



INDIANA UTILITY GUIDE

2023 EDITION



Indiana Utility
Regulatory
Commission



About This Guide

The Indiana Utility Regulatory Commission (IURC or Commission) is an administrative agency that hears evidence in cases filed before it and makes decisions based on the evidence presented in those cases. The Commission is required by state statute to be impartial and make decisions in the public interest to ensure the utilities it regulates 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 keeping the public informed about the agency, as well as on topics that affect the agency and the utility sector, at large. The Commission's Indiana Utility Guide is intended to serve as a foundational resource to better understand the industry and the Commission's role within it. The guide contains 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 and ever-changing world of utilities. While this guide addresses a number of utility topics, the Commission encourages those interested to seek out the many resources, workshops, and courses available to be as informed as possible.

For those readers who are interested in a particular topic, we have divided the guide into the following sections:

- **WHAT IS THE INDIANA UTILITY REGULATORY COMMISSION?**
- **ADMINISTRATIVE LAW PROCESS**
- **BASICS OF RATEMAKING**
- **ELECTRICITY**
- **NATURAL GAS**
- **WATER AND WASTEWATER**
- **COMMUNICATIONS**
- **PIPELINE SAFETY**

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. This way, readers will know that, when they see a word or phrase in italic text, they can turn to the Glossary for a more detailed 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. The Commission is required by state statute to be impartial and make decisions in the public interest to ensure the utilities it regulates 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, who are appointed by the governor, with no more than three commissioners being of the same political party.

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 established as the Public Service Commission and given regulatory responsibility over natural gas, water, private sewer, electric, and telephone services. In 1987, the Indiana General Assembly changed the name of the agency to the Indiana Utility Regulatory Commission.

In its current role, the Commission no longer regulates vehicular transportation but does oversee many of the 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 Funding

The majority of the Commission's budget comes from the Public Utility Fee Fund through fees assessed under Ind. Code § 8-1-6-1. This fee applies to all retail-regulated public utilities in Indiana, including those that have withdrawn from certain aspects of Commission regulation, except municipally owned utilities. The calculation for the public utility fee incorporates the budgets for both the Commission and the Office of Utility Consumer Counselor approved by the Indiana legislature, accounting for

any augmentations, reversions, and adjustments. That total is then divided by the utilities' total intrastate operating revenue from the previous calendar year to determine the fee billing rate. This rate is used to calculate what is owed by each individual utility by applying the rate to its reported gross revenue from the previous calendar year.

The Commission also receives some funding through federal grants for its Pipeline Safety Division and programs and for other special projects, such as research into performance-based rates.

COMMISSION MEMBERS AND EMPLOYEES

Including its five commissioners, the Commission has a staff of about 80 professional employees, the majority of whom 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 resolves disputes between customers and their utilities and a Pipeline Safety Division that inspects pipeline facilities for natural gas and hazardous liquids (such as diesel and gasoline) and enforces federal and state pipeline safety standards.

Commissioners

Commissioners serve terms of four years each and may be reappointed to additional four-year terms by the governor. No more than three of the commissioners may be of the same political party. Commissioners are considered decision-makers under Indiana law (Ind. 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 national and international seminars and conferences.

For information about the current commissioners, please visit the Commission's website at www.in.gov/iurc/about-us/commission-chairman-and-commissioners.

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 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, each year the chair of the Commission must prepare and submit a report on specific items of interest laid out in the statute (Ind. Code § 8-1-1-14) to the governor and the Indiana General Assembly's legislative council and present the report to the Indiana General Assembly's appropriate interim study committee on utility regulation. That report, generally referred to as the Commission's Annual Report, is prepared and presented between the months of August and October.

The chair of the Commission assigns commissioners and administrative law judges to specific cases and 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 who supervises the other five judges. Each ALJ is required to be an Indiana-licensed attorney. The primary responsibility of the ALJs is to preside over docketed proceedings with the commissioners and provide legal support in the drafting of orders. The Commission's ALJs are specifically exempted from the Office of Administrative Law Proceedings, due to the highly technical nature of Commission proceedings and the fact that the Commission's ALJs do not issue a separate decision. The Commission also employs two court reporters who are responsible for reporting and, when necessary, transcribing hearings, and two paralegals.

Office of General Counsel

The general counsel is the Commission's lead attorney in non-docketed legal matters and the Commission's ethics officer, helping to assure compliance with the state ethics laws and regulations, as well as the Commission's internal policies. In addition to the general counsel, the staff of the Office of General Counsel includes four assistant general counsels and a legal assistant/paralegal.

The Office of General Counsel provides legal research, analysis, and statutory interpretation regarding utility-related laws, regulations, and cases to the commissioners, technical staff, External Affairs Division, Pipeline Safety Division, and the Consumer Affairs Division, as requested. The Office of General Counsel negotiates and drafts all contracts on behalf of the Commission and oversees rulemakings. Attorneys within the office serve as legal counsel to the Underground Plant Protection Advisory Committee and to designated testimonial staff. The Office of General Counsel also works with

the Indiana Office of Attorney General on appeals of Commission orders and other civil litigation matters. Based on information provided by the Consumer Affairs Division and other technical staff, the General Counsel may refer cases to the full Commission and request Commission investigations. In addition, the team tracks and provides timely responses to public records requests and works with technical staff to file comments to federal agencies.

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.

External Affairs Division

The External Affairs Division leads the Commission's public relations and communication efforts, with the goal of serving as a resource for the media, legislators, customers, sister agencies, and other external stakeholders. The Division accomplishes this by working cross-functionally in the organization to effectively respond to and communicate on matters related to the Commission and the industry at large. This includes, for example, organizing open forums and events, responding to media and constituent inquiries, and serving as an independent, neutral resource for state—and, on occasion, federal—legislative- and policy-related issues. It also includes providing internal support through the Division's Information Technology team to ensure the Commission is able to carry out its responsibilities effectively and efficiently.

Additionally, the Division maintains and operates the Underground Plant Protection Account (UPPA) fund, which 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 Indiana 811 law. Paid penalties are then reinvested into public awareness, training and education, and incentive programs related to underground utility safety and damage prevention efforts. The UPPA fund accrues more than \$1 million in civil penalties each year and reinvests those funds into promoting underground utility safety.

Consumer Affairs Division

Within External Affairs, the Consumer Affairs Division (CAD) provides dispute resolution services between regulated utilities and their customers. Importantly, CAD does not advocate on behalf of the customer or the utility. CAD investigates utilities' compliance with the applicable provisions of Indiana Code, Indiana Administrative Code, and each utility's Commission-approved tariff. Indiana Code § 8-1-2-34.5(b) establishes the existence of CAD and outlines the customer and utility rights and responsibilities, whereas the Indiana Administrative Code details the rules for utility service quality and both parties' rights and responsibilities. Indiana 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. A utility's tariff includes its schedule of rates and charges, general terms and conditions, and regulations that may be unique to that utility. CAD continuously strives to issue determinations that are fair and reasonable to all parties involved. The customer or utility may request a review of the CAD analyst determination by the CAD Director and then, on appeal by the Commission. 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.

In its dispute resolution role, CAD staff are often 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.

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.

Energy Division

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, cost recovery 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 with the Commission's Pipeline Safety Division and Research, Policy, and Planning Division. The Pipeline Safety Division inspects the gas operators and the infrastructure that transports natural gas throughout the state and enforces federal and state pipeline safety standards, and the Commission's Research, Policy, and Planning Division monitors regional transmission organizations, *integrated resource planning*, and *demand-side management* initiatives.

Research, Policy, and Planning Division

The Research, Policy, and Planning Division was established to provide the Commission with analysis of the ramifications of the dynamic interrelationships and changes within the electric industry. The Division provides advice and education on a wide variety of topics to the Commission. *Integrated resource planning*, because it is related integrally to all aspects of the electric industry, is one of the primary ongoing efforts of this Division.

The Division's work includes the following:

- Reviewing integrated resource plans (IRPs)
- Analysis and assistance with federal and regional regulation and impacts on Indiana

- Evaluating changes in federal and state legislation
- Studying the evolution in regulation
- Reviewing the economics of the energy industry and the implications for Indiana
- Analyzing regional transmission organization (RTO) activities including potential changes to *transmission* planning processes, resource adequacy requirements, and energy, ancillary service, and resource acquisition market structures
- Working with other states in both the Midcontinent Independent System Operator (MISO) and PJM Interconnection, LLC (PJM) regions to provide technical and legal analysis on RTO filings at the Federal Energy Regulatory Commission

Water and Wastewater Division

The Water and Wastewater Division monitors and evaluates regulatory and policy issues affecting the water and wastewater industries. The majority of the Division's time is spent reviewing evidence in regulatory proceedings and advising the Commission on cases before it. The types of regulatory proceedings include rate increases, acquisitions, financing requests, service territory matters, infrastructure and revenue trackers, and other matters. Division staff also assist with Commission rulemakings and complaints submitted to the Consumer Affairs Division. In addition, the Division assists in Commission investigations, both formal and informal, that frequently involve the resolution of problems related to at-risk water or wastewater utilities.

Communications Division

The Communications Division manages Indiana-specific issues related to telecommunications and video services. The Division provides advice on telecommunications issues, such as the

certification of communications service providers, numbering and area code issues, unauthorized changes to service (cramming) or service providers (slamming), telecommunications providers of last resort, and disputes between carriers. The Division also provides advice on video issues, including the issuance of video service franchises, as the Commission is both the sole video franchise authority and the direct marketing authority for video service providers in Indiana.

In addition, the Division assists the Commission in overseeing the Indiana Universal Service Fund, which provides additional revenue support to small rural local exchange carriers, and the Division monitors the federal Lifeline Program in Indiana, which provides essential phone service to low-income Hoosiers.

Pipeline Safety Division

The Pipeline Safety Division's primary focus is to ensure compliance with federal and state pipeline safety standards that apply to all intrastate natural gas and hazardous liquid pipeline operators, regardless of whether they are under the Commission's regulatory authority for rates and charges. Pipeline safety engineers enforce the safety standards established by the U.S. Department of Transportation (U.S. DOT) as they apply to the design, installation, inspection, testing, construction, extension, operation, replacement, and maintenance of pipeline facilities. The Division also enforces the U.S. DOT's anti-drug program for gas operators within Indiana, as well as U.S. DOT's integrity management, operator qualification, and damage prevention regulations. In addition, the Division is responsible for investigating possible violations of the Indiana 811 law (Ind. Code chapter 8-1-26).



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ADMINISTRATIVE LAW PROCESS





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, as well as rules and regulations for utilities.

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 processes 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. The Office of General Counsel oversees this process and serves as the point of contact for interested parties. Although the informal 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/rulemakings.

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 natural 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 of General Counsel drafts and verifies the legal support for the GAOs. To view the Commission's GAOs, go to www.in.gov/iurc/general-administrative-orders.



HOW CASES ARE INITIATED

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

- 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

When a case is filed with the Commission, it is formally docketed and given a cause 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. When presented with more complex cases, multiple commissioners are often assigned.

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.

CASE PROCEDURE

The Commission's procedural rules require petitions to include a proposed procedural schedule.

However, the Commission may also convene a prehearing conference and preliminary hearing to establish a procedural schedule for the case. A procedural schedule establishes 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

The Commission is required by Ind. 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 at least 10 days before the hearing.

Field Hearings

The Commission may also hold field hearings in the area in which a utility provides service. These public hearings give consumers an opportunity to speak in favor of or against 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.

Evidentiary Hearing

At the evidentiary hearing, the prefiled testimony and exhibits may be offered 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; and the commissioners and ALJ may question any of the witnesses.

Settlements

Some cases are settled before they get through the complete administrative process. When the parties reach a settlement, a hearing is held at which the parties involved in the settlement present the terms of a negotiated settlement agreement along with supporting testimony to the Commission for consideration, and any parties not involved in the settlement may cross-examine witnesses. The Commission can opt to accept, deny, or modify the settlement. To be approved, settlements must be supported by 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.

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) and Ind. Code § 8-1-1-5(f). Under these statutes, 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 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 public meeting (called "conference") 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 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. A party that disagrees with an order may petition the Commission for rehearing or reconsideration. A party or non-party who has been adversely affected by the decision may appeal the order.

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.

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 Commission's Office of General Counsel provides legal research and counsel to defend the Commission's orders and decisions on appeal. The Indiana Office of Attorney General (Attorney General's Office) represents the Commission by statute (Ind. Code § 8-1-2-2). The Office of General Counsel works with the Attorney General's Office in drafting briefs and arguments in appeals. The Court may affirm, remand, or reverse—or any combination of the three—the Commission's orders.

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 are also 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 mechanism (or tracker) proceedings involve the review and approval of certain utility costs (such as fuel, operating 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.

ADMINISTRATIVE LEGAL REVIEW

The Office of General Counsel reviews several types of legal documents for the Commission, including:

- **30-Day filing requirements**—The Office of General Counsel reviews administrative filings submitted by utilities to the Commission under 170 IAC 1-6 (30-day filing rule) to assess 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 of General Counsel reviews contracts between regulated utilities and their affiliates pursuant to Ind. Code § 8-1-2-49. 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 reviews the contract to ensure it is in the public interest. The Office of General Counsel 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 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. 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 of General Counsel sends a letter to the utility acknowledging the withdrawal.

ACCESSING CASE INFORMATION ON THE COMMISSION'S WEBSITE

To access information pertaining to a docketed case, please visit the Commission's Online Services Portal at <https://iurc.portal.in.gov/>. Here, anyone can search for a case by entering the Cause number, industry, petition date, petition type, party, or order date and then clicking Search. To watch hearings that are livestreamed, please visit www.in.gov/iurc/watch-the-iurc-live.





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BASICS OF RATEMAKING



Basics in Ratemaking

WHY RATES ARE REGULATED

Providing utility services to homes and businesses requires very large capital investments in 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*.

RATEMAKING PRINCIPLES

Utility regulation attempts to realize the benefits achieved from competition where it exists and the efficiencies of operating a natural 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 reasonableness. 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.

