

# INDIANA UTILITY GUIDE



*Indiana Utility Regulatory Commission*



# About This Guide

The Indiana Utility Regulatory Commission (Commission) is an administrative agency 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 in the public interest to ensure the utilities provide safe and reliable service at just and reasonable rates. The Commission also serves as a resource to the legislature, the executive branch, state agencies, and the public by providing information regarding Indiana's utilities and the regulatory process. In addition, Commission members and staff are actively involved with regional, national, and federal organizations regarding utility issues affecting Indiana.

As part of its role, the Commission strives to be open and transparent in providing all stakeholders information about the agency and those topics that affect the agency and the related industries.

The *Indiana Utility Guide* will serve as a foundational resource that contains more detailed historical and background information, trending data, guidance on the Indiana regulatory processes and procedures, and more. The intention is that the *Indiana Utility Guide* will be updated every few years.

It is important to note that the *Indiana Utility Guide* serves as a starting point in understanding the complex world of Indiana utilities. There are a variety of other helpful resources, workshops, and courses to deal with the ever-changing world of utilities. This guide addresses a number of utility topics from the Commission's point of view, but the Commission encourages those interested to seek out the many resources available to be as informed as possible.

The *Indiana Utility Guide* can be read in its entirety for a comprehensive understanding of Indiana's utility sector and the Commission's role in it. For those readers who are interested in a particular topic, we have divided the guide into the following sections:



1. What Is the Indiana Utility Regulatory Commission?
2. Administrative Law Process
3. Basics of Ratemaking
4. Energy Division
5. Research, Policy, and Planning Division
6. Water and Wastewater Division
7. Communications Division
8. Pipeline Safety Division
9. Underground Plant Protection Account Fund
10. Office of General Counsel
11. External Affairs Division

**GLOSSARY TERMS:** We also have included a Glossary at the end of the guide. Each term included in the Glossary appears in *teal italic text* the first time it is used in the text of the guide. Readers can then turn to the Glossary for a more detailed definition of the term or, if viewing this document as a PDF, click the *teal italic text* term to be taken to its Glossary definition.

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# What Is the Indiana Utility Regulatory Commission?

As previously stated, the Commission is an administrative agency 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 in the public interest to ensure the utilities provide safe and reliable service at just and reasonable rates.

The Commission also serves as a resource to the legislature, executive branch, state agencies, and the public by providing information regarding Indiana’s utilities and the regulatory process. In addition, Commission members and staff are actively involved with regional, national, and federal organizations regarding utility issues affecting Indiana.

The agency is comprised of five commissioners with no more than three being of the same party as the governor, who is the appointing authority.

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## History and Authority

Originally established as the Railroad Commission in the late 1800s to regulate railroad activity, the Commission has undergone great change since its inception. In 1913, the agency was given regulatory responsibility over natural gas, water, private sewer, electric, and telephone services, and it was renamed the Public Service Commission. In 1987, the General Assembly changed the name of the agency once again, this time to the Indiana Utility Regulatory Commission.

In its current role, the Commission no longer regulates vehicular transportation but does oversee more than 600 utilities that operate in Indiana. The Commission regulates electric, natural gas, steam, water, and sewer utilities—and to a lesser degree telecommunications. Generally, regulated entities are investor-owned, municipal, nonprofit, or cooperative utilities.

The Commission receives the majority of its authority from Indiana Code Title 8, which regulates various aspects of utilities’ business, including rates, financing, bonding, environmental compliance plans, and service territories. The Commission also has regulatory oversight concerning construction projects and the acquisition of additional plants and equipment. Additionally, the Commission has authority to initiate investigations of utilities’ rates and practices.



## Commission Members and Employees

Including its five commissioners, the Commission has a total professional staff of about 75 people, the majority of which are attorneys, engineers, accountants, and economists who analyze evidence and legal issues and provide advice to the Commission chair and the commissioners. The agency also has a Consumer Affairs Division that serves as a liaison between utility ratepayers and the utilities.

### Commissioners

Commissioners are appointed by the governor, serve terms of four years, and may be reappointed. No more than three of the commissioners may be of the same political party. After leaving the Commission, a commissioner is held to a one-year moratorium on employment with a utility. Commissioners are considered decision-makers under Indiana law (Indiana Code § 4-2-6-11(b)) and, as such, are prohibited from lobbying the executive branch or being employed by a utility regulated by the Commission until the elapse of at least one year from the date the commissioner ceases to be a state employee.

The commissioners often are members of the National Association of Regulatory Utility Commissioners (NARUC) and attend or present on various topics at seminars and conferences both national and international.

For information about the current commissioners, go to the Commission's website at [www.in.gov/iurc/2378.htm](http://www.in.gov/iurc/2378.htm).

### Commissioners' Roles and Duties

Commissioners are assigned as presiding officers over cases that are brought before the Commission. As presiding officers, commissioners are required to evaluate all of the evidence in the case before them. Commission orders are based on evidence and law. A quorum, which is a majority of commissioners (at least three out of five), is required for an order to be approved.

As required by Indiana statute, the chair of the Commission must annually present a report prepared by the Commission on specific items of interest laid out by statute to the Indiana General Assembly's appropriate summer study committee on utility regulation. That report, generally referred to as the Commission's Annual Report, is prepared and presented to the Indiana General Assembly between the months of August and October.

In addition to the responsibilities mentioned here, the chair of the Commission also oversees the operations of the agency.

## **Administrative Law Staff**

The Commission maintains a staff of six administrative law judges (ALJs), one of which serves as the chief administrative law judge and supervises the other five judges. Each ALJ is required to be an Indiana-licensed attorney. The primary responsibility is to preside over docketed proceedings with the commissioners and provide legal support in the drafting of orders. The Commission also employs a paralegal and two court reporters who are responsible for reporting and, when necessary, transcribing hearings.

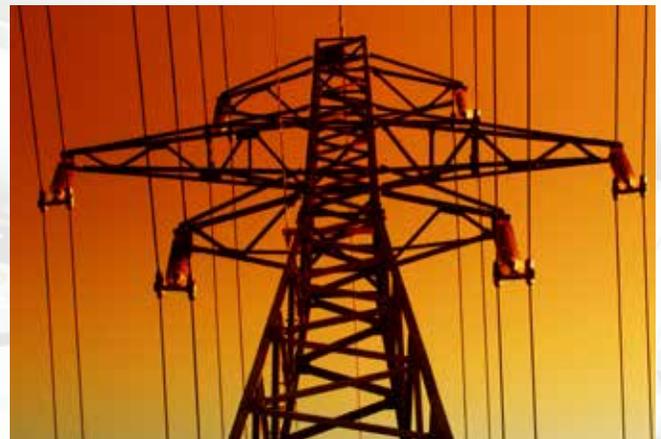
ALJs are subject to the same one-year moratorium as commissioners. Thus, they are prohibited from becoming an employee of a utility regulated by the Commission until the elapse of at least one year from the date the ALJ ceases to be a state employee.

## **Office of General Counsel**

The general counsel is the Commission's lead attorney in non-docketed legal matters and the Commission's ethics officer. In addition, the Office of General Counsel provides legal advice and is responsible for negotiating and drafting all contracts and grants on behalf of the Commission. This division also oversees the rulemaking process, in which additions and amendments to the Commission's rules are made. The Office of General Counsel also drafts general administrative orders (GAOs), which provide additional guidance to utilities on the Commission's policies and procedures.

## **External Affairs Division**

The External Affairs Division leads the Commission's public relations and communication efforts, which include responding to media inquiries, special initiatives such as cybersecurity and billing transparency, open forums with all stakeholders, and other public events. Using in-house technical expertise, the division also serves as an independent, neutral resource for state—and, on occasion, federal—legislative-related matters. The External Affairs Division also includes the Consumer Affairs Division (CAD), which serves as the liaison between the utilities and consumers. In addition, the External Affairs Division oversees the Commission's role in the State of Indiana's Department of Homeland Security Emergency Operations Center and the Commission's Continuity of Operations.



## Technical Divisions

The Commission's technical staff is made up primarily of accountants, engineers, and economists. Their main duty is to analyze the evidence in cases and make recommendations on cases that are pending. The technical divisions are as follows:

- Energy Division
- Research, Policy, and Planning Division
- Water and Wastewater Division
- Communications Division
- Pipeline Safety Division

These divisions monitor and evaluate regulatory, legislative, and policy initiatives that affect the electric, natural gas, water, wastewater, telecommunications, and video industries and their customers. The divisions also perform research, analyze testimony in docketed proceedings, and address utility issues outside of docketed proceedings.

The Research, Policy, and Planning Division provides advice and education on a wide variety of topics to the Commission, with its main focus being integrated resource planning.

Technical operations also includes the Pipeline Safety Division, which administers federal and state pipeline safety standards that apply to all intrastate natural gas and hazardous liquid pipeline operators.

# Administrative Law Process

The administrative law process is governed by Title 170 of the Indiana Administrative Code, which sets forth the procedures for cases that come before the Commission.

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## Regulations and Guidance

The agency promulgates rules and regulations regarding practice and procedures before the Commission and regarding utility standards of service. Before the Commission may add rules or make changes to its existing rules, it must follow the formal rulemaking process. In addition to the formal process dictated by statute, it is the practice of the Commission to hold informal workshops and discussions with stakeholders prior to initiating a formal rulemaking. This ensures the opportunity for public comment and allows the issues at hand to be fully vetted by all stakeholders in a transparent way. Although the rule development process can extend the time the rule is discussed, it helps achieve common ground among stakeholders before the formal process begins. For more information or to access documents and public comments related to these rulemakings, please visit [www.in.gov/iurc/2658.htm](http://www.in.gov/iurc/2658.htm).

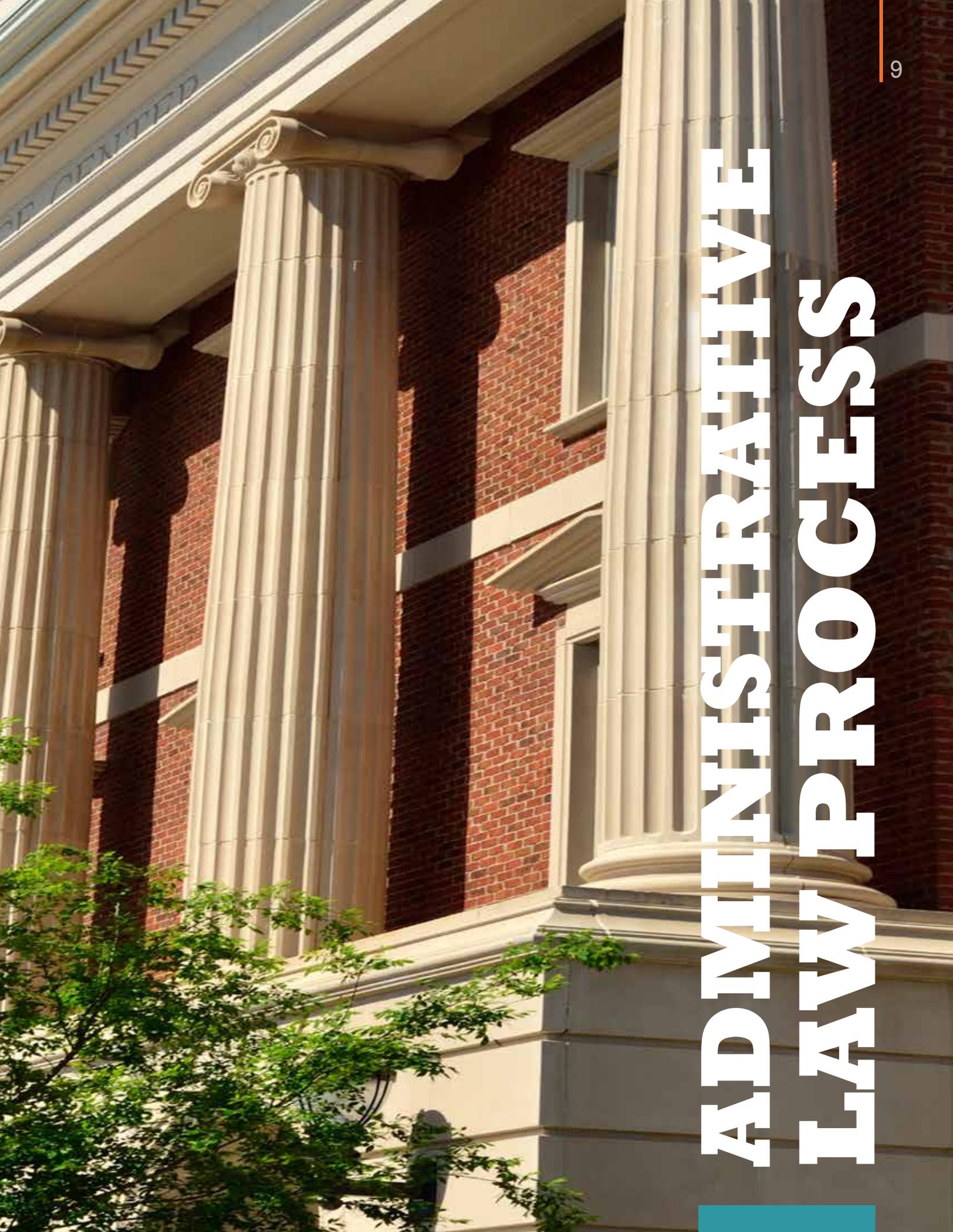
The Commission provides additional guidance to regulated utilities regarding policies and procedures through its general administrative orders (GAOs). These include policies such as governing interest rates for gas customer deposits, case procedures, and time parameters for general rate cases. To view the Commission's GAOs, go to [www.in.gov/iurc/2447.htm](http://www.in.gov/iurc/2447.htm).

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## How Cases Are Initiated

Cases may be initiated with the Commission in several ways, including these:

- A petition filed by a regulated utility seeking specific relief or approval
- A complaint filed against a utility
- An investigation initiated by the Commission concerning a specific utility or matters involving utility operations
- An appeal or a referral of a Consumer Affairs Division determination or complaint



# ADMINISTRATIVE LAW PROCESSES

When a case is filed with the Commission, it is formally docketed and given a case number. Each case is typically assigned to an administrative law judge (ALJ) and a commissioner, who preside over hearings and prepare the order in the case. Although multiple commissioners may be assigned to complex cases, a single commissioner is routinely assigned to each case.

The Indiana Office of Utility Consumer Counselor (OUCC) represents the public in all cases before the Commission. Any individual, organization, or company with a substantial interest in the case may request to intervene and, upon approval by the presiding officers, become a party to that case.

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## Case Procedure

Except for tracker proceedings, which are expedited cases and go directly to an evidentiary hearing, cases filed with or initiated by the Commission typically are set for a prehearing conference and preliminary hearing. At the prehearing conference, a procedural schedule is determined with the parties to establish the following:

- Deadlines for the prefiling of testimony and exhibits
- The date of the evidentiary hearing
- Other procedural requirements, such as deadlines for responding to discovery

## Field Hearings

The Commission also may hold field hearings in the area in which the utility provides service. These public hearings give consumers a more convenient opportunity to voice their opinions regarding cases pending before the Commission. Field hearings are required by law when the utility is seeking an increase of more than \$2.5 million. In cases where a field hearing is not required by law, a field hearing may be requested and held at the discretion of the Commission.



The Commission is required by Indiana Code § 8-1-1-8 to provide public notice of all hearings held by the Commission in at least one newspaper of general circulation in the utility's service area 10 days before the hearing.

## Settlements

Some cases are settled before they get through the complete administrative process. When the parties reach a settlement, a public hearing is held at which the various parties to the case present the terms of a negotiated settlement agreement to the Commission for consideration. The Commission can opt to accept the settlement, deny the settlement, or accept it only in part. To be approved, settlements must be supported by the evidence in the record, be in the public interest, and not be contrary to the law or public policy. Settlements generally must be reached before the last evidentiary hearing has occurred.

## Evidentiary Hearing

At the evidentiary hearing the prefiled testimony and exhibits are submitted to the Commission as evidence by the utility, the OUCC, and any other intervening party. At this public hearing, the petitioner, the OUCC, and any intervenors may cross-examine witnesses who prefiled testimony or exhibits.

## Executive Session

After all the evidence has been submitted and the record is closed, commissioners may hold an executive session in accordance with Indiana's Open Door Law (Ind. Code § 5-14-1.5-6.1 (b)). In addition, under Ind. Code § 8-1-1-5 (f) the Commission is given authority to hold an executive session to deliberate on a proposed order if all evidence has been received by the Commission and the deliberations are preparatory to taking final action on an order subject to judicial review. Only commissioners and Commission staff who are formally assigned to advise on or assist in preparing the order are allowed to participate in the executive sessions.

## Orders

The next step in the process is for the presiding commissioner to instruct the ALJ to prepare the order based on the evidence received at the hearing. Upon approval of the presiding commissioner, a draft order is circulated for review by the five commissioners for their consideration before a weekly conference meeting in which the commissioners vote on the order. Each commissioner may vote to approve the order in its entirety, dissent from the entire order, approve part of the order and dissent from other parts, approve all of the order but offer a separate opinion, or abstain from voting on the order. For an order to take effect, it must be approved by at least three of the commissioners.

The Commission's orders are legally binding. The comments and findings of the Commission are elaborated and thoroughly discussed within each order. A party that disagrees with an order may petition the Commission for rehearing or reconsideration, or the order can be appealed to the Indiana Court of Appeals.

Although the Commission attempts to be consistent in its decisions, the Commission's orders do not set precedent. The Commission is an impartial agency that is required by state law to evaluate each individual case based on the evidence provided by the parties in that case. Each case is unique due to the differing evidence provided.

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## Appeals

All Commission orders may be appealed by any person or entity adversely affected by the decision. Commission orders are appealed directly to the Indiana Court of Appeals. The Indiana Office of Attorney General represents the Commission in these appeals with assistance from the Commission's Office of General Counsel. The Court may affirm, remand, or reverse—or any combination of the three—the Commission's orders.



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## Types of Cases

The most common types of cases filed with the Commission are those dealing with the following:

- Utility's base rates
- Financing authority
- Rate adjustment mechanisms
- Service area
- Certificates of need

A base rate case begins when a utility files a petition with the Commission to modify its rates and charges. A public utility must inform its customers of the pending case within 45 days of the filing date. In a base rate case, the Commission considers the evidence presented and approves or denies in whole or in part a utility's rates and charges for the utility service being provided. By Indiana law, a utility's rates must be just and reasonable (Ind. Code § 8-1-2-4).

Certain regulated utilities also are required to obtain financing approval from the Commission prior to issuing stocks, bonds, or other indebtedness for periods of greater than one year. In such cases, the Commission considers the amount, type, and use of the requested financing to determine whether the request is reasonable.

Rate adjustment mechanisms (or tracker proceedings) involve the review and approval of certain utility costs (such as fuel, operation expenses, and costs related to previously approved programs or projects) on a periodic basis.

Service area and certificate of need cases involve Commission approval concerning a utility's provision of service in a particular area or the construction of certain facilities used in the provision of utility service.

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## Accessing Case Information on the Commission's Website

To access information pertaining to a docketed case, please visit the Commission's Electronic Document System, which can be accessed from the Commission's website at [www.in.gov/iurc](http://www.in.gov/iurc). Here, anyone can search for a case by entering the docket number, industry, petition date, petition type, party, or order date and then clicking Search. To watch hearings that are live streamed, please visit [www.in.gov/iurc/2624.htm](http://www.in.gov/iurc/2624.htm).

# Basics of Ratemaking

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## Why Rates Are Regulated

Providing utility services to homes and businesses requires very large capital investments in the necessary infrastructure, including generation or treatment plants; transmission and *distribution lines* or *mains*; and the systems to control the utility service, such as pumps, *substations*, and *transformers*. To avoid the high costs of unnecessary duplication of infrastructure, utilities in Indiana have generally been granted specific retail service territories or monopolies, pursuant to state law. In exchange for the utilities receiving exclusive service territories, they are obligated to serve the public safely and reliably without discrimination. To prevent a monopoly from overcharging customers, the state—through the Commission—regulates rates in a manner that provides sufficient funding for utilities to provide safe and reliable service to their customers. Additionally, an *investor-owned utility (IOU)* is granted an opportunity (but not a guarantee) for a reasonable return on investment. The obligation of the utilities to provide safe and reliable service to customers in exchange for regulated rates is often described as the *regulatory compact*.

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## Ratemaking Principles

Public utility regulation attempts to balance the likely benefits achieved from competition where it exists and the efficiency of operating as a monopoly. Although the Commission has many powers and duties, its primary regulatory function is the setting of rates. The basic principles of rate regulation are fairness, equity, and reasonable rates. Ratemaking determines the total allowable revenues for a utility and establishes individual rates or rate schedules for various customer classifications. Individual rates are based on the cost of the service provided.

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## Rates

As part of the utility ratemaking process, the Commission must determine both the total amount of revenues generated from operations that is required for the company to meet its objectives and needs, and the amount required to meet the needs and objectives of its customers. To achieve this balance, the Commission primarily relies on the cost of service, which determines the revenue requirements. When a utility is regulated by the Commission, the revenue requirement is dependent on the type of utility: investor-owned, municipal, or nonprofit.



# BASICS OF RAILTECHNIKING



For IOUs, the revenue requirement is equal to the total operating expenses, depreciation, taxes, and return on a utility's investment in **rate base**. Three basic elements are used in the determination of IOU rates:

- **Rate base**—A utility's rate base is the amount of money the utility has invested in the facilities that serve customers, minus accumulated depreciation, but including working capital and materials and supplies required to keep the company operating.
- **Operating expenses**—A utility's operating expenses are the costs incurred in a specific period that includes wages and benefits for employees, maintenance, educational advertising, customer services, material and supplies, **energy**, and administration costs, as well as taxes and depreciation.
- **Allowed return**—The allowed return is the money required to pay interest costs on borrowed money plus the additional amount paid to the shareholders for the use of their money. The facilities and working capital represented in the rate base have been obtained from money the utility has raised from its shareholders, retained from its earnings, or borrowed. The required return is calculated by multiplying the utility's rate base by its cost of capital—that is, what it costs the utility to obtain capital from lenders and from shareholders.

Operating expenses and allowed return, both expressed in dollars, are added together to determine the utility's total revenue requirement, or its cost of service. Total revenue requirement represents the dollars the utility will have to collect from anticipated sales to cover expenses and earn its allowed rate of return. When expressed as an equation, the revenue requirement is

$$\text{Total Revenue Requirement} = \text{Operating Expenses} + (\text{Rate Base} \times \text{Rate of Return})$$

The following items are included in the revenue requirement for each general type of utility under the Commission's authority.

### **Investor Owned Utilities — Indiana Code § 8-1-2-4:**

- Operation and maintenance expenses
- Depreciation
- Income taxes and income tax credits (ITCs)
- Taxes other than income

For large utilities, the components are

<b>RATE BASE</b>	<b>CAPITAL STRUCTURE</b>
<p><b>Add:</b></p> <ul style="list-style-type: none"> <li>• Utility Plant in Service</li> <li>• Allowance for Funds Used During Construction (AFUDC)</li> <li>• Materials and Supplies (13-month avg.)</li> <li>• Deferred Depreciation, if approved</li> <li>• Post-in-Service AFUDC, if approved</li> <li>• Acquisition Adjustments (net), if approved</li> </ul> <p><b>Less:</b></p> <ul style="list-style-type: none"> <li>• Accumulated Depreciation</li> <li>• Contributions in Aid of Construction</li> <li>• Customer Advances for Construction</li> </ul>	<ul style="list-style-type: none"> <li>• Long-term Debt</li> <li>• Common Equity</li> <li>• Preferred Stock</li> <li>• Post-retirement Benefits, net</li> <li>• Deferred Income Taxes</li> <li>• Job Development ITC-Post 1970</li> <li>• Deferred ITC-Pre 1971</li> <li>• Customer Deposits</li> </ul>

### **Municipal Utilities — Ind. Code § 8-1.5-3-8:**

- Operation and maintenance expenses
- Extensions and replacements or depreciation
- Debt service
- Debt service reserve
- Working capital
- Taxes other than income taxes
- Payment in lieu of taxes
- Return on investment

### **Nonprofit Utilities — Ind. Code § 8-1-2-125:**

- Operation and maintenance expenses
- Extensions and replacements
- Debt service
- Debt service reserve
- Working capital
- Taxes other than income taxes

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## Rate Design

After the revenue requirement is determined, a utility allocates these revenues to different customers (for example, residential, commercial, industrial, or wholesale) and creates a rate design. The rate design may include fixed charges, volumetric charges, or surcharges. Indiana statutes do not mandate a specific rate design, but rates and charges must pass the “just and reasonable” test. Specifically, Ind. Code § 8-1-2-4 states:

The charge made by any public utility for any service rendered or to be rendered either directly or in connection therewith shall be reasonable and just, and every unjust or unreasonable charge for such service is prohibited and declared unlawful.

In designing a *rate structure*, a utility should determine how its rate structure can support its general goals and objectives, which may include the following:

- Producing total annual revenues in a stable and predictable manner
- Promoting fairness and equity and avoiding discrimination between customers
- Promoting conservation and discouraging wasteful use
- Maintaining simplicity and administrative feasibility
- Complying with all applicable rules and regulations

When general goals and objectives are well understood and evaluated, a utility has the opportunity to design a rate structure that not only recovers the utility’s cost, but also effectively communicates its objectives to customers.

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## General Factors Affecting Rates

Customers frequently ask why their rates are increasing. The following are some general factors that affect rates.

### Changes in Customers and Their Use of Utility Service

The amount of utility service used per customer is a factor in rates. For example, although the United States uses more water per customer than any other country, the amount of water consumed per customer has been declining. Customer usage of electricity has remained relatively flat in recent years. This can be attributed to the following factors:

- Increased use of efficient appliances
- Low-water-use landscaping
- Utility efficiency programs
- Rate structures discouraging higher consumption
- General increase in rates

Because utility service is characterized by high fixed costs, when per capita consumption declines, without a corresponding increase in the number of customers, rates need to be increased to make up that revenue shortfall. For smaller utilities that might serve a large industrial or commercial customer, the loss of that customer would shift the fixed costs used to serve that customer to the remaining customers and cause an increase in rates for the remaining customers.

## **Need to Replace Infrastructure**

In terms of the revenue requirement, an IOU can earn a return on a plant it constructed and a municipal or nonprofit utility can include debt service, extensions, and replacements. Generically, this is considered utility infrastructure. Aging infrastructure is one of the most critical issues in the utility industry today because it is costly to replace infrastructure, particularly if most of that infrastructure is underground.

## **Increases in Federal Regulation**

The federal government has continued to expand its regulation of various types of utilities, including enhancing the security of critical infrastructure and the safety of pipelines. However, the largest expansion of federal regulation has continued to be environmental regulations. The federal regulations affecting each utility type are mentioned in those sections of this guide. The costs of complying with federal regulation, including capital investments and related operation and maintenance expenses, are allowed under state law to be recovered through the utility's rates.

## **For Additional Information**

This section briefly describes how rates are generally determined for regulated utilities. For more detailed information regarding how rates are determined for regulated utilities, please contact the Commission's External Affairs Division at (317) 233-4723.



# Energy Division

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## Introduction

This guide provides background information about various aspects of energy utility regulation, including the following:

- Overview of regulation
- Electric power industry structure
- Natural gas industry structure
- Pricing and economics for electricity and natural gas
- Investment in utility infrastructure and efficiency
- Regulatory initiatives for electricity and natural gas

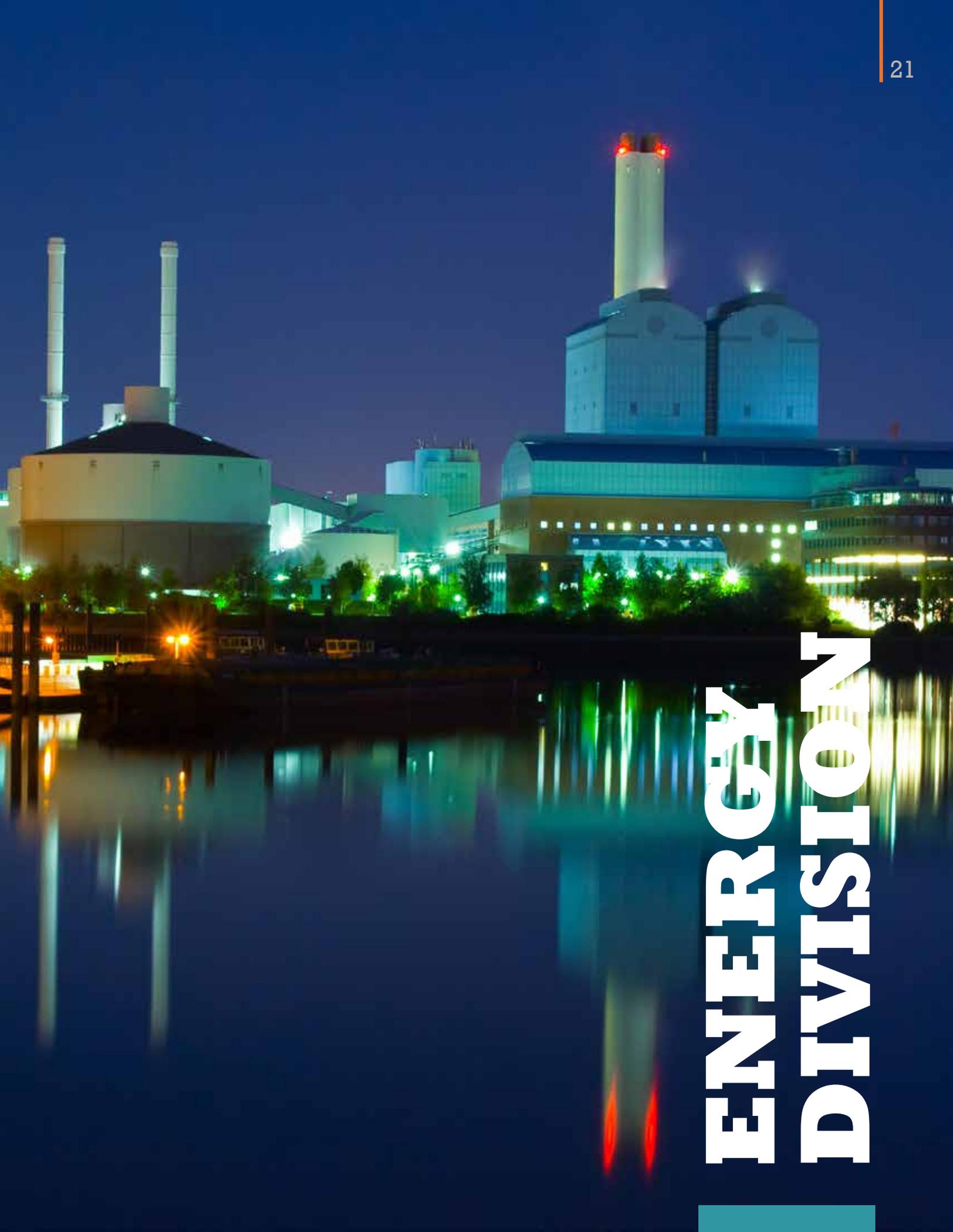
To learn more about these topics or to view the agency's annual reports, please visit [www.in.gov/iurc](http://www.in.gov/iurc).

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## Overview of Regulation

The Energy Division assists the Commission in regulating the rates and charges of electricity utilities, natural gas local distribution companies (LDCs), and intrastate pipelines. The division monitors and evaluates regulatory and policy initiatives affecting the state's electric and natural gas industries. It also reviews and advises the Commission on regulatory proceedings initiated by Indiana electricity and natural gas utilities involving increases in rates, environmental compliance plans, permission to build or purchase power generation plants, energy-efficiency programs, reliability, service quality, fuel cost adjustments, gas cost adjustments, service territories, Commission-initiated investigations, pipeline safety violation appeals, alternative regulatory proposals, special contract approvals, industry-related rulemakings, and many other issues.

The Energy Division also works closely with the Commission's Pipeline Safety Division and Research, Policy, and Planning Division. The Pipeline Safety Division regulates the infrastructure that transports natural gas throughout the state, and the Commission's Research, Policy, and Planning Division monitors regional transmission organizations, *integrated resource planning*, and *demand-side management* initiatives.



# ENERGY DIVISION



## Electric Power Industry Structure

The electric power industry is regulated at both the federal and state levels. At the federal level, the Federal Energy Regulatory Commission (FERC) regulates the **transmission** and wholesale of electricity in interstate commerce. It also reviews certain mergers, acquisitions, and corporate transactions by electric companies. Additionally, FERC protects the reliability of the high-voltage interstate transmission system through mandatory reliability standards. Other federal agencies involved in the electric energy industry include the following:

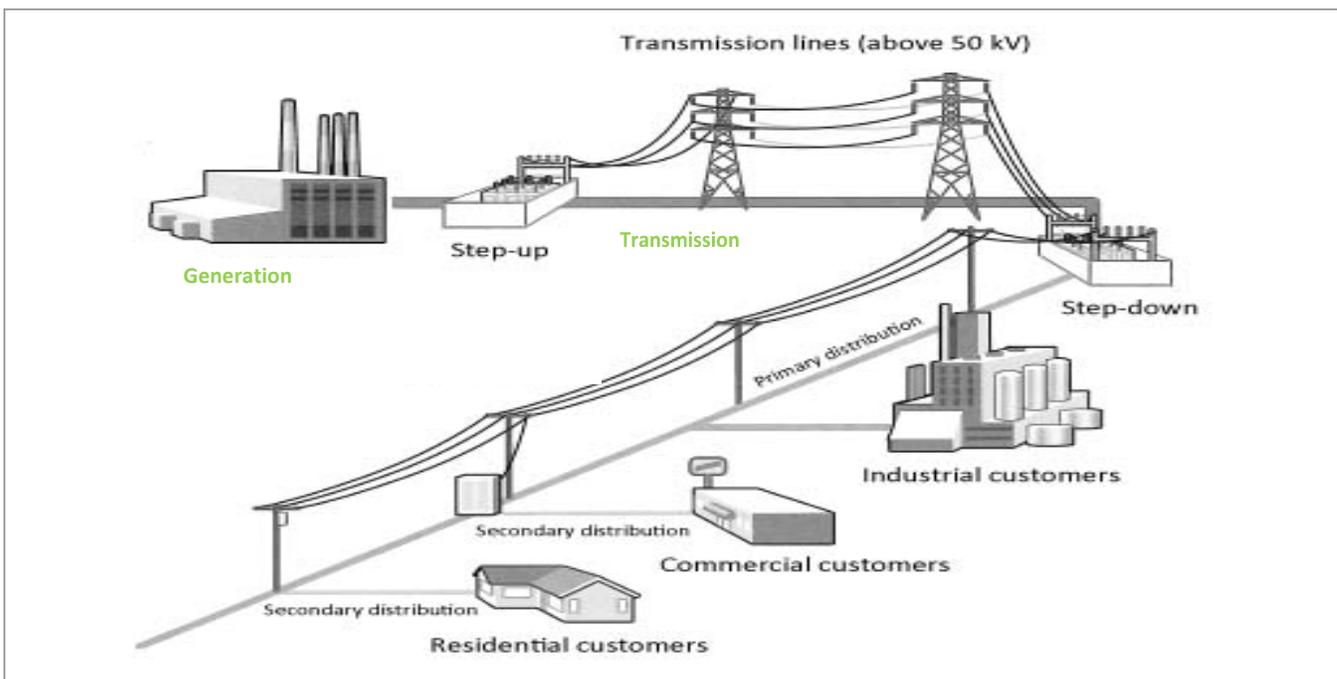
- Nuclear Regulatory Commission
- United States Environmental Protection Agency (U.S. EPA)
- United States Department of Energy
- Securities and Exchange Commission
- Federal Trade Commission

The Commission oversees generation and distribution facilities and has jurisdiction over retail electric service. In Indiana, electric utilities function as monopolies.

