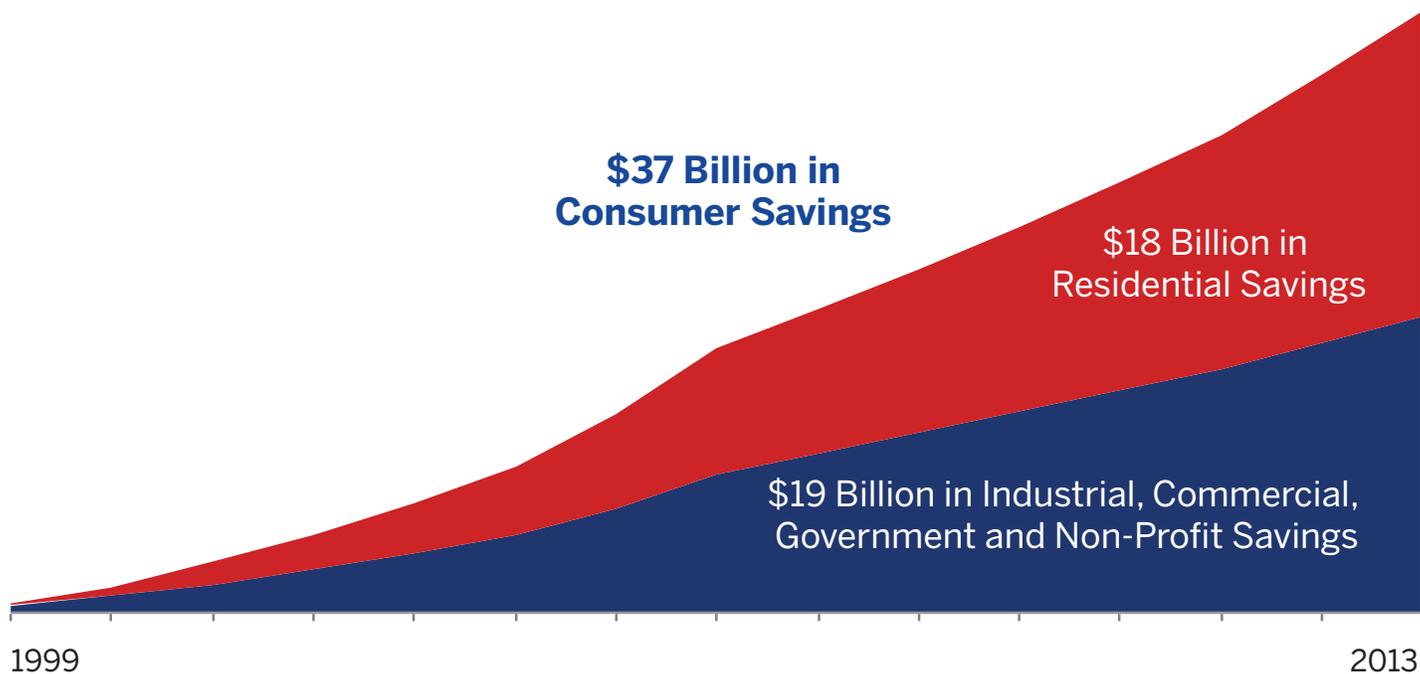


A Joint Report

Illinois Chamber Of Commerce
Illinois Manufacturers' Association
Illinois Retail Merchants Association
Illinois Business Roundtable

Electricity & Natural Gas Customer Choice In Illinois—A Model For Effective Public Policy Solutions

February 2014



Illinois Retail Merchants Association: IRMA is the only statewide association exclusively representing Illinois retailers. IRMA's more than 23,000 member stores cover the breadth and depth of retail in terms of size, merchandise lines and services. Since the commencement of electricity customer choice in Illinois, IRMA has sponsored a member access program that has saved millions of dollars for Illinois retailers and benefitted thousands of employees and millions of customers.

Illinois Manufacturers' Association: IMA is the oldest and largest state manufacturing trade association in the United States and the only statewide organization in Illinois dedicated exclusively to manufacturing. Founded in 1893, the IMA's mission is to advocate, promote, and strengthen the manufacturing climate for nearly 4,000 member companies and facilities. IMA's vision is an Illinois that builds on a history of manufacturing leadership to take its place as a premier manufacturing venue in a globally competitive environment. With the opening of the competitive electricity market, manufacturers were among the first to take advantage of lower market prices for power through the IMA's energy program.

Illinois Chamber of Commerce: The Chamber promotes the interests of Illinois business by working to improve the state's business climate, aggressively advocating legislation and public policies that support economic growth. The Chamber's Energy Council consists of members who generate, transmit or transport energy of all kinds as well as companies that are involved in the energy portfolio. The Council advocates for sound energy policy based on reality and not hype, hope or myth.

Illinois Business Roundtable: IBRT applies the knowledge, creativity and leadership resources of its members, more than 60 chief executive officers of Illinois' leading businesses, to complex Illinois policy issues. The Roundtable's mission is to speak with a unified voice on education, public finance, civil justice, infrastructure and other critically important long-term matters.

February 2014

To the Honorable Members of the Illinois General Assembly, 98th General Assembly

In 1997, Illinois embarked on a major change in how it regulates the electricity industry. The Illinois General Assembly opened the door to competition, customer choice and innovation. When the new law began implementation in mid-1998, Illinois had the 13th highest average electricity prices in the United States. In 2013, Illinois' average electricity prices were among the ten lowest in the country.

Illinois electricity consumers—residential, business and government—have paid \$37 billion less since 1998 than they would have if our state's average electricity rates had maintained their above average level in the decade prior to industry restructuring.

We believe that the stunning success of the Illinois approach of reliance on market forces rather than old-fashioned regulation can serve as a model for addressing other key issues facing our state. This paper describes the careful process and well-considered policies that have led to Illinois' status as the lowest-priced energy state in the industrial Midwest. Illinois' experience demonstrates that we can solve seemingly intractable problems and achieve genuine success.

Sincerely,



Douglas Whitley
Illinois Chamber of Commerce



Greg Baise
Illinois Manufacturers' Association



Rob Karr
Illinois Retail Merchants Association



Jeffery Mays
Illinois Business Roundtable

A Triumph Of Market-Based Public Policy

Illinois' decision to competitively restructure its natural gas and electricity markets has been emphatically vindicated by the results. Supplier competition, access to broad regional energy markets and customer choice are the products of well-considered and conscientiously-implemented policies to open the monopoly utility industry to market forces.

Starting in the mid-1980s, Illinois became a pioneer in advocating and implementing non-discriminatory transport of customer-owned natural gas. Most other states followed, allowing larger customers to purchase natural gas from suppliers other than the local gas delivery utility. Illinois also liberalized the market for small gas customers. Natural gas prices for all Illinois end-users are highly competitive and generally are at the lower end for large northern industrial states.¹

Illinois commenced electricity restructuring in the late 1990s. For well more than a decade prior to customer choice, average electricity prices in Illinois consistently had been significantly above the national average and were the highest among the five Upper Midwest industrial states.² Following the enactment of the Illinois Electric Service Customer Choice and Rate Relief Act of 1997,³ the state entered an era in which its average electricity price consistently has been below the national average. In 2013, the average delivered price of electricity in Illinois was the lowest among the five Upper Midwest states and among the ten lowest in the United States.