RATES

As part of the ratemaking process, the Commission must determine both the total amount of revenues generated from operations required for the utility to meet its objectives and needs, and the return required to meet the needs and objectives of its customers. To achieve this balance, the Commission primarily relies on the cost of service. For investor-owned utilities (IOUs), for example, the cost of service reflects the total amount needed for the utility to recover its costs and earn a reasonable return. This amount is the revenue requirement.

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 utility 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 allowed 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— Ind. Code § 8-1-2-4:

- Operation and maintenance expenses
- Depreciation
- Income taxes and income tax credits (ITCs)
- Taxes other than income
- Return on investment (weighted cost of capital x rate base)

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

For large utilities, the components are:

RATE BASE

Add:

- Utility Plant in Service
- Allowance for Funds Used During Construction (AFUDC)
- Materials and Supplies (13-month avg.)
- Deferred Depreciation, if approved
- Post-in-Service AFUDC, if approved
- Acquisition Adjustments (net), if approved

Less:

- Accumulated Depreciation
- Contributions in Aid of Construction
- Customer Advances for Construction

CAPITAL STRUCTURE

- Long-term Debt
- Common Equity
- Preferred Stock
- Post-retirement Benefits, net
- Deferred Income Taxes
- Job Development ITC-Post 1970
- Deferred ITC-Pre 1971
- Customer Deposits

RATE DESIGN

After the revenue requirement is determined, a utility allocates these revenues to different classes of customers (for example, residential, commercial, industrial, or wholesale), usually based on a class cost of service study, 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 be “just and reasonable.” 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. The Commission reviews the utility’s proposed rate structure and design, as part of its determination in the utility’s base rate case.

GENERAL FACTORS AFFECTING RATES

Customers frequently ask why their rates are increasing and how their bills are calculated. 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.

Federal Regulation

Federal government regulations continue to evolve for various types of utilities, including enhancing the security of critical infrastructure and the safety of pipelines. 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.



INDIANA UTILITY GUIDE 2023 EDITION

ELECTRICITY



Electricity

OVERVIEW OF REGULATION

The electric power industry is regulated at both the federal and state levels. At the federal level, the Federal Energy Regulatory Commission (FERC) regulates high-voltage transmission facilities and wholesale sales of electricity. 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 developed by the North American Electric Reliability Corporation (NERC). Other federal agencies involved in the electric energy industry include:

- Nuclear Regulatory Commission
- United States Environmental Protection Agency
- United States Department of Energy
- Securities and Exchange Commission
- Federal Trade Commission

The Commission oversees generation and lower voltage transmission and distribution facilities and has jurisdiction over retail electric service. In Indiana, electric utilities function as retail service monopolies due to the high costs associated with the duplication of infrastructure.

Types of Regulated Electric Utilities

Three types of electric utilities exist in Indiana. Investor-owned utilities (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 retail service territories, the Commission regulates their rates and charges, as well as their terms and conditions of service. 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 five electric IOUs in Indiana are:

- Duke Energy Indiana, LLC (Duke Energy)
- Indiana Michigan Power Company (I&M)
- Indianapolis Power & Light Company d/b/a AES Indiana
- Northern Indiana Public Service Company (NIPSCO)

- Southern Indiana Gas and Electric Company (SIGECO), also referred to as CenterPoint Energy Indiana South (CenterPoint)

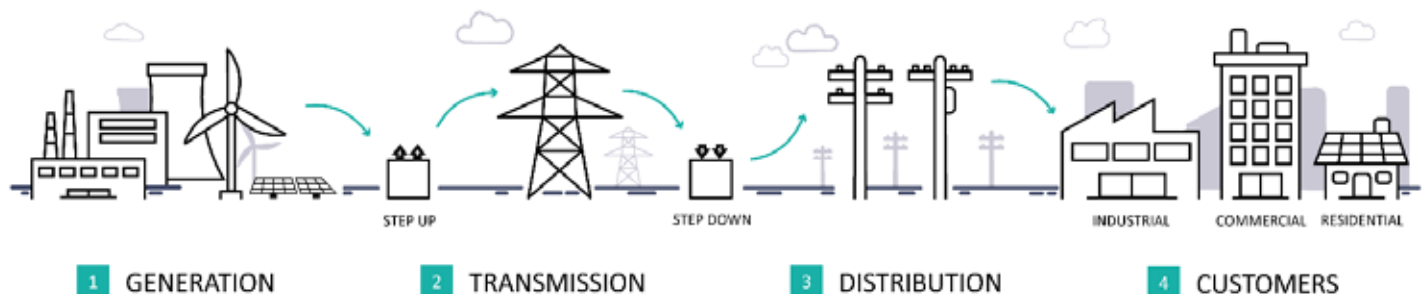
Municipal Utilities

In 1980, a group of municipalities created the Indiana Municipal Power Agency (IMPA) to jointly finance and operate electric generation and transmission facilities. IMPA's purpose is also to purchase wholesale power and meet members' needs through a combination of member-owned generating facilities, member-dedicated generation, and purchased power. However, not all municipal electric utilities in the state are members of IMPA.

State law allows municipals to withdraw (i.e., remove themselves) from parts of the Commission's authority. The majority of the municipals in Indiana have withdrawn from the Commission's authority over rate regulation.

Rural Electric Membership Cooperatives

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 Wabash Valley Power Alliance (WVPA), both of which provide generation and *transmission* services to their members. Hoosier Energy is located in the southern part of the state, whereas WVPA is located in the northern part of the state. The Commission's



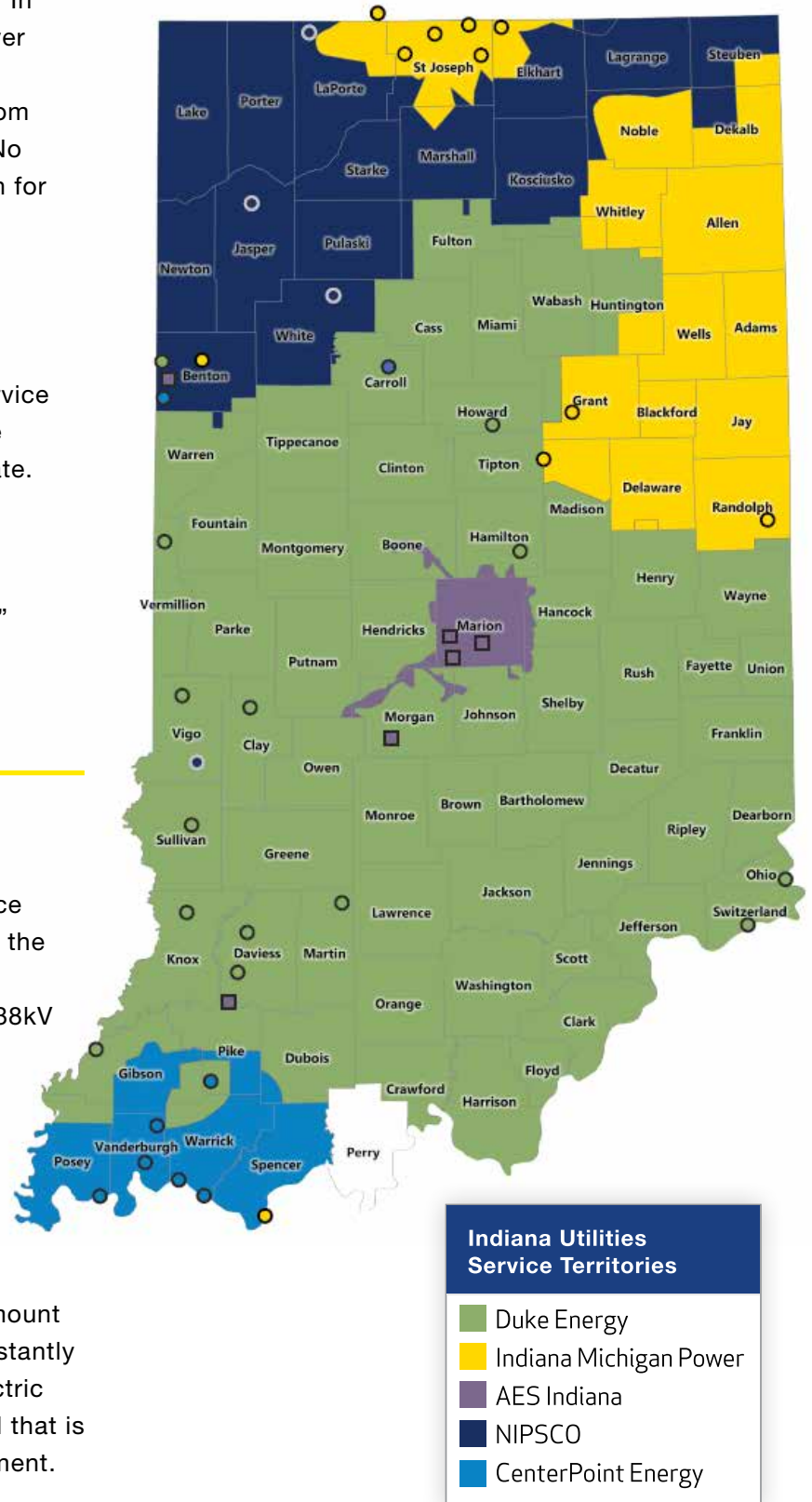
regulation of Hoosier Energy and WVPA is primarily limited to resource planning and decisions to purchase, build, or lease generation facilities. In addition, the Commission retains authority over WVPA's long-term financing. REMCs, like municipalities, have the ability to withdraw from the Commission's authority over their rates. No REMCs remain under Commission jurisdiction for rate regulation.

The following is a simplified map that shows the investor-owned electric utilities' service territories. In addition to this map, 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 www.indianamap.org. To view the map, scroll down to the "Data Categories" section and select "Utilities, Communication." Then, click on "Electric Service Territories (IURC)."

HOW IT WORKS

Indiana's electric power generation takes place at a wide variety of facilities 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 thermal power plant or wind farm (high-voltage transmission) or at a solar facility located at a residential home (low-voltage distribution); the generation of electricity must be essentially equal to the amount being used (i.e., load); and the grid must constantly adjust to the power flows to maintain the electric service that consumers expect to receive and that is necessary to run most appliances and equipment.

Indiana Investor-Owned Utilities' Electric Service Territories



PRICING AND ECONOMICS FOR ELECTRICITY

Among the major forces influencing the price of electricity are *demand*, changing market forces, and compliance with environmental regulations. This section discusses these as well as potential upcoming trends. It also examines customer bills and what those bills generally include.

Forces Influencing Pricing

Prices are expected to increase with demand for electricity 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 restrictive environmental regulations and changing market dynamics. Construction retrofits are often needed to comply with federally mandated environmental rules. Moreover, natural gas pricing and renewable energy costs have made other resources more cost competitive with traditional coal-fired generation.

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. A general upward trend in coal prices and a downward trend in natural gas and renewable energy prices have occurred. These trends have reduced Indiana's relative price advantage because the state has relied mostly on coal for electricity generation in the past. Changing generation resource market dynamics and aging

infrastructure could reduce Indiana's relative price advantage further.

Over the next two decades, the rate of growth in the state's electricity demand is highly uncertain. The primary sources of uncertainty in the drivers of electricity demand are the extent and timing of adoption of electric vehicles and distributed energy resources, and the degree of increased electrification of the economy. However, even with low growth in demand, the number of new 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.

Customer Bill Composition

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

1. Base rates
2. A service charge
3. Expense adjustments (which are adjustable rate mechanisms)
4. 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.

Adjustable Rate Mechanisms

In addition to traditional ratemaking (refer to the "Basics of Ratemaking" section), Indiana's regulatory statutes allow for adjustable rate mechanisms (that is, trackers) for specific expenses and capital investments. These tracking mechanisms allow for

the flow-through of specifically defined costs to retail rates in between base rate cases. All requests for cost recovery require Commission approval. As a part of the review process, the Indiana Office of Utility Consumer 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 consider and make findings in its order regarding the estimated cost and reasonableness of the project, while also reviewing 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 (e.g., fuel cost adjustments). 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 investments it makes in its system—such as clean coal technology 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 the 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 (i.e., 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.

- 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
- Settled Adjustments to Base Rates
- Renewable Energy Project Investment and Operation
- Transmission, Distribution, and Storage System Improvement Charge

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 Ind. 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 OUC, 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 Ind. 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 (Ind. Code chapter 8-1-8.5) requires all electric utilities to receive approval from the Commission for a certificate of public convenience and necessity (CPCN). The CPCN process provides

the Commission and interested parties with an opportunity to evaluate the merits of a project before it is undertaken. Only utilities that intend to construct, purchase, or lease a generation facility must seek a CPCN.

The Commission is required to issue an order on an application for a CPCN within 240 days from the filing of a complete case in chief for an electric generation CPCN. Also, pursuant to Ind. Code § 8-1-2-0.6, it is a continuing policy of the State of Indiana that decisions concerning Indiana's electric generation resource mix, energy infrastructure, and electric service ratemaking constructs must consider the following attributes (commonly called the "Five Pillars"):

1. Reliability
2. Affordability
3. Resiliency
4. Stability
5. Environmental sustainability

INVESTMENT IN UTILITY INFRASTRUCTURE AND EFFICIENCY

Indiana Code chapter 8-1-39, 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.

Distributed Energy Resources

Utility programs are available to enable 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. Indiana Code chapter 8-1-40 created two compensation structures for the excess energy these customer-generators produce: the net metering tariff, which is scheduled to phase-out over time, and the distributed generation tariff, which will succeed the net metering tariff as the phase-outs occur.

Net metering enables qualified customers (that is, those that installed their facilities prior to July 1, 2022) to receive the full retail rate for any net excess generation over a standard monthly billing cycle, while distributed generation (for installations after July 1, 2022) enables qualified participating customers to receive 25 percent above the wholesale rate for any net excess generation as metered on an instantaneous basis. 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.

Under both net metering and distributed generation, the participating customer's facilities must be located on the customer's premises and can be no larger than the customer's average annual electricity usage and not more than 1 MW. Net metering will be available until July 1, 2047, for customers who installed their facilities prior to Dec. 31, 2017,

and until July 1, 2032, for those who installed between Jan. 1, 2018, and July 1, 2022. Distributed generation will continue to provide opportunity for all customers to contribute toward meeting their own electricity needs while remaining connected and sending excess generation back to the public utility's system.