### How It Works

Indiana's electric power generation takes place at large power plants and smaller facilities, such as solar farms, scattered across the state. The power produced is injected into an interconnected power **grid** of high-voltage (138kV and above) **transmission lines** and low-voltage (below 138kV) distribution lines. It does not matter whether the power enters the grid at a power plant or wind farm (high-voltage transmission) or at a solar farm or gas generator at a landfill (low-voltage distribution); the grid must constantly adjust to the power flows and maintain the typical 120 volts, 60 cycles/second electric service that consumers expect to receive and that is necessary to run most appliances and equipment.

### Electric Generation, Transmission, and Distribution Diagram



Indiana's electric power is provided by investor-owned utilities (IOUs), municipally owned utilities (municipals), and the Wabash Valley Power Authority (WVPA) and Indiana Municipal Power Agency (IMPA). All electric utilities serving Indiana customers operate in exclusive service territories.

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## Natural Gas Industry Structure

The natural gas industry consists of three systems:

- Producers (the gathering system)
- Interstate and intrastate pipelines (the transmission system)
- Local distribution companies (the distribution system)

*Interstate pipelines*, regulated by 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. Other federal industries involved in the natural gas industry include the following:

- Federal Trade Commission
- U.S. Department of Energy
- U.S. Environmental Protection Agency
- U.S. Securities and Exchange Commission

In Indiana, the Commission regulates the rates, charges, and terms of service for intrastate pipelines and LDCs. Through its Pipeline Safety Division, the Commission enforces state and federal regulations for all intrastate natural gas facilities. Additionally, the Commission reviews gas cost adjustments (GCAs), financial arrangements, and service territory requests

and conducts investigatory proceedings. It also analyzes various forms of alternative regulatory proposals, such as rate *decoupling*, rate adjustment mechanisms, and customer choice initiatives.

## How It Works

Three main systems are involved in getting natural gas from the ground to customers' homes. First is the production system in which the natural gas is turned into a form that customers can use. Next is the transmission system, which includes interstate and intrastate pipelines. Last is the distribution system that delivers the gas to customers.

### Production System

The production of natural gas begins with raw natural gas extracted at the wellhead, where initial purification occurs before the gas enters the low-pressure, small-diameter pipelines of the gathering system. The natural gas is then re-purified at a processing plant. Purified natural gas consists of approximately 90 percent methane, compared to raw natural gas that is generally 70 percent methane combined with a variety of other compounds. Natural gas is required to meet certain standards for quality and safety reasons before it is released into the pipeline system.

### Transmission System

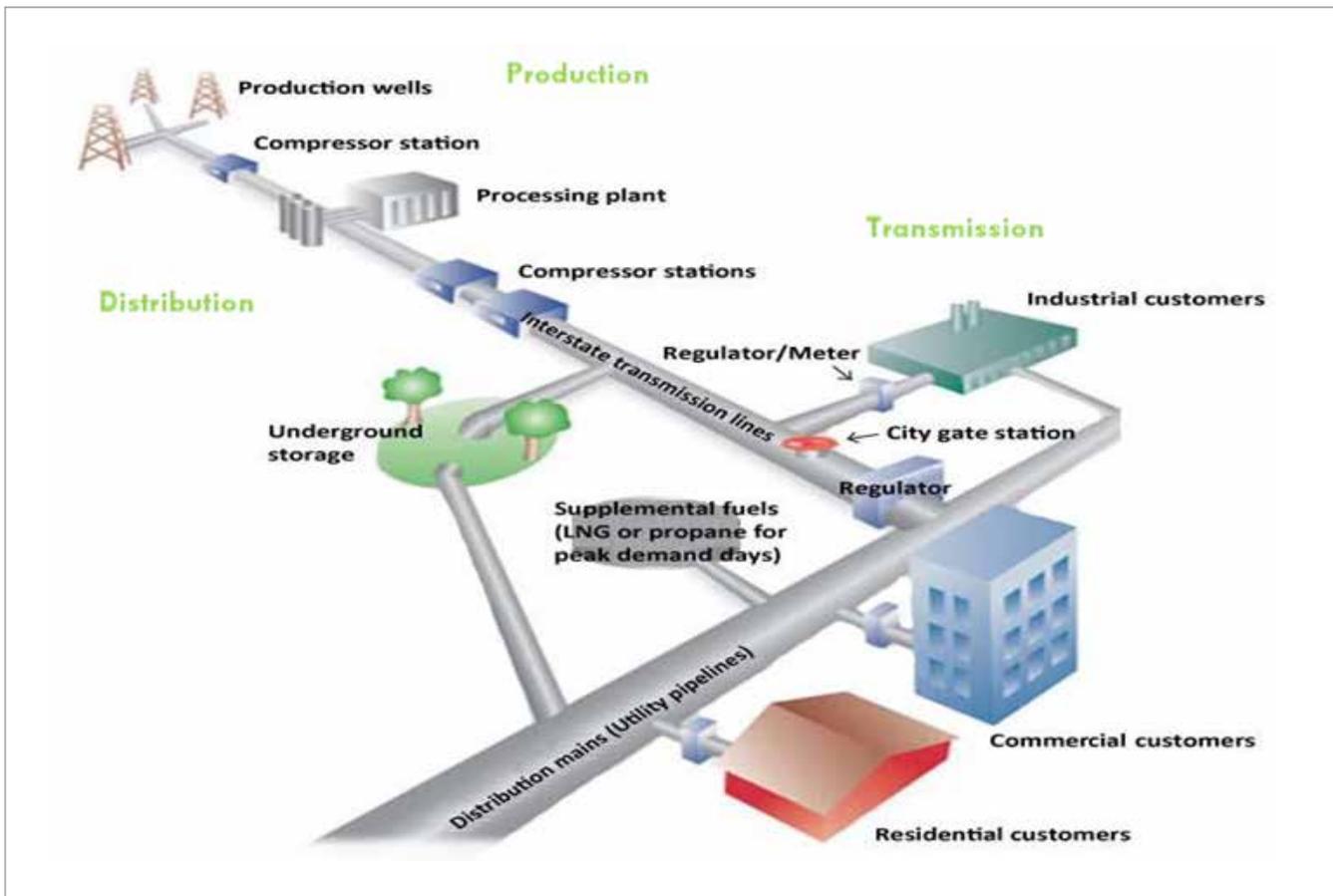
The transmission system includes interstate and intrastate pipelines that carry natural gas from producing regions throughout the United States to LDCs, industrial customers, and electric generation customers. The vast majority of natural gas consumed in Indiana is produced out of state. Because only a small portion is produced in Indiana, the state is very dependent on the gas transmission system to carry natural gas from producing regions of the country into the state.

Two intrastate pipelines are under the Commission's jurisdiction: Heartland Pipeline (Heartland) and the Ohio Valley Hub Pipeline (OVH). The Commission governs these pipelines' operations, services, and rates. Heartland is a 25-mile pipeline running west to east that connects the Midwestern Gas Transmission (MGT) interstate pipeline in Sullivan, Indiana, to Citizens Gas's underground storage facility in Greene County, Indiana. OVH is a 9.2-mile pipeline located in Knox County, Indiana. It connects two interstate pipelines (Texas Gas Transmission and MGT) to the Monroe City Gas Storage Field owned by Vectren.

## 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 (that is, commodity and transportation) or unbundled basis (that is, the customer buys gas from a producer or marketer and pays the LDC to transport the gas from the *city gate* to the customer's facilities). Note that the city gate is the delivery point where the natural gas is transferred from a transmission pipeline to an LDC. Customers include the residential, commercial, and industrial classes.

### Natural Gas Production, Transmission, and Distribution Diagram



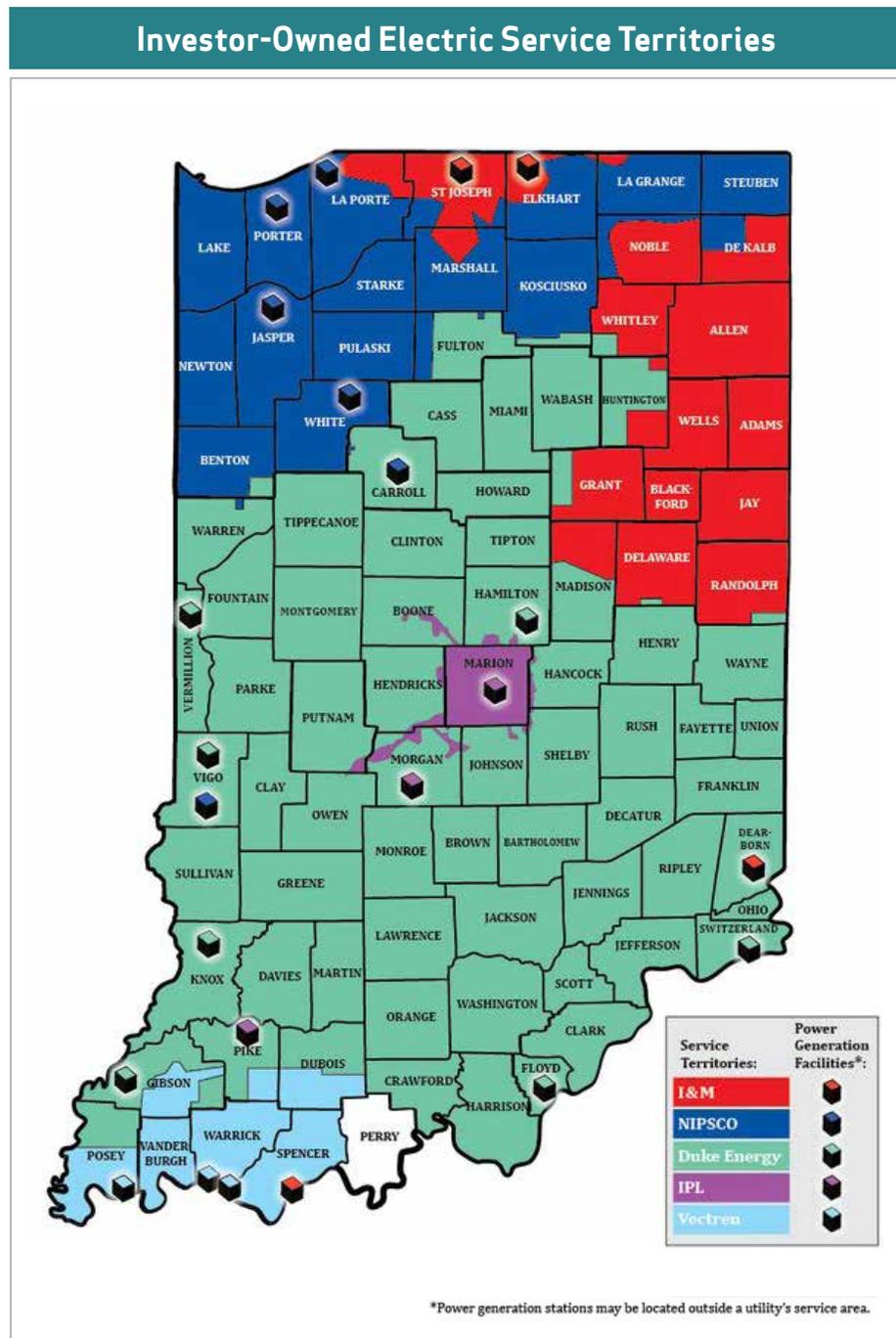
## List of Currently Regulated Utilities

Investor-Owned Electric Utilities Under the Commission's Jurisdiction		
Duke Energy Indiana	Northern Indiana Public Service Company (NIPSCO)	
Indiana Michigan Power (I&M)	Southern Indiana Gas & Electric Co. (SIGECO) (aka Vectren South)	
Indianapolis Power & Light Co. (IPL)		
Municipal Electric Utilities Under the Commission's Jurisdiction		
Anderson	Frankfort	Lebanon
Auburn	Kingsford Heights	Richmond
Crawfordsville	Knightstown	Tipton
Investor-Owned Natural Gas Utilities Under the Commission'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 Gas Company, Inc. (aka Vectren North)	Southern Indiana Gas & Electric Co. (SIGECO) (aka Vectren South)	
Indiana Natural Gas Corporation	Switzerland County Natural Gas Company	
Indiana Utilities Corporation	Sycamore Gas Company	
Midwest Natural Gas Corporation		
Nonprofit Natural Gas Utilities Under the Commission's Jurisdiction		
Valley Rural Utility Company		
Municipal Natural Gas Utilities Under the Commission's Jurisdiction		
Citizens Gas (for regulatory purposes only)		

Following are the maps of the investor-owned electric and natural gas utilities' service territories. The maps are simplified versions that show the overall extent of the IOUs' territories (the white areas on the maps denote areas not in the IOUs' service territories). In addition to these maps, the Commission maintains the official electric service territory map in a GIS format that outlines the territories of all electricity providers in the state. The map can be viewed at the IndianaMAP website at <http://maps.indiana.edu/>. Once the map is visible, click the Add Content button near the upper-left corner of the screen. Click Infrastructure, scroll down to Energy Electric Service Territories, and select the box next to it. Scroll back to the top of the list to close it. Other layers can be added from the list if desired. Clicking an area of the map will provide the name of the electricity provider.

## Types of Regulated Electric and Natural Gas Utilities

Several types of electric and natural gas utilities exist in Indiana. IOUs are private businesses with shareholders, whereas municipal utilities are owned and managed by cities and towns. *Rural electric membership cooperatives (REMCs)* are organizations in which each customer is a member and an owner of the business, with voting authority within the organization.



## Investor-owned Utilities

In exchange for the IOUs receiving exclusive service territories, the Commission regulates their rates and charges. This regulation includes an opportunity (but not a guarantee) for the utility to earn a reasonable return on investment, with the utilities being obligated to provide safe and reliable service to customers. These obligations often are described as the regulatory compact. The following are the five electric IOUs in Indiana:

- Duke
- I&M
- IPL
- NIPSCO
- Vectren South

The Commission has regulatory authority over 17 natural gas distribution utilities in Indiana. The 3 largest gas IOUs operating in Indiana are NIPSCO, Indiana Gas Company, and Vectren South.

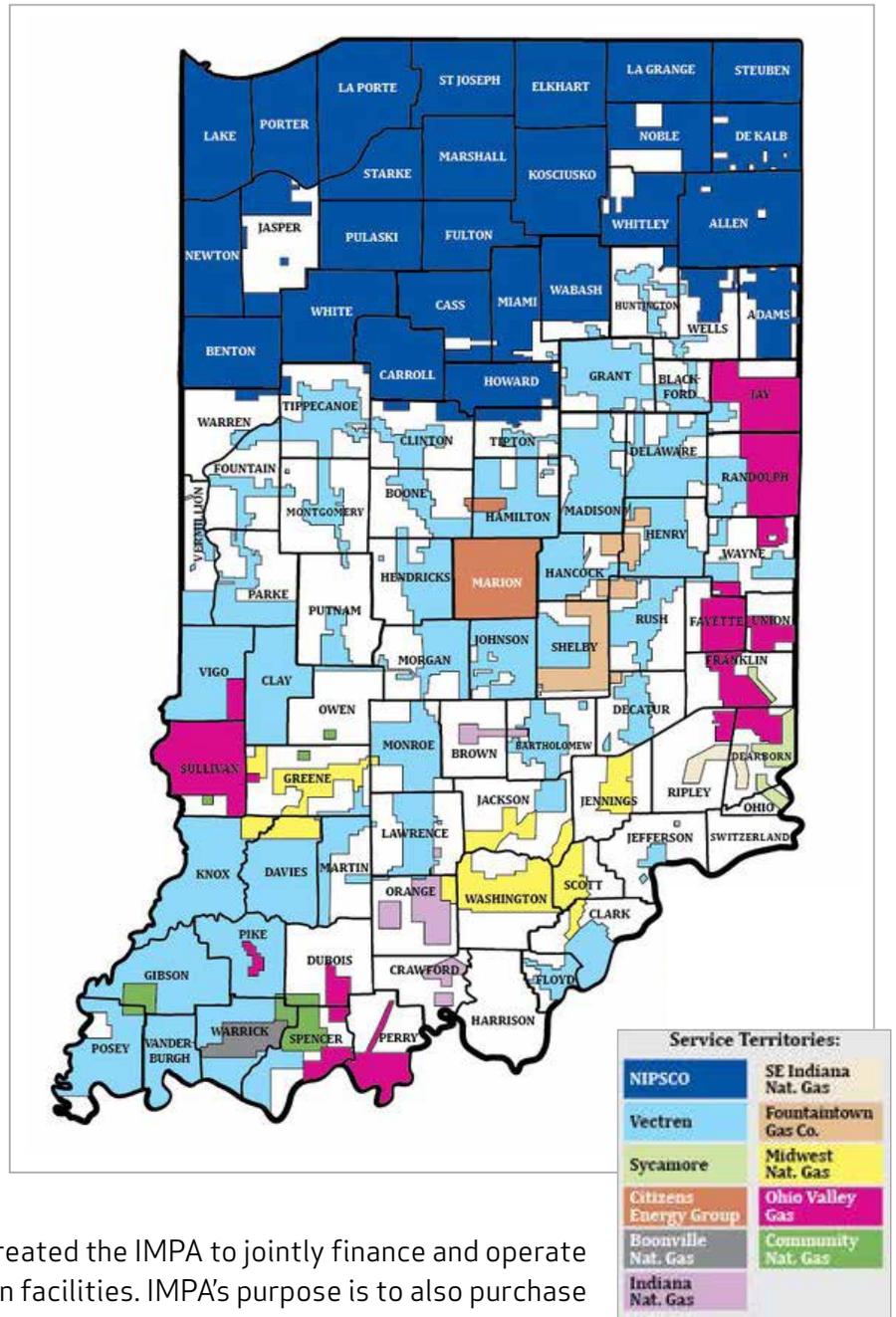
## Municipal Utilities

In 1980, a group of municipalities created the IMPA to jointly finance and operate electric generation and transmission facilities. IMPA's purpose is to also purchase wholesale power and meet members' needs through a combination of member-owned generating facilities, member-dedicated generation, and purchased power.

Not all municipals in the state are members of IMPA; state law allows municipals to remove themselves or withdraw from parts of the Commission's authority. The majority of the municipals in Indiana have withdrawn from the Commission's authority over rate regulation. In some cases, the Commission can review the financing for individual municipals outside the normal rate setting procedures in rate cases.

Citizens Gas is a public charitable trust that is treated as a municipal utility for regulatory purposes. All natural gas municipals in Indiana have withdrawn from the Commission's authority over rate regulation.

## Investor-Owned Natural Gas Service Territories



## Rural Electric Membership Cooperatives

REMCs are customer-owned utilities, all of which are members of either the Hoosier Energy Rural Electric Cooperative, Inc. (Hoosier Energy) or the WVPA. Hoosier Energy is generally located in the southern part of the state, whereas WVPA is located in the northern part of the state. The Commission's regulation of Hoosier Energy and WVPA is primarily limited to resource planning and decisions to purchase, build, or lease generation facilities. In addition, the Commission retains authority over WVPA's long-term financing. REMCs, like municipalities, have the ability to remove themselves or withdraw from the Commission's authority over their rates. No REMCs remain under Commission jurisdiction for rate regulation.

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## Pricing and Economics for Electricity and Natural Gas

Among the major forces influencing the price of electricity are *demand* and compliance with environmental regulations. The major demand forces influencing the price of natural gas are oil prices, economic growth, and weather; the major supply forces influencing the price of natural gas are variations in natural gas production levels, net imports, and storage levels. This section discusses these as well as trends we will likely see in the coming years. It also examines bills—what those bills include and how Indiana's prices compare to other states. Many of these conclusions have been derived from various sources, including the State Utility Forecasting Group (SUFG).



### Forces Influencing Pricing

Prices are expected to increase with demand over the next 20 years. The costs associated with constructing new generating facilities and extending the useful life of existing facilities will contribute to higher electricity prices. Many aging coal-fired generation units are facing retirement or shutdown earlier than planned due to increasingly restrictive environmental regulations. Construction retrofits needed to comply with environmental rules such as the U.S. EPA's Mercury and Air Toxics Standards (MATS) and updates to the Cross-State Air Pollution Rule (CSAPR) put significant upward pressure on electricity prices.

The supply of and demand for natural gas impacts pricing for the commodity. Oil prices, economic growth, and weather are the primary factors driving demand for natural gas. When demand is high and supply is low, prices tend to rise. When demand is low and supply is high, prices tend to decline.

Because natural gas is a cleaner burning fuel than coal, it often is used as an alternative fuel source for electricity

generation, especially considering low current gas prices and proposed U.S. EPA regulations, including the Clean Power Plan (CPP). New technology and lower extraction costs have led to increased drilling for nonconventional gas supplies (for example, coal bed methane, shale gas, and tight sands). The recovery of sources of gas previously considered “unrecoverable” has contributed significantly to supply and has leveled swings in demand. The main factors influencing natural gas supply include variations in natural gas production levels, net imports, and storage levels. Currently, the supply for natural gas is plentiful, which puts downward pressure on pricing. However, the use of natural gas for electric generation to meet environmental compliance mandates may result in greater demand for natural gas. This situation could reduce excess supply and increase the price of natural gas in the future.

## Long-Term Trends

Indiana has historically maintained competitive average total customer retail rates for electricity. However, variability in retail rates occurs because of a variety of factors such as timing of rate cases both in and out of state, fluctuations in the cost of fuel, and investment costs in response to environmental mandates. Recently, a general upward trend in coal prices and a downward trend in natural gas prices have occurred. These trends have reduced Indiana’s relative price advantage because the state has depended mostly on coal for electricity generation in the past. Additional environmental regulations and aging infrastructure are a cause of concern across all utility sectors and could reduce Indiana’s relative price advantage further.

Over the next two decades, the state’s electricity demand is forecasted to increase slowly. However, the number of generating

facilities is likely to be greater than the capacity added in the last two decades due to the anticipated retirement of several older coal-fired units and the replacement of the capacity with natural gas-fired generating units and renewable resources.

The SUFG at Purdue University, established by statute to provide an independent forecast of Indiana’s electricity needs, projects slowing growth in both electricity sales and **peak demand**. Electricity usage is projected to grow at an annual rate of 1.17 percent over the next 20 years, and peak electricity demand is expected to grow at an average rate of 1.13 percent annually, or 235 megawatts (MW) of increased peak demand per year. These projections are higher than those in the 2013 forecast, primarily due to decreases in the amount of utility-sponsored **energy efficiency** compared to earlier projections. Despite slower growth in electricity sales and peak demand, the SUFG’s forecast predicts Indiana electricity prices will continue to rise in real (inflation-adjusted) terms through 2021 and then slowly decrease until 2027, and significant additional resources will likely be required in the near future.

Indiana has consistently performed well in comparison to other states for residential and commercial delivered (bundled) natural gas prices. Until recently, the supply has overwhelmed any upticks in demand. However, increased demand for cleaner energy sources may diminish the oversupply and cause an uptick in pricing. Consumption in the residential sector has been decreasing despite economic growth, as overall demand is reduced by population shifts, improvements in appliance efficiency, and increased use of electricity for home heating.

## Customer Bill Composition

An electric customer's bill consists of four main components:

- Base rates
- Expense adjustments (which are adjustable rate mechanisms)
- A service charge
- Capital adjustments (which are adjustable rate mechanisms)

The base rate and service charge together account for more than 70 percent of the bill. The remaining bill components include expense-related trackers, which range from 13 percent to 25 percent of the bill, and capital trackers that account for less than 5 percent of the bill.

A natural gas customer's bill includes the following:

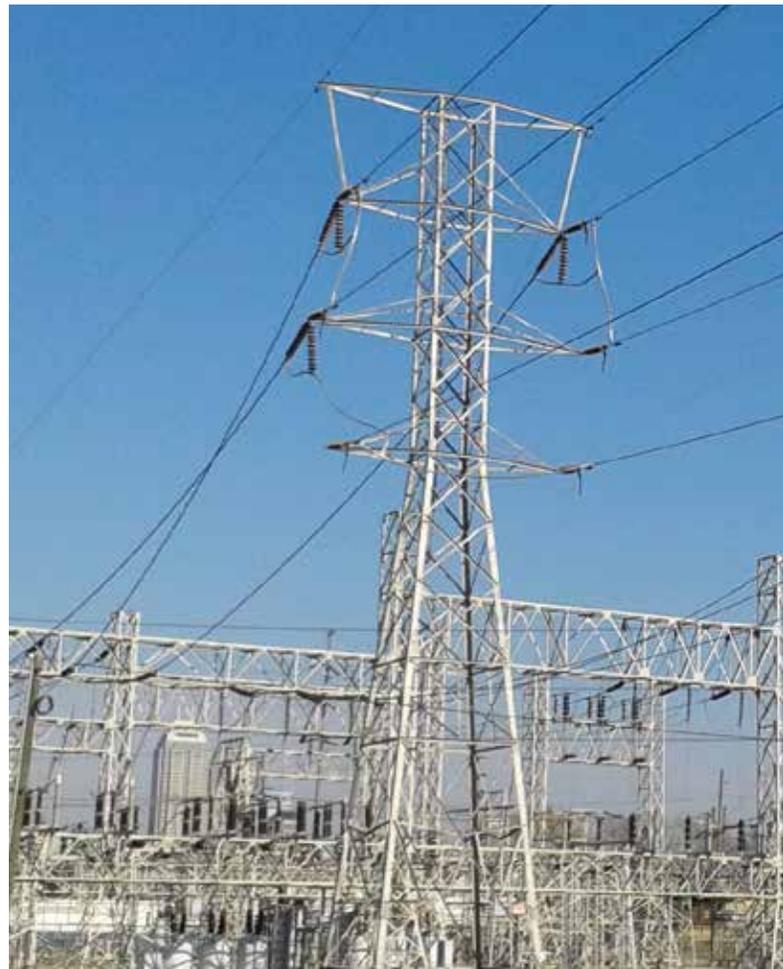
- Commodity costs
- Distribution costs
- A service charge
- Adjustable rate mechanisms (trackers)

Typically, during the winter months, the majority of a customer's bill is the commodity cost (that is, natural gas); it usually accounts for more than 60 percent of the bill. During the summer months when customers consume less natural gas, a customer's bill has a higher percentage of distribution costs. Trackers constitute a small portion of a customer's bill (less than 5 percent).

## Industry Bill Surveys

Indiana's average retail prices for electricity have been, and continue to be, competitive both nationally and regionally. However, the electricity rates are not ranked as low as they used to be. Indiana is still competitive, but its average electricity price ranking has lost ground to other states in recent years due to changes in the commodity markets and compliance with new federal environmental regulations. Annual electricity bill surveys can be found at [www.in.gov/iurc/2761.htm](http://www.in.gov/iurc/2761.htm).

Over the last five years, Indiana has consistently performed well in comparison with other states for residential gas prices, averaging in the top 25 percent nationally. Annual natural gas bill surveys can be found at [www.in.gov/iurc/2549.htm](http://www.in.gov/iurc/2549.htm).



## Adjustable Rate Mechanisms

In addition to traditional ratemaking (refer to the “Basics of Ratemaking” section), Indiana’s regulatory statutes allow for adjustable rate mechanisms (trackers) for specific expenses and capital investments. Tracking mechanisms provide timely flow-through of specifically defined costs to retail rates, compared to adjustments that would occur as the result of a rate case. All requests for cost recovery require Commission approval. As a part of the review process, the Indiana Office of Utility Counselor (OUCC) and other stakeholders examine the underlying support for the requested rate adjustment and may provide evidence supporting or contesting the request in proceedings. The Commission also reviews the tracked costs before rendering a decision.

In addition to ongoing project progress and cost recovery oversight in the tracker proceedings, capital investment plans go through a preapproval process. In the statutorily required preapproval process, in which stakeholders, including consumers, are involved, the Commission must make findings regarding the estimated cost and reasonableness of the project while considering alternative solutions.

## Expense Trackers

An *expense tracker* enables retail rates to be adjusted outside the context of a base rate case to reflect changes in operating expenses. These adjustments do not include the recovery of any financing cost, but merely allow the utility to recover what it has spent on a dollar-for-dollar basis. The pass-through of unpredictable revenues and expenses to ratepayers reduces volatility in the utility’s earnings and strengthens the utility’s credit rating. The intended goal of such trackers is recovery of expenses that are characterized as largely

outside the utility’s control, volatile in nature, and materially significant.

## Capital Investment Trackers

By comparison, a *capital investment tracker* enables a utility to recover statutorily defined capital investment it makes in its system—such as clean coal and energy generation or transmission and distribution improvements—in its rates outside of a traditional base rate case. This allows the utility to timely match its investment and the compensation for that investment. These investments are subject to preapproval to ensure they offer cost-effective solutions for meeting the needs of customers. Because capital investment generally leads to related operating expenses when the project is placed into service, these trackers often combine the capital and expense aspects into a single rate adjustment mechanism.

Credit rating agencies typically view such trackers favorably. The benefits to ratepayers from such trackers include the mitigation of rate shock and a reduction in financing costs (that is, lower interest rates) over the life of the investment.

The following is a list of statutorily allowed trackers that have been approved by the Commission.

### NATURAL GAS

- Gas Cost Adjustment
- Transmission, Distribution, and Storage System Improvement Charge
- Normal Temperature Adjustment
- Energy Efficiency Funding Component
- Sales Reconciliation Component
- Pipeline Safety Adjustment
- Universal Service Fund
- Transmission, Distribution, and Storage System Improvement Charge
- Customer Benefit Distribution Charge

**ELECTRICITY**

- Fuel Adjustment Charge
- Demand-side Management
- Regional Transmission Operator Expenses
- Opportunity Sales Sharing
- Reliability Assurance or Capacity Cost
- Emissions Allowance Costs
- Clean Coal Technology Investment and Operating Cost
- Integrated Gasification Combined
- Cycle
- Nuclear Life-cycle Management Cost
- Federally Mandated Cyber Security Cost
- Federally Mandated Environmental Cost

**Special Customer Contracts**

A customer may enter into a *special rate contract* with a utility. Typically, such special rate contracts encourage large-volume users to expand operations or locate within the service territory. They also can be used to help retain a customer. Such a contract might be necessary if the utility's rate structure does not provide a *rate class* that adequately meets the customer's unique needs.

A Commission-approved special contract rate is between a customer and the utility and is allowed under Indiana Code §§ 8-1-2-24 and 8-1-2-25. The utility and customer negotiate the pricing structure and provide the information to the Commission in a docketed proceeding. The evidence is reviewed by the OUCC, intervening parties, and the Commission. The Commission must determine whether the contract is just and reasonable, practicable and advantageous to the parties, and consistent with Indiana Code chapter 8-1-2.

**Alternative Regulatory Plans**

An alternative regulatory plan (ARP) enables a utility to adopt alternative regulatory practices, procedures, and mechanisms and establish rates and charges outside of a formal rate case. Ind. Code chapter 8-1-2.5 allows the Commission to issue orders and formulate and adopt rules and policies, including declining to exercise the Commission's authority, to flexibly regulate and control the provision of energy services to the public in an increasingly competitive environment, with consideration of the interest of consumers and the public and the continued availability of safe, adequate, efficient, and economical energy service.

**Certificate of Public Convenience and Necessity**

To bring new electric generation online, state law requires all electric utilities to receive approval from the Commission through the certificate of need process. This 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); only utilities that intend to own or lease a generation facility must seek a CPCN.

**Certificate of Territorial Authority**

The customer base for electric and natural gas utilities is determined through Commission-authorized service territories. For electric utilities, the entire state of Indiana has been divided into service territories and each service territory is assigned exclusively to a single electric utility.

The service areas that natural gas utilities serve do not encompass the whole state because alternatives to natural gas (for example, propane) exist in rural areas. If a natural gas utility wants to expand its service area, it must petition the Commission to serve a particular area. The utility must prove it meets all the statutory requirements to obtain a Certificate of Territorial Authority (CTA).

Unlike the electric service areas that are exclusive to the utility providing the service, natural gas service territories are not exclusive, which can result in more than one utility potentially providing service in the same area. When a natural gas utility wants to provide service in an area already being served by another natural gas utility, the utility requesting the CTA, the utility currently holding the CTA, and the Commission must come to an agreement regarding who the sole natural gas provider in the area will be. Ultimately, having one natural gas utility serve a particular area avoids costly duplicate infrastructure and service provider confusion for customers. Utilities also can petition the Commission to modify their service territories.



## Investment in Utility Infrastructure and Efficiency

Senate Enrolled Act (SEA) 560, enacted in 2013, provided new incentives for utility companies and businesses to replace aging infrastructure and modernize their transmission and distribution systems. To encourage utility infrastructure investment, the legislature created a new tracker called the transmission, distribution, and storage system improvement charge (TDSIC). It includes projects related to the following:

- Safety
- Reliability
- System modernization
- Economic development

Previously, these costs would have been included in rates for recovery in a base rate case. Now utilities can petition for recovery on a more frequent basis. Both electric and natural gas utilities within Indiana have active TDSIC trackers.

