy providers take full responsibility. UCB allows small retail providers to enter the market without investing in billing systems, which is useful, but limiting. The advantage of requiring the retail energy

provider to acquire competitive billing capabilities is that they can then establish a close relationship with the consumer, drive down the cost of billing and collections, offer new services that are fully integrated with commodity services, and price the entire bundle as best serves their vision of a high value, low cost, service provider.

30. Treatment of Bad Debt

(Similar to 2012 Residential Methodology: D.7 Billing Protocols)

30	Transactions	Treatment of Bad Debt	Who is responsible for bad debt?

Options and Points

REP handles all receivables and EDU payment	10
Purchase of receivables program	8
Regulatory inquiry into purchase of receivables	5
Some unequal treatment of REPs	2
Default provider receives preference	0

Responsibility for bad debt has social implications and is intertwined with consumer protections and the rules regarding disconnection and reconnection. In a world of "purchase of receivables" (POR), the risk of non-payment is pooled and shared among all market participants in proportion to sales. This is popular in some jurisdictions to overcome past inequities.

Without POR, each retail supplier is at risk for bad debt, including the collection of both the commodity cost and delivery charges. In a competitive world, this would is normal. In the regulated utility world, past practices and rules may provide undue advantage to one party or another. Unequal treatment is unfair. In the most egregious cases, a portion of a payment is first applied to the delivery portion of the bill, and the greater portion of the debt is applied to the commodity portion of the bill.

31. Standard Electronic Data Exchange

(2012 Residential Methodology: D.6 Transaction Standards and 2012 C&I Methodology: D.7 Transaction Standards)

31	Transactions	Standard Electronic Data Exchange	Does the jurisdiction require the use of a standard electronic data exchange (EDI) for business transactions?

Options and Points

Standard EDI set for retail transactions	10
Standard customer information set for retail transactions	5
Utility-by-utility transaction processing	0

The degree of standardization for electronic data interchange in the jurisdiction is very important to the conduct of efficient transactions. A standard electronic data interchange (EDI) greatly reduces transactions costs. With large consumers, the faxing or manual entry of data (this was common in the

early days of retail electricity competition) is a small cost relative to the size of the customer. However, in the residential consumer market, frequent, repetitive transactions would be very costly if handled manually. Likewise, a non-standard, utility-by-utility approach increases the cost of each transaction and reduces the viability of retail electricity choice.

32. Uniformity of Standards

(2012 Residential Methodology: D.5 Uniformity of Standards and 2012 C&I Methodology: D.6 Uniformity of Standards)

32	Transactions	Uniformity of Standards	Does the jurisdiction apply uniform standards for the operation of competitive retail markets?

Options and Points

Adoption of North American Energy Standards Board consensus standards for retail electricity	10
Adoption of comprehensive and uniform jurisdictional standards	5
Standards vary by distribution utility	0

The degree to which each jurisdiction has adopted a standard approach for conducting retail business in its jurisdiction must be assessed. Jurisdictions that allow each electric distribution utility to maintain separate, unique standards or approaches for conducting business are unnecessarily imposing costs on competitive energy providers that operate across the entire jurisdiction, requiring that they adapt to different standards for different utilities. Jurisdictions must work toward uniform business standards with a goal of creating and adopting standards for North America.

33. Administration of Switching

(2012 C&I Methodology: D.5 Administration of Switching)

33	Transactions	Administration of Switching	Does a central, fully-independent organization handle all customer switching requests?

Options and Points

Administered by one independent entity	10
Primarily administered by one independent entity	5
Administered by EDUs	2
No choice	0

As with standardization for electronic data interchange or the application of uniform standards for the operation of competitive retail markets, the use of a central, fully-independent organization to handle all customer switching requests is likely to reduce costs for all parties.

34. Access to Residential Customer Information

(2012 Residential Methodology: D.4 Access to Residential Customer Information)

34	Transactions	Access to Residential Customer Information	Do qualified retailers have easy access to basic customer information?

