

Report to the Regulatory Flexibility Committee of the Indiana General Assembly

2011



Indiana
Utility
Regulatory
Commission

EXECUTIVE SUMMARY

The Indiana Utility Regulatory Commission's (Commission or IURC) *Report to the Regulatory Flexibility Committee of the Indiana General Assembly for 2011* highlights key issues addressed by the Commission with respect to the Electric, Natural Gas, Water/Wastewater, and Communications utilities in the state of Indiana. This year's report provides an overview of recent issues; considers the current industry landscape; and discusses the successes, as well as the challenges facing the utility industry.

In order to better serve the Legislature, the agency focused on issues thought to be most relevant based on inquiries received and legislation filed in recent years. Additionally, information was streamlined to make the report more readable and user-friendly; hopefully you will agree. We understand this is an important tool for the General Assembly and are committed to providing information in a manner useful for policymaking and responding to constituent inquiries. If there are any questions about the information contained herein, the Commission welcomes the opportunity to further discuss those matters of concern. For your convenience, a list of acronyms and a glossary are included.

- Electricity -

In 2010, Indiana's retail rates were 13th lowest in the nation, as compared to 15th lowest in 2009. Consequently, Indiana's average retail prices for electricity have been and are presently competitive both nationally and regionally. Retail prices are the average price for all rate classes, including residential, commercial, and industrial customers. Neighboring states' total customer retail rates for 2010 rank as follows, with the first being the lowest: Kentucky 6th, Ohio 28th, Illinois 36th, and Michigan 33rd.

The State Utility Forecasting Group (SUFUG) at Purdue University has been tasked by the Legislature to identify and forecast future electric needs in Indiana. According to the SUFG's 2011 forecast, the state will need approximately 2,600 MW of additional resources (all types of generating capacity, demand response, efficiency, and transmission to import power) by 2020 to meet expected demand and maintain a 15.8% reserve margin. A reserve margin is the amount of extra capacity available to serve customer demand in the event of a system contingency, such as

the planned or unplanned outage of a generation plant or a high-capacity transmission line. The forecast also projects that electricity usage will grow at an annual rate of 1.30% over the 20-year forecast and that peak demand will grow at an annual rate of 1.28%.

With the encouragement of the Legislature, the Commission began an informal review in June 2010 of net metering practices in Indiana to determine whether the existing rules within the Indiana Administrative Code should be changed, and if so, to what extent. Net metering is a service offering that allows participants to supplement their electric usage and mitigate a portion of their cost by installing renewable energy facilities such as wind turbines or solar panels, while retaining the electric utility as a back-up provider. If the amount of electricity the customer receives from the utility is greater than the amount delivered to the utility, the difference is charged to the customer. After holding several field hearings throughout the state, the Commission completed the formal rulemaking process and worked with all interested stakeholders to draft a new rule. By dramatically expanding the availability of net metering to all customer classes and the size of the eligible facilities, the Commission believes its new rule will stimulate growth and make it a more attractive option for those who wish to utilize renewable energy in their own backyards.

The Commission also concluded its investigation into the utilities' policies and practices related to tree-trimming. The Commission acted on this investigation in response to customer complaints and has since issued an Order that standardizes the rules for utilities, while protecting basic consumer rights. For example, utilities are now prohibited from "topping" trees or removing more than 25% of a tree's canopy without the property owner's consent. When contacting customers, the utilities must now provide notice in person or over the phone and provide at least one form of written notice to the customer. Further, once normal maintenance trimming is complete, the utility must remove the debris within three calendar days. The Order also required the Commission to initiate a formal rulemaking to further detail the following issues: dispute resolution, notice requirements, customer education, and tree replacement.

With respect to future issues that may affect the electric industry, the Electricity section of this Report focuses on a number of key issues including:

- **Renewables and Conservation** – The use of renewable energy continues to grow in Indiana through purchase power contracts with Indiana wind farms. New demand-side management requirements by the Commission for Indiana utilities, as well as newly approved time-of-use rates for electric vehicles, will continue to help Indiana move forward on the conservation front.
- **Integrated Resource Planning** – By making the integrated resource planning process more transparent, interested parties will have an opportunity to better understand a utility’s needs and to weigh in on the long-term goals to meet those needs.
- **U.S. EPA Rulemakings** – Decisions made at the federal level have the potential to considerably impact the state of Indiana. In fact, one recently finalized and three currently proposed U.S. Environmental Protection Agency (U.S. EPA) rules are expected to impose significant burdens and additional costs on the Indiana power sector.

- Natural Gas -

Natural gas commodity pricing continues to create uncertainty in the marketplace. Due to the emergence of unconventional sources such as shale gas, there has been the potential for an increase in supply; however, concern remains about the environmental impacts of fracking, a process by which shale gas is recovered. There is also uncertainty about possible federal regulations, which could limit supply by placing tighter restrictions on the industry. Therefore, Indiana companies are doing their best to hedge against the highs and lows of pricing to protect consumers and ensure rates are “just and reasonable.”

The state has also explored ways to mitigate this volatility by passing Senate Enrolled Act 423 (IC ch. 4-4-11.6) in 2009. This bill directed the Indiana Finance Authority (IFA) to enter into contracts for the sale of substitute natural gas (SNG) with third parties, with net proceeds from and the costs of those sales being reflected on natural gas customers’ bills. It also established Commission authority over the allocation of the costs and proceeds from the sale, transportation, and delivery of SNG to retail end-use customers. On December 16, 2010, the IFA filed a petition with the Commission seeking approval to enter into a 30-year contract with Indiana Gasification, Inc. Its petition under Cause No. 43976 is pending before the Commission.

The Underground Plant Protection Advisory Committee (Advisory Committee) will soon make recommendations on how violators of the Indiana Damage to Underground Facilities Act should be penalized. A rulemaking that details the process for determining violations of the law, codified under IC ch. 8-1-26, became effective in May 2011. Approximately 1,500 violations have been identified, and responsible parties have started to receive notification letters from the Commission's Pipeline Safety Division. In order to receive a letter, an individual or a business had to allegedly engage in an unsafe digging practice, such as not calling 8-1-1 to have the underground facilities lines marked, causing either a natural gas or hazardous liquid pipeline to sustain damage.

With respect to future issues that may impact the natural gas industry, the Natural Gas section of this Report focuses on a number of key issues including:

- **Regulation of Shale Gas Production** – If restrictions are placed on the natural gas industry, there could be a shift in supply and pricing.
- **Demand** – Depending on the economy, demand could decrease or remain stagnant, which could affect overall market pricing.
- **Rate Cases** – While many utilities have petitioned the Commission in recent years, Northern Indiana Public Service Company (NIPSCO) had not filed a general rate case for more than 20 years. In this instance, the Commission granted a modest decrease in gas rates for NIPSCO customers on November 4, 2010.

- Water/Wastewater -

The water/wastewater industry is extremely capital intensive due to high costs and relatively low revenues; investing more capital per dollar of revenue earned than any other industry. As the costs for water and wastewater services continue to rise, rates are following suit. For example, from 2000 to 2010, water/wastewater rates rose 5.05% per year while the consumer price index only rose 2.47% per year. According to data obtained from the U.S. Bureau of Labor Statistics, water/wastewater rates are increasing at a faster pace than rates in the electricity and natural gas industries.

Costs are increasing for the following reasons: 1) replacement of aging infrastructure; 2) compliance with U.S. Environmental Protection Agency standards such as water quality and wastewater effluent; 3) growing demand; and 4) the relocation of facilities for city and state road projects. For example, from 1984 to 2008 average water and wastewater treatment cost rose 310% while the consumer price index only rose 207%. A 2003 report issued by the Indiana Advisory Commission on Intergovernmental Relations estimates that statewide wastewater and drinking water infrastructure needs will require \$12.4 to \$13.9 billion in funding from the year 2000 to 2020.

With regard to significant cases, the Commission concluded several this past year. In February 2011, the Commission issued an Order in the Indianapolis Department of Waterworks' rate case, Cause No. 43645. More than 75% of the 25.99% increase was attributable to capital expenditures, specifically investments that will assure the integrity of the system and the quality of the water now and for future generations. In July 2011, the Commission approved the transfer of water and wastewater assets from the City of Indianapolis to Citizens Energy Group. In August 2011, Citizens Energy Group officially took over the water and sewer utilities.

Due to an "opt out" provision in Indiana Code, many utilities have chosen to withdraw from the Commission's jurisdiction. The Commission regulates approximately 116 out of 824 water utilities, and 47 out of 531 wastewater utilities. When a utility opts out, the IURC no longer oversees its rates and charges or rules and regulations. It also eliminates the agency's ability to provide dispute resolution between utility customers and their utilities. The primary complaint with this arrangement has to do with the difference between inside-city and outside-city customer rates. Some municipalities charge outside-city customers higher rates or a surcharge, ranging from modest amounts to those up to 100% greater than rates paid by inside-city customers for the same service.

With respect to future issues that may impact the water and wastewater industries, the Water/Wastewater section of this Report focuses on a number of key issues including:

- **Infrastructure** – Indiana's water project funding needs over the next 20 years are \$5.9 billion. The greatest need, \$4.5 billion, is for underground infrastructure.

- **Environmental Regulations** – Depending on the type of regulations handed down by the U.S. Environmental Protection Agency, costs could be substantial, especially if a water or wastewater utility must upgrade its facilities to comply with the mandates. In the Indianapolis Department of Waterworks’ rate case, one of out of every four revenue dollars invested was due to environmental mandates.
- **Troubled Utilities** – Small, troubled utilities continue to present regulatory challenges for the Commission, which is actively monitoring select small utilities in an effort to educate owners and prevent utilities from becoming troubled. These are typically small utilities (fewer than 300 customers) that were constructed by a developer as part of a housing development.

- Communications -

In 2011, the availability and advancement of broadband continued to be a priority for the IURC. The Federal Communications Commission (FCC) released its National Broadband Plan (NBP) on March 16, 2010 and subsequently issued Notices of Inquiry (NOIs) and Notices of Proposed Rulemaking (NPRMs) to implement significant changes to portions of the NBP. In response, the IURC issued comments and raised concerns about the NBP’s impacts on universal service, intercarrier compensation, and broadband policies.

Of similar importance for the IURC during 2010 and 2011 was universal service or “service for all.” The IURC closely monitored and analyzed the actions of the FCC as it discussed possible modifications to the multi-billion dollar federal Universal Service Fund (USF), which could significantly impact the availability and affordability of communications services for Indiana’s consumers. The IURC also submitted a final rule for the state’s Lifeline Assistance Program, which must receive approval through the state process before it can become effective.

Commission involvement remained necessary in 2011 for the areas of the communications industry where competition alone may not provide solutions. For example, the IURC resolved carrier-to-carrier disputes, managed policies regarding telephone numbering resources, protected consumers from unauthorized changes to their service, ensured that all areas of the state had a

provider of last resort, and ensured continued access to basic telecommunications services in high-cost areas of the state.

With respect to future issues that may impact the communications industry, the Communications section of this Report focuses on a number of key issues including:

- **Universal Service Fund** – The Commission must remain engaged at the federal level to ensure Indiana is well represented.
- **Cost of Content** – Unless this issue is addressed by the FCC, it is likely that some smaller providers of video will cease providing video services, and the video rates of the providers that remain will likely continue to increase.
- **Indiana Universal Service Fund (IUSF)** – The IUSF generates funds that are used to subsidize the rates for services offered by companies in high-cost areas in an effort to keep rates reasonable and affordable.

2011 Electricity Report

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I. ELECTRICITY OVERVIEW

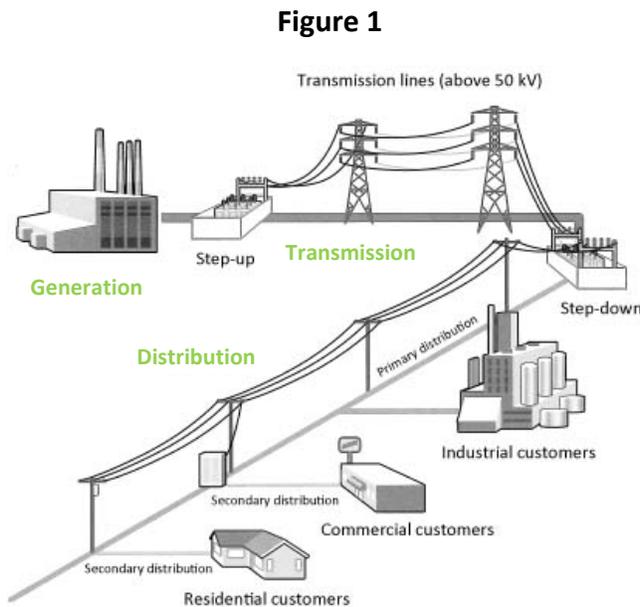
Industry Structure

The Indiana Utility Regulatory Commission (Commission or IURC) regulates Indiana’s electric utilities due to the monopolistic nature of the industry. This relationship is often described as the “regulatory compact,” which means that in return for government regulators granting exclusive service territories and setting rates in a manner that provides an opportunity for a reasonable return on investment, investor-owned utilities (IOUs) operate under traditional Commission regulation. Other types of electric utilities, rural electric membership cooperatives (REMCs), and municipal electric utilities, also have exclusive service territories, but may withdraw from the Commission’s jurisdiction. The 23 electric utilities under Commission rate jurisdiction generated \$8.4 billion in revenue in 2010 and served more than 2.6 million electric customers.

The Commission has jurisdiction over the electric service provided to approximately 2.6 million customers in Indiana. In 2010, Indiana’s average retail rates were the 13th lowest in the nation.

Regulatory Structure

Indiana’s electric utilities operate under a traditional regulatory structure overseen by the Commission and own and operate generation, transmission, and/or distribution facilities in order to provide electric retail service to customers in a defined exclusive service territory.



As shown in Figure 1, the electricity generation, transmission, and distribution process goes through a series of steps before it is available for consumption. During this process, the electricity voltage is stepped-up (increased) or stepped-down (decreased) depending on the level of voltage required to provide service. For a detailed list of the

generation facilities serving Indiana, please refer to Map 3 on page 16.

There are two types of electric utility customers: retail and wholesale. Retail customers include residential, commercial, and industrial customers who are billed for service based on a study that analyzes the costs associated with providing service for each class. For IOUs, a reasonable rate of return on investment for the company is added to the cost of service. Wholesale customers include other electric utilities, cooperatives, and municipalities that resell energy to retail consumers.

In addition to setting rates for these retail customer classes, the Commission renews and approves long-term financing for IOUs, the Indiana Municipal Power Agency (IMPA), and Wabash Valley Power Association (WVPA). The Commission also reviews and approves the construction of generation facilities for all of Indiana's electric utilities.

- Investor-Owned Utilities -

Five major IOUs operate in Indiana in exclusive service territories with other portions of the state similarly assigned to municipal utilities and REMCs.¹ IOUs are for-profit enterprises funded by debt (bonds) and equity (stock). Indiana's IOUs are vertically integrated, which means they own facilities for the generation, transmission, and distribution of electricity. These utilities account for more than 90% of the electric power sales of the state's regulated electric utilities to Indiana customers. Map 3 on page 16 shows the IOUs' service territories.



Duke Energy Indiana, Inc. (DEI), a subsidiary of Duke Energy Corporation, is headquartered in Charlotte, NC and based in Plainfield, IN. The utility serves 781,000 customers in areas throughout central and southern Indiana, not including the cities of Indianapolis and Evansville.

Indiana Michigan Power Company (I&M), a subsidiary of American Electric Power Company, Inc. (AEP), is headquartered in Columbus, OH and based in Ft. Wayne, IN. The utility serves 458,000 customers in two, noncontiguous parts of northeast and north central Indiana.



¹IC § 8-1-2.3-3



Indianapolis Power and Light Company (IPL), a subsidiary of the AES Corporation, is headquartered in Arlington, VA and based in Indianapolis, IN. The utility serves 468,000 customers in the greater Indianapolis area.

Northern Indiana Public Service Company (NIPSCO), a subsidiary of NiSource Inc., is headquartered and based in Merrillville, IN. The electric utility serves 457,000 electric customers in the northern part of Indiana.



Southern Indiana Gas & Electric Company (SIGECO), a subsidiary of Vectren Corporation, is headquartered and based in Evansville, IN. The electric utility serves 146,000 customers in a small part of southwestern Indiana.

- Municipally-Owned Utilities -

State law allows municipal utilities to remove themselves or “opt out” of the Commission’s jurisdiction.² Under certain circumstances, the Commission may review financing arrangements for individual municipal electric utilities, but this typically occurs through rate cases. As of the printing of this report, 12 of the 72 municipally-owned utilities operating in Indiana remained under the Commission’s jurisdiction for rate regulation. For a complete list of the municipal utilities under the Commission’s jurisdiction and those that have opted out, please see Appendix B. Of these 72 municipally-owned electric utilities, 51 are members of IMPA, including 10 of the 12 regulated by the Commission.

When a utility opts out of the IURC’s jurisdiction, the agency no longer oversees its rates and charges or rules and regulations.

A group of municipalities created the Indiana Municipal Power Agency (IMPA) in 1980 to jointly finance and operate generation and transmission facilities. Additionally, IMPA was established to purchase wholesale power and meet members’ needs through a combination of member-owned generating facilities, member-dedicated generation, and purchased power. The Commission does not regulate the rates that IMPA charges its members. Map 1 shows the location of these utilities.

²IC § 8-1.5-3-9

- Rural Electric Membership Cooperatives -

Rural Electric Membership Cooperatives (REMCs) are customer-owned utilities, all of which are members of either Hoosier Energy Rural Electric Cooperative (Hoosier Energy), located in the southern part of the state, or Wabash Valley Power Association (WVPA), located in the northern part of the state.

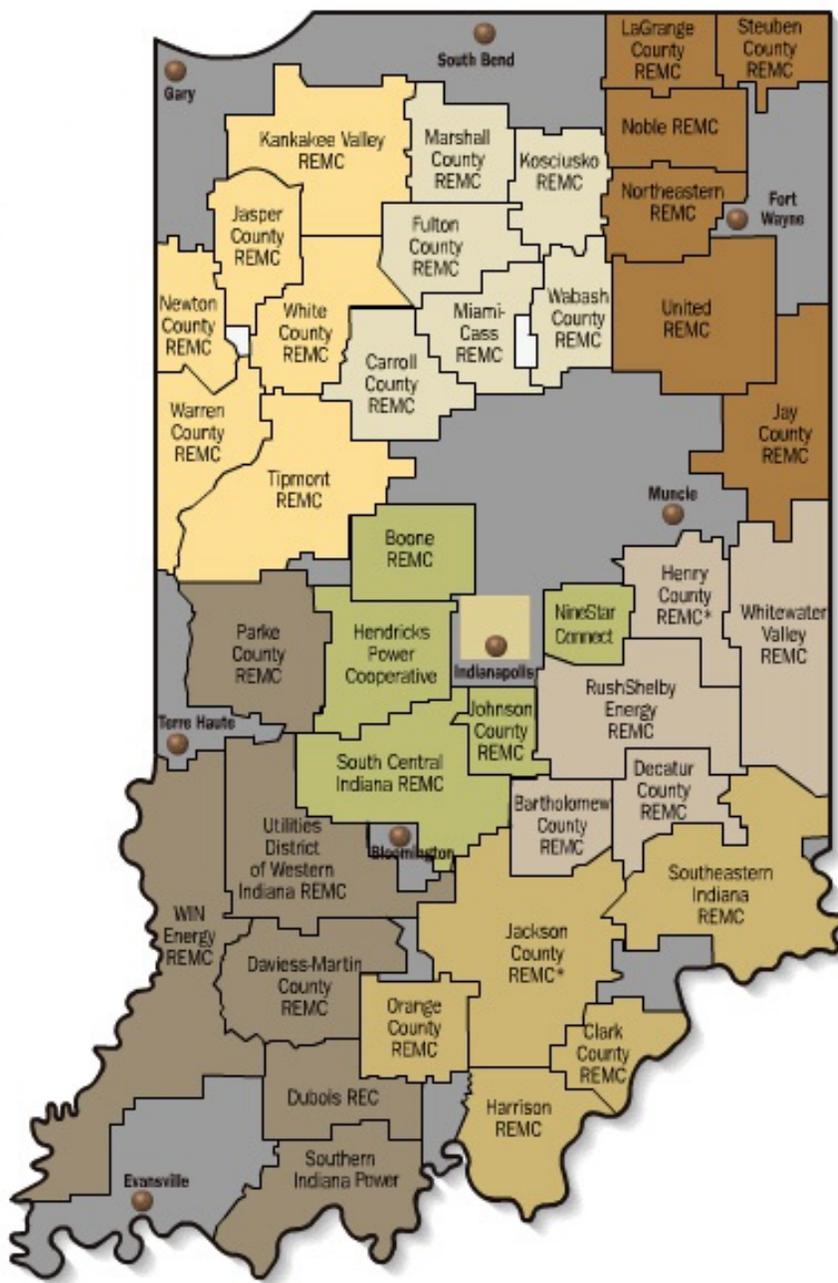
Map 2 shows the location of these member utilities.

Hoosier Energy and WVPA are power generating and transmission cooperatives formed to supply power to the REMCs. The Commission’s regulation of Hoosier Energy and WVPA is limited to decisions to purchase, build, or lease generation facilities. In addition, the Commission retains jurisdiction over WVPA’s long-term financing.

REMCs, like municipalities, have the ability to remove themselves or “opt out” of the Commission’s jurisdiction.³ As of the printing of this report, only 4 of the 40 REMCs operating in Indiana remained under the

Map 2

Statewide Map of the Association of Rural Electric Cooperatives



³IC § 8-1-13-18.5

Source: Indiana Statewide Association of Rural Electric Cooperatives

Commission’s jurisdiction for rate regulation. For a complete list of the REMCs under the Commission’s jurisdiction and those that have opted out, please see Appendix C.

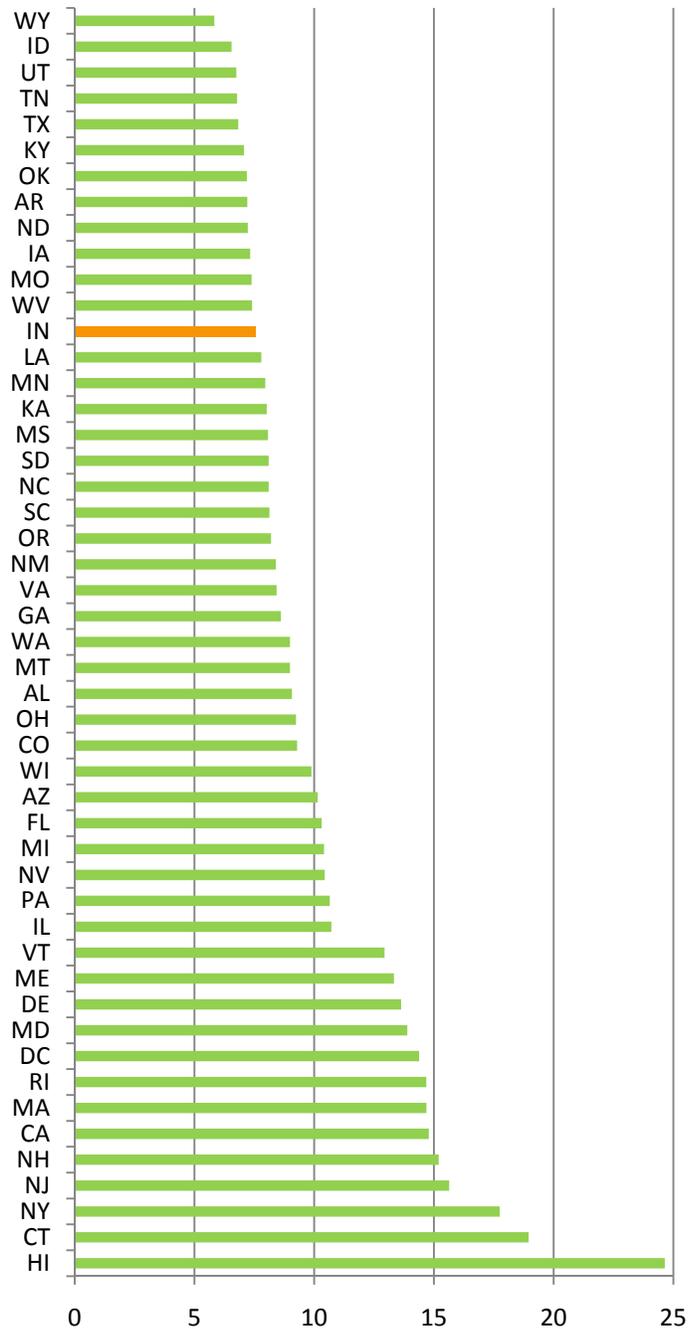
How Indiana Compares

Indiana’s average retail prices for electricity have been and are presently competitive both nationally and regionally. Retail prices are the average price for all rate classes, including residential, commercial, and industrial customers.

Indiana’s annual ranking for average total customer retail rates from 2000 to 2009 ranged from 9th lowest in 2000 to 4th lowest in 2002 to 15th lowest in 2009. For 2010, Indiana’s rates were 13th lowest, as shown in Chart 1. Neighboring states’ total customer retail rates for 2010 rank as follows, with the first being the lowest: Kentucky 6th, Ohio 28th, Illinois 36th, and Michigan 33rd.

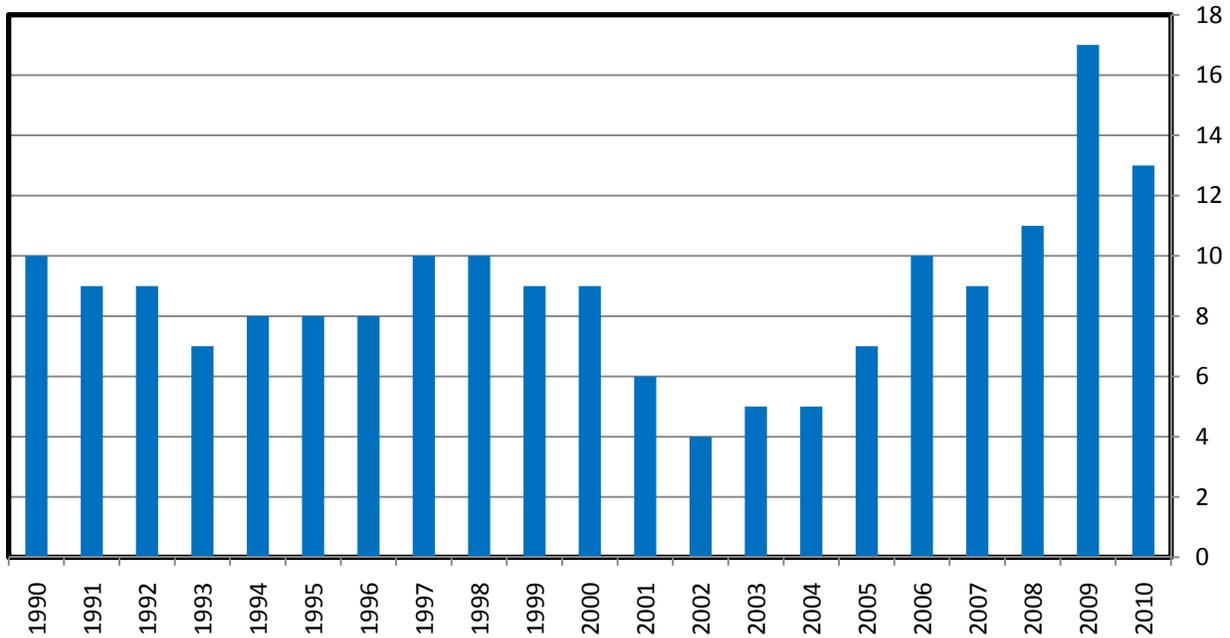
The variability in ranking is the result of many factors, including the timing of rate cases both in and out of state and fluctuations in the cost of fuel. Chart 2 shows Indiana’s national rankings over the past 20 years and how they have fluctuated.

Chart 1
2010 State Average Electricity Prices (cents/kWh)



Source: Energy Information Administration

Chart 2
Indiana Total Retail Customer Rate National Ranking
 Lowest to Highest



Source: SNL Energy

Historically, Indiana’s use of coal as a fuel source for electricity generation has contributed to the state’s relatively low-cost electricity. However, the general trend of increased coal prices observed since 2003 has reduced Indiana’s relative price advantage. Some of the factors driving the cost increases are as follows: escalating coal mine operating costs due to declining mining productivity, increasingly difficult permitting requirements, the proliferation of regulations being conducted by the U.S. Environmental Protection Agency, and international competition for domestic supply. Therefore, the extensive use of coal in Indiana has led to an increase in utility fuel costs, and

Historically, Indiana’s use of coal has contributed to its relatively low-cost electricity; however, costs have increased in recent years due to a number of factors. Coal-fired generation accounts for 85% of actual energy production for Indiana consumers.

subsequently customer rates, in a manner that corresponds with the increase in the cost of coal.

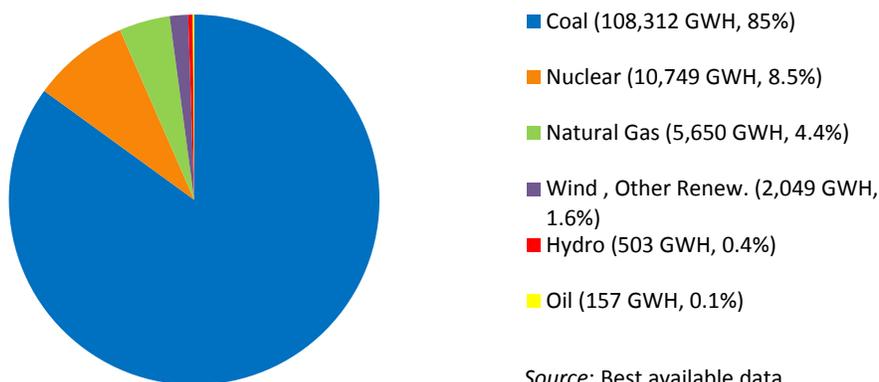
Existing Generation Portfolio

Coal-fired generation accounts for 85% of actual energy production for Indiana consumers, as shown in Chart 3. The second highest is nuclear generation at 8.5%. Although Indiana does

not have a nuclear plant within the state, customers in the northeastern portion of Indiana are served by I&M's Cook Nuclear Generation Station located in Bridgman, Michigan. In order to show a more accurate depiction of energy production within the state, the IURC used the most recent 2009 data from the U.S. Energy Information Administration (EIA). However, the nuclear figure was recalculated based on available 2010 figures.

Chart 3

Projected 2010 Energy Production for Indiana Consumers by Fuel Type



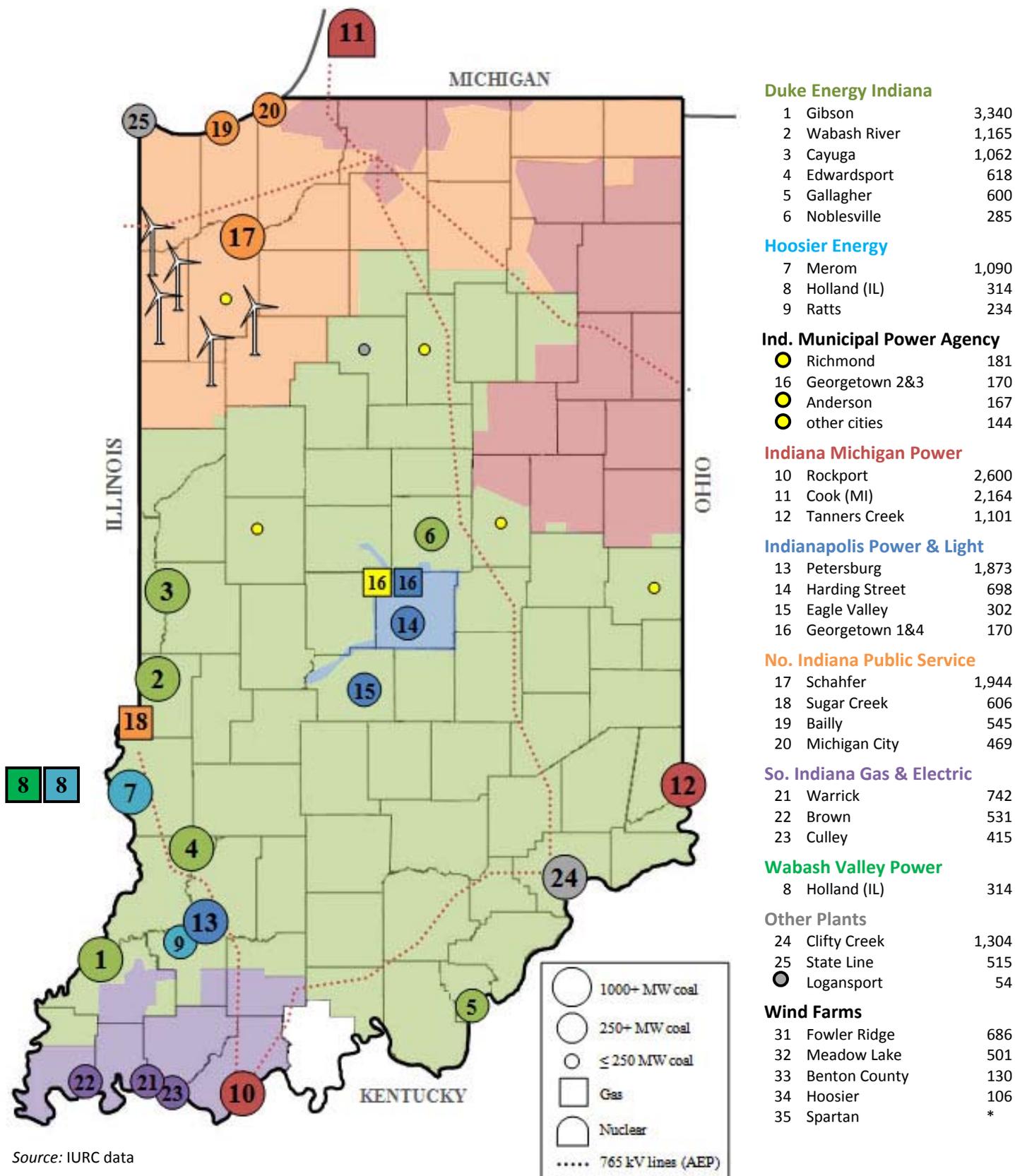
Source: Best available data

EIA data from 2009 has been used to support the assertion that 93% of Indiana's electricity comes from coal. This figure can be misleading due to the fact it does not consider out-of-state generation sources. Therefore, nuclear power is not taken into account, despite it being the second largest source of electric power.

Over a period of time, it is normal for power plants to only produce a percentage of what they could produce if run at full capacity. This ratio of actual energy output to the potential output over a period of time is referred to as a capacity factor. The capacity factors of power plants vary depending on technology, resource, and purpose. Nationally, capacity factors are typically more than 90% of the potential output for nuclear, 70-90% for large coal units, 20-40% for wind, and 10-15% for solar photovoltaics. Capacity factors for gas combined cycle units vary widely depending on a unit's role in the grid system. Gas combustion turbines (peakers) are used sparingly when demand is highest because of their relatively high cost of operation compared with base load coal plants and typically have much lower capacity factors. The following map shows the location, size, and fuel type of the large power plants providing electricity to Indiana customers.

Map 3

Statewide Map of Electric Generation Serving Indiana



Source: IURC data

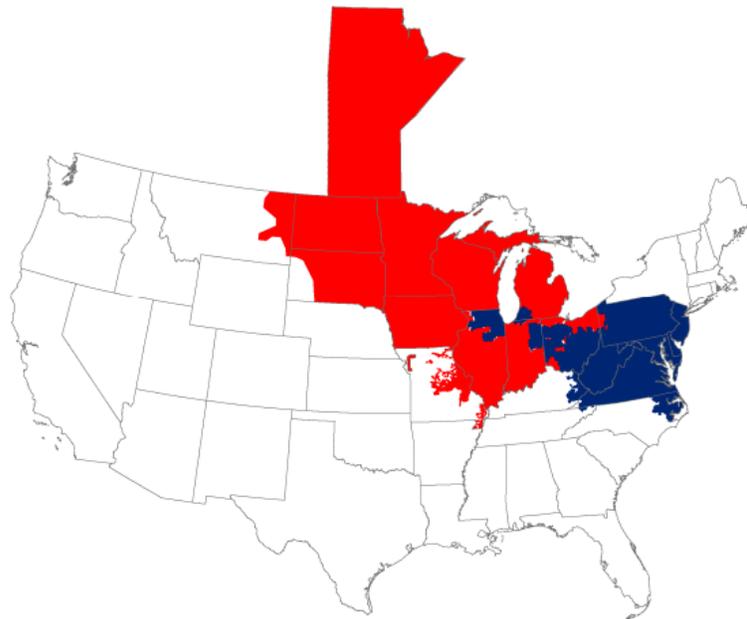
Regional Transmission Organizations

Two regional transmission organizations (RTOs) operate in Indiana: Midwest Independent Transmission System Operator, Inc. (MISO) and PJM Interconnection, LLC (PJM). These organizations are regulated by the Federal Energy Regulatory Commission (FERC). In addition to operating the regional transmission facilities in a reliable and non-discriminatory manner, MISO and PJM direct the operation (in real time) of all generating facilities in their regions to ensure that the lowest-cost combination of generation resources is being used at any given moment. Additionally, RTOs engage in long-term transmission planning in conjunction with their transmission-owner utilities, some of which are under the IURC's jurisdiction.