### Net Metering

*Net metering* enables residential and commercial customers who generate their own electricity by installing renewable energy facilities, such as wind turbines or solar panels, to feed electricity they do not use back into the grid, while also relying on the electric utility as a backup 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. If the amount of electricity the customer received from the utility is less than the amount delivered to the utility, the customer receives a credit on their next bill.

The Commission revised its net metering rules in July 2011. As a result, net metering is now available to all customer classes and energy production facilities having a maximum capacity of 1 MW or less. A utility can limit the total capacity under the net metering tariff to 1 percent of its most recent summer peak load. The changes to the rule have resulted in a significant increase in net metering participation in the state.

## Feed-in Tariffs

Small-scale renewable energy technologies that use solar, wind, and/or *biomass* to produce energy often initially require subsidies to compete with traditional generation resources that burn coal or gas. Therefore, many utilities, with the support of their regulators, encourage the development of renewable technologies by offering to buy energy 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 can purchase energy, a feed-in tariff specifies the price at which a utility will purchase energy generated by qualified, customer-owned facilities. Feed-in rates align costs and attributes between technologies and unit size in an effort to avoid encouraging any 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 through which fuel expenses are recovered. A balance can be struck between the desire for renewables and cost increases to customers by setting an appropriate purchase price for feed-in technologies.

IPL and NIPSCO both have been granted the ability to offer feed-in tariffs by the Commission. Both companies' programs specify a minimum individual project size (capacity), a maximum aggregate capacity available under the tariffs, and a maximum contract term of 15 years. IPL's feed-in tariff offer for new projects expired on March 30, 2013. NIPSCO's initial offer expired on Dec. 31, 2013, but the company petitioned to continue to offer feed-in tariffs. In March 2015, the Commission approved a settlement agreement that includes extension of and modifications to NIPSCO's feed-in tariff, known as Phase II. Electric utilities' tariffs are online at [www.in.gov/iurc/2366.htm](http://www.in.gov/iurc/2366.htm). Natural gas utilities' tariffs are online at [www.in.gov/iurc/2392.htm](http://www.in.gov/iurc/2392.htm).

## Electric Vehicle Development

Electricity is impacting our nation's transportation sector through its increasing use as a transportation fuel. Plug-in electric vehicles (PEVs) provide customers with an economical alternative to gasoline-fueled vehicles. Like hybrid vehicles, PEVs use battery power in addition to an internal combustion engine. Unlike traditional hybrids, however, PEVs do not depend on gasoline to recharge their batteries. PEVs are instead plugged into the existing electricity system using a standard electrical outlet to recharge the car batteries. If the battery is recharged overnight, owners can potentially take advantage of lower-cost, *off-peak* electricity prices. The number of electric vehicle charging stations continues to expand. Charging station location information is maintained on the U.S.

Department of Energy's Alternative Fuels and Advanced Data Center's website at [www.afdc.energy.gov/locator/stations/](http://www.afdc.energy.gov/locator/stations/).

Both IPL and NIPSCO have taken steps to promote the adoption of electric vehicles (EVs). Their programs not only accommodate EV use on Indiana's roadways, but also help each utility gain insight into the potential impact of EV charging on its distribution system. IPL has installed EV charging stations in both public and private locations and provides the electricity to numerous EV charging stations in Indianapolis. NIPSCO's IN-Charge Electric Vehicle Program was designed to accelerate the adoption of electric cars by reducing the cost and complexity associated with charging. The program offers free residential charging between the hours of 10 p.m. and 6 a.m. as well as incentives for businesses and organizations to install public charging stations.

## Energy-Efficiency Programs

The goal of energy efficiency is to reduce energy use. Reduced energy use results in direct, immediate savings for customers. In the long term, it helps utilities avoid costly capital projects that would be needed to support greater energy demand. Some common energy-efficiency strategies are as follows:

- Insulating a home, which leads to less heating and cooling energy to achieve and maintain a comfortable temperature
- Installing fluorescent light bulbs, LED lights, or natural skylights to reduce the amount of energy required to retain the same level of illumination compared with using traditional incandescent light bulbs
- Using energy-efficient appliances

One of the most effective and easily installed products is compact fluorescent light bulbs, which use 70 percent less energy than incandescent light bulbs (*source: ENERGY STAR - U.S. EPA, [www.energystar.gov/products/lighting\\_fans/light\\_bulbs/learn\\_about\\_cfls](http://www.energystar.gov/products/lighting_fans/light_bulbs/learn_about_cfls)*).

The choice of which space heating or cooling technology to use can have a significant impact on energy use and efficiency. Replacing an older furnace with a new 95 percent efficient model will dramatically reduce energy use, carbon emissions, and natural gas bills. Ground source heat pumps also are an efficient and cost-effective choice. One of the easiest ways consumers can identify energy-efficient measures applicable to their specific home or business is to inquire about an energy assessment from their utility. During an assessment, an energy advisor visits the home or business to assess its energy efficiency and install energy-saving measures such as compact fluorescent light bulbs, efficient showerheads, and faucet aerators. Following the assessment, the advisor creates a report for the resident or business owner that list steps that can be taken to improve energy efficiency.

Businesses also can benefit from energy-efficiency programs by adopting a more efficient technology or production process. As it relates to buildings, a balanced approach to energy efficiency should be comprehensive to maximize savings. Issues such as the quality of the indoor environment and efficiency of space use should be considered. Building design can include energy-efficient windows; well-sealed doors; and additional



thermal insulation of walls, basement slabs, and foundations to significantly reduce the loss of heated or cooled air. Advanced electronic heating and cooling systems can moderate energy consumption and improve the comfort of people in the building.

Indiana's large, investor-owned electric utilities provide energy-efficiency programs to residential, industrial, and commercial customers. Some Indiana electric utilities have been offering energy-efficiency programs in one form or another since the 1990s. More information on available energy-efficiency programs can be found on each utility's website.

With regard to natural gas utilities, Citizens Gas, Citizens Gas of Westfield, NIPSCO, Vectren North, and Vectren South have offered energy-efficiency programs in Indiana since the mid- to late 2000s. Indiana natural gas and electric utilities have been working together via an energy-efficiency program administrator to provide joint program offerings to Hoosier ratepayers. These programs typically offer energy-saving opportunities to residential and small business natural gas customers in the form of these:

- Appliance rebates
- School education programs
- Weatherization activities
- Builder incentives for energy-efficient new construction
- Custom programs for businesses
- Online tools to perform energy audits and bill analysis

Citizens Gas suspended its energy-efficiency programs as of June 30, 2016.

## 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 on interruptible load contracts with large industrial customers to reduce the need for utility-owned generation capacity. In other words, if a customer agrees to reduce its demand during peak use times, it will get a better overall rate. This arrangement is often called **demand response**. Utilities also have increasingly deployed residential appliance demand response programs, with an emphasis on the control of air conditioners during times of highest electricity usage.

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. Demand response programs are an increasingly valuable resource whose capabilities and potential impacts are expanded by grid modernization efforts. Sensors can perceive peak load problems and utilize automatic switching to divert or reduce power in strategic places, removing the chance of overload and the resulting power failure. Advanced metering infrastructure expands the range of time-based rate programs that can be offered to customers. Smart customer systems such as in-home displays or home area networks can make it easier for consumers to change their in-home behavior and reduce peak demand, which

can help reduce the need for the construction of new power plants and the use of power delivery systems reserved for peak demand use.

Duke, I&M, IPL, NIPSCO, and Vectren electric utilities all have demand response programs. To track the effectiveness of these programs, each utility must file a report with the Commission describing its experience, the costs and expenses associated with the tariffs, and the administrative charges being collected.



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## Regulatory Initiatives for Electricity and Natural Gas

Regulation during a dynamic period of change can differ greatly from that which is reasonably applied during relatively static or more predictable periods. The change in telecommunication regulation in the past decade is an example of regulatory oversight and initiatives that sought to keep pace with seemingly unending technological advancements in services to customers. The operational environment of the energy production and delivery industries has entered a period in which the pace of technological change and the resulting economics have heightened the interest in ensuring Indiana is operating under a reasonably optimal regulatory framework.

Regulation that is in the public interest fosters reliable service at an affordable price. A key feature of regulation that accomplishes these public interests is the ability to provide reasonable investor security for large investments with advantageous *economies of scale*. In effect, extending the secure recovery period of large economic investments reduces the annual installment payments from customers, in the form of rates, for the use of the investments. The more secure the future stream of returns to the investor(s), the better the credit terms they can attain. The strength of the regulators' assurance is directly related to the investors' security. The quickening pace of technological change and the constant reinvention of our economic structure that often accompanies it are difficult to reconcile with the utility industry's extended investment recovery periods. Eliminating an investment's usefulness before recovering its cost creates *stranded costs* that must be borne by either investors or customers. The regulator, bound by its legislatively granted authority, must balance the assurance needed to produce and protect the investment while not encumbering future customers with unproductive liabilities.

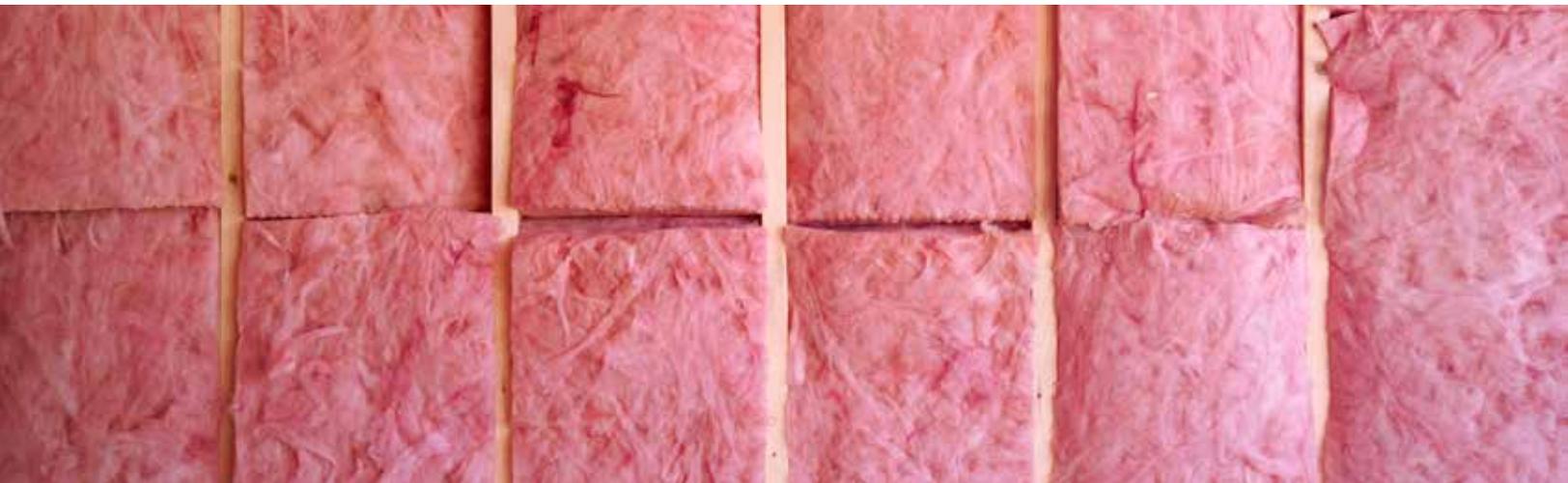
## Pace of Change

The primary dynamics of change at work in the energy industry lie at both the micro and macro levels: the desire by customers to actively participate in the supply/demand balance fostered by improved technology and communication capabilities and the changing economics of utility-scale generation resources. These dynamics create both opportunities and challenges.

## Customer Participation

Customers create the demand for the energy system and in the case of electricity also might provide supply to the system. Improved metering, system manager-to-customer communication, generation capabilities, and economics foster increased customer participation in an individual's demand/supply balance. When aggregated, such participation impacts the entire system. Improvements within the home or business that increase energy efficiency have long been available as a means for customers to reduce both their bill and the demand they place on the system. Additionally, the pace of appliance; lighting; and heating, ventilation, and air conditioning (HVAC) efficiency improvements has quickened. Further, with improvements in communication technology, utilities now can take action remotely or even automatically and provide timely price signals to customers. This allows for a dynamic pricing environment, which can serve to reduce bills and add a valuable resource to the utility in the management of the overall system. Such activity is often referred to as *demand response*.

As customer-sited electricity generation facilities continue to see improved investment and economic feasibility, the interest of customers in such assets also increases. These facilities are similar to energy efficiency and demand response in that they can remove system demand or shift it, while also injecting supply into the system at certain times. The primary effect of increased active customer participation—from a system management perspective—is that the increased number of control points distributed throughout the delivery system adds complexity. The reliability of the system moves from a simple command-and-control type system to one in which customers acting in self-interest play a significant role. Encouraging customer action to support system goals requires the ability to communicate timely and with accurate price signals.





## Changing the Composition of the Electric Generation Fleet

Utility-scale generation resources also are being impacted by changing investment and operational cost economics. The abundance of natural gas supply as a result of the *fracking* revolution has led to lower and more stable natural gas prices, while mining challenges have increased coal prices over time. These fuel price changes have served to reduce the historical price advantage of coal-fired power plants. The smaller investment footprint of a natural gas power plant, coupled with lower natural gas prices, compares favorably with the large investment footprint of coal or even nuclear-fueled power plants. The renewable generation options of wind and solar are competitive options because of the following attributes:

- Scalability
- Sizing the investment footprint into manageable packets
- Advantageous operational costs
- Favorable tax treatment they receive

The ability to scale the facilities in a way that does not sacrifice production efficiency makes these resources—both renewable and combined heat and power natural gas-fired power plants—attractive to both large utility customers and small, independent power producers. Similar to comments in the prior paragraph discussing smaller non-utility-controlled generation, the additional required control points in the system and the fact that they are more or less outside of the system managers' direct control add complexity to the energy system.

## Resource Planning

Indiana electric utilities are accountable to the state for conducting long-range resource planning (integrated resource planning) as a means to ensure future supply will be available to reliably meet the needs of the customers within their assigned franchise areas and at the lowest cost reasonably possible. Increased participation in the supply/demand balance by nonregulated parties (that is, customers) challenges a planner's ability to provide assurance of future resources. In a market with unregulated customers supplying resources, either supply or demand based, the primary mechanism utilities use to ensure continued participation is sending price signals to customers.

The pace of technological change at an increasing number of touch points with the energy system requires utilities to develop and communicate accurate price signals to customers. Initiatives that cost-effectively support progression to a smarter grid to facilitate enhanced communication and control are likely to be the focus of future regulatory efforts. Rate designs, which are reflective of the network industry nature of the energy distribution system, should be the focus of initiatives intended to provide accurate price signals so that customers can make efficient household and business decisions. In addition, initiatives empowering customers should ensure that consideration is given to energy economics and supply assurances from both the participants and nonparticipants. Informed and active customers, coupled with stable and thriving investment-grade utilities, will create an optimal environment that provides the public with affordable and reliable energy services.

# Research, Policy & Planning Division

The Research, Policy, and Planning Division was established to provide the Commission with analysis of the ramifications of the dynamic interrelationships of the electric and natural gas industries. The division provides advice and education on a wide variety of topics to the Commission. It is expected that the integrated resource planning, because it is related integrally to all aspects of the electric and natural gas industries, will be the primary ongoing effort of this division.

The division's work includes the following:

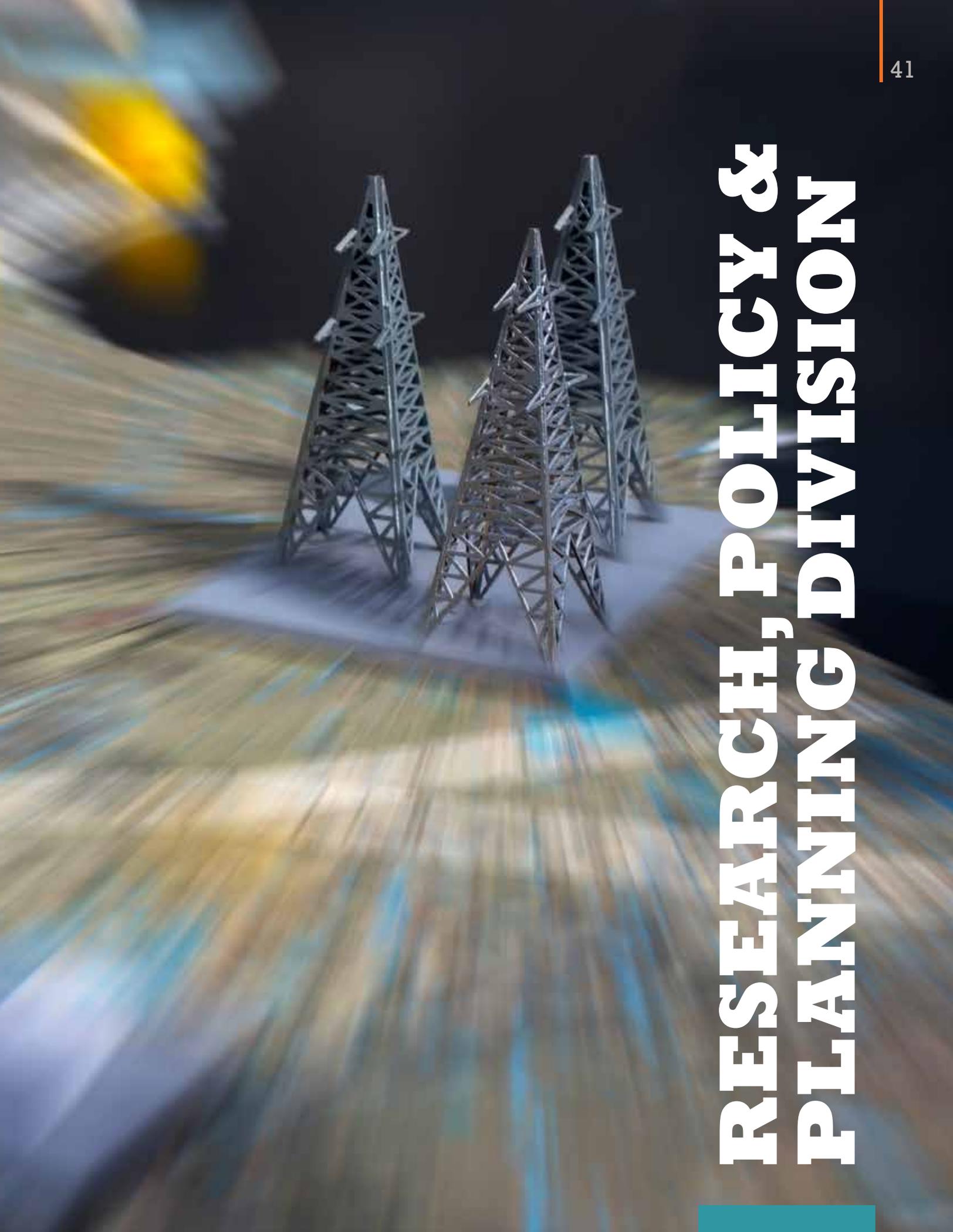
- Integrated resource planning
- Federal and regional oversight
- Evaluating changes in federal and state legislation
- Studying the evolution in regulation
- Reviewing the economics of the energy industry and the implications for Indiana

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## Resource Planning

Utilities engage in both short- and long-term resource planning to ensure that customers' needs are met. Before a public utility can begin building, buying, or leasing a new generation plant, it must obtain a Certificate of Public Convenience and Necessity (CPCN) from the Commission. Similarly, utilities must obtain Commission approval for certain environmental compliance investments to include the costs of these investments in customers' rates. Electric utilities in Indiana must create integrated resource plans (IRPs), which are long-range resource plans, to ensure that adequate supply will be available to cost-effectively and reliably meet their customers' future needs while taking into consideration technological changes affecting utility and customer resources. One important resource the Commission uses when analyzing utilities' resource planning is the State Utility Forecasting Group (SUGF) at Purdue University.

# RESEARCH, POLICY & PLANNING DIVISION



## State Utility Forecasting Group

The SUFG was created in 1985 when the Indiana legislature mandated as a part of the certificate of need statute that a group be formed to develop and keep current a state-of-the-art methodology for forecasting the probable future growth of electricity usage within Indiana. The Commission works with Purdue and Indiana Universities to accomplish this goal. SUFG produced its first set of projections in 1987 and has updated these projections periodically.

Through the years, SUFG has provided analytical support to the Commission on various issues. SUFG's role includes helping the Commission determine whether the requests the electric utilities make to the Commission to construct new capacity are justified. More recently, SUFG's forecast modeling system has been used to measure the impact of proposed federal clean air legislation and several of the United States Environmental Protection Agency's (U.S. EPA's) additional new and proposed rules on electricity costs in Indiana relative to the rest of the nation. SUFG also has provided predictions regarding the likely impact of electricity utility-sponsored conservation programs (so-called demand-side management programs) on the need for new capacity.



The SUFG continues to forecast electricity consumption, prices, the potential for renewable energy, and future capacity needs in addition to examining the potential impacts of competition on the electricity industry.

One of the findings the Commission must make under the certificate of need statute, before a CPCN can be granted, is that construction, purchase, or lease of a generation facility is consistent with the Commission's plan for the expansion of electric generating capacity or that the construction, purchase, or lease will be consistent with a utility-specific proposal as to the future needs for electricity to serve the people of the state or the area served by the utility. The Commission has in several CPCN proceedings adopted the SUFG's forecast and resource plan as the Commission's plan for the expansion of electric generating capacity. More information about the SUFG can be found on its website at [www.purdue.edu/discoverypark/energy/SUFG/](http://www.purdue.edu/discoverypark/energy/SUFG/).

## Certificate of Need Statute

A public utility may not begin construction, purchase, or lease of any facility for the generation of electricity without first obtaining a CPCN from the Commission. When determining whether a CPCN should be issued, the Commission is directed to take into account the following:

- The utility's current and potential arrangement with other utilities for the interchange of power
- The pooling of facilities
- The purchase of power
- Joint ownership of facilities
- Other methods for providing reliable, efficient, and economical electric service, including the refurbishment of existing facilities, conservation, load management, and renewable energy sources

*An application for a CPCN can be granted only after a hearing and if the Commission has:*

- (1)** approved the estimated construction, purchase, or lease costs;
- (2)** made a finding that either such construction, purchase, or lease will be consistent with the Commission's plan for expansion of electric generation capacity or that the construction, purchase, or lease will be consistent with a utility-specific proposal as to the future needs for electricity to serve the people of the state or the area served by the utility; and
- (3)** made a finding that the public interest requires or will require the construction, purchase, or lease of the facility.

Essentially, the CPCN hearing process provides the Commission and interested parties with an opportunity to evaluate the merits of a project before it is undertaken. The Commission has indicated in CPCN cases that "least-cost planning is an essential component of our Certificate of Need law". The Commission has defined "least-cost planning" as a "planning approach which will find the set of options most likely to provide utility services at the lowest cost once appropriate service and reliability levels are determined" (source: In re Petition of Southern Indiana Gas & Electric Co., Cause No. 38738, at p. 5, Ind. Utility Reg. Comm'n, October 25, 1989).

## Integrated Resource Planning

Indiana's electric utilities are required to supply power at the lowest reasonable cost while providing safe and reliable service. To do so, utilities must engage in integrated resource planning, in which they plan on both a short-term and long-term basis by evaluating available resource alternatives to meet a utility's future electricity requirements. Each utility is required to file an IRP with the Commission. The affected utilities include these:

- Duke Energy Indiana (Duke)
- Indiana Michigan Power (I&M)
- Indianapolis Power & Light (IPL)

- Northern Indiana Public Service Company (NIPSCO)
- Southern Indiana Gas and Electric Company (SIGECO, which also is known as Vectren South)
- Indiana Municipal Power Agency (IMPA)
- Hoosier Energy
- Wabash Valley Power Association (WVPA)

Because many changes have occurred in the electric industry since the initial IRP rule was adopted in 1995, the Commission investigated the need to update the rule and ordered that the rule be amended. Starting in 2010, an extensive rule development process was initiated, with meetings and technical conferences to solicit input from stakeholders, including consumer groups, the Indiana Office of Utility Consumer Counselor (OUCC), and the utilities. Several rounds of written comments also were requested and received, through which a Draft Proposed Rule was developed in October 2012. In 2013, Governor Pence issued Executive Order 13-03, which ordered a review of all existing regulations and put a hold on all new regulations with certain exceptions. While Executive Order 13-03 was implemented, Indiana's electric utilities voluntarily agreed to follow the 2012 Draft Proposed Rule requirements including

- A public advisory process to educate and seek input from customers and other interested stakeholders
- Contemporary Issues Technical Conferences sponsored by Commission staff
- Using information reported to and from the relevant regional transmission organizations (RTOs)
- Upgrades to modeling risk and uncertainty
- A report on each utility's IRP by the director designated by the Commission (currently the director of the Research, Policy, and Planning Division)

In 2015, Governor Pence proposed legislation that codified elements of the 2012 Draft Proposed Rule. The legislation passed the General Assembly in 2015 and the Commission moved to finalize the rulemaking. Information on this rulemaking and its progress can be found on the Commission's website at [www.in.gov/iurc/2842.htm](http://www.in.gov/iurc/2842.htm).

## **Annual Director's Report on Integrated Resource Planning**

Following a utility's submittal of its IRP, stakeholders are invited to provide input and raise questions or concerns. The Director's Report reviews the utility's IRP as well as stakeholder input. Initially, a Draft Report that affords utilities and stakeholders an opportunity to respond is developed. The Final Director's Report addresses the utility and stakeholder comments, concerns, and responses with the objective of encouraging continual improvements in the IRP methodologies, analytical tools, databases, and processes as required by the IRP rules.

Because the IRPs are not docketed cases, there are no ex-parte concerns that limit the opportunity for Commission staff, stakeholders, and utilities to engage in collaborative conversations that potentially can enhance the quality of the IRPs. All parties recognize that the IRPs provide the best opportunity to ensure the most cost-effective resource mix while achieving the required levels of reliability in a rapidly changing industry. The Director's Report can be found at [www.in.gov/iurc/2630.htm](http://www.in.gov/iurc/2630.htm).

## The Integrated Resource Planning Stakeholder Process

Consistent with the IRP rules, utilities are obliged to encourage broad participation in the formulation of their IRPs. From the initial step of IRP preparation to the review of the plans, the stakeholder process is intended to provide greater understanding and, ideally, a narrowing of the differences that may arise in certificate of need, demand-side management (DSM), or other causes where the IRP is a key part of the evaluation process. In sum, the stakeholder process should benefit the regulatory process for all involved. The IRP public participation process applies to Duke, I&M, IPL, NIPSCO, and Vectren South.

To this end and consistent with the IRP rule for continual improvements, utilities have demonstrated considerable ingenuity and made significant efforts to enhance the stakeholder process. The utilities generally have held three public advisory sessions when an IRP is being developed; often these are supplemented by one-on-one meetings between the utility and individual stakeholder groups. Commission staff participates in all IRP public advisory meetings and meets with utilities and other stakeholders in one-on-one meetings to better understand and communicate various ideas involving IRP methodologies and the stakeholder process.

### Annual Integrated Resource Planning Contemporary Issues Technical Conference

The development of an IRP is a difficult analytical challenge that requires a wide range of subject matter experts, state-of-the-art analytical tools, and databases to support the cutting-edge tools. The Contemporary Issues Technical Conference is an opportunity to invite experts to provide in-depth discussions of these difficult topics.

One of the more vexing challenges is how to account for energy efficiency, demand response, renewable energy, and customer-owned generation on as comparable a basis as possible to traditional generating resources in a concerted effort to develop the most robustly reliable and economic plan. With the expected dramatic changes in the resource mix for individual utilities, the state, the region, and the nation, it is critical that utilities consider the broad range of potential risks such as the projected low cost of natural gas compared to coal, increasingly stringent environmental regulations, dramatic decreases in the price trajectory of renewable energy, and a paradigm



change in the use of electricity that results in low—or even declining—electric use. Increasingly, Indiana utilities have recognized that they can no longer plan as if they were isolated systems (islands) and realize the necessity of coordinated planning with their RTO(s) for mutual benefit.

The development of agendas for the Contemporary Issues Conferences is the responsibility of Commission staff. Staff publicly requests input from the utilities, the stakeholders, and the general public as to topics and potential speakers for each conference. The agenda, presentations, and videos of each year's Contemporary Issues Conference can be found at [www.in.gov/iurc/2340.htm](http://www.in.gov/iurc/2340.htm).

## Technological Innovations Affecting Electric and Natural Gas Industries and Their Customers

Based on a long history of technological developments, it is reasonable to expect continual improvements in energy-efficiency technology, lower-cost renewable resources that have improved performance, enhancements in technologies that make customer-owned generation more attractive, and the potential for increased electrification of the transportation sector. All these technological innovations will have to be integrated into each utility's long-term IRP.



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## Federal and Regional Oversight

Indiana's electric utility lines don't simply stop at our borders; they cross over into all of Indiana's neighboring states. This interconnectedness allows utilities to share generation and voltage stability resources. However, connecting power systems together also means that a single significant disturbance in one system could collapse all the other systems connected to it, resulting in large multistate *blackouts*. Such was the case with the Northeastern Blackout in August 2003 that began with a tree making contact with a transmission line in Ohio.

In the 1930s, the federal government began to see the need for federal oversight and amended the Federal Power Act to create the Federal Energy Regulatory Commission (FERC). In the 1960s, the North American Electric Reliability Corporation (NERC) was founded to provide oversight of bulk power lines that stretch across the United States and into Canada and Mexico in response to the New York City Blackout in 1965.

### Federal Power Act

The Federal Power Act originally was passed in 1920 to regulate hydroelectricity projects and ensure they did not adversely affect commerce and transportation on America's waterways. A 1935 amendment to the act based on the idea of cooperation broadened the act's scope to include electricity and natural gas. This amendment requires the federal government and individual states to act in concert to resolve common problems facing the energy industry.

This amendment also created FERC, which regulates the transmission and wholesale of electricity and natural gas in interstate commerce and regulates the transportation of oil by pipeline in interstate commerce.

The Federal Power Act attempts to draw a clear line between federal and state authority by granting the right to regulate retail rates to the individual states. However, this line has blurred as energy markets and infrastructure have become increasingly interconnected.

To preserve state authority and protect Indiana ratepayers from unjust costs, the Commission monitors proceedings at FERC and, when necessary, intervenes with comments representative of Indiana's interests. These interests include the following:

- Retaining state jurisdictional authority over resource adequacy
- Encouraging effective transmission planning and construction along the Midcontinent Independent System Operator (MISO) and PJM Interconnection, LLC (PJM) seams
- Ensuring just and appropriate cost allocation to Indiana ratepayers for region-wide, transmission-related projects

## **Federal Energy Regulatory Commission**

FERC ([www.ferc.gov](http://www.ferc.gov)) is the federal agency with authority over interstate electricity sales, wholesale electric rates, hydroelectric licensing, and natural gas and oil pipeline transportation rates. FERC also reviews and authorizes the building of liquefied natural gas (LNG) terminals, interstate natural gas pipelines, and non-federal hydropower projects.

FERC also does the following:

- Regulates the transmission and wholesale sales of electricity in interstate commerce
- Reviews certain mergers and acquisitions and corporate transactions by electricity and natural gas companies
- Regulates the transmission and sale of natural gas for resale in interstate commerce
- Regulates the transportation of oil by pipeline in interstate commerce
- Approves the siting and abandonment of interstate natural gas pipelines and storage facilities
- Reviews the siting application for electric transmission projects under limited circumstances
- Ensures the safe operation and reliability of proposed and operating LNG terminals
- Licenses and inspects private, municipal, and state hydroelectric projects
- Protects the reliability of the high-voltage interstate transmission system through mandatory reliability standards
- Monitors and investigates wholesale energy markets
- Enforces FERC regulatory requirements through the imposition of civil penalties and other means
- Oversees environmental matters related to natural gas and hydroelectricity projects and other matters
- Administers accounting and financial reporting regulations and conduct of regulated companies

## North American Electric Reliability Corporation

U.S. utility lines also cross over into Canada and Mexico. Because of this, in 1968, NERC was established as a nonprofit international regulatory authority whose mission is to ensure the reliability of the bulk power system in North America. NERC accomplishes this by doing the following:

- Developing and enforcing reliability standards
- Annually assessing seasonal and long-term reliability
- Monitoring the bulk power system through system awareness
- Educating, training, and certifying industry personnel

NERC's area of responsibility spans the continental United States; Canada; and the northern portion of Baja California, Mexico. NERC is subject to oversight by FERC and governmental authorities in Canada. More information can be found on NERC's website at [www.nerc.com](http://www.nerc.com).

## Regional Transmission Organizations

RTOs also are known as independent system operators (ISOs) and are independent organizations that were formed to improve the economics and reliability of the wholesale electric markets. Prior to RTOs, individual utilities acted on their own, with very limited coordination, as if they were islands rather than part of a vast interconnected power system. The RTOs' functions of improving the economics and reliability of the wholesale electric markets, in turn, provide substantial benefits to retail customers.

RTOs accomplish these functions by doing the following:

- Economically dispatching all power resources in broad regions to ensure the lowest cost combination of resources are utilized. This efficient dispatch provides transparent and appropriate wholesale and retail price signals to promote greater economic efficiency while ensuring reliable service.
- Coordinating the transmission of electric power over vast regions to reduce the occurrence of blackouts and other disruptions that plagued the industry for much of its history.
- Facilitating coordination of planning transmission and other future resources that satisfy reliability requirements that also are economically optimal. Regional planning aids the long-term resource planning by Indiana and other states. That is, resource decisions by Indiana's utilities are improved by a regional perspective.
- Integrating vast amounts of renewable resources that would have been beyond the capability of individual utilities.
- Fostering the development of new technologies.
- Facilitating the implementation of increasingly stringent environmental policies to ensure continued reliability and economic efficiency.
- Reducing the potential for market abuse by monitoring the conduct of market participants.

The RTOs have significant stakeholder-driven processes with substantial input from state commissions. States encouraged the use of independent market monitors and insisted that RTOs provide an objective analysis of their benefits and costs.