Options and Points

Standardized, comprehensive information provided to qualified REPs	10
Customers can opt out information sharing	8
Customers must opt into information sharing	5
Affirmative customer approval required (e.g., at trade shows)	4
Limited information provided to qualified REPs	2
No customer information dissemination	0

Greater access to basic customer information will reduce transaction costs for retail energy providers and facilitate greater retail electricity choice. Policies that restrict access to customer data may impose costs on certain market participants will allowing others to maintain an advantage. Each jurisdiction is assessed with regard to the ease with which basic customer information—address, monthly usage, etc.—is made available to qualified retailers. Customer privacy and protection is a given, and each jurisdiction must balance access to sensitive customer data with a desire to make these basic data available on a consistent basis to all retail energy providers.

35. Access to Customer Usage Data

(2012 Residential Methodology: D.8 Access to Electricity Usage Data)

35	Transactions	Access to Customer Usage Data	Do retailers have timely access to detailed electricity usage data?

Options and Points

REP same day access to detailed customer usage data	10
REP next day access to detailed customer usage data	7
REP month's end to detailed customer usage data (e.g., traditional interval data recorders)	3
Little to no usage data are available	0

Direct, real-time access to customer usage data is valuable. An enhanced ability to measure and manage customer data in real time may allow retail energy providers to provide enhanced services. There are new techniques emerging to manage customer loads, manage price risk, and affect the energy providers' resource portfolio and cost structure. Do retail energy providers have immediate (same day) access to metered usage data, or it is available the next day or at the end of the month? This attribute

related to residential and small commercial consumers. For the purposes of this attribute, we can disregard very large customers who have advanced meters and detailed interval data on their premises.

36. Electricity Usage Data Security and Customer Privacy

(2012 Residential Methodology: D.10 Electricity Usage Data Security and Customer Privacy and 2012 C&I Methodology: D.9 Electricity Usage Data Security and Customer Privacy)

36	Transactions	Electricity Usage Data Security and Customer Privacy	Has the jurisdiction established clear policy and practice regarding the security of customer usage data, customer data privacy, and the appropriate uses of customer usage data?

Options and Points

Five of five policies	10
Four of five policies	8
Three of five policies	6
Pending rulemaking proceeding	5
Two of five policies	4
One of five policies	2
No clear policies	0

In order to have a competitive retail electricity market, the ownership and protection of consumer usage data must be defined, and cyber security standards ought to be in place. There is a diversity of approaches in the states to with respect to data access, and this is a problem which can be addressed though open standards and protocols. Appropriate public policy balanced the efficiency of data access to retailers with longer-term benefits that address consumer needs, cyber security and abuses by certain retailers.

Each jurisdiction is scored with respect to five issues and whether they are clearly defined in the jurisdiction's rules and practice to balance consumer protection with ease of access to data by appropriate market participants. The jurisdiction must define: 1) data ownership, 2) responsibility for handling data to protect consumer privacy, 3) cyber security, 4) open standards and protocols that comply with nationally recognized non-proprietary standards, and 5) the communication of meters with customer-owned devices (such as those inside a building for usage monitoring, load control, prepayment, etc.). Regarding standards and protocols, we need "bank industry consistency" so that retailers can work across the continent just as ATM cards work in most locations. Jurisdictions with a pending rulemaking proceeding on these topics are also recognized.

Facilitation

Facilitation relates to policies and rules that encourage or frustrate retail energy providers as they interact with retail consumers and the T&D utilities. We assess commitment to competition, access to price comparison data (website shopping), access to advanced metering infrastructures and policies relating to onsite power generation.

37. Jurisdiction Commitment to Electric Competition

(This is a new metric.)

37	Facilitation	Jurisdiction Commitment to Electric Competition	Is the jurisdiction committed to implementation of a competitive market?

Options and Points

Irrevocably committed	10
Highly committed	8
Committed	6
Somewhat committed	3
Not at all committed	0

"Commitment to reform" assesses such things as the creation and staffing of a dedicated office of retail competition within an appropriate government agency, any efforts to solicit input from market participants and act upon that input, and the creation of rulemaking or other proceedings to reform the rules and requirements for the retail electricity market.