There are two regional transmission organizations operating in Indiana: the Midwest Independent System Operator and PJM Interconnection, LLC. RTOs dispatch all of the generating facilities in their regions to ensure that the lowest-cost combination of resources is used at any given moment.

Map 4

MISO (red) and PJM (blue) Reliability Coordination Area



Source: <http://www.miso-pjm.com>

RTO Characteristics	MISO	PJM
Participating Indiana Utilities	DEI, NIPSCO, IPL, SIGECO, Hoosier Energy, WVPA, and IMPA	AEP (including its Indiana subsidiary I&M), IMPA and WVPA
Transmission Lines	53,000 miles	60,800 miles
Capacity	146,000 MW	176,400 MW
Headquarters	Carmel, Indiana (815 employees)	Valley Forge, Pennsylvania

Participation in RTOs provides a number of benefits for Indiana’s consumers.⁴ In addition to greater reliability, RTOs provide lower costs through more efficient regional planning than is possible when individual utilities act alone. Because of the vast regional scope of the RTOs, Indiana customers should receive the financial and operational benefits of a more diverse resource mix and additional customer diversity of demand (e.g., Indiana might experience peak

RTO Benefits



- 1) Improved reliability;
- 2) More efficient use of resources; and
- 3) Substantial savings through greater diversity and higher generator availability

demand due to hot weather while Montana has much more moderate weather), allowing demand to be satisfied with relatively lower-cost resources.

Additionally, because the reliability risk is diversified over the entirety of the RTOs’ footprints – from the Rocky Mountains to the Atlantic Ocean – reserve requirements are reduced. A reserve margin is the amount of extra capacity available to serve customer loads in the event of a system contingency, such as the planned or unplanned outage of a generation plant or a high-capacity transmission line. RTOs are able to maintain lower planning and operating reserve margins than Indiana’s utilities prior to RTO development.⁵

⁴The MISO states, “For 2010, the region realized net benefits of between \$650 million and \$875 million. These benefits resulted from Midwest ISO’s improved grid reliability and increased generation efficiencies. During the next 10 years, we anticipate that the region will realize between \$6.1 billion and \$8.1 billion in benefits on a net present value basis.” <https://www.midwestiso.org/WhatWeDo/ValueProposition/Pages/ValueProposition.aspx> PJM has conducted a similar analysis of net benefits which shows annual net benefits to the region between \$1.5 billion to \$2.2 billion.

⁵The electric industry has historically maintained planning reserve margins in the 15% to 20% range. With the development of RTOs, reserve margins have fallen to reflect the benefit of more efficient regional coordination. In the Midwest ISO, for example, Indiana utilities have an 11.0% reserve requirement for 2011-12.

While participation in RTOs provides benefits to Indiana’s end-use customers, it is challenging to translate the costs and revenues associated with RTO participation into the traditional cost-of-service model used to set rates in Indiana. To better ensure that Indiana customers and utilities receive the benefits of participating in RTOs, the Commission has staff dedicated to participating in the RTOs’ processes. Because of the important and pervasive impact of the RTOs on Indiana’s utilities and their customers, the Commission’s involvement with the FERC has also increased dramatically to ensure that Indiana’s utilities are providing safe, reliable energy at reasonable prices.

Age Profile

Aging infrastructure is a concern across all utility sectors. For the electric industry, an aging generation fleet is particularly concerning due to the potential risk to system reliability and the rising costs associated with the construction of new plants. Although generation plants are designed to last decades, it is important for the utilities to monitor their condition, as the last coal-fired generation unit constructed in Indiana was completed in 1989.

In recent years, Indiana’s utilities have generally purchased incremental electricity from other sources rather than building their own power plants to maintain required power reserves. Because it takes approximately three years to construct new gas-fired peaking generation, five to ten years to construct new conventional coal-fired generation, and longer to bring new nuclear generation online, long-term planning is critically important. Table 1 shows the age profile for the coal and natural gas-fired fleet of electric generation owned by Indiana’s utilities.

Table 1

Age Profile of Generating Units Owned by Indiana Utilities
Separated by Coal-Based Units and Gas Generation Units

Years Old	Number of Coal-Based Units	MW of Generation (Summer Rating)	Percent of Total Coal-Based Generation
Over 50	21	1,711	11.3%
40-50	15	2937	19.3%
30-40	13	5904	38.9%

20 -30	9	4633	30.5%
Total	58	15,185	100%

Years Old	Gas Units (Peaking)	MW of Generation (Summer Rating)	Percent of Total Gas Generation (Peaking)
Over 50	2	59	0.1%
40-50	7	90	4.6%
30-40	3	220	6.9%
20 -30	1	80	2.6%
10-20	36	2229	70.2%
0-10	5	493	15.6%
Total	54	3171	100%

Coal units commonly become candidates for retirement past the age of 40, with most retiring by age 60. More than 30% of the total coal-fired generation is more than 40 years old, and about 70% of the total coal-fired generation is more than 30 years old. Natural gas-fired generation is much newer; only 15% of that fleet is more than 20 years old. However, because gas-fired combustion turbines generally have higher marginal operating costs than coal-fired units, they typically only operate during periods of high peak demand. With regard to nuclear generation, Cook Units 1 and 2 became operational in 1975 and 1978, respectively. Then in 2005, the Nuclear Regulatory Commission re-licensed the units for commercial operation until 2034 for Unit 1 and 2037 for Unit 2.

Legal and Policy Foundations

Because electricity cannot be effectively stored on a large scale, generation resources owned by utilities must be economically dispatched such that generation output meets customer demand. This means the lowest-cost generation resources are used first, with successively more expensive units coming online until total customer demand is met at any given point in time. Consequently, Indiana’s utilities are responsible for short-term planning. They are also responsible for long-term resource planning to meet customer demand at the lowest reasonable

cost, while providing safe, adequate, and reliable service. In order to help the utilities meet their charge, policies such as “Allowance for Funds Used During Construction” and “Construction Work in Progress” have been enacted by the General Assembly. These policies provide cost recovery for utilities building new generation.

CWIP and AFUDC provide cost recovery for utilities building new generation. Depending how these mechanisms are applied, costs can vary for consumers.

Allowance for Funds Used During Construction

Allowance for Funds Used During Construction (AFUDC) is an accounting procedure that tracks the estimated composite interest accrued from using borrowed and internal funds during a construction project. AFUDC is charged until the plant is placed in service or otherwise allowed recovery through an approved Construction Work in Progress (CWIP) tracker. Depending on the construction project, the amount of AFUDC can be considerable.

Construction Work in Progress

Construction Work in Progress (CWIP) deals with the timing and cost recovery of capital projects during the construction phase. It provides the funds to pay for capital costs during construction and is funded by the ratepayers through a tracker, which is further discussed on page 29. Often referred to as “pay as you go” financing, CWIP provides a utility with positive cash flows. By allowing construction projects to be tracked periodically, the eventual cost of the plant is less because the AFUDC stops, thereby saving ratepayers from paying for the recovery of these additional costs.

Construction Work in Progress is often referred to as “pay-as-you-go” financing.

Utilities often cite that if CWIP were employed more frequently, consumers would benefit over the long term because the costs of construction would actually be put into rate base as they occur, rather than being delayed until a utility’s next rate proceeding. By adding expenditures as they occur, shareholders receive their rate of return sooner, which theoretically reduces the cost of the project over the long term, because a utility would require less revenue to support the project on a going forward basis. Additionally, the use of CWIP spreads the rate impact of a large

construction project over several years so that ratepayers are not exposed to a single large rate increase.

However, one of the concerns associated with CWIP is that ratepayers incur the costs of construction that is not yet “used and useful.” This concept became a point of controversy in the 1970s because of the extraordinary costs and timelines involved in major nuclear construction projects. Therefore, in the 1980s, the General Assembly enacted several statutes that permitted the Commission to apply this special regulatory treatment to certain projects. These projects include those deemed to be clean coal, as well as existing nuclear generation facilities that serve Indiana, the latter of which was signed into law during the 2011 legislative session.

II. ELECTRICITY LANDSCAPE

Infrastructure

Large-Scale Projects and Capital Investment Recovery

Large investments in utility infrastructure over long periods expose the investor to risks on two fronts. First, conditions may change during the construction period and call the “used and useful” nature of the project into question. Second, construction financing is not ratepayer sourced, because traditional utility ratemaking does not include the cost of infrastructure in customer rates until construction is complete. However, Indiana and other states have addressed these challenges through a certificate of need process⁶ and the allowance of a cash return on financing costs during construction in certain instances (i.e., CWIP).⁷

The certificate of need process provides the Commission and interested parties with an opportunity to evaluate the merits of a project before it is undertaken. If the Commission approves the project, the utility is granted a Certificate of Public Convenience and Necessity (CPCN). As such, the preapproved finding of need and prudence reduces risks for the utility, which results in lower project financing costs, but shifts risks to ratepayers. The allowance of cost recovery while construction costs are incurred is done in lieu of deferring them until construction is complete and then paying both the amount borrowed and the related interest. This

⁶See, IC ch. 8-1-8.5; IC ch. 8-1-8.7; IC § 8-1-2-23

⁷See, IC ch. 8-1-8.8

is recognized as a significant credit enhancement by credit rating agencies. Consequently, both of these tools serve to reduce the lifetime costs of the investment, a cost paid by a utility's ratepayers.

To obtain a CPCN, utilities must provide supporting analysis demonstrating that the proposed project is the lowest reasonable cost method of meeting customers' needs. Therefore, the CPCN application must be consistent with lowest reasonable cost resource plans, which utilities are required to submit every two years. These are known as integrated resource plans (IRPs), because they evaluate all supply and demand-side alternatives available to meet a utility's future electricity requirements. These IRPs are required to meet certain requirements imposed by the Commission in the form of what is known as the IRP rule (170 IAC 4-7).

Many electricity industry changes have occurred since the IRP rule was issued in 1995. In 2010, the Commission issued an Order finding that the IRP rule should be updated and instructed staff to commence a rulemaking proceeding. The new rule will be updated in accordance with industry changes, incorporate input from Indiana stakeholders and outside experts, and reflect Commission priorities, such as making the IRP development process transparent.

Edwardsport IGCC

In an Order issued on November 20, 2007, the Commission granted a CPCN and approved the construction of Duke Energy's Edwardsport Integrated Gasification Combined Cycle (IGCC) generating facility, which will have a capacity of 618 MW.⁸

Once complete, the Edwardsport IGCC facility will be the first commercial-scale clean coal plant of its kind built in the United States in the last 10 years. The facility is located on approximately 220 acres adjacent to DEI's existing Edwardsport Generating Station in Knox County and has an in-service date of 2012. The Commission initially approved a cost estimate of \$1.985 billion in its 2007 Order. However, the figure was revised by the company and approved by the Commission at

The Edwardsport IGCC facility will be the first commercial-scale clean coal plant of its kind built in the United States in the last 10 years and is the first base load power plant built in Indiana in more than 20 years.

⁸The plant will also be able to run on natural gas, though doing so reduces available capacity by approximately 128 MW.

\$2.35 billion in January 2009.⁹

DEI has since filed a second request with the IURC (Cause No. 43114-IGCC 4-S1) to update the estimated capital cost of the project and to set a “hard cap” for the project at \$2.72 billion.¹⁰ This case has since been expanded by the Commission to include two phases. Phase I will address Commission review of the utility’s progress reports, the proposed cost estimate increase, and the reasonableness of going forward with the project. Phase II, on the other hand, will address allegations made by intervening parties of fraud, concealment, and/or gross mismanagement associated with the project. Those public hearings are scheduled for October 2011.

Under traditional ratemaking, DEI would have constructed the facility and not been allowed recovery of the costs from ratepayers until the plant was determined to be “used and useful.” However, by applying Indiana’s clean coal technology statutes to the facility, DEI proposed and the Commission approved a “pay-as-you-go” plan, whereby the



Rendition of the IGCC facility under construction in Edwadsport, Indiana

financing costs of the plant are passed on to ratepayers on a periodic basis as part of an ongoing review process during construction. This process is otherwise known as CWIP, as previously discussed. As of the end of March 2011, the overall project was approximately 85% complete.

⁹Cause No. 43114-IGCC 1

¹⁰DEI states it will not ask for recovery of costs above its proposed hard cap. However, the hard cap does not include AFUDC, which DEI requests to recover in addition to the hard cap. DEI’s proposal agrees to certain other concessions as well, and it estimates its proposal will increase average retail revenues by approximately 16.3% (at its highest point), when compared to retail revenues billed in 2009.

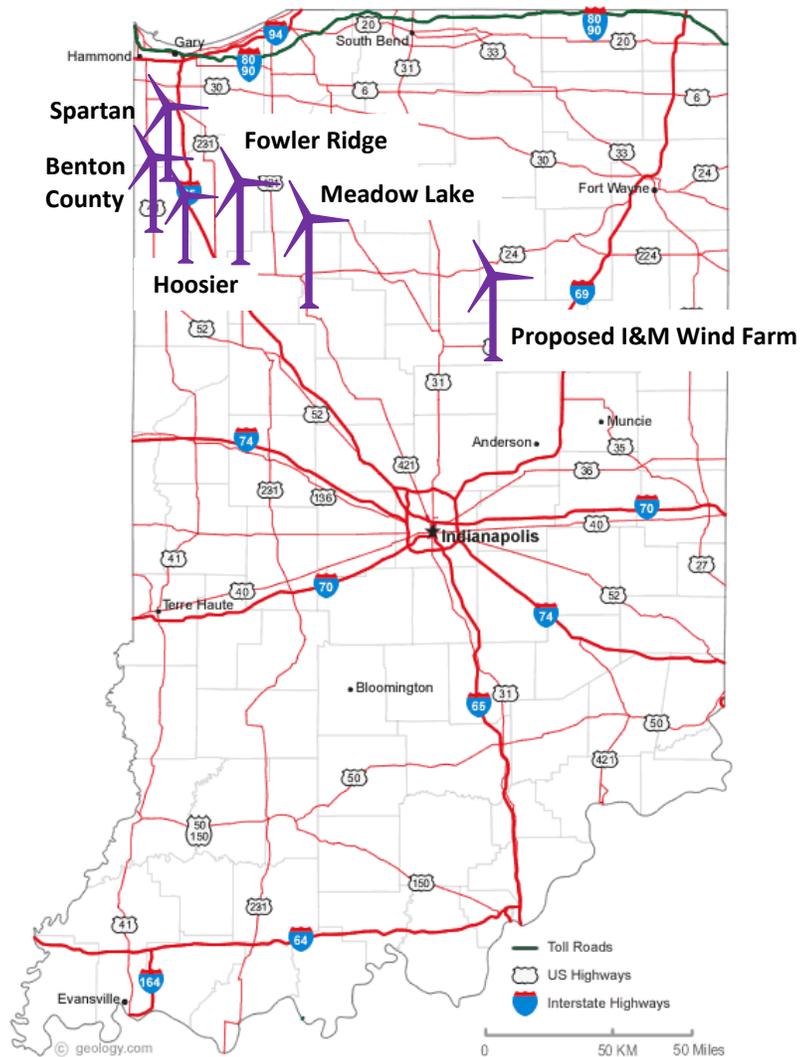
The IGCC facility will utilize state-of-the-art technology and a gasification process that is designed to convert locally-sourced coal into a combustible gas called synthetic gas or syngas that can then be used to generate electricity. The technology will reduce traditional air emissions by approximately 50% and provide 90% or higher mercury capture at a fraction of the cost of a traditional coal unit. Carbon capture and sequestration (CCS) is also being explored as an option for this plant. The Commission authorized DEI to spend up to \$17 million for a carbon capture study to analyze its feasibility. However, before carbon can be stored or sequestered, significant feasibility and cost issues will need to be resolved before it becomes possible to implement. This includes the cost of permanent geologic storage, insurance, legal liability, property rights, and regulatory issues. DEI has a pending proposal in Cause No. 43653 to spend \$42 million on the first phase of a study to further evaluate carbon sequestration through site assessment and characterization.

Wind

Indiana has become one of the fastest growing states for the development of wind farms, which are currently located in Benton, Newton and White counties. Several other wind farms are in the planning stages. The most recently announced wind farm was proposed for Madison, Grant, Howard and Tipton counties. This proposed project (Wildcat-1) stems from I&M adding another 100 MW of wind power to its generation portfolio as part of a 20-year power purchase agreement reached with E.ON Climate and Renewables.

Map 5

Indiana Wind Farms



Despite having a capacity factor of 20-40%, far less of wind’s capacity can be relied upon at times of peak demand due to the variability of its output. Unlike conventional power resources, wind power is intermittent, because its output is weather-driven. Therefore, to plan for the summer 2011 load, Indiana utilities and the Midwest ISO assumed a 12% capacity credit, shown in Table 2, for wind energy resources available during periods of peak demand.¹¹

Using the credit, a 100 MW wind farm would typically have an expected output of 12 MW (12% of its nominal capacity) during the summer peak periods. Consequently, the limited ability of wind to reliably meet power needs at times of highest need puts it at a disadvantage when compared to conventional generation technologies. However, there are means of compensating for the intermittent nature of wind.

Table 2
Specifications of Indiana Wind Farms

Wind Projects	County	Nameplate Capacity (MW)	Estimated Availability at Peak (MW)*	Completion Date
Benton County Wind Farm	Benton	130.5	15.7	2008
Fowler Ridge Wind Farm I	Benton	301.3	36.2	2009
Fowler Ridge Wind Farm II-A	Benton	199.5	23.9	2009
Fowler Ridge Wind Farm II-B	Benton	150.0	0	N/A**
Fowler Ridge Wind Farm III	Benton	99.0	11.9	2009
Hoosier Wind Farm	Benton	106.0	12.7	2009
Meadow Lake Wind Farm I	White	199.7	24.0	2009
Meadow Lake Wind Farm II	White	99.0	11.9	2010
Meadow Lake Wind Farm III	White	103.5	12.4	2010
Meadow Lake Wind Farm IV	White	98.7	11.8	2010
Meadow Lake Wind Farm V	White	100.8	0	N/A**
Spartan Wind Farm	Newton	101.0	0	N/A**
TOTAL		1,689.0	160.5	

*Assumes 12% of nameplate capacity (Midwest ISO wind capacity credit) will be available during summer peak.

**The wind farm has not reported a completion date to the Commission.

¹¹This is an increase from the 8% Midwest ISO wind capacity credit for the summer of 2010.

When wind output drops, natural gas units (because they can start up so quickly), are dispatched to fill the void. To better predict these drops, the MISO recently created a centralized wind forecasting system, which has helped it better predict available wind resources on an hour-to-hour basis.

Forecasting accuracy is improving significantly and will allow grid operators to more efficiently integrate wind projects onto the grid. Consequently, the MISO's increased use of wind forecasting has enabled dependency on wind during peak times to increase from 8% to 12% in recent years.

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The development of emerging storage technologies, such as batteries that store energy from wind generation for later use, could help alleviate the intermittency problem in the future and shift wind energy dispatch from nighttime to more valuable daytime hours.¹² The potential growth in electric vehicles could also help to serve as a battery storage system for wind, as consumers are more likely to charge their cars at night.

While wind output cannot be dispatched to match increases in demand, it can be dispatched downward very quickly.¹³ This function is valuable during times of grid congestion and during minimum demand. The MISO announced in June of 2011 that wind can be designated a “dispatchable intermittent resource” and can, therefore, fully participate in its real-time energy market. This is expected to enhance the MISO's ability to efficiently integrate intermittent resources into its system.

Biomass

Biomass generally consists of: 1) woody residues from forest management activities and the pulp and paper industry; 2) municipal solid waste such as waste paper, cardboard, wood waste and yard cuttings; and 3) agriculture crop residues and animal waste. The decomposition of biomass is what produces fuels, such as landfill gas and coal bed methane.

¹²Wind resources in Indiana are greatest in the evening, which is when demand is lowest and energy is of least value.

¹³Dispatchability is the ability of a power plant to alter its output quickly to a desired level.

According to the State Utility Forecast Group’s 2009 “Indiana Renewable Energy Resources Study,” landfill gas is the primary biomass fuel used to generate electricity in Indiana. The current total operating generation capacity from Indiana’s landfills is 44 MW.¹⁴ As of the summer of 2011, the IURC had received three new petitions for a CPCN in the past year, one of which involved landfill gas.

Hoosier Energy’s petition for a CPCN, which was filed on January 14, 2011, is still under consideration by the Commission. The utility’s petition is for authority to construct up to 40 MW of landfill gas generation capacity. The other two projects involve generating electricity from wood biomass. Two companies, Liberty Green Renewables and Bioenergy Power, petitioned the Commission to obtain CPCNs for the sale of electricity generated from biomass in the wholesale power market. Liberty Green’s case for a plant in Scott County was dismissed on June 16, 2011,¹⁵ and Bioenergy Power received approval for its 26 MW plant in Clay County on October 20, 2010.¹⁶

Nuclear

I&M utilizes the Cook Nuclear Generation Station located in Bridgman, Michigan to serve its customers with approximately 65% of the Cook plant costs and power generated being allocated to Indiana retail customers. This facility has two pressurized water reactors: Unit 1, which has a nameplate generation of 1,048 MW and Unit 2, which has a nameplate generation of 1,107 MW. The two units became operational in 1975 and 1978, respectively, and in 2005 the units were re-licensed by the Nuclear Regulatory Commission (NRC) for commercial operation until 2034 for Unit 1 and 2037 for Unit 2. To extend the life of these units, I&M will need to implement a systematic replacement of many parts of the plant, some of which are no longer commercially available, that may not otherwise safely last until the end of the extended period (new life cycle).

This Life Cycle Management Project is part of an overall AEP plan to replace older and less efficient coal generation that would be too costly to upgrade to comply with the various

¹⁴IURC Data

¹⁵Petition of Liberty Green Renewable Indiana, LLC, (IURC, Cause No. 43851)

¹⁶Petition of Bioenergy Power, LLC, (IURC, Cause No. 43882)

anticipated pollution mandates with more cost-effective, less environmentally-challenged units. Projected costs to extend the life cycle of the Cook plant range from \$1.5 billion to \$2 billion.

In the aftermath of the recent damage to the Fukushima Daiichi Nuclear Station in Japan, the U.S. Nuclear Regulatory Commission began testing U.S. nuclear facilities to assess their ability to respond to extraordinary events similar to those experienced at the Japanese plant. The Cook plant's inspection was completed on April 29, 2011 by the Nuclear Regulatory Commission, which found no major deficiencies in the plant's ability to respond to extraordinary disaster events.

Pricing and Economics

Adjustable Rate Mechanisms (Trackers)

Indiana's regulatory statutes include adjustable rate mechanisms (trackers) for certain expenses and capital investments. Tracking mechanisms provide for timelier recovery of specifically-defined costs when compared to recovery as the result of a rate case. An expense tracker allows retail rates to be adjusted outside the context of a base rate case to reflect changes in operating expenses but does not include a return on such expenses. Recovery of expenses that are characterized as largely outside the utility's control, variable, and materially significant is the intended goal of such trackers. Examples of expense trackers include fuel adjustment and RTO charges.

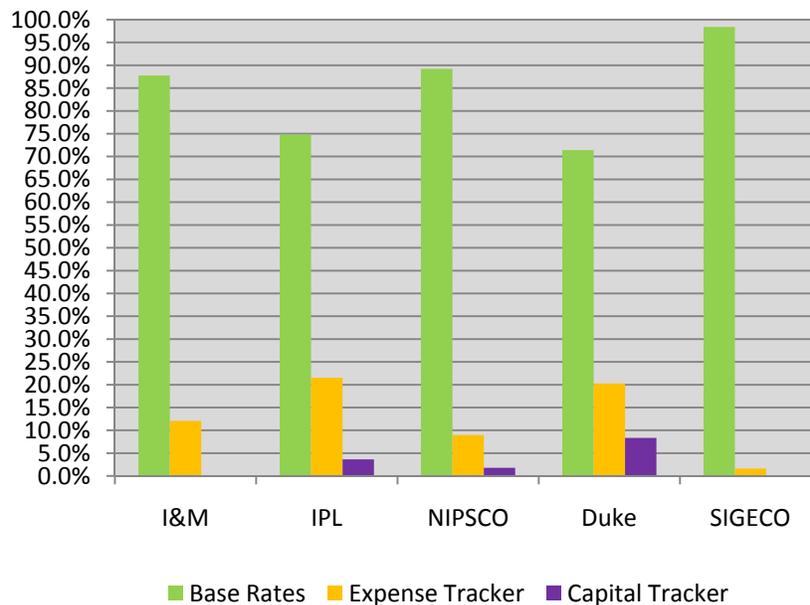
By comparison, a capital investment tracker allows a utility to reflect certain clean coal and energy generation capital costs in its rate base and to reflect the associated return on such investment in retail rates outside a base rate case. A capital investment tracker reduces the lag time between capital expenditures and cost recovery for the utility and is typically viewed favorably by credit rating agencies. Capital trackers have most commonly been utilized by utilities to support major investments in

Indiana's regulatory statutes include adjustable rate mechanisms (trackers) as an integral part of regulation. Expenses that are characterized as largely outside the utility's control, variable, and materially significant are the intended goals of such trackers.

upgrading coal generation plants to comply with increasingly stringent environmental regulations.

Chart 4 shows a breakdown of how base rates, expense adjustments, and capital adjustments contribute to a residential customer’s bill for each of Indiana’s electric IOUs. The relative weighting of these elements varies in part due to the magnitude of a company’s construction program and how much time has elapsed since its last base rate case.

Chart 4
Residential Bill Components for the Investor-Owned Utilities



The fuel adjustment clause (FAC) has existed in Indiana for more than three decades and tracks a utility’s largest variable and unpredictable operating expense: fuel. Other expenses tracked have expanded in recent years to include demand-side management programs, emission allowances, purchased power capacity, clean coal technology operation and maintenance, and MISO/PJM management expenses. Direct pass-through of expense or revenue reflects current conditions in retail rates in a more real-time manner than traditional base rate case regulation. The pass-through of unpredictable revenues and expenses to ratepayers also reduces volatility in the utility’s earnings and may enhance the utility’s credit rating.

The FAC by statute and most other adjustable rate mechanisms by design are expedited summary proceedings in order to provide more timely cost recovery. However, before these costs are passed along to customers, the Office of Utility Consumer Counselor (OUCC) reviews the underlying support for rate adjustments and provides evidence on that review in those summary proceedings. Yet, as the number of items, dollar values, and utility decision points have increased, there has been a limited increase in oversight resources or time allowed to review and process the matters at hand.¹⁷ Consequently, this can present a challenge for effective regulation.

Modernization and Efficiency

Even though the majority of Indiana's electric needs are met through coal-fired generation owned by the utilities, energy efficiency and demand response programs are also being developed to enhance the value of Indiana's energy services.¹⁸

Net Metering

Net metering is a service offering that allows participants to supplement their electric usage and cut costs by installing renewable energy facilities such as wind turbines or solar panels, while relying on the electric utility as a back-up provider. If the amount of electricity the customer receives from the utility is greater than the amount delivered to the utility, the difference is charged to the

Net Metering Rulemaking



The net metering rulemaking, initiated by the IURC in June 2010, went into effect in July 2011.

Significant changes stemming from the rulemaking include:

- 1) A 9,900% increase in the maximum size of an eligible facility from 10 kW to 1 MW;*
- 2) Expanded eligibility to all customer classes (industrial, commercial, and residential) from just K-12 schools and residential customers; and*
- 3) A 900% increase in the aggregate sales level under each utility's net metering tariff from 0.1% to 1% of annual kWh sales.*

To accomplish these changes, the IURC traveled to public meetings in Indianapolis, Ellettsville, and South Bend. The agency also held numerous meetings with stakeholders to solicit feedback from around the state.

¹⁷For 2009, the Indiana electric IOUs reported \$1.69 billion of jurisdictional fuel costs. The FAC cost recovery mechanism provided for the collection of \$698 million of these costs.

¹⁸Energy efficiency refers to measures or technologies that reduce the consumption of energy while demand response resources refer to measures, technologies, or incentives and pricing programs that reduce or curtail load during peak periods.

customer. If the amount the customer received from the utility is less than the amount delivered to the utility, the customer receives a credit on the next bill for the difference.

Last year, the Commission solicited input from various parties to better understand the interest in net metering. Several public hearings were conducted across the state to gather feedback on whether to adopt new net metering rules or modify the Commission's existing rules, codified at 170 IAC 4-4.2. With the help of stakeholders, the Commission drafted an amended rule that will significantly increase both customer participation and net metering capacity. By expanding the availability of net metering and the size of the eligible facilities, the Commission believes it will stimulate growth within the industry and make it a more attractive option for those who wish to utilize renewable energy in their own backyards. The rule was approved during the summer of 2011.

Feed-in Tariffs

Some new electric technologies may require subsidies to financially compete with traditional generation resources such as coal or gas. Therefore, many utilities, with the support of their regulators, are seeking to encourage the development of renewable technologies such as solar, wind, or biomass by offering to buy renewable power, which is generated by customer-owned facilities at prices that make the projects economically viable.

Unlike a traditional utility tariff, which specifies the price at which a ratepayer may purchase energy, a feed-in tariff specifies the price at which a utility will purchase energy generated from qualified, customer-owned facilities. Feed-in rates differentiate between technologies and unit size so as to not encourage one renewable technology to the detriment of another. The cost of the energy purchased under a feed-in tariff is recovered from the utility's ratepayers in a manner similar to that by which fuel expenses are recovered. An appropriate purchase price for feed-in technologies will balance the desired supply of renewable energy against the fuel cost increase to customers.

IPL is currently offering a feed-in tariff that limits total renewable energy purchases from its customers to 1% of the utility's annual sales. Although residential customers of IPL paid less than 8¢/kWh in 2010, this experimental tariff permits an owner of a 50 kW wind turbine or solar array to sell energy to IPL for 14¢/kWh and 24¢/kWh, respectively. The Commission has

authorized IPL to enter into contracts of up to 10 years with eligible customers and will review the continued need for the feed-in tariff in 2013. However, IPL has since petitioned the Commission to suspend its feed-in tariff due to unexpected interest from out-of-state developers. Further, IPL did not envision that companies in the renewable energy industry might become a customer for the sole purpose of selling energy back to the utility.

NIPSCO also proposed an experimental feed-in tariff that will pay up to 17¢ and 30¢ per kWh of wind and solar power, respectively, for facilities with capacities less than or equal to 100 kW. The company has agreed to purchase electricity, generated by small facilities powered by renewable energy sources, for up to 15 years from eligible customers. On July 14, 2011, the IURC approved the settlement agreement for NIPSCO's pilot program.¹⁹ The pilot program is set to expire on December 31, 2013.

Plug-in Electric Vehicle Development

Widespread deployment of plug-in electric vehicles²⁰ (PEVs) can offer significant energy security, environmental, and economic benefits. PEVs pose both potential benefits and challenges to the grid, utilities, and ultimately ratepayers, which will become clearer as nationwide and statewide pilot programs advance. The Commission will continue to examine these issues and serve as a supportive technical resource for parties interested in the regulatory environment as it relates to PEVs.

IPL's time-of-use rate is the first to be approved in Indiana for the purpose of electric vehicles.

Earlier this year, the Commission authorized IPL to implement a new time-of-use rate for customers who wish to charge their PEVs at home. The summer weekday peak rate is five times that of the overnight rate to encourage off-peak charging. IPL will provide the first 150 customers with free home charging equipment to encourage participation.

The Commission also authorized IPL to install public PEV charging stations within the company's service area and to assess customers a \$2.50 fee per unlimited charge. IPL will lease

¹⁹ Cause No. 43922

²⁰ A plug-in electric vehicle refers to plug-in hybrid electric vehicle, as well as a fully-electric vehicle.

space from businesses such as hotels and parking lot operators. NIPSCO also proposed a program earlier this year to promote alternative fuel vehicles. The Commission expects to issue an Order on this petition in late 2011.

Although not necessarily specific to Indiana, Duke Energy will be purchasing PEVs for its own fleet of vehicles and has made a commitment that by 2020 all new vehicle purchases will be PEVs. According to Duke Energy, “this represents a \$600 million investment and has the potential to reduce greenhouse gas emissions by more than 125,000 metric tons over the next 10 years.”²¹

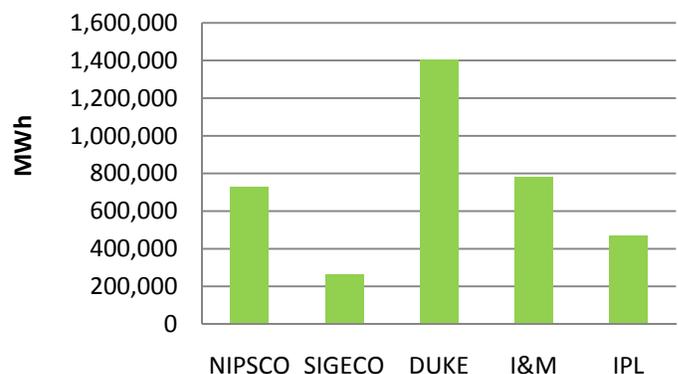
Demand-Side Management Programs

Underscoring the urgency to become more energy efficient in Indiana, the Commission’s 2009 Phase II Demand-Side Management (DSM) Order instructed Indiana’s jurisdictional electric utilities to move forward with a set of Statewide Core Conservation Programs in their respective service territories. Per the Commission’s Order, the utilities must achieve an annual energy savings goal of 2.0% within ten years, with interim savings goals, “annual stepped savings targets,” for years one through nine.

Although the cost of DSM programs will be included in customer retail rates, the impact to rates is anticipated to be less than it would be without DSM efforts. This is because DSM slows the growth in energy consumption and peak demand, thus postponing or reducing the need to build new and expensive generation

Annual Electric Savings Goal (% of weather-normalized average electric sales for prior three years)	
Year	Percentage
2010	0.3%
2011	0.5%
2012	0.7%
2013	0.9%
2014	1.1%
2015	1.3%
2016	1.5%
2017	1.7%
2018	1.9%
2019	2.0%

Chart 5
Total MWh Savings Anticipated by 2013
Indiana Utilities' Three-Year DSM Plans



²¹ <http://www.duke-energy.com/plugin/>

facilities to meet future demand in providing reliable electric service.

The Core Programs are offered to all customer classes (residential, commercial, and industrial) and are intended to address what was determined to be nonexistent or inconsistent

Demand-Side Management (DSM) Programs



As recognized in Governor Daniels' Homegrown Energy Plan, Indiana must become a self-sufficient leader with respect to its energy needs, and such an effort is not limited to building new generation.

Therefore, the IURC initiated an investigation and found that Indiana was a strong candidate for DSM programs.

The IURC also identified the following benefits:

1) If implemented statewide, the DSM programs would create efficiencies and lessen the cost of the programs over the long term;

2) With effective DSM programs, the impact to rates is anticipated to be less than it would be without DSM efforts; and

3) Increased utilization of DSM can mitigate environmental issues and lessen the costs associated with new or increased regulatory requirements regarding energy generation.

conservation programs between Indiana's electric utilities.

The Core Programs include: a home energy audit program, low-income weatherization program, residential lighting program, energy efficiency schools program, and a commercial and industrial program.

In July of 2010, utilities submitted for approval their three-year DSM plans that proposed Core and Core Plus Programs. Core Plus Programs are additional energy savings programs beyond Core Programs that are intended to better position the utilities to achieve Commission-mandated savings targets. Core Plus Programs are a direct intervention or behavior modifying program designed to help residential customers understand their individual energy usage and/or their usage as it compares to their neighbors' usage. By understanding individual energy usage in the home, the consumer is more likely to modify their energy consumption behavior. It is expected that the Core and Core Plus Programs will both be needed to meet the mandated energy savings goals.

The DSM plans also included the budgets necessary to meet the statewide savings targets and the projected MWh progress in reaching them. Total MWh savings anticipated by 2013 are presented in Chart 5. Although each utility is mandated to have the same percent reduction, Duke shows more MWh reduction because of its larger customer base.

In order to implement the programs, the Demand-Side Management Coordination Committee and the utilities undertook the significant task of evaluating and selecting a third-party administrator (TPA) and an evaluation, measurement, and verification administrator (EM&V Administrator). The TPA is responsible for administering the Core Programs; whereas, the EM&V Administrator is responsible for the evaluation of the Core Programs. On July 27, 2011, the IURC approved the recommended administrators – GoodCents, as the TPA and TecMarket Works, as the EM&V Administrator. It is anticipated that implementation of the statewide Core Programs will begin at the start of 2012.

Demand Response Programs

Demand response programs have a long history in the electric industry, and the types of programs available have expanded in recent years. The U.S. Department of Energy defines demand response, in part, as “changes in electric usage by end-use customers from their normal consumption patterns in response to changes in the price of electricity over time.”