Regulated by FERC, RTOs are independent entities that monitor and control electric reliability by coordinating the transmission of electricity and dispatching generating resources in the most economical manner possible over an entire region. Prior to the RTOs, individual utilities planned and built transmission and generating resources to meet their unique needs with little regard to the transmission and resource requirements of neighboring utilities. Similarly, the dispatching of a utility's generating resources was done with limited coordination among utilities. Inter-utility transactions were primarily for reliability, with few transactions being for mutual economic benefits.

In many instances, inter-utility transactions over significant distances were not consummated because the cost of paying transmission fees to all the intervening utilities prevented the transactions from being cost-effective. Frequently, especially during peak demand summer months, inter-utility transactions were subject to curtailment.

Following the massive blackout of the Northeastern United States in 2003 that began with a tree making contact with a transmission line in Ohio, reliability requirements became mandatory. Previously, each utility would establish its own reliability requirements consistent with its understanding of the



suggested reliability standards. In all too many instances, this led to expensive excess generation capacity.

After the RTOs became fully functional, Indiana utilities told the Commission that their fear of a significant reliability problem was sharply reduced due to the RTOs. With the RTOs' broad regional oversight and control, Indiana utilities now can plan and operate their systems more reliably and economically. RTOs eliminated the "pancaking" of transmission rates and anticompetitive behavior that previously prevented long-distance transactions; this greatly enhanced inter-utility coordination for improved reliability and economics.

RTOs incorporated economic price signals at very discrete locations to reduce transmission bottlenecks (also called *congestion*). This approach to relieving transmission constraints was in sharp contrast to the historical reliance on the broad use of regional curtailment of transactions by edict.

RTOs take advantage of regional resource and load diversity, which has resulted in Indiana utilities having lower reserve margin requirements (that is, the amount of capacity greater than expected peak to meet unexpected contingencies). This continues to provide utilities and their customers with substantial savings. Especially for Indiana utilities that have large customers with highly variable use, such as the steel industry, the RTOs provide services that compensate for the rapid swings in load, which, previously, had been a source of reliability concerns. The mandatory reliability requirements could have resulted in significant and ongoing fines but for the routine operations of the RTO to mitigate the problems resulting from rapid fluctuations in electrical use.

RTOs, in coordination with utilities, are essential for planning the future electric system. There is a high probability that the composition of the generating fleet in Indiana, the region, and the nation will change dramatically over the next 20 years due to the following factors:

- Increasingly stringent environmental regulations
- The aging of existing generating resources
- Dramatic decreases in the cost of renewable energy options
- Increasing cost-effectiveness of energy efficiency and demand response
- Increasing development of customer-owned generation
- Projected relatively low cost of natural gas compared to other fossil fuels

RTOs also are likely to facilitate compliance with new environmental regulations. Adverse cost ramifications associated with new regulations might be mitigated by being able to transmit additional renewable resources from regions that have abundant resources to regions that have a scarcity of renewable resources. Establishing markets that foster efficient trading, while being vigilant about maintaining or enhancing reliability, will be essential.

With increasing concerns about *cyber security*, the RTOs have the broad system awareness, operational control, and expertise to assist Indiana's utilities in preventing cyber breaches and mitigating effects of any attack.

### Midcontinent Independent System Operator

MISO ([www.misoenergy.org](http://www.misoenergy.org)) was formed by transmission owners in 1996 and is based in Carmel, Indiana. MISO's main responsibilities are to ensure the safe and reliable transfer of power in the Midwest and south central United States and fair access to the transmission system.

In December 2013, MISO added several new members in the southern United States. MISO's footprint stretches from Michigan to Montana, and from Manitoba, Canada, to Louisiana and eastern Texas. MISO manages a combined footprint of 65,280 miles of transmission with total electric generation capacity throughout of approximately 196,000 MW, making it one of the largest power grid operators in the world. Indiana electric utility members of MISO are as follows:

- Duke
- IPL
- NIPSCO
- SIGECO
- WVPA
- Hoosier Energy
- IMPA

### PJM

PJM ([www.pjm.com](http://www.pjm.com)) is an RTO that coordinates the movement of wholesale electricity in all or parts of the following:

- Delaware
- Illinois
- Indiana
- Kentucky
- Maryland
- Michigan
- New Jersey
- North Carolina
- Ohio
- Pennsylvania
- Tennessee
- Virginia
- West Virginia
- The District of Columbia

Acting as a neutral, independent party, PJM operates a competitive wholesale electricity market and manages the high-voltage electricity grid to ensure reliability for more than 61 million people. I&M, WVPA, and IMPA are members of PJM. Similar to MISO, PJM also operates the transmission system and efficiently maintains reliability through a variety of market products as well as the procurement of other services.

### Regional State Committees

The Commission participates in the two regional state committees that follow MISO and PJM. The Organization of MISO States (OMS) consists of

15 member states and the City of New Orleans (which has its own utility regulatory authority within Louisiana). The Organization of PJM States (OPSI) consists of 14 member states. Commissioners serve as representatives on the OMS or OPSI board of directors, and Commission staff participates in OMS and OPSI activities. Each group closely follows

events at MISO and PJM; discusses issues; and develops positions that are presented in the RTO stakeholder process, filed at FERC, or sent directly to the RTO's board of directors. Commission staff regularly engages with our RTO member utilities in learning about and developing positions on relevant RTO issues.

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## Evaluating Changes in Federal and State Legislation

The most significant change in the last few years has been federal environmental policies. Existing environmental regulations have caused the retirement of several older and smaller coal- and oil-fired generating units because the cost of environmental compliance upgrades have proven to be prohibitive. As of the date of this publication, the status of the U.S. EPA's Clean Power Plan (CPP) is uncertain due to a stay imposed by the U.S. Supreme Court. However, the division will continue to work with state policymakers, state agencies, the SUFG, Indiana's utilities, and the RTOs to assist state policymakers in formulating a compliance strategy if the CPP goes forward.

As do the other technical divisions, the Research, Policy, and Planning Division assists the Commission's External Affairs Division with reviewing and analyzing potential effects of legislative changes on the Commission and public policy. In the last two sessions, the Indiana General Assembly enacted new laws affecting the following:

- Integration of demand-side management into the IRPs of utilities
- Allowing large customers to opt out of utility DSM programs
- Allowing utilities to recover costs associated with upgrading their distribution and transmission systems through trackers




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## Energy Industry Economics and the Implications for Indiana

Constantly changing fuel, capital, inflation, construction, power purchases, labor, materials, and other costs are primary drivers in the utilities' long-term planning. This requires the Commission to incorporate relevant changes into regulatory policy. Moreover, because rate cases do not occur with great frequency, the Commission must anticipate future cost changes in formulating regulatory policies in matters before the Commission.

# Water & Wastewater Division

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## Overview and Regulation

The Commission's primary responsibility regarding water and wastewater utilities is to regulate rates and charges and the quality of service for the utilities under its authority. The Commission regulates the following:

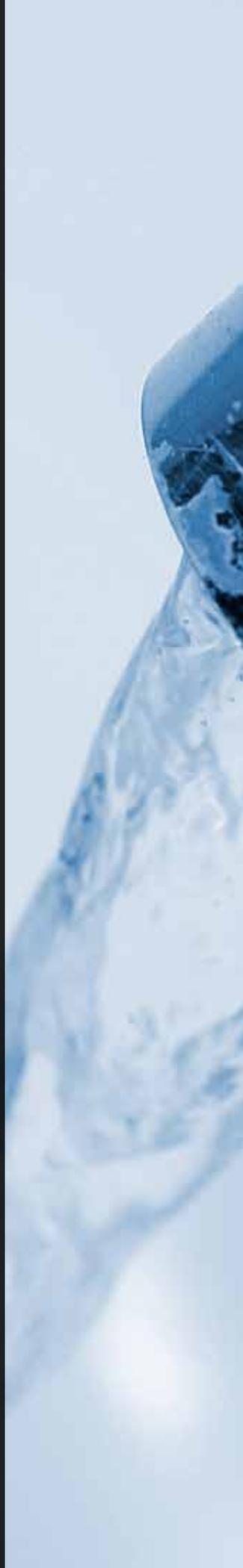
- Rates and terms and conditions of investor-owned water and wastewater utilities
- Rates of municipal water utilities
- Rates and charges of conservancy districts that make an election to provide water service under Indiana Code chapter 14-33-20 in their district plans
- Rates and terms and conditions for nonprofit water and wastewater utilities

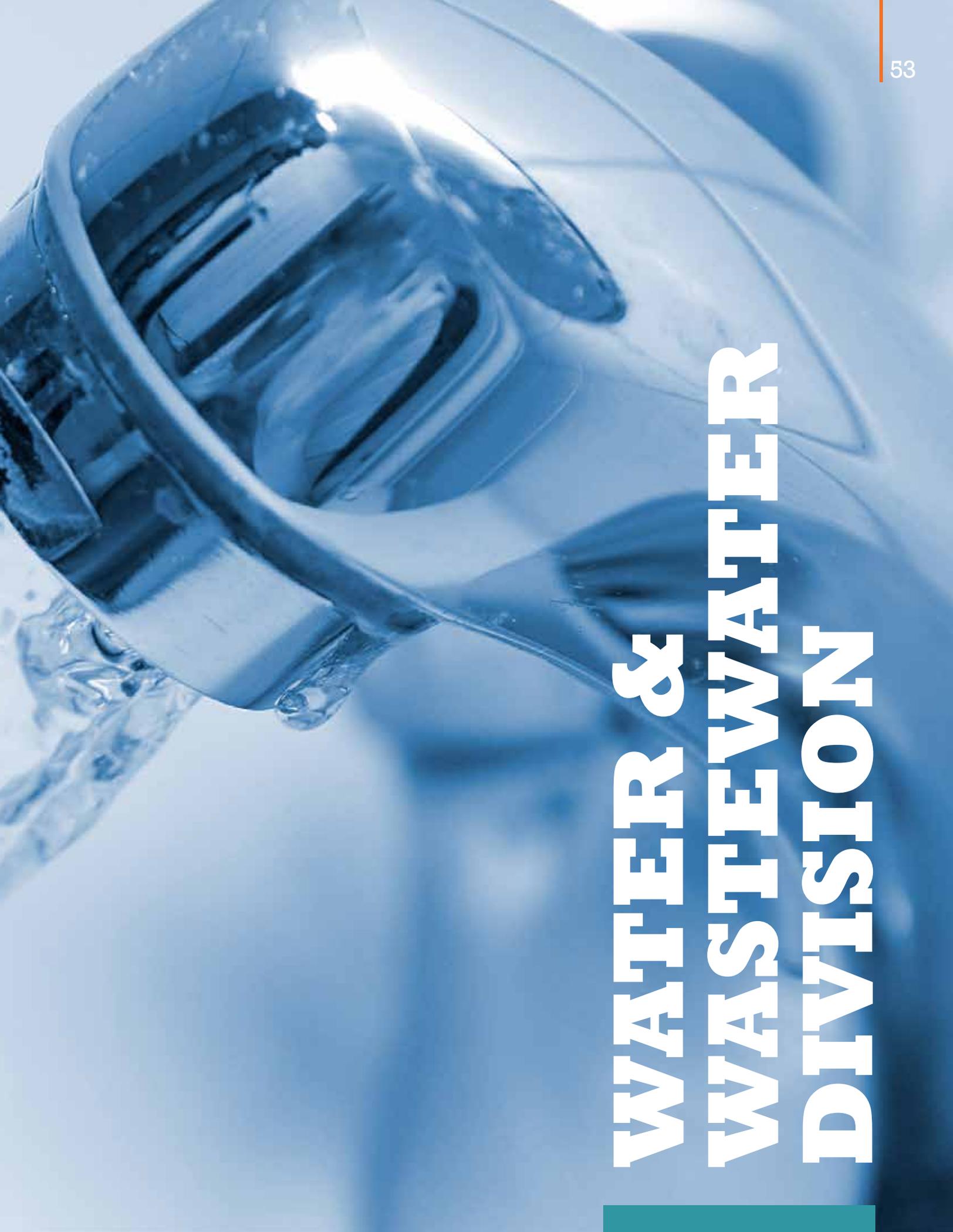
The types of items addressed in terms and conditions include these:

- Meter accuracy and testing
- Customer service relationships, including bill requirements and adjustments
- Creditworthiness and deposits
- Disconnection of service
- Rules defining the amount customers are required to pay to extend mains

Based on data from 2015, Indiana has 535 water utilities and 547 wastewater utilities. Utilities providing water and wastewater service to Hoosiers are organized in a variety of legal forms:

- Conservancy districts
- Investor-owned utilities (IOUs)
- Municipal utilities
- Nonprofit utilities
- Regional water/wastewater districts
- Water authorities





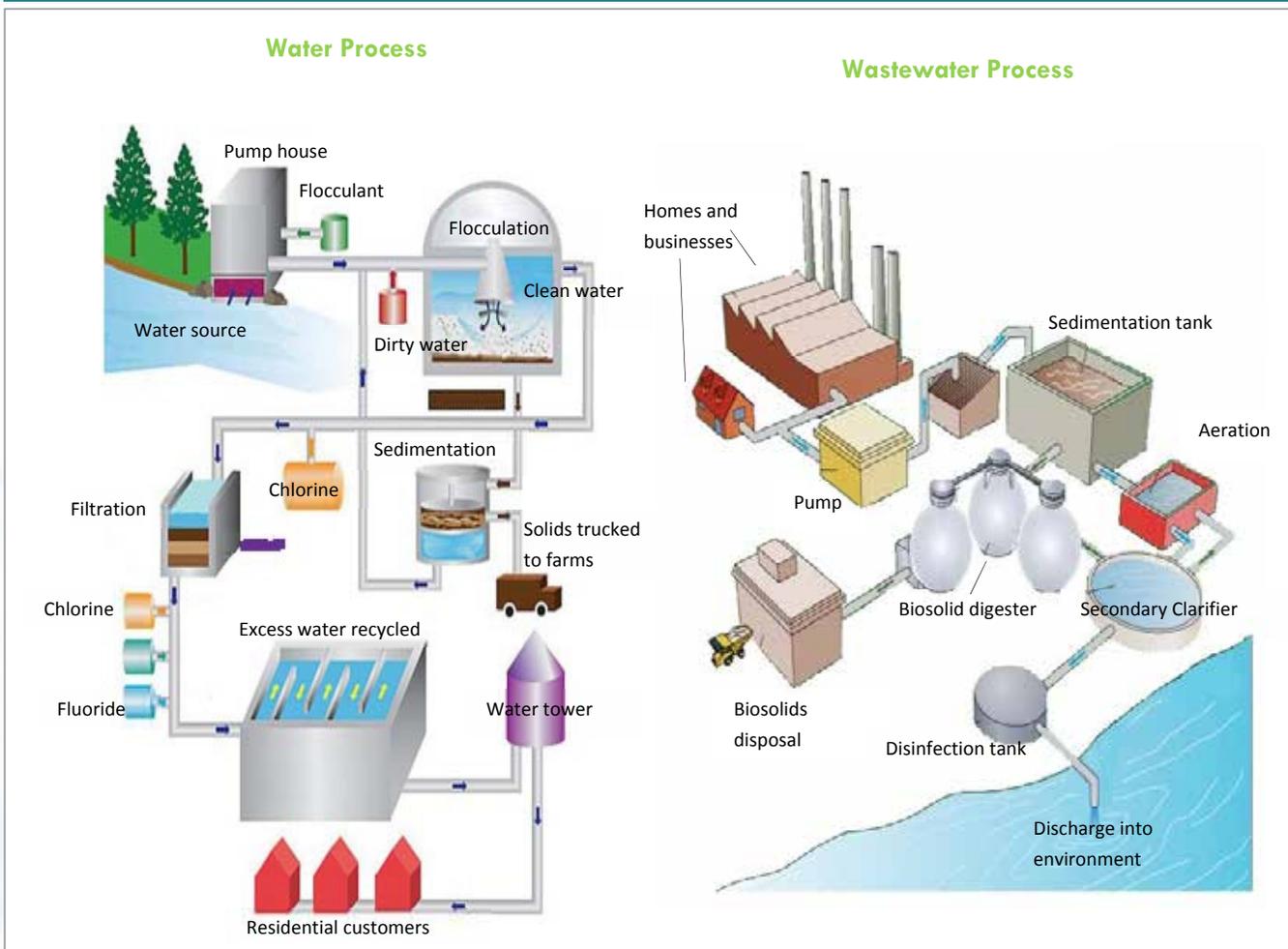
# **WATER & WASTEWATER DIVISION**

The Commission's statutory authority to regulate these utilities varies depending on the type of utility and whether it has withdrawn from all or part of the Commission's authority. Additional information on the Commission's authority regarding water and wastewater utilities is presented later in this section.

The sizes of water and wastewater utilities vary greatly, from more than 300,000 customers for Citizens Water (a water utility serving Indianapolis) and CWA Authority, Inc. (a wastewater utility serving Indianapolis) to fewer than 100 customers for Wells Homeowners Association, which has 34 water customers.

## Industry Overview

### Water and Wastewater Treatment



As the figure shows, water utilities must treat water before it can be distributed to customers. Similarly, wastewater utilities must collect the wastewater and treat it before it can be disposed of or released back into the environment.

## Water Treatment and Distribution

The level of water treatment required depends on the source (ground water versus surface water) and quality of the source water.

Treatment of surface water (as shown in the figure) is much more intensive and often includes some sort of flocculation process to remove magnetically suspended particles from the water, sedimentation, and filtration. A disinfectant (such as chlorine, chloramines, or ozone) is added to kill microorganisms, and fluoride may be added to reduce tooth decay. Additional processes can be added to address specific water conditions. Solids are a product of the flocculation process and typically are disposed of offsite.

In Indiana, the primary source of potable water is from groundwater. Because groundwater is less prone to contamination, treatment may be minimal. Groundwater from shallow aquifers or river beds more resembles the surface water treatment process.

After the water is treated, it is sent to the **distribution system**, which consists of distribution piping, storage tanks/towers, and booster pumps. Water towers and booster pumps might be used to maintain system pressures.

## Wastewater Collection and Treatment

Wastewater is collected from homes and businesses and often moves through a series of gravity/pressure piping to the treatment plant. Specific treatment plant configurations vary greatly and occupy vastly different footprints depending on the capacity of the plant. However, most share the same basic treatment steps:

- Sedimentation
- Aeration (biological treatment)
- Disinfection

The wastewater process shown previously in the figure would be more typical of a mid-size to larger community. After the wastewater arrives at the plant, screens, macerators, or grit removal systems often are used to remove debris that could damage the facility's equipment. The screened wastewater moves into sedimentation tanks to help separate the heavier components of wastewater. Aeration facilitates a biological treatment process which cultivates specific bacteria that consume the organic waste products in the water. This process, at any scale, must eventually dispose of these bacteria. Depending on the facility's sophistication, these bacteria might be concentrated via the digestion process and often are dewatered to facilitate easy handling. The resulting product is commonly referred to as **biosolids**. These typically are trucked offsite and then applied as fertilizers to farming operations. Prior to discharge, the wastewater is disinfected (typically with ultraviolet light) to disable the reproductive ability of any remaining bacteria.

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## Factors Affecting Rates for Water and Wastewater Utilities

Several factors affect the rates of water and wastewater utilities, including water sources, environmental regulations and standards, aging infrastructure, and how infrastructure is funded.

## Factors Affecting Source of Supply

All types of utilities have operation and maintenance expenses, which include the cost to treat water and wastewater. When groundwater and surface water become contaminated, additional treatment is necessary before the water can be used for drinking purposes. This treatment is expensive. In some cases, the water source can no longer be used for certain purposes, such as for irrigation or drinking. Typically, when a well's water becomes contaminated, the well must be abandoned and another water source found.

Poor water quality also can limit the usability of a groundwater or surface water source. The United States Geological Survey's National Water-Quality Assessment program examines the water chemistry of groundwater from the Glacial Aquifer System and has identified the extent of impairments that might limit groundwater use in Indiana. The Indiana Department of Environmental Management (IDEM) monitors water quality conditions throughout the state. It has a network of 153 public water supply wells and 160 residential wells from which it collects untreated groundwater samples. It submits a water quality assessment report and a list of impaired water to the United States Environmental Protection Agency (U.S. EPA) every two years. IDEM collects water samples from rivers and streams to assess the aquatic life and the recreational and fishable uses of the river. It also collects samples from rivers that serve as a public water supply. Currently, water quality threats to Indiana's water include the following:

- Class V injection wells (nonhazardous fluid disposal)
- Industrial facilities
- Failing septic systems

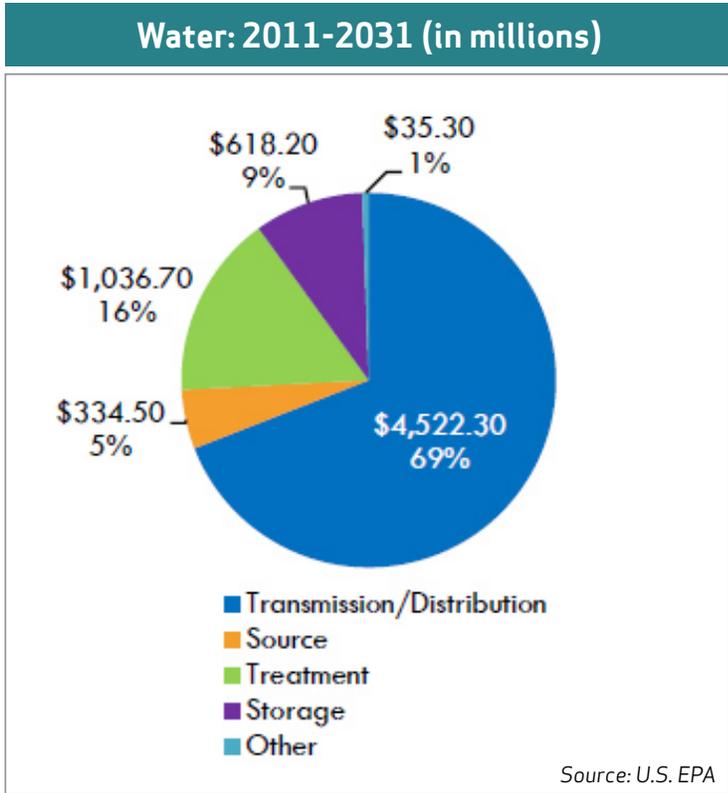
- Landfills
- Livestock and poultry confined feeding operations
- Nitrate
- Storage and use of salt during winter
- Underground storage tanks

## EPA Water and Wastewater Standards

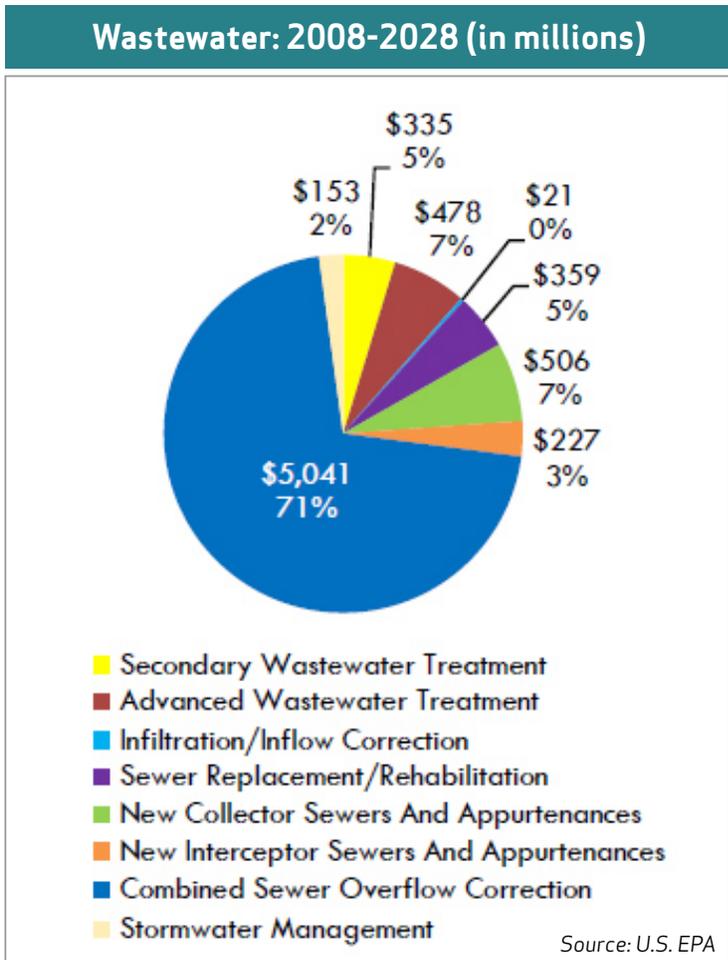
Costs are increasing for water and wastewater utilities and are driven by compliance with U.S. EPA standards. Many expenses that utilities incur are tied to maintaining federal drinking water and wastewater effluent requirements. The Safe Drinking Water Act (SDWA) and its amendments, which are enforced by IDEM, require compliance with increasingly stringent standards on a large number of contaminants in drinking water. The Clean Water Act (CWA) also includes requirements on wastewater effluent. These new regulations will require significant investments in new technology and result in increased costs.

## Need to Replace Infrastructure

Aging infrastructure is one of the most critical issues in the water and wastewater industry today because it is costly to replace infrastructure that is largely underground. As discussed in the section "Operations," water systems are comprised of wells (for groundwater), treatment facilities, water tanks, and distribution systems. Distribution systems are composed of pipes, valves, and pumps that move water from the treatment plant or water tanks to end users. Finally, wastewater systems are comprised of pipes, pumps, and treatment facilities.



According to the U.S. EPA's 2012 wastewater report and 2013 water report, Indiana's water and wastewater infrastructure needs a total investment of nearly \$14 billion over the next 20 years. In terms of wastewater repair and replacement needs, Indiana reported an overall decrease from about \$8 million in 2008 to just over \$7 million in 2012. Pipe repairs and replacement were up 233 percent, wastewater treatment was up 224 percent, and nonpoint source pollution control was up 91 percent. Additionally, Indiana ranks 8th out of all 50 states for the highest reported need for combined sewer overflow (CSO) remediation, at \$3.25 billion (down from a reported \$5 billion in 2008).



Although the Commission regulates Indiana's largest combined system (CWA Authority, Inc.), the vast number of remaining combined systems are municipal (such as Evansville, Jeffersonville, Fort Wayne, Kokomo, and Lafayette), which are regulated by their elected local governments. These combined systems are engaged in a variety of CSO control projects ranging from storage tunnels to other forms of offline storage and satellite treatment—the most complex and expensive being the Deep Rock Tunnel Connector Project in Indianapolis.

For drinking water infrastructure, Indiana's projected needs have more than doubled since 1995, from \$2.4 billion to \$6.4 billion in 2011. However, this has leveled off since the last reporting period in 2007. A majority of this need, 69 percent, can be attributed to transmission and distribution projects.

## Funding of Infrastructure

Because water and wastewater infrastructure is in place for many years, it can be funded by equity or debt. Large corporations issue equity—or in the case of water and wastewater utilities that are subsidiaries of larger corporations, the utility might obtain equity from the parent company. For small utilities, the equity usually comes from the owner. When equity is included in the capital structure, as shown in the section “Revenue Requirement,” a utility can earn a return on that equity. The return on equity is generally based on the amount of risk a utility incurs. Risk can be measured by using financial models such as the Discounted Cash Flow Model, Capital Asset Pricing Model, and Risk Premium Model or by looking at returns of similarly situated companies.

Besides equity, utilities can issue debt or obtain grants. If a utility issues debt in the open market, the cost of debt is determined by the market interest rate, given a utility’s credit rating. Like all debt, the better the credit rating, the lower the cost of debt. Water and wastewater utilities have numerous federal and state funding options to fund infrastructure investment at a cost of debt lower than the market rate. These programs include the following:

- State Revolving Loan Fund (SRF)
- U.S. Department of Agriculture Rural Development Loans and Grants
- Private activity bonds
- Water Infrastructure Finance and Innovation Act loans
- Community Focus Fund

Grants from the U.S. EPA are leveraged in bond markets to generate SRF proceeds. The Indiana Finance Authority (IFA) then administers these funds through low-interest loans at 20-year terms.

U.S. Department of Agriculture Rural Development Loans and Grants are available to assist systems serving rural areas and towns with populations under 10,000. Extended 40-year terms are available at or below market interest rates, depending on each respective community’s demographics.

Although the amount of SRF funding to investor-owned and nonprofit utilities is limited, other options are available. For example, private activity bonds (PABs) are low-interest rate loans, which are municipal bonds issued to finance facilities for investor-owned or nonprofit water utilities. The proceeds derived from 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.

To increase the financing of water and wastewater infrastructure, the federal Water Resources Reform and Development Act (WRRRA) was enacted on June 10, 2014. The WRRRA establishes a Water Infrastructure Finance and Innovation Act (WIFIA) pilot program to help water and wastewater utilities finance large-scale projects. To qualify for the loans, a project must be expected to cost more than \$20 million. For rural systems (defined as those that serve 25,000 people or fewer), the threshold is only \$5 million. A recent change in the law increased the funding to 100 percent of the project, whereas it previously had been up to only 49 percent.

Grants for planning and up to 90 percent of eligible project costs are another option. These planning and construction grants are available to non-entitlement communities, such as cities, towns, or counties, through the Community Focus Fund. This fund is administered through the Indiana Office of Community and Rural Affairs (OCRA).

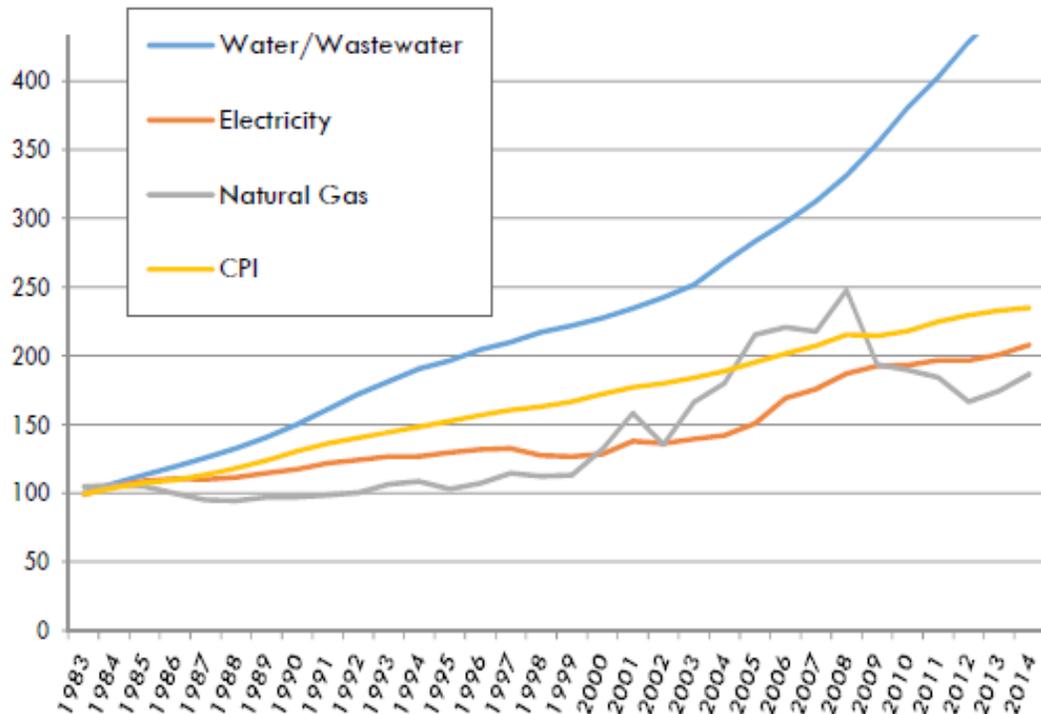
## Long-term Trends in Pricing

Nationally, water and wastewater rates are outpacing inflation. Indiana is similar to other states in that water and wastewater utilities are experiencing cost increases for several reasons:

- Replacement of aging infrastructure
- Compliance with U.S. EPA standards (for example, water quality and wastewater effluent)
- Increases in expenses (such as labor, chemical, and power)
- Maintenance projects to uphold the quality of service
- Relocation of facilities

Rates are rising more rapidly than electricity or natural gas rates and much faster than the overall consumer price index (CPI). For example, from 2006 to 2015, water and wastewater rates rose 5.69 percent per year while the CPI rose at just 1.94 percent per year.

**Comparison of Utility Prices from 1983 to 2014**  
*Index is set to 100 for 1982-1984*



Source: U.S. Bureau of Labor Statistics

## Water and Wastewater Rate Structures

There are five basic types of water rate structures:

- **Uniform**—A single charge per unit of consumption. The charge remains constant for all metered consumption of water on a year-round basis. As a customer uses more water, the bill increases at a steady rate per unit of consumption.
- **Declining block**—A rate structure in which the unit price of each succeeding block of usage is charged at a lower unit rate than the previous blocks.
- **Inclining block**—A rate structure in which a customer's consumption is divided into usage blocks and the rate within each block increases with subsequent blocks.
- **Seasonal**—A rate structure that sets the price a customer pays for consumption based on the time of year. A utility charges more per unit of consumption during the peak-demand season and less during the low-demand season. Generally, a uniform block consumption charge is used for each season. This type of rate has not been implemented in Indiana.
- **Flat**—A periodic fixed charge for water service that is unrelated to the amount of water consumed. All customers are charged the same amount for service regardless of usage levels. No metering is required, and fees may be collected according to any desired schedule.

## Other Recurring Water Charges

Other recurring water charges may include the following:

- **Fire protection surcharge**—The fire protection charge is designed to recover the costs a utility incurs to provide fire protection services. The fire protection charge can be divided into public fire protection and private fire protection. **Public fire protection** is provided to all customers through public fire hydrants located throughout the water system. **Private fire protection** is provided to individual customers that receive additional fire protection service through private hydrants, standpipes, or sprinkler connections. Prior to the implementation of Ind. Code § 8-1-2-103(d), many public utilities levied the cost of fire protection directly on municipalities, which, in turn, recovered the costs through assessment of taxes on their citizens. With the passage of Ind. Code § 8-1-2-103(d), many municipalities have passed ordinances to transfer those fire protection costs to customers through surcharges that appear on customer bills on a revenue-neutral basis. As municipalities face reduced tax revenues and increasing costs, this trend is likely to continue.
- **Service charge**—The service charge, sometimes called a **customer charge**, is a monthly fixed fee that is the same for all equivalent customers per billing period. The charge typically recovers costs such as meter reading, billing costs, and other costs the utility incurs equally per customer or per account regardless of consumption level.
- **System improvement charge**—A water utility can petition the Commission to establish a surcharge to recover costs for the replacement of the distribution system.