Different states are organized differently, with different agencies focused on the electricity issues. Therefore, this attribute represents a qualitative assessment of many activities such as the number of full time equivalents and budgets; the jurisdiction's commitment to customer education; the timing and success of rulemaking proceedings; recent and anticipated changes in rules; etc. The listed options are assigned based on judgment and the collection of these measures.

38. Consumer Access to Price Comparisons

(2012 Residential Methodology: D.11 Consumer Access to Price Comparisons)

38	Facilitation	Consumer Access to Price Comparisons	Does the jurisdiction maintain a website for residential consumers with: a) up-to-date prices and offers from all REPs, b) price and attribute comparison functionality, and c) links to REP terms and conditions and to the REP website.

Options and Points

No need for a government website	10
An exceptional website	10
Highly functional website	8
Adequate website	5
Good information without website	3
No website and/or confusing messaging	0

The ease with which consumers can gain access to, and compare, electricity prices is assessed. When retail electricity choice began in the 1990s in North America, no one anticipated that a government-

sponsored website with transparent price information would be valuable for the development of retail competition. Internet access has dramatically expanded and Web-based price comparisons are now commonplace for many products and services, including electricity.

During the transition to competition, a government-maintained website facilitates the comparison of offers on the basis of their price and other attributes of service (percent green power, length of term for fixed-price contracts, etc.). Some of the healthiest electric markets occur where there is a government-sponsored website. Government can provide confidence in the market, customer education, and price transparency by sponsoring a website.

In most normal competitive markets, there is no need for government-sponsored price-comparison websites. It is anticipated that there will come a time when consumer will have easy access to many useful sources of information, and no government website is required or even advised. As that become apparent, the scoring of this attribute will be adjusted.

39. Advanced Metering Infrastructure

(2012 Residential Methodology: D.9 Advanced Metering Infrastructure)

39	Facilitation	Advanced Metering Infrastructure	To what level has the jurisdiction deployed advanced metering infrastructure?

Options and Points

More than 95%	10
More than 85%	9
More than 75%	8
More than 65%	7
More than 55%	6
More than 45%	5
More than 35%	4
More than 25%	3
More than 15%	2
More than 5%	1
Less than 5%	0

Advanced metering infrastructure is an important investment in the electric network as utilities incorporate more intelligence into the wires, enable smart grid functions, and create a platform for consumer engagement. AMI enables time-based pricing (time-of-use, critical peak, real-time), demand response programs, prepaid energy service and many other advanced services. Advanced meters are defined as meters that are capable of measuring and storing as least *hourly* (or more frequent/shorter periods) consumption data and communicating these data at least once every *24 hours* (or more frequently).

The penetration of AMI to residential electricity customers treated as a proxy for investments in smart grid that can help the emergence of innovative products and services. The data are based on the FERC biennial survey of advanced meter market penetration issued in December 2012.

40. On-site Generation Alternatives

(2012 C&I Methodology: D.8 On-site Generation Alternatives)

40	Facilitation	On-site Generation Alternatives	Do C&I customers have interconnection and distribution system access that facilitates the use of DG as an alternative?

Options and Points

All three criteria satisfied	10
Two of three criteria	7
One of three criteria	4
No criteria	0

The examination of on-site generation alternatives considers three important dimensions: 1) the interconnection of distributed generation and related fees and practices; 2) policies regarding incentives, all-source solicitation in integrated resource planning, net metering, and resource portfolio standards, to ensure that distributed generation is considered in planning and treated fairly in administrated planning proceedings; and 3) the ability of retail consumers to access bulk power markets through the distribution system to ensure that consumers and buy and sell in a manner that provides flexibility with regard to on-site design and energy management.