Electric Vehicle Development

Electricity is impacting our nation's transportation sector through its increasing use as a transportation fuel. Electric vehicles (EVs) provide customers with an economical alternative to gasoline-fueled vehicles. Hybrid EVs use battery power in addition to an internal combustion engine. Non-hybrid EVs do not depend on gasoline to recharge their batteries. EVs are instead plugged into the existing electricity system using a standard electrical outlet or electric charging station 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. Information on the number of EVs in Indiana can be found at www.in.gov/oed/resources-and-information-center/vehicle-fuel-dashboard.

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 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

Traditionally, one of the most effective and easily installed products was compact fluorescent light bulbs. LED, or light emitting diodes, are now the most efficient form of lighting for the majority of uses. Newer lighting technologies use about 70-90 percent less energy than traditional incandescent bulbs and can last at least 15 times longer before needing to be replaced.

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 LEDs, 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. Programs became increasingly standardized across electric utilities following the 2009 Commission Order under Cause No. 42693, and legislation passed in 2014 allows electric utilities more flexibility in program offerings.

Additional legislation in 2015 required Indiana electric IOUs to seek commission approval at least once every three years of an energy efficiency plan that includes: (1) energy efficiency goals; (2) programs to achieve those goals; (3) program budgets and costs; and (4) independent evaluation, measurement, and verification of program performance. The energy efficiency goals are to be: (1) reasonably achievable; (2) consistent with the utility's integrated resource plan; and (3) designed to achieve an optimal balance of energy resources. These plans for been approved and are in place for all five IOUs. More information on available energy-efficiency programs can be found on each utility's website.

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.

ELECTRIC GENERATION OVERVIEW

Before a public utility can begin building, buying, or leasing a new generation plant, it must get a CPCN from the Commission. Part of many resource planning efforts involves plans for new generation plants, but the need to receive a certificate of need also applies to the implementation of environmental compliance investments. 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 (SUFG) at Purdue University.

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. SUFG produced its first set of projections in 1987 and has updated these projections periodically (generally every two years) since then.

Through the years, the SUFG has provided analytical support to the Commission on various issues. The 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 U.S. EPA's 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.

Before a CPCN can be granted, the Commission must find under the certificate of need statute that construction, purchase, or lease of a generation facility is consistent with the Commission's analysis

of the need for additional electric generating capacity or that the construction, purchase, or lease is consistent with a utility's integrated resource plan (IRP). In the past, the Commission has in several CPCN proceedings adopted the SUFG's forecast 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/sufg.

Certificate of Need Statute

Under Ind. Code chapter 8-1-8.5, a public utility may not begin construction, purchase, or lease of any facility greater than 80 MW 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 evaluate 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

Pursuant to Ind. Code § 8-1-2-0.6, the Commission must also consider the attributes of the Five Pillars of reliability, affordability, resiliency, stability, and environmental sustainability.

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."

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 utilities who file IRPs include the five electric IOUs, IMPA, Hoosier Energy, and WVPA.

Since the initial IRP rule was adopted in 1995, many changes have occurred in the electric industry. The Commission investigated the need to update the rule and, 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. After several rounds of written comments, a draft proposed rule was developed in October 2012. The rulemaking was put on hold due to the rulemaking moratorium in Executive Order 13-03. Recognizing

the many improvements of the 2012 draft proposed rule, the utilities voluntarily agreed to follow its requirements. In 2015, Ind. Code § 8-1-8.5-3 was amended to require the utilities to submit IRPs. After an additional stakeholder process and feedback, the draft proposed rule was revised and adopted, becoming effective in 2018. It included the following key improvements:

- A public advisory process (required for the investor-owned utilities) 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
- 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)

The updated IRP rule can be found at www.in.gov/legislative/iac/pdf-iac/iac2006oldfmt/T01700/A00040.PDF?IACT=170.

The utilities' IRPs are posted on the Commission's website at www.in.gov/iurc/energy-division/electricity-industry/integrated-resource-plans.

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.

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 or more 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, stringent environmental regulations, dramatic decreases in the price trajectory of renewable energy, and a large uncertainty in the future growth of electricity consumption depending on hard to predict drivers like growth in EVs and DERs, and electrification more generally. Increasingly, Indiana

utilities have recognized that they can no longer plan as if they were isolated systems and realize the necessity of coordinated planning with their RTO(s) for mutual benefit.

The development of agendas for the Contemporary Issues Technical 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/research-policy-and-planning-division/irp-contemporary-issues-technical-conference.

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. It also 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 can potentially enhance the quality of the IRPs. Parties generally 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 reports can be found on the Commission's website at www.in.gov/iurc/energy-division/electricity-industry/integrated-resource-plans.

Commission Analysis of the Ability of the Indiana Public Utilities to Provide for Reliable Electric Service (HEA 1520 Report)

The Indiana General Assembly passed House Enrolled Act 1520 during the 2021 legislative session to establish a reporting process for utilities to demonstrate their plans to have adequate generation resources to ensure the continued provision of reliable electric service for Hoosier customers. This annual reporting requirement provides the Commission and other Indiana government leaders with a transparent and timely data and report to better understand the generation resource landscape and proactively address any potential future challenges to system reliability.

CHANGING ELECTRIC GENERATION LANDSCAPE & IMPLICATIONS FOR INDIANA

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.

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.

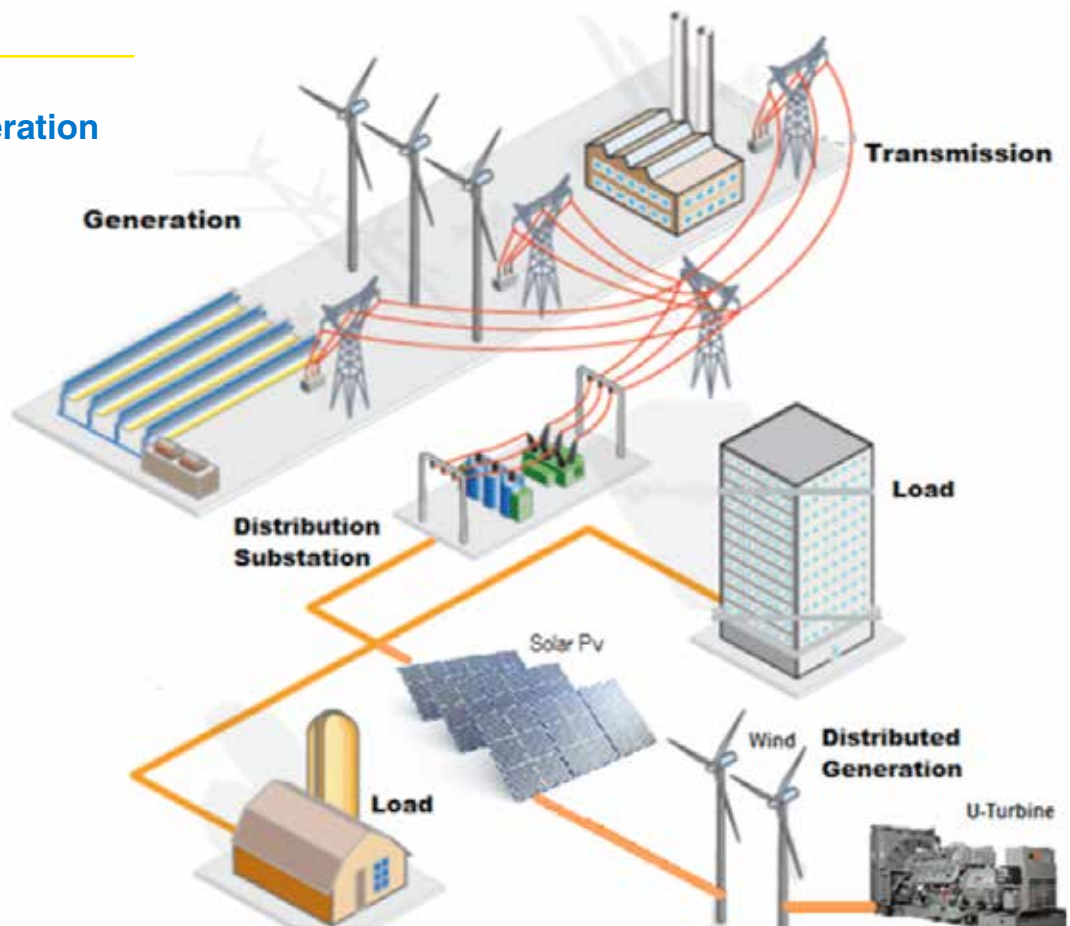
Technological Innovation

A major unknown going forward is the extent to which customers will remain largely passive consumers of electricity or transition to more active participation in the electric market at both the wholesale and retail level. The pace of technological change at an increasing number of touch points with the energy system requires a deliberate advancement in the ability of utilities to develop and communicate timely accurate information to customers. Among the drivers of this complexity is the increasing penetration of EVs, DERs, energy storage, and broader electrification of society. 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. In addition, initiatives empowering customers should ensure that consideration is given to energy economics and supply assurances from both the participants and non-participants. 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.

Customers create the demand for the energy system and, in the case of electricity, also might provide supply to the system and other beneficial services. 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

Customer-Sited Electricity Generation Facilities



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. Further, with improvements in communication technology, utilities or aggregators 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 information so customer's act consistent with maintaining reliable and economic electric service.

The Changing Composition of the Electric Generation Fleet

Utility-scale generation resources are also being impacted by changing investment and operational cost economics. The drivers of this change have evolved over time. Beginning around 2010, the

abundance of natural gas supply as a result of the *fracking* revolution led to lower and more stable natural gas prices, while mining challenges increased coal prices over time. These fuel price changes reduced the historical price advantage of large, centralized coal-fired power plants. Another significant factor was the increasing cost of complying with environmental regulations, especially for smaller older coal-fired generation units. In this circumstance the smaller investment footprint of a new, highly efficient natural gas combined-cycle power plant compared favorably with the large investment footprint of coal or nuclear-fueled power plants.

Solar, wind, and battery technology has improved significantly since 2010. These improvements have driven the cost of solar and wind power below that of thermal resources. This is especially the case with the passage of the Inflation Reduction Act of 2022 which extended and expanded the investment tax credit and the production tax credit for wind, solar, and battery resources. 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 renewable resources attractive. The intermittent nature of wind and solar resources, however, means that they are more or less outside of the system managers' direct control, adding complexity to the energy system which must be accounted for in utility resource planning and system operations.

FEDERAL AND REGIONAL OVERSIGHT

Indiana's electric utility lines do not 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*.

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 1968, the North American Electric Reliability Corporation (NERC) was founded to set reliability standards and 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 was passed in 1920 originally 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 the FERC, which regulates the transmission and wholesale sales 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 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 is the federal agency with authority over interstate electric transmission, 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.

As part of its oversight, FERC 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
- Assessing seasonal and long term reliability annually

- 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.

Regional Transmission Organizations

RTOs, also known as independent system operators (ISOs), are independent organizations that were formed to plan and control the high voltage transmission grid and 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 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 caused expensive excess generation capacity.

The RTOs’ main responsibilities are to ensure the safe and reliable transfer of power, as well as fair access to the transmission system, within their individual regions. 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 or *congestion*. This approach to relieving transmission constraints was in sharp contrast to the historical reliance on the broad use of regional curtailment of transactions.

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 rapid fluctuations could have resulted in significant and ongoing fines for failure to meet NERC’s mandatory reliability requirements; however, the routine operations of

the RTO mitigate the problems resulting from such 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:

- Variations in 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.

There are two RTOs that operate in the state of Indiana – MISO and PJM.

Midcontinent Independent System Operator

The Midcontinent Independent System Operator (MISO) was formed by transmission owners in 1996, became the first FERC-approved RTO in 2001, and started its wholesale electricity market in 2005. MISO is based in Carmel, Indiana. MISO manages a combined footprint of 68,000 miles of transmission, serving 45 million people in fifteen U.S. states (Arkansas, Illinois, Indiana, Iowa, Kentucky, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Montana, North Dakota, South Dakota, Texas, and Wisconsin,) and the Canadian province of Manitoba.

Indiana electric utility members of MISO are as follows:

- Duke Energy Indiana, LLC (Duke Energy)
- Indianapolis Power & Light Company d/b/a AES Indiana
- Northern Indiana Public Service Company (NIPSCO)
- Southern Indiana Gas and Electric Company (SIGECO), also referred to as CenterPoint Energy Indiana South
- IMPA
- Hoosier Energy
- WVPA

PJM Interconnection, LLC

PJM Interconnection, LLC (PJM) started as an independent power pool in 1927 and evolved into an independent system operator in 1997, starting its wholesale electricity markets in 1998-2000. PJM coordinates the movement of wholesale electricity in all or parts of thirteen states (Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia) and the District of Columbia.

Indiana electric utility members of PJM are as follows:

- American Electric Power (AEP), including its Indiana subsidiary Indiana Michigan Power Company (I&M)
- IMPA
- WVPA

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 Indiana 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 and the District of Columbia. 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.

Commissioners, attorneys from the Office of General Counsel, and staff from the Research, Policy, and Planning Division are part of the Commission's RTO/ FERC Team. The team represents the Commission at the relevant regional transmission organizations, specifically, MISO and PJM. It also represents the Commission in electricity-related issues and proceedings at 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.

EVALUATING CHANGES IN FEDERAL AND STATE LEGISLATION

In the fall of 2022, the Indiana General Assembly's 21st Century Energy Policy Development Task Force wrapped up its four-year study looking at necessary statutory changes to enable Indiana to responsibly transition its generation resources while ensuring Hoosiers retained access to affordable and reliable energy. The Task Force resulted in numerous pieces of legislation, including the implementation of a "Five Pillars" policy which requires the Commission to evaluate reliability, affordability, resiliency, stability, and environmental sustainability in every decision regarding electric ratemaking constructs.