Traditionally, Indiana utilities have relied upon interruptible load contracts with large industrial customers to reduce the need for utility-owned generation capacity. In other words, if the customer agrees to reduce its demand during peak use times, it will get a better overall rate. This arrangement is often called demand response.

Increased use has also been made of appliance demand response programs, with emphasis on the control of air conditioners during times of peak load. Indiana utilities have 1,010 MW of interruptible load and 103 MW of air conditioner load control. Demand response programs emphasize the relationship between customer consumption patterns during peak periods in response to high wholesale market prices or when system reliability is at risk. Indiana is among many states working to increase cost-effective customer participation in demand response programs.

Indiana utilities have 1,010 MW of interruptible load and 103 MW of air conditioner load control. Having these contracts allows them to manage load on peak demand days.

On July 28, 2010, the Commission issued an Order in its investigation, Cause No. 43566, relating to participation by customers in demand response programs offered by the PJM and the MISO. In the Order, the Commission expressed support for efforts to increase demand response

at the wholesale level and stated that RTO demand response programs must work in tandem with, and not in contravention of, Indiana’s utility regulatory framework. The benefits of RTO demand response are best captured by permitting retail customers of Indiana utilities to participate in RTO demand response programs through the local utility. The Commission also encouraged utilities to consider the use of aggregators (or third-party service providers) to serve as agents between the utility and the customer for the provision of demand response. In March and April 2011, the Commission approved the initial tariff proposals submitted by the five IOUs permitting customer participation in RTO demand response programs through the utility.

Indiana Electricity Outlook

The State Utility Forecasting Group (SUFG) at Purdue University has been tasked with identifying and forecasting Indiana’s resource needs. According to the SUFG’s 2011 forecast,²² the state will need approximately 2,600 MW of additional resources (all types of generating capacity, demand response, efficiency, and transmission to import power) by 2020 to meet expected load growth and maintain a 15.8% reserve margin.²³

The forecast also projects that electricity usage will grow at an annual rate of 1.30% over the 20-year forecast and that peak demand will grow at an annual rate of 1.28%.²⁴ This means that utilities must start considering how to meet this demand in the short term.

While the current recession may temporarily slow the growth of energy and demand, the expectation is that the forecasted growth rates will resume over the forecast horizon.

These projections provide a reasonable basis for estimating future electricity prices for planning purposes, but they do not ensure resource plans obtained at least cost. These projections also do not yet address the effects of potential U.S. EPA environmental regulations, which are expected

According to the SUFG’s 2011 forecast, Indiana will need approximately 2,600 MW of additional resources by 2020 to meet expected load growth and maintain a 15.8% reserve margin.

²² <http://www.purdue.edu/discoverypark/energy/pdfs/SUFG/2009SUFGforecast.pdf>

²³ SUFG used individual utility reserve margins that reflect the planning reserve requirements of the utility’s RTO to determine the reserve requirements in the forecast.

²⁴ The maximum level of electric demand in a specified period

to require additional environmental controls on some pulverized coal fueled generating stations and the retirement of some others, thereby requiring retrofitting and replacements.

U.S. EPA Rules and Rulemakings

Decisions made at the federal level have the potential to considerably impact the state of Indiana. In fact, one recently finalized and three currently proposed U.S. EPA rules are expected to impose significant burdens on the Indiana power sector. These rules include:

1. The Cross-State Air Pollution Rule (CSAPR or Transport Rule) that implements controls for nitrogen oxides and sulfur dioxide;
2. The electric generating utility Maximum Achievable Control Technology Rule (Utility MACT) for mercury and other air toxics;
3. A new rule for cooling water intake structures (CWIS), potentially requiring cooling towers to be installed at certain facilities; and
4. A proposal for the U.S. EPA to regulate coal combustion residuals (CCR), including coal ash, initiated as a result of the 2008 ash pond failure in Tennessee.

Over the next few years, the U.S. EPA is expected to issue at least six rules directly affecting the electric power sector, which will have a significant fiscal impact on the state of Indiana.

Stricter ambient air quality standards for ozone and particulate matter, which are implemented at the state level, could also result in tighter limits under CSAPR and through compliance enforcement. However, the U.S. EPA has delayed this action until 2013.

Yet to be proposed are New Source Performance Standards (NSPS) for greenhouse gases (GHG), which would allow the U.S. EPA to establish emission limits for new and significantly modified facilities and establish emissions guidelines to be implemented by states for existing sources. Cost impacts will depend primarily on the stringency, flexibility, and timing of the standards. In the long term, performance standards are a higher-cost emissions control policy than cap-and-trade, because utilities have less flexibility to pursue least-cost emissions reduction strategies. However, in the near-term, compliance costs may be comparable. As of January 2011, the U.S. EPA granted state permitting agencies the authority to develop GHG performance

standards for new or modified stationary sources and provided guidance for setting standards. As of summer 2011, the Indiana Department of Environmental Management (IDEM) has two such permitting cases. Because they are in the draft stage, it is not yet clear what substantive form such standards might take.

The suite of U.S. EPA rules is slated to be finalized by mid-2012. In recent decades, it has been common for the power industry to face one or two pending regulations at the same time. Conversely, over the next few years, the U.S. EPA is expected to issue at least six rules directly affecting the electric power sector, as shown in Table 2. As opposed to a staggered timing of rules, this will reduce regulatory uncertainty, enabling utilities to plan power resources and environmental compliance strategies more cost-effectively in the long term. However, the condensed and close timing of compliance schedules will exacerbate retrofit costs and present reliability challenges over the next few years. Extending the duration and increasing the flexibility of compliance schedules would lessen such impacts.

Table 3

Status, Compliance Date, and Key Issues of Recent U.S. EPA Rules Affecting Power Sector

U.S. EPA Rule	Rulemaking Status	Compliance Date (expected)	Key Issues and Implications
CSAPR I	Final issued July 2011	Different requirements for 2012 and 2014	IDEM is currently reviewing compliance strategies
CSAPR II	Proposal expected in summer 2011 Final expected summer 2012		Presents compliance timeline challenges considering combined impact of other rules
Utility MACT	Currently proposed Final expected 11/2011	2014; 2015 if state grants extension	Proposal is relatively flexible, however compliance timeline is challenging
Ambient Air Standards	PM proposal expected fall of 2011 Ozone proposal delayed for fourth time in 7/2011	TBD	Potentially tighter limits under CSAPR and in state implementation plan administered by IDEM

GHG NSPS	Proposal expected Sept. 30, 2011 Final expected 5/2012	TBD	Uniform performance standards for new and modified sources may require efficiency upgrades at plants State issues standards for existing sources with U.S. EPA guidance
CWIS	Currently proposed Final expected 7/2012	2015	Whether site-specific cost-benefit analysis is used in place of uniform standards greatly affects applicability and costs
CCR	Currently proposed No signal on final, possibly late 2011 or early 2012	No sooner than 2014	Whether waste is deemed hazardous greatly affects costs

Quantitative assessments of the cost impact on utilities and the effects on electricity prices will remain very speculative until the rules are finalized. However, Indiana and the industrial Midwest are at risk to bear a larger burden than other states and regions. The bulk of this impact will fall on coal units, as utilities will be forced to either undertake capital-intensive retrofits or retire certain units within a short timeframe. Consequently, Indiana may have numerous coal-fired units that are “at-risk” of retirement; older, smaller coal plants with fewer environmental controls are most likely to be forced to retire prematurely. The decision to retire them will depend on replacement costs, which are largely determined by natural gas prices.

Resource Planning

Over the next 15 years, state electricity demand is forecasted to steadily increase while many aging coal-fired units will be approaching retirement or premature shutdown. This era is expected to have far greater build-out of new generation than the past two decades. At the same time, lifetime cost assessments of new generation units are expected to be increasingly difficult to estimate in large part due to federal regulatory uncertainty and upward pressure on the prices of inputs, such as materials, construction and fuel costs. Thus, the Indiana power sector is entering a period of unprecedented planning difficulty at a time when resource planning is increasingly necessary, especially over the next few years.

By around 2015, Indiana will need to retrofit or retire an unprecedented wave of coal-fired power capacity and replace it with a combination of new resources due to a suite of likely environmental regulations and a large cohort of old coal units that lack sufficient controls. This

will require utilities to make cascading, sequential capital-intensive decisions inside a short window and could result in significant electric rate increases. The primary replacement fuel, based on current information, is expected to be natural gas due to the low price of the fuel, with wind and demand side management also expected to play a key role. Nuclear, IGCC, additional efficiency, and other alternative resources could also play a role in meeting Indiana's resource requirements.

Regulatory Development

Regulatory Changes Stemming from SEA 251

Senate Enrolled Act 251 (P.L. 150-2011) provides guidance to the Commission on three major issues in the electricity sector that have received significant attention in recent years:

1. Regulatory treatment for a growing number of federally-mandated costs;
2. Regulatory treatment for nuclear projects; and
3. Implementation of a Voluntary Clean Energy Portfolio Standard.

As the federal government hands down mandates, utilities across the nation, including those in Indiana, will be required to invest in their systems in order to become compliant with new environmental standards. In order to ensure timely recovery of the costs associated with these projects, the law addresses how the Commission is to handle them from a regulatory standpoint.

In order to recover the costs associated with a federal mandate, the utility must identify the mandate and develop a plan for compliance. The utility must then file an application with the Commission for a CPCN. If the Commission determines that the public convenience and necessity is served by the proposed project, it is to grant approval. Once approved, the Commission is required to grant a tracker mechanism for cost recovery; however, only 80% of the costs are eligible for tracking. The remaining 20% are deferred and recoverable only within the utility's next base rate case.

As for the regulatory treatment of nuclear projects, the law states that: “it is in the public interest for the state to encourage the study, analysis, development, and life cycle management of nuclear energy production or generating facilities . . .” This provides existing nuclear generation facilities the ability to recover costs associated with life cycle management to enhance the safe and reliable operation of the facility throughout the period the facility is licensed to operate by the United States Nuclear Regulatory Commission. Further, the law allows all costs attributable to life cycle management to be treated the same as a qualifying clean coal facility from a regulatory standpoint. This includes CWIP treatment through a tracking mechanism.

Lastly, the law requires the Commission to proceed with an emergency rulemaking regarding the state’s Voluntary Clean Energy Portfolio Standard Program. The program is designed to encourage a participating utility to reach a clean energy target of 10% of the total electricity supplied to Indiana retail electric customers from the 2010 base year to December 31, 2025. There are also interim targets to be met and maintained by January 1, 2013 of 4% and January 1, 2019 of 7%. The Commission held workshops during the summer and met with interested stakeholders so that a draft rule could be written. Workshops are also scheduled for the fall.

State Renewable Portfolio Standards



According to the Database of State Incentives for Renewables & Efficiency, 29 states, plus DC and PR have an RPS; whereas, 8 states have goals.

Because the statute requires a rule to be effective by January 1, 2012, the workshop schedule has been expedited. This means that the IURC has been working with interested parties so that a draft rule can be written and circulated for comment by the end of September. To meet the deadline, the IURC will finalize the draft rule by the end of 2011 and adopt it as an emergency rule, as allowed by IC § 8-1-37-10(d). The IURC will then use this emergency rule as the proposed rule to begin the regular rulemaking process.

Tree-Trimming Practices

Vegetation management plans and practices play a key role in helping to reduce the number of service interruptions to Indiana consumers. At the same time, ratepayers have basic rights that

need to be protected. In November 2010, the Commission concluded its investigation into tree trimming practices and tariffs for jurisdictional electric utilities and found that Hoosiers would benefit from having consistency with regard to the rules and regulations surrounding tree-trimming practices and procedures.

For example, the Order requires utilities to provide advance notice to customers when trimming is about to occur and allows customers to be present during that time. When contacting customers, the utilities must now provide notice in person or over the phone and provide at least one form of written notice to the customer. The initial notice should be no later than two weeks

Changes due to the Tree-Trimming Order



Utilities are now prohibited from “topping” trees or removing more than 25% of a tree’s canopy without the property owner’s consent. When contacting customers, the utilities must now provide notice in person or over the phone and provide at least one form of written notice to the customer. Further, once normal maintenance trimming is complete, the Commission finds that it is reasonable for the utility to have the debris promptly removed within three calendar days.

before the trimming is estimated to occur. In doing so, customers and utilities will have more time to discuss and resolve concerns.

Additionally, utilities are prohibited from “topping” trees or removing more than 25% of a tree’s canopy without the property owner’s consent. Utilities are also prohibited from trimming outside an easement or right-of-way without the customer’s consent. This decision stems from consumer complaints raised during the course of the proceeding. If the property owner does not consent, the utility must offer alternatives. One such alternative is a tree replacement program set up by the Order that allows utilities to compensate for tree removal. Once normal maintenance trimming is

complete, the Commission finds that it is also reasonable for the utility to have the debris promptly removed within three calendar days.

In its Order, the Commission identified areas where a rulemaking would benefit the relationship between Indiana’s electric utilities and its customers. Therefore, it ordered that the following issues be addressed through the rulemaking process: dispute resolution, notice requirements, customer education, and tree replacement. The Commission has since held three technical conferences (in December 2010, February 2011, and August 2011) to receive proposed

language and has drafted a rule based on the proposed language from consumer groups, the public, and the utilities. A final rule is expected by the end of the year.

III. ELECTRICITY APPENDICES

Appendix A – Jurisdictional Electric Utility Revenues

Rank	Utility Name	Operating Revenues*	% of Total Revenue
1	Duke Energy Indiana, Inc.	\$ 2,517,375,579	29.98%
2	Indiana Michigan Power Co.	2,157,506,760	25.70%
3	Northern Indiana Public Service Co.	1,387,408,342	16.53%
4	Indianapolis Power & Light Co.	1,144,797,510	13.64%
5	So. Indiana Gas & Electric Co. d/b/a Vectren	608,185,246	7.24%
6	Richmond Municipal	84,923,471	1.01%
7	Northeastern REMC	83,167,789	0.99%
8	Anderson Municipal	71,140,240	0.85%
9	Harrison County REMC	51,402,350	0.61%
10	Mishawaka Municipal	50,366,417	0.60%
11	Jackson County REMC	49,459,736	0.59%
12	Logansport Municipal	35,388,274	0.42%
13	Crawfordsville Municipal	29,712,506	0.35%
14	Frankfort Municipal	25,643,346	0.31%
15	Auburn Municipal	25,583,972	0.30%
16	Peru Municipal	22,596,315	0.27%
17	Lebanon Municipal	16,388,191	0.20%
18	Marshall County REMC	12,819,327	0.15%
19	Tipton Municipal	9,387,426	0.11%
20	Columbia City Municipal	9,368,756	0.11%
21	Knightstown Municipal	2,231,076	0.03%
22	Kingsford Heights Municipal	639,683	0.01%
23	Greenfield Mills, Inc. Power & Light	24,560	0.00%
	Total Revenue	\$ 8,395,516,872	100.00%

*Year ending December 31, 2010

Appendix B – Jurisdiction over Municipal Electric Utilities

Municipal Utilities under the IURC's Jurisdiction		
Anderson	Frankfort	Logansport
Auburn	Kingsford-Heights	Mishawaka
Columbia City	Knightstown	Richmond
Crawfordsville	Lebanon	Tipton

Municipal Utilities Withdrawn from the IURC's Jurisdiction (IC § 8-1.5-3-9)		
Advance	Ferdinand	Pendleton
Argos	Flora	Peru
Avilla	Frankton	Pittsboro
Bainbridge	Garrett	Rensselaer
Bargersville	Gas City	Rising Sun
Bluffton	Greendale	Rockville
Boonville	Greenfield	Scottsburg
Bremen	Hagerstown	South Whitley
Brooklyn	Huntingburg	Spiceland
Brookston	Jamestown	Straughn
Cannelton	Jasper	Tell City
Centerville	Ladoga	Thorntown
Chalmers	Lawrenceburg	Troy
Coatesville	Lewisville	Veedersburg
Covington	Linton	Walkerton
Darlington	Middletown	Warren
Dublin	Montezuma	Washington
Dunreith	New Carlisle	Waynetown
Edinburgh	New Ross	Williamsport
Etna Green	Paoli	Winamac

Appendix C – Jurisdiction over Rural Electric Membership Cooperatives

REMCs under the IURC’s Jurisdiction		
Harrison County REMC	Jackson County REMC	
Marshall County REMC	Northeastern REMC	

REMCs Withdrawn from the IURC’s Jurisdiction (IC § 8-1-13-18.5)		
Bartholomew County REMC	Jay County REMC	Rush Shelby County REMC
Boone County REMC	Johnson County REMC	South Central Indiana REMC
Carroll County REMC	Kankakee Valley REMC	Southeastern Indiana REMC
Ninestar Connect	WIN Energy REMC	Southern Indiana REC
Clark County REMC	Kosciusko County REMC	Steuben County REMC
Daviess-Martin County REMC	Lagrange County REMC	Tipmont REMC
Decatur County REMC	Miami-Cass REMC	United REMC
Dubois REC	Newton County REMC	Utilities District of W. Indiana
Fulton County REMC	Noble County REMC	Wabash County REMC
Hendricks County REMC	Orange Co. REMC	Warren County REMC
Henry County REMC	Parke County REMC	White County REMC
Jasper County REMC	Paulding-Putnam Electric Coop.	Whitewater Valley REMC

2011 Natural Gas Report

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I. NATURAL GAS OVERVIEW

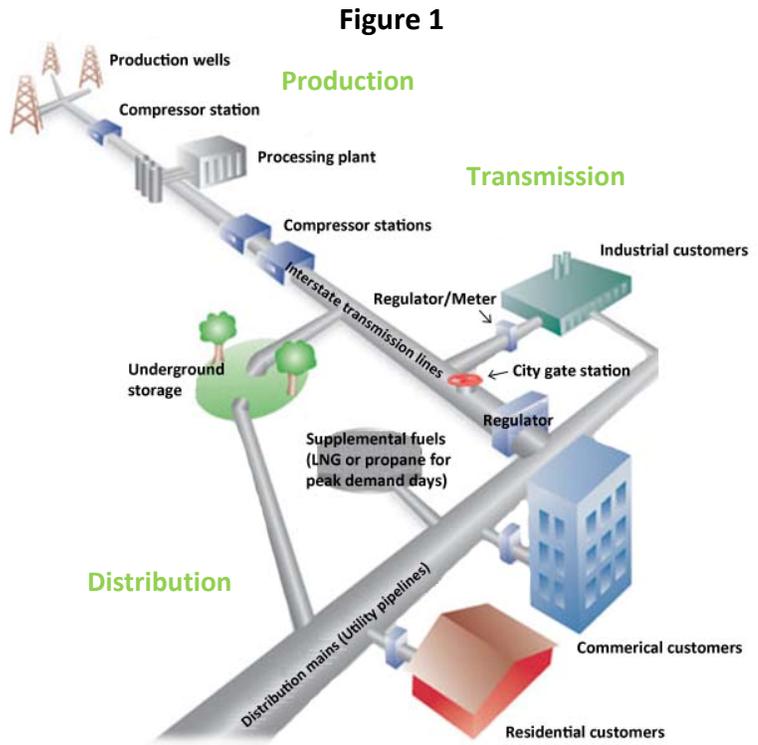
Industry Structure

The natural gas industry consists of three systems: producers (the gathering system), interstate and intrastate pipelines (the transmission system), and local distribution companies or LDCs (the distribution system), all of which are illustrated in Figure 1. Interstate pipelines, regulated by the Federal Energy Regulatory Commission (FERC), carry natural gas across state boundaries; intrastate pipelines, regulated by state commissions, carry natural gas within state boundaries. States, including Indiana, that have certified pipeline safety programs are delegated federal authority by the U.S. Department of Transportation to conduct inspections, investigate incidents, and enforce state and federal safety regulations.

In Indiana, the Indiana Utility Regulatory Commission (Commission or IURC) regulates the rates, charges and terms of service for intrastate pipelines and LDCs. Through its Pipeline Safety Division (Pipeline Safety), the Commission enforces state and federal safety regulations for all intrastate natural gas facilities. Additionally, the Commission reviews gas cost adjustments (GCAs), financial arrangements, service territory requests, and conducts investigatory proceedings. It also analyzes various forms of alternative regulatory proposals, such as rate decoupling, trackers, and customer choice initiatives.

Production Overview

As shown in Figure 1, the production of natural gas begins with raw natural gas extracted at the wellhead, where initial purification occurs before entering the low-pressure, small diameter pipelines of the gathering system. The natural gas is then repurified at a



processing plant. Purified natural gas consists of approximately 90% methane, compared to raw natural gas that is generally 70% methane combined with a variety of other compounds. Quality and safety reasons require natural gas to meet certain standards before it is released into the pipeline system.

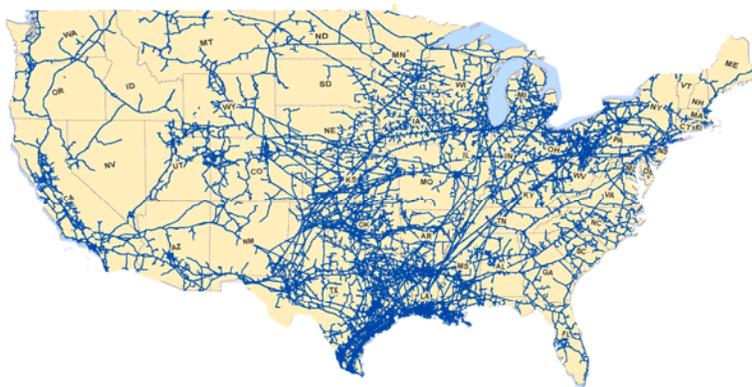
Transmission System

The transmission system includes interstate and intrastate pipelines that carry gas from producing regions throughout the U.S. to LDCs, industrial consumers, and power generation customers. The vast majority of natural gas consumed in Indiana is from out-of-state production, primarily from the Gulf of Mexico. In 2009, Indiana consumed approximately 507 million dekatherms (Dth) of natural gas, of which roughly 4.9 million Dth, or less than 1%, was produced within the state. This illustrates Indiana’s dependence on the transmission system to carry natural gas from the gas producing regions of the country into the state.¹

The vast majority of natural gas consumed in Indiana is from out-of-state production, predominantly the Gulf of Mexico. This illustrates Indiana’s dependence on the transmission system to carry natural gas from the gas producing regions of the country into the state.

In Indiana, Heartland Pipeline (Heartland) and the Ohio Valley Hub (OVH) Pipeline are the two intrastate pipelines under the Commission’s jurisdiction. The Commission governs these

Map 1
U.S. Transmission Lines



pipelines’ operations, services, and rates. Heartland is a 25-mile pipeline running west to east connecting the Midwestern Gas Transmission (MGT) interstate pipeline in Sullivan, Indiana to Citizens Gas’ underground storage facility in Greene County. OVH is a 9.2-mile pipeline located in Knox County. It provides connections for

¹<http://www.eia.gov/state/state-energy-profiles-print.cfm?sid=IN>

two interstate pipelines (Texas Gas Transmission and MGT) to the Monroe City Gas Storage Field owned by Vectren Energy Delivery of Indiana.

Distribution System

Gas moves through the transmission system and enters the distribution system, where LDCs deliver gas to their customers on either a bundled basis (i.e., commodity and transportation) or unbundled basis (i.e., the customer buys gas from a producer or marketer and pays the LDC to transport the gas from the city gate² to the customer's facilities).

LDCs serve three customer classes: residential, commercial, and industrial. The residential customer class consists of single-family homes and small multi-family dwellings that generally use the LDCs for bundled services. The commercial customer class typically consists of office, retail, and wholesale facilities in addition to larger residential complexes. The industrial customer class consists of large manufacturers and processors who typically use the highest volumes of gas both individually and collectively. Both commercial and industrial customers may receive bundled service from an LDC or they may purchase their gas supplies from independent suppliers and pay the LDCs for transportation service.

The Commission has regulatory authority over 19 natural gas distribution utilities in Indiana with operating revenues totaling \$1.9 billion (Appendix A).³ These utilities maintain plant in service of approximately \$3.6 billion and serve roughly 1.7 million customers. Of the regulated utilities, one is a not-for-profit, two are municipalities, and sixteen are investor-owned utilities (IOUs). Citizens Gas (Citizens) and three IOUs, detailed on the following page, represent the four largest natural gas utilities in Indiana and collectively serve 92% of the gas customers by count in the state. Map 2 shows the services territories of these utilities, as well as other jurisdictional natural gas utilities in Indiana.

²The city gate is the delivery point where the natural gas is transferred from a transmission pipeline to the LDC.

³2010 Annual Reports filed with the Commission

- Investor-Owned Utilities -

The three largest IOUs providing gas service in Indiana are Northern Indiana Public Service Company (NIPSCO), Vectren North, and Vectren South. IOUs are for-profit enterprises funded by debt (bonds) and equity (stock).

NIPSCO, a subsidiary of NiSource Inc., is headquartered and based in Merrillville, IN. The natural gas utility serves 620,000 customers in northern Indiana.



Vectren Corporation is headquartered and based in Evansville, IN. The natural gas utility serves 570,000 customers in central and southern Indiana through Vectren North and an additional 111,000 customers in southwestern Indiana through Vectren South.

- Municipally-Owned Utilities -

Citizens is a public charitable trust (treated as a municipal utility for regulatory purposes) serving 263,000 customers primarily in the Indianapolis metropolitan area. Pursuant to statute, municipal utilities, excluding Citizens, may elect to “opt out” of the Commission’s jurisdiction for rates and charges in favor of local control in determining rates.

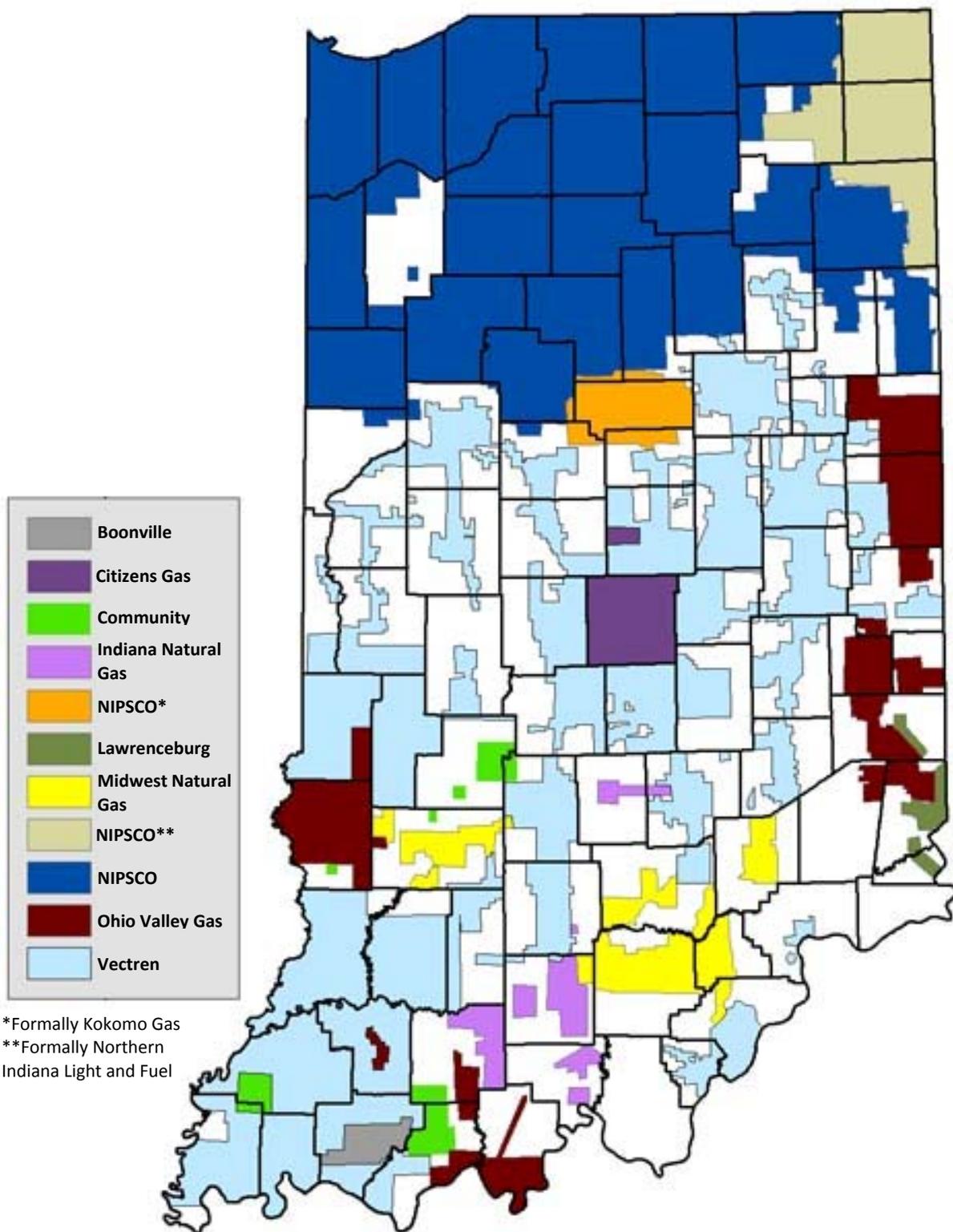


However, utilities that choose to opt out still remain under the jurisdiction of the Commission’s Pipeline Safety Division.⁴ Of the state’s 19 municipal gas utilities, 17 have elected to withdraw from the Commission’s oversight. To view a list of the withdrawn utilities, please see Appendix B.

⁴See, IC § 8-1.5-3-9

Map 2

Natural Gas Service Territories

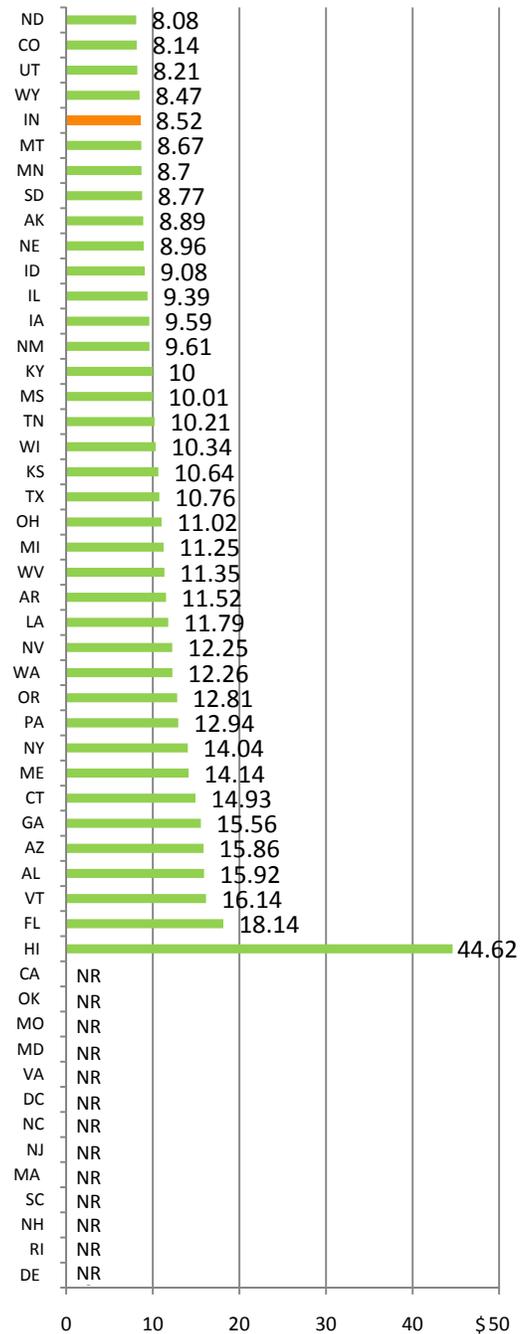


How Indiana Compares with Other States

Over the last 10 years, Indiana has consistently compared well with other states for residential and commercial delivered (bundled) gas prices. Over the last five years, Indiana has also performed well with industrial gas prices. As Chart 1 demonstrates, Indiana’s national price rankings for all three customer classes improved dramatically in 2010, as compared with other states. This is due to a variety of factors, including the timing of rate cases both in and out of state.⁵

Indiana ranked 5th nationally and 2nd in the Midwest region⁶ for the lowest 2010 average residential gas prices. The average residential gas price has fallen each of the last two years from \$12.65 per thousand cubic feet in 2008 to \$8.52 per thousand cubic feet in 2010. These numbers are higher than the commonly referenced commodity cost of approximately \$4.50/Mcf, because they are bundled prices. Bundled prices include all utility costs to deliver the product, including pipeline and LDC operator charges. Neighboring states’ average residential retail rates for 2010 are as follows, with the first being the lowest: Illinois \$9.39, Kentucky \$10.00, Ohio \$11.02, and Michigan \$11.25.⁷

Chart 1
2010 State Residential Gas Prices
(\$/thousand cubic ft)



Source: U.S. Energy Information Administration

⁵Although the majority of states reported, 13 did not. These states are at the bottom of the list and are marked with an “NR,” which stands for not reporting.

⁶The Midwest region includes Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

⁷http://www.eia.doe.gov/dnav/ng/ng_pri_sum_a_EPG0_PRS_DMcf_a.htm

Indiana ranked 6th nationally and 3rd in the Midwest for lowest 2010 average commercial gas prices. Indiana’s 2010 average commercial price was \$7.44 per thousand cubic feet, significantly less than the 2008 average price of \$11.14. Neighboring states’ average commercial retail rates for 2010 were as follows, with the first being the lowest: Kentucky \$8.42, Illinois \$8.74, Michigan \$8.79, and Ohio \$9.23 per thousand cubic feet.⁸

Indiana ranked 9th lowest nationally and 3rd lowest of the Midwest states for 2010 average industrial gas prices. As the chart to the right demonstrates, the average industrial price fell from \$10.48 per thousand cubic feet in 2008 to \$5.53

per thousand cubic feet in 2010. The year 2008 was selected because this is when natural gas prices peaked. The chart also shows Indiana industrial customers pay slightly more than the national average of \$5.40 per thousand cubic feet. However, of the four neighboring states, only Kentucky had a lower average industrial gas price of \$5.30 per thousand cubic feet. The other three states’ average industrial retail rates for 2010 are as follows: Ohio (not reporting), Illinois \$7.25, and Michigan \$9.18 per thousand cubic feet.⁹

Age Profile

Indiana’s natural gas infrastructure consists of more than 75,000 miles of intrastate pipelines, which were placed in service over the past 80-plus years. In this total are more than 39,000 miles of distribution mains (i.e., pipes which transport gas within a given service area to points of connection with pipes serving individual customers). More than 60% of the state’s distribution mains are at least 30 years old.

Also included in the state’s infrastructure is approximately 1,950 miles of transmission mains (i.e., pipelines that transmit gas from a source or sources of supply to one or more distribution

Table 1
Comparison between Indiana and the U.S. Average Price for Delivered Gas
2008 (peak year) vs. 2010

Customer Category	Indiana Price (\$/Mcf)**		U.S. Average Price (\$/Mcf)	
	2008	2010	2008	2010
Residential	12.65	8.52	13.89	11.20
Commercial	11.14	7.44	12.23	9.15
Industrial	10.48	5.53	9.65	5.40

* Higher ranking denotes lower rates

**Dollars per thousand cubic feet

⁸http://www.eia.doe.gov/dnav/ng/ng_pri_sum_a_EPG0_PCS_DMcf_a.htm

⁹http://www.eia.doe.gov/dnav/ng/ng_pri_sum_a_EPG0_PIN_DMcf_a.htm

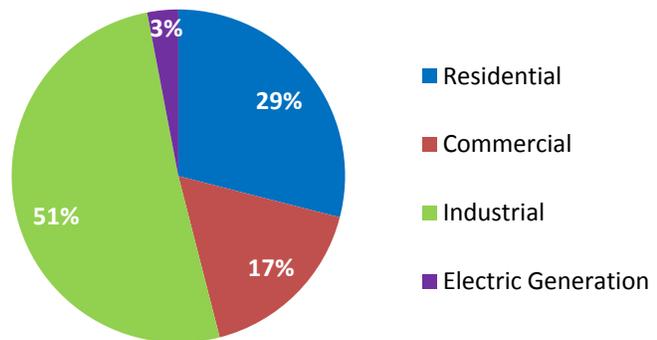
centers, large volume customers, or other pipelines that interconnect sources of supply). Typically, transmission lines differ from gas mains in that they operate at higher pressures, are longer, and have a greater distance between the connections. Nearly 50% of the state’s transmission mains are at least 40 years old.

Table 2
Age Profile of Jurisdictional Transmission and Distribution Mains in Indiana

Years Old	Transmission Mains		Distribution Mains	
	Number of Main Miles	% of Total Main Miles	Number of Main Miles	% of Total Main Miles
80+	-	-	572.6	1.45%
70-80	0.1	0.01%	382.2	0.96%
60-70	2.9	0.15%	2,711.6	6.84%
50-60	284.6	14.59%	9,507.8	24.00%
40-50	685.1	35.13%	4,797.1	12.11%
30-40	246.8	12.66%	6,954.7	17.55%
20-30	175.2	8.98%	8,241.0	20.80%
10-20	257.9	13.22%	5,441.3	13.73%
0-10	179.7	9.21%	224.8	0.57%
Unknown	117.8	6.04%	784.3	1.98%
Total	1,950.1	100.00%	39,617.0	100.00%

Federal guidelines for integrity management require that operators (including LDCs and pipeline companies) make every effort to assess threats to their pipelines.¹⁰ The replacement of aging infrastructure continues to be an ongoing focus as demand for service connections continues to increase.