Following the enactment of the Illinois Electric Service Customer Choice and Rate Relief Act of 1997, the state entered an era in which its average electricity price consistently has been below the national average.

Illinois: Before & After Restructuring

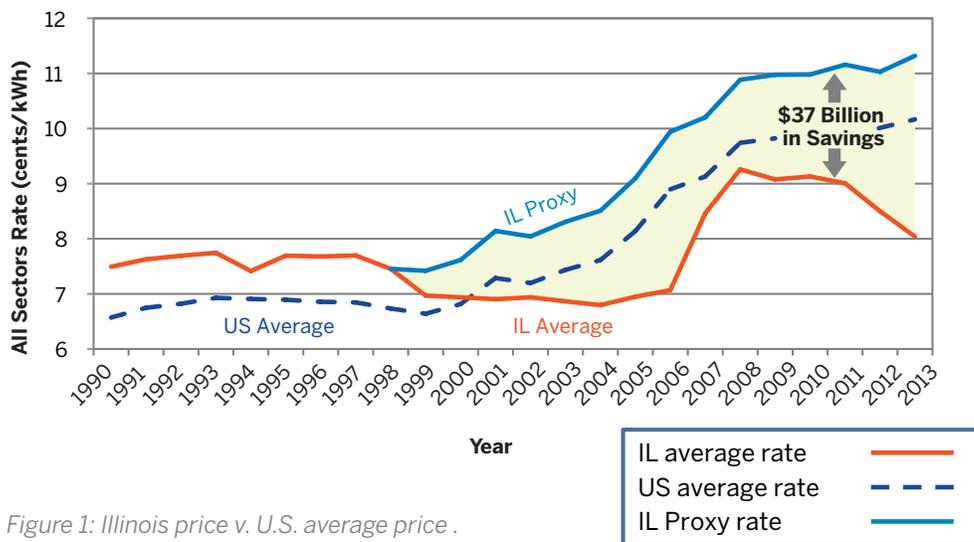
Figure 1 presents a comparison of Illinois' average delivered electricity prices to the national average in the decades before and after restructuring. It indicates **\$37 billion** in cumulative value for Illinois electricity customers since the pricing features of Illinois' restructuring law took effect in 1998. This calculation is based on the difference between actual Illinois average prices from 1998–2013 and the price level that would have prevailed (the proxy rate) if Illinois had maintained the same ratio relationship to national average prices after 1998 that had existed between 1990 and 1998.

Although residential customers accounted for less than one-third of all electricity use in Illinois since 1998, they have received nearly half of the price reduction benefits, over \$18 billion. This is an average savings of \$3,600 per household, or \$240 annually.

Industrial, commercial, government and non-profit customers were able to use the remainder of the \$19 billion in savings for reinvestment and job creation.

Illinois' successful transition from monopoly to competitive natural gas and electricity markets is not the final step, however. More remains to be done in the utility arena. Additional value for customers of all types can flow from modernization and strengthening of the natural gas and electricity delivery infrastructure, and from the streamlining of the regulatory oversight of the needed network investment. Further, Illinois' success in reforming and restructuring energy supply with a focus on customer choice and open markets should stand as a beacon for the development of solutions to other problems facing Illinois that may now seem as intractable as our utility problems once did.

Restructuring Saves Illinois \$37 Billion



In 2013, the average delivered price of electricity in Illinois was the lowest among the five Upper Midwest states and among the ten lowest in the U. S.

Figure 1: Illinois price v. U.S. average price .

"I voted for competition when I was a legislator, and in my current role as Chairman of the Illinois Commerce Commission, I am pleased to see the results."

~Doug Scott
Illinois chief utility regulator

1970s & 1980s: Illinois' Utility Rates Crisis

In the late 1970s and early 1980s, Illinois and a number of other states were in the midst of a utility rates crisis. Various forces were converging to produce rapidly rising natural gas and electricity prices. Under the traditional utility rate setting process in place at that time, utilities were vertically integrated regulated monopolies that provided both energy supply and delivery service to captive customers.

The era was one of serious economic stress and change:

- High interest rates, inflation and recession—“stagflation”
- Rising fuel prices propelled by international oil embargoes and counterproductive natural gas wellhead price regulation, inducing shortages and rapid price escalation
- Troubled nuclear projects challenged by changing regulation in response to the Three Mile Island accident
- New environmental regulations
- Declining or flat energy demand
- Rising energy prices in Illinois accelerating the out-migration of industrial operations to other states or countries

The impact of these conditions was inadvertently magnified by traditional rate-of-return, cost-of-service utility regulation.

Traditional monopoly regulation had worked well when natural gas and electricity were high-growth, declining cost businesses. However, when favorable conditions reversed, traditional regulation proved ill-suited to balancing the interests of consumers and utility investors. Heavily bureaucratized utilities and regulatory bodies could not promptly respond to rapidly developing conditions. As adverse and unintended consequences emerged, utility regulation became a major political issue and the governing consensus required to sustain traditional regulation began to fray and then unravel.

Given that traditional monopoly utility regulation, built on the foundations of the regulatory system for railroads—had been in place for most of the 20th century—the initial focus among state policy makers and participants in the regulatory process was on procedural reforms at the Illinois Commerce Commission. These changes, at best, were at the margins and could not have a serious impact on the central problem—traditional utility regulation was incompatible with changes in fundamental conditions in the energy and financial markets and in the globalizing economy.

The Movement to Markets in Network Industries

The inefficiencies and market distortions in the energy sector evident in Illinois existed in other states and countries that were also in other regulated network industries such as airlines, railroads, trucking and telecommunications. There was a growing awareness that monopoly or heavily regulated enterprises, whether privately-owned, publicly-traded or government-operated, were unable to rapidly adapt to changes in technology, global market conditions, financial markets and consumer needs.

Ideas for change gradually filtered from academia to policy forums to legislative and regulatory circles and within regulated industries. A growing movement advocated for reforms to bring market forces to regulated industries and to allow for competitive pricing that was responsive to the dynamics of supply and demand.

The desire for change achieved critical mass in the late 1970s, precipitating a chain reaction of reform at the federal level leading to dramatic changes in the structure, operations and regulation of the network industries that accounted for a significant portion of the economy.⁶

Between 1978 and 1996 Congress, the U.S. Department of Justice, and key federal regulatory agencies including the Federal Energy Regulatory Commission (FERC),

Federal Communications Commission, Federal Aviation Administration, and the eventually disestablished Civil Aeronautics Board and Interstate Commerce Commission (not to be confused with the Illinois Commerce Commission) took steps that replaced network industry regulation of market entry/exit and pricing with competitive market forces. Interstate airline, railroad, intercity bus, trucking, natural gas and telecommunications all underwent substantial change, including the introduction of improved technologies and intense competition for market share.

Meanwhile, the wholesale sector of the electricity industry, regulated at the federal level, was moving toward open access and market pricing. While independent power producers (IPPs) accounted for less than 2% of total U.S. net generation in 1996, IPPs were proving that power plants did not have to be built, owned and operated by utilities. Between 1990 and 1996, total IPP generation doubled, accounting for much of the new capacity coming on-line, with the generation being sold to utilities. An increasing share of generation was being built, owned and operated by non-utility firms but selling their output mainly to utilities providing service to captive retail customers.⁷ In the mid to late 1990s, more than a dozen states—Illinois among them—took steps to authorize retail customer access to the price-competitive wholesale electricity market.