On the federal front, two major pieces of legislation are already catalyzing significant investments in the energy sector, driving investments towards renewable energy, and improving the efficiency and resiliency of the power grid. The Infrastructure Investment and Jobs Act, commonly referred to as the Bipartisan Infrastructure Law, included authorization for over \$80 billion in federal spending related to the energy sector, including funding for a build-out of electric vehicle chargers, regional clean hydrogen hubs, carbon capture demonstration projects, electric distribution grid upgrades, and building out the nation's battery supply chain. The other major piece of federal legislation, the Inflation Reduction Act, also made significant investments in the energy sector, including extending the production and investment tax credits for renewable energy projects and funding competitive grants and loans for various clean energy initiatives, including the development of clean energy projects that reduce greenhouse gas emissions, offer carbon capture technologies, or help with critical minerals processing, manufacturing, and recycling.

Office of Energy Development (OED)

The Indiana Office of Energy Development (OED) is the state's federally designated state energy office. Its mission is to support the development of comprehensive energy policy that supports a diverse and balanced portfolio of energy resources, with a strong commitment to affordable, stable, and reliable energy solutions for the benefit of all Hoosiers.

OED receives federal funding from various grant programs administered primarily through the U.S. Department of Energy. OED uses federal grants and state matches, as applicable, to support the state's energy priorities as well as support energy needs for local communities, organizations, and businesses. OED's programmatic portfolio includes, for example, grid infrastructure investment grants, a residential and commercial energy efficiency revolving loan fund, and home energy efficiency rebate programs.

Additionally, OED maintains the Indiana Vehicle Fuel Data Dashboard to provide public data on the adoption of alternative fuel vehicles (e.g., electric vehicles) and serves as the administrator for the Commercial Solar and Wind Energy Ready Communities Development Center. To view the Indiana Vehicle Fuel Data Dashboard, visit www.in.gov/oed/resources-and-information-center/vehicle-fuel-dashboard.

REGULATORY INITIATIVES FOR ELECTRICITY

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 couple of decades 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.

In 2023, the General Assembly enacted legislation adding Ind. Code § 8-1-2-0.6, which declares that it is the continuing policy of the State of Indiana “that decisions concerning Indiana’s electric generation resource mix, energy infrastructure, and electric service ratemaking constructs must consider” the following attributes (commonly referenced as the “Five Pillars”):

- 1) Reliability
- 2) Affordability
- 3) Resiliency
- 4) Stability
- 5) Environmental sustainability





INDIANA UTILITY GUIDE 2023 EDITION

NATURAL GAS





Natural Gas

OVERVIEW OF REGULATION

The natural gas industry consists of three systems:

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

Interstate pipelines, regulated by the Federal Energy Regulatory Commission (FERC), carry natural gas across state boundaries. *Intrastate pipelines*, regulated by state commissions, carry natural gas within state boundaries. States, including Indiana, that have certified pipeline safety programs are delegated federal authority by the U.S. Department of Transportation to conduct inspections, investigate incidents, and enforce state and federal safety regulations. Other federal industries involved in the natural gas industry include:

- 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 (otherwise known as trackers), and customer choice initiatives.

Types of Regulated Natural Gas Utilities

The Commission has regulatory authority over 17 natural gas distribution utilities in Indiana, with each of the utilities falling under one of the following three utility types.

Investor-owned utilities (IOUs) are private businesses funded by their shareholders through debt (bonds) and equity (stocks). Each IOU is granted a specific service territory and operates within their service territory. Therefore, to ensure safe, affordable, and reliable service for customers, the Commission regulates the rates and charges of each of the IOUs. This regulation includes an opportunity (but not a guarantee) for the utility to earn a reasonable return on investment. The Commission currently regulates 15 natural gas IOUs.

Municipal utilities are owned and managed by the cities and towns where they operate. They rely on the rates they collect to fund the operation of the utility (operations and maintenance expenses and debt service) and do not have access to equity capital like IOUs. Although all of Indiana's natural gas municipal utilities have withdrawn from the Commission's jurisdiction over their

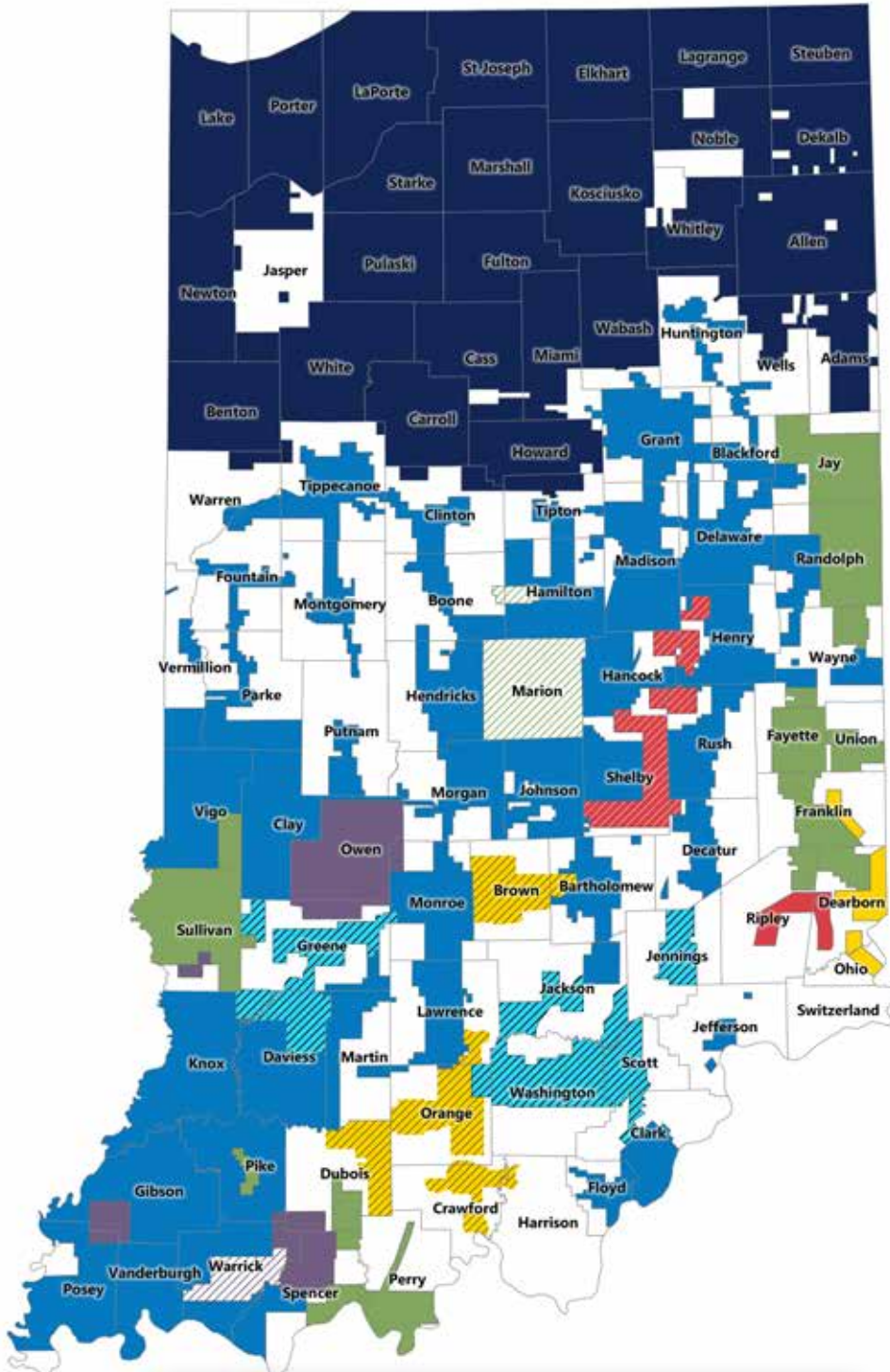
rates and charges, Citizens Gas remains under the Commission's jurisdiction but is treated as a municipal utility for regulatory purposes due to its public charitable trust classification. All municipal utilities remain under the jurisdiction of the Commission's Pipeline Safety Division, regardless of their withdrawal status.












Nonprofit utilities are businesses that provide a benefit to the public by offering utility service in areas where utility service is needed. Much like the municipals, nonprofit utilities rely on the rates they collect to fund their operations, they do not have access to equity capital, and they are subject to the jurisdiction of the Commission's Pipeline Safety Division. The state of Indiana currently has one nonprofit natural gas utility, Valley Rural Utility Company, which serves customers in the Hidden Valley Lake area in southeastern Indiana.

Natural Gas Service Territories

The Commission has full regulatory authority over 17 natural gas distribution utilities in Indiana. Of the utilities regulated by the Commission, 15 are investor-owned utilities (IOUs), with the remaining two being a not-for-profit and a municipality. Citizens Gas, Northern Indiana Public Service Company, LLC (NIPSCO), Indiana Gas Company, Inc. d/b/a CenterPoint Energy Indiana North (previously Vectren North), and Southern Indiana Gas and Electric Company d/b/a CenterPoint Energy Indiana South (previously Vectren South), represent the four largest natural gas utilities in the state and collectively serve approximately 96 percent of the state's natural gas customers.

Natural Gas Service Territories



Natural Gas Service Territories	
	NIPSCO
	CenterPoint Energy Indiana
	Sycamore
	Citizens Gas
	Boonville Natural Gas
	Indiana Natural Gas
	SE Indiana Natural Gas
	Fountaintown Gas Co.
	Midwest Natural Gas
	Ohio Valley Gas
	Community Natural Gas

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 more than 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.

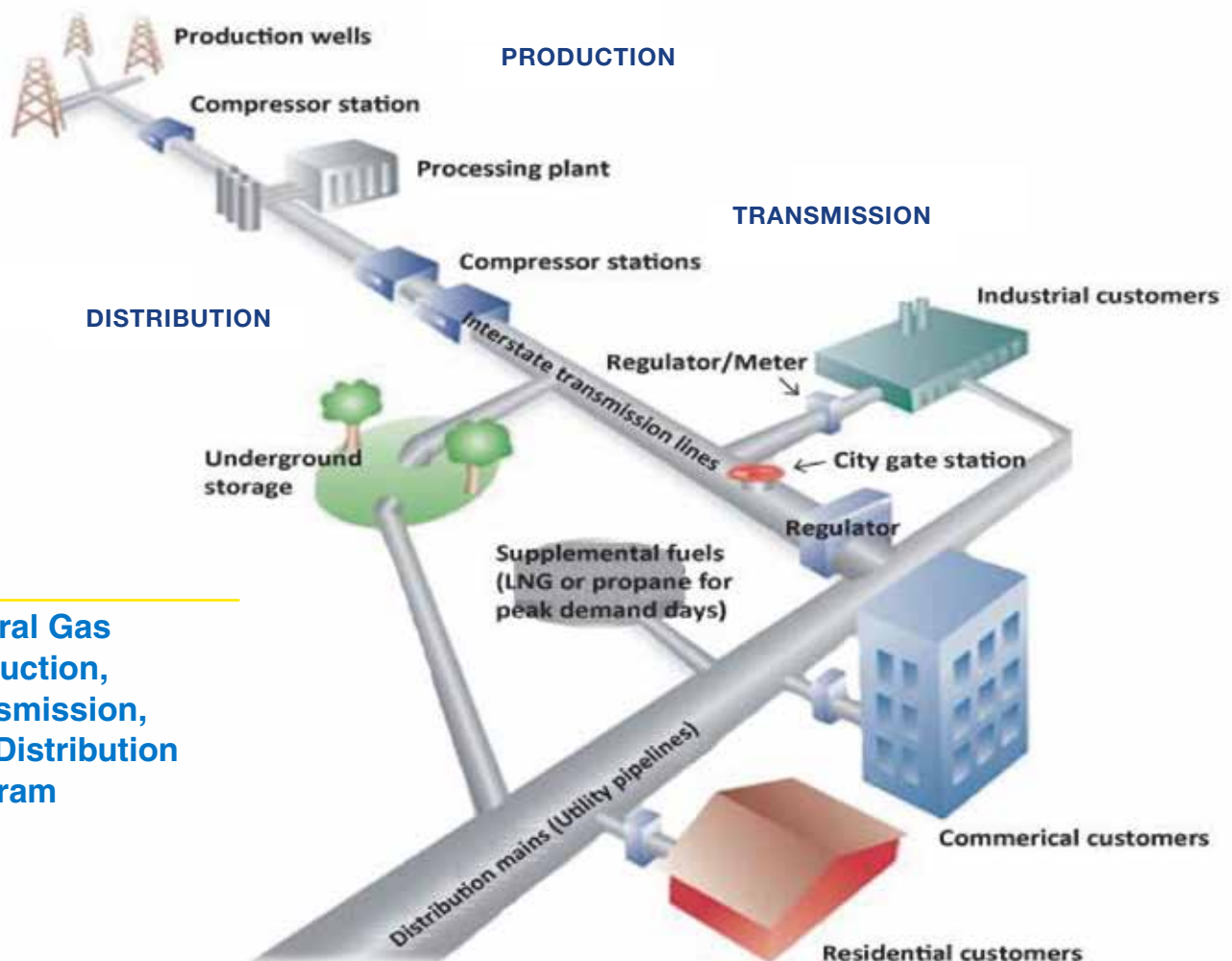
Because only a small portion is produced in Indiana, the state is very dependent on the gas transmission system to carry natural gas from producing regions of the country into the state. Fortunately, with Indiana's location between Lake Michigan and the Ohio river, several large interstate transmission lines connect across and through the state.

- In addition, there are two intrastate pipelines currently under the Commission's jurisdiction: Ohio Valley Hub Pipeline (OVH), which is a 9.2-mile pipeline located in Knox County, Indiana that connects two interstate pipelines (Texas Gas Transmission and MGT) to the Monroe City Gas Storage Field owned by CenterPoint Energy Company.
- Citizens Gas Pipeline Assets, LLC (Citizens Gas Pipeline), which 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.

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

PRICING AND ECONOMICS FOR NATURAL GAS

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.

Forces Influencing Pricing

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. Conversely, 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 current low gas prices and environmental regulations. New technology and lower extraction costs have led to increased drilling for nonconventional gas supplies (e.g., 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, increased use of natural gas for electric generation may result in greater demand for natural gas and thereby reducing excess supply, which may increase pricing.