Chart 2
Consumption by Sector in Indiana (2010)



Source: Energy Information Administration

Demand and Supply

As previously mentioned, Indiana’s local distribution companies serve three different types of customers: residential, commercial, and

¹⁰Integrity management is a risk-based approach and 2006.

industrial. In 2010, Indiana’s residential customers consumed approximately 140 million Dth of natural gas, which accounts for 29% of the state’s total consumption.¹¹

Also in 2010, Indiana’s commercial customers consumed approximately 17% of the state’s total consumption or 79 million Dth of natural gas.¹² Industrial customers accounted for more than half of the state’s total consumption with about 245 million Dth, which ranked Indiana fourth highest for industrial natural gas consumption in the U.S.¹³

Drivers of Demand

Environmental factors and weather are the primary factors driving demand for natural gas. Because natural gas is a cleaner burning fuel than coal, it is being evaluated as an alternative fuel source for electricity generation. Although the magnitude of the increase has yet to be determined, demand is expected to increase. As for weather, when it is colder-than-normal during the heating season, demand for natural gas increases. Demand also increases, to a lesser extent, when weather is hotter-than-normal during the non-heating season, as natural gas is often used to generate electricity at times of peak demand.

Because gas consumption is lower in the summer cooling season, gas utilities typically replenish their stored natural gas supplies at this time in preparation for the winter heating season. Due to lower overall demand during the summer, utilities are often able to purchase these supplies at lower, more favorable prices.

As demand increases, new sources of supply are continually needed. New sources are also needed to replace the decline in production of existing wells as they mature. Higher natural gas

Chart 3	
<i>Top 10 States for Industrial Consumption</i>	
% of total national industrial consumption	
Texas	19.4%
Louisiana	12.3%
California	11.5%
Indiana	4.0%
Illinois	3.8%
Ohio	3.8%
Oklahoma	2.9%
Pennsylvania	2.8%
Iowa	2.7%
Georgia	2.3%

Source: U.S. Energy Information Administration

¹¹http://tonto.eia.doe.gov/dnav/ng/ng_cons_sum_dcu_SIN_a.htm

¹²http://tonto.eia.doe.gov/dnav/ng/ng_cons_sum_dcu_SIN_a.htm

¹³http://tonto.eia.doe.gov/dnav/ng/ng_cons_sum_a_EPG0_vin_mmcfa.htm

prices over the last few years have increased interest in the exploration for unconventional sources, once considered too costly to extract. New technology and lower extraction costs have also led to the increased drilling of non-conventional gas supplies (e.g., coal bed methane, shale gas, and tight sands). As formerly unrecoverable sources of gas are being tapped, this has contributed significantly to the supply of natural gas. The robust supply of natural gas, specifically shale gas, currently overwhelms swings in demand. As demonstrated in 2010, record setting summer heat and winter cold prevailed, yet spot market prices remained stable.

Legal and Policy Foundations

Pipeline Safety Act of 1968

The Pipeline Safety Act of 1968 established the federal pipeline safety program. This federal program¹⁴ establishes a framework and organizational structure for a federal/state partnership regarding pipeline safety. This framework promotes pipeline safety through exclusive federal authority for the regulation of interstate pipeline facilities and federal delegation to the states for all or part of the responsibility for intrastate pipeline facilities.

The federal/state partnership is the cornerstone for ensuring uniform implementation of the pipeline safety program nationwide. It also authorizes federal grants for a state agency's personnel, equipment, and activity costs. Grants are determined primarily on the annual evaluation of the state's program. Indiana's program, as established by statute, has historically received high marks from the federal annual evaluations.¹⁵

Indiana's Pipeline Safety Program

The Pipeline Safety Division is responsible for enforcing state and federal safety regulations for Indiana's gas intrastate pipeline facilities and is established under IC ch. 8-1-22.5. The division operates in partnership with the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) under a certification agreement.

¹⁴49 U.S.C. Chapter 601

¹⁵IC ch. 8-1-22.5

The Pipeline Safety Division’s mission is to ensure the safe and reliable operation of Indiana’s pipeline transportation system. This mission is accomplished largely through inspections, investigations of pipeline accidents, training, outreach programs, and enforcement through injunctions and monetary sanctions. In 2010, the division conducted 835 inspections of 96 operators and 195 associated inspection units, safely resolving 137 probable violations.

In 2010, the IURC’s Pipeline Safety Division conducted 835 inspections of 96 operators and 195 associated inspection units, safely resolving 137 probable violations.

The Pipeline Safety Division is also responsible for the prevention of damage to underground facilities and the education of public and emergency officials and responders in knowing how to recognize, report, and respond to gas-related emergencies. In 2009, the General Assembly passed SEA 487, the Underground Plant Protection Law, which imposes requirements designed to ensure compliance with state and federal laws that apply to homeowners, excavators, and operators.¹⁶ The law requires anyone undertaking a digging project to call the Indiana Underground Plant Protection Service Center at the toll-free 811 number before digging. In response to calls received, a trained representative is dispatched to mark the utility lines free of charge to the calling party. Once the lines are marked, individuals may begin their digging project; however, they must hand dig within two feet of the buried utility line to prevent damage to underground facilities.

If there is damage to underground facilities, the Pipeline Safety Division serves as the investigative unit. If a violation is found, the information is then forwarded to the Underground Plant Protection Advisory Committee, which was formed in 2010 as a result of SEA 487. Upon receiving a recommendation from the Advisory Committee, and after notice and opportunity for a public hearing, the Commission must uphold or reverse the finding; approve or disapprove the recommendation(s) of the Advisory Committee; and/or collect any civil penalties and deposit the penalties in the underground plant protection account. Since July 1, 2009, the Pipeline Safety Division has registered more than 1,500 possible violations.

¹⁶P.L. 62-2009

II. NATURAL GAS LANDSCAPE

Infrastructure

Although age is one factor in considering whether a pipeline may need to be replaced, the type of material used (bare steel, cast iron, plastic), its location, and relative risk to public safety are also considered. In accordance with pipeline safety standards, utilities perform inspections of their pipeline facilities on a regular basis to help identify areas at risk. Based on the results of these inspections, corrective actions are initiated. In some cases, this may include implementing replacement programs for existing bare steel, cast iron, or wrought iron systems. Many of these pipes need to be replaced because older pipelines of this nature were not coated or cathodically protected when they were installed years ago. Consequently, corrosion and leaks have developed over time. To enhance reliability and safety, many utilities now use plastic pipe for their distribution systems.

Pipeline safety programs nationwide are being asked to develop risk-based methods and approaches to help evaluate a pipeline operator's overall risk. Doing so will help identify riskier pipeline operators, resulting in greater scrutiny and enhanced public safety. In addition to these initiatives at the regulator level, the Commission is also requiring pipeline operators to develop data-driven, risk-based inspection plans of their own, which will enable them to assess risks in their operations and take appropriate action to minimize or eliminate them.

Modernization and Efficiency

Recent advancements in technology have allowed the natural gas industry to modernize itself in terms of natural gas resources and the development of more efficient uses of natural gas. New sources of gas, such as shale, which were not historically commercially viable to pursue, now represent a large percentage of the recent increases in the country's proven or identified natural gas supplies.

Other technological advancements in gas appliances provide consumers with the opportunity to become more efficient and reduce their overall energy consumption. Natural gas furnaces and water heaters now use less gas than ever before, and utilities are promoting these opportunities through their energy efficiency programs. As a result, these combined advancements are having

an impact on natural gas supply and demand and have helped result in lower prices and less volatility in the gas market.

Shale Gas

The emergence of unconventional sources of natural gas supply (e.g., shale gas) has affected the overall supply of natural gas in our country. A 2011 report by the Potential Gas Committee¹⁷ indicates the U.S. possesses a total natural gas resource base of 1,898 trillion cubic feet (TCF), an increase of 3.3% or 61 TCF from 2009. This is the highest resource evaluation in the 46-year history of the Committee and arose from the reevaluation of shale gas plays in the Gulf Coast, Mid-Continent, and Rocky Mountain areas.¹⁸ Map 3 shows the locations of shale plays in the U.S.

Map 3
Gas Shale Plays in the Continental U.S.



Source: U.S. Energy Information Administration

Recently, consumer and environmental groups raised concerns about the drilling techniques employed to extract shale gas. Some studies have suggested a correlation linking drilling with environmental harm. Many states where drilling has occurred have experienced air pollution and

¹⁷The Potential Gas Committee is an incorporated, nonprofit organization consisting of experienced volunteers in the natural gas field working independently in association with the Colorado School of Mines.

¹⁸“Play” is used in the oil and gas industry to refer to a geographic area which has been targeted for exploration due to favorable geoseismic survey results, well logs or production results.

contaminated drinking wells due to poorly cased wells and the illegal disposal of fluids. As a result, the federal government launched a review of the commonly used drilling technique known as hydraulic fracturing or fracking.¹⁹ The U.S. Environmental Protection Agency (U.S. EPA) expects to release its initial findings on the environmental impacts of fracking in late 2012, which should provide a more accurate estimate of possible future regulation of hydraulic fracking.²⁰

In a joint project, the Ground Water Protection Council and the Interstate Oil and Gas Compact Commission created a hydraulic fracturing registry that allows citizens to search for specific wells and determine the chemicals used for fracturing the well.²¹ In January 2011, Arkansas' Oil and Gas Committee required drillers to begin reporting the chemicals used in their fracking activities, given contamination concerns in the Fayetteville shale play.²² In the state of New York, a fracking moratorium was in place until July 2011 to allow time for its Department of Environmental Conservation to determine environmental impacts.²³ The Department of Environmental Conservation has since recommended replacing the moratorium with regulations.²⁴

While it appears the industry is making strides to enhance transparency by publicizing the chemicals used in fracking, some remain skeptical. The results of the U.S. EPA study should give the industry and the public a better understanding of how environmental sanctions could impact the price of shale gas. However, if new federal

Indiana Gas and Storage Wells



The vast majority of Indiana's gas and gas storage wells are located in the southwestern part of the state.

The largest reported volume of fluid used to hydraulically fracture a single well in Indiana during the period from 2005 to 2010 represents only 1.64% of the total fluid that might be used in a single Marcellus Shale well.

Source: www.in.gov/dnr/dnroil/5715.htm

¹⁹Hydraulic fracturing is a technique used to create fractures that extend from the well bore into rock or coal formations so that the gas may travel more easily from the rock pores to the production well. www.earthworksaction.org/FracingDetails.cfm

²⁰<http://water.epa.gov/type/groundwater/uic/class2/hydraulicfracturing/index.cfm>

²¹<http://fracfocus.org/>

²²SNL Energy, Gas Utility Week. "Arkansas to require reporting of chemicals used in hydraulic fracturing," Vol. 5, Issue 49, pg. 10

²³www.reuters.com/article/2010/12/12/us-natgas-newyork-idUSTRE6BB00Y20101212

²⁴Oil & Gas Law Brief, July 9, 2011

regulations are imposed or if restrictive legislation is passed regarding drilling techniques and practices, the price of natural gas may increase.

Coal Bed Methane (CBM)

Coal bed methane (CBM), which is extracted from coal beds, is another source of natural gas. Generally, CBM is contained in the un-mined coal seams a few hundred feet below the surface. CBM is recovered by drilling into the coal seam using water and sand at high pressure, thus fracturing the seam. This drilling process is similar in nature to shale fracturing. Currently, CBM accounts for approximately 7% of natural gas production in the United States.²⁵ One CBM project in operation is located in Sullivan County. Jericho, LLC received a Certificate of Public Convenience and Necessity from the IURC in December 2008 to construct, own and operate a coal bed methane gathering system as a public utility. Jericho is producing roughly 1.6 million cubic feet of CBM on a daily basis, with forecasts of up to approximately 2 million cubic feet in the future. All of Jericho's CBM gas production is purchased by ProLiance Energy²⁶ and transported via the Heartland Pipeline.²⁷

Renewables

Interest in agricultural, organic, and human-generated waste may lead to alternatives to conventional fuels, such as natural gas, fuel oil, and coal. Since sustainable sources of natural gas provide economic and environmental benefits, continued success of these types of projects is important to Indiana's energy future. Indiana has several opportunities for using renewable energy options as an alternative.

Since sustainable sources of natural gas provide economic and environmental benefits, continued success of these types of projects is important to Indiana's energy future.

One source is the creation of methane gas or renewable natural gas (RNG) from the anaerobic digestion of waste from livestock. Another is landfill methane gas (LMG). Since landfills are the largest human-generated source of methane emissions in the United States, the ability to capture

²⁵<http://waterquality.montana.edu/docs/methane/cbmfaq.shtml#whatiscoalbedmethane>

²⁶ProLiance Energy is an Indianapolis-based natural gas marketing and supply company.

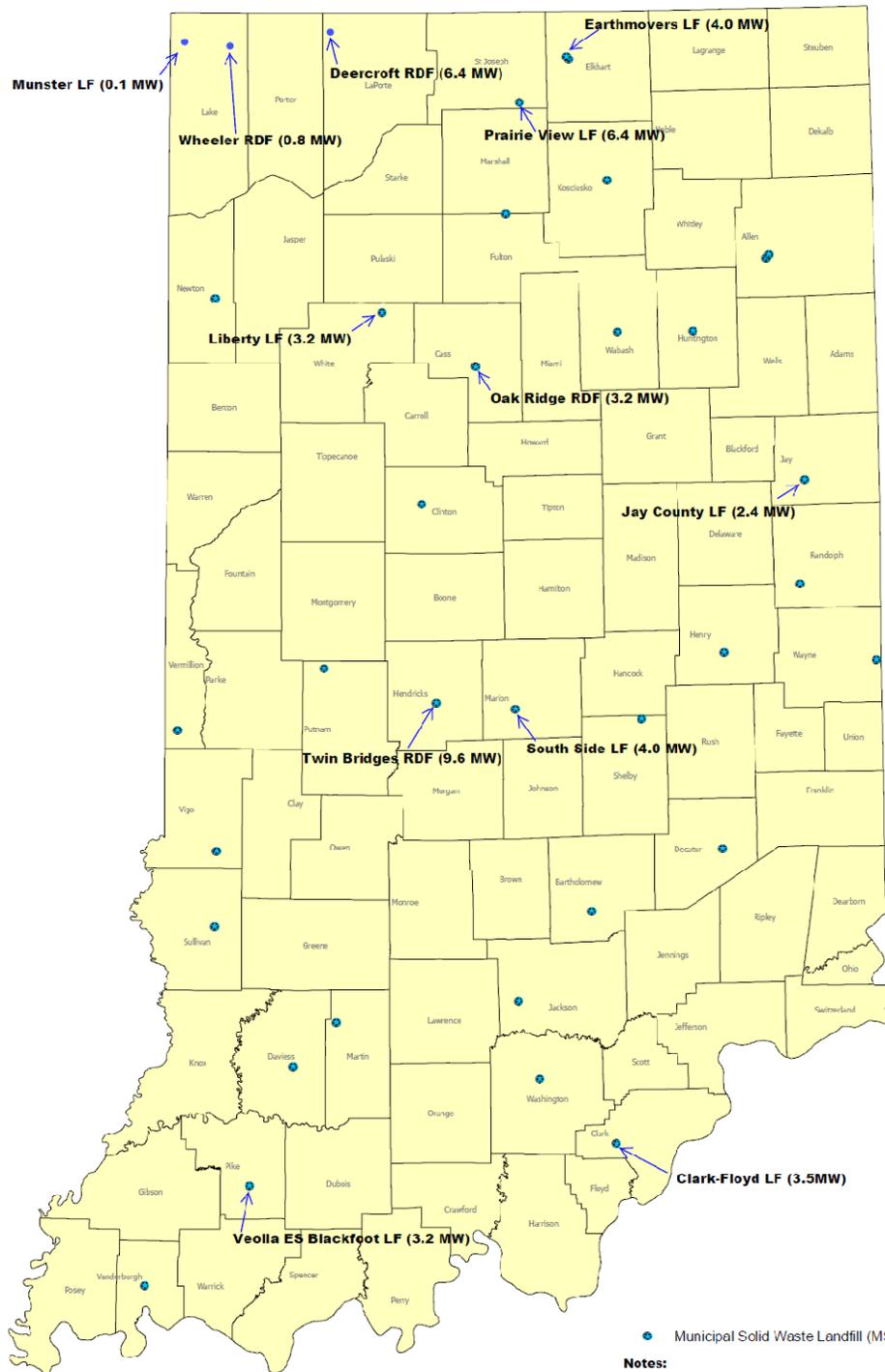
²⁷Order in Cause No. 43500, approved on December 17, 2008

and use this gas has allowed it to grow as a renewable energy resource. Currently, there are 22 operational LMG utilization projects in Indiana, with the potential to develop additional facilities in the future.²⁸ Map 4 identifies these facilities.

²⁸www.epa.gov/lmop/

Map 4

Operational Landfill Methane Gas Utilization Projects in Indiana



Source: Indiana Department of Environmental Management

Energy Efficiency

The federal Energy Independence and Security Act of 2007 (EISA) promotes energy independence in the United States by increasing energy efficiency measures and usage requirements for clean renewable fuels. The “Energy Savings in Government and Public Institutions” requirement affects the Commission by amending the Public Utility Regulatory Policies Act of 1978. The amendment requires natural gas utilities to adopt policies that establish energy efficiency as a priority in their business operations and planning processes. The amendment also requires regulatory agencies to evaluate rate design modifications and provide for the implementation of rate decoupling programs, creation of incentives for utilities to successfully manage energy efficiency programs, and adoption of rate designs promoting energy efficiency in each customer class.

The Commission has issued Orders fulfilling the requirements of the Energy Independence and Security Act of 2007 by approving decoupling and energy efficiency programs.

Utility-sponsored energy efficiency programs are included in most of the approved decoupled rate designs that separate a utility’s profits from its sales, while providing for an allowed rate of return.²⁹ Although rate decoupling by itself does not achieve energy efficiency, it can provide an incentive to pursue energy efficiency programs by allowing gas utilities to advocate conservation efforts without the fear of losing cost recovery due to declining sales.

In response to the EISA, the Commission issued Orders approving decoupling mechanisms and energy efficiency programs.³⁰ In addition, eight small gas utilities filed a Joint Petition under Cause No. 43995 requesting the creation of a combined energy efficiency program.³¹ The Joint

²⁹Decoupling is the separation of a utility’s fixed costs from its variable costs. Decoupled rates normally recover fixed costs with fixed charges and variable costs with variable charges (i.e., per therm of gas consumed).

³⁰In Cause Nos. 42943 and 43046, the Commission approved an alternative regulatory plan that included a sales reconciliation decoupling mechanism for Vectren North and Vectren South. In Cause No. 43051, the Commission approved an Energy Efficiency Rider and an alternative regulatory plan that simplified residential gas rates for NIPSCO. In Cause No. 42767, the Commission approved an alternative regulatory plan that included a decoupling mechanism and energy efficiency program for Citizens Gas. In Cause No. 43624, the Commission approved an alternative regulatory plan that included an energy efficiency program for Citizen Gas of Westfield.

³¹The Joint Petitioners in Cause No. 43995 include: Midwest Natural Gas Corp.; Indiana Utilities Corp.; South Eastern Indiana Natural Gas Co., Inc.; Fountaintown Gas Co., Inc.; Community Natural Gas Co. Inc.; Boonville Natural Gas Corp.; Indiana Natural Gas Corp.; and Switzerland County Natural Gas Corp., Inc.

Petitioners have also requested approval of funding and a rate decoupling mechanism similar to approvals for Vectren South and Vectren North, under Cause Nos. 42943 and 43046, respectively.

The Commission established independent oversight boards to govern and encourage the energy efficiency programs of the participating LDCs. These oversight boards are comprised of representatives from various energy groups, utilities, state agencies, consumer groups, and educational institutions such as the State Utility Forecasting Group at Purdue University. The oversight board's duties include voting on issues regarding incentive amounts, program offerings, transfers in funding for program offerings, and other operational concerns.

The Commission reviews the programs of each utility through monthly scorecards detailing monthly, year-to-date, and yearly planning goals for therm savings, measures implemented, and budget expenditures. In the near future, the Commission anticipates that various utility programs may consolidate into a single statewide program to allow for economies of scale and significant market influence, which cannot be realized by smaller, individual programs. Additionally, customers may benefit from a unified oversight board due to consistency in program structure, communications, and education efforts throughout the state.

Pricing and Economics

Rates Lowered in NIPSCO Rate Case

All customer classes in the NIPSCO service territory received a modest reduction in their natural gas rates and charges as a result of the Commission's approval of the settlement agreement in the NIPSCO gas rate case on November 4, 2010, under Cause No. 43894. The residential class, specifically, experienced a decrease in rates of roughly \$5 million or 3.3% from existing rates.

In the settlement agreement, the parties agreed to an overall rate reduction of 6.13% or \$14.8 million and reached a comprehensive agreement that resolved all

In the settlement agreement, the parties agreed to an overall rate reduction of 6.13% or \$14.8 million and reached a comprehensive agreement that resolved all issues, including the structure and design of new gas rates for NIPSCO. This is significant in that this was NIPSCO's first gas rate case in approximately 20 years, and all parties agreed to a revenue decrease.

issues, including the structure and design of new gas rates for NIPSCO. The settlement agreement reflects the significant collaboration and compromise inherent in serious negotiations among a diverse group of interests. The parties to the case included: Citizens Action Coalition of Indiana, the Choice Marketer Group, the Industrial Group, and the Office of Utility Consumer Counselor (OUCC). This is significant because it was NIPSCO's first gas rate case in approximately 20 years, and all parties agreed to a revenue decrease.

Additionally, NIPSCO's existing rates were based on a volumetric rate design, with the utility's cost recovery based on the volume of gas sold. The new rates are mostly decoupled, separating the volume of gas sold from the company's recovery of fixed costs. By separating these components, utilities are able to institute a wholesale cultural change to expand their energy efficiency efforts by helping customers find ways to reduce consumption and the cost of their utility bills.

Adjustable Rate Mechanisms

Natural gas utilities incur costs beyond their control (e.g., federal regulations and market price volatility). These costs often occur outside the context of a rate case. In order for natural gas utilities to recover these costs, they petition the Commission for approval of an adjustable rate mechanism, or tracker, for the timely recovery of these costs. The OUCC is involved in these filings as the state agency representing the public or utility ratepayer interests, to ensure the reasonableness of these requests. Before costs are passed along to customers, the OUCC reviews the underlying support for rate adjustments and may provide evidence supporting or contesting the requested rate adjustment in proceedings.

On average, the cost of gas reflected in the GCA mechanism accounts for approximately 70% of a residential customer's bill.

The Commission holds a hearing and reviews the associated costs with the tracker in an expedited manner. A tracker assists in the recovery of costs, which improves the financial health of the utility. The following examples describe authorized trackers available for consideration:

- *Gas Cost Adjustment (GCA)* – Pursuant to statute, the GCA allows a gas utility to recover the commodity cost of gas not recovered through rates established during a rate case.³² Most regulated natural gas utilities utilize this mechanism.³³
- *Pipeline Safety Adjustment (PSA)* – The PSA allows the gas utility to recover prudently incurred, incremental non-capital expenses necessary in order to meet the requirements of the Federal Pipeline Safety Improvement Act of 2002, which imposed many new requirements on pipeline operators. Three natural gas utilities utilize the PSA.
- *Energy Efficiency Funding Component (EEFC) & Sales Reconciliation Component (SRC)* – The EEFC funds the promotion of energy efficiency. The SRC allows recovery of expenses from residential and commercial ratepayers that would otherwise be lost due to reductions in revenue caused by energy efficiency programs. Four natural gas utilities utilize these mechanisms.
- *Normal Temperature Adjustment (NTA)* – The NTA reduces the risk of a gas utility not recovering its approved margin due to warmer-than-normal temperatures and mitigates the possibility of over-earning due to colder-than-normal temperatures during the heating season. Sixteen natural gas utilities utilize the NTA.

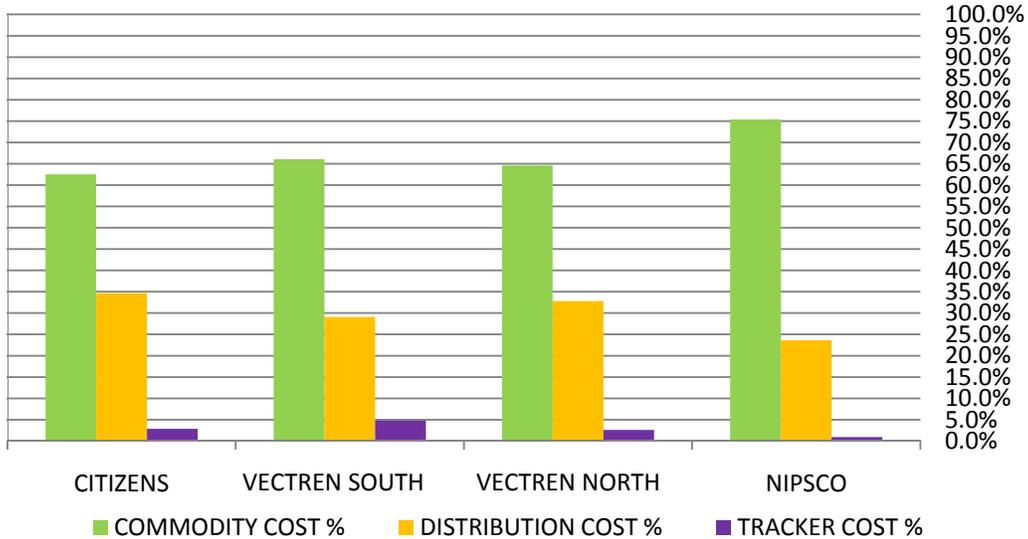
On average, gas usage (i.e., commodity cost) accounts for approximately 70% of a residential customer’s bill; operating costs account for approximately 28%. All other trackers approved by the Commission account for less than 2% of a customer’s monthly gas bill. The following table demonstrates this cost analysis.

³²See, IC § 8-1-2-42(g)

³³ Snow & Ogden is the only regulated natural gas utility that does not utilize the GCA tracker. Snow & Ogden is a small natural gas utility that receives natural gas from wells they own and operate within the state. Therefore, its gas costs are stable and are built into its base rates.

Table 3

Breakdown of Residential Billing Components for the Four Largest Indiana Gas Utilities



Source: December 2010 Utility Flex Filings

Utilities do not profit from the gas commodity portion of consumers’ bills, as the GCA tracker involves a dollar-for-dollar pass-through of the gas cost. The overall weighted cost of gas and a utility’s purchasing practices are reviewed by the OUCC before approval by the Commission. For costs to be approved, each utility must demonstrate that its purchases were prudent. Another condition of the GCA is that utilities must incorporate a diversified portfolio mix (i.e., a balance of purchases such as fixed, spot market, and storage gas) to mitigate price volatility and maximize their ability to take advantage of market conditions.

Regulatory Development

Substitute Natural Gas Contract

Coal gasification is a process that converts coal into substitute natural gas (SNG). Given Indiana’s vast coal reserves, the prospect of using local coal sources for the production of substitute natural gas is another alternative to importing natural gas into our state. SNG that is produced is of pipeline quality and may be used for home heating, manufacturing facilities, or in the generation of electricity.³⁴ On March 25, 2009, Governor Daniels signed into law Senate

³⁴See, IC ch. 4-4-11.6 and modified by IC § 4-4-1.9-1.2

Enrolled Act 423, ultimately codified as IC ch. 4-4-11.6, which directs the Indiana Finance Authority (IFA) to enter into contracts for the sale of SNG with 3rd parties, with net proceeds from and the costs of those sales being reflected on natural gas customers' bills.³⁵ In addition, IC ch. 4-4-11.6 establishes Commission authority over the allocation of the costs and proceeds from the sale, transportation, and delivery of SNG to retail end-use customers.

Pursuant to IC ch. 4-4-11.6, the Commission has specific responsibilities that include:

- Approving an SNG purchase contract for the IFA;³⁶
- Allocating purchased SNG to retail end use customers of regulated utilities;³⁷
- Ordering regulated energy utilities to include in rates the cost of the SNG;³⁸
- Upon request by the IFA, ordering regulated energy utilities to enter into management contracts for billing and collection of the delivered SNG;³⁹
- If the IFA enters into a contract with a 3rd party to sell SNG, ensuring the proceeds and costs of the sales are reflected on each customer's bill of a regulated energy utility;⁴⁰ and
- If the IFA sells the SNG to a 3rd party, determining a just and reasonable method for allocating the credits and charges to retail end use customers.⁴¹

Furthermore, the SNG purchase contract presented to the Commission must contain specific components. The contract must be entered into between the IFA and a producer of SNG. The contract must contain a 30-year term that guarantees savings for retail end use customers. Finally, the contract may contain any terms or conditions determined necessary by the IFA.

The IFA and Indiana Gasification, LLC (IG) petitioned the Commission on December 16, 2010 under Cause No. 43976 for the following:

³⁵ P.L. 113-2010

³⁶ IC § 4-4-11.6-14

³⁷ IC § 4-4-11.6-18

³⁸ IC § 4-4-11.6-19

³⁹ IC § 4-4-11.6-22

⁴⁰ IC § 4-4-11.6-30

⁴¹ IC § 4-4-11.6-30(c)(5).

1. Approval of an SNG purchase and sales agreement between the IFA and IG;
2. If necessary, for the Commission to order Indiana regulated energy utilities to enter into a management agreement with the IFA; and
3. For the Commission to decline jurisdiction over IG.

In addition, the IFA and IG requested expedited treatment of the Petition. Prior to the evidentiary hearings, the Commission provided the public with an opportunity to voice its opinion on the proposed SNG facility, holding three separate field hearings in Jasper, West Lafayette, and Indianapolis. The Commission then began its evidentiary hearing on May 2, 2011. The case is still pending before the Commission, as of the printing of this report.

Universal Service Programs

The Commission's Order in Cause No. 43669 authorized Citizens Gas, NIPSCO, Vectren North, and Vectren South to reinstate their respective bill assistance programs to provide Hoosiers in need with assistance during the winter heating season. The Commission categorizes the individual utility programs under the term "Universal Service Program" (USP). In order for these programs to continue beyond October 31, 2012, each utility must file a base rate case requesting relief that includes the assistance program. The timeframe provides the Commission with an opportunity to further examine the programs' costs and benefits. Currently, the programs are designed to encourage customers qualifying for USP assistance to also apply for American Recovery and Reinvestment Act weatherization assistance program funds.

Federal funds are also available through the Low Income Home Energy Assistance Program (LIHEAP), a social service program established in 1981. Congressional appropriations fund the program annually. LIHEAP's mission is to help low-income households meet the costs of their home

LIHEAP Funding



There are two forms of LIHEAP assistance funding available. States can apply for a block grant, which is a formula, established by Congress that determines the amount of money distributed to a State based on weather and its low-income population.

States are also eligible to receive contingency funds, which is money the President releases to help with energy needs based on an emergency. Usually, an emergency is related to extreme weather or dramatic energy price spikes.

energy needs, as they pay a higher percentage of their household income for it. An eligible applicant's household income must not exceed 150% of the poverty level or 60% of the state's median income.⁴² In Indiana, a family of four at the 150% poverty level has a household income not exceeding \$33,075.⁴³

Congress appropriated \$4.9 billion for LIHEAP funding consisting of \$4.5 billion⁴⁴ in block grants and an additional \$490 million⁴⁵ in emergency funds during the fiscal year 2010. Of this, Indiana received approximately \$117.5 million in LIHEAP funding. This total consisted of \$104.1 million in block grant funds and \$13.4 million in emergency funds.⁴⁶ Indiana had approximately 730,000 households eligible for LIHEAP financial assistance in fiscal year 2010, of which about 197,800 households received assistance. The average assistance to eligible Indiana households was roughly \$420.

Currently, available funding for the fiscal year 2012 may decrease under the proposed federal budget, and one of the funding areas reduced is LIHEAP. The 2012 proposed budget provides \$2.57 billion in funding, which includes \$1.98 billion in base grants and \$590 million in emergency funds. This proposed funding level is comparable to the 2008 LIHEAP funding level.

San Bruno Report & Indiana's Risk-Based Assessments

Despite the nation's overall excellent pipeline safety record, recent pipeline incidents in California, Michigan, Pennsylvania, and other locations have elevated the awareness of stakeholders and the public to the potential dangers of natural gas and hazardous liquid pipelines across the country. It has also prompted the IURC's Pipeline Safety Division to closely monitor the findings of the incidents, especially the one in San Bruno, California.

On August 30, 2011, the National Transportation Safety Board (NTSB) issued a report about the rupture of a 30" pipeline in San Bruno, California in September 2009.⁴⁷ The report stated that the rupture "...was caused by a fracture that originated in the partially welded longitudinal seam

⁴²www.acf.hhs.gov/programs/ocs/liheap/about/factsheet.html

⁴³www.liheap.org

⁴⁴www.liheap.ncat.org/Funding/funding.htm

⁴⁵www.acf.hhs.gov/programs/ocs/liheap/funding/emergency10.html

⁴⁶Indiana Housing and Community Development Authority data

⁴⁷http://www.nts.gov/investigations/2010/sanbruno_ca.html

of one of six short pipe sections...” that “...would have been visible when it was installed...” in 1956. This means that the failed section was faulty when installed, and over time the fracture grew until it failed completely.

The NTSB found fault in Pacific Gas & Electric’s (PG&E) pipeline integrity management program, indicating that procedures should have been written and carried out to identify and remove the threat of the faulty pipe. The NTSB also “determined that the California Public Utilities Commission failed to detect the inadequacies in PG&E's integrity management program and that the Pipeline and Hazardous Materials Safety Administration integrity management inspection protocols need improvement.”

The NTSB’s report focused on such matters as inadequate records, weak regulations (specifically a provision in the pipeline safety laws that grandfathered pipeline systems installed prior to 1971 from having all installed pipe pressure tested before placing it in service), and a lack of oversight – on the part of the California Public Utilities Commission over PG&E and on the part of PHMSA over the state’s pipeline safety program. In response to the incident, the California Public Utilities Commission ordered all operators to pressure test any and all transmission pipeline systems in the absence of documentation that verifies a test had occurred and also effectively removed the grandfather clause for pipelines installed prior to 1971.

IURC Pipeline Safety Engineers are actively reviewing historical records to verify that pipeline system segments were pressure tested prior to being placed in service. Starting in 2009, the Pipeline Safety Division began to review and verify operators’ written pipeline integrity procedures, including operations and maintenance. Follow-up integrity program inspections are also conducted for all transmission operators to determine how an operator identifies high consequence areas. The Pipeline Safety Division plans to review the entire inspection form to determine the value in expanding the inspections.

The IURC’s Pipeline Safety Division has also moved to a risk-based assessment of the intrastate natural gas operators to identify, prioritize and correct any vulnerable pipelines. Indiana’s risk-based assessment of operators and pipelines is data driven, not calendar driven (i.e., the physical characteristics of the pipe and its surroundings are assessed). The assessment of threats to an operator’s pipeline (transmission or distribution) includes an analysis

of the type and age of pipe in the system; inspection of installation/operation procedures; inspection of material or welds; and analysis of any leaks due to corrosion, natural forces, excavation, or other damage from outside forces. An operator may be subject to more frequent inspections due its heightened risk based on the data gathered. Should an infraction of state or federal pipeline safety law be discovered, the operator can expect the violation to be dealt with firmly, but fairly by the IURC.

Depth Study

In 2009, the General Assembly mandated a report for best practices concerning the vertical location of underground facilities for purposes of IC ch. 8-1-26. Therefore, this section of the Report addresses the viability and economic feasibility of technologies used to locate underground facilities.

The Common Ground Alliance (CGA) is a member-driven association dedicated to public safety, environmental safety, and prevention of damage to underground facilities. In 1999, the CGA completed a study sponsored by the U.S.

Department of Transportation identifying the best practices regarding damage prevention. The CGA recommends hand digging or soft digging within an 18-inch tolerance on each side of the underground facilities. Vacuum digging, the use of high-pressure water or air that breaks up the soil accompanied by a powerful vacuum that removes the loosened soil, is an acceptable alternative identified by CGA.⁴⁸

GPR and EM equipment provides depth estimates and underground facility locates but equipment manufacturers do not guarantee depth readings.

Ground Penetrating Radar (GPR) and Electromagnetic (EM) instruments are technologies available to locate underground equipment. The costs of these instruments range from \$15,000 to \$18,000 for GPR equipment, while EM equipment ranges from \$2,000 to \$8,000. GPR and EM equipment provide depth estimates and underground facility locates, but equipment manufacturers do *not* guarantee depth readings. The CGA, equipment manufacturers, and Pipeline Safety all strongly recommend hand-digging or vacuum excavation to expose underground pipe for visual verification. This is the safest means to accurately determine the true

⁴⁸www.subtronic.com

depth and location of underground facilities and the only acceptable means an excavator can use to comply with IC ch. 8-1-26. The Pipeline Safety Division hopes that in the near future, lawmakers will consider requiring all operators of locate equipment to be certified by an accredited organization in order to better protect underground facilities.