- **System integrity charge**—A water utility can petition the Commission to establish a surcharge that recovers or rebates revenues it has collected that are under or over the authorized revenue requirement.
- **Wholesale tracker**—For water utilities that purchase water from another utility, a surcharge may be included that tracks the cost of wholesale water rates.
- **Minimum bill**—A minimum bill or base charge is determined based on the minimum amount of consumption for which a customer is billed regardless of whether the water is used. The minimum consumption is generally set at a low level based on the assumption that most customers use that amount of water. Some utilities view this charge as a means to recover costs associated with investments to which all customers should contribute, regardless of whether they consumed water during that billing period.

## Nonrecurring Charges

Many nonrecurring services are provided by water utilities that are recovered based on the actual costs of providing these services. These include nonsufficient funds fees, reconnection fees, tap fees, and so on.

## System Development Charge

As utilities search for new ways to finance infrastructure investments and minimize the effects on existing customers, a number of utilities have filed petitions with the Commission to establish system development charges (SDCs). An SDC is assessed to property owners who connect their premises to the utility's system for the first time. SDCs are designed primarily to recover a utility's cost to provide new customers with source of supply, treatment, and storage facilities. The use of SDCs supports the notion that growth should

pay for growth and reduces the likelihood that existing customers will pay for new facilities constructed to serve growth.

## Wastewater Rate Structures

Because wastewater usage is not typically metered, the predominant form of billing for Commission-regulated systems is the flat rate. The other form of billing, which many municipalities use, is based on water usage. Some wastewater utilities who bill based on water usage also have some form of balanced billing, which is a mechanism that provides a credit to customers for lawn watering and other outdoor uses during the summer. Other forms of billing charges shown previously for water also apply. One set of charges—strength charges—is wastewater specific; two other charges are slightly different because of the differences in utility operations. The charges are explained here:

- **Strength charge**—Biochemical oxygen demand (BOD) measurements are used as a measure of the organic strength of wastes in water. NH<sub>3</sub>-N denotes ammonia nitrogen. TSS denotes total suspended solids that either float on the surface or are in suspension in water, sewage, or other liquids and that are removable by laboratory filtering.
- **System improvement charge**—A wastewater utility can petition the Commission to establish a surcharge to recover costs for the replacement of the collection system.
- **Wholesale tracker**—For wastewater utilities that use treatment facilities from another utility, a surcharge is included that tracks the cost of wholesale treatment rates.

## Types of Customers

Generally, water customers are classified in one of these groups:

- Residential
- Multifamily
- Commercial
- Industrial
- Wholesale

Wastewater customers are grouped in the same categories but have additional customers such as grease haulers; septic haulers; and commercial fats, oils, and grease customers.



## Water and Wastewater Treatment

The widespread use of drinking water disinfection and filtration is recognized as one of the most important public health achievements in modern history. In recent years, however, concerns about chlorine have surfaced. Although chlorine disinfects drinking water, it also reacts with traces of other materials or particles (for example, organic matter such as decaying trees and leaves as well as urban farm run-off) in water and forms trace amounts of substances known as **disinfection byproducts**. The most common of these are trihalomethanes (THMs), which have been linked to increasing cancer risks and birth defects. Chlorine also is dangerous to handle. The gaseous form is poisonous, and any facility using chlorine gas must comply with many Occupational Safety and Health Administration (OSHA) requirements. Furthermore, since 9/11, the federal government has raised security concerns regarding chlorine.

One alternative to chlorination is the use of ultraviolet (UV) light, which is a light source enclosed in a transparent protective sleeve. The protective sleeve is mounted so that water can pass through a flow chamber, and UV rays are emitted and absorbed into the stream of water. When UV energy is absorbed by the reproductive mechanisms of bacteria and viruses, the genetic material (DNA/RNA) is rearranged so that they can no longer reproduce. At this stage, they are considered dead and the risk of disease is eliminated.

Another alternative to chlorine is **membrane filtration**. Membrane filtration is the filtering of water through a semipermeable layer such that water molecules pass through the membrane, but bacteria, chemicals, and viruses are prevented from passing. As the permutations on the membrane get smaller using nanotechnology, more harmful viruses can be filtered out.

Wastewater treatment plants are expensive to build, and the locations of these plants must meet proper siting requirements while simultaneously being close to an acceptable discharge point. In traditional wastewater treatment plants, effluent is treated via biological processes that require large tank and piping systems. While the technology itself dates back to 1989, the membrane bio-reactor (MBR) process has recently become less expensive and is emerging as a more cost-effective technology. The MBR process has the ability to produce high-quality effluent that can be discharged to surface waterways or be reclaimed for irrigation purposes. It uses the same biological processes as traditional treatment configurations but is able to operate with a greatly reduced physical footprint due to consolidating several physical elements of a traditional wastewater treatment facility. The advantages of MBRs over conventional wastewater treatment include this small footprint and the ease with which they can be retrofitted within older wastewater treatment facilities. Although the technology is expensive, costs can be offset because expansion or relocation of wastewater facilities is avoided and/or much larger investments in land and site work are unnecessary. In many older systems, tanks can be reused to house the membranes, avoiding many of the traditional structural costs associated with new construction.

## Meter Reading and Billing

Recent developments in meter technology are eliminating the need for meter readers and eventually might lead to more real-time pricing. Several cities in Indiana are using *automatic meter reading (AMR)*. Here, a small computer is attached to the water meter in the pit. With this addition, meter readings can be collected by a person driving through a neighborhood, or if a high-speed connection can be created, meters can be read from the office. Automating this process reduces costs as well as the likelihood of errors. Furthermore, utilities can use AMR technology for leak detection by tracking consumption day-by-day or even hour-to-hour. With advanced meters and computers on certain home appliances, time-of-use metered rates are possible.

## Water Distribution and Sewer Collection

If the topography is right, water/wastewater can move from its source to an eventual destination using only gravity, but because water/wastewater is heavy, a great deal of energy is required to move it from one area to another. For a pump to work efficiently, it must have sufficient capability in flow and pressure. However, this is rarely the case. In the case of a constant speed pump, if the pump is not a perfect selection for the operating conditions, either excess pressure must be throttled or excess flow must be dumped, both of which waste energy. Recently, the development of variable speed pumps or variable frequency drive pumps has reduced the energy required to transport water and wastewater. A variable frequency drive motor enables the pump to run at exactly the required revolutions per minute (rpm) so that the desired flow and pressure can be achieved simultaneously without the need to waste energy by mechanically regulating or dumping excess flow.

Replacing aging or failing water/wastewater pipes using the traditional method of opening the ground and replacing the damaged pipe is expensive. Trenchless methods include cured-in-place-pipe (CIPP) technology, which has existed since the early 1970s, and sliplining, which has been used even longer. In CIPP, a felt tube is inserted into a pipe. After curing, the tube bonds to the existing pipe. Sliplining is completed by installing a smaller pipe into the existing pipe.

These trenchless methods have been predominately focused on wastewater applications. However, within the last few years, technical issues have been resolved and installation costs have decreased to the point where CIPP and sliplining are now offered as technologies for waterworks applications as well. The result is a trenchless way to address aging or failing pipelines that can minimize or avoid many costs associated with traditional open-cut applications, including traffic control, utility conflicts (that is, communications, gas, or electric), and surface restoration. Although this process can still be quite expensive, it can produce significant cost savings, especially in urban settings.

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## Efficiency

Water efficiency programs are being developed by individual utilities and at state and national levels in an effort to manage customer usage. In fact, the two largest water utilities in the state, Indiana American Water and Citizens Water, have filed water efficiency plans with the Commission. At the state level, Indiana has developed water conservation and efficiency goals and objectives as required by the Great Lakes Compact. At the national level, the U.S. EPA has developed the WaterSense program to encourage water-efficient products, services, and practices.

Water audits are another tool utilities can use to ensure that water is not being lost. Unaccounted-for water is simply the difference between the quantity of water pumped at the source or purchased from a wholesaler and the quantity actually sold (metered sales). Many utilities employ sophisticated water audits in an attempt to identify the sources of water loss and create effective mitigation plans. By doing so, utilities can reduce the need to develop new sources of supply. Some water loss, however, is necessary for activities such as main flushings, maintenance of the treatment plant, and fire suppression.

Past legislation requires the IFA to summarize the results of the water audits of all water utilities in Indiana and prepare a report to the General Assembly before Nov. 1, 2017. The American Water Works Association (AWWA) provides free auditing software and has been updating the software on a regular basis. As of 2016, AWWA is on version 5.0 of the software, which is described here:

The new AWWA Free Water Audit Software, version 5.0, brings significant improvements from prior generations of the software.

This spreadsheet-based water audit tool designed to help quantify and track water losses associated with water distribution systems and identify areas for improved efficiency and cost recovery. The tool is still founded upon the principles of the M36 Water Audit methodology, but with an enhanced user interface. Improvements have been made to the Water Supplied calculations to align with new content in the forthcoming M36, 4th Edition, 2015.

Version 5.0 introduces a new Water Loss Dashboard with interactive graphical analyses as well as a new Comments page allowing the water auditor to capture essential information pertaining to the audit (data sources, assumptions, calculations, etc.).

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## Regulatory Initiatives

Each year, legislation is passed at the federal and state levels that affects Indiana's water and wastewater utilities. Recently, federal legislation has affected the standards required for drinking water and the discharge of wastewater. Legislation at the state level has reflected growing concerns over the need to update aging infrastructure and ensure that Indiana's water supply remains at viable levels. The Indiana General Assembly also recently passed legislation aimed at ensuring that small water and wastewater utilities continue to be able to provide reliable service to their customers.

### Federal Regulation of Drinking Water

Water quality standards are twofold: 1) health-related (focusing on inorganic and organic chemicals and microorganisms); and 2) aesthetic (focusing on taste, odor, and appearance). These 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, IDEM now requires increased monitoring to detect bacterial contamination in groundwater 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 increase as new rules are approved. For instance, to comply with the U.S. EPA's Long Term 2 Enhanced Surface Water Treatment Rule, several utilities have installed UV disinfection systems at their treatment plants and have sought cost recovery for those investments.

Lead and copper are present in plumbing materials and water distribution system components throughout the United States. The U.S. EPA's goal for the Lead and Copper Rule Long-Term Revisions (LCR-LTR) is to improve the effectiveness of corrosion control treatment in reducing exposure to lead and copper and to trigger additional actions that equitably reduce the public's exposure to lead and copper when corrosion control treatment alone is not effective. The LCR is a treatment technique rule. Instead of setting a maximum contaminant level (MCL) for lead or copper, the rule requires public water systems to take certain actions to minimize lead and copper in drinking water, as a way to reduce water corrosivity and prevent the leaching of these metals from the premise plumbing and drinking water distribution system components. When that isn't enough, the rule requires the removal of lead service lines.

### Federal Regulation of Discharge of Wastewater into Bodies of Water

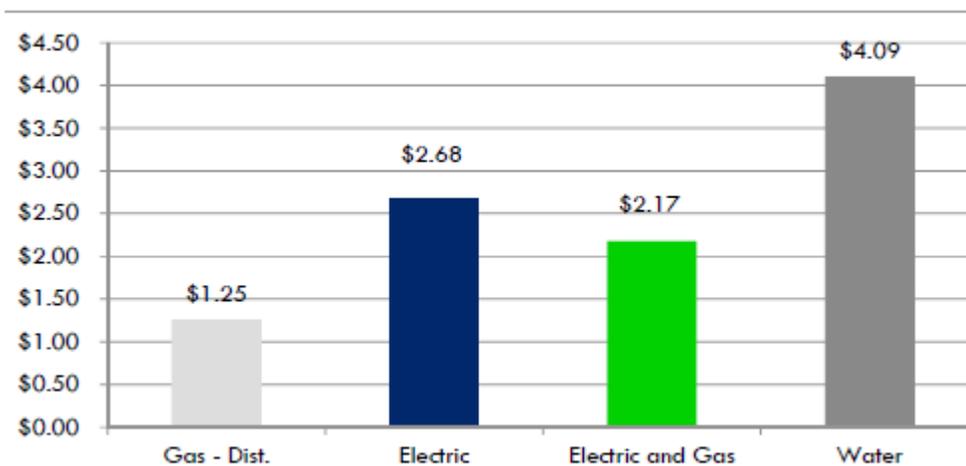
Several regulated wastewater utilities have been required to invest in their systems by consent decrees stemming from violations of the CWA. Because infrastructure improvements may be required, customer rates could be impacted. However, before the costs can be passed on to consumers, projects are subject to review by the Indiana Office of Utility Consumer Counselor (OUCC) and Commission approval.



## Indiana's Water Infrastructure

Much of the nation's 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, typically investing more capital per dollar of revenue generated than any other industry. This figure is high due to the need for large investments and relatively low revenues. Consequently, water utilities typically have been seeking to increase general rates to replace necessary infrastructure. However, water and wastewater utilities in Indiana can seek to recover costs for the replacement of distribution and collection lines through a distribution system improvement charge (DSIC). Past legislation has expanded the DSIC to include wastewater utilities, made clear municipal and nonprofit utilities are eligible for the DSIC, and increased the level of DSIC revenues from 5 percent to 10 percent of the utility's revenue approved in its most recent general rate case.

### Capital Invested Per Dollar of Revenue in 2014



Source: AUS Utility Report - 2015

## Commission Authority Regarding Water and Wastewater Utilities

A new water or wastewater utility that forms as an investor-owned, nonprofit, or municipal water utility is required to come before the Commission, which will determine the following:

- Whether its formation is in the public interest
- Whether the entity will have the financial, managerial, and technical expertise to operate the utility
- How the utility's initial rates and charges will be established

The Commission has territorial authority over investor-owned and nonprofit wastewater utilities. In addition to the necessary determinations listed previously, these utilities are required to obtain a Certificate of Territorial Authority (CTA) to be authorized to provide utility service in a defined area.

For conservancy districts, the Commission has authority over the rates and charges of wastewater utility conservancy districts (set by the board of directors) for customers the district might serve outside its designated boundaries. The Commission has authority over a district's water rates if the district has made an election in its district plan to provide service under Ind. Code § 14-33-20-4.

The Commission has statutory authority to resolve territorial disputes between water utilities regardless of whether the utility is otherwise regulated by the Commission (Ind. Code chapter 8-1.5-6).

As mentioned earlier, the Commission's authority to regulate a water or wastewater utility depends on the type of utility and whether that utility has withdrawn from, or "opted out" of, all or part of the Commission's authority:

- Indiana statutes allow municipal water utilities to withdraw from Commission authority over rates and charges and financing.
- Water conservancy districts with fewer than 2,000 customers also can withdraw from the Commission's authority.
- Indiana statutes allow small nonprofit water and wastewater utilities to withdraw from Commission authority over their rates and charges, financing, rules (terms and conditions), and annual reporting requirements.
- Investor-owned water and wastewater utilities with fewer than 300 customers are able to withdraw from the Commission's jurisdiction.
- Certain utilities, such as municipal wastewater utilities, have never been under the Commission's ratemaking authority; however, the Commission has limited authority regarding disputes between municipal wastewater utilities.



The number of water and wastewater utilities under Commission authority or jurisdiction is relatively small. The Commission's website ([www.in.gov/iurc/2338.htm](http://www.in.gov/iurc/2338.htm)) contains lists of water and wastewater utilities under Commission jurisdiction, as well as lists of those that have withdrawn.

Although the Commission regulates only a fraction of the water utilities, these entities serve approximately 45 percent of Indiana's water consumers. This is because the water systems no longer under the Commission's authority serve just a small number of customers, while the largest regulated water utilities primarily provide service to more densely populated urban areas.

For wastewater, the Commission regulates utilities that serve only about 15 percent of the state's wastewater customers. This is because the bulk of Hoosier customers are served by municipal wastewater utilities, over which the Commission has limited authority.

## Acquisitions

The number of utilities under Commission authority has been decreasing as acquisitions and consolidations have occurred. Acquisitions and consolidations can take many forms. For water and wastewater utilities, the most common types of mergers are as follows:

- IOUs buying smaller IOUs
- IOUs buying municipal systems (called **privatization**)
- Municipalities buying investor-owned systems (called **municipalization**)

Over the last 10 years, the pace of mergers and acquisitions by IOUs has slowed significantly, as many of the most attractive and available utilities have been acquired. However, transaction proposals do continue to take place. When transactions are brought to the Commission for approval, the Commission must ensure customers are not overpaying and that the utility is being assessed at fair value. In cases where a utility's service area is expanded, questions of who should pay and how much also must be considered.

## Distressed Utilities in Indiana

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 typically are small utilities (fewer than 300 customers) that were constructed by a developer as part of a housing development.

To determine whether a utility is troubled, the Commission may examine several key factors, including the following:

- 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
- Provision of service to customers (Ind. Code § 8-1-30-3)

If the utility has continued compliance 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 owner (Ind. Code § 8-1-30-5). On a practical basis, neither is an ideal option.

Recent legislation has provided additional mechanisms to try to facilitate the acquisition of distressed utilities by doing the following:

- Changing the definition of a distressed utility
- Providing financial incentive to acquire a distressed utility, including the ability to include the cost of acquiring contributed property in the rate base
- Changing the requirements regarding a municipality seeking to sell its utility

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 customers. Both the Commission and IDEM have rules regarding the operational abilities of water and wastewater utilities.

## Structure and Regulation



Although all water and wastewater utilities are overseen by the U.S. EPA, there is not one state agency that regulates all water and wastewater utilities. Indiana’s water and wastewater utilities are regulated by four state agencies: the Commission, IDEM, Indiana State Department of Health (ISDH), and Department of Natural Resources (DNR). The Commission mainly regulates the economic aspects of a utility, ensuring that its rates are reasonable. IDEM and ISDH oversee water quality, and DNR has oversight on water well construction and monitors Indiana’s groundwater levels.

The following table shows each type of water and wastewater utility, the specific governmental agency that regulates it, and the authority over that type of utility. This section provides more details on IDEM, ISDH, and DNR and their roles regarding water and wastewater utilities.

## State Agency Authority over Water and Wastewater Utilities

Type of Utility	IDEM					IURC							DNR		ISDH		
	NPDES Permitting <sup>1</sup>	Construction Permits	Operator Certification	Monthly Report of Operation	Oversee Entity Start-up	Rates and Charges	Rules and Regulations	Territory Authority (CTA)	Annual Report	Annual Water Resources Report	Ability to Withdraw from Jurisdiction	No Jurisdiction	Oversee Entity Start-up	Significant Water Withdraw Reporting	Dam/Levee Permitting (if applicable)	Oversee Entity Start-up	Permitting On-site Sewage Systems (if applicable)
Investor-Owned Water		✓	✓	✓		✓	✓		✓	✓	✓ <sup>2</sup>		✓	✓	✓		
Investor-Owned Wastewater	✓	✓	✓	✓		✓	✓	✓	✓		✓ <sup>2</sup>		✓				✓
Not-for-Profit Water		✓	✓	✓		✓	✓		✓	✓	✓		✓	✓	✓		
Not-for-Profit Wastewater	✓	✓	✓	✓		✓	✓	✓	✓		✓		✓				✓
Water Authority		✓	✓	✓		✓	✓		✓	✓	✓			✓	✓		
Municipal Water		✓	✓	✓		✓			✓	✓	✓		✓	✓	✓		
Municipal Wastewater	✓	✓	✓	✓								✓					
Regional Water District		✓	✓	✓	✓					✓		✓		✓	✓		
Regional Sewer District	✓	✓	✓	✓	✓				✓			✓ <sup>3</sup>					
Conservancy Water District		✓	✓	✓		✓ <sup>4</sup>			✓ <sup>4</sup>	✓	✓			✓	✓	✓	
Conservancy Sewer District	✓	✓	✓	✓					✓			✓				✓	✓

<sup>1</sup> A majority of wastewater utilities utilize a treatment system where effluent is discharged into an open stream and an NPDES permit is required. A small number of wastewater utilities use an onsite treatment system permitted by ISDH.

<sup>2</sup> Investor-owned utilities with 300 or fewer customers can withdraw in part from the Commission's authority, per Ind. Code §§ 8-1-2.7-1.3 and 8-1-2.7-2.

<sup>3</sup> Campgrounds served by regional sewer districts have the ability to appeal to the Commission's Consumer Affairs Division for an informal review of a disputed matter, per Ind. Code § 13-26-11-2.1.

<sup>4</sup> The Commission has authority over water conservancy districts that make an election to provide water service under Ind. Code § 14-33-20 in its District Plan. Water conservancy districts with fewer than 2,000 customers can opt out of the Commission's jurisdiction, per Ind. Code §§ 8-1-2.7-1.3 and 8-1-2.7-2. The Commission has authority over a wastewater conservancy district's rates for customers outside the district's boundaries.

**Note:** This table provides an overview of state agency authority over water and wastewater utilities to offer a concise presentation. Thus, limitations exist. For instance, many wastewater utilities send their effluent to another utility for treatment and are not required to obtain an NPDES permit. Similarly, many water utilities purchase their entire water supply and would not be required to report significant water withdraws to DNR. Also, the table does not identify every aspect of each agency's authority.

## **IDEM's Role in Regulating Water Quality**

Utilities that provide drinking water and treat wastewater are subject to federal regulations under the U.S. EPA. Water quality regulation falls under the SDWA, passed in 1974 and amended in 1986 and 1996. In addition to protecting drinking water and its sources—rivers, lakes, reservoirs, springs, and ground water wells—it also gives the U.S. EPA authority to set national health-based standards for drinking water. The SDWA originally was focused on treatment but has grown in scope over the years. In fact, the 1996 amendments greatly enhanced the existing law by recognizing source water protection, operator training, funding for water system improvements, and public information as important components of safe drinking water.

Wastewater regulation falls under the Federal Water Pollution Control Act, or Clean Water Act, most recently amended in 1987. In 1948, Congress passed the Water Pollution Control Act, which later became known as the Clean Water Act. It authorized the Surgeon General of the Public Health Service to develop programs aimed at eliminating or reducing the pollution of interstate waters and tributaries and improving the sanitary condition of surface and underground waters. Similar to the SDWA, the CWA has been amended multiple times, most notably in 1972, which is when permitting became standard. For an entity to discharge any pollutant into a waterway, it first must obtain a permit through the U.S. EPA's National Pollutant Discharge Elimination System (NPDES) permit program.

IDEM's Office of Water Quality (OWQ) is delegated by the U.S. EPA to carry out the requirements of the SDWA and the CWA. The OWQ is divided into several divisions, three of which are the following:

- Drinking Water Branch
- Wastewater Permitting Branch
- Wastewater Compliance Branch

### **The Drinking Water Branch**

IDEM's Drinking Water Branch includes two primary program areas: the Public Water Supply Supervision Program and the Ground Water Protection Program. The Public Water Supply Program focuses on ensuring the quality of water provided for drinking purposes through public water supply systems; the Ground Water Protection Program focuses on protecting the resource—that is, groundwater—from which a large percentage of drinking water is derived. The Drinking Water Branch includes a group of inspectors who conduct onsite reviews of water utilities; a compliance section that tracks drinking water quality and requires corrective actions if contaminants are detected; and a permit section that issues construction permits for the construction of drinking water facilities including water mains, wells, pumps, chemical additions, storage facilities, and water treatment plants.

## The Permits Branch

IDEM's Permits Branch is dedicated to wastewater and implements the federal NPDES Permit Program and Combined Sewer Overflow program. An NPDES permit is required for any facility that discharges pollutants into surface water. The NPDES permit establishes limits on pollutants that can be discharged and defines monitoring and reporting requirements. In addition to the NPDES permit program, the Permits Branch operates a state program that issues construction permits for the construction of wastewater treatment facilities including sewer main extensions, lift stations, wastewater treatment plants, and pretreatment plants.

## The Compliance Branch

The Compliance Branch of IDEM also is dedicated to wastewater and includes inspectors who conduct onsite reviews of wastewater utilities. This branch also collects, enters, and evaluates compliance data submitted by permit holders and manages the state Pretreatment Program and Sewer Connection Ban Program. The Compliance Branch also is responsible for certifying the water and wastewater operators that operate water and wastewater utility facilities. This responsibility includes testing and continuing education.

For more information on these branches, go to [www.in.gov/idem/cleanwater/](http://www.in.gov/idem/cleanwater/).



## Water Utilities

Water utilities are required to test their water, operate and maintain their systems, and (in most cases) file monthly reports of operations (MROs) to demonstrate compliance. Sewer utilities have many similar requirements for proper operation and maintenance, periodic sampling of effluent, and reporting to IDEM. When compliance issues develop, IDEM typically tries to work with regulated utilities to solve compliance matters, but IDEM will use its enforcement authority if necessary to achieve compliance and protect public health and the environment.

IDEM also plays a role when an area is in danger of having a water shortage. In this situation, IDEM issues a water shortage warning to advise public water supply systems in the affected area. IDEM then routinely surveys water supply systems in the affected area to determine the status of water supply availability and demand. IDEM also advises public water systems to immediately develop and update water shortage contingency plans for their respective systems, if such plans are not already available for implementation.

## Regional Water and Wastewater Districts

Another IDEM task is to oversee the establishment of regional water and wastewater districts. These districts are a form of local government that provide drinking water, sewers, and solid waste management (trash removal) for homes and businesses within an established service area. Decisions about forming new districts

are initiated at the local level, and IDEM's role is to ensure these utilities are formed according to the legal and technical requirements specified by statute. The formation process begins when IDEM receives a formal petition that includes the territory to be served. Once formed, the district's rates and charges are set by its board of directors. However, the Commission does have limited jurisdiction to review campground customer sewer rates. A map of the regional water and wastewater districts in Indiana can be found online at [www.in.gov/idem/cleanwater/2421.htm](http://www.in.gov/idem/cleanwater/2421.htm).

In addition to its oversight of new regional water and wastewater districts, all new water utilities, regardless of type, must submit a Water System Management Plan to IDEM showing that the proposed utility will have the technical, managerial, and financial capability to provide clean, safe drinking water before it is given a permit to construct the facility.

With respect to IDEM, it is particularly useful to note that the agency regulates many more drinking water and wastewater treatment facilities than the ones described in this guide. These entities include the following:

- Campgrounds
- Churches
- Gas stations
- Industries
- Mobile home parks
- Office buildings
- Property owner associations
- Schools

IDEM operates primarily under Indiana Code Title 13 and Indiana Administrative Code Title 327.

## ISDH's Role in Regulating Water Quality

The Environmental Public Health Division of the ISDH oversees sewer utilities that use an onsite or decentralized wastewater treatment system. (Note that IDEM is responsible for all permitting of municipal corporations regardless of the treatment system used.) An onsite sewage treatment system is not connected to a centralized wastewater treatment plant and does not discharge effluent into an open stream. Onsite treatment systems include individual onsite septic systems; cluster systems; and alternative wastewater treatment technologies such as constructed wetlands, recirculating sand filters, mound systems, and ozone disinfection systems. ISDH's Onsite Sewage Disposal Program sets minimum state-wide standards for residential and commercial onsite sewage disposal systems. The staff also conducts workshops and seminars on soil analysis and residential sewage disposal and provides consultation and technical assistance to local health departments on the operation of their sewage disposal programs. The program also reviews and approves plans and specifications for commercial onsite sewage disposal systems.

An investor-owned or nonprofit wastewater utility that utilizes an onsite treatment system also may be subject to the Commission's authority for rates and charges, terms and conditions, and territorial authority. As previously indicated, IOUs with fewer than 300 customers and nonprofits are permitted to withdraw from the Commission's authority; however, wastewater utilities that withdraw from the Commission's authority remain under the Commission's territorial authority.

The portions of state statute under which ISDH operates relating to onsite wastewater treatment systems are in Title 16 and 410 of the Indiana Administrative Code. More information about ISDH's Onsite Sewage Disposal Program is located at <http://in.gov/isdh/23283.htm>.

## DNR's Role in Regulating Water Resources

The DNR has very limited jurisdiction over wastewater utilities. A significant area of water utility regulation is the statewide registration and annual water use reporting for significant water withdrawal facilities (SWWFs), including surface water (intake) and groundwater (well). The DNR's Division of Water carries out this responsibility.

Although DNR does not generally require a permit to install a high-capacity water well (except for new facilities located within the Great Lakes Basin that exceed established withdrawal thresholds), it might be necessary to register the well as an SWWF. An SWWF includes any combination of wells, surface water intakes, and pumping apparatus that supply—or can supply—at least 100,000 gallons of water per day to a common collection or distribution point. A utility (or non-utility) that owns such a combination must register those facilities as an SWWF with DNR's Division of Water within three months after it is completed. Additionally, reporting of annual water use is required by March 31 of each following year.

DNR's Division of Water is responsible for enforcing Indiana's standards for well construction; however, wells constructed by water utilities are primarily subject to IDEM's jurisdiction.

In addition to SWWF reporting, DNR touches on many aspects of water resources that affect drinking water utilities, including the following:

- Maintains a water well record database using data required to be provided by well drillers. This is available online at [www.in.gov/dnr/water/3595.htm](http://www.in.gov/dnr/water/3595.htm).
- Responsible for licensing and continuing education of well drillers and pump installers.
- Implements the Emergency Groundwater Rights Act, which provides assistance to non-SWWFs whose water supply is disrupted by an SWWF. (Resolution of these conflicts usually involves the SWWF reimbursing the impacted well owner for expenses associated with restoring the water supply or the impacted well owner connecting to a nearby water system.)
- Oversees the sale of water from state-financed reservoirs.
- Assists Indiana's implementation of the Great Lakes Compact. The compact and information about it can be found at [www.in.gov/dnr/water/5216.htm](http://www.in.gov/dnr/water/5216.htm).
- Assists with the coordination and implementation of Indiana's Water Shortage Plan (the Water Shortage Task Force was abolished by the 2011 Indiana Legislature under HB 1002). Learn more about the plan and access a copy of it online at [www.in.gov/dnr/water/3124.htm](http://www.in.gov/dnr/water/3124.htm).
- Regulates approximately 1,100 dams under state jurisdiction, reviews dam and levee construction plans, and provides safety improvement recommendations to dam owners to reduce the risk of dam incidents and dam failure flooding.

## The Natural Resources Commission

Another DNR task is to participate in the establishment of water and wastewater utility conservancy districts. After a circuit court in the county with the most land in the proposed district determines a petition is complete, the court refers the petition to the Natural Resources Commission (NRC). The NRC ([www.in.gov/nrc/](http://www.in.gov/nrc/)) conducts a public hearing, gathers input, and prepares a report to the court. When the circuit court receives the fact-finding report from the NRC, the court schedules a hearing regarding the establishment of the utility. One of the first responsibilities is to develop a district plan consisting of an engineering report that sets forth the general, comprehensive plan to accomplish the district's purpose. The NRC is required to review and approve the district plan but has delegated this role to the director of the DNR's Division of Water. As a special taxing district, a conservancy district can assess taxes on all real property included in the district. A district's boundaries are based on identification of properties expected to benefit from the district. For more information about water and wastewater utility conservancy districts, go to [www.in.gov/dnr/water/2459.htm](http://www.in.gov/dnr/water/2459.htm).

DNR operates primarily under Indiana Code Title 14 and Indiana Administrative Code Title 312.



# Communications Division

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## Overview

The Communications Division assists the Commission in the implementation of universal service programs and provides recommendations on matters such as applications for Certificates of Territorial Authority (CTAs) for communications service providers (CSPs) and franchises for video service providers (VSPs). In addition, the Commission's Communications Division monitors regulatory proceedings and policy initiatives at the federal level to determine the impact of those policies on Indiana utilities and customers and recommends whether comments should be filed in those proceedings, to help ensure the state's interests and rights are protected.

All CSPs must have a valid CTA to offer service in Indiana. Providers must receive authorization to offer any of the following services:

- Advanced services
- Broadband service
- Information services
- Internet Protocol-enabled services
- Telecommunications services
- Video services

Providers of video service also must hold a video service franchise from the Commission, the sole video franchise authority in Indiana. Additionally, the Commission designates all eligible telecommunications carriers (ETCs) in the state, which enables the carriers to obtain support from the federal Universal Service Fund (USF). The Commission has no authority over the approval of the rates and charges of CSPs, with the exception of intrastate access rates. Therefore, comprehensive rate comparison data is unavailable.

The Commission also is involved in areas of the communications industry where competition alone may not provide solutions. For example, the Commission does the following:

- Resolves carrier-to-carrier disputes.
- Manages policies regarding telephone numbering resources (pursuant to federal and state law).
- Protects consumers from unauthorized changes to their service (cramming) or service providers (slamming).
- Implements universal service programs.



# COMUNICATIONS DIVISION

## History of Changes in Regulation

The Communications Act of 1934 set forth the standard that all people should have access to wire and radio communication “without discrimination on the basis of race, color, religion, national origin, or sex.” To ensure such policies would be honored, Congress then established a new agency, the Federal Communications Commission (FCC), dedicated to overseeing the telecommunications industry.

The FCC was established by the Communications Act of 1934 and operates as an independent U.S. government agency overseen by Congress. The FCC oversees broader communications policies and regulates interstate and international communications by radio, television, wire, satellite, and cable in all 50 states, the District of Columbia, and U.S. territories. To help it craft sound policies, Congress directed the FCC to work with the National Association of Regulatory Utility Commissioners (NARUC) to form Federal-State Joint Boards. These boards are influential in shaping policy and facilitating discussions among leaders from all levels of government.

After an *antitrust* lawsuit was filed in 1974 against AT&T, “Ma Bell” was ordered to break up into smaller companies following a formal ruling in 1982. This action came after revelations that AT&T had a monopolistic hold over telecommunications services throughout most of the United States. The breakup eventually led to new entrants in the market, which fostered increased competition. The new, smaller companies were dubbed the “Baby Bells.”

### Telecommunications Act of 1996

More than six decades after the Communications Act of 1934, Congress overhauled the nation’s telecommunications law. Its intent was “to promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies.”

This marked the shift from telecommunications services being seen as a natural monopoly (such as natural gas, electric, or water services) to those that could thrive in a competitive market. Some of the more notable sections include Section 251 (interconnections), Section 254 (universal service), and Section 706 (advanced telecommunications incentives).