Long-Term Trends

Indiana has consistently performed well in comparison to other states for residential and commercial delivered (bundled) natural gas prices. Until recently, the supply has outweighed any upticks in demand. However, increased demand for cleaner energy sources may cause an increase in price. Consumption in the residential sector changes with economic growth, population shifts, technological efficiency improvements, and increased use of electricity for home heating.

Customer Bills

A natural gas customer's bill includes the following:

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

Typically, during the winter months, the majority of a customer's bill is the commodity cost (i.e., natural gas); it usually accounts for more than 65 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 generally constitute a small portion of a customer's bill (approximately 5 percent).

Adjustable Rate Mechanisms

In addition to traditional ratemaking (see the “Basics of Ratemaking” section), Indiana’s regulatory statutes allow for rate adjustment mechanisms for specific expenses and capital investments. Rate adjustment 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 Consumer 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 Adjustable Rate Mechanisms

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 (e.g., gas cost adjustments). 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 Rate Adjustment Mechanisms

By comparison, a *capital investment tracker* enables a utility to recover statutorily defined capital investment it makes in its system—such as a gas cost adjustment or pipeline safety adjustment—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 (i.e., 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.

- 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
- Customer Benefit Distribution Charge

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 Ind. 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 Ind. Code chapter 8-1-2. Additionally, if the utility has already established a rate class for special contracts, the Commission must verify the proposal meets all of the conditions of the special contract tariff.

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 Territorial Authority

The customer base for natural gas utilities is determined through Commission-authorized service territories. The service areas that natural gas utilities serve do not encompass the whole state because alternatives to natural gas (e.g., 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 to provide service must submit a petition to the Commission, and the utility currently providing service must be included in the proceeding. The utilities involved may come to an agreement. In any event, the Commission must approve the overlapping service territories based on a determination of whether it is in the public interest. Ultimately, having one natural gas utility serve a particular area avoids costly duplicate infrastructure and service provider confusion for customers. Utilities may also petition the Commission to modify their service territories.

INVESTMENT IN UTILITY INFRASTRUCTURE AND EFFICIENCY

Indiana Code chapter 8-1-39, provides 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 rate adjustment mechanism 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.

Energy Efficiency

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

REGULATORY INITIATIVES FOR 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 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.





INDIANA UTILITY GUIDE 2023 EDITION

WATER AND WASTEWATER DIVISION



Water and Wastewater Division

OVERVIEW OF 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 Ind. 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 the terms and conditions include:

- 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

Types of Regulated 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 sizes of water and wastewater utilities vary greatly, with some serving more than 300,000 customers, like Citizens Water (a water utility serving Indianapolis) and CWA Authority, Inc. (a wastewater utility serving Indianapolis) to others having fewer than 100 customers, like Wells Homeowners Association, which has 37 water customers.

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 municipal water and wastewater 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; however, a new municipal water utility with fewer than 8,000 customers cannot withdraw until 10 years have passed from its organization date. Even if a municipal water utility withdraws, the Commission still has limited authority, and its rules regarding main extensions must still be followed.
- Water conservancy districts with fewer than 2,000 customers also can withdraw from the Commission's authority.
- Indiana statutes further allow nonprofit water and wastewater utilities to withdraw from Commission authority over their rates and charges, financing, rules (terms and conditions), and annual reporting requirements. However, nonprofit utilities organized after June 30, 2018, cannot opt out until 10 years have passed from the organization date.
- Investor-owned water and wastewater utilities with fewer than 300 customers are able to withdraw from the Commission's jurisdiction. If organized after June 30, 2018, the utility cannot opt out until 10 years have passed from its organization date.
- 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 and regarding main extensions.

The number of water and wastewater utilities under Commission authority or jurisdiction is relatively small. The Commission's website (www.in.gov/iurc/water-and-wastewater-division) 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 residential customers.

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 residential customers. This is because the bulk of Hoosier customers are served by municipal wastewater utilities, over which the Commission has limited authority.

Conservancy Districts

A conservancy district is created when landowners, through a circuit court process, organize a special taxing district (a local unit of government) to solve a variety of specific local issues including providing water and wastewater service. It has a board of directors that oversees the utility.

Investor-owned Utilities

An investor-owned utility is owned by shareholders and is operated for a profit. It can be a private company where only a selection of people can invest, a publicly traded company where anyone can be a shareholder, or a subsidiary of a larger private or public company.

Municipal Utilities

A municipal utility is any city or town that acquires, owns, or operates its water or wastewater utility. The operations may be under a department of public works, which is overseen by a legislative body (common council or town council) either directly or with an executive (mayor or president of town council).

Nonprofit Utilities

A nonprofit utility is a public water or wastewater utility that does not have shareholders and does not engage in any activity for the profit of its trustees, directors, incorporators, or members. It has a board of directors that oversees the utility.

Regional Districts

Regional water and wastewater districts are a form of local government that provide drinking water or wastewater service within an established service area. Decisions about forming new regional districts are initiated at the local level and are approved by the Indiana Department of Environmental Management (IDEM). Regional districts have a board of trustees that oversees the utility.

Water Authorities

A water authority, which is a political subdivision of the state, is created when a nonprofit water utility adopts a resolution by its board of directors that reconstitutes the nonprofit utility as a water authority.

INDIANA'S STRUCTURE AND REGULATION

Although all water and wastewater utilities are overseen by the United States Environmental Protection Agency (U.S. EPA), there is not one state agency that regulates all water and wastewater utilities. In Indiana, these utilities are regulated by four state agencies: the Commission, IDEM, Indiana Department of Health (IDOH), and Department of Natural Resources (DNR). The Commission mainly regulates the economic aspects of a utility, ensuring that its rates are reasonable. IDEM and IDOH oversee water quality, and DNR has oversight on water well construction and monitors Indiana's groundwater levels. While the Indiana Finance Authority (IFA) is not generally viewed as a regulator, the IFA's role in the water industry has greatly expanded in recent years from primarily a financing agency to one that leads studies and conducts planning for the water industry statewide.

The following table shows each type of water and wastewater utility, the specific governmental agency

State Agency Jurisdiction over Water and Wastewater Utilities

Type of Utility	IDEM					IURC							DNR		IDOH	
	NPDES Permitting ¹	Construction Permits	Operator Certification	Monthly Report of Operation	Oversee Entity Start-up	Rates and Charges	Rules and Regulations	Territory Authority (CTA)	Annual 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		✓	✓	✓		✓	✓		✓	✓ ²		✓	✓	✓		
Investor-Owned Wastewater	✓	✓	✓	✓		✓	✓	✓	✓	✓ ²		✓				✓
Nonprofit Water		✓	✓	✓		✓	✓		✓	✓ ³		✓	✓	✓		
Nonprofit Wastewater	✓	✓	✓	✓		✓	✓	✓	✓	✓ ³		✓				✓
Water Authority		✓	✓	✓		✓	✓		✓	✓			✓	✓		
Municipal Water		✓	✓	✓		✓			✓	✓ ³		✓	✓	✓		
Municipal Wastewater	✓	✓	✓	✓							✓					✓
Regional Water District		✓	✓	✓	✓						✓		✓	✓		
Regional Sewer District	✓	✓	✓	✓	✓						✓ ⁴					✓
Conservancy Water District		✓	✓	✓		✓ ⁵			✓ ⁵	✓			✓	✓	✓	
Conservancy Sewer District	✓	✓	✓	✓							✓				✓	✓

¹ 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 IDOH.

² Investor-owned utilities with less than 300 customers can opt out of the IURC's jurisdiction, per I.C. § 8-1-2.7-1.3. If organized after June 30, 2018, the utility cannot opt out until 10 years have passed from its organization date.

³ Newly organized nonprofit utilities and municipal water utilities with fewer than 8,000 customers cannot opt out until 10 years have passed from the organization date.

⁴ 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 I.C. § 13-26-11-2.1.

⁵ IURC has jurisdiction over water conservancy districts that make an election to provide water service under I.C. § 14-33-20 in its District Plan. Water conservancy districts with fewer than 2,000 customers can opt out of the IURC's jurisdiction, per I. C. § 8-1-2.7-1.3 et seq. The IURC has jurisdiction over wastewater conservancy district's rates for customers outside the District's boundaries.

Note: This table provides an overview of state agency jurisdiction 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 jurisdiction.

that regulates it, and the authority over that type of utility. This section provides more details on IDEM, IDOH, and DNR, and their roles regarding water and wastewater utilities.

IDEM's Role in Regulating Water Quality

Utilities that provide drinking water and treat wastewater are subject to federal regulations under the U.S. Environmental Protection Agency (U.S. EPA). Drinking water quality regulation falls under the Safe Drinking Water Act (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 and looked primarily at what was delivered to the customer's tap 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. New lead and copper rules and the revised total coliform rules put emphasis on the distribution system for both water mains and service connections.

Wastewater regulation falls under the Federal Water Pollution Control Act, commonly referred to today as the Clean Water Act (CWA). First enacted by Congress in 1948 and most recently amended in 1987, this legislation 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 over the years, but the most notable change occurred 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 branches, including, but not limited to:

- Drinking Water Branch
- Wastewater Permitting Branch
- Wastewater Compliance and Water Quality Enforcement Branch
- Surface Water and Operations 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, while 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, a capacity development and operator certification section that provides technical assistance and oversees the operator and backflow tester certification programs, 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 including the Combined Sewer Overflow (CSO) program. An NPDES permit is required for any point source discharge of pollutants into surface water. The NPDES permit establishes limits on pollutants that can be discharged and defines monitoring, reporting, and management 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 wastewater main extensions, lift stations, wastewater treatment plants, and pretreatment plants.

The Compliance and Enforcement Branch

The Compliance and Enforcement Branch of OWQ 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's Pretreatment Program and Sewer Connection Ban Program. The Compliance and Enforcement Branch also is responsible for certifying wastewater operators that operate wastewater utility facilities. This responsibility includes testing and continuing education. The branch also is responsible for the enforcement of all water quality programs' formal enforcement processes including: drinking water, storm water, wetlands, and wastewater program areas.

Surface Water and Operations Enforcement Branch

The Surface Water and Operations Branch manages budgeting and purchasing for OWQ as well as the Stormwater and Wetlands program. Stormwater and wetlands staff administer the programs overseeing construction and industrial stormwater runoff, construction in wetlands and the Municipal Separate Storm Sewer Systems program.

For more information on these branches, go to 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 to demonstrate compliance showing daily production and testing of water. Wastewater utilities have many similar requirements for proper operation and maintenance, periodic sampling of effluent, and reporting to IDEM, which are prescribed by their NPDES permits. 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, wastewater service, 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 wastewater rates. A map of the regional water and wastewater districts in Indiana can be found online at www.in.gov/idem/cleanwater/information-about/regional-water-sewer-and-solid-waste-districts/regional-district-users-guide-for-citizens-and-governments/map-of-indiana-regional-water-and-sewer-districts.

In addition to its oversight of new regional water and wastewater districts, all new community and non-transient, non-community water utilities 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 drinking water and wastewater programs operate primarily under state statutes codified in Title 13 of the Indiana Code and Title 327 of the Indiana Administrative Code.

IDOH's Role in Regulating Water Quality

The Environmental Public Health Division of the IDOH oversees wastewater utilities that use an onsite or decentralized wastewater treatment system. An onsite wastewater 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, alternative wastewater treatment technologies such as constructed wetlands, recirculating sand filters, and pump assisted systems that discharge wastewater into the soil for final treatment. IDOH's Onsite Sewage Program sets minimum statewide standards for residential and commercial onsite wastewater systems. The staff also conducts workshops and training on soil evaluation and onsite wastewater systems and provides consultation and technical assistance to local health departments on the operation of their wastewater programs. The program also reviews and approves plans and specifications for commercial onsite wastewater systems.

The portions of state statute under which IDOH operates relating to onsite wastewater treatment systems are in Title 16 of the Indiana Code and 410 of the Indiana Administrative Code. For more information about IDOH's Onsite Sewage Disposal Program, go to www.in.gov/health/eph/onsite-sewage-systems-program.

DNR's Role in Regulating Water Resources

Although 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. Also, if work (e.g., well installation, etc.) is being done in the floodway of a regulated stream by a water or wastewater utility, DNR has oversight pursuant to the Flood Control Act.

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/ground-water-wells/water-well-record-database.
- 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 Great Lakes Compact and information about it can be found at www.in.gov/dnr/water/lake-michigan/great-lakes-compact.
- Assists with the coordination and implementation of Indiana's Water Shortage Plan (the Water Shortage Task Force was abolished by the Indiana Legislature in 2011 under House Enrolled Act 1002). Indiana's Water Shortage Plan can be found at www.in.gov/dnr/water/water-availability-use-rights/indianas-water-shortage-plan.
- Regulates approximately 900 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) conducts a public hearing, gathers input, and prepares a report for 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. Final approval of a district plan comes from the County Circuit Court. 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, visit www.in.gov/dnr/water/community-assistance-and-information.

DNR operates primarily under state statutes codified in Title 14 of the Indiana Code and Title 312 of the Indiana Administrative Code.

IFA's Role in the Water Industry

Financing

The IFA administers the State Revolving Fund (SRF) loan programs, which protect both the environment and public health. The SRF provides low-interest rate loans to Indiana communities for projects that improve wastewater and drinking water infrastructure.