III. NATURAL GAS APPENDICES

Appendix A – Jurisdictional Gas Utility Revenues

Rank	Utility Name	Operating Revenues*	% of Total Revenues
1	Northern Indiana Public Service Company	\$ 717,138,055	36.82%
2	Vectren North	624,300,165	32.05%
3	Citizens Gas (Municipal)	320,682,072	16.47%
4	Vectren South	106,754,683	5.48%
5	Northern Indiana Fuel & Light Company, Inc.**	38,810,679	1.99%
6	Kokomo Gas and Fuel Company**	35,355,429	1.82%
7	Ohio Valley Gas Corporation	30,268,156	1.55%
8	Midwest Natural Gas Corporation	16,636,985	0.85%
9	Sycamore Gas Company (f/k/a Lawrenceburg Gas Co.)	10,299,146	0.53%
10	Indiana Natural Gas Corp.	8,569,931	0.44%
11	Community Natural Gas Co., Inc.	7,465,405	0.38%
12	Boonville Natural Gas Corporation	6,571,572	0.34%
13	Indiana Utilities Corporation	5,774,094	0.30%
14	Ohio Valley Gas, Inc.	4,803,277	0.25%
15	Citizens Gas of Westfield	4,362,035	0.22%
16	Fountaintown Gas Co., Inc.	3,981,502	0.20%
17	Aurora Municipal Gas (Municipal)	2,343,881	0.12%
18	South Eastern Indiana Natural Gas Company, Inc.	1,697,174	0.09%
19	Switzerland County Natural Gas Co., Inc.	1,408,994	0.07%
20	Valley Rural Utility (Not for profit)	364,175	0.02%
21	Snow & Ogden	15,239	<0.01%
	Total Revenue	\$ 1,947,603,649	100.00%

*Year ending December 31, 2010

**Recently Kokomo and NIFL merged with NIPSCO, with NIPSCO being the surviving company.

Appendix B – Jurisdiction over Municipal Gas Utilities

Municipal Utilities under the IURC's Jurisdiction		
Aurora	Citizens Gas	

Municipal Utilities Withdrawn from the IURC's Jurisdiction (IC § 8-1.5-3-9)		
Bainbridge	Jasper	Osgood
Batesville	Lapel	Pittsboro
Chrisney	Linton	Poseyville
Grandview	Montezuma	Rensselaer
Huntingburg	Napoleon	Roachdale
Jasonville	New Harmony	

Appendix C – Jurisdiction over Investor-Owned Gas Utilities

Investor-Owned Utilities under the IURC’s Jurisdiction	
Boonville Natural Gas Corporation	Ohio Valley Gas Corporation
Community Natural Gas Company, Inc.	Ohio Valley Gas, Inc.
Citizens Gas of Westfield	Snow and Ogden Gas Company, Inc.
Fountaintown Gas Company, Inc.	South Eastern Indiana Natural Gas Company, Inc.
Indiana Natural Gas Corporation	Switzerland County Natural Gas Company
Indiana Utilities Corporation	Valley Rural Utility Company
Lawrenceburg Gas Company	Vectren North
Midwest Natural Gas Corporation	Vectren South
Northern Indiana Public Service Company	

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I. WATER/WASTEWATER OVERVIEW

Industry Structure

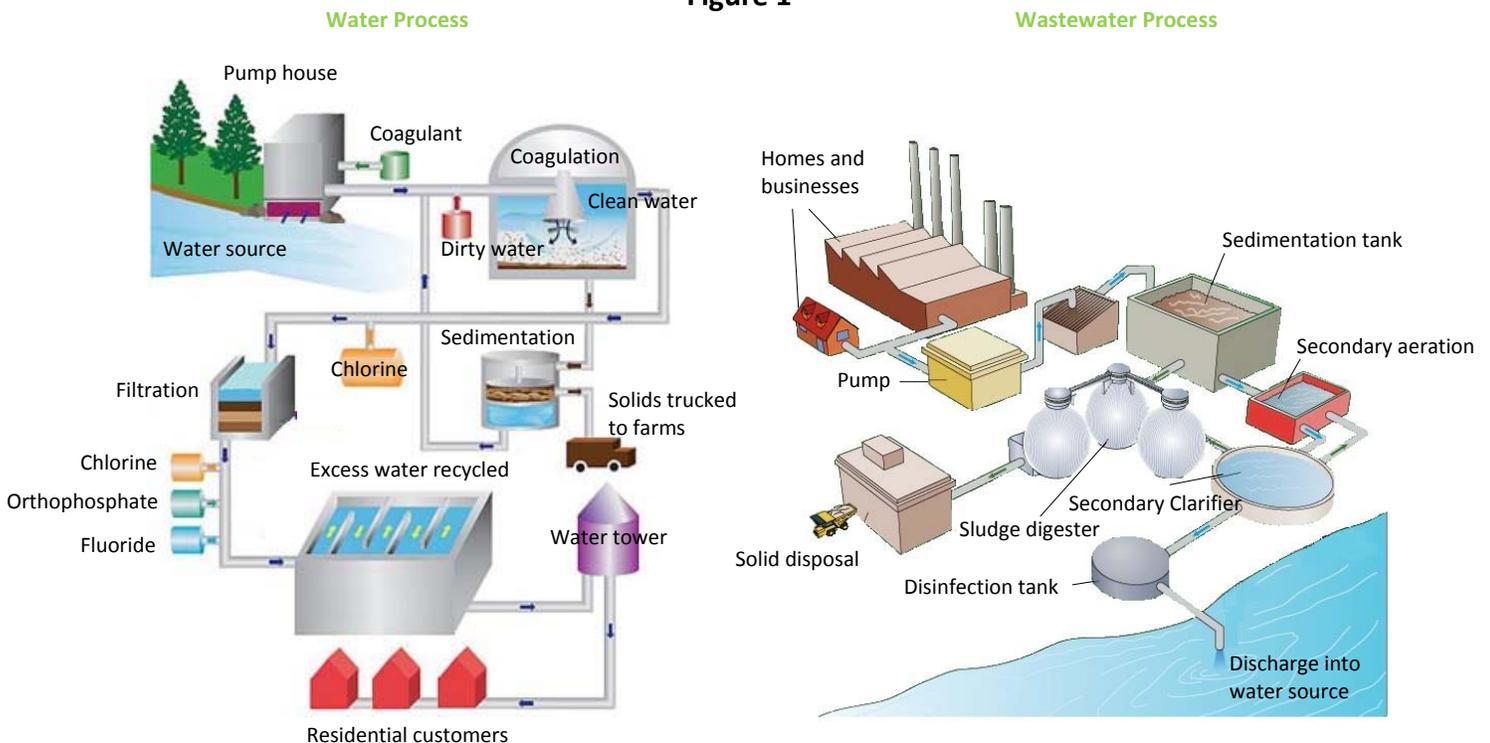
There are many utilities providing water and wastewater service to Hoosiers, taking on one of several legal forms. These legal forms include: investor-owned utilities, municipal utilities, not-for-profit utilities, regional water/wastewater districts, water authorities, and conservancy districts. The Indiana Utility Regulatory Commission (Commission or IURC) is the economic regulator over certain types of these entities, while the Indiana Department of Environmental Management (IDEM) is the water quality regulator.

The legal form of a utility determines whether the utility is subject to the Commission's jurisdiction and the extent of the Commission's regulatory oversight.

Process

Before water is ready for retail use, it usually must be treated to make it potable. Similarly, wastewater must be treated before it can be released back into a water source. Both processes are shown in Chart 1.

Figure 1



Regulatory Structure

According to the Commission’s data and that of the IDEM, the Commission regulates approximately 104 of the 824 water utilities and 47 of the 531 wastewater utilities. Although the Commission only regulates and has partial oversight over a fraction of the state’s water utilities, those who are regulated serve approximately 90% of Indiana’s water consumers. This is because numerous small systems serve a relatively small percentage of the population, while a small number of larger systems serve the majority of the population. Because the Commission does not regulate municipal wastewater systems and most investor-owned wastewater utilities are small, the percentage of wastewater customers under Commission jurisdiction is low. Of the regulated wastewater utilities, only two serve more than 5,000 customers: Hamilton Southeastern Utilities, Inc. with 17,670 customers and Utility Center, Inc. with 11,908 customers.

The regulated water systems have \$3.7 billion of utility plant in service, annual revenues of \$493 million, and a total rate base of \$2.2 billion. The regulated wastewater utilities have \$199.1 million of utility plant in service, annual revenues of \$29.0 million, and a total rate base of \$84.1 million. As promulgated in state law, certain utilities have the option to withdraw from regulation. Table 1 shows the number of water/wastewater utilities that have withdrawn (Appendices C and D list the withdrawn utilities).

Table 1

Water/Wastewater Utilities Withdrawn From Commission Jurisdiction

Type of Utility	Number
Municipal Water	358
Not-For-Profit Water	51
Investor-Owned Water	1
Not-For-Profit Wastewater	11
Investor-Owned Wastewater	4
Not-For-Profit Water/Wastewater	14
Investor-Owned Water/Wastewater	1

The legal form of a utility determines the existence and extent of the Commission’s regulation. Table 2 details some of the IURC’s jurisdiction and shows which utilities the agency generally does not regulate with regard to rates and charges or rules and regulations.

Table 2
Commission Jurisdiction over Water/Wastewater Utilities

Type of Utility	Rates and Charges	Rules and Regulations	Ability to Withdraw from Jurisdiction	No Jurisdiction	CTA
Investor-Owned Water*	✓	✓	✓		
Investor-Owned Sewer*	✓	✓	✓		✓
Not-for-Profit Water	✓	✓	✓		
Not-for-Profit Sewer	✓	✓	✓		
Municipal Water	✓		✓		
Municipal Sewer				✓	
Regional Water District				✓	
Regional Sewer District				✓	
Conservancy Water District**	✓		✓		
Conservancy Sewer District				✓	

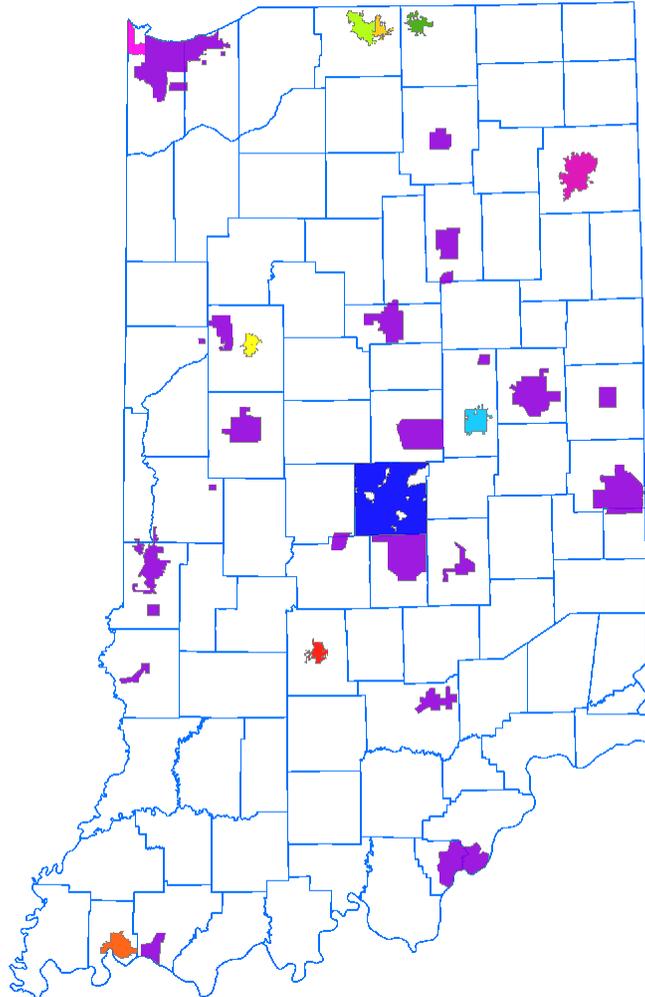
* Investor-owned water and sewer utilities with 300 customers or less can opt out of the IURC’s jurisdiction, per IC § 8-1-2.7-1.3.

** Water conservancy districts with fewer than 2,000 customers can opt out of the IURC’s jurisdiction, per IC § 8-1-2.7-1.3.

Small utilities, those with 300 customers or less, can opt out of the Commission’s jurisdiction. Because smaller utilities have less expertise to manage their systems, they are often times the most problematic and “troubled.” Though the Commission has training and programs in place to help these utilities, it remains a challenging issue for the Commission. The steps taken by the agency to address this issue are further discussed on page 95.

Map 1 shows the 11 largest regulated water utilities based on the 2009 Annual Reports. As the map shows, these utilities provide service to more densely-populated areas.

Map 1
Largest Regulated Water Utilities and the Number of Customers



■ Indianapolis Water - 298,678	■ Lafayette Municipal Water - 28,260
■ Indiana American Water - 279,257	■ Hammond Municipal Water - 26,405
■ Fort Wayne Municipal Water - 78,769	■ Bloomington Municipal Water - 22,961
■ Evansville Municipal Water - 60,722	■ Anderson Municipal Water - 22,049
■ South Bend Municipal Water - 41,931	■ Mishawaka Municipal Water - 14,898
■ Elkhart Municipal Water - 35,100	

Source: 2009 Commission Annual Reports

Note: Fire protection customers and interdepartmental sales have been removed; municipal systems are based on city boundaries and may not represent the actual service territory.

Acquisition and Consolidation

Acquisitions and consolidations can take many forms, but the most prevalent are investor-owned utilities buying smaller investor-owned utilities, investor-owned utilities buying municipal systems, and municipalities buying investor-owned systems. Over the last nine years, the pace of mergers and acquisitions by investor-owned utilities has slowed significantly as the most attractive utilities have been acquired; however, transaction proposals are still taking place.

- Municipalization -

The practice of municipalities taking over investor-owned systems, commonly referred to as municipalization, has been aided by a recent Indiana Supreme Court decision. The City of Fort Wayne completed its acquisition of a large portion of Utility Center, Inc.'s system by initiating a condemnation proceeding in civil court, which was an action later affirmed by the Indiana

Recent acquisitions have raised issues of asset valuation and rates for existing customers.

Supreme Court.¹ Condemnation is a legal proceeding, whereby a municipality exercises its power of eminent domain and condemns utility property that results in the transfer of utility property to the municipality. In its decision, the Supreme Court held that under IC §§ 8-1-2-92 and 8-1-2-93, an investor-owned utility's license, permit, and franchise are conditioned on the ability of municipalities to purchase utility property.

Recent utility transfers have highlighted several issues of particular concern for the Commission. One issue is determining the fair value of the property to effect a change in ownership. Without accurate accounting records of the municipality's assets, it is difficult to accurately determine the fair value of the assets. Even when the accounting records are accurate, there may be a conflict between Indiana statutes that explains how the price is determined for the assets and what the Commission sets as the fair value. Under IC § 8-1.5-2-6(b), municipal assets may not be sold for less than their full appraised value; however, the Commission must adhere to IC § 8-1-2-6, which disallows Contributions in Aid of Construction (CIAC) in determining the

¹See, *Utility Center, Inc. v. Fort Wayne*, 868 N.E.2d 453 (Ind. 2007)

fair value.² In some cases, appraisers do not eliminate all utility plant that has been contributed by developers or was funded by a government grant.

Another issue rests with the determination of whether the customers acquired through the condemnation process should be required to pay more for water than existing customers. Although there is a general lack of consensus on these issues among policymakers, the Indiana General Assembly remedied one aspect of the condemnation matter. Going forward, when a municipality condemns the property of a public utility, all customers shall bear the costs associated with the condemnation process through their normal rates and charges.³

- Unique Transfer: City of Indianapolis to Citizens Energy Group -

In August 2010, the City of Indianapolis and Citizens Energy Group (Citizens) petitioned the Commission to transfer the city's water and wastewater systems to Citizens and place both utilities under the Commission's jurisdiction.⁴ Then on April 12, 2011, the City of Indianapolis and Citizens submitted a settlement agreement reached with the OUCC, industrial customers, and the Service Advisory Board. The key components of the settlement agreement are as follows:

- Wastewater rates will increase 10.75% in 2012 and 2013, while water rates will remain unchanged.
- Citizens will adopt the water rates approved by Commission for Indianapolis' Department of Waterworks in Cause No. 43645.
- Citizens will document its savings for four years from the date of closing.

On July 13, 2011 the Commission approved Citizens Energy Group's acquisition of the city of Indianapolis' water and wastewater utilities. This is the first wastewater system of Indiana's 108 combined sewer systems under Commission jurisdiction.

Upon approval of the acquisition by the Commission, the wastewater system became the first of Indiana's 108 combined sewer systems under Commission jurisdiction. A combined sewer

²CIAC is utility plant that was not funded by the utility such as plant contributed by a developer or obtained as part of a government grant.

³See, IC § 8-1.5-3-8 (eff. July, 2009)

⁴Cause No. 43936

system directs wastewater and stormwater to flow into a single pipe. The discharge into a body of water is called combined sewer overflow (CSO).

Age Profile

One of the most problematic issues in the water industry is the age of the infrastructure.⁵ Water systems are comprised of wells (for groundwater), treatment facilities, water tanks, and distribution systems. Distribution systems are composed of the pipes, valves, and pumps through which water is moved from the treatment plant or water tanks to end users. Throughout Indiana, pipes range widely in their age and material. Many older systems, built during the turn of the last century, consist of cast iron (CI) and wood piping that would not be used today.

Many of Indiana's oldest communities are experiencing increased main breaks in CI pipe, as the distribution system ages. Distribution system piping manufactured and installed during the growth periods of the 1940s and early 1950s are particularly vulnerable due to common use of a thinner pipe wall and utilization of "gray iron." This particular generation of CI has become more brittle with age and is beginning to fail under varied operating pressures. Further, deterioration can be aggravated in piping that was installed in highly corrosive soils from that era. As this generation of piping requires replacement, our oldest and largest communities are hit the hardest financially, because these pipes constitute the majority of the distribution system.

Newer systems rely on polyvinyl chloride (PVC), high-density polyethylene (HDPE) and ductile iron (DI) piping. Although the materials used in modern pipe manufacturing should be far superior, some materials are unquestionably thinner and cheaper than their predecessors. This places more emphasis on ground conditions and proper installation in attaining the desired longevity of the infrastructure. Modern plastic pipe such as PVC and HDPE have very good corrosion resistance properties but generally have very weak structural properties. In many cases, utilities may prefer a structurally stronger pipe such as DI at a greater material cost to mitigate the risk associated with installation errors.

While pipe design is easy to control and monitor, the underground construction must be closely monitored to ensure that the specified bedding material is being used in appropriate

⁵Infrastructure needs and costs are detailed on pg. 89.

quantities and is being properly bedded. Unlike other materials, PVC piping is subject to ultra-violet degradation, which may compromise the pipe if improperly stored. Improperly installed pipe is often subject to rapid failure and can compromise the road, sidewalk or other covering and adjacent underground infrastructure. Utility owners must monitor the installation of pipe closely, often requiring full-time construction inspection.

Demand and Supply

Water Usage

Although the United States uses more water per capita than any other country, the amount of water consumed per customer has been declining. American Water, the holding company for Indiana American Water, published a study in May 2011 about seven states, including Indiana, and found that monthly residential sales per customer decreased 1.21% per year from 2000 to 2009, which is an annual decline of 913 gallons/customer/year.⁶ The decline can be attributed to the following factors:

- Increased use of water efficient appliances;
- Low water use landscaping;
- Utility water efficiency programs;
- Rate structures penalizing higher consumption; and
- The general increase in water rates.

However, water shortages are still a serious issue for many areas throughout the U.S. and occasionally affect parts of Indiana when low rainfall causes drought conditions. For example, in October 2010 after a prolonged drought, the Indiana Department of Homeland Security and the Indiana Department of Natural Resources issued a “water shortage warning” for much of southern Indiana where public water systems were requested to reduce water use by 10 to 15%. It was lifted following recovery by precipitation.

Water Conservation



American Water, the holding company for Indiana American Water Inc., conducted a study of seven states, including Indiana, and found that monthly residential sales per customer decreased 1.21% per year from 2000 to 2009, which is an annual decline of 913 gallons/customer/year.

⁶“Declining Residential Water Use Presents Challenges, Opportunities,” Opflow, Vol. 37, No. 5, pgs. 18-20.

Although per capita consumption may be decreasing, levels of supply can still be strained. Therefore, conservation efforts and per capita decreases will be important components in meeting future supply needs.

New Sources of Supply/Enhanced Reliability

Maintaining quality ground and surface water is critical, because contaminated water cannot be considered a resource. In Indiana, much of the water supply comes from underground water bearing permeable rock formations called aquifers, which utilities tap into by digging wells. To increase the reliability of water from rivers, reservoirs are constructed. Reservoirs play an important role in water treatment, because they allow time for particles to settle and provide early-stage natural biological treatment. Although not a natural resource, water tanks also play an important role as a source of backup supply due to their ability to help maintain sufficient water pressure in systems for potable water and fire suppression. Not every water utility in Indiana has its own source of supply. Based on the Commission's Annual Reports, 15% of the Commission-regulated water utilities share source of supply infrastructure through wholesale purchase agreements.

Legal and Policy Foundations

Water and Wastewater Quality

Utilities that provide drinking water and treat wastewater are subject to federal regulations. Water quality regulation falls under the Safe Drinking Water Act (SDWA), passed in 1974 and amended in 1996;⁷ whereas, wastewater regulation falls under the Federal Water Pollution Control Act or Clean Water Act (CWA), most recently amended in 1987.⁸ The U.S. Environmental Protection Agency (U.S. EPA) is the primary federal agency that implements these regulations, while the IDEM is delegated enforcement and has some implementation authority.⁹

Water quality standards are two-fold: 1) health-related (focusing on inorganic and organic chemicals and microorganisms); and 2) aesthetics (focusing on taste, odor, and appearance). These

⁷See, 42 U.S.C. §§ 300f to 300j-26

⁸See, 33 U.S.C. §§ 1251-1387

⁹To the extent that wastewater treatment is provided by a septic system or constructed wetland, the Indiana State Department of Health is the jurisdictional agency.

standards are developed by setting a maximum contaminant level and a maximum contaminant level goal, both of which are periodically updated. For example, based on the U.S. EPA's Groundwater Rule, the IDEM now requires increased monitoring to detect viral and bacterial contamination in ground water sources of drinking water.

In recent years, Indiana utilities have incurred costs associated with maintaining and improving their systems, and these costs are expected to keep increasing as new rules are approved. Examples of several new or pending U.S. EPA rules are provided below:

- Total coliform rule (final revisions are expected to be published in the summer of 2012)
- Evaluation of selected contaminants for further regulation under the SDWA (final determination is expected by 2013)
- New analytical methods to test for certain contaminants (approved in June 2011)
- Perchlorate rule (final rule expected by 2015)

The water quality standards, which are enforced by the IDEM, are two-fold: health-related, focusing on inorganic and organic chemicals and microorganisms; and aesthetics, focusing on taste, odor, and appearance.

Several wastewater utilities under the Commission's jurisdiction have also been required to invest in their systems due to consent decrees, which were issued due to violations of the CWA. Because infrastructure improvements may be required, customer rates could be impacted. However, before the costs can be passed on to consumers, projects are subject to IURC approval and review by the Office of Utility Consumer Counselor.

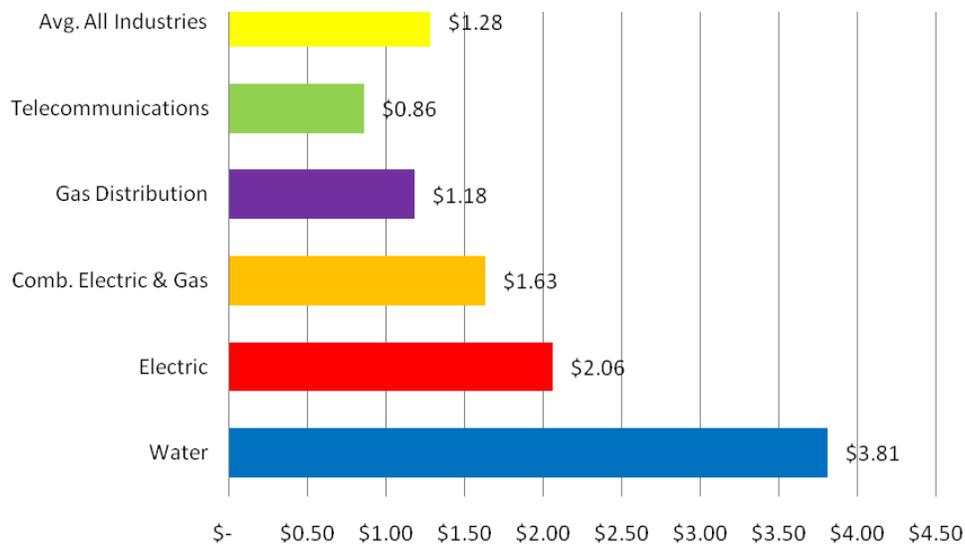
II. WATER/WASTEWATER LANDSCAPE

Infrastructure

To prosper economically, Indiana communities need safe, reliable and affordable water and wastewater systems. However, a funding shortfall in Indiana exists due to the need to replace aging infrastructure and its attendant high capital requirements, as much of the United States' drinking water and wastewater infrastructure was built shortly following World War II.

A significant portion of this infrastructure has aged and will need full-scale replacement over the next few decades. This is problematic because the water sector remains extremely capital intensive, investing more capital per dollar of revenue generated than any other industry, as demonstrated in Chart 1. The need for such large investment is due to high capital costs and relatively low revenues. Consequently, water utilities are increasing general rates and exploring other ways to increase revenues.

Chart 1
Capital Invested per Dollar of Revenue



Source: AUS Utility Reports – 2010

Projected Infrastructure Costs

The Indiana Advisory Commission on Intergovernmental Relations issued its most current report, titled “Financial Needs for Wastewater and Water Infrastructure in Indiana,” in 2003. It estimated that the statewide wastewater and drinking water infrastructure needs for the period 2000 to 2020 will require \$12.4 to \$13.9 billion. Several of the recommended projects include: correction of CSOs, wastewater conveyance and

The water sector remains extremely capital intensive due to high costs and relatively low revenues; investing more capital per dollar of revenue generated than any other industry.

treatment, remediation of failing septic systems, storm water conveyance and management, drinking water production, and construction or renovation of treatment and distribution facilities.

Funding Programs

Though numerous federal and state funding options are available for infrastructure investment, it is not enough to cover the infrastructure needs. Annual investments made by governmental entities between January 1990 and March 2002 were approximately \$253 million, far short of the estimated \$658 million investment needed annually to meet the needs identified in this report. Grants from the U.S. EPA are leveraged in bond markets to generate State

Loans and grants are available for utility infrastructure investment through the State Revolving Loan Fund, Rural Development Loans and Grants, and the Community Focus Fund.

Revolving Loan Fund (SRF) proceeds. The Indiana Finance Authority (IFA) then administers these funds through low-interest loans at 20-year terms to investor-owned, municipal and not-for-profit utilities. Based on the Drinking Water and Clean Water 2010 Annual Reports, the Drinking Water SRF (DWSRF) Loan

Program closed 35 loans for Indiana utilities, totaling approximately \$80 million in state fiscal year 2010. Treatment infrastructure projects accounted for 60% of the projects, while transmission and distribution infrastructure projects accounted for 18.5%. The Clean Water SRF Loan Program in Indiana closed 63 loans totaling approximately \$376 million.

Rural Development Loans and Grants are also available to assist rural areas and towns serving a population of less than 10,000. Extended 40-year terms are available at or below market interest rates, depending on community demographics. As part of this program, Indiana water/wastewater utilities received approximately \$53 million in loans and \$9 million in grants, of which approximately \$13 million in loans were made to Commission-regulated utilities.¹⁰

Grants for planning and up to 75% of project costs are another option. These planning and construction grants are available to non-entitlement cities,¹¹ towns, or counties through the Community Focus Fund, which is administered through the Indiana Office of Community and

¹⁰American Recovery and Reinvestment Act of 2009 funds were not included.

¹¹Non-entitlement cities must go through a state-funding program instead of receiving funds directly from the federal government.

Rural Affairs (OCRA). Out of the more than 200 grant issuances made by OCRA during 2010, two Commission-regulated water systems were beneficiaries of approximately \$5.8 million of the approximate \$90 million granted by this state agency. Over three-fourths of funds issued were the result of federal funding received to aid in economic recovery due to several natural disasters that occurred throughout the state during 2008.

Although the amount of SRF funding to investor-owned and not-for-profit utilities is limited, other options are available. For example, another avenue to obtain low-interest rate loans is private activity bonds (PABs), which are municipal bonds issued to finance facilities for investor-owned or not-for-profit water utilities.¹² The benefits of reduced financing costs go directly to utility customers, rather than to the shareholders, owners, or parent companies. The federal government sets the overall loan volume cap for each state and then allocates that amount based on a formula.¹³

Under the current federal rules for the funding process, investor-owned and not-for-profit utilities are disadvantaged, because they have limited access to low-cost debt. Without access to low-cost debt, costs to serve those customers increase despite the fact that all customers pay federal income tax to support the funding programs. To gain access to additional SRF funding, several not-for-profit utilities have converted to water authorities to avoid the volume cap for PABs. The National Association of Regulatory Utility Commissioners and the National Association of Water Companies support federal legislation to lift the ban on wastewater utilities and to remove water projects from the volume cap. In 2010 the U.S. House of Representatives passed such legislation several times and in May 2011, two U.S. Senators sponsored the Water Infrastructure Investment Act of 2011 that provides such relief.

Under the current funding regime, investor-owned and not-for-profit utilities are discriminated against, because they have limited access to low-cost debt.

¹²PABs are not available to private wastewater utilities.

¹³See, IC ch. 4-4-11.5

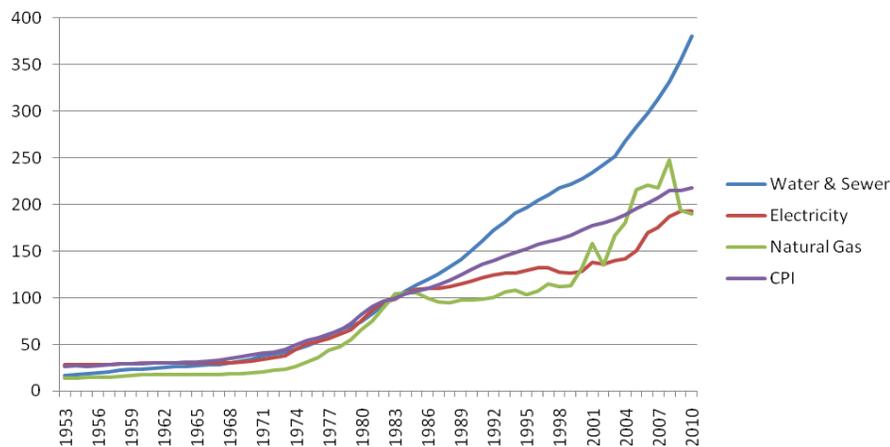
Pricing and Economics

Rate Increases

Increasing costs for water and wastewater utilities are driven by the need for replacement of aging infrastructure, compliance with U.S. EPA standards (e.g., water quality and wastewater effluent), increase in expenses (e.g., labor, chemical, and power), growing demand, and the relocation of facilities. As the costs for water and wastewater services continue to rise, rates are following suit. Two recent rate cases before the Commission involve the Indianapolis Department of Waterworks and Indiana-American Water. In February 2011, the Commission granted the City of Indianapolis a 25.99% permanent rate increase,¹⁴ and in May 2011, Indiana-American Water petitioned the Commission for a 9.76% rate increase.¹⁵

Chart 2 shows the price index for a variety of utilities, including water/wastewater rates. It shows water/wastewater rates rising more than electricity or natural gas rates and rising much faster than the overall consumer price index (CPI). For example, from 2000 to 2010 water/wastewater rates rose 5.05% per year while the CPI only rose 2.47% per year.

Chart 2
Comparison of Utility Prices from 1953 to 2010
Index is set to 100 for 1982-1984



Source: IPU Research Note, February 2011, Janice Beecher, Ph.D., U.S. Bureau of Labor Statistics

¹⁴ *Dep't of Waterworks of the Consol. City of Indianapolis*, Cause No. 43645, 2011 Ind. PUC LEXIS 30 (IURC Feb. 2, 2011)

¹⁵ Cause No. 44022

Rate cases in Indiana reflect the national trend that shows water and wastewater rates outpacing inflation. Overall, the number of rate increase requests has been significant, with as many as 23 pending at any one time during the past year. In 2010, nine water utilities were approved for general rate increases averaging 25.01%, and twelve wastewater utilities were approved for general rate increases averaging 46.63%. The average rate increase granted by the Commission is high, because the requests are related to infrastructure improvements and maintenance projects to uphold the quality of service. Furthermore, several utilities had not sought a rate increase for many years.

Recovery of Infrastructure Costs within a Rate Case or Tracker

The Commission has several mechanisms within a rate case that allow utilities to recover costs associated with infrastructure projects. Municipal and not-for-profit utilities are allowed to include costs for some types of projects, typically referred to as extensions and replacements, in customer rates. This allows utilities to include future infrastructure projects in rates without relying entirely on debt. In addition, post-in-service Allowance for Funds Used During Construction (AFUDC) and deferred depreciation, if approved, allow investor-owned utilities to defer the capital costs and depreciation expense of a project to the utility's next rate case. This practice helps to reduce the utility's earnings erosion.

All utilities can use the Minimum Standard Filing Requirements process that allows a utility to update its rate base for capital investments incurred up until the final hearing.¹⁶ This can be an incentive to invest in capital improvements, as the utility does not need to wait until a later rate case to earn a return on capital investments.

In 2000, the Indiana General Assembly enacted legislation that created a capital recovery mechanism, called the distribution system improvement charge (DSIC).¹⁷ Indiana was the second state to pass such a mechanism. The DSIC allows water utilities to recover the costs of improvements to existing distribution systems without a rate case.

In 2000, Indiana was the second state in the nation to approve a capital recovery mechanism, called the distribution system improvement charge .

¹⁶See, 170 IAC 1-5

The DSIC only applies to water utilities, and the Commission believes that making the DSIC mechanism available to wastewater utilities would encourage investments in necessary infrastructure replacements and upgrades. This has been a useful mechanism, without the added costs of a rate case, to encourage needed infrastructure improvements before having to react to a costly disaster. As of May 2011, the Commission approved close to \$138 million in utility distribution plant placed in service through the DSIC.

Another way to finance infrastructure investments and minimize the effect on existing customers is through system development charges (SDCs). SDCs are utility fees paid by property owners who connect their properties to the utility’s system for the first time and can be more than \$1,400 for water connections and \$3,000 for wastewater connections. The use of SDCs supports the notion that “growth should pay for growth” and reduces the likelihood that existing customers will pay for construction of new facilities that do not benefit them.

Customer Rate Disparity

Many municipal utilities provide service to customers outside their corporate boundaries, which can create beneficial economies of scale and rate stability for the municipality.¹⁷ However, some municipalities charge outside-city customers higher rates or a surcharge, ranging from

Different rates between customers located inside and outside a municipality may raise questions about whether the non-city rate is cost-justified and non-discriminatory.

modest amounts to those up to 100% greater than rates paid by inside-city customers for the same service.

A corporate boundary is usually not like a natural boundary such as a river or mountain, where crossing to the other side may increase the cost of providing service. With corporate boundaries, the imposition of higher rates or a surcharge may be a device to stimulate support for annexation, represent revenue enhancement, or subsidize in-city customers. It may be difficult to support different dollar amounts for inside-city and outside-city water rates due to the fact that rates approved by the Commission must be cost-justified and non-discriminatory.

¹⁷See, IC ch. 8-1-31

¹⁸This can also constrain the proliferation of small developer-owned systems that sometimes become troubled.

When municipal utilities opt out of the Commission’s jurisdiction, citizen-customers (i.e., city residents) of that municipality still have a voice in how the utility is operated when voting for local leaders. However, non-citizen-customers cannot participate in the local municipal elections; therefore, they have no such voice. One possible remedy is to provide the Commission with limited jurisdiction over municipal water rates charged to outside-city customers when a surcharge is assessed, even if the municipality has opted out of the Commission’s jurisdiction. Alternatively, municipalities could be allowed to assess a surcharge within a statutorily specified level (i.e., a “safe harbor” provision) and not be subject to Commission oversight.

Regulatory Development

Small Utilities

Small water/wastewater utilities are prevalent in Indiana. Because of their size, they often lack the expertise to manage and operate effectively. In some instances, the Commission classifies water/wastewater utilities as “troubled.” These are typically small utilities (fewer than 300 customers) that were constructed by a developer as part of a housing development.¹⁹

To determine whether a utility is troubled, the Commission may examine several key factors including: technical, financial, and managerial capacity; the physical condition and capacity of the plant; the utility’s compliance with state and federal law and/or the Commission’s orders; and provision of service to customers.²⁰ If the utility has continued violations, even after the Commission orders it to remedy the deficiencies, the Commission can order the acquisition of the utility by a new owner, or appoint a receiver to operate the utility and work to find a new

Assistance for Small Utilities



The Commission is taking proactive steps to improve the management and operations of small utilities in the water industry, including developing a small utility accounting manual to assist utilities with improving their financial books and records.