In general, most jurisdictions have addressed the interconnection of distributed generation, and the associated fees, review procedures and related business practices of the EDU to ensure that DG is treatment fairly. With regard to criterion number two, man jurisdictions have in place administrative mechanisms to assist customers with DG to get standby power, sell excess power to the grid, participate (through aggregation) in all-source bidding schemes and to be considered fairly in long-term planning. The final set of criteria is more advanced and relates to the ability to conduct transactions over the distribution system, much in the way that bulk power transactions are conducted on the transmission grid.

Performance

Performance relates to market outcomes. Among the desirable outcomes are numerous products and services, offerings that include a range of different types of products, numerous retail energy providers, and high levels of switching from one provider to another. Each year, the ABACCUS report takes a snapshot of the states and provinces (using the most up-to-date information as of September), to consider the year-to-year changes.

41. Number of REPs Making Residential Offers

(2012 Residential Methodology: A.2 Number of Retailers Making Offers to Residential Customers)

41	Performance	Number of REPs Making Residential Offers	How many REPs are making offers to residential customers?

Options and Points

20 and greater is considered superior (10 points). Below that level, a portion is awarded.	10

A large number of retail energy providers making offers to residential customers is an indication of robust competition. A small number may indicate a problem with the market including barriers to entry, high costs of entry or high levels of business risk. It is acknowledged that counting "active retail energy providers" is merely a proxy for what could be a detailed analysis of participation in the market. A detailed analysis would require the definition of the appropriate market, a calculation of market concentration and an examination of entry barriers.

Beginning in 2012, "20 and greater" was defined as the standard for a fully competitive retail electricity market. This is a guideline that results in an explicit allocation of points.

42. Number of REPs Making Medium C&I Offers

(2012 C&I Methodology: A.3 Number of Retailers Making Medium C&I Offers)

42	Performance	Number of REPs Making Medium C&I Offers	How many REPs are making offers to medium C&I customers?

Options and Points

20 and greater is considered superior (10 points). Below that level, a portion is awarded.	10

See: Number of REPs Making Residential Offers

Beginning in 2012, "20 and greater" was defined as the standard for a fully competitive retail electricity market. This is a guideline that results in an explicit allocation of points.

43. Number of REPs Making Large C&I Offers

(2012 C&I Methodology: A.2 Number of Retailers Making Large C&I Offers)

43	Performance	Number of REPs Making Large C&I Offers	How many REPs are making offers to large C&I customers?

Options and Points

20 and greater is considered superior (10 points). Below that level, a portion is awarded.	10

See: Number of REPs Making Residential Offers

Beginning in 2012, "20 and greater" was defined as the standard for a fully competitive retail electricity market. This is a guideline that results in an explicit allocation of points.

44. Number Residential Offers

(2012 Residential Methodology: A.6 Number of Distinct Offers)

44	Performance	Number Residential Offers	How many distinct offers are available from REPs to residential customers?

Options and Points

50 and greater is considered superior (10 points). Below that level, a portion is awarded.	10

A large number of distinct offers to residential consumers indicates healthy competition. This includes the number of distinct pricing offers or contracts available from various energy retailers for month-to-month power, fixed rates of various terms, green power, indexed prices, prepaid service, special services and rebate offers, etc. Only competitive (unregulated) offers are counted; that is, default service is not counted as a competitive service option. A very small number of offers indicates an immature market and may indicate barriers to entry and a lack of infrastructure or pricing signals to allow the market to grow and diversify. It is acknowledged that this method is merely a proxy for determining the level of innovation, the degree of market differentiation and the level of market maturity.

Beginning in 2012, "50 and greater" was defined as the standard for a fully competitive retail electricity market. This is a guideline that results in an explicit allocation of points.

45. Types of Residential Offers

(2012 Residential Methodology: A.7 Categories of Products)

45	Performance	Types of Residential Offers	How many different product and service types do REPs offer to residential customers?