Research and Planning

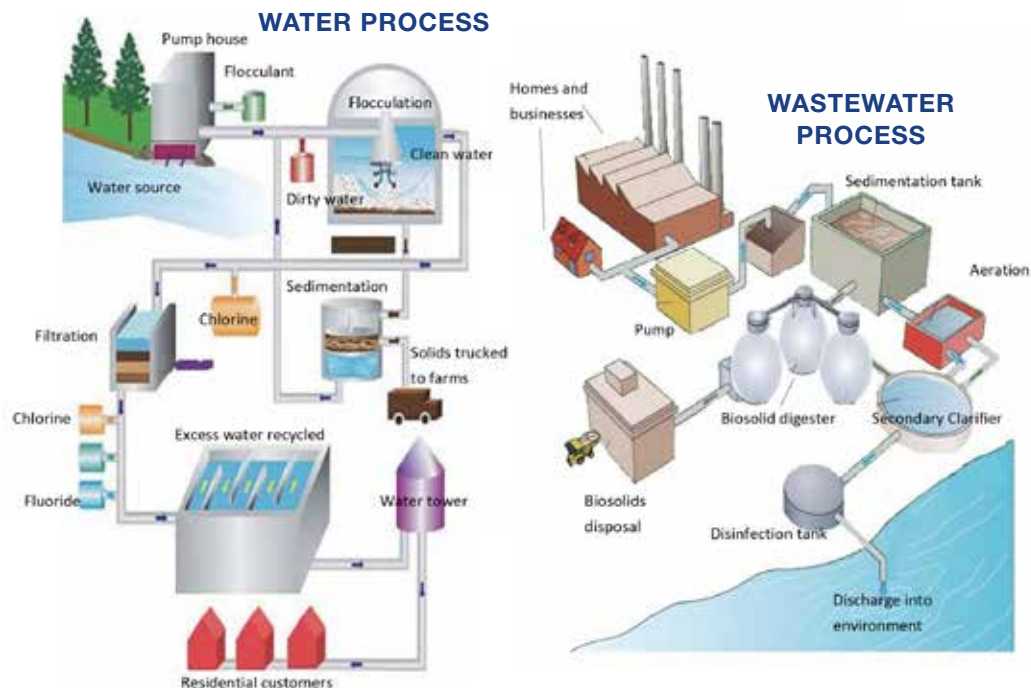
The IFA manages the following water projects:

- Water Loss Audits
- Regional Planning Meetings
- Regional Water Studies
 - Southeast I-74 Water Study
 - Central Indiana Water Study
 - Southeastern Indiana Water Supply Study
 - Clinton County Water Report
- Lead Sampling Program in School and Child Care Facilities
- Prior Water Initiatives
 - Evaluation of Indiana's Water Utilities, 2016
 - Indiana Storm Water Infrastructure Needs
 - Water Supply Potential of The Charlestown State Park Aquifer
 - Evaluation of Water Utility Planning in Indiana
- Indiana Wastewater Monitoring Report

HOW IT WORKS

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 released back into the environment.

How Water Utilities Work



Drinking Water Treatment and Distribution

The level of water treatment required depends on the source (ground water or 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. Residuals (solids) are a product of the flocculation process and typically are disposed of offsite.

In Indiana, the most utilized source of potable water is from groundwater. Because groundwater contains fewer suspended solids than surface water, the effort to treat it is typically minimal. Groundwater from shallow aquifers or riverbeds more resembles the surface water treatment process as the groundwater is directly under the influence of surface water.

Widespread drinking water treatment is recognized as one of the most important public health achievements in modern history. In recent years, however, concerns about chlorine as a disinfection agent have surfaced. Although chlorine disinfects, it also reacts with traces of other materials or particles (e.g., urban farm runoff) 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. Common disinfection alternatives to chlorine include

chloramines and ozone which also have their respective hazards.

Another 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 incapacitated, and the risk of disease is eliminated. A disinfection agent must still be added to the water to ensure bacterial growth is inhibited within the distribution system.

After the water is treated, it is sent to the *distribution system*, which consists of piping, storage tanks/towers, and booster pumps. Water towers and booster pumps are commonly used to maintain system pressure and required storage capacity.

Wastewater Collection and Treatment

Wastewater is collected from homes and businesses, moving through a series of gravity and/or pressure piping to the wastewater treatment plant. Specific treatment plant configurations vary greatly and occupy vastly different footprints depending on the capacity and type of facility. 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 are concentrated by cannibalization via the digestion process and often are dewatered to facilitate easy handling. The resulting product is commonly referred to as *biosolids*. The biosolids typically are trucked offsite and applied as fertilizers. Prior to discharge, wastewater is disinfected to disable the reproductive ability of any remaining bacteria.

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, wastewater is treated via biological processes that require tank and piping systems. Several technological innovations have emerged over the past 20 years that, while costly, can greatly decrease the footprint of a wastewater treatment facility and may help offset costly expansion or replacement costs.

FORCES INFLUENCING PRICING

Several major factors affect the rates of water and wastewater utilities, including water sources, environmental regulations, aging infrastructure, and how infrastructure is funded. Other factors include geology, geography, customer density, weather, land availability, permitting challenges, and the local economic environment.

Factors Affecting Source of Water Supply

All utilities have operation and maintenance expenses, which include the cost to treat water according to the specific site conditions. When water sources become contaminated, additional treatment may be necessary before the water is fit for human consumption. In some cases, the cost of rehabilitating the water source may be greater than obtaining a new source and an alternate source of water is required. In some cases, contaminated water can no longer be used for certain purposes, such as for irrigation or drinking.

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. 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 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.

U.S. EPA Water and Wastewater Standards

Increasing costs for water and wastewater utilities are partly 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 SDWA and

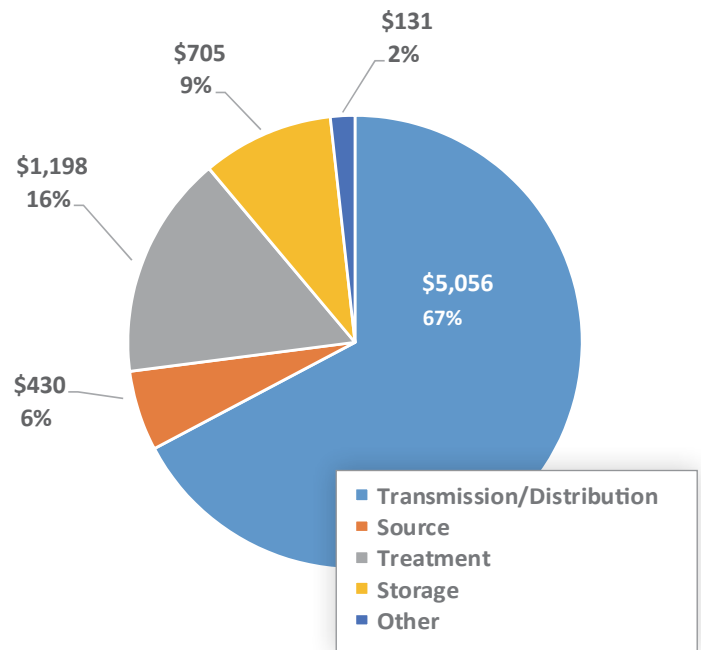
its amendments, which are enforced by IDEM, require compliance with increasingly stringent standards on a large number of contaminants in drinking water. The CWA also includes requirements on wastewater effluent. These regulations require significant investments in new technology and result in increased costs.

Need to Replace Infrastructure

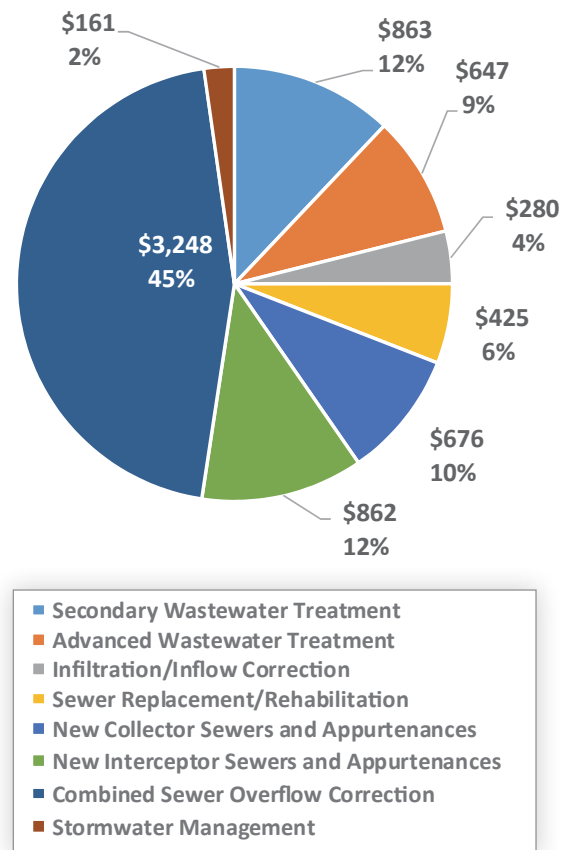
Aging infrastructure is one of the most critical issues in the water and wastewater industry today because it is costly to replace infrastructure that is largely underground. As discussed in the section “How It Works,” water systems are comprised of wells (for groundwater), treatment facilities, water 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 2018 water report, Indiana’s water and wastewater infrastructure needs a total investment of more than \$14.6 billion over the next 20 years. In terms of wastewater repair and replacement needs, Indiana reported an overall decrease from about \$8 billion in 2008 to just over \$7 billion in 2012. Indiana ranks 8th out of all 50 states for the highest reported need for CSO remediation, at \$3.25 billion (down from a reported \$5 billion in 2008). Nonetheless, CSO remediation still accounts for over 40 percent of Indiana’s wastewater infrastructure needs. The data collection period to update EPA’s 2012 wastewater report ended in April 2023. The results, when available, can be found at www.epa.gov/cwns.

Capital Needs Water: 2015 - 2035
(in millions)



Capital Needs Wastewater: 2012 - 2032
(in millions)



Source: U.S. EPA

Although the Commission regulates Indiana’s largest combined system (CWA Authority, Inc.), the vast number of remaining combined systems are municipals (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 constructed as part of the DigIndy program, which is being built by CWA Authority, Inc.

For drinking water infrastructure, Indiana’s projected needs have more than tripled since 1995, from \$2.4 billion to \$7.5 billion in 2015. Although the need leveled off from 2007 through 2011, total capital need increased by more than 17 percent from the last reporting period in 2011. A majority of this need, 67 percent, can be attributed to transmission and distribution projects.

Long-Term Trends in Pricing

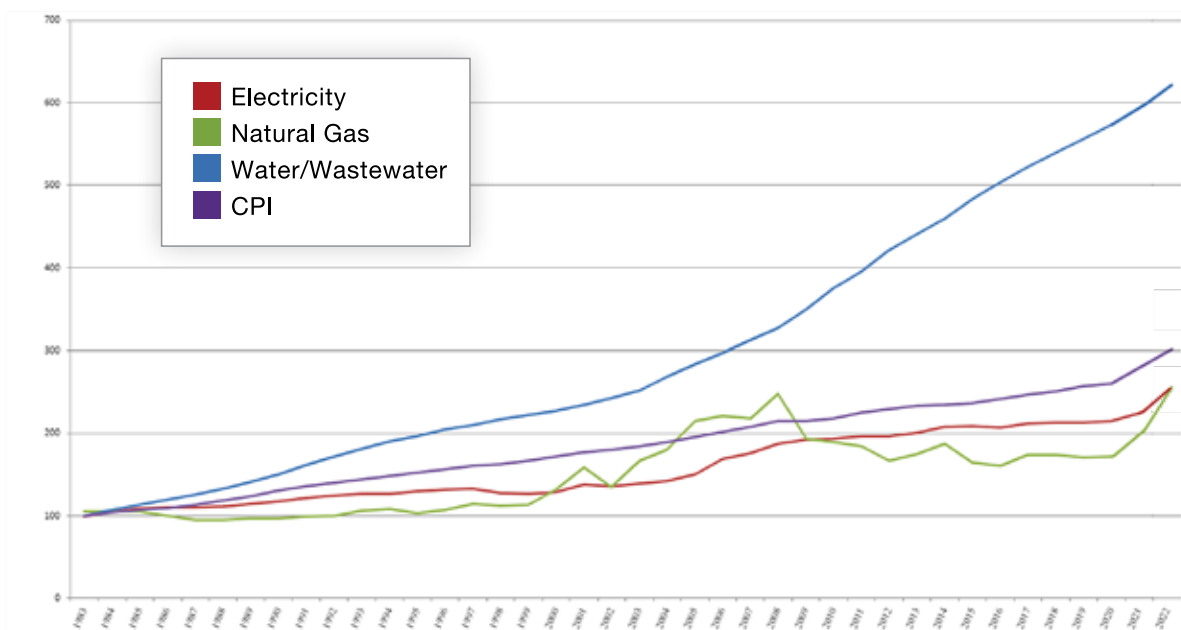
Nationally, water and wastewater rates are outpacing inflation. Indiana is similar to other states in that water and wastewater utilities are experiencing cost increases for several reasons:

- 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 2013 to 2022, water and wastewater rates rose 3.89 percent per year while the CPI rose at just 2.62 percent per year, even with the high rate of inflation in 2021 and 2022.

Comparison of Utility Prices from 1984–2022

Index is Set to 100 for 1982–1984



Source: U.S. Bureau of Labor Statistics

Customer Bills

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.

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.

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.

Some water utilities have the following charges:

- **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.

- **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.

Some wastewater utilities have a strength charge, which uses biochemical oxygen demand measurements to measure of the organic strength of wastes in water. NH₃-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.

Non-recurring Charges

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

Adjustable Rate Mechanisms

Water and wastewater utilities have the following adjustable rate mechanisms:

- **Infrastructure improvement charge (IIC) (formerly called a distribution system improvement charge (DSIC))**—A water utility can petition the Commission to establish a surcharge to recover costs for the replacement of the distribution system. Similarly, a wastewater utility can recover costs for the replacement of the collection system.
- **System integrity charge**—A water or wastewater 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.
- **System enhancement charge**—A water or wastewater utility can petition the Commission to establish a surcharge that recovers costs related to direct and indirect requirements that further the health, safety and environmental protection of its customers, employees, and the public.
- **Wholesale tracker**—For water utilities that purchase water from another utility, a surcharge may be included that tracks the cost of wholesale water rates. For wastewater utilities that use treatment facilities from another utility, a surcharge is included that tracks the cost of wholesale treatment rates.
- **Surcharges & Credits**—These are charges the Commission has approved to achieve goals deemed to be in the public interest. Examples include affordability surcharges that fund programs to assist eligible low-income ratepayers who may receive a credit on their bill, and tax refund credits that return over-collected funds to ratepayers as a result of the federal Tax Cuts and Jobs Act of 2017.

System Development Charge

As utilities search for new ways to finance infrastructure investments and minimize the effects on existing customers, many have filed petitions with the Commission to establish system development charges (SDCs). An SDC is assessed to property owners when they 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.