¹⁹The Commission can only monitor utilities under its jurisdiction. Once withdrawal occurs, the Commission is no longer able to proactively monitor the progress and development of those systems that are historically most likely to become troubled.

²⁰See, IC § 8-1-30-3

owner.²¹ On a practical basis, neither is an ideal option.

The Commission's primary goal, however, is to prevent utilities from becoming troubled in the first place. One way is to ensure utilities can provide reliable service prior to serving the customers. Both the Commission and the IDEM have rules regarding the operational abilities of water and wastewater utilities.

A second way is for the Commission to try to improve the management and operations of small utilities. Several years ago IURC staff designed and implemented a Small Utility Workshop. This workshop offers hands-on training to municipal and not-for-profit utilities. Workshop participants are provided training on how to complete the Commission's annual report and Small Utility Rate Application (an application that provides a utility the opportunity to request a rate increase without going through the Commission's full formal filing process.) The workshop also provides accounting and asset management training, as well as an opportunity for the utilities to discuss other issues with staff.

To assist utilities with their financial books and records, staff is also developing a small utility accounting manual. Financial record keepers for small utilities often have no accounting or financial background. In small municipalities, this responsibility falls on the elected Clerk-Treasurer, a position for which there is no financial education or experience requirement. Accurate and timely financial records are necessary to provide utility managers with the ability to make informed decisions, provide data to develop accurate rate structures, and lower fees charged by utility consultants.

In an effort to assist the small systems with their rate application filings, the small utility rate application forms are being revised for all types of utilities. The new application is more automated and is tied to a utility's annual report.

Modernization and Efficiency

While frequently a topic in the arid Southwest, and even recently in the Southeast, water supply issues have seldom been of concern to the relatively water-rich Midwest. The water

²¹See, IC § 8-1-30-5

supply in Indiana has generally been plentiful, but over the past few years, water rights and access issues have arisen. In fact, Indiana has not always been able to economically access the amount of water needed and has found that even areas that typically have plenty of water go through periods of drought.

Water Efficiency

Water efficiency programs are being developed by individual utilities and at state and national levels in an effort to manage customer usage. For example, in March 2011, the Commission approved a rate increase for the city of Bloomington, which included funds to hire a water conservation coordinator who will prioritize the measures and programs identified in the Conservation Plan and develop an educational outreach effort to explain and promote Bloomington's conservation program.

At the state level, the Indiana Department of Natural Resources has developed water conservation and efficiency goals and objectives, as required by the Great Lakes Compact.²² At the national level, the U.S. EPA has developed the WaterSense[®] program that labels products, services, and practices as water efficient. This program is similar to the Energy Star program, which identifies energy efficient appliances. The water efficiency issues state and national programs are trying to address are as follows:

Summer watering costs utilities millions of dollars as they are required to meet peak demand by finding or building additional water supply and expanding water treatment plant capacity.

- Lack of Rain and High Temperatures -

One issue related to water efficiency planning is summer watering and the shortages that it may cause. The lack of rain and high temperatures causes increased summer watering, which can strain a water system. Summer watering costs utilities millions of dollars as they are required to meet peak demand by finding or building additional water supply and expanding water treatment plant capacity.

²²P.L. 90-419 (90th Congress, S 660) The Great Lakes Compact includes rules and regulations to protect the Great Lakes and the tributary waters of several states and Canadian provinces. Economic development will be balanced with sustainable water use to ensure Great Lakes waters are managed responsibly.

- Low Water Pressure -

In severe cases of drought, water shortages can lead to low water pressure, which adversely affects fire protection and increases the potential for water contamination. Municipal utilities have recently taken action to control water usage during periods of low supply. While some municipalities have passed ordinances that levy fines on customers when they irrigate on restricted days, there are other utility initiatives, mainly outside of Indiana, that modify rate structures such that consumers are provided price signals to conserve water and reduce consumption.

- Unaccounted-for-Water -

Utilities can reduce the need to develop new sources of supply by reducing the amount of water loss in their system. Some water loss, however, is necessary (e.g., main flushings, maintenance of the treatment plant, and fire suppression). The IDEM considers a system deficient if it has greater than 25% water loss based on a one-year average.²³

Energy and Water/Wastewater

Water efficiency not only protects the supply of an important natural resource, it also conserves energy. Energy efficiency campaigns usually include information on how to save water and provide energy efficiency kits containing water-saving devices such as low-flow shower heads. According to the U.S. EPA, energy costs for water and wastewater utilities can be a third of a municipality's total energy bill.

The federal government and universities are developing programs to educate water and wastewater utilities on ways to conserve and improve upon their existing energy consumption. In January 2008, the U.S. EPA published the “Energy Management Guidebook for Water and Wastewater Utilities,” a step-by-step method based on a Plan-Do-Check-Act management system approach. This guidebook aids utilities in identifying, implementing,

Energy Savings



Water efficiency not only reduces the amount of water consumed, it also saves energy. According to the U.S. EPA, if drinking water and wastewater systems reduce energy use by just 10% through cost-effective investments, collectively they could save approximately \$400 million and 5 billion kWh annually.

²³ See, 327 IAC 8-2-8.2(3)(d)

measuring, and improving energy efficiency and renewable opportunities. Purdue University created the Energy Efficiency & Sustainability program, which is a best practices awareness, training, and implementation assistance program funded through a fee for service work, the U.S. Department of Energy, and the U.S. EPA. In 2010, Purdue's Program helped several water and wastewater utilities in Indiana, including the City of Bloomington, a Commission-regulated system.

III. WATER/WASTEWATER APPENDICES

Appendix A – Jurisdictional Water Utility Revenues

Rank	Utility Name	Operating Revenues*	% of Total Revenues
1	Indiana-American Water Company, Inc.	\$ 157,062,917	31.83%
2	Indianapolis Water	125,598,009	25.46%
3	Fort Wayne Municipal Water Utility	31,077,401	6.30%
4	Evansville Municipal Water Works Dept.	16,112,509	3.27%
5	South Bend Municipal Water	14,110,591	2.86%
6	Bloomington Municipal Water	10,128,801	2.05%
7	Hammond Municipal Water Works	8,317,725	1.69%
8	Mishawaka Municipal Utilities	7,943,459	1.61%
9	Anderson Municipal Water Works	7,491,432	1.52%
10	Elkhart Municipal Water Works	7,387,742	1.50%
11	Lafayette Municipal Water Works	7,328,644	1.49%
12	Michigan City Municipal Water Works	6,520,905	1.32%
13	Utility Center, Inc.	5,771,129	1.17%
14	East Chicago Municipal Water Dept.	5,488,139	1.11%
16	Marion Municipal Water Works	4,487,194	0.91%
17	Columbus Municipal Water Utility	4,469,422	0.91%
18	Stucker Fork Conservancy District	3,174,625	0.64%
19	Ramsey Water Company, Inc.	2,979,918	0.60%
20	Brown County Water Utility, Inc.	2,855,134	0.58%
21	Jackson County Water Utility, Inc.	2,770,726	0.56%
22	Chandler Municipal Water Works	2,679,074	0.54%
23	New Castle Municipal Water Works	2,355,894	0.48%
24	Auburn Municipal Water Utility	2,092,330	0.42%
25	Silver Creek Water Corporation	2,074,126	0.42%
26	Eastern Heights Utilities, Inc.	2,040,428	0.41%
27	North Lawrence Water Authority	1,940,786	0.39%
28	Edwardsville Water Corporation	1,875,460	0.38%
29	Morgan County Rural Water Corporation	1,794,710	0.36%
30	Mishawaka-Clay Municipal Utilities	1,617,775	0.33%
31	Eastern Bartholomew Water Corporation	1,606,840	0.33%
32	Martinsville Municipal Water Utility	1,547,067	0.31%
33	German Township Water District, Inc.	1,524,295	0.31%
34	Princeton Municipal Water	1,461,213	0.30%

35	Boonville Municipal Water Works	1,441,460	0.29%
36	Columbia City Municipal Water Utility	1,387,786	0.28%
37	Peru Municipal Water Dept.	1,328,595	0.27%
38	East Lawrence Water Authority	1,326,664	0.27%
39	South Harrison Water Corporation	1,290,311	0.26%
40	Pike-Gibson Water, Inc.	1,288,617	0.26%
41	Ellettsville Municipal Water Utility	1,282,081	0.26%
42	Southwestern Bartholomew Water Corporation	1,255,738	0.25%
43	South Lawrence Utilities, Inc.	1,249,368	0.25%
44	Watson Rural Water Co., Inc.	1,214,066	0.25%
45	Corydon Municipal Water Works	1,018,021	0.21%
46	Gibson Water, Inc.	982,707	0.20%
47	Tri-Township Water Corporation	978,969	0.20%
48	Twin Lakes Utilities, Inc.	924,670	0.19%
49	Charlestown Municipal Water Dept.	874,787	0.18%
50	Southern Monroe Water Corporation	845,997	0.17%
51	Aurora Municipal Water Utility	795,862	0.16%
52	Floyds Knobs Water Company, Inc.	764,501	0.15%
53	North Dearborn Water Corporation	719,236	0.15%
54	Marysville Otisco Nabb Water Corporation	687,527	0.14%
55	Reelsville Water Authority	599,315	0.12%
56	Van Buren Water, Inc.	577,726	0.12%
57	Sullivan-Vigo Rural Water Corp.	570,805	0.12%
58	LMS Townships Conservancy District	569,287	0.12%
59	Fortville Municipal Water Works	544,182	0.11%
60	Washington Township Water Corporation of Monroe County	513,609	0.10%
61	Petersburg Municipal Water Works	510,840	0.10%
62	B & B Water Project, Inc.	477,930	0.10%
63	Posey Township Water Corporation	430,863	0.09%
64	Clinton Township Water Company	428,720	0.09%
65	Cataract Lake Water Corporation	425,387	0.09%
66	Indiana Water Service, Inc.	420,746	0.09%
67	Riverside Water Company, Inc.	366,021	0.07%
68	Tri-County Conservancy District	340,994	0.07%
69	Knightstown Municipal Water Utility	331,283	0.07%
70	Eaton Municipal Water Utility	307,991	0.06%
71	St. Anthony Water Utilities, Inc.	292,528	0.06%
72	Everton Water Corporation	282,366	0.06%
73	Town of Cedar Lake Utilities	260,025	0.05%
74	Ogden Dunes Municipal Water	257,124	0.05%
75	Kingsford Heights Municipal Water Utility	246,663	0.05%

76	Painted Hills Utilities Corporation	227,008	0.05%
77	Consumers Indiana Water Company	216,816	0.04%
78	Pioneer Water, LLC	214,478	0.04%
79	Darlington Waterworks Company	203,501	0.04%
80	Mapleturn Utilities, Inc.	190,574	0.04%
81	Troy Municipal Water	182,510	0.04%
82	South 43 Water Association, Inc.	169,941	0.03%
83	Kingsbury Utility Corporation	126,194	0.03%
84	Oak Park Conservancy District	118,601	0.02%
85	Rhorer Harrel & Schacht Roads Water Corp	80,663	0.02%
86	Water Service Company of Indiana, Inc.	76,405	0.02%
87	Wedgewood Park Water Co., Inc.	63,878	0.01%
88	Apple Valley Utilities, Inc.	62,773	0.01%
89	Pleasantview Utilities, Inc.	53,832	0.01%
90	American Suburban Utilities, Inc.	37,738	0.01%
91	J.B. Waterworks, Inc.	30,919	0.01%
92	Wastewater One d/b/a River's Edge Utility, Inc.	17,108	<0.01%
93	Wells Homeowners Association, Inc.	13,950	<0.01%
94	Shady Side Drive Water Corporation	8,689	<0.01%
95	Bluffs Basin Utility Company, LLC	7,467	<0.01%
96	Hessen Utilities, Inc.	7,350	<0.01%
97	Pence Water Works	6,720	<0.01%
98	Country Acres Property Owners Association	6,432	<0.01%
	Total Revenue	\$493,381,785	100.00%

*Year ending December 31, 2010

Appendix B – Jurisdictional Wastewater Utility Revenues

Rank	Utility Name	Operating Revenues	% of Total Revenues
1	Hamilton Southeastern Utilities, Inc.	\$ 8,974,966	30.90%
2	Utility Center, Inc.	7,140,120	24.58%
3	Aqua Indiana South Haven	3,474,218	11.96%
4	American Suburban Utilities, Inc.	2,531,894	8.72%
5	Twin Lakes Utilities, Inc.	1,530,415	5.27%
6	Eastern Richland Sewer Corporation	970,610	3.34%
7	L.M.H. Utilities Corporation	753,211	2.59%
8	Wymberley Sanitary Works, Inc.	509,463	1.75%
9	Driftwood Utilities, Inc.	492,268	1.69%
10	Indiana-American Water Company, Inc.	346,512	1.19%
11	Kingsbury Utility Corporation	301,905	1.04%
12	Mapletown Utilities, Inc.	284,841	0.98%
13	Consumers Indiana Water Company	284,823	0.98%
14	Apple Valley Utilities, Inc.	212,155	0.73%
15	Doe Creek Sewer Utility, Inc.	206,694	0.71%
16	Eastern Hendricks County Utility, Inc.	131,204	0.45%
17	Northern Richland Sewer Corporation	128,033	0.44%
18	Water Service Company of Indiana, Inc.	112,070	0.39%
19	Howard County Utilities, Inc.	87,984	0.30%
20	Wildwood Shores Utility Corp., Inc.	86,120	0.30%
21	Old State Utility Corporation	72,074	0.25%
22	Centurian Corporation	64,183	0.22%
23	Galena Wastewater Treatment Plant	63,253	0.22%
24	Southeastern Utilities, Inc.	63,232	0.22%
25	Pleasantview Utilities, Inc.	50,095	0.17%
26	Heir Industries, Inc.	47,101	0.16%
27	East Shore Corp.	29,400	0.10%
28	Hillview Estates Subdivision, Inc.	23,438	0.08%
29	JLB Development, Inc.	15,334	0.05%
30	Wastewater One d/b/a River's Edge Utility, Inc.	12,563	0.04%
31	Brushy Hollow Utilities, Inc.	11,298	0.04%
32	Bluffs Basin Utility Company, LLC	11,098	0.04%
33	Anderson Lakes Estates Homeowners Assoc.	7,623	0.03%
34	Country Acres Property Owners Assoc.	7,108	0.02%
35	Harbortown Sanitary Sewage Corporation	5,400	0.02%
36	Hessen Utilities, Inc.	4,900	0.02%
37	Webster Development, LLC	1,314	<0.01%
38	Sanitrol, Inc.	Not Operational	0.00%
	Total Revenue	\$ 29,048,920	100.00%

*Year ending December 31, 2010

Appendix C – Withdrawn Water Utilities

Utility Name	
Albion	Camden
Alexandria	Campbellsburg
Alfordsville	Canaan Water Utility
Ambia	Cannelton
Andrews	Carbon
And-Tro, Inc.	Carlisle
Angola	Carmel
Arcadia	Carthage
Argos	Cayuga
Ashley	Center Point
Atlanta	Centerville
Attica	Chalmers
Avilla	Chesterfield
Bainbridge	Chesterton
Bargersville	Chrisney
Batesville	Churubusco
Bean Blossom - Patricksburg Water Corp.	Cicero
Bedford	Clarks Hill
Berne	Clay City
Bethany	Claypool
Beverly Shores	Clinton
Bicknell	Cloverdale
Big Walnut Company, Inc.	Colfax
Birdseye	Connersville
Bloomington	Converse
Bluffton	Covington
Boswell	Crane
Bourbon	Crawford County Water Company
Brazil	Cromwell
Bremen	Crothersville
Bristol	Crown Point
Brook	Culver
Brooklyn	Cynthiana
Brookston	Dale
Brookville	Daleville
Brownsburg	Dana
Bruceville	Danville
Bunker Hill	Daviess County Rural Water System, Inc.
Burns City	Dayton
Burnt Pines Water Association	Decatur
Butler	Decatur County Rural Water Corporation
Cambridge City	Decker

Delphi	Garrett
Dillsboro	Gas City
Dublin	Gaston
Dubois Water Utilities, Inc.	Gem Water, Inc.
Duff Water Corporation	Geneva
Dugger	Gentryville
Dune Acres	Georgetown
Dunkirk	Georgetown, IL
Dupont Water Company, Inc.	Glenwood
Dyer	Goodland
Earl Park	Goshen
East Fork Water, Inc.	Gosport
East Monroe Water Corporation	Grabill
East Washington Rural Water Corporation	Grandview
Edgewood	Grantsburg Rural Water, Inc.
Edinburgh	Greencastle
Edwardsport	Greendale
Elberfeld	Greenfield
Elizabeth	Greensburg
Ellis Water Company	Greentown
Elnora	Greenville
Elrod Water Company, Inc.	Griffith
Elwood	Hagerstown
English	Hamilton
Etna Green	Hamlet
Fairmount	Hanover
Fairview Park	Hartford City
Farmersburg	Haubstadt
Farmland	Hayden Water Association, Inc.
Fayette Township	Haysville Water Utilities, Inc.
Fayette Township Water Association, Inc.	Hazleton
Ferdinand	Hebron
Fillmore	Highland
Finch Newton Water, Inc.	Hill Water Corp.
Flora	Hillsboro
Fort Branch	Hogan Water Corp.
Fountain City	Holland
Fowler	Holton Community Water Corp.
Francesville	Hope
Francisco	Hudson
Frankfort	Huntertown
Franklin County Water Association, Inc.	Huntingburg
Frankton	Huntington
Freelandville Water Association	Hymera
Fremont	Ingalls
Galveston	Ireland Utilities, Inc.

Jamestown	Middletown
Jasonville	Milan
Jasper	Milford
Jennings Water, Inc.	Millersburg
Jonesboro	Milltown
Kendallville	Milton
Kent Water Company, Inc.	Mitchell
Kentland	Monon
Kewanna	Monroe
Kingman	Monroe City
Kirclin	Monroeville
Knightsville	Montezuma
Knox	Montgomery
Knox County Water, Inc.	Monticello
Kouts	Montpelier
LaCrosse	Morgantown
Ladoga	Morocco
LaFontaine	Morristown
LaGrange	Mount Summit
Lagro	Mount Vernon
Lake Station	Mulberry
Lakeville	Munster
Lanesville	Napoleon Community Water
Lapel	Nappanee
LaPorte	Nashville
Laurel	New Carlisle
Lawrence	New Chicago
Lawrenceburg	New Harmony
Leavenworth	New Haven
Lebanon	New Market
Lewisville	New Pekin
Liberty	New Richmond
Ligonier	New Whiteland
Linden	Newberry
Linton	Newport
Logansport	North Brown Water
Long Beach	North Judson
Loogootee	North Liberty
Lowell	Pierceton
Lyford Waterworks, Inc.	Pittsboro
Lynn	Plainfield
Lynnville	Pleasantville Water Co.
Lyons	Plymouth
Mentone	Portland
Merom	Poseyville
Middlebury	Prince's Lake

Redkey	Tell City
Reelsville Water Authority	Tennyson
Remington	Thorntown
Rensselaer	Tipton
REO Water Corp.	Topeka
Reynolds	Trafalgar
Ridgeville	Troy
Riley	Troy Township Water Association, Inc.
Rising Sun	Union City
Roachdale	Universal
Roann	Upland
Roanoke	Valparaiso
Rochester	Van Buren
Rockport	Veedersburg
Rockville	Vernon
Rosedale	Versailles
Rossville	Vevay
Royal Center	Vincennes
Rural Membership Water Corporation	Wakarusa
Rushville	Walkerton
Russellville	Walton
Russiaville	Wanatah
Rykers Ridge Water Co.	Warren
Salem	Washington
Sandborn	Washington Township Water Corp.
Santa Claus	Waterloo
Santa La Hill, Inc.	Waveland
Schneider	Waynetown
Scottsburg	West College Corner
Seelyville	West Lebanon
Sellersburg	West Terre Haute
Sharpsville	Westfield
Shelburn	Westport
Sheridan	Westville
Shipshewana	Westwood Water Co., Inc.
Shirley	Wheatland
Shoals	Whiteland
Silver Lake	Whitestown
Slygo Water Corp.	Whiting
South Whitley	Wilfred Water Corporation
Southern Madison Utilities, LLC	Williamsport
Speedway	Winamac
Sunman	Windfall
Swayzee	Wingate
Switz City	Winslow
Syracuse	Wolcott

Wolcottville	
Woodburn	
Yankeetown Water Authority	
Yorktown	

Appendix D – Withdrawn Wastewater Utilities

Utility Name	
Canyonlands Homeowners, Inc.	M.E.K.A. Inc.
C & M Utility Inc. (Water and Sewer)	Mt. Pleasant Utilities, LLC
Deerwood Environmental, Inc.	Salt Creek Services, Inc. (Water and Sewer)
Evanston Utility, Inc.	Shady Hills Utility Company (Water and Sewer)
Forest Ridge Utilities, Inc.	Shorewood Forest Utilities, Inc.
Gem Utilities, Inc.	St. Meinrad Utilities
Golfview Partners, LLC	Tamerix Lake Wastewater Treatment Plant
Grandview Lot Owners Association, Inc.	Thieneman Environmental, LLC
Hardin Monroe, Inc.	Thrall's Station, Inc.
Harrison Lake Town Meeting, Inc.	Valley Rural Water and Sewer Utility
Henryville Membership Sanitation	West Boggs Sewer District, Inc.
Lakeview Estates of Wabash County, Inc.	Western Hancock Utilities, LLC

2011 Communications Report

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I. COMMUNICATIONS OVERVIEW

Industry Structure

The past five years have experienced as much change in the telecommunications industry as at any time since the breakup of AT&T in 1984, and Indiana has been at the forefront of those changes. Our state witnessed competitive forces set in motion on the national level with the passage of the Telecommunications Act of 1996, which focused squarely on establishing a framework for competition.

Commission involvement remains necessary in areas where competition alone may not provide solutions.

This trend was accelerated at the state level in 2006, with the passage of industry deregulation (House Enrolled Act 1279).¹ House Enrolled Act 1279 (HEA 1279) embraced a “light regulatory touch,” as well as competition not only in telecommunications but also in the delivery of video services. Finally, the past five years have seen dramatic changes in the delivery of communications technology. Broadband, heretofore delivered primarily by wireline companies and cable providers, has grown dramatically with the build out of 3G and 4G mobile wireless service and with the introduction of so-called “smartphones.”

There are currently 648 communications service providers (CSPs) that hold a Certificate of Territorial Authority (CTA) to provide telecommunications, information, or video services in

Indiana. In 2010, the intrastate revenues for telecommunications services provided by Indiana’s CSPs totaled \$2.78 billion,² which is approximately 24% of the total intrastate revenues for all Indiana public utilities.



Indiana Utility Regulatory Commission (Commission or

¹P.L. 27-2006
²2011 Annual IURC Fee Billing Report

IURC) involvement remains necessary in areas of the communications industry where competition alone may not provide solutions. For example, the Commission resolves carrier-to-carrier disputes, manages policies regarding telephone numbering resources (pursuant to federal law), and works to implement streamlined certification processes to facilitate competition by reducing barriers to entry. The Commission also protects consumers from unauthorized changes to their service, ensures that all areas of the state continue to have a provider of last resort for local exchange telecommunications service, and ensures continued access to basic telecommunications services in high-cost areas of the state.³ The Communications Division also participates in federal proceedings and serves as a resource on communications complaints that are filed with the Commission's Consumer Affairs Division.

As a result of HEA 1279 and market forces, the communications industry in Indiana continues to transition away from the historical model of a regulated market where monopoly or near-monopoly carriers provided single communications services to customers with little or no choice of provider. In today's market, CSPs offer multiple services, utilizing different technologies in order to compete with companies that were once in separate and distinct industries.

For example, many telephone companies now provide video service, cable companies provide telephone service, and both provide high-speed Internet service. Widespread rollout and adoption of "triple play" (telephone service, Internet service, and video service) or even "quadruple play" (triple play, plus mobile wireless service) have also resulted in multiple providers offering packages and bundles of services to consumers, leading to increased competition and customer choice. Many companies also offer the bundles or packages at a discount over stand-alone pricing. In areas of the state where "triple play" is not available, consumers are demanding to know why. More consumers are also pressing companies to roll out access to high-speed Internet and video service in areas where it is not yet available.

The reason why these areas may lack one or more services is because there is an absence of a traditional business case for offering these additional services due to higher costs to deploy in areas with a low population density. However, CSPs with the ability to diversify and provide

³See, IC § 8-1-2.6-0.1

“one-stop shop” packaging have continued to prosper in the current economy. The bundling of services is further discussed on page 126.

Legal and Policy Foundations

Indiana law requires all CSPs that offer service to Indiana customers to obtain a CTA without regard to the medium or technology used to provide the services.⁴ This includes providers of telecommunications and information services.⁵ It also explicitly includes providers of video,

The Communications Division has eliminated or streamlined many regulations and procedures since the phase-in of telecommunications regulatory reform that began in 2006. However, it has retained jurisdiction over other areas.

broadband, advanced services, and Internet Protocol-enabled services, however classified by the FCC.⁶ In order to implement this new section of the statute, the IURC modified its policies to require that all CSPs be similarly certified by the Commission, thereby allowing competitors to receive similar “light regulatory” treatment. The

Commission also developed a streamlined “Notice of Change” process to be used by CSPs that already hold a CTA, to notify the Commission when there are circumstances that would require a change in the terms of the certificate.

Pursuant to Indiana law, the Communications Division has eliminated or streamlined many regulations and procedures since the phase-in of telecommunications regulatory reform that began in 2006. IURC authority has changed and evolved, but has not been eliminated.

The rules and policies currently in place ensure that the Commission can fulfill its responsibilities outlined in state statute. These include:

- Enforcing rules to prevent unauthorized switching of telecommunications providers or unauthorized charges added to customers bills (i.e., slamming or cramming);⁷

⁴IC § 8-1-32.5-4 Public utilities that received a certificate of territorial authority (CTA) or a certificate of convenience and necessity (CPCN) from the Commission prior to July 1, 2009, were grandfathered and did not need to obtain a new certificate. See, IC § 8-1-32.5-6(c).

⁵IC § 8-1-32.5-3(a).

⁶IC § 8-1-32.5-3(b).

⁷IC § 8-1-2.6-13(d)(4)

- Performing duties concerning the provision of dual-party relay services to speech and hearing impaired persons in Indiana;⁸
- Performing duties concerning the administration of 211, a hotline for consumers to obtain information about health and human services;⁹
- Fulfilling the obligations under the Telecommunications Act of 1996 (TA-96) concerning universal service and access to telecommunications services and equipment, including designation of eligible telecommunications carriers;¹⁰
- Fulfilling the obligations under Section 706 of the Telecommunications Act of 1996 (TA-96) requires the FCC and each state commission to encourage the reasonable and timely deployment of advanced telecommunications capability to all Americans.
 - **“The Commission and each State Commission with regulatory jurisdiction over telecommunications services shall encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans . . . by utilizing, in a manner consistent with the public interest, convenience, and necessity, price cap regulation, regulatory forbearance, measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment.” – 47 U.S.C. § 706**
- Mediating the disconnection of one carrier by another carrier to protect end-user customers from losing their service with no advance notice, pursuant to Section 251 of the TA-96;¹¹

Customer Refunds



In 2010, the IURC's Consumer Affairs Division was responsible for refunding \$18,186.71 in illegal slamming and cramming charges on consumers' bills.

⁸IC § 8-1-2.6-13(d)(2)

⁹IC § 8-12.6-13(d)(3)

¹⁰IC § 8-1-2.6-13(d)(5)

¹¹IC § 8-1-2.6-1.5(a)

- Arbitrating and resolving interconnection disputes between telecommunications carriers, pursuant to Section 252 of TA-96;¹²
- Implementing the authority granted by state or federal law, such as numbering administration, area code relief, and federal truth-in-billing requirements for common carriers;¹³
- Implementing the Indiana Lifeline Assistance Program, which makes basic telephone service more affordable for low-income customers;¹⁴
- Overseeing the Indiana Universal Service Fund, which provides cost recovery so that companies in high-cost areas¹⁵ may continue to offer services at rates that are “just, reasonable, and affordable.”
 - **“Consumers in all regions of the Nation, including . . . those in rural, insular, and high cost areas, should have access to telecommunications and information services . . . that are reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas.” – Section 254(b)(3) of TA-96**
- Issuing Certificates of Territorial Authority (CTAs), which are licenses required to operate in specific Indiana communities, to all communications service providers;¹⁶
- Issuing Certificates of Franchise Authority (CFAs), which are licenses required to operate in specific Indiana communities, to video service providers;¹⁷
- Enforcing video service standards, as the designated franchise authority, regarding statutory reporting requirements; public, educational, and governmental (PEG)

¹²IC § 8-1-2.6-1.5(b)

¹³IC § 8-1-2.6-13(f)

¹⁴IC ch. 8-1-36

¹⁵High-cost service areas are designated by the federal government due to the high fixed costs of building and maintaining a telecom network in rural areas with low population densities or rugged terrain; 47 U.S.C. 254(b)(3) requires the availability of comparable service at a comparable price.

¹⁶IC ch. 8-1-32.5

¹⁷IC § 8-1-34-16(a)

channels; and customer service standards for video service providers, pursuant to FCC rules in 47 C.F.R. 76.309;¹⁸

- Participating in federal matters concerning Indiana (e.g., intercarrier compensation); and
- Reporting requirements to the General Assembly.¹⁹

IURC Rulemakings

State statute directed the Commission to eliminate rules and policies applicable to telecommunications service providers if the rules or policies were no longer necessary, in the public interest, or for the protection of consumers, as the result of full and fair facilities-based competition among providers of telecommunications services.²⁰ Therefore, on July 1st of each odd-numbered year, the Commission is required to identify all telecommunications rules and policies it has reviewed and those it has eliminated during the two most recent fiscal years.

The IURC significantly streamlined and reduced Article 7 of the IAC in order to be consistent with regulatory reform measures passed by the Indiana General Assembly. Approximately half of the former rules were eliminated.

The IURC's regulations and procedures for telecommunications carriers are detailed at 170

Indiana Administrative Code (IAC) 7. The IURC began the administrative process in 2009, which significantly streamlined and reduced Article 7 of the IAC in order to be consistent with regulatory reform measures passed by the Indiana General Assembly. Approximately half of the former rules were eliminated, ending retail rate regulation, regulated customer service standards, and service quality measurement for telecommunications carriers. The new streamlined rules became effective in December of 2010.

Federal Universal Service

The IURC is required to "fulfill its obligations under TA-96 and IC ch. 20-20-16 concerning universal service and access to telecommunications service and equipment including the

¹⁸General Administrative Order 2007-2

¹⁹IC § 8-1-2.6-4(c)

²⁰IC § 8-1-2.6-4(c)(3)

designation of eligible telecommunications carriers.”²¹ One such obligation is to evaluate telecommunications carriers’ petitions for designation as eligible telecommunication carriers (ETCs). ETC designation permits a carrier to receive support from the Federal Universal Service Fund, which supports telecommunications companies that provide service in high-cost areas and offers assistance to low-income consumers, schools, libraries and rural health care providers.

Indiana Universal Service Fund

The Commission also oversees the Indiana Universal Service Fund (IUSF). Due to changes in the Federal Universal Service Program that could have had a potentially detrimental impact on Indiana’s rural companies, the IURC implemented a state universal service fund for Indiana in

Indiana is one of 16 states with a state universal service fund. The purpose of the IUSF is to provide cost recovery so that companies in high-cost areas may continue to offer services at rates that are “just, reasonable, and affordable.”

2007. Indiana is one of 16 states with a state fund.²²

The purpose of the IUSF is to provide cost recovery so that companies in high-cost areas may continue to offer services at rates that are “just, reasonable, and affordable.”²³ Without universal service support, residents in some rural areas of the state would pay significantly more for telephone

services than those living in other areas, which could result in a reduction in telephone penetration in the high-cost rural areas and violate federal law.²⁴ Without this support, telecommunications companies that serve these areas could decide they cannot afford to modernize their networks or provide services of the same quality as is available in urban areas. Each year, more than \$11 million is collected through a charge on customers’ phone bills. These funds are then redistributed to eligible rural phone companies. Absent this subsidy, companies that serve these areas would struggle to earn a reasonable profit and therefore lack an adequate incentive to continue operation.

²¹See, IC § 8-1-2.6-13(d)(5)

²²Making the High Cost Decision: How to Assess your State’s Needs, National Regulatory Research Institute, 2010.

²³High-cost service areas are designated by the federal government due to the high fixed costs of building and maintaining a telecom network in rural areas with low population densities or rugged terrain; 47 USC 254(b)(3) requires the availability of comparable service at a comparable price to that charged in urban areas.

²⁴Ibid.

Federal Policies

As Indiana’s communications industry continues its evolution toward a competitive market, the continued monitoring of federal communications issues is essential to identify and, when appropriate, act upon the many federal policy matters that have the potential to affect Indiana’s economy. In fact, the FCC’s development of the National Broadband Plan (NBP) and its potentially far-reaching impacts provided a catalyst for the development of a specific process at the Commission, called the federal communications issues process. This process provides for monitoring, review, analysis and recommendation by Commission staff regarding issues under consideration at the federal level. The NBP, as it is implemented through rulemakings and Orders, demands close attention to ensure that the interests and concerns of the state of Indiana are addressed through filings made by the IURC. The Commission’s role and comments on this matter are further detailed in the “Service for All” section of the report.

Expertise in federal communications issues is essential to identify and, when appropriate, act upon the many federal policy matters that have the potential to affect Indiana’s economy.

Many other important issues over which the IURC has state-level authority are also under review at the FCC. The modification of requirements for ETC designations at the federal level and eligibility for the receipt of funds from the Federal Universal Service Fund could affect the designation of Indiana companies as ETCs by the IURC and the level of funds those companies receive from the Indiana Universal Service Fund. Further, changes to federal numbering policies regarding number portability, number conservation, and 911 safety issues could also directly affect Indiana customers. Additionally, changes in the Federal Cable Act and other federal video policies could affect the IURC’s ability to carry out its authority to enforce video customer service standards.

II. COMMUNICATIONS LANDSCAPE

Service for All

The IURC is charged with analyzing the effects of competition and technological change on universal service and the pricing of all telecommunications services offered in Indiana.²⁵ The number and percentage of Indiana households with voice telecommunications service is a fundamental barometer of the universality and affordability of telecommunications services. High telephone subscribership increases the value and functionality of the telecommunications network for everyone by providing a reliable and instant means of communication to employers, schools, government agencies and emergency services. Indiana tends to be below the national average in telephone penetration or “take rates,” according to the FCC’s Universal Service Monitoring Report.²⁶

Lack of broadband in rural areas is an important issue facing the nation today. Affordable broadband can be an important driver of economic development and improve the opportunities of low-income and at-risk populations. In an effort to address it, the FCC is grappling with the complex issues stemming from how to reform its universal service, intercarrier compensation, and broadband policies. The IURC is actively engaged in these issues at the national level.

Lack of broadband in rural areas is an important issue facing the nation today. Affordable broadband can be an important driver of economic development and improve the opportunities of low-income and at-risk populations.

For the past 5 ½ years, Indiana has been fortunate to have one of its members among four commissioners nationally representing the states on the Federal State Joint Board on Universal Service, and to also be represented as State Members’ Chair of the Federal State Joint Conference on Advanced Services, which serves in an advisory capacity to the FCC on broadband and related issues.

As the FCC proceeds with reforming USF and broadband policies, care needs to be taken to not undermine the progress already achieved with broadband deployment in rural areas. It is also

²⁵IC § 8-1-2.6-4(c)

²⁶Universal Service Monitoring Report, Federal Communications Commission, Released December 2010

important to point out that some carriers serving rural areas in Indiana have managed to deploy broadband while others have made business decisions to not offer broadband service in sparsely populated areas of the state. As such, carriers that took the initiative to expand broadband to unserved areas prior to the USF reform should not be penalized.

On March 16, 2010, the FCC released the NBP. The NBP addresses the nation's digital divide between rural and urban areas; low-income and at-risk populations; and the lack of affordable access, connectivity, and features for commercial and anchor institutions. During 2010 and 2011, the FCC issued Notices of Inquiry (NOI) and Notices of Proposed Rulemaking (NPRM) to implement significant portions of the NBP. After the IURC's Communications Division reviewed the NOIs and NPRMs, the Commission filed comments in specific FCC proceedings – some of which are detailed below.

Universal Service Reform

- Universal Service Fund and Intercarrier Compensation NOI (April 21, 2010) -

In its April 2010 NOI and NPRM on Universal Service Reform, the FCC made several proposals that could have an adverse impact on Indiana rural local exchange carriers (RLECs) and mid-size incumbent local exchange carriers (ILECs). The Commission filed comments on July 14, 2010, outlining its concerns with the FCC's proposals. Specifically, the Commission is concerned that while there are many proposals that reflect much needed reform, existing providers in rural areas, their customers, and economic development in those areas could be adversely affected by other proposed changes in federal USF and broadband policy. To view the Commission's comments, please visit: http://www.in.gov/iurc/files/FCC_Comments_071410.pdf (11 pages).