Natural Gas Industry Restructuring

Parallel to the rapid regulatory reform in the transportation and telecommunications industries at the federal level, Illinois was in the vanguard among the states grappling with the mismatch between traditional gas and electric utility regulation and the evolving fundamentals in the larger economy.

Shortly after enactment, the Federal Natural Gas Policy Act of 1978 (NGPA) was having a mix of positive and negative effects. Although the NGPA's price incentives elicited new supplies that alleviated the gas shortages of the mid-1970s induced by wellhead price controls implemented in the 1950s, the law also promoted take-or-pay contracts between pipelines and local gas utilities that had the effect of regulating prices "upward," beyond levels that a supply-and-demand mechanism would have produced. For example, the average price of the gas commodity delivered to Illinois residential customers more than doubled between 1978 and 1983.⁸

In early 1983, the Illinois Commerce Commission (ICC) proposed the Consumer Access Plan calling on federal regulators to require interstate pipelines—the near-exclusive middlemen between gas producers and utilities—to allow gas utilities and larger customers to purchase transport service only for gas supplies procured directly at the wellhead. In the months that followed, mounting economic pressure from large industrial users able to switch fuels or to shift production overseas or closer to gas fields on the Gulf Coast and in the Southwest forced some pipelines to utilize "special marketing programs" (SMP) allowing selected customers to transport customer-owned gas.

In 1984, Illinois Attorney General Neil Hartigan and Illinois Secretary of State Jim Edgar brought a landmark federal antitrust suit against one of the major pipelines that had refused to transport gas that the state had arranged to purchase for facilities such as the Capitol complex. The lawsuit succeeded in a surprising way. Although the lawsuit itself was eventually lost in late 1991 after having prevailed in numerous interim rulings, all of the major open access and market-based gas policies advocated by Illinois in the lawsuit had become policy at the national level by 1992:⁹

- 1985, the federal courts upheld special marketing programs as unfairly discriminatory
- 1985, FERC issued Order 436 allowing pipelines to voluntarily provide flexibly-priced non-discriminatory transport for customer-owned gas rather than to function exclusively as merchant buyers-transporter-sellers of gas

- 1989, Congress passed the Natural Gas Wellhead Decontrol Act that by 1993 freed all "first sales" of natural gas from federal price controls, allowing the market to develop gas trading and price discovery mechanisms that laid a foundation for similar activity in electricity markets
- 1992, FERC issued Order 636, called the "Final Restructuring Rule," that fully unbundled natural gas pipeline transport services and pricing, removing interstate pipelines entirely from their traditional merchant role and confining them largely to gas transport

With pipeline and local utility take-or-pay arrangements largely resolved, transport capacity available on an equal footing to all customers and prices set by supply and demand, the stage was set not only for a vibrant market in the gas industry but also for the restructuring of the closely-related electricity industry.

In addition to its advocacy role at the federal level, the ICC took the initiative under its existing powers to open local gas utility delivery networks to customers—mainly commercial and industrial—to transport gas they had bought in the market.

Transport of customer-owned gas by Illinois gas utilities is now commonplace. Open access has been embraced by Illinois' larger business and government customers, and there is an active competitive retail market for residential customers as well. In 2013, there were more than two dozen certified non-utility alternative gas suppliers in Illinois marketing to all classes of customers.¹⁰ Figure 2 shows the percentage of customer-owned natural gas transported in 2012 in Illinois compared to the total U.S. average.

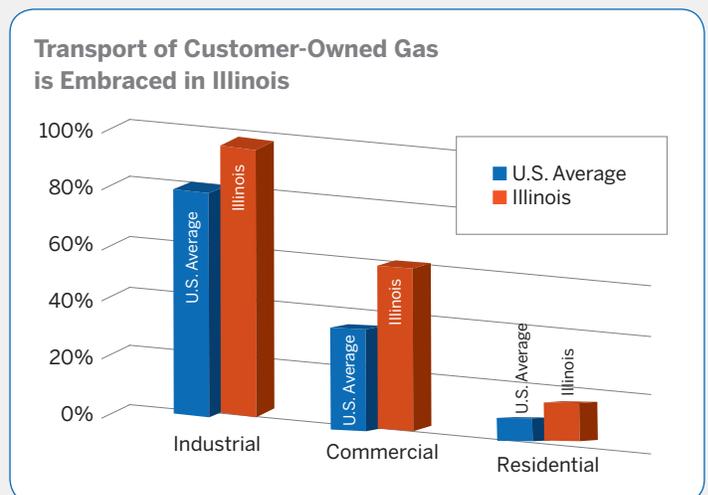


Figure 2: Percent of natural gas delivered as customer-owned in 2012, Illinois and U.S. average

Federal Electricity Industry Restructuring

As natural gas and other network industries rapidly evolved toward more competitive structures, electricity regulatory policy was developing more slowly. In Illinois, change in the inherently more complex electricity sector was further complicated by the billions of dollars that Illinois utilities had invested and were continuing to commit in the nation's largest nuclear plant program. Utility rate cases at the ICC aimed at recovering those investments were engendering substantial consumer and political resistance. Illinois electricity rates were already well above national and Midwest state averages.¹¹

Residential customers were complaining to state legislators about high bills, and business customers were being lured to other states promising lower electricity rates. The regulatory process became more contentious and court decisions became more hostile to utilities. Regulatory uncertainty became the order of the day. While there were the customary calls for stricter and even punitive regulation, it gradually became clear that another path was needed.

Developments at the federal level would open the door to new policies that would gradually restructure wholesale electricity markets which, in turn, would provide the underpinning for change at the state-regulated retail level:

- In 1978, Congress passed the Public Utilities Regulatory Policies Act (PURPA) as part of the National Energy Act. PURPA mandated that local electric utilities purchase power from “qualifying facilities” (QF) that used certain alternative fuels such as agricultural waste or that met certain production efficiency standards. PURPA led to the development of many small generation projects including mini-hydro and created favorable conditions for cogeneration that produced electricity in conjunction with steam and heat for industrial purposes. The law authorized state utility commissions to set “avoided cost” levels that were the basis for the contractual rates paid to the QFs. PURPA gradually demonstrated that electricity power stations could be built, owned and operated by enterprises other than utilities without adverse impacts on reliability or network performance. In many states, though not Illinois, QFs exerted upward pressure on prices as a result of high avoided cost calculations by state utility commissions.
- In recognition of the growing success of natural gas open access and price competition, FERC held a number of regional conferences to consider similar reforms in wholesale electricity and transmission. In 1988, FERC issued a notice of proposed rulemaking (NOPR) that would have far-reaching effects. Although the rules were withdrawn due to utility industry and political pressure, they ultimately proved to be the roadmap for national reforms that would contribute to Illinois' own reforms. Among other things, FERC proposed that utilities use competitive bidding to acquire new generation supply to serve consumers so that prices would be set in the market and independent power producers could be key participants in that market.
- In 1990, Congress amended the Clean Air Act to create a program of tradeable sulfur dioxide (SO₂) emission reduction credits for more efficient control of the acid rain problem related to sulfurous coal used in some generating plants. The trading program contributed to an understanding that a market-based mechanism could be the solution for complex electricity and environmental challenges.
- Congress included in the Energy Policy Act of 1992 provisions that were substantially similar to the market reforms suggested in FERC's 1988 NOPRs. Among these were the creation of a new class of “electricity wholesale generators” (EWG) free of ownership and other restrictions in the New Deal era Public Utility Holding Company Act (PUHCA). Further, Congress directed FERC, on a case-by-case basis, to open up the transmission network for wholesale transactions that were market-based. Thus, investors in generation could better respond to market forces of supply and demand and relative prices of coal and natural gas.