Acquisitions

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

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

The trend of acquisitions has increased in recent years due to legislation that provides favorable mechanisms for IOUs to acquire smaller utilities by allowing the following:

- Full recovery of the purchase price from ratepayers so long as the acquiring utility follows Ind. Code chapter 8-1-30.3
- Includes the ability of the acquiring utility to include the value paid for contributed property in its rate base
- Changing the requirements regarding a municipality seeking to sell its utility, such as the process for the appraisal of utility property and the process to approve a municipal ordinance for the acquisition
- Shifting some of the wastewater improvement costs to water customers

In the right conditions, acquisitions can create efficiencies, lower costs, and reduce the number of poor performing water and wastewater utilities. In other situations, however, utility acquisitions can lead to higher costs per customer as existing customers share a portion of the costs to acquire other systems, leading to potentially offsetting the benefits provided by consolidation. Policymakers carefully consider opportunities to ensure consolidation and acquisitions continue to benefit the state.

Troubled Utilities in Indiana

Small water and wastewater utilities are widespread in Indiana. Because of their size, they often lack the expertise to manage and operate effectively. In some instances, the Commission classifies water and 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 Commission-regulated 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). Practically, neither is an ideal option.

Further, pursuant to Ind. Code § 8-1-1.9-5 (also known as the three strikes statute), any wastewater utility in the state not under the Commission’s jurisdiction that has been issued one enforcement order by IDEM relating to an environmental or health and human safety issue must go through an informal review of its rates and charges by the Commission, as well as an examination of the utility’s asset management plan. If a second enforcement order is issued, the utility is required to be under the Commission’s jurisdiction for rates and charges for a minimum of two rate cases and five years. If there

is an additional violation during that time (i.e., strike three), then the Commission, working with IDEM, may initiate a receivership proceeding regarding the wastewater utility.

Nonetheless, the Commission's primary goal 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.

INVESTMENT IN 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 “Basics of Ratemaking,” a utility can earn a return on that equity. The allowed 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 a number of federal and state 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 (WIFIA) loans
- Community Focus Fund
- Water Infrastructure Assistance Fund

Grants from the U.S. EPA are leveraged in bond markets to generate SRF proceeds. The IFA then administers these funds through low-interest loans with up to 35-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 WIFIA program to help water and wastewater utilities finance large-scale projects.

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.

In 2019, 2021, and 2023, the state of Indiana's biennial budget allocated \$20 million for the Water Infrastructure Assistance Fund. The IFA will make loans, grants, or other financial assistance from this fund to utilities if they meet certain criteria such as having an asset management program and completing a non-revenue water audit. Forty percent of the money is targeted for utilities serving fewer than 3,200 customers. In 2023, the biennial budget allocated \$75 million over two years for the Residential Housing Infrastructure Assistance program, which can be used for water and wastewater infrastructure.

The federal Infrastructure Investment and Jobs Act (2021) provided funding for water and wastewater utilities including, among other items, \$15 billion for lead service line replacement, \$14.65 billion for the drinking water SRF program for 2022-2026, and \$14.65 billion for the wastewater SRF program for 2022-2026.

Examples of Water and Wastewater Infrastructure

Three examples of recent developments in water and wastewater infrastructure are explained below: water meters, water pumps, and trenchless technology.

Meter Reading and Billing

Modern meter technology is eliminating the need for meter readers and has led to the ability to provide real-time pricing. Several cities in Indiana are using automatic meter reading (*AMR*) technology. 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, with a high-speed wireless connection, 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. The newest meters, although still quite expensive, have no moving parts and are equipped with sensitive microphones that, when used in close proximity to other such meters, have the ability to identify and pinpoint the location of leaks. While only a handful of utilities in Indiana have implemented this technology, the impact on managing water loss is significant.

Water Pumps

At a weight of 8.34 pounds per gallon, transporting water can be an energy-intensive and costly task. The most cost-efficient means of transporting water is via gravity. Unfortunately, residences and commerce rarely develop in patterns that accommodate pure gravity flow. Gravity installations are typically cost effective at depths up to 30 feet before pumping is

required. Almost all waterworks applications require pumping in order to maintain service pressure and to provide adequate fire flow requirements.

For a pump to work effectively in a specific application, it must be able to provide the desired flow and pressure while overcoming head losses (such as friction, and elevation differentials). In the case of a traditional 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 (VFD) 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 so that the desired flow and pressure can be achieved simultaneously without the need to waste energy by mechanically regulating or dumping excess flow. As the performance of the pump can be manipulated to match a specific flow, VFDs also save energy by eliminating the need for frequent stopping/starting of the pump.

Trenchless Technologies

Replacing aging or failing piped infrastructure using the traditional open-cut (i.e., trench) method of pipe replacement can be expensive. These costs include maintenance of traffic control, surface restoration, worker safety and protection of other utilities. Trenchless methods of pipeline rehabilitation/replacement include cured-in-place-pipe (CIPP), sliplining, and pipebursting. These three trenchless methods essentially build a new pipe within an existing pipe, minimizing required excavations to typically an entry pit, exit pit, and points of lateral reinstatement.

CIPP and sliplining applications have been predominately focused on wastewater applications

as they are most conducive to gravity piping. Where water lines are adequately looped and valved, applications for CIPP and sliplining are becoming more affordable in waterworks applications as well for the most difficult of installations. Pipe bursting is a long-standing, destructive pipeline installation method that is more conducive to waterworks applications than wastewater due to the need for precise elevation control of gravity pipelines. Generally, these technologies have become cost competitive over open-cut installations, which can produce significant cost savings, especially in urban or environmentally sensitive settings.

Efficiency

Water efficiency programs are being developed by utilities to help manage customer usage. 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 help quantify water that is lost (through system leaks, unmetered use, or underperforming meters). Unaccounted-for water is defined as the difference between the quantity of water pumped at the source or purchased from a wholesaler and the quantity actually sold (metered sales). By mitigating water losses, utilities can reduce the need to develop new sources of supply and capacity to accommodate system peaks. Some water loss, however, is necessary for activities such as main flushings, maintenance of the treatment plant, and fire suppression.

Ind. Code chapter 8-1-30.8 requires all water utilities to submit to the IFA an annual water audit in accordance with accepted industry standards.

REGULATORY INITIATIVES

Each year, legislation is passed at the federal and state levels that affects Indiana's water and wastewater utilities. Legislation at the state level has reflected growing concerns over the need to update aging infrastructure, eliminate lead in the distribution system, ensure that Indiana's water supply remains at viable levels, provide incentives for small water and wastewater utilities to be acquired and improve wastewater utilities with certain IDEM violations.

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.

On March 14, 2023, the U.S. EPA announced the proposed National Primary Drinking Water Regulation for six polyfluoroalkyl substances (PFAS) categories with proposed MCLs of 4.0 parts per trillion for perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) and 1.0 parts per trillion for four other categories. While no regulation is currently in effect, development is rapidly progressing which will unquestionably result in the need for future investment in detection and treatment by water utilities.



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 are impacted. However, before the costs can be passed on to consumers, projects are subject to review by the OUCC and must be approved by the Commission.

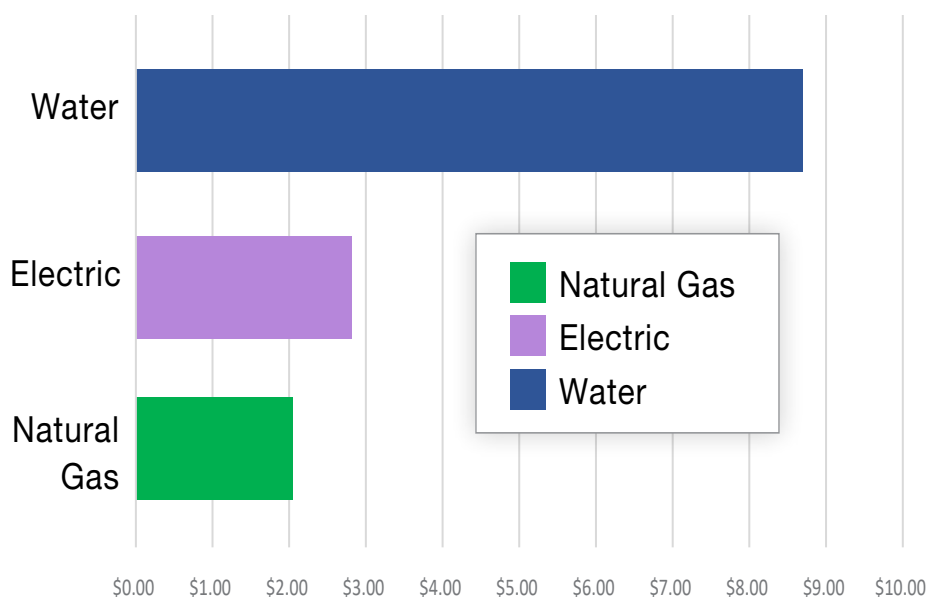
Indiana's Water Infrastructure

Much of the nation's water infrastructure has aged and will need full-scale replacement over the next few decades. This is problematic because the

water industry remains extremely capital intensive, typically investing more capital per dollar of revenue generated than the natural gas or electric 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. Water utilities in Indiana can also seek to recover costs for the replacement of the distribution system through an infrastructure improvement charge (IIC) of up to 10 percent of the utility's revenue in its most recent general rate case. In addition, water or wastewater utilities can recover up to 80 percent of the expenditure from certain investments in infrastructure through a system enhancement charge. Moreover, if a utility has a system integrity adjustment, the adjustment revenues will be used for eligible infrastructure improvements as defined in Ind. Code § 8-1-31-5.

Capital Investment per Dollar of Revenue in 2021

Amount of utility investment in utility facilities relative to each dollar earned



Source: Utility Annual Reports



INDIANA UTILITY GUIDE 2023 EDITION

COMMUNICATIONS DIVISION





Communications Division

OVERVIEW OF REGULATION

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 with the assistance from the Office of General Counsel, 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:

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

The Commission also designates all eligible telecommunications carriers (ETCs) in the state, which enables the carriers to obtain support from the federal Universal Service Fund (USF) through the Telecommunications Act of 1996. 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.

In addition, the Commission 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

Additionally, new or expanding providers of video service also must hold a video service franchise from the Commission, the sole video franchise authority in Indiana.

Communications Act of 1934

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

The FCC 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. Although the FCC’s jurisdiction is interstate and international, FCC rules profoundly impact the communications service market at the state and local levels. To help it craft sound policies, Congress directed the FCC to work with the National Association of Regulatory Utility Commissioners to form Federal-State Joint Boards. These boards are influential in shaping policy and facilitating discussions among leaders from all levels of government.

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 all telecommunications carriers “to interconnect directly or indirectly with the facilities and equipment of other telecommunications carriers.” Local exchange carriers (LECs), and particularly incumbent local exchange carriers (ILECs), were given additional pro-competitive obligations. Requiring interconnection allowed additional competitors to enter the market for local and long-distance services. 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.”

Key Indiana Regulatory Changes

In 2006, the Indiana General Assembly significantly changed the regulation of telecommunications and video franchises 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.

The Commission modified processes and policies and eliminated 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, including providers of information services, broadband, interconnected Voice over Internet Protocol (VoIP), and other advanced services. In that regard, as of July 1, 2023, the Commission has granted 96 Certificates of Franchise Authority (CFAs) to provide video service, pursuant to Ind. Code chapter 8-1-34. More broadly, approximately 834 CSPs currently hold a CTA to provide telecommunications, information, and/or video services in Indiana, as required under Ind. Code chapter 8-1-32.5.

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:

- Reporting requirements
- Interconnection
- Providers of last resort
- 911 surcharges
- Eligible telecommunications providers
- Video direct marketing authority
- Small cells and wireless support structures

Although the role of the Commission has changed significantly regarding telecommunications and other communications services, the agency continues to monitor the new market environment and plays an important role in protecting Indiana’s interests in federal matters. As federal policies are implemented through the FCC’s rulemakings and orders, the Commission pays 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 Ind. Code chapter 8-1-29.5 to adopt and enforce rules to prevent unauthorized switching of telecommunications providers or assessment of unauthorized charges on customers’ bills (that is, 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
- 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 to replace lost revenue for several rural local exchange carriers 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, 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 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 Indiana General Assembly on various communications related topics (e.g., **2018 Report on IUSF and Broadband Deployment**)

In addition to carrying out these specific responsibilities and exercising these specific grants of authority, the Commission monitors communications issues under consideration at the federal level because it is essential to identify and act (when appropriate) upon the many federal policy matters that have the potential to affect Indiana. When appropriate, the Division brings issues under discussion at the federal level to the attention of other Indiana state agencies that would possibly be affected by action on those issues. The Division also responds to inquiries from legislators and other government officials, media, consumers, individual communications service providers and utilities, attorneys and consultants, associations, and others.

FEDERAL REFORMS

The FCC has made sweeping changes to *intercarrier compensation* (payments between carriers) as well as the federal USF, beginning with the release of the Universal Service/Intercarrier Compensation (USF/ICC) Transformation Order in November 2011, and is considering further changes in both areas. Since 2002, the FCC’s treatment of broadband Internet access service has shifted between regulation of broadband as either an information service or a telecommunications service, pursuant to the Communications Act of 1934. Most recently, in its 2020 *RIF Order on Remand*, the FCC reiterated that, “the Restoring Internet Freedom Order ended *Title II regulation* and returned Broadband to its long-standing classification as an information service under Title I.” In doing so, “the Commission also restored the privacy and consumer protection authority of the Federal Trade Commission over ISPs.” This is true because, the Federal Trade Commission (FTC) is prohibited from exercising authority over telecommunications common carriers and while Broadband was classified as such, the FCC had exclusive jurisdiction over these privacy and consumer protections.