- Detailed Request for Comment; USF/ICC NPRM (February 9, 2011) -

On February 9, 2011, the FCC released a 300-plus page NPRM that proposed dramatic changes in the structure of federal USF and intercarrier compensation mechanisms (USF/ICC NPRM). The FCC proposed to combine multiple USF programs into a single mechanism, known as the Connect American Fund (CAF). Additionally, the FCC is proposing to change the criteria used to qualify for USF support, as well as the expenses supported. Many Indiana rural telephone

companies count on federal USF support to build and operate their networks and could be negatively affected by the changes proposed by the FCC. For calendar year 2009, Indiana RLECs collectively relied on federal USF and access charges for over half of their total operating revenue. Ten Indiana RLECs depend on USF and access charges for over 70% of their operating revenue. In the USF/ICC NPRM, the FCC also proposed significant changes in the rules and the system outlining how carriers exchange traffic and compensate each other for telephone calls originated by one carrier and completed by another. The IURC filed extensive comments cautioning the FCC against drastic premature changes. To view the Commission's comments, please visit: http://www.in.gov/iurc/files/FCC_Comments_071410.pdf (7 pages).

- Building Mobile Wireless in Unserved Areas NPRM (October 10, 2010) -

On October 14, 2010, the FCC released an NPRM that proposed the creation of a dedicated fund from funds previously used to assist providers of high-cost areas to promote the deployment of wireless service and bring all states up to a minimum speed for mobile broadband service. In its filed comments, the Commission applauded the FCC's efforts to improve wireless broadband coverage, but cautioned against doing so at the cost of support for existing wireline broadband in high-cost rural areas provided by rural ILECs. To view the Commission's comments, please visit: [http://www.in.gov/iurc/files/Mobility_Fund_NPRM- Final Comments Filed.pdf](http://www.in.gov/iurc/files/Mobility_Fund_NPRM-_Final_Comments_Filed.pdf) (9 pages).

Lifeline/Link-Up

Lifeline/Link-Up is a federal program designed to increase the rate of telephone subscribership among low-income citizens. It provides two different discounts to those who are eligible: monthly discounts toward the cost of maintaining telephone service (Lifeline) and a one-time discount towards the costs of setting up service (Link-Up). The program reimburses ETCs for discounts provided to low-income households on basic telephone service, and all ETCs are required to offer Lifeline/Link-Up. Eligibility requires either consumers to have a total household income

Where to Find More Information



The IURC's Consumer Affairs Division can assist constituents with the application process. By having consumers call the Consumer Affairs Division at 1-800-851-4268, our analysts can provide callers with an application and instructions on how to apply.

that does not exceed 135% of the Federal Poverty Guidelines or participation in one of the following programs: Medicaid, Food Stamps, Supplemental Security Income (SSI), Federal Public Housing Assistance (Section 8), Low-Income Home Energy Assistance Program (LIHEAP), Temporary Assistance to Needy Families (TANF), or the National School Lunch Programs Free Lunch Program.

Historically, it has been challenging for Indiana, along with many other states, to raise awareness among eligible low-income households of the availability of the Lifeline/Link-Up discount. Indiana's Lifeline subscribership peaked in 2006 at 59,065 households and has been declining since, for a total of 51,015 households in 2009.²⁷ However, two developments could boost participation in the Lifeline/Link-Up program in Indiana and hopefully, the overall telephone subscribership rate: 1) the Indiana Lifeline Assistance Program and 2) entry of prepaid wireless ETCs .

Indiana Lifeline Assistance Program

The Indiana General Assembly created the Indiana Lifeline Assistance Program (ILAP) and charged the IURC with implementing the program.²⁸ The ILAP provides additional emphasis on

More Help for Hoosiers



Once the Indiana Lifeline Assistance Program is implemented, the average monthly Lifeline discount for income-eligible Hoosiers will increase from \$7.54 to \$9.04.

outreach as compared to the federal Lifeline program. The ILAP also expands upon the federal program by increasing the monthly discount available to low-income households. The federal program provides reimbursement for Lifeline customers' federal subscriber line charge (\$5.48 to \$6.39 depending upon the phone company), plus \$1.75. Enacting a state Lifeline program ensures that Indiana will receive an additional federal match of 50% of the state's contribution.

Therefore, the existence of Indiana's program will provide an additional \$1.50 discount, including the federal match.²⁹ Further, the ILAP is designed to reach more low-income residents by expanding the eligibility criteria to households with

²⁷ Universal Service Monitoring Report, Federal Communications Commission, Released December 2010, Table 2.6

²⁸ IC ch. 8-1-36

²⁹ Universal Service Monitoring Report, December 2010, Table 2.3

incomes up to 150% of the Federal Poverty Guidelines as opposed to the 135% used in the federal Lifeline Program.

The IURC approved a Proposed Rule implementing the ILAP program on February 9, 2011. A hearing on the Final Rule was held on May 16, 2011. The Rule is awaiting approval by the State Budget Agency and must be signed by the Governor before it becomes effective.³⁰ The Commission expects this will occur before the end of the year.

- Prepaid Wireless Providers -

In recent years, some prepaid wireless carriers received approval from the FCC to seek designation from states as ETCs for the limited purpose of offering Lifeline benefits. The prepaid wireless carriers use the federal subsidy to provide free minutes each month, and they often provide a free basic wireless phone. Since the service is prepaid and revenue is not at risk of nonpayment, poor credit is not a barrier to obtaining the service.

Many states have approved the designation of prepaid wireless ETCs, finding they may increase the take rate among Lifeline-eligible consumers. Other states, however, have concerns that prepaid wireless carriers cannot properly verify that only one discount is being applied per household per month as required by federal rules. The IURC strives to ensure responsible use of the program (i.e., one monthly Lifeline discount per eligible household). Thus far, the IURC has designated three prepaid wireless Lifeline providers as eligible to receive the federal subsidy with conditions intended to prevent misuse of the program. These providers include: Virgin Mobile (d/b/a Assurance Wireless), Tracfone (d/b/a SafeLink Wireless), and i wireless. Four other petitions are pending.

- Reform of Lifeline NPRM -

The FCC issued an NPRM on March 16, 2011 that contained a set of sweeping proposals to reform and modernize the Lifeline/Link Up Program. Many of the proposed reforms are intended to bolster protections against waste, fraud, and abuse; control the size of the program; strengthen program administration and accountability; improve enrollment and outreach efforts; and support pilot projects that would assist the FCC in assessing strategies to increase broadband adoption,

³⁰ IURC RM#10-01/LSA# 10-478

while not increasing overall program size. Indiana was represented on the Federal-State Joint Board on Universal Service that produced a recommended decision, which shaped the FCC's response to this set of issues.

Also, IC ch. 8-1-36 establishes the ILAP based on the structure of the federal lifeline program. Therefore, any changes made to this program at the federal level could directly affect the pending ILAP Rulemaking at the Commission. To view the Commission's comments, please visit:

[http://www.in.gov/iurc/files/Lifeline and Link Up Reform and Modernization NPRM Comments \(2\).pdf](http://www.in.gov/iurc/files/Lifeline_and_Link_Up_Reform_and_Modernization_NPRM_Comments_(2).pdf) (17 pages).

Pricing and Economics

Basic Local Service

In the 1990s and early 2000s, Indiana took its first steps away from traditional price regulation with the adoption of Price Cap regulation. Over time, the IURC and the carriers negotiated a series of multi-year agreements (dubbed Alt Reg agreements) in which the Commission progressively loosened the regulation on optional services, and in return the carriers committed to expand the areas in which broadband was offered. A few core services, notably basic local service, remained regulated and price-controlled throughout the Price Cap era. In many respects, this mechanism worked reasonably well for the better part of a decade, but by mid-decade had reached a point of diminishing returns.

When HEA 1279 was passed in 2006, it was with the expectation that by largely lifting regulation of the price of services, providers would be able to compete for a larger "share of the wallet," meaning that traditional incumbent carriers would be able to compete for video services revenue, and cable providers would be better able to compete for voice service. In addition, both would continue to compete for broadband customers. With a

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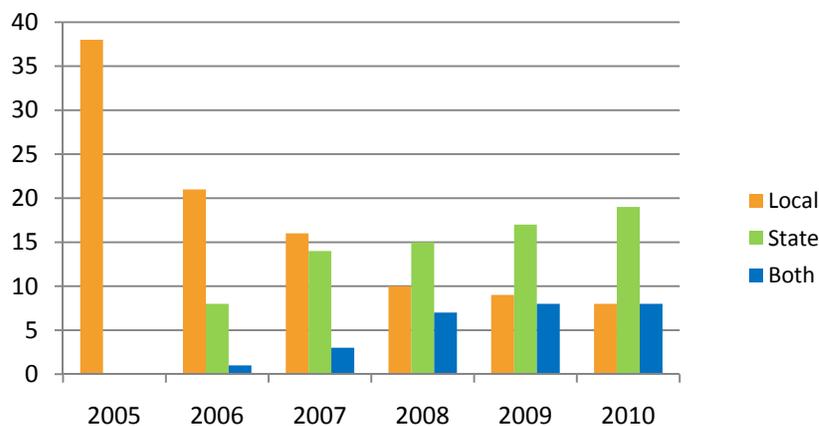
growth in revenue, so the logic went, the providers’ business case could include enhanced investment, further enhancing the scope, extent and adoption of advanced technology.

The sole exception to the deregulatory trend was with basic local service. Concerned that basic local service remain affordable to the vast majority of all Hoosiers, the General Assembly left existing Alt Reg agreements in place for the three largest companies serving Indiana (at the time, AT&T Indiana, Verizon and Sprint/Embarq) and froze basic local service rates. As the Alt Reg agreements expired, providers were allowed to incrementally re-price basic local service over time, provided they also met certain broadband requirements. Over time, the significance of capping or controlling basic local service has diminished significantly, as the vast majority of customers elect service packages that reach well beyond basic local service. Consequently, only a very small number of customers purchase “basic service only” offerings.

Video Service

Increasingly, video service is being offered by providers under state-issued franchises. As of December 31, 2009, 27 of the 35 video service providers (VSPs) serving in Indiana held state-issued video service franchises, while the other eight continued to provide service under local franchises. In the case of incumbent cable providers, a company that chose not to terminate the local franchise agreement with its respective communities in 2006 kept the existing agreements in effect until they expired. Upon expiration, the provider must file for a state franchise.

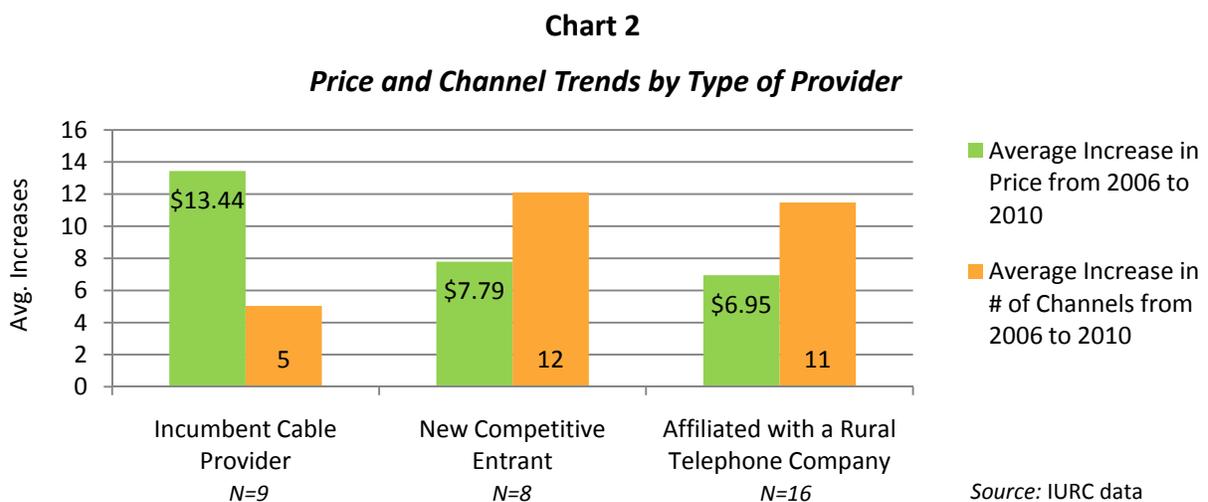
Chart 1
Number of Video Franchises by Year



Source: Communications Surveys

Analysis of the benefits of competition in the video market is complicated by a number of factors. For example, most providers offer multiple video packages, ranging from a “basic” package with a relatively small number of channels to larger packages with more channels. In addition, an increasing number of providers offer optional “on demand” services and programming offered at incremental “a la carte” pricing. National content providers tend to bundle their offerings, requiring providers wanting to offer the most popular channels to take several offerings, often with significantly smaller audiences, for a package price in order to get the most popular channel. All of these factors make it difficult to compare offerings and prices from any given provider over time, let alone compare the offerings of one provider with another.

Over roughly four years, incumbent cable providers, new entrants, and video services affiliated with rural telephone companies all reported increases both in the price of service and in the number of channels offered, as shown in Chart 2. However, new competitive entrants as a group averaged just slightly more than half the four-year increase in price as was reported by incumbent providers. At the same time they were adding twice as many incremental channels on average. In other words, the new entrants provided competition and price discipline, as advocates of statewide franchising had argued would occur.



- Cost of Content -

Many video providers attribute the need to increase prices to the ever-increasing cost of content. This is a concern that the Commission raised in recent comments to the FCC in its Notice of Proposed Rulemaking (NPRM) related to Retransmission Consent. The comments of

the IURC pointed out that, “discrimination in the pricing of content does occur and that it is detrimental not only to the small network providers (cable companies and local exchange companies) involved and to their customers, but also to competition in the video market and the build out of Broadband, particularly in rural, unserved and high cost areas.”³¹ Unless the FCC addresses this issue, it is likely that some smaller providers of video will cease providing video services and video rates of those providers that remain will likely continue to rise.

Bundling of Telecommunications and Video Services

In the past, customers purchased individual services from providers that specialized in providing a specific type of service. However, with competition emerging in the video market and in the voice market, many cable and telephone companies have responded by offering existing and new customers packages and bundles that consist of services from two or more categories (e.g., telephone, Internet, video, and wireless phone).

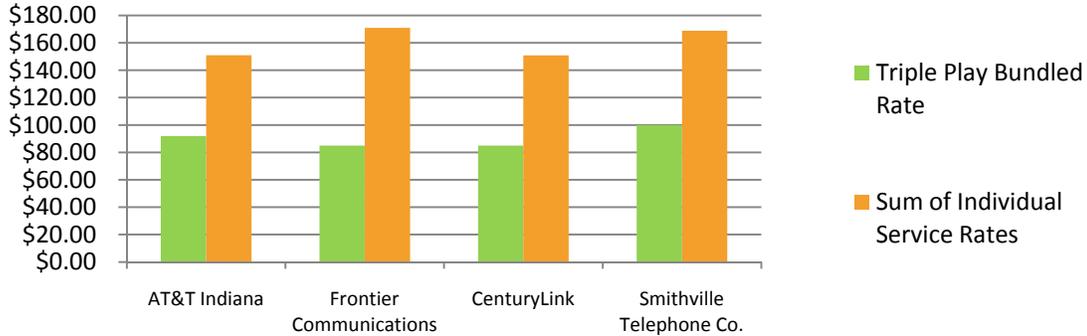
Companies attempt to retain existing customers and attract new customers by offering packages at a significant discount.

The objective is to capture a greater market share in the communications sector. Package prices are typically lower than the sum of the stand-alone prices. Of course, some customers receive more benefits than others, and some customers may perceive a diminished benefit if they purchase a bundle containing services they would not ordinarily purchase in order to obtain services they want. In response to this concern, companies have begun offering “build your own” packages and bundles. The following chart includes prices for select triple-play bundles and compares them with separately priced components of those bundles.

³¹Initial comments of the Indiana Utility Regulatory Indiana Commission, MB Docket No. 10-71(FCC 11-31, Rel. March 3, 2011)

Chart 3

Comparison of Bundled Rates to Sum of Individual Service Rates



Source: Company information

It is important to note that packages and bundles may feature limited-term promotional pricing. Thus, comparisons between package prices and stand-alone prices that are valid today may not be valid comparisons in the future, as existing promotions expire and new promotions are introduced. It should also be pointed out that the significant consolidation in the communications industry over the last few years – particularly in the wireless industry – has reinforced the trend toward obtaining packages and bundles from a single provider. In the future, it will be more difficult for customers to obtain multiple services on a stand-alone basis from multiple providers.

Broadband

A great deal of debate has occurred over where we stand nationally with regard to broadband buildout. Unfortunately, as broadband becomes a central part of American life, and more essential to economic development and viability, this debate becomes more and more an ideological one at the national level. Are we in fact 14th or 15th or 16th, or are we the most or second most successful nation in terms of the number of discrete broadband subscribers served?

Vinton (Vint) Cerf, one of two men widely acknowledged as the true fathers of the Internet, points us to a far more relevant and important focus: “the Internet lives where anyone can access it,” and conversely, where no one can access it, the absence of service has become more and more critical.

In most endeavors, as an enterprise becomes more widespread, it becomes easier to promulgate and less expensive to expand, on the margin, due to economies of scale. Such is not the case with broadband. As its presence becomes more widespread, the absence of broadband necessarily becomes more and more focused on the needs of the least, the last and the lost – that is, those for whom it is least affordable; those who are located at or beyond the furthest reach of current technological limitations; and those who have yet to recognize the value proposition of broadband.

There are essentially three ways to expand the broadband footprint:

1. Broaden the business case to expand the reach of broadband further into those areas that are most costly to serve and for which it did not make sense at an earlier time to build.
2. Expand the mission of an existing enterprise or government entity or create a partnering arrangement with an anchor or lead organization to support the build out of broadband (e.g., the City of Scottsburg used the community’s electric utility as the business platform for development of a successful fixed wireless broadband system).
3. Create a private or partnering entity which underwrites a portion of the expense of buildout, or fund a program through government subsidy.

Broadband Buildout



Information obtained from the Indiana Office of Technology shows the 67 wireline companies for which they have data provide broadband in at least a portion of 61.85% of the census blocks in Indiana, covering just more than 84% of the state’s geography. The 26 wireless providers for which they have data provide wireless broadband in approximately 95.34% of the state’s geography.

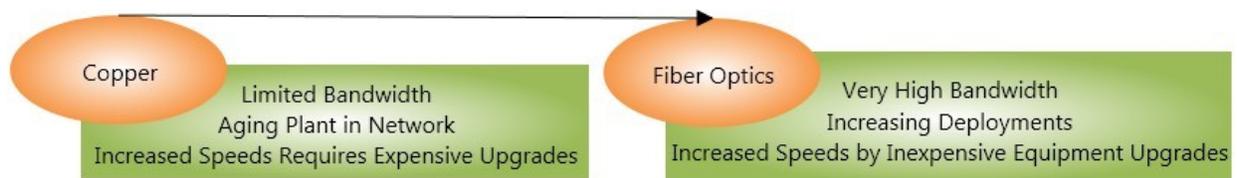
In rural areas of Indiana and in other states with a sizeable rural population, the challenge to 100% buildout is cost. The more widely spread the population, the more challenging the geography and terrain, and the greater the distances from the customer to the landline central (switching) office, cable head end, or wireless tower and backhaul facilities, the greater the cost. It is not unusual that the cost of providing service to truly rural areas is ten times or more greater than the cost of providing otherwise identical service in the small towns and cities that are the hub of the typical rural community.

Technology Trends

The evolution of technology used in communication services has made services faster than ever before. The dynamic changes the industry is undergoing are multidimensional. These new technologies are moving from circuit switching (dedicated end-to-end connections) to packet switching (dynamic routing) and from the use of traditional electric signaling (copper wiring) to widespread use of wavelengths of light for signaling (fiber optics).

Copper to Fiber Optic Cabling

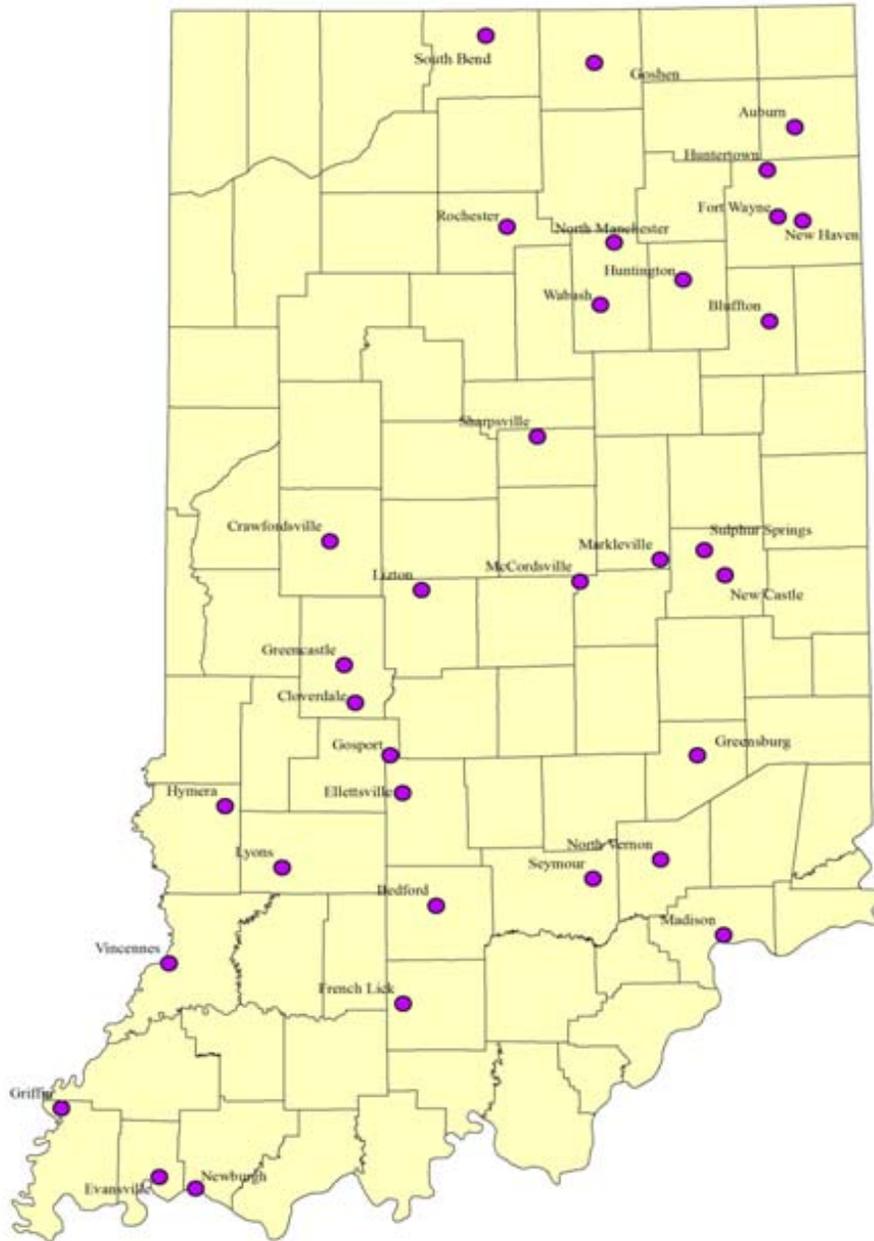
For more than 100 years, copper cabling served as the basis for customer connections to the telephone network. Copper cabling was reliable and a relatively cheap conduit for telephone calls. However, bandwidth-intensive applications like the Internet and video have exploded in recent years, and copper alone cannot provide adequate throughput. Therefore, copper is increasingly being replaced by fiber for at least a portion of the physical connection between customers and the network. Offering much higher speeds and a lower cost to upgrade capacity by replacing equipment instead of the cabling itself, fiber optics now occupy an ever increasing percentage of local loop, which provides the physical connection from the location of switching equipment (connects to the remainder of the network) to the landline customers' premises.



In some instances, fiber optic cables comprise the entire loop, a configuration that is known as Fiber-to-the-Home (FTTH). In other instances, fiber optic cable makes up a portion of the local loop, which is closest to the switching equipment, known as Fiber-to-the-Node (FTTN). Typically, with FTTN configurations, the remaining portion of the local loop is traditional copper cabling. Although FTTN does not have the same capacity as FTTH, the speed is much greater than copper cable local loops and costs less to build than FTTH. The greater capacities offered by FTTN and FTTH provide a faster Internet web browsing experience and access to video content, as well as the potential to enable advanced, next-generation broadband products

and services yet to be developed. Map 1 shows the locations of communities in Indiana with FTTH systems, according to the High Performance Government Network.³² A written list of those communities appears in Appendix A.

Map 1
Areas in Indiana with Fiber-to-the-Home (2011)



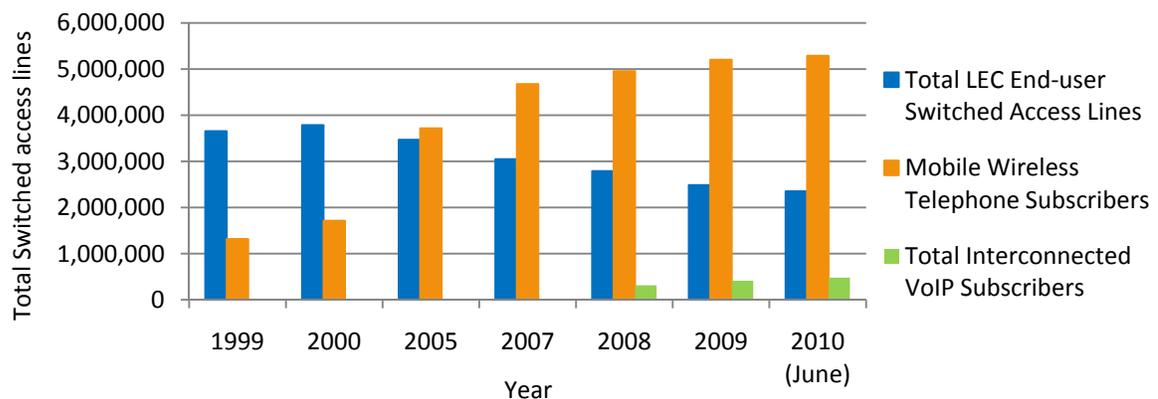
³² As of January 2010

Wireline to Wireless

Wireless devices have become the leading method for consumers to exchange voice calls and are becoming a more popular method for accessing information via the Internet. The inherent mobile nature of wireless devices is the driving force, and increases in wireless subscriptions have contributed to the drop in traditional telephone service. These trends can be seen in Chart 4.

Chart 4

Trends in Indiana Telephone, Wireless, and VoIP Subscribers



Source: FCC Report on Local Telephone Competition: Status as of December 31, 1999, 2000, 2005, 2007, 2008, 2009, and as of June 30, 2010. Data was taken from various tables in the reports.

It is important to note that using the number of subscribers as the comparison results in higher numbers of subscribers for mobile wireless, because one household is likely to have multiple mobile wireless phone numbers on a family plan; whereas, most households have only a single line. This is because second lines for children/family and dial-up Internet use declined in the last decade. It is true, however, that a growing number of consumers have abandoned landlines altogether. The U.S. Centers for Disease Control and Prevention (CDC)³³ estimated that, as of June 2010, 26.6% of adults (ages 18 and over) in the U.S. had only a wireless phone account, up from 13.6% in 2007.³⁴ The CDC also estimated that 13.8% of adults (ages 18 or

³³The CDC conducts telephone surveys on a wide variety of health-related topics. Up until a few years ago, the CDC intentionally excluded wireless numbers from the list of telephone numbers it would call when it conducted those surveys.

³⁴*Wireless Substitution: Early Release of Estimates From the National Health Interview Survey, January – June 2010*. U.S. Centers for Disease Control and Prevention, Division of Health Interview Statistics, National Center for Health Statistics. Table 1 (May 12, 2011).

over) in Indiana households were wireless-only households, as of December 2007,³⁵ compared to the more recent Indiana estimate of 25.2%, as of June 2010.

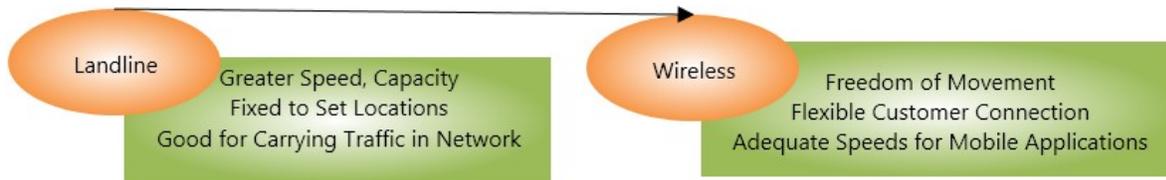
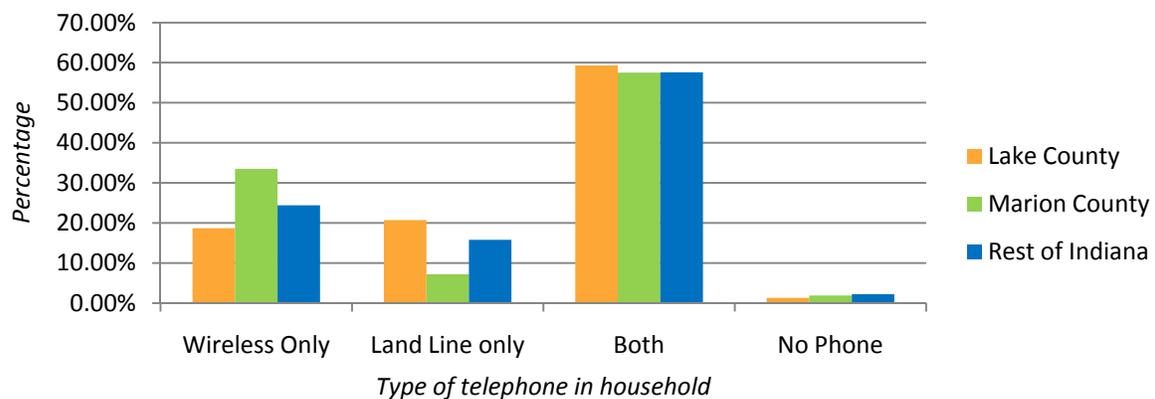


Chart 5 shows within Indiana, Marion County leads the state in the estimated percentage of “wireless-only” households by a significant margin. Lake County leads the state in the estimated percentage of “landline-only” households. It also shows a majority of Hoosier households maintain both a landline and a wireless telephone. If the trends continue, it would not be unreasonable to expect that half of the households in Marion County will be wireless-only within the next few years.

Chart 5

Household Telephone Status by Geographic area, as of June 2010



Source: Wireless Substitution: Early Release of Estimates From the National Health Interview Survey, January – June 2010. U.S. Centers for Disease Control and Prevention, Division of Health Interview Statistics, National Center for Health Statistics

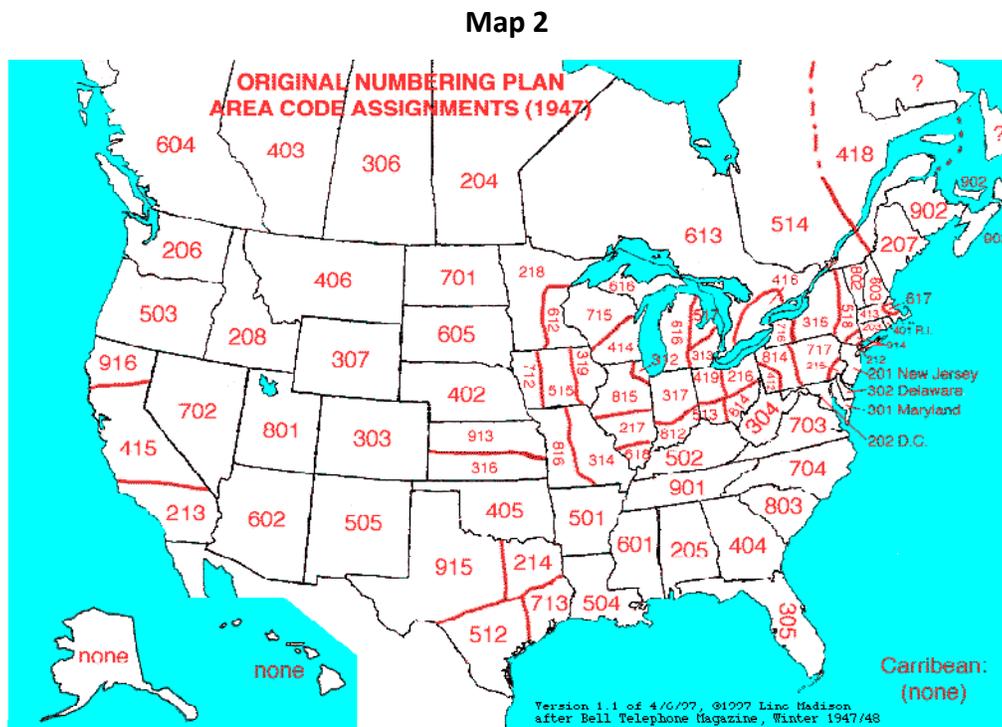
³⁵Wireless Substitution: State-level Estimates From the National Health Interview Survey, January – December 2007. Unnumbered Table (“Modeled state-level estimates of the percentage of wireless-only households and the percentage of adults living in wireless-only households: United States, 2007”) (U.S. Centers for Disease Control and Prevention, National Health Statistics Reports, Number 14, March 2009).

Regulatory Development

Area Code Relief

Numbering administration rules, which are overseen by the FCC and partially delegated to the states, have evolved since the development of the North American Numbering Plan (NANP) in 1947. The NANP was originally designed and administered by AT&T when the company had a monopoly over local and long-distance services in the United States. This system accommodates direct dialing of long-distance calls to the 19 countries in the NANP.³⁶ After this system was created, some area codes gradually “exhausted” (or ran out of unused or unallocated ten-digit telephone numbers). After the passage of the Telecommunications Act of 1996, competition among multiple local exchange and wireless carriers placed additional demands upon numbering resources. As a result, state utility commissions and the FCC have implemented policies to conserve blocks of telephone numbers to postpone area code exhaust dates.

Map 2 shows the original area codes designed by AT&T, many of which have been split several times since 1947.



³⁶ http://www.nanpa.com/about_us/abt_nanp.html , accessed on April 29, 2011

When an area code is three years from its projected exhaust date, the North American Numbering Plan Administrator (NANPA) files a petition on behalf of the Indiana telecommunications industry with the IURC. The petition usually proposes different scenarios for relief of the area code, such as how to split the area code into two or three areas or implement an “area code overlay,” which requires new number holders to receive a new area code but allows the existing number holders to keep their phone number. In the end, the IURC will determine how the area code will be relieved.

Area code relief can be accomplished with an area code split or overlay.

Pros and Cons of an Area Code Split or Overlay

Area Code Split	Pro	Con
	<ul style="list-style-type: none"> • When an area code is split some people get to keep their phone numbers and dial as usual. • Seven-digit dialing for local calls continues for everyone. 	<ul style="list-style-type: none"> • Some consumers are inconvenienced by the need to notify others of their new phone number. • Business customers face significant expenses related to changing marketing materials
Area Code Overlay	Pro	Con
	<ul style="list-style-type: none"> • Customers do not have to change their telephone numbers. • Existing number holders keep the same area code. • It is easy to implement another area code when necessary. 	<ul style="list-style-type: none"> • Residents living within an area code overlay need to become accustomed to dialing ten digits for all local calls.

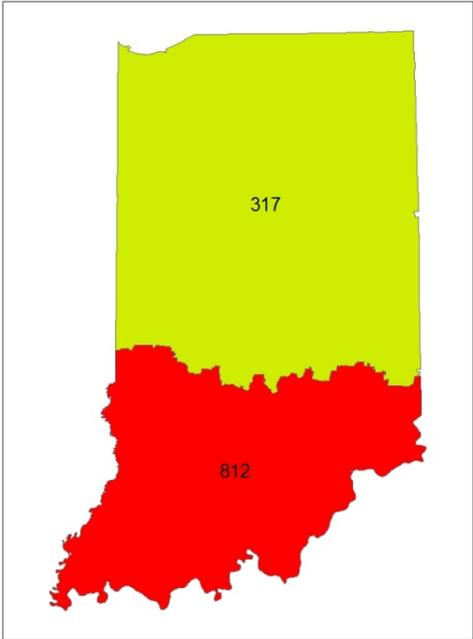
The most recent exhaust of an Indiana area code was area code 219 in 2001, which covered northern Indiana. The Commission conducted a large number of field hearings in affected communities throughout the area and gathered testimony from industry representatives and citizens. In that instance, the IURC determined that an area code split was the best solution. Consequently, the area was split into three area codes: 219, 260, and 574.³⁷ Map 3 shows the evolution of area code relief in Indiana from 1947 to the present.

³⁷ Cause No. 41535, Final Order, June 14, 2001.