In 1996, FERC issued a series of orders aimed at liberalizing transmission access and increasing oversight by independent system operators (ISO) to assure non-discriminatory treatment of transmission requests. ISOs eventually evolved into regional transmission organizations (RTOs) that organize markets for unbundled transmission services and generating capacity.¹²

Electricity Restructuring in the States

By 1997, federal changes in natural gas and electricity policy, many of which were advocated by Illinois regulators, set the stage for the restructuring of the electricity industry in Illinois and other states.¹³ In just a few years, nearly a score of states enacted a variety of measures to introduce competitive forces as an alternative to traditional utility monopoly over supply.

Several states, most notably California, failed to fully implement customer choice.¹⁴ Others, however, continued on the path toward comprehensive market-based reform. Illinois was in the vanguard of states that stayed the course in restructuring their electricity markets. The map in Figure 3

shows that most of the states in the northeastern quadrant of the country, along with Texas, have embraced competitive markets.¹⁵ Thirteen states and the District of Columbia have broad-based retail customer choice. These 14 jurisdictions account for 35% of total U.S. electricity consumption.¹⁶ Due to the high participation by customers in open access electricity arrangements, more than 20% of all electricity load in the continental U.S. was served under competitive contracts of one kind or another in 2013.¹⁷ A number of states, most notably California and Michigan, are hybrids of customer choice and traditional monopoly that allow only highly-restricted access to the competitive market.

Illinois and 13 Others Have Full Access¹⁸

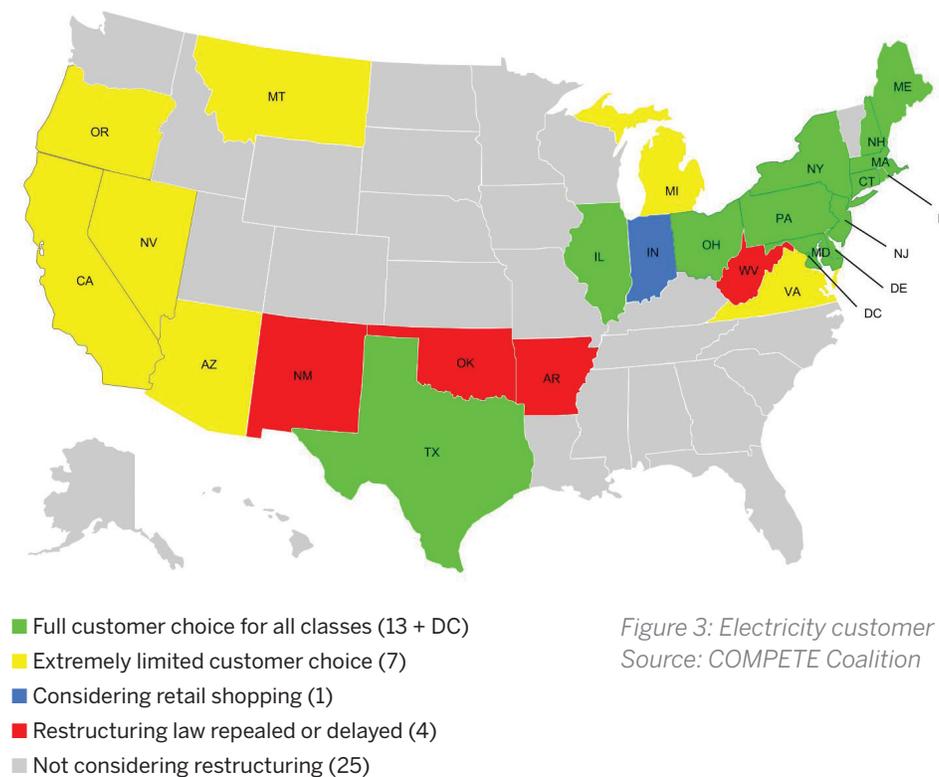


Figure 3: Electricity customer choice jurisdictions
Source: COMPETE Coalition

Most of the states in the northeastern quadrant of the country, along with Texas, have embraced competitive markets, accounting for 35% of total U.S. electricity consumption.

The Illinois Restructuring Policy Process

By the mid-1990s, there was widespread dissatisfaction in Illinois with the outcomes of the traditional monopoly regulation. As customers were burdened with high and rising rates, the system was no kinder to the utilities. Regulators and the courts had imposed significant recovery disallowances on investments in nuclear power plants. The utility industry's confidence in traditional regulation waned, and utilities saw ever-increasing obstacles to earning a reasonable return under cost-of-service regulation.

In early 1997, the Illinois General Assembly commenced an all-stakeholders process charged with developing a widely-agreed approach to introducing market forces into Illinois' electricity industry and creating flexible conditions for its restructuring. The goal of the stakeholder process was to identify and resolve as many issues as possible in order to minimize the scope and complexity of the issues that would need to be resolved in the legislative process. Stakeholders did not have the advantage in 1997 of being able to look to any fully-functioning electric retail choice models operating elsewhere in the United States. They were exploring new territory.

The stakeholder process focused on five key topics:

Supply Competition

By the mid-1990s, although competitive wholesale electricity markets were developing rapidly, retail competition was something new and largely untried. However, the experience in natural gas retail customer choice had demonstrated that business customers could successfully purchase their natural gas commodity from competitive suppliers while continuing to rely on utilities to reliably deliver that supply. The challenge was to devise reasonable ways for retail customers of all sizes to access the competitive pricing dynamics of the wholesale electricity market unhindered by the traditional rigidities of the "one size fits all" tariffs characteristic of state utility regulation. The complexities and unique technical features of electricity argued for reliance on competing intermediaries licensed and overseen by the ICC.

Delivery Network Open Access

Stakeholders saw that two key challenges in assuring non-discriminatory access to the delivery network were rates and rules. The first was the development of rates for delivery services based solely on the costs of providing those services exclusive of costs associated with supply for customers who continued to buy their electricity from the utility. The

elimination of cross-subsidies among functional services and customer classes would allow for accurate pricing and for fair dealing by owners of delivery wire networks with customers and competitive suppliers. The other challenge was the development of the terms and conditions for use of the wires network by alternative retail electricity suppliers (ARES) and their customers. Open access at the distribution level supervised by the ICC would complement the open access at the bulk transmission level that was being promoted by FERC.

Phased Transition

In light of Illinois' pioneering status in electricity choice, stakeholders opted for a phase-in approach that would provide for staggered customer eligibility for choice, moving from the sophisticated larger customers to residential customers over a several year period. The utility, however, would remain as a provider of last resort (POLR) in the event that the market did not develop satisfactorily. In recognition of transaction costs and other barriers to an immediate transition to full customer choice, utility rates for all customers would be frozen for a number of years, with residential customers' rates also being reduced.