Essentially, Section 251 required carriers “to interconnect directly or indirectly with the facilities and equipment of other telecommunications carriers.” By doing so, additional competitors can enter the market for local and long-distance services, while making less extensive capital improvements. Section 254 then established the Federal-State Joint Board to advise the FCC on universal service mechanisms meant to provide access to high-cost areas of the states. Lastly, Section 706 required the FCC and state commissions to “encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans” through “measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment.”

## House Enrolled Act 1279

In 2006, the Indiana General Assembly moved Indiana away from its status of a more traditionally regulated state by passing House Enrolled Act (HEA) 1279. This reform legislation was passed with bipartisan support and became the legislative template for more than 20 other states. Notable provisions of the reform included deregulating rates and charges for most telecommunications services and giving the Commission authority for the statewide franchising of VSPs.

Since the move toward deregulation in 2006, the Indiana General Assembly has made additional changes to the statutes related to telecommunications and video in a number of areas, including these:

- Reporting requirements
- Interconnection
- Providers of last resort
- 911 surcharges
- Eligible telecommunications providers

## After House Enrolled Act 1279

The statutory responsibilities of the Commission related to the communications industry have changed significantly since the enactment of HEA 1279 in 2006. Although it is true that some of those Commission responsibilities have been eliminated or limited, it also is true that the Commission has been given many new communications-related responsibilities.

The Commission has worked to modify processes and policies and to eliminate those no longer required under the new regulatory structure. At the same time, the Commission implemented procedures to address new statutory responsibilities related to video franchises and the certification of CSPs. In that regard, the Commission has granted 82 Certificates of Franchise Authority (CFAs) to provide video service, pursuant to Indiana Code chapter 8-1-34. More broadly, currently more than 1,200 CSPs hold a CTA to provide telecommunications, information, and/or video services in Indiana, as required under Ind. Code chapter 8-1-32.5.

Although the role of the Commission has changed, the agency continues to serve as a monitor of the new market environment and plays a significant role in protecting Indiana's interests in federal matters. As federal policies are implemented through the FCC's rulemakings and orders, the Commission must pay close attention to ensure that Indiana's interests and concerns, as well as those of customers and providers, are addressed.



## Current Commission Authority

The rules and policies currently in place ensure that the Commission can fulfill its responsibilities as outlined in state and federal law. These include, but are not limited to, the following:

- Issuing and maintaining records of CTAs for all CSPs, pursuant to Ind. Code chapter 8-1-32.5.
  - Fulfilling the Commission's responsibilities under Indiana Code chapter 8-1-29 to adopt and enforce rules to prevent unauthorized switching of telecommunications providers or assessment of unauthorized charges on customers' bills (slamming or cramming).
  - Performing duties outlined in Ind. Code chapter 8-1-2.8 concerning the provision of dual-party relay services to deaf, hard-of-hearing, and speech-impaired persons in Indiana.
  - Performing duties, as set forth in Ind. Code chapter 8-1-19.5, concerning the administration of 211, a hotline for citizens to obtain access to human services information and referrals.
  - Implementing the authority granted by state or federal law on issues such as numbering administration, area code relief, and federal truth-in-billing requirements for common carriers.
  - Mediating the disconnection of one local exchange carrier (LEC) by another LEC to protect end-user customers from losing their telephone service with insufficient advance notice to choose an alternative carrier.
  - Approving interconnection agreements and arbitrating/resolving interconnection disputes between telecommunications carriers, pursuant to Section 252 of the federal Telecommunications Act of 1996 (TA-96).
  - Approving intrastate switched and special access tariffs, consistent with applicable federal and state requirements.
  - Fulfilling the Commission's obligations under TA-96 and Ind. Code chapter 20-20-16 concerning universal service and access to telecommunications services and equipment, including designation of ETCs under 47 U.S.C. § 214.
  - Overseeing the Indiana Universal Service Fund (IUSF), which was implemented in 2007 in an effort to replace lost revenue for a number of rural local exchange carriers (RLECs) in high-cost areas in Indiana. In developing and implementing the regulatory and policy framework for the IUSF, the Commission has remained mindful of applicable federal requirements.
  - Issuing CFAs to multichannel video programming distributors offering video service.
  - Enforcing video service standards, as the sole franchise authority, including general customer service standards for video service providers, pursuant to FCC rules set forth in 47 CFR 76.309 and requirements for public, educational, and governmental (PEG) channels, pursuant to authority granted under 47 U.S.C. 531.
  - Preparing and submitting communications-related reports or sections of reports required or requested by the General Assembly on various telecommunications- and video-related topics.
- In addition to carrying out these specific responsibilities and exercising these specific grants of authority, the Commission also

responds to inquiries from legislators and other government officials, media, consumers, individual communications service providers and utilities, attorneys and consultants, associations, and others.



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## Federal Reforms

The FCC has made several changes to the telecommunications industry. It has made sweeping changes to intercarrier compensation as well as the federal USF. It also launched the Rural Broadband Experiments (RBEs) to learn more about the impact of technology transitions on rural America. In addition, the FCC has implemented reforms in the Lifeline program and worked to address the issue of Net neutrality.

### Inter-carrier Compensation Transformation

In 2011, the FCC dramatically altered the method by which carriers charge each other for terminating or originating calls, known as *inter-carrier compensation (ICC)*. The FCC's reform of ICC included abandoning the calling-party-pays model and phasing in a national bill-and-keep framework. Under the bill-and-keep framework, carriers no longer have to pay one another for use of each other's networks; they look first to their retail subscribers to cover the costs of the network and then to explicit universal service support where necessary. In adopting the new framework, the FCC rejected the notion that only the calling party benefits from a call and therefore deemed that both the calling party and the party being called should pay for the cost of originating, transporting, and terminating a call.

## Universal Service Fund Reforms

The FCC has taken a number of steps since 2011 to reform the federal USF program. Prior to the 2011 USF/ICC Transformation Order, federal high-cost (USF) support went primarily to incumbent local exchange carriers (ILECs) providing traditional local voice telephone service in rural areas, particularly those rural areas for which the cost of providing the local voice service was above the national average (hence, “high-cost” areas). The FCC did not provide USF support explicitly or solely for the carriers offering broadband services, although many of the *loops*—the copper wires that connect a residential customer to the public switched telephone network (PSTN)—could be used to provide both local voice service and broadband digital subscriber line (DSL) Internet access.

Under the 2011 order and subsequent FCC orders, the FCC made two important changes in the high-cost program. First, the FCC simplified the way it described the various services eligible for support that it “historically [had] defined in functional terms (for example, voice grade access to the PSTN, access to emergency services) into a single service it designated as ‘voice telephony service.’”

Second, in acknowledging the significance of broadband in the twenty-first century, the FCC shifted the focus of the federal USF from the deployment and adoption of voice services to the deployment of broadband across the country. More information is available on the FCC’s website at [www.fcc.gov/general/universal-service-fund](http://www.fcc.gov/general/universal-service-fund).

## Rural Broadband Experiments

On March 3, 2015, New Lisbon Broadband and Communications, LLC (New Lisbon) filed a verified petition with the Commission for designation as an ETC for the purpose of participating in the FCC’s Connect America Fund Rural Broadband Experiments. New Lisbon is a wholly owned subsidiary of New Lisbon Telephone Company, Inc., and was created specifically for the implementation of expanded broadband network capabilities through participation in the FCC’s RBEs and managing projects for the extension of broadband services in Indiana.

On July 14, 2014, the FCC issued an order establishing parameters and requirements for participation in the RBEs. In that order, the FCC stated that it was “interested in learning the extent of interest among competitive ETCs to provide fixed voice and broadband services to the home with recurring support, using both wireline and wireless technologies” (*In the Matter of Connect America Fund; ETC Annual Reports and Certifications*, WC Docket Nos. 10-90, Report and Order and Further Notice of Proposed Rulemaking (FCC 14-48, rel. July 14, 2014)). The FCC required all provisionally selected companies to obtain designation as an ETC as a condition for receiving final authorization to participate in the RBEs and for beginning to receive RBE funding. On May 4, 2016, the FCC’s Wireline Competition Bureau issued a public notice authorizing New Lisbon to begin receiving RBE support. Learn more about RBEs on the FCC’s website at [www.fcc.gov/general/rural-broadband-experiments](http://www.fcc.gov/general/rural-broadband-experiments).

## Lifeline Reform

On March 31, 2016, The FCC adopted an order to transition Lifeline support away from voice-only to broadband support. Formerly, the federal Lifeline program provided support to ETCs of \$9.25 per month for each eligible household served with discounted voice telephony services. The new order phases in mobile broadband over five years. The FCC anticipates technological advances in the

convergence of mobile voice and data, phasing in broadband requirements as support for standalone voice decreases. Beginning Dec. 1, 2019, support decreases to \$7.25 per month, per eligible customer. It will be \$5.25 by December 2020, and no Lifeline support will be available for voice-only subscribers by December 2021 (except in areas where there is only one Lifeline provider). In addition, the order provides a streamlined, nationwide entry for a new category of providers called Lifeline broadband providers. It also establishes a third-party national verifier of eligible customers, taking the Lifeline provider out of the business of determining eligibility for its own customers.

## Open Internet Order

On March 12, 2015, the FCC released its Open Internet Order, more popularly known as the “Net Neutrality” Order. This was in response to a 2014 decision by the U.S. Circuit Court of Appeals for the D.C. Circuit (D.C. Circuit) that struck down the FCC’s 2010 conduct rules against blocking and unreasonable discrimination by broadband providers. However, the D.C. Circuit’s 2014 decision upheld the FCC’s finding that Internet openness drives a “‘virtuous cycle’ in which innovations at the edges of the network enhance consumer demand, leading to expanded investments in broadband infrastructure that, in turn, spark new innovations at the edge.”

The 2014 D.C. Circuit decision also affirmed the FCC’s conclusion that “broadband providers represent a threat to Internet openness and could act in ways that would ultimately inhibit the speed and extent of future broadband deployment.” Finally, the court upheld the FCC’s 2010 transparency rules. In 2015, the FCC found, among other things, that broadband Internet access service (BIAS), which the FCC defines as a mass-market service that

can be offered using either fixed or mobile technologies, is a telecommunications service subject to so-called “Title II regulation”. However, the FCC indicated it would refrain from enforcing many of the specific laws and rules that apply to other telecommunications carriers and services.

As a result, the FCC established requirements in the following four areas:

- No blocking
- No throttling
- No paid prioritization
- Enhanced transparency requirements

Enhanced transparency requirements essentially are requirements for disclosure of accurate information about the network management practices, performances, and commercial terms of a particular carrier’s BIAS, which must be sufficient to allow a customer to make informed choices about BIAS providers. It also must enable customers to make informed choices of specific BIAS pricing or service plans and enable a content, application, service, or device provider to develop, market, and maintain Internet offerings.

Various legal challenges to this 2015 order were filed at the D.C. Circuit. The court issued a decision on June 14, 2016. In that decision, the court denied a number of petitions for review of the FCC’s order from three separate groups of petitioners, consisting primarily of broadband providers and their associations, thereby upholding the Net Neutrality Order.



## Universal Service

The federal USF is paid for by a surcharge on all telecommunications customers' bills. This fund supports four programs:

- High Cost, which is also called the Connect America Fund (CAF)
- Lifeline
- Rural health care
- Schools and libraries

A CSP must be designated as an ETC to receive support from the High Cost and Lifeline programs. Because Indiana customers help pay for these programs, the Commission takes its ETC designation responsibility seriously to ensure the public funds are used "only for the provision, maintenance, and upgrading of facilities and services for which the support is intended" as required by federal rules (47 C.F.R. 54.7).

High Cost is a program to support widespread and affordable telephone service in rural areas. This program actually contains multiple funding mechanisms designed to encourage the deployment and maintenance of broadband-capable networks in territories that are not economical to serve, such as the territories of small rural carriers and more recently in the underserved territories on the outskirts of large and medium ILEC territories. Learn more at [www.fcc.gov/general/connect-america-fund-caf](http://www.fcc.gov/general/connect-america-fund-caf).

The rural health care program makes subsidies available to health care providers for telehealth and telemedicine services. These usually include a combination of high-speed Internet access and videoconferencing infrastructure. The goal of this program is to give doctors and patients in rural hospitals the ability to access specialists in distant locations and to do so at affordable rates.

The USF also provides subsidies to enable low-income and rural schools and libraries to obtain Internet access and general telecommunications services at affordable costs. The subsidies generally range from 20 percent to 90 percent of the costs.

## Lifeline

The Lifeline program must be offered to eligible customers by all ETCs. Consumers are eligible if they either have a total household income that does not exceed 135 percent of the federal poverty guidelines or participate in one of the following programs:

- Medicaid
- Supplemental Nutrition Assistance Program (SNAP), formerly known as food stamps
- Supplemental Security Income (SSI)
- Federal Public Housing Assistance (Section 8)
- Veterans and Survivors Pension Benefit

In recent years, the Commission has had many wireless carriers seeking ETC designation only for the purpose of receiving Lifeline support. These carriers specialize in providing Lifeline services to low-income customers via cellphone devices provided at no cost to their customers. See the FCC's website ([www.fcc.gov/general/lifeline-program-low-income-consumers](http://www.fcc.gov/general/lifeline-program-low-income-consumers)) for more information.

## ETC Obligations

ETC obligations are uniform regardless of the type of technology used by the carrier that demonstrates they can meet the obligations. All ETCs are required to provide voice telephony services using their own facilities and to serve their entire designated service area. Voice telephony service means “voice grade access to the public switched network or its functional equivalent; minutes of use for local service provided at no additional charge to end users; access to the emergency services provided by local government or other public safety organizations, such as 911 and enhanced 911;...and toll limitation services to qualifying low-income consumers.” (47 C.F.R. 54.101)

All ETCs also are required to meet basic service quality and emergency backup standards and certify compliance annually. As mentioned previously, all ETCs must offer the Lifeline discount to eligible low-income customers. However, the FCC is considering changing this as a part of its Lifeline Reform and Modernization proceedings, which began in 2012. These proceedings continue to evolve in response to the rapid changes in technology and communications service offerings.

The Commission designated all ILECs as ETCs in 1998 due to policies set forth in TA-96. The ILEC territories reflect the legacy monopoly telephone system, but they also serve the important function of ensuring that every square mile in Indiana has a carrier that is required to provide voice telephony service upon reasonable request. Although competition in the local exchange market has provided most Indiana households with a choice of multiple service providers, some areas of the state remain underserved. The current ILECs territories ensure that every Indiana household has access to the PSTN from at least one provider. Currently, 3 large ILECs and 39 small, rural ILEC ETCs serve Indiana.

Some competitive local exchange carriers (CLECs) have sought and received ETC designation to receive High Cost support to deploy and maintain facilities-based voice telephony services for certain territories in Indiana. Some of the CLEC ETCs are affiliates of small, rural ILECs, but the ILEC and CLEC territories do not overlap. There are four CLEC ETCs.

Currently, all wireless ETCs provide only Lifeline services and do not receive High Cost support. The FCC does not require this type of ETC to provide services using its own facilities because the ETC is receiving public funds only to provide discounted services to eligible customers, not to deploy and maintain networks. Most wireless ETCs resell the services of one or more of the major, facilities-based wireless carriers serving the state. Eleven wireless ETCs serve Indiana today.

## Indiana Universal Service Fund

The IUSF provides cost recovery so that companies in high-cost areas can continue to offer services at rates that are “just, reasonable, and affordable” as required by TA-96. In 2007, the IUSF was implemented to ensure that communications networks are built and maintained in areas of the state that are not economical to serve due to challenging terrain or extremely low-density development. When the Commission established the fund, it was determined that the fund should be reviewed every three years to ensure the operations of the IUSF are meeting the Commission’s objectives of preserving and advancing universal service within the state and to ensure that the processes, funding levels, size, and operation and administration of the IUSF remain adequate and sufficient, among other considerations.

The most recent triennial review was completed in 2015. At that time, the FCC was continuing to implement new policies or orders on reconsideration stemming from the USF/ICC Transformation Order. This order resulted in sweeping changes to federal universal service rules and policies. Consensus was reached by industry stakeholders testifying during the triennial review that the status quo should be maintained because it was too soon to determine the long-term effects of the FCC's new rules and policies regarding universal service. The Commission concluded its review and implemented no changes to the fund. With the uncertainty of the impact of recent changes and possibility of further FCC review and reforms, the Commission will continue monitoring the balance of the fund and changes at the federal level. If necessary, the Commission may consider changes to the IUSF before the next triennial review, scheduled to begin in 2018.



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## Numbering Issues

The Commission has jurisdiction over matters involving the introduction of new area codes in Indiana. A government agency called the North American Numbering Plan Administrator (NANPA) monitors the status of all area codes serving the United States. NANPA performs an analysis of projected exhaust dates for area codes twice per year, called a Numbering Resource Utilization Report (NRUF). **Exhaust** means that an area code is running out of blocks of 10-digit telephone numbers available for communications providers to assign to new customers.

When an area code in Indiana is three years from exhaust, NANPA and representatives from the Indiana telecommunications industry meet to discuss the urgency for relief and the appropriate relief methods. NANPA then files a petition for area code relief with the Commission along with a recommended method of relief. Three methods of relief can be used:

- Geographic split
- Area code overlay
- Boundary realignment

Ultimately, the Commission makes the final decision on which type of relief method is the most suitable. The Commission also is responsible for establishing new area code boundaries, establishing necessary dates for the implementation of area code relief plans, and directing public education efforts regarding area code changes.

In 2014 and 2015, two area code relief efforts were implemented in Indiana's 812 and 317 territories (Cause Nos. 44233 and 44513, respectively). In both cases, the Commission issued all services distributed *overlays* using area code 930 in the 812 region and 463 in the 317 region. This enabled consumers and businesses to keep their existing telephone numbers. After the changes went into effect, all parties did have to dial 10 digits (3-digit area code + 7-digit telephone number) instead of 7 digits for local calls.

In both cases, the Commission approved a 13-month implementation schedule for the transition to 10-digit dialing in these areas. However, in both cases, the Commission extended the permissive dialing period to allow security companies additional time to update equipment. The Commission, the industry, and the Indiana Office of Utility Consumer Counselor (OUCC) provided additional customer education and outreach, such as news releases, notices, presentations at trade association meetings, and outreach to various organizations (for example, chambers of commerce, local governments, and associations). The next area code in Indiana that will need relief is not expected to exhaust until 2032. See the Commission's website for more about the 812 area code relief ([www.in.gov/iurc/2703.htm](http://www.in.gov/iurc/2703.htm)) and 317 area code relief ([www.in.gov/iurc/2808.htm](http://www.in.gov/iurc/2808.htm)).

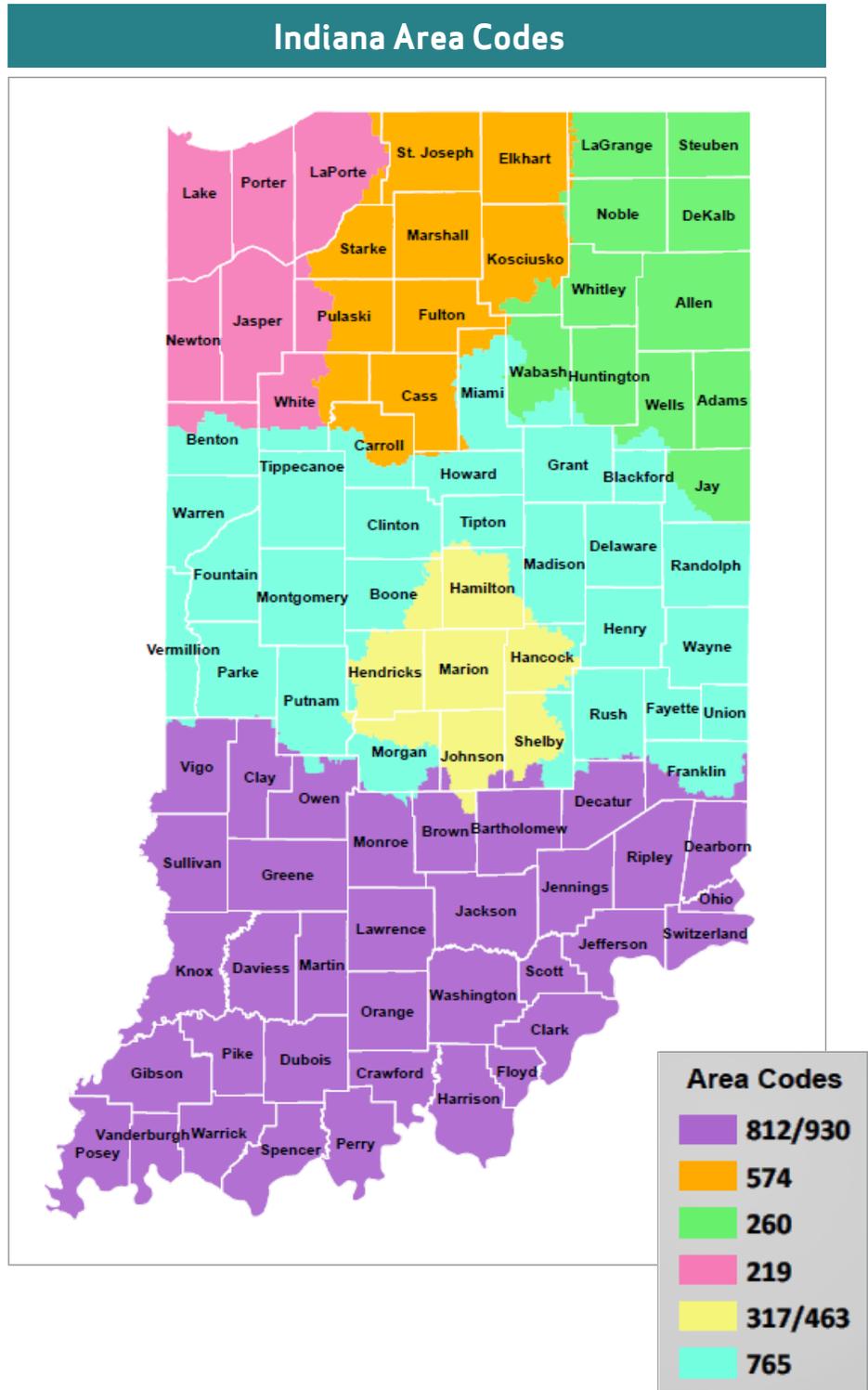
The following table shows the results of NANPA exhaust forecasts released in April 2016.

Area Code	Projected Exhaust Date
219	Beyond 30 years
260	Beyond 30 years
317/463	2016 4Q (projection prior to area code relief)
574	Beyond 30 years
765	2032 3Q
812/930	Beyond 30 years

NANPA also is responsible for the assignment of North American Numbering Plan (NANP) numbering resources. These numbering resources are managed and administered by an independent, non-governmental, third-party entity called Neustar. Carriers can request numbering resources in codes (10,000 numbers) or blocks (1,000 numbers) by submitting an application in accordance with the Assignment Guidelines of the Alliance for Telecommunications Industry Solutions (ATIS), as posted on its website ([www.atis.org](http://www.atis.org)). The carriers must meet certain criteria for their requests to be granted. Many times, a LEC is denied because it does not meet the months-to-exhaust criteria or utilization threshold requirement for the given rate center in which resources are requested. Such issues arise when the carrier's customer is requesting a specific range of numbers or a large group of sequential numbers for reasons such as direct inward dialing (DID) or for ease of transition into an existing network. The FCC established a "safety valve" mechanism to enable carriers that do not meet the utilization threshold in a given rate center to obtain approval from the Commission to acquire additional numbering resources.

The Commission has authority to review and override NANPA’s decision to deny a request for numbering resources. The Commission developed a streamlined process for handling these types of petitions. A company must file a formal docketed case following the guidelines and providing the required information outlined in the general administrative order (GAO). The Commission has 15 days to review the petition and can issue docket entries to ask additional questions or request missing information. The Commission can overturn NANPA’s decision to withhold numbering resources based on its determination that the carrier has demonstrated a verifiable need for numbering resources and has exhausted all other available options.

The Commission monitors to verify that numbering resources are being fully utilized by carriers in the state. Service providers are required to return unused numbering resources to the NANPA or pooling administrator (Neustar). The Commission receives daily reports from Neustar regarding changes and requests to numbering resources by carriers in Indiana. The Commission also receives monthly reclamation reports regarding carriers who have not submitted the required proof that they have activated and commenced assignment of their numbering resources to end users within six months of receipt. Prior to reclamation, the Commission does provide service providers an opportunity to explain the circumstances for the delay and then determines whether these numbering resources should be reclaimed.



## Video

Legislation, the rise of video streaming, and ongoing technological advancements all have brought big changes to the video market.

### Legislation Changes

In 2006, legislation changed the way new VSPs receive authority to do business in Indiana. The Commission was given sole authority over the issuance of all franchise agreements made after July 1, 2006.

Originally, VSPs exclusively held local franchises that they negotiated with the local government. Many VSPs still operate under local franchising agreements that were made prior to July 1, 2006. However, since 2006, the number of VSPs holding local franchises has decreased and the number of providers holding state-issued

franchises has increased. This trend is the result of local franchises expiring and new providers entering the market for the first time, both of which require new state-issued video franchises to be issued. The number of providers by county varies, with some locations being more competitive than others. The industry also has seen some consolidation over the last few years, and this trend is expected to continue as current and future mergers are approved.

### Application for Certificate of Franchise Authority

Per Ind. Code § 8-1-34-16, a company seeking to provide video service in Indiana must file an Application for a Certificate of Franchise Authority. The application and instructions can be found on the Commission's website at [www.in.gov/iurc/2337.htm](http://www.in.gov/iurc/2337.htm). VSPs are required to provide only that information which is statutorily required, including a description and map of the designated service areas (DSAs) in which the VSP expects to provide service. Any contiguous areas may be considered a single DSA, and additional DSAs will be labeled sequentially. The CFA application is filed as a docketed case, and an application fee of \$832 is required. The Commission has 15 days to review the application for completeness and accuracy, during which time the Commission can contact the company directly to ask additional questions or request missing information. A judge then issues an order granting the company a CFA to provide video service in those DSAs.



## Video Compliance Filings

Upon receipt of a CFA, a VSP must comply with certain requirements, including notifying the Commission of any changes to its existing CFA. A VSP must file a Verified Notice of Change Petition, which can be found on the Commission's website, if it wants to increase or decrease its DSAs for reasons such as expired local franchises, sale of assets, or expansion purposes. The Notice of Change Petition is a non-docketed filing and must be used for changes to a legal or assumed business name, principal business address, contact person, and other changes.

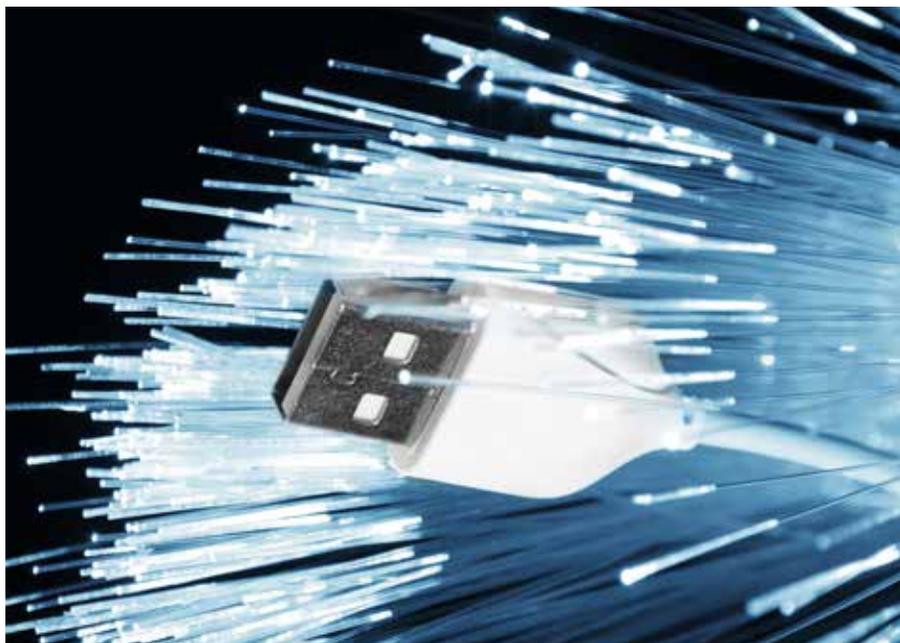
Any changes in the video programming or other programming service must be accomplished by the filing of an annual report due to the Commission on March 1 of each year, reflecting changes made during the previous year. Additionally, a biennial report must be submitted by March 1 of each off-numbered year to provide an updated map for each authorized DSA, showing the portion of the authorized DSA(s) at the census block group level and a list of those census blocked groups in which the provider is actually offering service as of the prior year. This requirement is to comply with Ind. Code §8-1-34-16; further guidelines are outlined in GAO 2011-1 found on the Commission's website at [www.in.gov/iurc/2732.htm](http://www.in.gov/iurc/2732.htm).

A VSP operating under a state-issued franchise must follow certain requirements. It must offer a basic service tier that includes all local programming such as public, educational, and governmental channels. It is required to report annually to the Commission on which channels are being offered. Although the Commission does not have authority over rates and charges, it does enforce FCC customer service standards. These include such things as the following:

- Having a customer service phone line
- Convenient bill payment locations
- Guidelines for service and installation time limits
- Notice to the customer regarding changes in rates or service

The Commission is required to track any cable and video complaints regarding VSPs operating under a state-issued franchise. Complaints made to the Commission are handled by the Consumer Affairs Division. This information is then reported to the Indiana Legislature every year.

In addition to granting state franchises, the Commission also monitors consolidations and other business transactions. In late 2007, Avenue Broadband acquired the assets of three Charter Communications entities that provided video service in Indiana. In 2012, Time Warner Cable acquired the assets of Insight Communications Midwest. In 2013, New Wave Communications acquired the assets of Avenue Broadband. In 2016, Charter Communications merged with Time Warner and purchased Bright House Networks.



## Competition and Technological Changes

The video market has undergone major changes due to the growing use of video streaming and ongoing technological advancements. Cable companies are now competing with telephone, broadband, and wireless companies for video customers. Customers can choose from cable modem, digital subscriber line (DSL), and wireless broadband connections and can access shows through thousands of platforms and devices such as computers, smart TVs, smartphones, tablets, and gaming devices. Cable companies trying to keep up with the market are offering bundled cable services, also known as cable Internet. Cable Internet enables customers to pay reduced costs for phone services in the form of Voice over Internet Protocol (VoIP) services. They also have invested money into developing fiber-rich broadband networks that provide extremely high bandwidth to compete with other broadband providers with less robust networks. Cable providers have begun providing not just television service, but also video entertainment, Internet connectivity, and digital telephone services.

## Mergers and Acquisitions

On April 25, 2015, Comcast and Time Warner Cable announced that they had dropped their \$45 billion plan for Time Warner Cable to merge with Comcast. This came the day after a meeting with the FCC and Justice Department where concerns about the merger's effects on competition were discussed. If the two merged, Comcast would have had more than half of all the nation's high-speed Internet customers, giving them far too much leverage over online competitors. As it is, more than half of Americans with broadband access are currently getting it from their cable provider. FCC Chairman Tom Wheeler stated that the

merger would have posed too big of a risk to competition and innovation along with possibly hindering the ability of online VSPs to reach and serve customers.

Prior to the cancellation of the merger, Comcast planned to divest most of its Indiana customer base and other Midwestern operations to make its merger acceptable to federal antitrust regulators. In preparing for the merger in Indiana, filings had been made to establish entities to allow them to provide telecom services and information services, along with a filing for a video franchise. Since the withdrawal of the merger, each of these entities has sought relinquishment of authority received.

On May 26, 2015, Charter Communications announced a \$56 billion deal with Time Warner Cable along with the purchase of Bright House Networks. The FCC approved this merger in May 2016, in part due to the fact that these companies cover different areas and thus should not affect competition. The deal provides video, broadband, and phone services to 23.9 million Americans under the new name of New Charter. The merger enables the company to quickly deploy faster Internet speeds to customers at reasonable prices, making it a strong competitor to Comcast.

The companies already have submitted the appropriate filings with the Commission for three video service providers in Indiana. Time Warner Cable Midwest, LLC; Insight Communications Midwest, LLC; and Bright House Networks, LLC, each has a state-issued CFA to offer video services in its DSAs. The companies will continue to offer services to these areas under the same name but will be a subsidiary of the newly formed parent company, New Charter. The merger is said to bring new technologies and innovations to current customers while improving customer service and reducing overall costs to consumers.

## Direct Marketing

The Commission's role of granting direct marketing authority to VSPs was established as a result of P.L. 241-2013 (SEA 235). Direct marketing authority permits companies to conduct activities such as door-to-door sales in Indiana. Rather than requiring VSPs to obtain a permit in multiple municipalities where they plan to conduct sales activities, the General Assembly granted the Commission authority to certify companies at the state level. Companies can choose whether to seek state authority or local permission to solicit. VSPs applying for state direct marketing authority must certify that all requirements have been met for their employees and contractors. For example, companies must conduct a criminal background check on prospective employees and must show proof of financial responsibility. They also have to file a list of employees certified to conduct direct marketing. The complete requirements for those seeking to provide direct marketing are outlined in Ind. Code § 8-1-34-30.

The Commission created and maintains a webpage ([www.in.gov/iurc/2760.htm](http://www.in.gov/iurc/2760.htm)) where Commission orders granting direct marketing authority are posted. Additionally, the page includes a roster of all current and former employees who are certified by the company under the requirements of the law to conduct direct marketing. This enables local governments to verify that those individuals who are soliciting have in fact undergone review. Companies seeking to offer direct marketing authority in Indiana must follow the guidelines outlined in the Commission's GAO 2013-4, which can be found at [www.in.gov/iurc/2447.htm](http://www.in.gov/iurc/2447.htm).

## 211 Services Account

211 is a three-digit dialing code set aside by the FCC in 2000 to provide an easy-to-remember phone number that serves as a community information and referral service connecting callers to information about critical human services 24 hours a day, 365 days per year. In 2004, the Indiana General Assembly passed legislation to encourage the orderly and efficient use of the 211 dialing code and charged the Commission with officially recognizing the service provider best suited to administer it. The Commission recognized the Indiana 211 Partnership (IN211) as the sole authorized user of the 211 dialing code that same year.