Options and Points

15 and greater is considered superior (10 points). Below that level, a portion is awarded.	10

A variety of diverse products and services from which residential consumers can choose is an indicator of healthy competition and a maturing market. While no one knows which products and services will be popular or successful in the future, a variety of services and products offered today ensures that consumers and retail energy providers will be experimenting, learning, refining and adapting. This process will result in a better understanding of consumer preferences and value, and the cost of delivering what people want. This attribute serves as a proxy for measuring innovation. From 2010-2012, ABACCUS measured a few, simple categories such as stable pricing and green pricing, but markets have evolved, and this attribute looks more closely at what is available today. The number of types has been dramatically increased.

In this attribute, we are assessing the variety and types of services offered by REPs, and we do not include services offered by the regulated utility or default service provider. We also do not include the fully-competitive services that have been offered directly to residential customers for a long time. Over time, however, these may be integrated into the competitive REP offers.

For now, the availability of REP offers are assessed that fall into following categories or types of service: 1) greenness (100% renewable resource products), 2) price stability (price guarantees; flat rates; multi-year contracts), 3) price flexibility (wholesale market price flow-through), 4) energy management (analytics; expert advice; in-home technologies; data-rich communications), 5) bill pay choices and budgeting (budget alerts; budget billing; flexible payment; repayment plans), 6) prepaid energy, 7) time of use (weekends; days; nights; traditional TOU), 8) affinity marketing (local causes), 9) discounts (cash back; debit cards), 10) appliance maintenance (HVAC tune up), 11) high-touch service (personal interactions and premium customer services), 12) on-site generation services (standby and buyback rates; access to bulk power markets), 13) load control services (demand response; access to bulk power markets; load monitoring and measurement), 14) energy efficiency services (incentives and information for energy efficiency investments) and 15) on-site financing (loans; project financing).

Beginning in 2013, "15 and greater" was defined as the standard for a retail electricity market exhibiting a diversity of new products and services. If all of these 15 types of service are offered by one or more REPs, then the state receives the maximum point total.

46. Residential Net Switching to Competitive Service

(2012 Residential Methodology: A.3 Residential Customers Receiving Competitive Rate)

46	Performance	Residential Net Switching to Competitive Service	What percentage of eligible residential customers receive service on a competitive product?

Options and Points

100% is considered superior and receives 10 points. Below that, a portion is awarded.	10

Net switching is a frequently-relied-upon measure of market performance. If a greater portion of consumers has switched to a competitive rate – as compared to a regulated rate – it is assumed that there is robust competition and more successful restructuring. Under retail electricity choice, a residential customer could switch to a competitive provider, could be assigned to a competitive provider, could make a transition to a competition rate when default service has ended, or could be part of a scheme to aggregate customers at the municipal level to be served by someone new.

This attribute does not differentiate between these paths to the competitive service. The focus is on whether the consumers receive competitive service or regulated service. "Regulated service" refers to terms and prices established by, or approved through, a regulatory or administrative process. It is fair to think of regulated service as default service, which tends to be closely regulated and administered.

This attribute takes a snapshot of the percent of eligible customers on competitive service without regard to how they got there, how long they have been there or whether they switch back and forth. The total number of residential customers who receive competitive service is divided by the total number of eligible residential customers in the jurisdiction.

47. Annual Switching Percentage

(This is a new metric.)

47	Performance	Annual Switching Percentage	What percentage of eligible residential customers changed service providers during the past 12 months?

Options and Points

15% is considered superior and 15%+ receives 10 points. Below that, a portion is awarded.	10

Different jurisdictions maintain different types of switching statistics. Companies that monitor retail electricity competition worldwide tend to examine the frequency of customer switching, to and from default service, and from one retail provider to another. This annual switching percentage or "churn" counts each consumer switch within a year, and then calculated the number of switches divided by the total number of consumers. In other words, if 5% of all residential consumers each switched two times within a year, the annual switching percentage would be 10%. It would not matter whether they switched away from default service, or from one competitive provider to another.

Note: These data are not yet available in North America, and no weight is assigned to this metric. As soon as comparable data are obtain for a majority of jurisdictions, this metric will be added to teh scoring by assigning a weight.