Industry Reorganization

Stakeholders recognized that in addition to outdated regulatory methods there was also an outdated industry structure rooted in vertically-integrated monopoly. For customer choice to succeed, Illinois utilities would need the flexibility to reorganize in order to more efficiently accommodate changing technology, financial markets and customer expectations. Utilities would not be forced to adopt any specific corporate structure but allowed to determine how best to meet their needs while meeting their obligation to facilitate supply competition by providing delivery open access.

Stranded Cost Compensation

Stakeholders, after analyzing the gap between the rate-base or book value of utility generating assets and the value of those power plants in the wholesale market, concluded that a method was needed to mitigate the financial implication for utilities from a move to customer choice. While there were concerns that transition fees on customers would reduce the savings to be realized under customer choice, it was recognized that compromise was necessary to secure utility cooperation in successfully implementing a competitive retail market.

Key Features of Illinois' Electricity Restructuring

The Illinois General Assembly took careful note of the stakeholders' work and forged a comprehensive legislative package designed to accommodate a measured transition from monopoly to competition. The General Assembly provided goals and direction but placed substantial reliance on the ICC to implement the transition and to make a wide range of decisions in doing so.

The Electric Customer Choice and Rate Relief Act of 1997 provided for the following transition mechanisms:¹⁹

Transition Period

The "mandatory transition period" was originally set to terminate at the end of 2004, for a total seven-year schedule. While most aspects of the transition proceeded at a considerably more accelerated pace than originally anticipated, the General Assembly ultimately extended the symmetrical rate freeze and transition charge features of the program through 2006.

Customized Utility Conditions

In recognition of the differing conditions among the utilities operating in Illinois in size, rate levels and service territories, some of the transition conditions, including the level of mandated rate reductions, were customized in order to assure utility cooperation for a smooth movement to customer choice.

Preparatory Regulatory Proceedings

In the nearly two-year period from enactment to the commencement of customer choice phase-in, the ICC reviewed and approved the unbundling of utility rates to yield specific delivery service rates for customers electing competitive supply. The ICC also determined rules for the interactions and information exchange between alternative retail electric suppliers and delivery utilities.

Phased Eligibility

Competitive choice commenced October 1, 1999. Customers with over four megawatts (MW) of demand and customers with a total demand of at least 9.5 MW at multiple locations were automatically eligible. Further, one-third of the aggregate load of other larger commercial and industrial customers could qualify for competitive service by selection in a lottery for which customers could register. Subsequent eligibility tranches in June and October 2000 would qualify all non-residential customers as eligible for choice. By May 2002, all customers, including residential, would be eligible.

Residential Reduction and General Rate Freeze

The widely differing rate levels across the state's utilities warranted commensurately differing mandated reductions in residential rates in order to assure that small customers would realize the benefits of restructuring. Starting in August 1998, these reductions ranged between 1.7% and 15%, with the higher figure applying to the vast majority of residential consumers in the state. In 2001, residential rates for the great majority of the state's residential customers, who were served by ComEd in Northern Illinois, were reduced an additional 5%. In 2002, the General Assembly extended the freeze for two additional years to the start of 2007, with reductions for the residential customers of downstate utilities Illinois Power (5%) and Central Illinois Light (1%), both now part of the Ameren group of companies.

Unbundled Delivery Service Rates

Given that traditional electric utility rates were bundled and did not break out the costs for specific functions and services, new cost-based delivery service rates were developed by the utilities and reviewed by the ICC. Customers could choose to buy only delivery services from the local utility while securing supply from alternative providers.

Competitive Transition Charges (CTC)

A Competitive Transition Charge (CTC) to compensate utility investors for above-market power plant investments or "stranded costs" was assessed during the transition period on customers choosing alternative suppliers. The CTC was designed to maintain the financial condition of electric utilities during the migration of customers to market-based supply and to fairly compensate their investors for investments made in power plants under traditional regulation. The transition charge was recovered through a kilowatt hour add-on to delivery services bills.

Mitigation Factor

In recognition of the value provided to utilities for the significant new business opportunities, risk reduction, organizational flexibility and cost control opportunities provided by the restructuring law, the CTC gradually would be reduced during the transition until termination of the CTC at the conclusion of the transition period.

Power Purchase Option (PPO) and Provider of Last Resort (POLR)

The Power Purchase Option (PPO) would be an alternative power supply product offered by utilities to jump-start the competitive market in its early stages and as a backstop later on if the market were to falter. The PPO would prove important in easing customers into the market but would later prove unneeded as a safety net. The local utility would have the role of Provider of Last Resort (POLR) to assure that customers who did not choose an alternative supplier would still have the guarantee of an energy supply.

Utility RTO Membership

Only the year before Illinois' restructuring law, in 1996, FERC issued orders paving the way for the development of independent system operators (ISO) along competitive lines. The framers of the Illinois restructuring law had the foresight to require Illinois utilities to participate in an ISO of their choosing. The ISOs evolved into the Regional Transmission Organizations (RTO) that now operate large, highly competitive wholesale markets for generation and related ancillary transmission services.²⁰

Alternative Retail Electricity Suppliers (ARES)

The law established licensing requirements for ARES to be administered by the ICC. While liberal enough to attract new competitive suppliers, the rules provided customers with reasonable assurances of adequate ARES financial depth and substantive capabilities ensuring that they could confidently do business with a new category of electricity players. Utilities were automatically approved to engage in the supply business outside their own delivery service territories.

Competitive Declarations

Utilities were authorized to petition the ICC for declarations that tariffed service to a defined customer class had sufficient competition that the utility could discontinue the tariffed service obligation within three years. Generally, the requirement was that a competitive declaration was justified once 33% of load was being served competitively and customers had a choice of at least three competitors other than the utility.

Utility Industry Reorganization

Utilities and utility holding companies in the state were given wide latitude to reorganize, merge with out-of-state companies, divest or spin-off generation and to otherwise create affiliates or subsidiaries in order to adapt to the new competitive environment.

Utility Tax Revision

In order to hold state revenues harmless, the gross receipts tax on electric utilities was revised to take account of the fact that an increasing share of supply would be purchased from non-utility firms. The new tax basis would be anchored on the amount of energy delivered by the utility to end-use customers, with accommodations to assure that larger energy users would not be disproportionately burdened.

“Electricity at our refinery is one of our biggest expenses, which is also true for many large industrial plants in Illinois. The competitive marketplace has worked by decreasing the cost for industrial users which helps us to be competitive in the industry. It’s one of the best things the Illinois legislature has done in the past fifteen years.”

~John Van Der Molen, Energy Procurement Manager,
Marathon Petroleum Company, Robinson, Illinois.

Customer Choice and the Competitive Market in Illinois

Utilities, customers, regulators and new industry participants responded promptly and enthusiastically. The initial ICC proceedings to set cost-based delivery rates, customer eligibility rules and the interaction of utilities and ARES were heavily litigated and there were some significant disagreements between customers and utilities. However, by the time the first competitive power flows commenced on October 1, 1999, the rules, risks and rewards were clear enough that the initial limit of one-third of the load of larger customers eligible for service under choice contracts was fully-subscribed.