Initially, no public funding was provided, so IN211 relied on private charitable donations for operations. In 2015, the Indiana General Assembly appropriated \$1 million in funding per year for two years and added reporting requirements for IN211 and the Commission. The funding is aimed at connecting callers with human services that address seven categories:

- Assistance for veterans
- Domestic violence
- Infant mortality
- Parental stress issues
- Public health issues
- Services for senior citizens
- Services for vulnerable children

As long as funding continues to be allocated by the legislature, the Commission is required to prepare a strategy for expenditures to address the previously mentioned issues. This planning is done in consultation with IN211.

The Commission also was charged with conducting a feasibility study focused on having IN211 take over the operations of toll-free telephone numbers operated by state agencies or any instrumentalities of the state for purposes of providing a centralized information resource for human services. The Commission worked with various government agencies and IN211 to gather information regarding such a transition. The Commission contacted 36 government agencies requesting information about each of their associated toll-free numbers. Information also was gathered from IN211 about the operation and maintenance of its call center. However, the information the Commission was able to gather was very limited. Many agencies did not have the ability or resources available to provide more precise data, such as costs associated with staffing certain toll-free numbers or the amount of time allocated to operating them. The Commission did find that under the current contract with CenturyLink, the state gets very competitive rates for toll-free services due to its size and bargaining power.

The Commission concluded that moving the toll-free numbers to a third party could increase callers' wait times, cause confidentiality concerns, and decrease the cost savings gained from the state's favorable contract with CenturyLink. The Commission reported its findings to the State Budget Agency on Nov. 30, 2015, concluding that it is not feasible for these numbers to be transferred to IN211 at this time. The Commission acknowledged that a limited amount of information was available and recommended that a more detailed and comprehensive examination by a more qualified party be performed.

## Pending Rulemaking

The Commission must enact administrative rules to implement the IN211 legislation. As of the end of fiscal year 2016, the Commission is working on a pending rulemaking, RM 15-05, regarding the grant process, the expenditure plan, the disbursement of funds, and annual reporting requirements. The Commission has been working with IN211 to determine the most favorable process for all parties before enacting any final rulemaking. Information regarding this rulemaking can be found at [www.in.gov/iurc/2835.htm](http://www.in.gov/iurc/2835.htm).



# Pipeline Safety Division

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## Properties of Natural Gas

Natural gas is odorless, colorless, and tasteless in its natural state. It is nontoxic, but if it is released within an enclosed area, it can displace oxygen and act as a simple asphyxiant. When mixed with the proper amount of air, natural gas is flammable and explosive. It is a naturally occurring resource formed millions of years ago as a result of heat and pressure acting on decayed organic material, and it is extracted from wells sunk into the earth. The main ingredient in natural gas is methane (94 percent).

Natural gas is widely used as a fuel for residential, commercial, and industrial purposes. At ambient temperatures, it remains in gaseous form; however, it can be compressed under high pressure to make it convenient for use in other applications or liquefied under extremely cold temperatures (-260°F) to facilitate efficient transportation of the gas. Liquefied natural gas (LNG) takes up only 1/600 of the space that natural gas would in its gaseous state and thus can be stored and transported more efficiently. LNG can be loaded onto specially built tankers (large ships with several domed and thermally insulated tanks) and moved across the oceans to deliver gas to other countries. When it reaches its recipient, it is warmed and changed back to its gaseous state; it can then be injected into natural gas transmission pipelines for further transportation.

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## Regulatory Origin and Background on Pipeline Safety Standards

The Pipeline Safety Act of 1968 established the federal pipeline safety program. This program 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.



# PIPELINE SAFETY DIVISION



The federal/state partnership is the cornerstone for ensuring uniform implementation of the pipeline safety program nationwide. It also authorizes federal grants to help cover the costs of state agency personnel, equipment, and activities. Annual grant amounts are determined by the following:

- The amounts authorized and appropriated by Congress
- The total amount of reimbursement requests made by other states
- The scores received for the state's pipeline safety program from annual federal evaluations of the program

Grant amounts primarily are determined through annual evaluations of the state's program by federal auditors as well as annual reporting. Indiana's Pipeline Safety Program, as established by statute, has historically received high marks from the annual federal evaluations.

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



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## Division Mission and Responsibilities

The division's mission is to ensure the safe and reliable operation of Indiana's intrastate pipeline transportation system. This is accomplished largely through inspections, as well as the following:

- Training
- Outreach programs
- Enforcement through injunctions and monetary sanctions
- Investigations of pipeline incidents

The division also monitors and evaluates regulatory and policy initiatives and advises the Commission on the potential impact of these changes on Indiana's pipeline operators.

## Inspector Training Requirements

The division's inspectors must be PHMSA qualified to perform operator inspections. The training requirements include seven core instructor-led classes that are taken at a federal training facility in Oklahoma. Each training class lasts approximately one week, and at the end of each course the inspector must pass an exam. Inspectors receive training on a wide variety of additional topics, including the following:

- Corrosion control of steel pipelines
- Emergency response requirements
- Liquefied natural gas safety and inspection
- Operation and maintenance procedures
- Pipeline failure investigation techniques
- Pipeline safety codes
- Pressure regulation and over-pressure protection
- Procedures and inspection
- Public awareness programs
- Regulations and compliance procedures
- Steel welding and plastic fusion materials

Selected Indiana inspectors also are trained to inspect and audit hazardous liquid pipeline systems and records. Additional technical training is required for inspections and audits of integrity management programs and activities for transmission and distribution pipelines, operator qualification programs and records, control rooms, inline inspection of gas and hazardous liquid pipelines, drug and alcohol program requirements for operators, root cause analysis, and others.

## Inspections

Historically, the division conducts around 800 inspections of approximately 90 jurisdictional natural gas pipeline operators each year. Inspection types include audits of records, procedures, field inspections, and site visits on construction projects. Operator types include the following:

- Distribution
- Gathering lines
- Hazardous liquid
- Master meter
- Transmission

Probable violations identified during inspections lead to enforcement actions such as violation letters, orders of corrective action, and possible monetary fines. According to Ind. Code chapter 8-1-22.5, the Commission can assess a \$25,000 penalty per violation for each day that the violation persists, up to \$1 million.

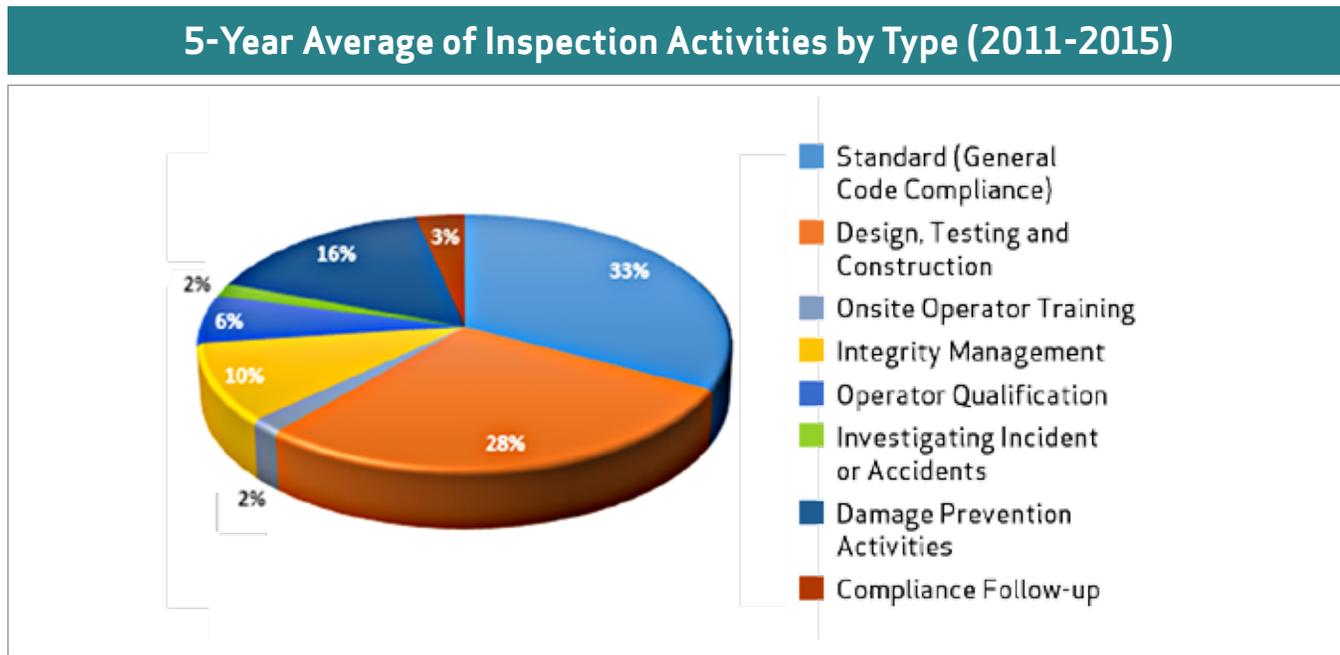
Although federal code sets the maximum time interval for inspections to be completed, the division maintains a data-driven risk model that prioritizes pipeline operators based on relative risk. This then drives the division's risk-based inspection plan, which includes inspection intervals that are typically more frequent than the federal requirements. This risk-based approach helps the division schedule inspections based on risk and allocate resources as effectively as possible.

Some of the criteria considered in the division's risk model include the following:

- The length of time since the last inspection
- The history of the inspection unit (leak history, prior noncompliance, accident/incident history, any other information available from the operator's annual reports, etc.)

- Internal and external events affecting the inspection unit (construction, recent changes in operator personnel or operating procedures, etc.)
- For large operators, rotation of locations inspected

In accordance with PHMSA requirements as well as the division’s risk analysis, the following chart demonstrates the five-year average of inspection activities:



## Leak Detection

Federal and state pipeline safety standards require natural gas pipeline operators to systematically patrol and survey all their transmission and distribution pipelines. These patrols and surveys are to be completed at prescribed intervals, which vary depending on specific environmental conditions or circumstances (for example, earthquakes, construction activity, or weather conditions). The goal of these patrols and surveys is to proactively identify gas leaks or hazardous conditions that can lead to a gas leak. Advances in technology have continued to improve the effectiveness of leak detection equipment. Patrols provide evidence through visual observation of the existence of leaks and potentially hazardous conditions. Surveys, on the other hand, generally require the use of leak detection equipment designed to detect the presence of natural gas.

Indiana pipeline safety regulations go above and beyond federal regulations and specifically require leak surveys to be conducted once each calendar year in areas of high-occupancy buildings, such as schools, churches, hospitals, apartment buildings, and commercial buildings.

Pipeline safety regulations require natural gas distribution pipeline operators to ensure the gas they deliver is properly odorized. This is an important safeguard and provides additional assurances that natural gas leaks will be detected. Specific requirements are prescribed to achieve this desired odor. However it is achieved, the detection and repair of hazardous natural gas leaks are of paramount importance in the safe operations of natural gas pipeline systems.

## Depth Study

In 2009, the Indiana General Assembly mandated a report for best practices concerning the vertical location of underground facilities for purposes of Ind. Code chapter 8-1-26.

In March 2011, the Common Ground Alliance (CGA), a national, member-driven association dedicated to public and environmental safety and the prevention of damage to underground facilities, completed a study sponsored by the U.S. Department of Transportation. This study identified the best practices regarding damage prevention. Generally, the CGA recommends hand-digging or soft-digging within a 24-inch tolerance on all sides of underground facilities as the safest practice. 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 also is an acceptable alternative identified by CGA. (You can learn more from the CGA's Best Practices Guide, available online at <http://commongroundalliance.com/media-reports/best-practices-guide>.)

The CGA, equipment manufacturers, and the Commission's Pipeline Safety Division all strongly recommend hand-digging, air cutting, or vacuum excavation to expose underground pipe for visual verification because these are the safest means to accurately determine the true depth and location of underground facilities. Further, these methods comply with Ind. Code chapter 8-1-26. Also, the division recommends that all operators of locator equipment be certified by an accredited organization, thus ensuring that only qualified individuals are allowed to perform this important service that protects

underground facilities and Hoosiers working around them.

Typically gas lines are located by the use of electromagnetic induction technology that consists of a base unit and a wand to locate metallic pipes—or tracer wires, in the case of plastic pipes—by the use of electrical currents. Also, the use of ground-penetrating radar (GPR) can be used to detect reflected signals from subsurface structures. Newer technologies such as the Global Positioning System (GPS) can be used in conjunction with electromagnetic induction and GPR to record specific locations, including longitude and latitude, for an underground facility.

Challenges continue to exist, but continued advances in technology eventually may lead to a solution to this problem. The Pipeline Safety Division believes, however, that providing pipeline depth information to those performing excavation activities could result in unintended consequences such as the over-reliance on pipeline depth information and the use of mechanical equipment within specified tolerance zones where hand-digging would be a safer alternative.

The division, at this time, believes that providing excavators a linear elevation of facilities is not recommended. With technological advances, though, a reasonable knowledge of expectation



of depth could become a reality. Because polyethylene (PE) pipe is so prevalent, the pliability of the pipe can cause an abrupt change in elevation when installed to regulation standards, thus creating rapid changes in the attitude of the structure. With the advent of directional boring, many state and municipal entities require distribution companies to install facilities at a significant depth. If an excavator is required to hand-dig, air cut, or vacuum excavate to expose the underground facility to a depth of excess, a general knowledge of what to expect for depth could be provided. As a facility increases in depth, however, the ability to provide accurate vertical facility markings becomes more difficult, especially if other facilities are within the same area.

State law now limits the expiration date for a locate ticket to 20 days. Additionally, there has been a shift away from the use of enamel spray paint for facility markings. With enamel spray paint, such markings would last for years after applied. Today, latex spray paint is used for facility locating because it rapidly degrades after exposure to sun, rain, and the elements. Another significant enhancement of the law was a further explanation of excavating where there is pavement or other manmade hard surfaces to allow excavation but protect the underground physical plant. Included in the revision is an urging of the legislative council to study the technologies for depth as well as the topic of underground facilities.

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## Area of Concern

The Pipeline Safety Division has entered into discussions with the three largest natural gas distribution operators in the state to identify and possibly have the operators assume responsibility for operating master meter gas distribution systems. Master meter operators

pose a significant risk due to the fact that these operators often are apartment complexes or mobile home parks who many times do not have qualified and experienced employees on staff to satisfy their responsibilities for complying with minimum pipeline safety standards.

The emerging concept of pipeline process management is currently being discussed throughout the industry. The American Petroleum Institute Recommended Practice 1173 (API RP 1173) defines pipeline safety management systems (SMSs) that was developed to provide a framework of safety-related practices for gas and hazardous liquid operators to effectively manage the many overlapping activities and complex processes involved with operating pipelines. You can read this document in its entirety online at <http://ballots.api.org/ecs/RP1173Ballot%20DraftJune2014.pdf>.

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## Damage Prevention

The division also is responsible for tracking and investigating all alleged violations of the state's 811, "One-Call" or "Call Before You Dig" law and is active in a variety of damage prevention efforts. On average, the division investigates more than 2,000 cases of alleged violations regarding the 811 law annually. After the division determines a violation of the state's law has occurred, its findings are forwarded to the Underground Plant Protection Advisory Committee (UPPAC) for a recommended penalty. The UPPAC reviews each violation and recommends whether a penalty should be assessed. Then, that recommendation is forwarded to the Commission, where the five commissioners approve or deny the recommendation(s). Possible recommended penalties include a warning letter, training,

written corrective action plans, and civil penalties. Penalties are assigned based on a penalty schedule and decision log to ensure consistency and fairness.

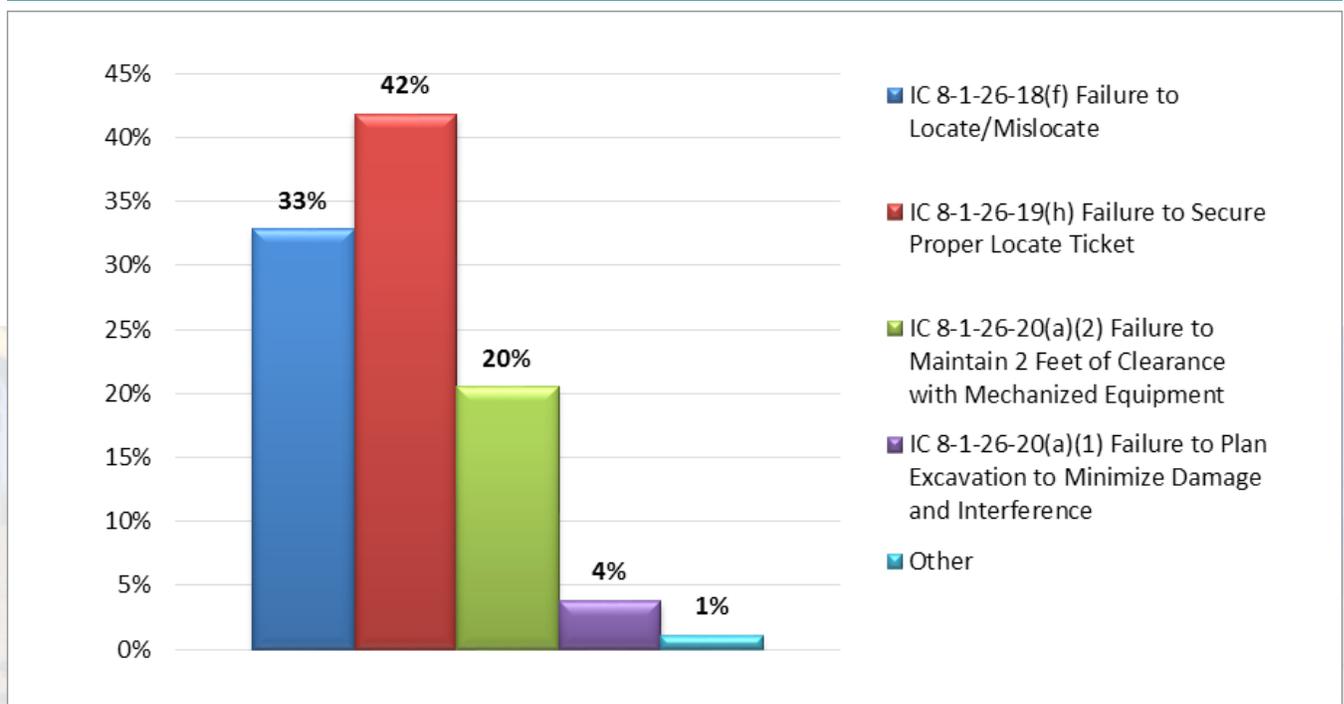
The UPPAC was established under Indiana Code § 8-1-26-23 to act in an advisory capacity to the Commission concerning the recommendation of penalties and the implementation and enforcement of the Damage to Underground Facilities Act. The committee consists of seven members who are appointed to two-year terms by the governor. The make-up of the committee includes two professional excavation company representatives, two utility company representatives, one Indiana 811 representative, one utility line locating company representative, and one pipeline operator representative. The UPPAC meets

monthly at the offices of Indiana 811 where they review approximately 150 cases and recommend penalties. The average distribution of damage causes is in the chart below.

Due to increased “Call Before You Dig” awareness and construction work in recent years, gas facility locate ticket requests have surged to more than one million tickets requested annually. More information on UPPAC can be found on the Commission’s website at [www.in.gov/iurc/2640.htm](http://www.in.gov/iurc/2640.htm).

It is important to note that at this time investigations and penalties are assessed for damages only to gas facilities. However, the Pipeline Safety Division often receives complaints regarding other facility damages as well as other facility owners failing to locate in accordance with Ind. Code chapter 8-1-26.

### Average Percentage of Damage Causes (2013-2015)



# Underground Plant Protection Account Fund

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## Overview

The Underground Plant Protection Account (UPPA) fund was established in 2009 under Indiana Code § 8-1-26-24. The fund is the accumulation of civil penalties that were levied and collected due to violations of Indiana’s Damage to Underground Facilities law—also known as the 811 or “One-Call” law. Civil penalties from 811 law violations are recommended by the Underground Plant Protection Advisory Committee (UPPAC) and approved by the Commission. You can find more information on UPPAC in the Pipeline Safety Division’s section titled “Damage Prevention.”



# UNDERGROUND PLANT PROTECTION ACCOUNT FUND

## Use of UPPA Funds

UPPA funds are used to provide programs designed to reduce damages done to buried facilities during excavation and violations of Indiana's One-Call law. Per Indiana law, uses of UPPA funds must fall into at least one of three categories:

- Public awareness programs concerning underground plant protection
- Training and educational programs for contractors, excavators, locators, operators, and other persons involved in underground plant protection
- Incentive programs for contractors, excavators, locators, operators, and other persons involved in underground plant protection to reduce the number of One-Call law violations

All uses of UPPA funds strictly follow State of Indiana procurement guidelines. UPPA funds are overseen by a committee of Commission representatives that includes

- Chief Administrative Law Judge
- Commission Chair
- Commissioner
- Director of Pipeline Safety
- Executive Director of External Affairs
- Executive Director of Technical Operations
- General Counsel
- UPPA Fund Project Manager



Examples of UPPA fund uses during 2016 include the following:

- Funding six safety trainings across Northern and Southern Indiana for excavators and locators
- Partnering with the Common Ground Alliance (CGA) and the Pipeline and Hazardous Materials Safety Administration (PHMSA) to provide 811 and safety marketing at the Indianapolis Motor Speedway (IMS) during the Indy 500, Brickyard 400, and Grand Prix
- Developing a free, online safety training system for members of the underground facility community
- Publicizing April 2016 as “Safe Digging Month” through a radio and Internet media campaign

The Commission maintains a dedicated UPPA fund website ([www.in.gov/iurc/2847.htm](http://www.in.gov/iurc/2847.htm)) where current account balances, spending and deposit history, training opportunities, and current grants awarded regularly are updated. UPPA funds do not revert to the state general fund.

People interested in creating a project focused on increasing underground facility safety can apply for a grant from the UPPA fund.

All spending of UPPA Account funds strictly follows State of Indiana procurement rules per Indiana Department of Administration (IDOA) and Indiana Office of Management and Budget (OMB) requirements.



# Office of General Counsel

The general counsel is the Commission's lead attorney in non-docketed legal matters and the Commission's ethics officer. In addition to the general counsel, the staff of the Office of General Counsel (Office) includes three assistant general counsels, a legal assistant/paralegal, and interns. The Office provides legal advice and represents the Commission as follows.

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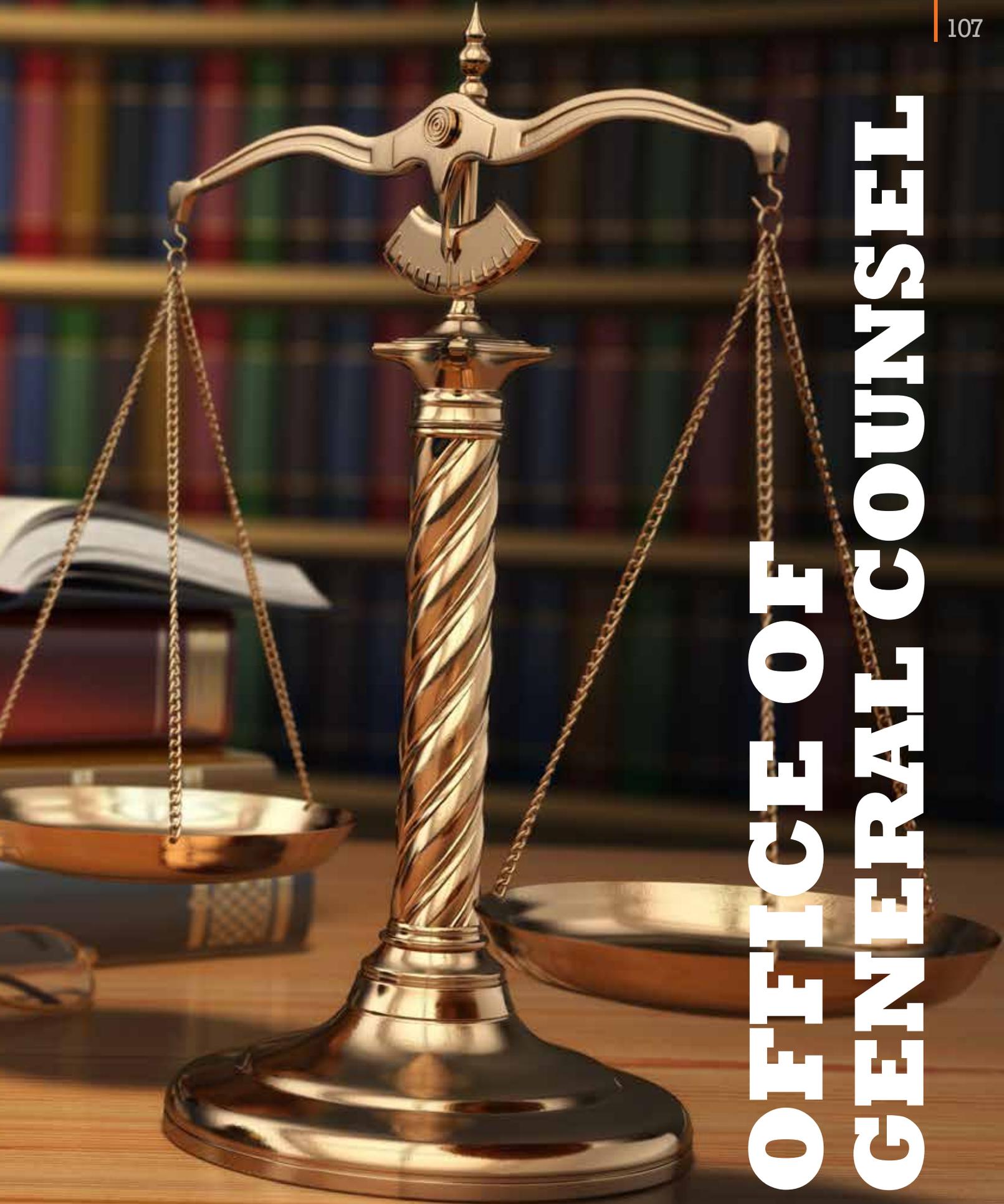
## Legal Support for All Divisions

The Office provides legal research, analysis, and statutory interpretation regarding utility-related laws, regulations, and cases to the Commission's commissioners; technical staff; and External Affairs Division, which includes the Consumer Affairs Division (CAD), as requested. Most of the Commission's statutory authority is contained in Indiana Code Title 8, although other laws do affect the Commission.

As a neutral resource to the Indiana General Assembly, the attorneys assist the External Affairs Division with legal review of pending or proposed legislation affecting the utility industry. Attorneys also assist in providing guidance to legislators when they receive constituent inquiries relating to utility matters.



# OFFICE OF GENERAL COUNSEL



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## Ethics

The Office helps to ensure that the Commission follows all ethics laws and regulations and all applicable Indiana legislation, in the following ways:

- **Ethics officer**—The general counsel plays a vital role by serving as the Commission’s ethics officer. Each state agency must have an ethics officer, and the Commission Chair has designated the general counsel to be the Commission’s ethics officer. The ethics officer answers inquiries from Commission employees regarding state ethics rules. This person also is the point of contact with the Indiana Inspector General and Ethics Director.
- **Compliance with state policies**—The general counsel is responsible for knowing and enforcing state policies within the Commission. The Office stays up-to-date by following legislative changes and attending trainings such as Ethics Officer Roundtables, the annual State Contracts Training, and other trainings offered by the State of Indiana.
- **Commission policies**—The Office drafts all agency policies. The general counsel reviews and approves all agendas for meetings of utilities and others who appear in Commission cases with commissioners and staff under Policy Commission-01, Meetings with Utilities and Other Parties.
- **Legal support for internal personnel matters**—The general counsel is part of the Executive Team that makes personnel decisions. In addition, this position may provide legal advice on personnel matters.

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## Contracts

The Office is responsible for negotiating and drafting all contracts and grants on behalf of the Commission. Examples of Commission contracts include contracts for consultants and expert witnesses, outside legal counsel, and information technology (IT) support. Grants include the grant of funds to the Indiana 211 Partnership, Inc., for the design, development, implementation, and provision of 211 services to help Hoosiers find necessary local resources. Grants also include grants from the Underground Plant Protection Account (UPPA) to prevent excavation damages through public awareness, training, education, and incentive programs. The Office also reviews affiliate contracts submitted by regulated utilities. See the section “Affiliate Contracts” for more information.

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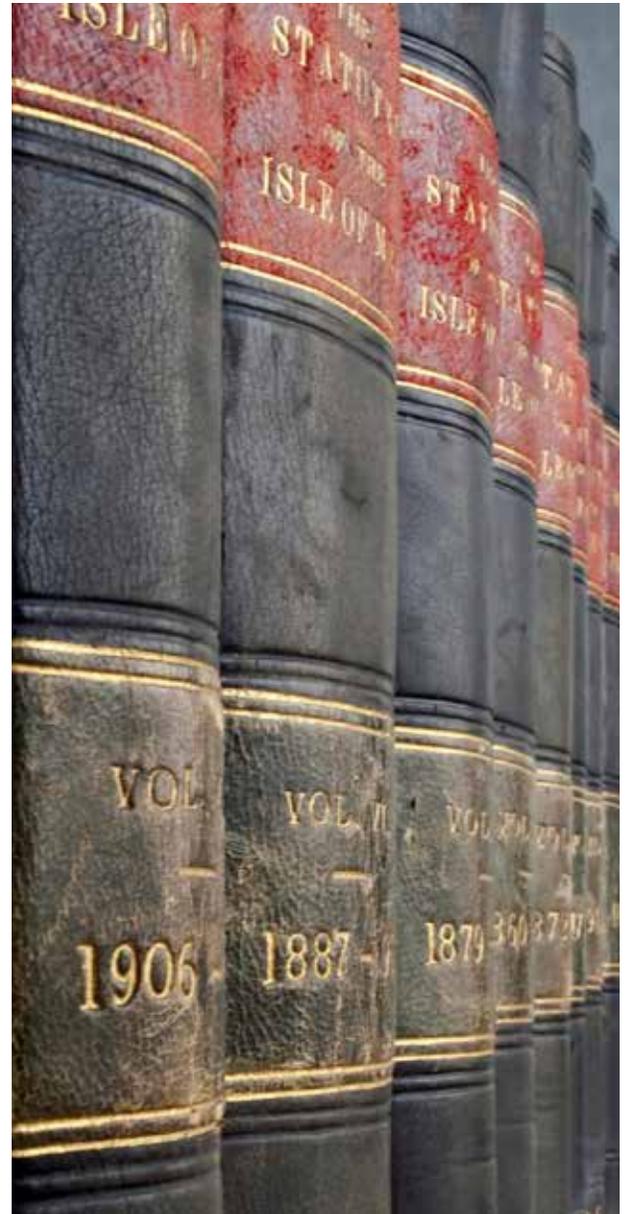
## Rulemaking

Additions and amendments to the Commission’s rules are accomplished through the rulemaking process. The process ensures the opportunity for public comment and allows the issues to be fully vetted. The Office oversees this process and serves as the point of contact for interested parties. The Commission’s rulemakings include a rule development stage that enables the Commission and interested parties to discuss issues prior to commencing the formal rulemaking process. The Office then follows the statutory process to promulgate rules. See Indiana Code chapter 4-22-2. A list of all the current rulemakings can be found online at [www.in.gov/iurc/2658.htm](http://www.in.gov/iurc/2658.htm).

## Administrative Legal Review

The Office reviews several types of legal documents for the Commission:

- **30-Day filing requirements**—The Office reviews administrative filings submitted by utilities to the Commission under 170 IAC 1-6 (30-day filing rule) to review whether notification and other requirements have been met. One of these requirements is a published notice that must include a brief description of the filing, the expected filing date, the date of expected Commission approval, and contact information.
- **Affiliate contracts**—The Office reviews contracts between regulated utilities and their affiliates. When utilities submit these affiliate contracts, they are circulated to technical staff to review the subject matter, duties, and costs associated with the contract. Staff must ensure the contract is in the public interest. The Office reviews the contract for legal sufficiency, such as specific contractor duties, clear consideration (payment terms), and a reasonable timeframe for the contract.
- **Withdrawals from Commission jurisdiction**—Indiana statutes allow municipal utilities, nonprofit corporations, and cooperative telephone and electric companies to remove themselves from some or all of the Commission's authority by ordinance of the local governing body or a majority vote of the people, customers, or members in the municipality, nonprofit, or cooperative. Those utilities that are allowed by statute to withdraw from Commission authority are required to notify their customers and the Commission of their intent to withdraw at least 30 days in advance of holding a public vote. When the Commission receives a utility's intent-to-withdraw notice, an initial, internal memo with the intent-to-withdraw notice is prepared by the Office for distribution to the appropriate Commission technical division. After the utility's vote is held, if the vote is to withdraw from Commission authority, the utility is required to send to the Commission a copy of the adopted ordinance signed by all board members. Upon receipt of the voting results and after the applicable waiting period, the Office sends a letter to the utility acknowledging the withdrawal.



## Legal Representation

The Office provides legal representation pursuant to statute:

- **Underground Plant Protection Advisory Committee (UPPAC)**—The UPPAC was established under Indiana Code § 8-1-26-23 to recommend penalties to the Commission regarding violations of the Damage to Underground Facilities Act, Ind. Code chapter 8-1-26. Based on the Commission’s obligation to provide staff support to the UPPAC in Ind. Code § 8-1-26-3, an assistant general counsel serves as the legal advisor to the UPPAC. The assistant general counsel provides legal advice with regard to penalty recommendations, warning letters, and training programs, as well as development of plans to avoid future violations of the act.
- **Pipeline Safety Division**—Assistant general counsels also serve as the counsel to the Commission’s Pipeline Safety Division established under Ind. Code § 8-1-22.5-2 in its duty to regulate “(1) transportation; and (2) related pipeline facilities and their operations; in order to promote the public safety.” Assistant general counsels represent the division in bringing enforcement actions before the Commission under Ind. Code § 8-1-22.5-7.
- **Other testimonial staff**—Other Commission technical staff at times may appear before the Commission to give testimony in an evidentiary hearing. When the Commission so designates a member of its staff as a testifying expert, an assistant general counsel represents the staff member as testimonial staff. In that case, the attorney and staff are screened from the rest of the Commission to avoid ex-parte communications. That staff member can file testimony and reports, provide oral testimony, and be cross-examined by any other party.