48. Medium C&I Net Switching to Competitive Service

(2012 C&I Methodology: A.5 Medium C&I Customer Load Switching)

48	Performance	Medium C&I Net Switching to Competitive Service	What percentage of eligible medium C&I customers receive service on a competitive product?

Options and Points

Points are awarded in proportion to the percentage who have switched.	10

See: Residential Net Switching to Competitive Service.

49. Large C&I Net Switching to Competitive Service

(2012 C&I Methodology: A.4 Large C&I Customer Load Switching)

49	Performance	Large C&I Net Switching to Competitive Service	What percentage of eligible large C&I customers receive service on a competitive product?

Options and Points

Points are awarded in proportion to the percentage who have switched.	10

See: Residential Net Switching to Competitive Service.

Crockett Affidavit
Exhibit B

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

CASE 15-M-0127 – In the Matter of Eligibility Criteria for Energy Service Companies.

CASE 12-M-0476 - Proceeding on Motion of the Commission to Assess Certain Aspects of the Residential and Small Non-residential Retail Energy Markets in New York State.

CASE 98-M-1343 – In the Matter of Retail Access Business Rules.

NOTICE SEEKING COMMENTS ON RESETTING RETAIL ENERGY MARKETS FOR MASS MARKET CUSTOMERS

(Issued February 23, 2016)

On February 23, 2016, an Order Resetting Retail Energy Markets and Establishing Further Process (February 2016 Order) was issued. That order stated that the Commission, based upon the existing record in the above-captioned proceedings, together with additional input from parties, will consider what long-term conditions should be implemented for energy service company (ESCO) eligibility and conditions of service to residential and small non-residential customers (mass market customers). To that end, interested parties should provide comments on the following issues:

1. Whether prospective ESCO sales to mass market customers, including renewal of expiring contracts, should be limited to products that include guaranteed savings or a defined energy-related value-added service. If not, precisely how should this requirement be broadened or narrowed?
2. What specific products or categories of products should constitute energy-related value-added services. For

example, if energy efficiency products are to qualify, should a specific minimum energy savings be required and if so, of what amount? If certain commodity-only products are to qualify, such as fixed price products or green energy products, should any restrictions be placed on the prices for such products and, if so, how should those restrictions be determined?

3. Whether other requirements, in addition to those identified in question 1, above, should be imposed on ESCO marketing or sales to mass market customers.
4. What changes, if any, should be made to the three-day period for residential customer rescission/cancellation of an agreement with an ESCO. Should this period be extended to 30 days?
5. Whether a rescission/cancellation period should be applied to small non-residential customers. If so, what period is appropriate?
6. Whether and under what circumstances ESCOs should be required to post performance bonds or other forms of demonstrated financial capability. If so, what magnitude is appropriate and how can this be administered most efficiently?
7. Whether the Commission should reconsider the framework for ESCO oversight under the Public Service Law and, if so, what changes should be made.
8. What penalties may apply to ESCOs that violate the UBP or other Commission Orders or provisions of the PSL (for example, the application of PSL §§ 25 and 25-a).

Parties are invited to submit initial comments by Monday, March 14, 2016 and reply comments by Monday, March 28, 2016. Parties are asked to submit comments by e-filing though

DMM,[1] or by e-mail to the Secretary at secretary@dps.ny.gov. If unable to file electronically, parties may make submissions by post or hand delivery to the Hon. Kathleen H. Burgess, Secretary, Three Empire Plaza, Albany, New York 12223-1350.[2] All comments received will be posted to the Commission's website and become an official part of the case record.

Any questions may be directed to Theodore Kelly, Assistant Counsel, at (518) 473-4953 or Theodore.Kelly@dps.ny.gov.

(SIGNED) KATHLEEN H. BURGESS
Secretary

[1] To register with DMM, go to http://www.dps.ny.gov/efile/registration.html.

[2] Information and instructions related to becoming a party, subscribing to the service list, or otherwise monitoring the status of this proceeding can found on the Commission's Web site at: http://documents.dps.ny.gov/public/MatterManagement/RequestAPStatus.aspx.