The combination of low market prices for electricity available through ARES, the availability of the PPO at a market price estimated by the ICC and the mitigation reduction factor applied to the CTC provided an average savings for business customers of 7-10% compared to bundled utility rates. Further, business customers found that bilateral transactions with ARES—even at the earliest stages of customer choice—were reasonably easy and low cost. Energy purchasing consultants also helped customers to access the market.

Within just a few years, a century-old framework of vertical monopoly was transformed. The monopoly wires network became a way for customers to connect with competitive suppliers rather than serving as means of assuring a captive customer base for utility-owned generation.

Competitive Generation

By the end of 2002, nearly all of the electric generation plants of investor-owned utilities operating in Illinois had been sold to independent power production companies or spun-off to generating affiliates of the utilities. In addition to the divestment and spin-off of generation, there was a significant inflow of investment for new, natural gas-fired independently-owned power stations. Called “peakers” at the time, many of these generating units now operate for extended periods due to the low prices of natural gas. A number of older, less efficient power plants—some fossil and several nuclear—have been closed. Figure 4 shows that, between 1997 and 2011, total nameplate installed generating capacity in Illinois increased by more than 11,000 megawatts or 30%, more than any other state in the region.

Figure 5 shows that in addition to adding generating capacity, Illinois capacity factors have improved dramatically while those of the other four states in the region have fallen.²¹

In 1997, Illinois power plants generated just about enough energy to equal total in-state consumption and line losses, less than 25% of the total power produced in the region. By 2011, as shown in Figure 6 Illinois had become the key exporter of electricity in the Upper Midwest, generating substantially more energy than required for internal consumption and accounting for almost 32% of the region's total generation. Indiana, Michigan and Ohio all saw their shares of the generation market fall, while Wisconsin's increased from just over 9% to 10%.

Illinois Generation Grows and Becomes More Efficient

State	Nameplate Capacity (MW)		Pct. Change
	1997	2011	
Illinois	38,132	49,739	30%
Ohio	28,936	36,305	25%
Indiana	23,363	30,765	32%
Michigan	27,255	33,066	21%
Wisconsin	12,750	20,030	57%
Total	130,436	169,905	30%

Figure 4: Generating capacity development 1997-2011 in five Upper Midwest industrial states

State	MWh Production per MW Capacity		Capacity Factor	
	1997	2011	1997	2011
Illinois	3,544	3,983	40%	45%
Ohio	4,935	3,764	56%	43%
Indiana	4,911	3,949	56%	45%
Michigan	3,925	3,309	45%	38%
Wisconsin	4,032	3,322	46%	38%

Figure 5: Upper Midwest average generation fleet capacity factor by state

Corporate Reorganization, Mergers and Acquisitions

Coincident with the migration of generation to the competitive market, Illinois utilities also were rapidly restructuring their corporate structures. Unicom, the holding company of ComEd, merged with PECO (Philadelphia Electric Company) to form Exelon, which in 2012 merged with Constellation Energy, the holding company for Baltimore Gas & Electric. Exelon now has the largest nuclear fleet in the United States—with all of the plants out of utility rate base and operating entirely in the competitive market. Exelon's nuclear portfolio accounts for about 20% of the nation's nuclear generating capacity. The three major downstate utilities—CILCO, CIPS and IP—in individual transactions were acquired by St. Louis-based Ameren which also had operations in the Metro East area through its Union Electric subsidiary. Other smaller utility firms also merged into larger energy groups. The 1997 law generally allowed these transactions to proceed with minimal regulatory delay or conditions so that utilities could more promptly streamline operations and achieve efficiencies.

New Competitors

The licensing process for alternative retail electricity suppliers (ARES) has functioned smoothly. In 2013 there were more than 80 firms holding permits from the ICC to sell electricity to retail customers.²² Utilities are allowed to serve supply outside their franchised delivery service areas. All of these competing enterprises, generally Retail Electric Suppliers (RES), provide customers of all types and sizes with access to a range of service options. Further, the General Assembly in 2007 authorized local governments, through voter referendum, to establish municipal aggregation programs to bring competitive supply to their own residential customers. Hundreds of localities, including the city of Chicago, have opted for “muni agg.” Also in 2007, the General Assembly created the Illinois Power Agency (IPA) which would largely displace utilities in the competitive procurement of supply used by utilities as a default provider to serve those residential and small business customers who have not contracted with an ARES or who are served under muni agg programs.²³

Customers Have Switched to Competitive Supply

In keeping with the general pattern of competitive development in other regulated network industries, larger and more sophisticated customers entered the competitive arena in the earlier stages. Industrial and larger commercial customers switched in large numbers within just a couple of years of the commencement of customer choice. They were followed in increasing numbers by non-residential customers with smaller loads. From the end of 2003, the portion of total retail electricity sales volume in Illinois accounted for by non-utility providers grew from just over 15% to about 80% by the third quarter of 2013.²⁴ In 2007, in light of the extensive development of competitive alternatives, the General

Illinois: Now a Net Exporter of Electricity

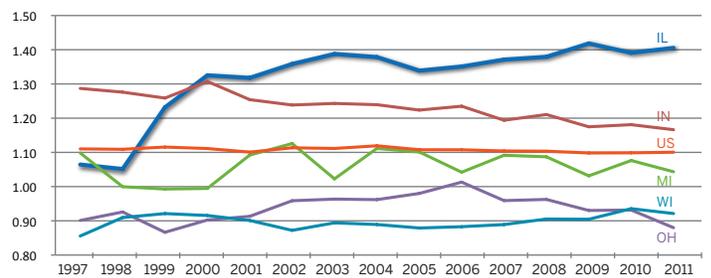


Figure 6: Upper Midwest states' production-to-consumption ratios 1997–2011

By 2011, Illinois had become the key exporter of electricity in the Upper Midwest, generating substantially more energy than required for internal consumption and accounting for almost 32% of the region's total generation.

“Aggregating residential and small business customers has meant that communities can negotiate attractive prices and at the same time buy a larger percentage of green energy—something that a majority of residents in many communities want.”

~Craig Schuttenberg, Energy Choices

Assembly provided a timetable for automatic competitive declarations for most non-residential load, contributing further to the development of the market. During the first decade of retail competition residential customers rarely purchased supply from ARES. Most were supplied with market-priced power procured by utilities, and later through the IPA, in processes overseen by the ICC. Residential customer choice has expanded greatly since 2011. In addition to municipal aggregation programs, utilities may purchase receivables from ARES and provide consolidated billing.²⁵ Figure 7 illustrates the migration of electricity load in Illinois since 2003, by which time all customers were eligible for choice.²⁶

Competitive Market Prices

It is little wonder that so many customers have opted into the competitive market in electricity: Illinois electricity prices are now among the lowest in the nation rather than among the highest. Figures 8 and 9 show the dramatic improvement in Illinois’ average price of delivered electricity in recent years compared to the other four Midwest industrial states and the region as a whole. Illinois prices have decreased at the same time that prices in the other states in the region have increased. Rates in Indiana, Michigan and Wisconsin, where customer choice is either prohibited or severely limited, have risen rapidly. In Ohio, rates have flattened out as the state has embraced competition.²⁷

Illinois prices declined while other regional states’ prices have risen.