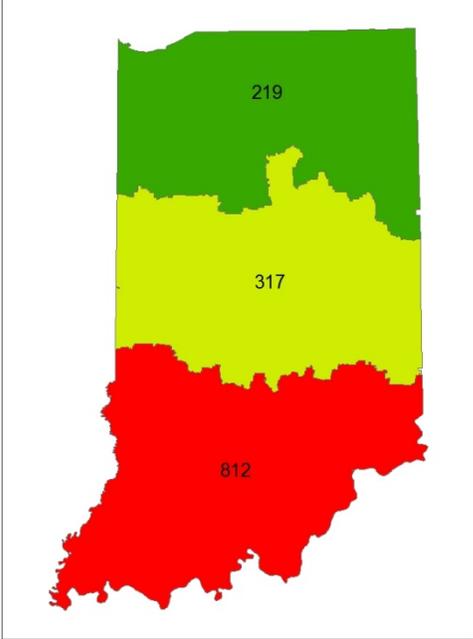
Map 3

Area Code Relief from 1947 to 2011

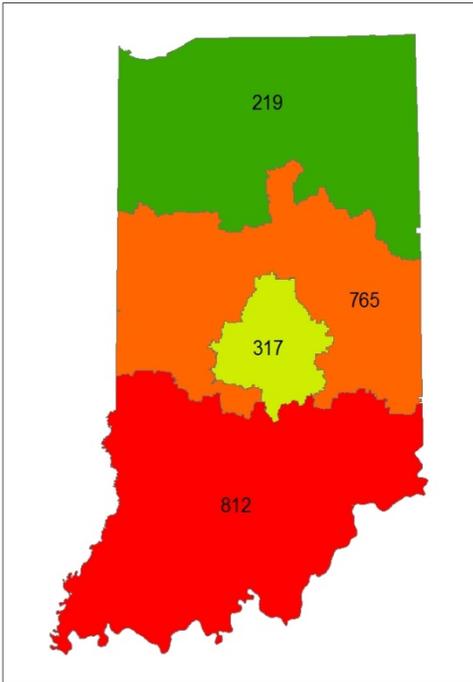
Indiana Area Codes (1947)



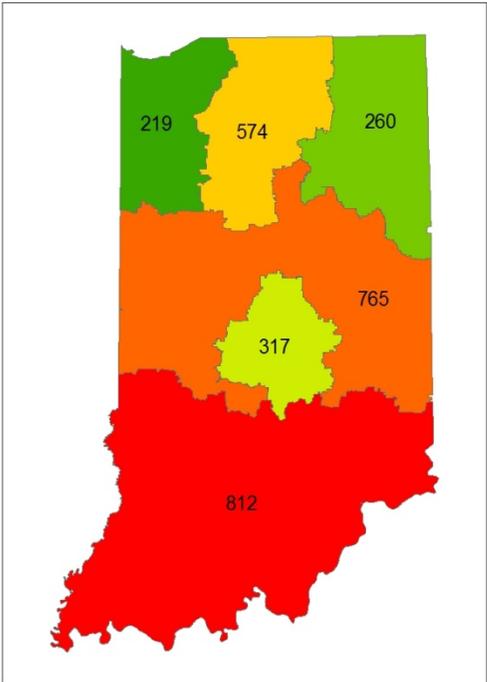
Indiana Area Codes (Post 1947-Pre 1997)



Indiana Area Codes (1997-2002)



Indiana Area Codes (2002-2011)



Current forecasting reports from the NANPA indicate that area code 812, serving southern Indiana, has the shortest remaining life of the Indiana area codes; the current exhaust projection date is 2015. Exhaust projections for 812 have been extended several times. In the 2008 report to this committee, the IURC reported the 812 area code would exhaust in the 3rd quarter of 2011. That date has been pushed back to 2015 due, in part, to conservation efforts by the IURC and the Indiana telecommunications industry. For example:

Conservation efforts have resulted in pushing out the exhaust date for 812 to 2015.

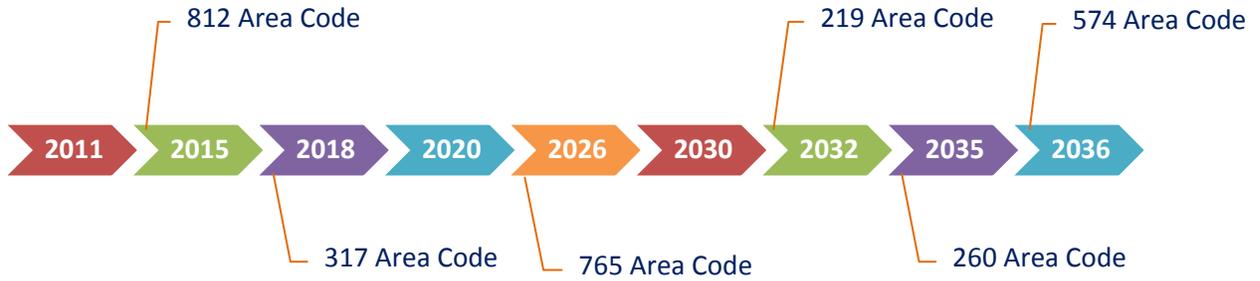
1. The IURC petitioned the FCC to implement mandatory thousand block number pooling. The FCC granted the IURC's petition on May 18, 2010³⁸ and mandatory number pooling was implemented on January 15, 2011.³⁹ Number pooling requires carriers to break unallocated "codes" (an area code and a three-digit exchange that comprises a total of 10,000 telephone numbers) into blocks of 1000 numbers and return unused blocks back to the pool of numbers available for other carriers.
2. IURC staff reviews requests for numbering resources from telecommunications carriers to the NANPA on a daily basis and works with the NANPA and the telecommunications industry to prevent new codes from being used when an existing code can be reused. Due to the legacy call rating and routing system, local exchange carriers wishing to serve a new rate center need to request a full code. But under certain circumstances, the IURC and the NANPA staff can encourage two carriers to work together to use an existing code. IURC staff also reviews requests to ensure only telecommunications carriers entitled to numbering resources (local exchange and wireless carriers) receive them.
3. Pursuant to federal rules, IURC staff also works with the NANPA on a monthly basis to reclaim numbering resources that are not being assigned to customers in a timely manner.

³⁸ In the Matter of the Petition of the Indiana Utility Regulatory Commission to Implement Additional Number Conservation Measures, WC Docket No. 08-66, Released May 18, 2010

³⁹ IURC General Administrative Order 2010-2, issued September 22, 2010

The current life projections for Indiana’s six area codes are reflected in the following timeline:

Chart 6
Projected Area Code Exhaust Dates



Source: North American Number Plan Administration, 2010-1 NRUF and NPA Exhaust Analysis, released April 2011

III. COMMUNICATIONS APPENDICES

Appendix A - Fiber-to-the-Home Systems in Indiana

List of Cities, Towns, and other Government Units where a Provider had Built or was Building a FTTH System (January 2010)

City/Town	Provider
Auburn	Auburn Essential Services
Bluffton	Craigville Telephone
Cadiz	Hancock
Cloverdale	Hancock
Connersville	Cinergy Metronet
Crawfordsville	Crawfordsville Electric Light & Power
Eden Township	Hancock
Ellettsville	Smithville
Evansville	WOW (formerly Sigecom) but may be to node
Fort Wayne	Frontier
French Lick	Smithville
Goshen	Goshen Fiber Network
Gosport	Smithville
Greencastle	Cinergy Metronet
Greensburg	Enhanced Telecommunications Corporation
Griffin	Smithville
Huntertown	Frontier
Huntington	Cinergy Metronet
Hymera	Smithville
Lake Monroe area	Smithville
Lizton	Smithville
Lyons	Smithville
Madison	Cinergy Metronet
Markleville	Hancock
Maxwell area	Hancock
McCordsville	Hancock
Mohawk area	Hancock
New Haven	Verizon
Newburgh	WOW (formerly Sigecom) but may be to node
North Manchester	Cinergy Metronet
North Vernon	Cinergy Metronet
New Castle	Cinergy Metronet
Bedford	Cinergy Metronet
Owensburg area	Smithville
Rochester	Rochester Telephone Company
Seymour	Cinergy Metronet
Sharpsville	Smithville

Smithville area	Smithville
South Bend	St. Joe Valley Metronet (Zing)
Stanford area	Smithville
Sulphur Springs	Hancock
Vincennes	Cinergy Metronet
Wabash	Cinergy Metronet
Willow Branch area	Hancock

Source: High Performance Government Network

Acronyms

A

ADSL – Asynchronous Digital Subscriber Line

AEP – American Electric Power

AFUDC – Allowance for Funds Used During Construction

AGA – American Gas Association

AOS – Alternative Operator Service

ARP – Alternative Regulatory Plan

AWWA – American Water Works Association

B

Bcf – Billion cubic feet

BPL – Broadband over Power Lines

BTS – Basic Telecommunications Service

Btu – British thermal unit

C

CAIR – Clean Air Interstate Rule

CalWaRN – California Water/Wastewater Agency Response Network

CAMR – Clean Air Mercury Rule

CCT – Clean Coal Technology

CETCs – Competitive Eligible Telecommunications Carriers

CGA – Common Ground Alliance

CLEC – Competitive Local Exchange Carrier

CPCN – Certificate of Public Convenience and Necessity

CT – Combustion Turbine

CTA – Certificate of Territorial Authority

CWA – Communications Workers of America

D

DIMP – Distribution Integrity Management Program

DNR – Indiana Department of Natural Resources

DSA – Designated Service Area

DSIC – Distribution System Improvement Charge

DSL – Digital Subscriber Line

DVR – Digital Video Recorder

E

EEFC – Energy Efficiency Funding Component

EIA – Energy Information Administration

EPA – U.S. Environmental Protection Agency

EPAct – Energy Policy Act of 2005

ERO – Electric Reliability Organization

ETC – Eligible Telecommunications Carrier

F

FAC – Fuel Adjustment Clause

FCC – Federal Communications Commission

FERC – Federal Energy Regulatory Commission

FT – Firm Transportation

FTR – Financial Transmission Rights

FTTH – Fiber-to-the-Home

H

HEA – House Enrolled Act

I

ICTA – Indiana Cable Telecommunications Association

IDEM – Indiana Department of Environmental Management
IEDC – Indiana Economic Development Corporation
IGCC – Integrated Gasification Combined Cycle
ILAP – Indiana Lifeline Assistance Program
ILEC – Incumbent Local Exchange Carrier
I&M – Indiana Michigan Power Company, subsidiary of AEP
IMP – Integrity Management Program
IMPA – Indiana Municipal Power Agency
INWARN – Indiana Water/Wastewater Agency Response Network
IOU – Investor-owned utility, financed by the sale of securities
IPTV – Internet Protocol Television
IPL – Indianapolis Power and Light
ISDH – Indiana State Department of Health
ISO – Independent System Operator
ISP – Internet Service Provider
IT – Interruptible Transportation
ITU – International Telecommunication Union
IUPPS – Indiana Underground Plant Protection Service
IURC – Indiana Utility Regulatory Commission
IUSF – Indiana Universal Service Fund

L

LDC – Local Distribution Company
LFA – Local Franchise Authority
LMG – Landfill Methane Gas
LMOP – Landfill Methane Outreach Program
LNG – Liquefied Natural Gas

M

Mcf – Million cubic feet

MGT – Midwestern Gas Transmission

Midwest ISO – Midwest Independent Transmission System Operator

MMBtu – One million British thermal units, rough equivalent to an Mcf

MMcf – One million cubic feet

MMTCE – Million metric tons of carbon equivalent

MS4 – Municipal Separate Storm Sewer System

MSW – Municipal Solid Waste

MTEP – Midwest ISO Transmission Expansion Plan

MVPD – Multichannel Video Programming Distributor

MW – Megawatts

MWH – Megawatt hour

N

NANPA – North American Numbering Plan Administrator

NAPSR – National Association of Pipeline Safety Representatives

NARUC – National Association of Regulatory Utility Commissioners

NCTA – National Cable and Telecommunications Association

NERC – North American Electric Reliability Council

NIPSCO – Northern Indiana Public Service Company

NO_x – Nitrogen Oxides

NOAA – National Oceanic and Atmospheric Administration

NOPR – Notice of Proposed Rulemaking

NPDES – National Pollutant Discharge Elimination System

NPMS – National Pipeline Mapping System

NRRI – National Regulatory Research Institute

NTA – Normal Temperature Adjustment

O

OECD – Organization for Economic Cooperation and Development

OMS – Organization of Midwest ISO States

OPS – Office of Pipeline Safety

OQ – Operator Qualification

OUCC – Office of Utility Consumer Counselor

P

PHMSA - Pipeline Hazardous Materials Safety Administration

PIPES – Pipeline Integrity, Protection, Enforcement, and Safety

PJM – The PJM Interconnection

POLR – Provider of Last Resort

PPA – Purchase Power Agreement

PPTT – Purchased Power and Transmission Tracker

PSA – Pipeline Safety Adjustment

PSAPs – Public Safety Answering Points

PSI – PSI Energy

PSTN – Public Switched Telephone Network

PUHCA – Public Utility Holding Company Act of 1935

PUHCA 2005 – Public Utility Holding Company Act of 2005

PURPA – Public Utility Regulatory Policies Act of 1978

R

RFP – Request for proposals

RLECs – Rural Incumbent Local Exchange Carriers

RSD – Regional Sewer District

RSG – Revenue Sufficiency Guarantee

RTO – Regional Transmission Organization

S

SDC – System Development Charge

SIGECO – Southern Indiana Gas & Electric Company

SNG – Synthetic Natural Gas

SO₂ - Sulfur Dioxide

SOHO – Small Office Home Office

SRC – Sales Reconciliation Component

SUFG – State Utility Forecasting Group

T

TA-96 –Telecommunications Act of 1996

U

UGS – Underground storage

UNEs – Unbundled Network Elements

USAC – Universal Service Administrative Company

USF – Universal Service Fund

V

VoIP – Voice over Internet Protocol

W

Wi-Fi – Wireless Fidelity

Wi-Max – Worldwide Interoperability for Microwave Access

Glossary

A

Access Charges: Charges designed to compensate local exchange carriers for the maintenance and operation of the local exchange network after the break up AT&T in 1984 in the Modified Final Judgment. Access charges take two forms: 1) an end user access charge, also known as Subscriber Line Charge that appears on the customer's bill as a separate line item; 2) carrier access charges paid by interexchange carriers to local exchange carriers when they connect to their local networks. Such charges are determined by tariffs subject to state or federal approval depending upon the intrastate or interstate nature of the call.

Alternative Fuels: Any non-traditional energy source.

Alternate Ratemaking for Pipelines: In a series of orders in February 1996, the Federal Energy Regulatory Commission opened the door to non-cost-based rates for pipeline services, including transmission and storage, provided that a pipeline could show: 1) it did not have market power or that the power was mitigated; and (2) cost-based recourse rates were available for customers who might be disadvantaged under the new system. Pipelines are also required to show the quality of service was maintained and that market-based, incentive or negotiated rates did not shift costs to captive customers.

American Gas Association (AGA): Trade group representing natural gas distributors and pipelines. The AGA also operates a laboratory for appliance certification.

Aquifer: Water bearing permeable rock formation that is capable of storing natural gas.

Area Code Overlay: A method used to relieve area code exhaust. A new three-digit area code is associated with the same geographic boundaries of an existing area code. Because the same seven-digit telephone numbers could then be assigned out of each area code, local calls are required to be dialed with 10-digits.

Area Code Split: A method used to relieve area code exhaust. The geographic area that uses the area code is split in two and a different area code is assigned to part of the geographic area while the other area keeps the existing area code.

Asynchronous Digital Subscriber Line (ADSL): A DSL designed to deliver more bandwidth downstream (from the central office to the customer's site) than upstream. Downstream rates range from 1.5 to 9 million bits per second. See also Digital Subscriber Line.

B

Base Gas: Gas required in a storage pool to maintain sufficient pressure to keep the working gas recoverable. Also called "cushion" gas.

Basic Telecommunications Service (BTS): A term used in House Enrolled Act 1279 to distinguish between telecommunication services regulated until June 30, 2009 and services that were unregulated on or before March 27, 2006. BTS is defined as standalone telephone exchange service that is provided to a residential customer through the customer's primary line; is the sole service purchased by the customer; is not a part of a package, promotion, or contract; and, not otherwise offered at a discounted price.

British Thermal Unit (Btu): The quantity of heat required to raise one pound of water (about one pint) one degree Fahrenheit at or near its point of maximum density. A common unit of measurement for gas prices. 1,034 Btus = 1 cubic foot.

Broadband: Advanced communications systems capable of providing high-speed transmission of services such as data, voice, and video over the Internet and other networks. Transmission is provided by a wide range of technologies, including digital subscriber line and fiber optic cable, coaxial cable, wireless technology, and satellite. Broadband platforms make possible the convergence of voice, video and data services onto a single network.

Bundled Resale of Local Exchange: Competitive local exchange carriers can compete by reselling the services of the incumbent local exchange carrier (ILEC) in this form. They purchase the services of the ILEC at wholesale rates hoping to resell them to retail customers at a profit. Each of Indiana's three large ILECs offer wholesale discounts to competitive carriers.

Bundled Service: Gas utility that operates as both the supplier and distributor of natural gas.

C

Capacity: The size of a plant (not its output). Electric utilities measure size in kilowatts or megawatts and gas utilities measure size in cubic feet of delivery capability.

Carbon Capture: The process of capturing carbon dioxide produced in the combustion of fuel to facilitate its disposal.

Carbon Sequestration: The storage of carbon dioxide in geological formations to prevent its release into the atmosphere.

Certificate of Public Convenience and Necessity (CPCN): A special permit commonly issued by a state commission that authorizes a utility to engage in business, construct facilities or perform some other service. Also a permit issued by the Federal Energy Regulatory Commission to engage in the transportation or sale for resale of natural gas in interstate commerce, or to construct or acquire and operate any facilities necessary.

City Gate: The physical location where gas is delivered by a pipeline to a local distribution company.

Coal Gasification: The controlled process of placing coal, steam, and oxygen under pressure to produce a low Btu gas.

Coal Bed Methane: Any gas produced from a coal seam.

Commodity Charge: The charge that covers the pipeline's variable costs in a Straight Fixed Variable rate design. Also referred to as a "usage charge."

Communications Service Provider: A term used in House Enrolled Act 1279 that means a person or entity offering communications services to customers in Indiana, without regard to the technology or medium used by the person or entity to provide the communications service.

Condemnation Action: A legal proceeding whereby a municipality exercises its power of eminent domain and condemns utility property that results in the transfer of utility property to the municipality.

Conditional Congestion Area: As designated by the U.S. Department of Energy, as areas where electric utilities have planned generation, and while some transmission congestion is present, significant congestion would result if transmission is not built in conjunction with the new generation resources.

Cooperative: A business entity similar to a corporation, except that ownership is vested in members rather than stockholders and benefits are in the form of products or services rather than profits.

Cost-of-Service Rates: Rates based on prudently incurred costs of doing business, plus a reasonable rate of return on investment in plant and equipment, and throughput projections. This is the rate development methodology commonly used by state or federal regulators.

Cramming: A practice in which customers are billed for unexpected and unauthorized telephone charges or services. Refers to the fact that the charges are crammed into the telephone bill in an inconspicuous place so the charges go unnoticed by the customer.

Customer Charge: A fixed amount to be paid periodically by a customer without regard to demand or energy actually used. The customer charge recovers the cost of meters and other administrative costs of billing.

D

Decoupling: Alternative rate design theory that separates the recovery of a utility's fixed costs from the volume of natural gas sold.

Dekatherm (Dth): A unit of heating value equal to 10 therms or one million Btus (1MMBtu). Roughly, 1Mcf = 1, MMBtu = 1 Dth

Demand Response: Reducing the use of electricity to meet local or regional power system needs rather than increasing the output of electricity.

Digital Subscriber Line (DSL): A generic term for digital lines provided by incumbent or competitive local exchange carriers that allows the customer to use the same subscriber line for voice and data simultaneously without subscribing to a second line for Internet access.

Distribution: The component of a gas, electric or water system that delivers gas, electricity, or water from the transmission component of the system to the end-user. Usually the commodity has been altered from a high pressure or voltage level at the transmission level to a level that is usable by the consumer. Distribution is also used to describe the facilities used in this process.

Distribution System Improvement Charge: A mechanism available to water utilities to pass the costs of infrastructure replacement onto their customers between rate cases on a more expedited basis.

E

Effluent: The water that is discharged after being treated at a sewage plant.

Eligible Telecommunications Carrier (ETC): A common carrier eligible to receive universal service support. An ETC is required to offer services that are supported by the federal universal support mechanisms either using their own facilities or a combination of its own facilities and resale of another carrier's services. State commissions are responsible for the designation of ETCs.

End Use: The final use to which gas or electricity is put by the ultimate consumer.

Energy Information Administration: Statistical information collection and analysis branch of the Department of Energy.

Energy Independence & Security Act of 2007: A comprehensive energy law that focuses on improved efficiency standards, and the research and development of energy technologies and infrastructure.

Energy Policy Act of 1992: This act authorized the Federal Energy Regulatory Commission to order wholesale wheeling of electricity while explicitly restraining its power to order retail wheeling. The Act also created a new legal category of electricity generating and sales companies, referred to as "Exempt Wholesale Generators," that are free from the Public Utility Holding Company Act of 1935 restrictions.

Energy Policy Act of 2005: Major provisions regarding the electricity industry included the creation of the Public Utility Holding Company Act of 2005, clean coal, nuclear, wind, and alternative energy initiatives, establishment of an Electric Reliability Organization, incentive rates for transmission investment, transmission siting, smart metering, net metering, utility interconnection with distributed generation, increased efficiency of fossil-fuel power plants, and the increased diversity of fuel sources to generate electricity.

Environmental Protection Agency: A federal agency created in 1970 to execute federal research, monitoring, standard setting and enforcement actions related to protecting the environment.

F

Facilities-based Interexchange: A carrier that offers facilities-based interexchange deploys their own tandems and/or trunks as opposed to purchasing blocks of time from other interexchange carriers and reselling the services to retail customers.

Facilities-based Local Exchange: A carrier that offers facilities-based local exchange may construct and deploy its own networks or it may rely on unbundled network elements from incumbent local exchange carriers or a combination of the two.

Federal Energy Regulatory Commission (FERC): The U.S. federal agency with jurisdiction over interstate electricity sales, wholesale electric rates, hydroelectric licensing, natural gas pricing, and oil pipeline rates. The FERC also authorizes liquefied natural gas terminals, interstate natural gas pipelines and non-federal hydropower projects.

FiOS: Verizon's broadband initiative featuring fiber to the premise that is being deployed in several areas throughout the U.S.

Firm Service: The highest quality sales or transmission service that is offered to customers under a filed rate schedule that anticipates no planned interruption.

Fixed Costs: All costs included in the cost of service that do not fluctuate with the volume of the commodity passing through the system (e.g., labor, maintenance, and taxes).

G

Gigabit: A unit of measurement for the amount of data that is transferred in a second between two telecommunication points. One gigabit per second (Gbps) equals one billion bps.

Gasification: 1) The conversion of carbonaceous material into gas or the extraction of gas from another fuel. 2) The process during which liquefied natural gas is returned to its vapor or gaseous state through an increase in temperature and a decrease in pressure.

Gathering System: Pipelines and other equipment installed to collect, process, and deliver natural gas from the field, where it is produced, to the trunk or main transmission lines of pipeline systems.

Generation: The process of producing electricity. Also refers to the assets used to produce electricity for transmission and distribution.

H

Heartland: Heartland Gas Pipeline, LLC

Hedging: A method by which a purchaser or producer of natural gas or electricity uses a derivative position to protect against adverse price movements in the cash market by “locking in” a price for future delivery.

Holding Company: A corporate structure where one company holds the stock (ownership) of one or more other companies but does not directly engage in the operation of any of its business.

I

Indiana Lifeline Assistance Program (ILAP): A state program required by House Enrolled Act 1279 for the purpose of offering reduced charges for basic telecommunications services to eligible customers (customers with income that falls within 150 percent of the Federal Poverty Guidelines or participates in certain assistance programs, such as Medicaid, food stamps, etc).

Independence Hub: A large natural gas production platform in the Gulf of Mexico.

Independent System Operator (ISO): An independent organization or institution that controls the electric transmission system in a particular region.

Indiana Utility Regulatory Commission: An independent fact-finding body that hears evidence in cases filed before it and makes decisions based on the evidence presented in those cases. An advocate of neither the public nor the utilities, the Commission is required by state statute to make decisions that balance the interests of all parties to ensure the utilities provide adequate and reliable service at reasonable prices.

Integrated Gasification Combined Cycle (IGCC) Facility: A power plant using synthetic gas as a source of clean fuel. Syngas is produced from coal (or other fuels) in a gasification unit. Steam generated by waste heat boilers of the gasification process is utilized to help power steam turbines.

Integrity Management: Specifies how pipeline operators must identify, prioritize, assess, evaluate, repair and validate - through comprehensive analyses - the integrity of gas pipelines that, in the event of a leak or failure, could affect High Consequence Areas.

Internet Protocol Television (IPTV): A system where a digital television service is delivered by using Internet Protocol over a network infrastructure that may include delivery by a broadband connection.

Interruptible Transportation Service: Conditional gas service interrupted at the option of the pipeline. Also, referred to as “best efforts.” Tariffs for interruptible service are cheaper than firm service. Electric providers may offer a similar service.

Interstate Gas: Gas transported through interstate pipelines to be sold and consumed in states other than the one in which it was produced. Also, refers to gas produced in the federal domain of the Outer Continental Shelf.

Intrastate Gas: Gas sold and consumed in the state in which it was produced and not transported in interstate pipelines.

Investor-Owned Utility: A utility financed by the sale of securities.

J

Joint Board: Also known as the Federal-State Joint Board, instituted by the Federal Communications Commission to recommend changes of any of its regulations in order to implement section 214(e) of the Telecommunications Act of 1996, including the definition of services that are supported by the Federal universal service support mechanisms.

K

Kilobit: A unit of measurement for the amount of data that is transferred in a second between two telecommunication points. One kilobit per second (Kbps) equals 1000 bit per second (bps).

Kilowatt (kW): A basic unit of measurement; 1kW = 1,000 watts.

Kilowatt-Hour (kWh): One kilowatt of power supplied to or taken from an electric circuit steadily for one hour.

L

Landfill Gas: Gas produced by aerobic and anaerobic decomposition of a landfill generally composed of approximately 55% methane and 45% carbon dioxide, sometimes refined with membrane methods to eliminate the carbon dioxide.

Liquefied Natural Gas (LNG): Natural gas converted to a liquid state by pressure and severe cooling, and then returned to a gaseous state to be used as a fuel. It is stored by many distributors for peak season use.

M

Mandatory Number Pooling: Requires carriers to share a pool of numbers with the same exchange.

Without number pooling each competitive local exchange carrier is assigned an entire exchange or 10,000 block of phone numbers, which may not all be needed. With number pooling, exchanges can be broken down into blocks of 1,000, as known as “thousand block number pooling.”

Megabit: A unit of measurement for the amount of data that is transferred in a second between two telecommunication points. One megabit per second (Mbps) equals one million bps.

Megawatt (MW): One thousand kilowatts or one million watts.

Megawatt-Hour (MWh): One megawatt of power supplied to or taken from an electric circuit steadily for one hour.

Merchant Plant: A power plant that is funded by investors and sells electricity in the competitive wholesale market.

Methane: The main component of natural gas.

Midwest ISO: The Midwest ISO was formed by transmission owners in 1996, and is based in Carmel, Indiana. The Midwest ISO's main responsibility is to ensure the safe and reliable transfer of electricity in the Midwest and ensure fair access to the transmission system.

Multi-Association Group Order (MAG Order): A Federal Communications Commission Report and Order adopted October, 2001 which prescribed access charge reform measures that affected small, rural incumbent local exchange carriers.

Municipalization: When a municipally-owned utility acquires an investor-owned utility serving a city or town.

Municipal Utility: A utility that is owned and operated by a municipal government. These utilities are organized as nonprofit local government agencies and pay no taxes or dividends; they raise capital through the issuance of tax-free bonds.

N

National Interest Electric Transmission Corridor: As established in the Energy Policy Act of 2005, any geographic area experiencing electric energy transmission capacity constraints or congestion that adversely affects consumers.

Normal Temperature Adjustment (NTA): A decoupling mechanism that reduces the risk of the gas utility not recovering margin due to warmer-than-normal (vice versa) during the heating season.

Not-for-profit Utility: A utility that does not distribute its surplus funds to owners or shareholders but uses them to pursue its goals.

NPDES Permits: Permits that allow utilities to discharge wastewater effluent into waterways.

O

Order 436: A Federal Energy Regulatory Commission rule promulgated in October 1985, establishing a voluntary, open-access system of natural gas transportation.

Order 500: An interim natural gas rule on open-access transportation, replacing Order 436. Order 500 embodied all the elements of Order 436 with three additions: forcing producers to credit transportation volumes against accruing take-or-pay (cross-crediting); allowing pipelines to direct bill customers for part of past take-or-pay charges; and allowing pipelines to fashion gas inventory charges (or supply reservation fees) to take care of future take-or-pay.

Order 636: Commonly known as the “Restructuring Rule,” Order 636 provides for pipeline companies to change from being merchants of natural gas to being transporters of natural gas and allows open-access transportation services regardless of who owns the gas.

Order 712: Revised regulations governing interstate natural gas pipelines to reflect changes in the market for short-term transportation services on pipelines and to improve the efficiency of the capacity release program.

Organization of Midwest ISO States (OMS): A group of state utility commissions in the Midwest ISO footprint that acts as an adviser on some Midwest ISO functions.

P

Peak Shaving: Supply of fuel gas for distribution systems from an auxiliary source of limited supply and higher cost (e.g., propane, liquefied natural gas) during periods of maximum demand when the primary source is not adequate. Electricity providers may also use peak shaving to reduce demand at peak periods. Service interruptions and customer-owned generation are methods electricity providers use for peak shaving.

PJM Interconnection: The PJM Interconnection is the regional transmission organization (RTO) responsible for the operation and control of the bulk power system throughout all or portions of Delaware, Indiana, Illinois, Kentucky, Maryland, Michigan, New Jersey, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and the District of Columbia. PJM became the first fully functioning RTO in 1997.

Point-to-Point Transmission: The reservation and/or transmission of electricity on either a firm basis and/or a non-firm basis from point(s) of receipt to points(s) of delivery, under a tariff, including any ancillary services that are provided by the transmission provider.

Private Activity Bonds: Municipal bonds that are issued to finance facilities for investor-owned or not-for-profit water utilities.

Privatization: When an investor-owned utility acquires a municipally-owned utility.

Public Utility Holding Company Act of 1935 (PUHCA): A federal law to facilitate the regulation of electric utilities, by either limiting their operations to a single state, and thus subjecting them to effective state regulation, or forcing divestitures so that each became a single integrated system servicing a limited geographic area. Another purpose of the PUHCA was to keep utility holding companies engaged in regulated businesses from engaging in unregulated businesses. The PUHCA required Securities and Exchange Commission approval prior to a holding company engaging in a non-utility business and that such businesses be kept separate from the regulated business. The PUHCA was repealed by the Energy Policy Act of 2005, and replaced by what is known as the Public Utility Holding Company Act of 2005.

Public Utility Regulatory Policies Act (PURPA): A federal law passed in 1978 as part of the National Energy Act. It was meant to promote greater use of renewable energy. Implementation of the act was left to the states. The PURPA was amended in 2005 by the Energy Policy Act of 2005 sections 1251 through 1254.

Pulverized Coal: Coal that is ground into dust using a powdered coal mill and used as the fuel in a power plant to generate electricity.

Purchasing Cooperative: A type of cooperative arrangement, often among businesses, to agree to aggregate demand to get lower prices from selected suppliers.

Q

Quadruple Play: A service bundle that includes high-speed data, telephony, television and wireless communications services.

R

Rate Base: The investment value established by a regulatory authority upon which a utility is permitted to earn a specified rate of return.

Rate Design: The method of classifying fixed and variable costs between demand and commodity components.

Rate of Return: The percentage that a company earns on its investment.

Raw Natural Gas: Natural gas brought from underground up to the wellhead. Natural gas found at the wellhead is not as pure as processed or pipeline quality natural gas used by consumers. Raw natural gas comes from three types of wells: oil wells, gas wells, and condensate wells.

Reclaimed Water: Wastewater that has been treated to remove solids and certain impurities, and used for irrigation or recharging aquifers.

Reliability: A term used in both the electric and gas industry to describe the utility's ability to provide uninterrupted service of gas or electricity. Reliability of service can be compromised at any level of service: generation or production, transmission or distribution.

Renewable Portfolio Standard: A requirement that a specified portion of a utility's electricity be supplied by energy sources defined as renewable.

S

Service Territory: Under the current regulatory environment, an electric utility is granted a franchise to provide energy to a specified geographical territory, designated as a service territory.

Slamming: The practice of switching a telephone customer's long distance or local service provider without obtaining permission from the customer.

Smart Grid: An electricity delivery system that encompasses devices and technologies designed to improve the efficiency of energy use and the transfer of energy across it.

Small Utility Filing: A process where a utility, which serves under 5,000 customers, primarily residential, and does not serve extensively another utility, can increase its rates without a formal public hearing.

Spot Market: A market characterized by short-term, typically interruptible, or best efforts contracts for specified volumes. The bulk of natural gas spot market trades on a monthly basis, while power marketers sell spot supplies on an hourly basis.

Storage: Facilities used to store natural gas that is transferred from its original location. Usually consists of natural geological reservoirs like depleted oil or gas fields, waterbearing sands sealed on top by impermeable cap rock, underground salt domes, bedded salt formations, or in rare cases, abandoned mines.

Straight-Fixed Variable Rate Design: Rate design methodology that allocates all fixed costs to the demand component and allocates all variable costs to the commodity, or volumetric, component. Also called "Fixed Variable."

Supply Side Management: The systematic development of a gas supply plan or an electric resource plan.

Synthetic Natural Gas: Energy-rich vapors manufactured from coal.

System Development Charge: A one-time charge assessed by water and wastewater utilities to new customers to finance development of utility systems necessary to serve those new customers. The purpose is to impose a portion of the cost of capital improvements upon those developments that create the need for, or increase demand for capital improvements.

Sub-metering/Sub-billing: The practice where a consumer of utility service, usually an apartment complex or a mobile home park, passes along the cost of water or electric service to the tenants of the complex or park through a separate utility bill.

T

Take-and-Pay: Clause that requires a minimum quantity of natural gas to be physically taken and paid for, usually in association with oil, or wells, that will be damaged by failure to produce.

Tariff: Compilation of all effective rate schedules for a company, along with general terms and conditions of service.

Therm: Unit of heating value equivalent to 100,000 Btus.

Transmission: The process of transferring energy (either gas or electricity) or water from the production or generation source to the point of distribution. Also refers to the facilities used for this process.

Triple Play: A service bundle that includes telephone, high-speed Internet access and television.

U

Unaccounted for Gas: The difference between the total gas available from all sources and the total gas accounted for as sales, net interchange, and company use. This difference includes leakage or other actual losses, discrepancies due to meter inaccuracies, variations of temperature and/or pressure, and other variants, particularly billing lag.

Unbundled Network Elements: The Telecommunications Act of 1996 required that independent local exchange carriers unbundled their network elements to make them available to competitive local exchange carriers on the basis of incremental costs.

Universal Service: A policy to keep local rates low and encourage every household to have a telephone.

Unserved Energy: Electricity demand that the utility is unable to supply. In the electric utility planning process, unserved energy helps identify when and what type of new resources may be needed in the future.

V

Volatility: The market's price and movement within that range. The direction of the price move, whether up or down, is not relevant. Historic volatility indicates how much prices have changed in the past and is derived by using daily settlement prices for futures. Implied volatility measures how much the market thinks prices will change in the future, obtained from daily settlement prices for options.

Voltage: The rate at which energy is drawn from a source that produces a flow of electricity in a circuit; expressed in volts.

Voice over Internet Protocol (VoIP): Technology used to transmit voice conversations over a data network using the Internet Protocol. Such data network may be the Internet or a corporate Intranet.

W

Weatherization: Any change made to a home or building that is designed to conserve energy.

Well: A well that produces at surface conditions the contents of a gas reservoir.

Wellhead: The assembly of fittings, valves, and controls located at the surface and connected to the flow lines, tubing, and casing of the well as to control the flow from the reservoir.

Wireless Fidelity (Wi-Fi): Wi-Fi was originally a brand licensed by the Wi-Fi Alliance to describe the embedded technology of wireless local area networks (WLAN) based on the IEEE 802.11 standard. As of 2007, common use of the term Wi-Fi has broadened to describe the generic wireless interface of mobile computing devices, such as laptops in local area networks.

Withdrawal: Those uses of water that involve the physical removal of water from the ground or surface source.

Worldwide Interoperability for Microwave Access (Wi-Max): Wi-Max is a telecommunications technology aimed at providing wireless data over long distances in a variety of ways, from point-to-point links to full mobile cellular type access. Wi-MAX allows a user, for example, to browse the Internet on a laptop computer without physically connecting the laptop to a wall jack.