## Appeals of Commission Orders

Commission orders can be appealed to the Indiana Court of Appeals. The Office provides legal research and counsel to defend the Commission’s orders and decisions on appeal. In some cases, the Commission itself is named as an appellant. In other cases, the Commission petitions to intervene in the appeal under Ind. Code § 8-1-3-3 as an interested person. In both cases, the Indiana Office of Attorney General (Attorney General’s Office) represents the Commission by statute (Ind. Code § 8-1-2-2). The Office works with the Attorney General’s Office in drafting briefs and arguments in appeals.

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## Other Civil Litigation Involving the Commission

The Office works with the Attorney General's Office in all other civil court matters related to the Commission. For instance, when necessary, Commission orders, subpoenas, and injunctions are enforced in county circuit and superior courts by the Attorney General's Office with assistance by the general counsel and assistant general counsels.

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## Comments/Filings to Regional Organizations and Federal Agencies

The Office works with commissioners and technical staff to participate with and draft comments and submit filings to utility-related regional organizations and federal agencies, including the following:

- **RTO/FERC Team**—The Office is a part of the Commission's RTO/FERC Team. The team represents the Commission at the relevant regional transmission organizations (RTOs), specifically, the Midcontinent Independent System Operator, Inc. (MISO) and the PJM Interconnection, LLC (PJM). It also represents the Commission in electricity-related issues and proceedings at the Federal Energy Regulatory Commission (FERC). The team is responsible for monitoring actions by RTOs and FERC that might affect Indiana's electric utilities and ratepayers. When the team determines that the Commission should intervene in a proceeding before FERC, it makes an appropriate filing to best represent Indiana's interests. These interests include retaining state jurisdictional authority over resource adequacy, encouraging effective transmission planning and construction along the MISO-PJM seams, and ensuring just and appropriate cost allocation to Indiana ratepayers for regional and interregional transmission projects.
- **OMS/OPSI**—The team also coordinates with the Organization of MISO States (OMS) and the Organization of PJM States, Inc. (OPSI). To the extent possible, the team works with its colleagues in OMS and OPSI to align interests and priorities because being part of a broad state coalition is more effective than taking action as an individual state.
- **FCC**—The Office also drafts and submits comments to the Federal Communications Commission (FCC), based on input from Commission technical staff.



## Referrals & Recommendations to Initiate Certain Commission Proceedings

The general counsel is involved in the CAD appeal and referral process to the Commission, as well as recommendations for investigations:

- **Appeals of CAD determinations**—The general counsel reviews the CAD director’s decision. When a customer’s appeal is received, the appeal document along with the customer’s CAD file is forwarded to the chief administrative law judge (ALJ).
- **Referrals from CAD**—Pursuant to 170 IAC 16-1-5(e), CAD may, at any time during its review process, refer a complaint to the Commission for determination based on the complexity of issues or circumstances involved in a complaint. If it is determined that a complaint will be referred to the Commission for review, the Office forwards a copy of the CAD file to the Commission’s chief ALJ along with a letter explaining the reason for the referral.
- **Recommendations for the initiation of a Commission investigation**—The general counsel may make recommendations to the Commission to investigate a particular utility’s conduct or areas of concern regarding the utilities under the Commission’s authority. The general counsel provides a letter to the Commission’s chief ALJ providing the background and basis for the recommendation.



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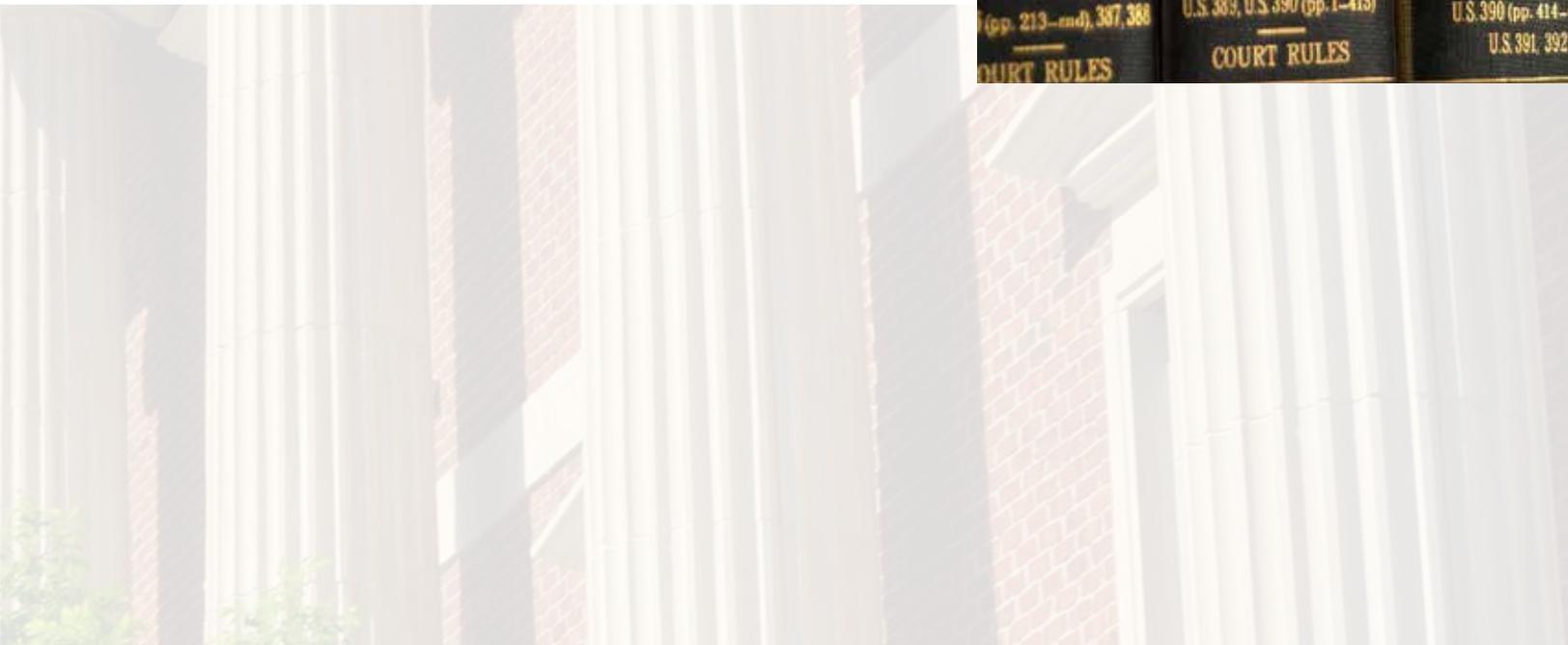
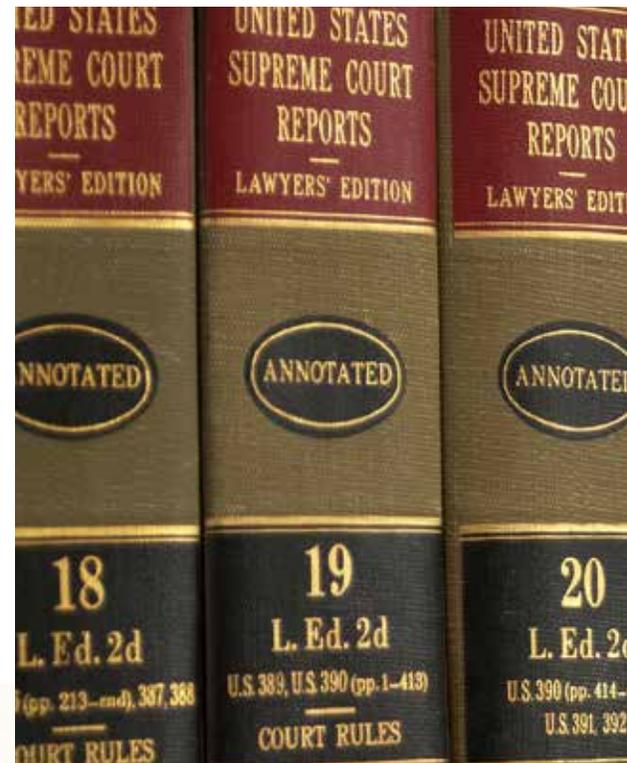
## Public Records Requests and Responses

The Office is responsible for tracking and responding to requests for public records made to the Commission under the Indiana Access to Public Records Act (APRA)—see Ind. Code chapter 5-14-3. APRA requires that requests made by telephone be responded to within 24 hours of the request and written requests be responded to within 7 days. However, APRA (specifically Ind. Code § 5-14-3-3(a)(2)) permits the agency to ask that all requests be in writing. All public records properly disclosable under APRA are provided to the requestor within a reasonable amount of time.

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## General Administrative Orders

The Commission provides additional guidance to regulated utilities regarding policies and procedures through its general administrative orders (GAOs). These GAOs include policies governing interest rates for gas customer deposits, case procedures, and time parameters for general rate cases. GAOs also contain procedures for matters such as safety valve requests and certificates of territorial authority for communication service providers. The Office drafts and verifies the legal support for the GAOs.



# External Affairs Division

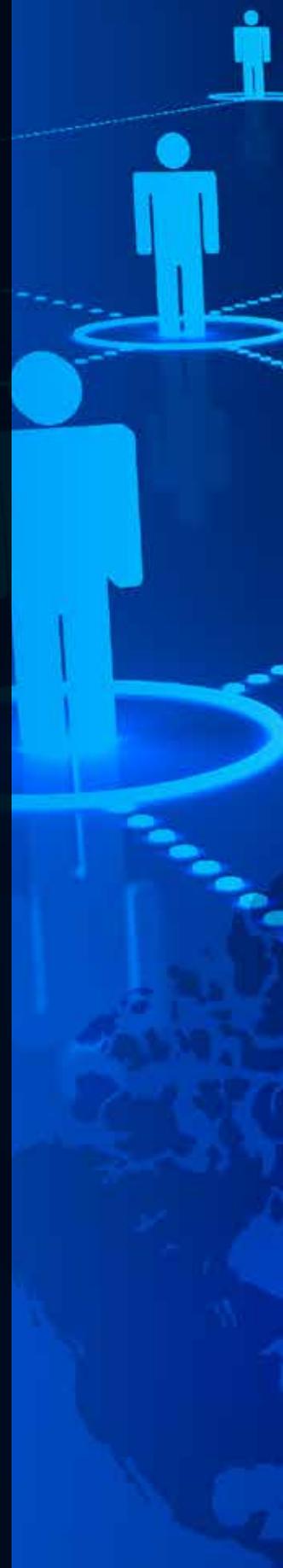
The External Affairs Division leads the Commission's public relations and communication efforts, which include responding to media inquiries, special initiatives such as cybersecurity and billing transparency, open forums with all stakeholders, and other public events. Using in-house technical expertise, the division also serves as an independent, neutral resource for state—and, on occasion, federal—legislative-related matters. The External Affairs Division also includes the Consumer Affairs Division (CAD), which serves as the liaison between the utilities and consumers. In addition, the External Affairs Division oversees the Commission's role in the State of Indiana's Department of Homeland Security Emergency Operations Center and the Commission's Continuity of Operations.

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## Consumer Affairs Division

CAD was established pursuant to Indiana Code § 8-1-2-34.5. CAD's primary charge is to serve as an appeals division for individuals who have been unable to independently reach a satisfactory resolution of a dispute with a utility. CAD most frequently resolves consumer complaints regarding the following:

- Billing procedures
- Complaints
- Consumer rights
- Creditworthiness
- Deposits
- Extension of service
- Termination of service





# EXTERNAL AFFAIRS DIVISION

## General Overview

CAD advocates for neither the customer nor the utility. In doing so, CAD helps to ensure that the utility complies with the applicable provisions of the Indiana Code, the Indiana Administrative Code, and the utility's Commission-approved tariff. The Indiana Code establishes the existence of CAD and outlines the customer and utility rights and responsibilities, whereas the Administrative Code details the rules for utility service quality and both parties' rights and responsibilities. A utility's tariff includes its schedule of rates and charges, general terms and conditions, and regulations that may be unique to that utility. The Administrative Code sets service guidelines for all public utilities under the authority of the Commission, so CAD may apply the rules consistently across all complaints. CAD continuously strives to issue determinations that are fair and reasonable to all parties involved. To ensure such rules and regulations remain current, the division participates in the review and revision of the Rules and Regulations and Standards of Service for Indiana utilities.

Additionally, CAD fulfills several communications roles. For instance, CAD staff functions as the Commission's front line for communicating with the public. The staff fields inquiries regarding Commission authority and regulatory proceedings, in addition to investigating and resolving consumer complaints. Staff can provide a connection between utility customers and the Commission during public field hearings, which protects commissioners' impartiality in a case. Technical staff also benefit from CAD serving as their initial point of contact for individuals seeking assistance.

In this primary communications role, CAD staff often is the first to realize potential problems

with utility operations. The division utilizes information gathered during its complaint-handling process to alert the Commission of concerning trends with the hope of minimizing the issue for all affected parties. In the event a situation does escalate to a formal investigation, CAD provides consumer complaint data that may be entered into evidence in an investigation proceeding. Some investigations that have been prompted by CAD have resulted in the parties agreeing on a settlement to resolve the matter.

## Informal Complaints

An informal complaint is the initial step of the complaint process. Investigating and resolving complaints is the priority of CAD, but the division also strives to allow the utility to address a consumer's concern before enlisting CAD's assistance. CAD believes that this preliminary step, which is required by the Administrative Code, helps foster a stronger relationship between the utility and the consumer.

If the customer has been unable to resolve the complaint directly with the utility, the informal complaint is entered into an electronic complaint management system. The database system enables analysts to electronically record all actions and information regarding a complaint, including the final decision. The complaint management system provides staff the ability to monitor caseloads as well as complaint trends.

As part of the informal complaint process, the analyst contacts the customer and utility to gather information regarding the issue(s) covered in the complaint. The analyst might seek technical assistance from staff for more complex matters. After the analyst determines that sufficient information has been obtained, a decision is issued. The decision can consist of a credit to a consumer, the connection of

services, additional payment to the utility, a confirmation of the utility's resolution, and so on. Every decision also includes the investigation of any possible rule violation(s) by the utility or the customer.

## Director Review

After the CAD analyst has issued a decision regarding the complaint, either party affected who disagrees with the outcome of the initial investigation can request that the CAD director review the complaint and decision. A director review is conducted by either the director of CAD or a designee who was not involved in the initial investigation.

The director review is simply a second look at the record that was established during the investigation of the informal complaint. Reviews often are requested when highly unusual circumstances exist that may not be clearly defined by the rules and regulations of the Indiana Administrative Code. The informal review process still involves resolution of issues between the utility and the consumer; however, negotiation is frequently a large part of the process.

After the CAD director determines that sufficient evidence has been submitted to make a reasonable decision, and the decision has been reviewed by the Office of General Counsel, a written disposition of the director review is mailed to all parties involved in the case.

## Appeal to Commission

CAD makes every effort to achieve a resolution of disputes between the consumer and the utility in the informal process. If any party subject to the review is not satisfied with the director's decision, the party can petition for a formal hearing before the full Commission. Additionally, the Office of General Counsel can make referrals to the full Commission. An administrative law judge (ALJ)



and a commissioner preside over the case, consider testimony, review evidence (including the record created as part of the informal complaint investigation and the director review), and then issue an order rendering a final decision.

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## Legislative Affairs

The External Affairs Division's legislative affairs section provides the Commission with policy-neutral reviews of proposed state legislation affecting utilities, and consults with Commission staff regarding the implications of legislative policy decisions. External Affairs also responds to legislative inquiries as they relate to and/or affect the Commission. This section works closely with the General Counsel's Office, technical staff, and other state agencies regarding analysis of legislative topics and draft legislation. Additionally, the area assists elected officials, including the Governor's Office, by working with constituents to resolve conflicts with regulated utilities or responding to utility-related inquiries.

The External Affairs staff continually tracks legislation that might impact the agency, particularly when the Indiana General Assembly is in session. Generally, this consists of generating periodic reports; working with legislative and executive agency leadership and staff members; and attending various meetings, trainings, and seminars regarding legislative affairs initiatives and the legislative process.

## Responding to Legislative and Stakeholder Inquiries

The Commission's goal is to serve as a resource to the legislature, the executive branch, state agencies, and the public. The Commission often receives inquiries about Indiana's utilities and the regulatory process, especially when the state legislature is in session. These inquiries typically are handled by the executive director of the External Affairs Division and the legislative affairs support staff. Often, many of the Commission's stakeholders engage with the Commission regarding proposed legislative topics and the Commission serves as a policy-neutral and informative resource on whether such proposals will work within the current regulatory framework of Indiana.

When a constituent contacts his or her elected official in the state legislature regarding a complaint against a regulated utility, the elected official's office typically contacts the External Affairs Division.

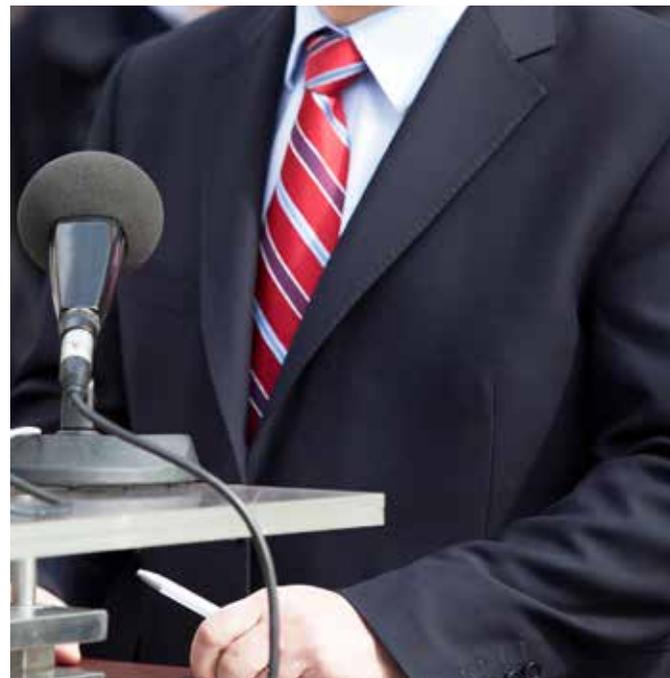
Depending on the issue, CAD might become involved and directly assist the constituent if his or her issue involves a regulated utility. When CAD reaches a resolution regarding the matter, the executive director of External Affairs informs the state legislator's office of the determination made. If a matter does not necessitate CAD involvement, then the executive director of External Affairs or legislative affairs specialist writes a letter or an email to the legislator's office containing a response to the constituent's inquiry.

As part of its mission, the Commission strives to be a policy-neutral resource to the legislature, the executive branch, state agencies, and the public by providing information regarding Indiana's utilities and the regulatory process. Commission staff are available to the Commission's stakeholders to ensure that any passed legislation is well informed and technically viable in the context of Indiana's regulatory framework.

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## Public Relations

The Public Relations (PR) section of the External Affairs Division manages external initiatives at the Commission and strategically approaches external and internal communications, outreach, education, and media relations. Common tasks of the PR section include writing news releases, editing and distributing agency reports such as the annual report and utility guide, creating presentations, preparing speeches/talking points for leadership, conducting primary and secondary research as needed for special initiatives, and assisting in outreach activities and events.



Engaging external and internal stakeholders is an important function of the PR section. An example of these efforts is the 2015 Billing Symposium. This event was the first of its kind in the nation and was attended by more than 75 participants representing 25 organizations. It succeeded in its goal of engaging stakeholders and fostering an atmosphere of open dialogue about utility billing practices. The purpose of the symposium was to bring together groups and allow for discourse and deeper understanding of billing practices from the gas, electric, water, and wastewater utilities' perspectives and the consumer groups' perspectives.

Forums such as the symposium enable the Commission to have transparent and open dialogue with all stakeholders in addition to identifying gaps in education and furthering the Commission's goal of being a neutral, independent, and effective resource.

Engaging in a continual dialogue with external stakeholders will enhance the Commission's ability to best offer information on its website, provide useful fact sheets, and speak on topics from an independent point of view to help further demystify some of the complexities of the utility industry.

The PR section provides support in outreach and event management to the Commission's other divisions when they hold conferences, workshops, rulemakings, and other events. For example, the Commission holds technical conferences on topics such as integrated resource plans (IRPs) and transmission, distribution, and storage system improvement charge (TDSIC). Additionally, it holds workshops on rulemakings at which the Commission and interested parties discuss issues prior to the formal rulemaking process. The Commission

also holds workshops that provide small water utilities important information on topics such as how that year's legislation will impact their companies, how to complete and submit an annual report, and how to submit a 30-day filing for approval of water trackers and nonrecurring charges.

Additionally, the PR section works with the administrative law staff to coordinate and hold field hearings for certain rate cases. These hearings are required by law if the utility is seeking an increase of more than \$2.5 million and are held in the area in which the utility provides service. The Commission also can hold a hearing at its discretion. These public hearings give consumers a more convenient opportunity to express their opinions regarding cases pending before the Commission. The PR section disseminates a news release each time a field hearing is scheduled. This ensures that ratepayers are aware of the hearing and can attend if they so desire.

All field hearings and evidentiary hearings are open to the public. As another way to ensure the public has access to these hearings, the division sometimes streams the hearings on its website at [www.in.gov/iurc/2624.htm](http://www.in.gov/iurc/2624.htm). For example, this may be done for cases involving ratepayers who are located too far away from Indianapolis to make attending the hearing feasible.

To ensure that the Commission operates with transparency, the PR section also disseminates information such as presentations given by the commissioners at conferences and similar events, as well as announcement of personnel changes.

## Emergency Preparedness and Initiatives

The External Affairs Division oversees the Commission's role in the State of Indiana's Department of Homeland Security (IDHS) Emergency Operations Center (SEOC), the Commission's Continuity of Operations, and initiatives relating to the ongoing cybersecurity and physical security discussions surrounding utility critical infrastructure.

### Commission ESF #12 Support to IDHS

At the federal level, the Emergency Support Function (ESF) #12 position was developed by the U.S. Federal Emergency Management Agency (FEMA) under the National Response Framework (NRF). Per the federal energy annex, the U.S. Department of Energy (DOE) supports FEMA by serving as both the ESF coordinator and the primary agency tasked with facilitating the reestablishment of damaged energy systems and components when activated by the secretary of the U.S. Department of Homeland Security (DHS) for incidents requiring a coordinated federal response under the Stafford Act.

The term **energy** includes producing, storing, refining, transporting, generating, transmitting, conserving, building, distributing, maintaining, and controlling energy systems and system components. This is an integral part of the larger DOE responsibility of maintaining continuous and reliable energy supplies for the nation through preventive measures and restoration and recovery actions.

In Indiana, the ESF model was adopted to operate within the Operations Branch of the IDHS SEOC.

Per State of Indiana Executive Order 13-09, Section 13, the Commission is to assist IDHS in carrying out its responsibilities and also designate one or more individuals to act as the agency's emergency management coordinator for emergency and disaster matters. The Commission was tasked with this role because it is the state agency most familiar with electric and natural gas utilities. Accordingly, Commission staff (augmented by staff from the Indiana Office of the Utility Consumer Counselor and other state agencies, when needed), support IDHS and the SEOC upon request or activation.

Like the DOE at the federal level, the Commission serves in a similar capacity at the state level during times of emergency. When activated, the Commission serves as the ESF #12 coordinator and primary agency to provide state-level support to public and private partners in efforts to restore energy services after a disaster has occurred. Following the FEMA model, this position encompasses all aspects associated with the production and delivery of electric, natural gas, and petroleum service and products. Those individuals participating as ESF #12 staff are doing so as an additional duty. The Commission ESF #12 support is led by the executive director of the External Affairs Division but is staffed by members from various agency divisions.

### Continuity of Agency Operations

The Commission has operations that must be performed, or rapidly and efficiently resumed, in an emergency or a disaster. Although the impact of an emergency or a disaster cannot be predicted, planning for operations under such conditions can mitigate the impact of the emergency or disaster on our people, our facilities, and our mission. Per Executive Order 13-09, each state agency



shall develop and keep current a continuity of operations plan to ensure that its essential functions are performed during any emergency or situation that may disrupt normal operation.

Accordingly, the Commission's Continuity of Operations Plan (COOP) has been developed to meet the guidelines of, and in cooperation with, IDHS. The COOP identifies personnel essential to the Commission's mission in the event of an office closure or curtailed operations and ensures essential operations and functions can be performed during an emergency or a disaster. The COOP is an important resource in providing essential service, maintaining vital records and systems, and continuing essential functions. The COOP provides guidance for personnel of the Commission to ensure the office maintains the capability to fulfill all of its assigned essential functions during all contingencies.

## **Cybersecurity and Physical Security Initiatives**

The Commission continues to conduct formal and informal meetings with both regulated and unregulated utilities across multiple sectors on various reliability topics, including cybersecurity, physical security, *electromagnetic pulse (EMP)*, geomagnetic disturbance (GMD), and natural disasters. Staff remains engaged with public and private partners, such as government players from

state and federal DHS, the FBI, the Indiana National Guard, the Indiana Intelligence Fusion Center (IIFC), the Indiana Information Sharing and Analysis Center (IN-ISAC), and the Indiana State Police (ISP). Additionally, Commission staff continues to facilitate discussions among utilities and the aforementioned public partners on various security topics upon request.

In April 2016, Executive Order 16-01 established a new Cybersecurity Council, which names the chair of the Indiana Utility Regulatory Commission as a voting member. Goals of the Cybersecurity Council include formalizing strategic cybersecurity partnerships, strengthening best practices to protect information technology infrastructure, and further building and maintaining strong statewide cyber incident response capabilities. The Cybersecurity Council also will assist with economic development by creating technological opportunities for cyber experts to work in Indiana's companies and government agencies.

The Commission chair is also a voting member of the State Counter-Terrorism and Security Council (CTASC) per Ind. Code chapter 10-19-8. The mission of CTASC is to develop and implement a comprehensive state strategy to address terrorism in Indiana.

Additionally, Commission staff often are asked to participate in other meetings or exercises concerning critical infrastructure security on both state and federal levels.

## Contact Us

To learn more about the Commission, visit our website at [www.in.gov/iurc](http://www.in.gov/iurc).

The Commission operates on a principle of transparency and always is open to meeting with interested stakeholders.

For general inquires, please call (317) 232-2701.

For specific questions, please contact the appropriate division:

**Executive Director of External Affairs: (317) 232-2297**

**General Counsel's Office: (317) 232-2092**

**Executive Director of Technical Operations: (317) 232-2714**

If you are a consumer who has a complaint about a utility, you can find information about the complaint process on our website located at [www.in.gov/iurc/2331.htm](http://www.in.gov/iurc/2331.htm). Or you can call our Consumer Affairs Division at (800) 851-4268 or (317) 232-2712. We also have a TDD line that can be reached at (317) 232-8556.



# GLOSSARY OF TERMS

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## GLOSSARY

**Antitrust:** The Sherman Antitrust Act, as enforced by the United States Department of Justice and the Federal Trade Commission, is intended to prevent the exercise of market power or other abusive actions that are detrimental to competition and consumers. These include monopolizing, or attempt to monopolize, trade or commerce; forming mergers or acquisitions that could lessen competition or create a monopoly; and employing price discrimination methods.

**Automatic meter reading (AMR):** A term denoting meters that collect data for billing purposes only and transmit this data one way, usually from the customer to the distribution utility.

**Biomass:** Organic, nonfossil material of biological origin. This material makes up a renewable energy source.

**Biosolids:** When wastewater is treated, bacteria is used to consume the organic waste products in the water. Eventually, these bacteria must be disposed of. Depending on the wastewater facility's sophistication, these bacteria might be concentrated using a digestion process and often are dewatered to make them easier to handle. The resulting product is commonly referred to as biosolids.

**Blackouts:** The uncontrolled successive loss of power. When a massive power failure occurs, the lack of electricity for illumination results in utter darkness.

**Capital investment tracker:** A periodic rate adjustment mechanism that enables a utility to reflect statutorily defined capital investment it makes in its system in its rates outside of a traditional base rate case. It allows the utility to match its investment and the compensation for that investment in a timelier manner.

**City gate:** The interchange at which the interstate and intrastate pipelines sell/deliver natural gas to local distribution companies.

**Congestion:** Constrained flow of energy—for example, the condition created when the system infrastructure doesn't allow the free flow of the energy.

**Customer charge:** Also called the service charge, it is a monthly fixed fee that is the same for all customers within a rate class per billing period. The customer charge or service charge typically recovers costs such as meter reading, billing costs, and other costs the utility incurs equally per customer or per account regardless of consumption level.

**Cyber security:** Preventative methods used to protect information and systems from being stolen, compromised, or attacked.

**Decoupling:** For energy utilities, decoupling separates fixed cost recovery from the amount of electricity or gas the utility sells. By appropriately separating fixed and variable costs, utilities will be protected if their sales decline because of customer efforts to reduce energy use and/or to reduce demand.

**Demand:** The rate of electricity usage (measured in kilowatt- or megawatt-hours) by a customer.

**Demand response:** If a customer agrees to reduce its demand during peak use times, it will get a better overall rate.

**Demand-side management (DSM):** The planning, implementation, and monitoring of utility activities designed to encourage consumers to modify patterns of electricity usage, including the timing and level of electricity demand.

**Disinfection byproducts:** Although chlorine disinfects drinking water, it also reacts with traces of other materials or particles (for example, organic matter such as decaying trees and leaves as well as urban farm run-off) in water and forms trace amounts of substances known as disinfection byproducts.

**Distribution line:** A pipeline network that transports natural gas from the transmission line (such as an interstate pipeline) to end users' service line or other distribution lines.

**Distribution main:** See *distribution line*.

**Distribution system (water):** Consists of distribution pipes, storage tanks/towers, and booster pumps.

**Economies of scale:** Economies of scale exist when the costs of production decline as plant size and the amount of goods or services produced increase.

**Electromagnetic pulse (EMP):** A short burst of electromagnetic energy. The pulse may be due to a natural occurrence (for example, a solar flare) or manmade.

**Energy:** Includes producing, storing, refining, transporting, generating, transmitting, conserving, building, distributing, maintaining, and controlling energy systems and system components.

**Energy efficiency:** Refers to measures or technologies that reduce the consumption of energy for a given service level.

**Exhaust:** A point in time at which the quantity of telephone numbers at the prefix level within an existing area code equals zero.

**Expense tracker:** A periodic rate adjustment mechanism that enables retail rates to be adjusted outside the context of a base rate case to reflect changes in operating expenses. These adjustments allow the utility to recover what it has spent on a dollar-for-dollar basis.

**Fracking:** The fracturing of rock by a pressurized liquid. Hydraulic fracturing is a technique in which water typically is mixed with sand and chemicals and then the mixture is injected at high pressure into a wellbore to create small fractures to extract oil and natural gas.

**Grid:** The interconnected power lines and generators that supply, transmit, and distribute electric power to the customers connected to it at various points.

**Integrated resource planning:** Indiana's electric utilities are required to supply power at the lowest reasonable cost while providing safe and reliable service. To do so, utilities must strategically plan on both a short-term and long-term basis by evaluating available resource alternatives to meet a utility's future electricity requirements. This is known as integrated resource planning.

**Intercarrier compensation (ICC):** The method by which communications carriers charge each other for terminating or originating calls.

**Interstate pipeline:** A natural gas pipeline company that is engaged in the transportation, by pipeline, of natural gas across state boundaries and is subject to the Federal Energy Regulatory Commission under the Natural Gas Act.

**Intrastate pipeline:** These pipelines are regulated by state commissions and carry natural gas within state boundaries.

**Investor-owned utility:** A for-profit utility owned by stockholders that is regulated by the state and federal governments.

**Loops:** The copper wires that connect a residential customer to the public switched telephone network.

**Membrane filtration:** The filtering of water through a semipermeable layer such that water molecules pass through the membrane, but bacteria, chemicals, and viruses are prevented from passing.

**Municipalization:** Occurs when municipalities/cities buy investor-owned water or wastewater systems.

**Net metering:** An electric utility service offering that enables customers who generate their own electricity by installing renewable energy facilities, such as wind turbines or solar panels, to feed electricity they do not use back into the grid, while also relying on the electric utility as a backup 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. If the amount of electricity the customer received from the utility is less than the amount delivered to the utility, the customer receives a credit on their next bill.

**Off-peak:** Period of relatively low electric system demand that often occur in daily, weekly, and seasonal patterns. These off-peak periods differ for each individual electric utility.

**Overlay:** An area code overlay occurs when more than one area code is available within the same geographic area. This situation requires the dialing of 10 digits for local calls.

**Peak demand:** The maximum electric load during a specified period of time. Utilities try to forecast their peak load to plan for adequate power supplies and demand response.

**Private fire protection:** Protection provided to individual customers that receive additional fire protection service through private hydrants, standpipes, or sprinkler connections.

**Privatization:** Occurs when investor-owned utilities buy municipal systems.

**Public fire protection:** Protection provided to all customers through public fire hydrants located throughout the water system.

**Rate base:** The value of property upon which a utility is permitted to earn a specified rate of return. It is established by a regulatory authority and generally represents the value of property purchased and used by the utility in providing service.

**Rate class:** A group of customers identified as a class and subject to a rate different from the rates of other groups.

**Rate structure:** The design and organization of billing charges by customer class to distribute the revenue requirement among customer classes and rating period.

**Regulatory compact:** The obligation of the utilities to provide safe and reliable service to customers, usually in an exclusive territory, in exchange for regulated rates.

**Rural electric membership cooperative (REMC):** An organization in which each customer is a member and an owner of the business with voting authority within the organization.

**Special rate contract:** A contract between a customer and a utility. These contracts typically encourage large-volume energy users to expand operations, locate within a service territory, or recognize unique characteristics of a customer's service needs. They also can be used to help retain a large-volume customer.

**Stranded costs:** Costs that occur when an investment's usefulness is eliminated before recovering its cost. These costs must be borne by either investors or customers.

**Substation:** Facility equipment that switches, changes, or regulates electric voltage. Except for a few large industrial customers, most customers' equipment generally operates at only a few hundred volts, rather than at the hundreds of thousands of volts used for transmission. Therefore, transformers are required to reduce the voltage before the power reaches a distribution or sub-transmission system.

**Transformer:** An electrical device for changing the voltage of an alternating current.

**Transmission:** Moving bulk energy products from where they are produced or generated to distribution lines that carry the energy products to consumers.

**Transmission line:** A system of structures, wires, insulators, and associated hardware that carry electric energy from one point to another in an electric power system. Lines are operated at relatively high voltages and are capable of transmitting large quantities of electricity over long distances.



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