Residential Customers Are Following Business Customers to the Market

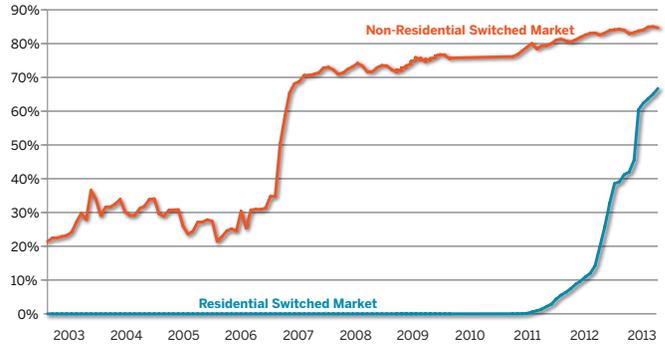


Figure 7: Most Illinois electricity load is served by non-utility suppliers.

Illinois Prices—Once the Region’s Highest—Are Now the Lowest

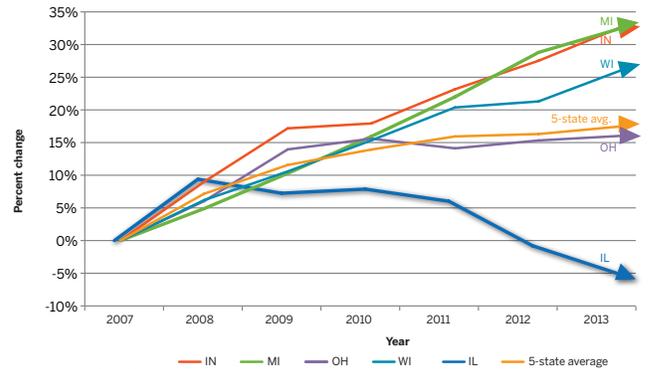


Figure 8: Cumulative percentage change in average electricity prices 2007–2013

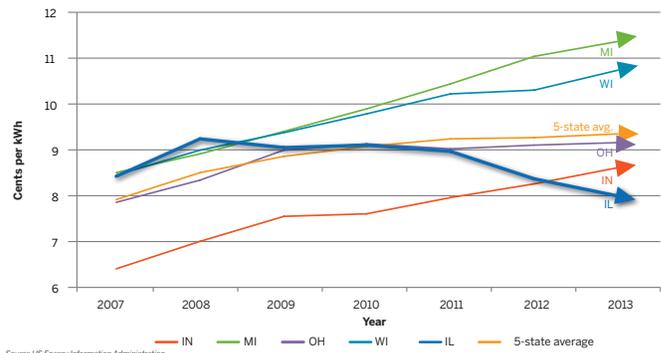


Figure 9: Illinois prices, once the region’s highest, are now the lowest.

Looking Ahead: Lessons of Electricity Industry Restructuring in Illinois

An important element in the overwhelming success of customer choice has been the direct involvement of Illinois' business organizations. The Illinois Retail Merchants Association, the Illinois Manufacturers' Association, the Illinois Chamber of Commerce and other business organizations were active participants in the original legislation and during the various stages of implementation. Business organizations across the state have been involved in marketing attractively-priced electricity supplies from membership affinity programs.

During a stressful economic period that began in 2008, Illinois businesses and residents have had the benefit of competitive electricity prices that convey accurate price signals about the supply/demand imbalance and the significant decline in natural gas prices due to rising supplies from the shale gas revolution.

Illinois' experience with the implementation of competition and customer choice in gas and electricity supply may provide a model for the forging of other successful public policies through cooperation among stakeholders, adherence to sound principles of market economics and professional regulation and administration.

Over the course of the transition to competitive electricity in Illinois, there has been significant improvement in the state's price position relative to the national average price of electricity. In the years prior to the introduction of customer choice, average Illinois electricity prices were well above the national average, consistently on the order of a 10% premium. In the years following however, average Illinois prices have been well under the national—on average about a 9% discount.²⁸ The cumulative difference between Illinois' actual rates and the price level if Illinois had maintained its long-running prior relationship to national average prices constitutes **\$37 billion** in savings.

In addition, electricity customers are increasingly realizing the benefits of innovative products and services developed by the many competing suppliers. The gradual deployment of "smart grid" technology by Illinois utilities will magnify these benefits and elicit more innovations on both sides of the electricity meter.

The policies that led to these results were forged in the atmosphere of a shared conviction that larger economic and energy markets conditions were changing in ways that old regulatory models were ill-suited to address. Illinois chose to adapt by looking ahead and making big reforms in both gas and electricity rather than to hope that incrementalism would constitute a successful strategy.

Illinois' leadership and the commitment of more than a dozen other jurisdictions to the implementation of effective customer choice can serve as a model for other states considering how to adapt to rapidly-changing energy conditions that may be more profound than those that spurred Illinois' original movement to a competitive retail gas and electricity markets. Electricity competition and customer choice are no longer merely theoretical or speculative: they are proven policies that have delivered billions of dollars in savings to Illinois' economy.

For Illinois policymakers and for the people of Illinois, the success of the state's gas and electricity reforms should serve as an example of how important questions can be addressed to build a better future.

"The competitive electricity marketplace is still evolving, but there is no doubt it has been popular with residential and commercial customers alike. People are embracing choice in electricity suppliers both to save money and act on their personal values. My hometown of Oak Park, for example, was the first municipality in Illinois to require its supplier to provide all-green power options for residents and small business operators."

~ Illinois State Senator Don Harmon

14 Electricity & Natural Gas Customer Choice In Illinois—A Model For Effective Public Policy Solutions

¹The shale gas revolution of the past several years appears to be transforming a number of northern states that formerly were mainly gas-importing states into major gas-producing states. With the 2013 enactment of Illinois' shale gas regulatory law and the commencement of rulemaking under that measure, it remains to be seen if Illinois shale formations will yield the large quantities of gas now being produced in Pennsylvania, for example.

²Illinois, Indiana, Michigan, Ohio and Wisconsin have long been treated by the United States Census Bureau, the U.S. Energy Information Administration and other federal agencies as the "East North Central" geographic division for reporting of a vast array of economic and demographic data. The geographic proximity of the states clustered around the largest of the Great Lakes and the participation of their electric utilities in the same wholesale markets allow for reasonable comparisons of electricity prices over time. The five states also have significant industrial and agricultural sectors as well as similar weather.

³The Illinois Electric Service Customer Choice and Rate Relief Act of 1997 (220 ILCS 5) was added to the Illinois Public Utilities Act by near-unanimous votes on HB 362 in the Illinois General Assembly.

⁴The price data in the report are drawn from the database maintained by the Energy Information Administration (EIA), the statistical arm of the U.S. Department of Energy. EIA's Electric Power Monthly can be found at <http://www.eia.gov/electricity/monthly/>.

⁵A series of measures passed by the Illinois General Assembly in 2011, 2012 and 2013 provided a regulatory framework for the anticipated investment of \$3 billion over the coming decade in grid hardening and deployment of smart grid technology, including advanced metering, that can provide customers of all types with real-time and in-depth information on energy usage.

⁶In the decade after 1977, when about 17% or US GDP was produced by fully-regulated industries, more than 10 points were slashed from that figure such that by 1988 only about 6.6% of GDP was accounted for by such businesses. See "Regulation and Investment", Alberto Alesina et al, National Bureau of Economic Research, Working Paper 9560, March 2003 at http://www.nber.org/papers/w9560.pdf?new_window=1. Robert Crandall of The Brookings Institution estimated in a 2007 paper that, even without the inclusion of extensive wholesale and retail electricity price deregulation, the overall reduction in economic regulation in the United States was only about one-fourth that prior to the later 1970s. See "Extending Deregulation" by Robert W. Crandall, The Brookings Institution, February 2007 at <http://www.brookings.edu/research/papers/2007/02/28useconomics-crandall-opp08>

⁷EIA data recording generation by independent power producers begins in 1990 and shows that in that year IPPs produced only 1% of total net generation in the United States. By 1996, prior to the first electricity customer choice laws, the percentage had risen to 1.7% but, due in great part to the divestment and spin-off of power plants by utilities, soared to 34% in 2012. See EIA report Net Generation by State by Producer of Energy 1990-2012 at <http://www.eia.gov/electricity/data/state/>.

⁸The average price of gas supply reported by EIA for residential customers in Illinois for 1983 was \$5.46 per thousand cubic feet compared to \$2.50 for 1978 at http://www.eia.gov/dnav/ng/ng_pri_sum_dcu_SIL_a.htm.

⁹For a brief history of the evolution of natural gas see <http://www.naturalgas.org/regulation/history.asp> at the website maintained by the Natural Gas Supply Association.

¹⁰Alternative gas suppliers are licensed by the Illinois Commerce Commission under Section 19-100 of the Illinois Public Utilities Act and Part 551 of the Illinois Administrative Code which can be found at <http://www.ilga.gov/legislation/ilcs/ilcs4.asp?ActID=1277&ChapterID=23&SeqStart=43000000&SeqEnd=44300000> and <http://www.ilga.gov/commission/jcar/admincode/083/08300551sections.html>

¹¹A map of average electricity prices by state for 1998 shows that Illinois had the 13th highest average price per kilowatt hour. See "Electricity Restructuring: Deregulation or Reregulation?" by Severin Borenstein and James Bushnell, Regulation, Summer 2000, Vol. 23, No. 2 at <http://www.cato.org/regulation/summer-2000>

¹²The most notable of these orders was Order No. 888 which addressed in nearly 800 pages the background and rationale for dramatic change in the regulation of the wholesale electricity business. <http://www.ferc.gov/legal/maj-ord-reg/land-docs/rm95-8-00w.txt>.

¹³In 1985, the ICC issued a series of papers addressing a variety of regulatory matters during the General Assembly's "sunset" consideration of reforms to the Illinois Public Utilities Act. Several of these papers advanced some of the first proposals in the country for greater reliance on market forces and customer choice in electricity.

¹⁴A number of states (Arizona, California, Michigan, Montana, Nevada, Oregon and Virginia) undertook partial transitions to industry restructuring and customer choice, but eventually reverted largely to the *status quo ante*. In some states, such as California and Michigan, some customers are able to access competitive supplies while most are not. Several other states (Arkansas, New Mexico, Oklahoma and West Virginia) took initial regulatory steps but never actually allowed choice. For detailed state-by-state restructuring information see http://www.eia.gov/electricity/policies/restructuring/restructure_elect.html.

¹⁵This map represents an interpretation of state-by-state regulatory status based on a variety of sources, including information from the Energy Information Administration that provides a comparable restructuring status map at http://www.eia.gov/electricity/policies/restructuring/restructure_elect.html.

¹⁶See EIA Electricity Power Monthly Table 5.4.B for state-by-state electricity consumption at <http://www.eia.gov/electricity/monthly/index.cfm?src=Electricity-f3>

¹⁷The international consulting firm DNV GL relies on reports by state regulators to closely track competitive supply volumes purchased by customers eligible for choice in each state that has some degree of customer open access. The competitive volumes reported in the states by EIA can be used with DNV GL data to make ongoing calculations of total market share for competitive supply. In most states that have fully embraced customer choice, utilities have generally divested or spun-off their generation and no longer control production facilities. Utility supply for customers not choosing an alternative provider is customarily procured in the market and priced competitively. The Illinois Power Agency conducts the procurement process for supply provided by utilities for the rapidly contracting portion of residential customers not served by alternative providers or through municipal aggregation programs. Such suppliers are sometimes called default service or 'provider-of-last resort' (POLR).

¹⁸This map was prepared by the COMPETE Coalition, an organization advocating competitive electricity markets and can be found at <http://www.competecoalition.com/about>. Other similar maps are produced by EIA and various industry organizations.

¹⁹A detailed summary of the 1997 Electric Service Customer Choice and Rate Relief Act of 1997 (HB 362) was prepared by the Illinois Citizen Utilities Board (CUB) and can be found at <http://www.citizensutilityboard.org/ciElecSumILHB362.html>.

²⁰The six ancillary transmission services identified by FERC and subject to federal oversight are: scheduling and dispatch, reactive power and voltage control, line loss compensation, load following, system protection and energy imbalance.

²¹Capacity factor is the percentage of actual megawatt hours produced by a power plant relative to its potential production capability. Some plants operate most of the time to meet base load requirements while others produce power during fewer hours of the year to meet periods of greater demand such as during the summer when cooling demand is substantial.

²²The Illinois Commerce Commission monthly updates the list of certified Retail Electric Suppliers (RES) at <http://www.pluginillinois.org/Suppliers.aspx>

²³The Illinois Power Agency was created partly in reaction to dissatisfaction with the results of the first "reverse auction" procurement conducted in late 2006 in anticipation of the end of the rate freeze on January 1, 2007. The procurement, constrained by the legal requirements in place at the time, was conducted at a time when market prices had risen. It is notable that the General Assembly, rather than pulling back from customer choice and competition, actually accelerated the expansion of competitive markets in Illinois. The full text of the law can be found at <http://www.ilga.gov/legislation/95/SB/PDF/09500SB1592lv.pdf>

²⁴The Illinois Commerce Commission provides monthly reports from each utility detailing numbers of customers and electricity volumes served under various supply arrangements at <http://www.icc.illinois.gov/electricity/switchingstatistics.aspx>

²⁵Local utility purchase of receivables (PoR) due to ARES from their residential customers can be elected by an ARES, with the ICC setting the discount rate. These accounts can then be invoiced to the customer in a utility consolidated bill (UCB) that reflects both the delivery service charges and the supply price contracted by the customer with the ARES.

²⁶The small percentage of Illinois electricity customers served by rural cooperatives and municipal utilities are not covered by the customer choice law.

²⁷Ohio enacted electricity restructuring legislation in 1999, but not until just the past several years had not fully implemented customer choice. Recently, large numbers of business customer have accessed the market and numerous communities have entered the market through Ohio's municipal aggregation program. Michigan passed a restructuring law in 2000. A variety of barriers inhibited development of the market, and in 2008 a new law limited competitive access to just 10% of total electricity load. Many business customers are now in the position of being on a waiting list for access because the 10% quota has been fully subscribed. Wisconsin and Indiana have never enacted restructuring laws.

²⁸See "Regulation and Relevancy: Assessing the Impact of Electricity Customer Choice" by John L. Domagalski and Philip R. O'Connor in Electricity Policy, January 2013 at <http://www.competecoalition.com/files/O'Connor-Domagalski%20-1-17-13.pdf>