Intercarrier Compensation Transformation

The FCC also launched programs to expand broadband service in rural America, such as Connect America Fund (CAF); Alternative Connect America Model (A-CAM) for certain small rural telephone companies; the Rural Digital Opportunity Fund (RDOF); and the NTIA, which is part of the Department of Commerce, also launched the Broadband Equity, Access, and Deployment (“BEAD”) funding to state, local, and tribal governments. At some points in time, the FCC’s distribution of federal USF funding for broadband services has been tied to whether *Broadband Information Access Service (BIAS)* was classified as a telecommunications service or an information service. The FCC recently concluded its RDOF I Reverse Auction, in which many new types of carriers, including rural electric membership cooperatives, satellite providers, and fixed wireless providers were allowed to bid for the right to receive federal universal service (RDOF I) support for offering both voice telephony and broadband services, in return for accepting certain speed and latency obligations for their broadband offerings. In addition, the FCC has implemented reforms in the Lifeline Program and worked to address the issue of net neutrality. Additionally, the U.S. Department of Agriculture’s (USDA) Rural Utility Service provides funding for the development of rural utilities’ infrastructure, including programs aimed at expanding broadband in rural areas.

Several of the major FCC initiatives of the last few years have been challenged in federal court – including, but not limited to, the 2015 Open Internet Order (i.e., the Net Neutrality Order) and the 2018 Restoring Internet Freedom Order (RIF Order), which undid many key aspects of the Net Neutrality Order. Both of those court proceedings will be discussed later. Further details on selected major federal reforms also appear elsewhere in this report.

In 2011, the FCC dramatically altered the method by which carriers charge each other for switching, transporting, and/or terminating long distance calls, as well as some mobile wireless and VoIP calls. The FCC’s reform of both interstate and intrastate intercarrier compensation (ICC) included abandoning the calling-party-network-pays model, and phasing in a national *bill-and-keep* framework for terminating intercarrier compensation, on long distance calls. It also set a long-term goal to implement bill-and-keep as the compensation framework for the originating end of long-distance calls. In adopting the new framework in the USF/ICC Transformation Order, the FCC rejected the notion that, when somebody makes a long-distance call, that person (the calling party) is the only one who benefits and, therefore, should pay for the entire cost of originating, transporting, and terminating that long distance call. Instead, the FCC determined that the calling party and the party being called should split the cost of those calls. Consistent with paragraph 34 of the USF/ICC Transformation Order, under bill-and-keep, a facilities-based local exchange carrier looks first to its own retail subscribers to cover the costs of the network used to serve the LEC’s retail and wholesale customers (including long distance providers), then to explicit universal service support where necessary, but not to intercarrier compensation payments from those other providers when they use that same LEC network to terminate their long distance calls. More recently, the FCC revised rules for how carriers compensate each other for completing toll-free calls, which the FCC refers to as “8YY” calls because the first three digits required to originate a toll-free call generally begin with an “8” (e.g., 800, 877, 888, etc.).

Federal Universal Service Fund Reforms

The FCC has taken a number of steps since 2011 to reform the federal USF programs for low-income consumers and those in rural, insular, and high-cost areas. Prior to the 2011 USF/ICC Transformation Order, federal high-cost (USF) support went primarily to ILECs providing traditional local voice telephone service in rural areas, particularly those rural areas for which the cost of providing local voice service was above the national average (“high-cost” areas). The FCC did not provide USF support for the carriers solely 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 and Lifeline programs. 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. In that regard, the FCC required (and still requires) ETCs to have in place network facilities capable of supporting both voice telephony calls and broadband service for both the high cost/CAF and Lifeline programs, even though broadband service is not currently considered a *supported service* for either program.

Currently, the only supported service for both the High Cost and Lifeline programs is voice telephony service. The FCC’s 2020 Order on Remand undid the 2016 rule changes that had added broadband

as a supported service. The provision of broadband services is considered a separate public interest obligation for most ETCs. Pursuant to federal statutes, federal universal service support is only available for telecommunications services. BIAS is currently classified as an information service.

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 Verizon 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. This was because the FCC had previously classified broadband as an information service, exempt from common carrier telecommunications regulation such as the conduct rules in question. In the Open Internet Order, the FCC found, among other things, that BIAS, which the FCC defines as a mass-market retail service that can be offered using either fixed or mobile technologies, was a telecommunications service. 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

The FCC also established a broad Internet general conduct rule that addressed behavior by ISPs that the FCC believed, in 2015, would be harmful to consumers or edge providers, even if it did not strictly meet the definition of one of the other prohibited behaviors listed above.

Various legal challenges to this 2015 order were filed at the D.C. Circuit. On June 14, 2016, the

court upheld the FCC’s Open Internet Order as being permitted under federal statutes, although the court did not say that the 2015 Net Neutrality Order represented the only possible way of interpreting or implementing those statutes.

On Jan. 4, 2018, the FCC adopted the Restoring Internet Freedom Order (RIF Order). The RIF Order eliminated the no blocking, no throttling, and no paid prioritization rules and narrowed the enhanced transparency requirements. It also reclassified BIAS as a **Title I** information service, instead of a **Title II** telecommunications service (regardless of whether the BIAS is offered using fixed or mobile technologies) and reclassified mobile broadband Internet access service as a private mobile service, instead of as a commercial mobile service (e.g., cellular).

In October 2019, the D.C. Circuit issued a decision vacating the RIF Order’s preemption of state broadband regulations. In addition, the court remanded (but did not vacate) the RIF Order back to the FCC on three specific issues: pole attachments, public safety, and Lifeline broadband services. On Oct. 29, 2020, the FCC released an Order on Remand responding to the court on those three specific issues and arguing that the RIF Order was sound public policy and legally justified in all three areas. The Order on Remand also repealed the 2016 rules that had classified broadband as a supported service for both Lifeline and high-cost programs. Currently, voice telephony service is the only supported service for both programs.

Federal Lifeline Reform

In recent years, several tenants of the 2016 FCC Lifeline order have been overturned or modified due to the RIF Order and other court challenges discussed above. ETCs have been required to offer the Lifeline program since the passage of the 1996 Telecommunications Act. The FCC’s **2016 Lifeline Reform and Modernization Order**, reformed federal rules to, 1) establish minimum service standards for Lifeline services, 2) apply the Lifeline discount

to broadband services, and 3) establish other rules to prevent fraud and modernize the program. The 2016 Order classified BIAS as a supported service based upon the FCC’s 2015 classification of BIAS as a telecommunications service subject to the FCC’s regulatory authority under Title II of the Telecommunications Act. The 2016 order transitioned Lifeline support away from voice services to broadband and created a category of Lifeline provider that was required to offer BIAS, called Lifeline Broadband Providers, which would be designated as ETCs by the FCC rather than state commissions.

The 2016 Lifeline Order also set up a schedule to phase out Lifeline funding for stand-alone voice. Prior to 2016, the federal Lifeline Program provided ETCs support of \$9.25 per month for each eligible household served with discounted voice telephony services. Beginning Dec. 1, 2019, Lifeline support for voice decreased to \$7.25, and in December 2020, to \$5.25 per month per eligible customer. No Lifeline support was to be available for voice-only subscribers by December 2021 (except in areas where there is only one Lifeline provider). In November 2021, the FCC paused the phase out of support for voice-only Lifeline at the \$5.25 per month level for one year due to new circumstances including the COVID-19 pandemic, the creation of the Emergency Broadband Benefit program, and new data collected as a part of the Lifeline Marketplace Report. In July 2022, the FCC extended the pause to Dec. 1, 2023, and then again in July 2023 until at least Dec. 1, 2024.

After the RIF Order and other court challenges, the FCC issued a 2019 Lifeline Order, which eliminated the Lifeline Broadband Provider ETC classification. The Court reasoned that since BIAS was changed back to the Information Service classification, which has no obligation to offer the supported voice service, the Lifeline Broadband Provider category conflicted with section 214 of the Telecommunications Act. Thus, all ETCs currently are required to be common carriers and to offer voice service.

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

The Commission has no involvement in the Rural Health Care or Schools and Libraries programs. The Commission has a role in the first two programs listed above because the Telecommunications Act requires that a CSP be designated as an eligible telecommunications carrier by the state commission 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).

The High-Cost program supports widespread and affordable telephone service in rural areas, and a plan to fund broadband service, the CAF program, was added in 2011. This program 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. More information about the CAF program can be found at www.fcc.gov/general/connect-america-fund-caf.

The Lifeline Program reimburses ETCs for providing discounted voice or BIAS service to low-income consumers. The FCC requires ETCs to offer to Lifeline customers plans that meet or exceed minimum levels

of voice minutes, broadband speeds, and usage thresholds which are updated each year.

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, through the Schools and Libraries Program, 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.

More information regarding FCC universal service programs is available on the FCC's website at www.fcc.gov/general/universal-service.

Lifeline

The Lifeline Program, which is a federally funded Universal Service program that provides a discount on voice or broadband Internet access services, 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, formerly known as food stamps
- Supplemental Security Income
- Federal Public Housing Assistance (Section 8)
- Veterans and Survivors Pension Benefit
- Tribal Programs (must live on federally recognized Tribal lands)

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. For more information, please see the FCC's website at www.fcc.gov/general/lifeline-program-low-income-consumers.

ETC Obligations

ETC obligations are uniform regardless of the type of technology used by the carrier. Carriers must demonstrate they can meet the obligations, unless the FCC granted a forbearance from specific requirements. All ETCs are required to provide voice telephony services and BIAS using their own facilities and to serve their entire designated service area. ETCs subject to a high-cost public interest obligation to offer broadband Internet access service must offer broadband services within the area where it receives high-cost support.

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, in the 2016 Lifeline Reform Order, the FCC granted ETCs that are designated for purposes of receiving high-cost support and Lifeline support forbearance from their obligation to offer and advertise Lifeline voice service in counties where the following conditions are met: 51 percent of Lifeline subscribers in the county are obtaining broadband Internet access service; there are at least three other providers of Lifeline broadband Internet access service that each serve at least five percent of the Lifeline broadband subscribers in that county; and the ETC does not actually receive federal high-cost universal service support. The FCC performs an analysis each year to determine in which counties the forbearance from voice Lifeline applies. In 2023, the FCC determined all 92 Indiana counties met the conditions for forbearance from Lifeline.

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. Currently, as of 2023, there are a total of 41 ILEC ETCs serving Indiana: three large ILECs, 33 small, rural ILECs, four small ILECs affiliated with larger ILECs, and a small portion of Cincinnati Bell's service area is in Indiana as well. However, in 2017, AT&T relinquished its ETC designation for census blocks within its service area that are not eligible for federal high-cost support. In 2023, AT&T filed a new petition to relinquish its remaining ETC service area. A hearing was held on Aug. 3, 2023, and the petition was approved by the Commission on Sept. 6, 2023. Therefore, there are areas throughout the state that only have access to mobile wireless, Lifeline-only, ETCs which are not facilities-based.

Some competitive local exchange carriers (CLECs) have sought and been granted 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 established CLEC ETCs. In 2019, six carriers completed an auction process with the FCC, known as the CAF II reverse auction resulting in five new ETCs and one ETC expanding its territory. In 2020, the FCC initiated another auction to reach more unserved areas, called the RDOF Phase I Auction. It resulted in 13 new ETCs and seven ETCs expanding their territory (including both ILECs and CLECs) being approved in Indiana in 2021. These ETCs have specific broadband deployment obligations as well as obligations to provide voice telephony and the Lifeline discount. Many of these ETCs are building new networks in different areas of the state that the FCC considers underserved. These new ETCs bring the total CLEC ETCs to 22.

Currently, all mobile wireless ETCs receive federal support only for 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 mobile wireless carriers serving the state. Thirteen prepaid mobile 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 Commission also conducts a qualifications test every three years for companies that receive IUSF support to ensure the continued need for the support.

The most recent triennial review was completed in 2022. 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 2024. The last qualifications test was concluded in 2022 and 31 companies demonstrated a continued need for IUSF support.

EXPANSION OF BROADBAND ACCESS

Programs are in place at both the state and federal level to offer providers financial assistance to deploy broadband to unserved areas of Indiana. Information about broadband and the efforts to increase its availability are discussed below.

Broadband Speeds

Broadband speeds are characterized by both download and upload speeds. Broadband download and upload speeds are commonly expressed in a fractional form. For instance, 10 Megabits per second (Mbps) download and 1 Mbps upload is expressed as “10/1 Mbps” and 25 Mbps download and 3 Mbps upload is expressed as “25/3 Mbps.” The FCC’s speed benchmark for evaluating the availability of broadband is currently 25/3 Mbps. In Indiana, Ind. Code § 4-4-38-5 defines broadband service specific to grants awarded for unserved areas before Aug. 19, 2019, as a connection to the Internet that provides capacity for transmission at an actual speed of at least 10/1 Mbps, regardless of the technology or medium used to provide the connection. Although there may be different target speeds, most of the discussions at the state and

federal level have centered around 10/1 Mbps or 25/3 Mbps for wired broadband Internet access.

Recently, in 2023, pursuant to HEA 1454, the Indiana General Assembly amended Ind. Code chapter 4-4-38.5 to increase the speed for broadband grants for rural areas awarded after July 31, 2019, and redefined eligible broadband service as a connection to the Internet that provides an actual speed of at least 50/5 Mbps to 100/20 Mbps. And, pursuant to Ind. Code § 4-4-38.5-5.6, increased the minimum broadband speed from 25/3 Mbps to 100/20 Mbps.

Commission Role in Broadband Expansion Efforts

Both the federal and state governments have put in place incentives to expand broadband availability. The state programs that are in place are administered by the Indiana Broadband Office and the Office of Community and Rural Affairs. The Commission is aware of these programs but is not involved in their implementation. In addition to the Federal Universal Service programs administered by the FCC, several other federal agencies are implementing Broadband programs pursuant to federal statutes. The largest of these programs is the BEAD Program administered by NTIA. The Commission does not have a role in programs, such as this, that do not require participants to hold ETC designations.

Federal Programs

The Commission does have some involvement in the federal programs administered by the FCC that require ETC designation. Some examples are described below.

FCC – CAF II Reverse Auctions

The purpose of the CAF II Auction was to address census blocks, that the FCC had determined were high cost to serve, that were not being served at the threshold levels by the price cap ILEC or an unsubsidized competitor, and the ILEC serving the area declined CAF II funding to provide the supported services. There were six winning bidders in Indiana. At the end of the auction, the FCC had assigned 24,530 Indiana locations to those six companies out of 33,847 total eligible locations, leaving 9,317 unassigned locations remaining in Indiana at the conclusion of the auction. It is

CAF II Reverse Auction: Winning Bidders and Support (including adjusted support)

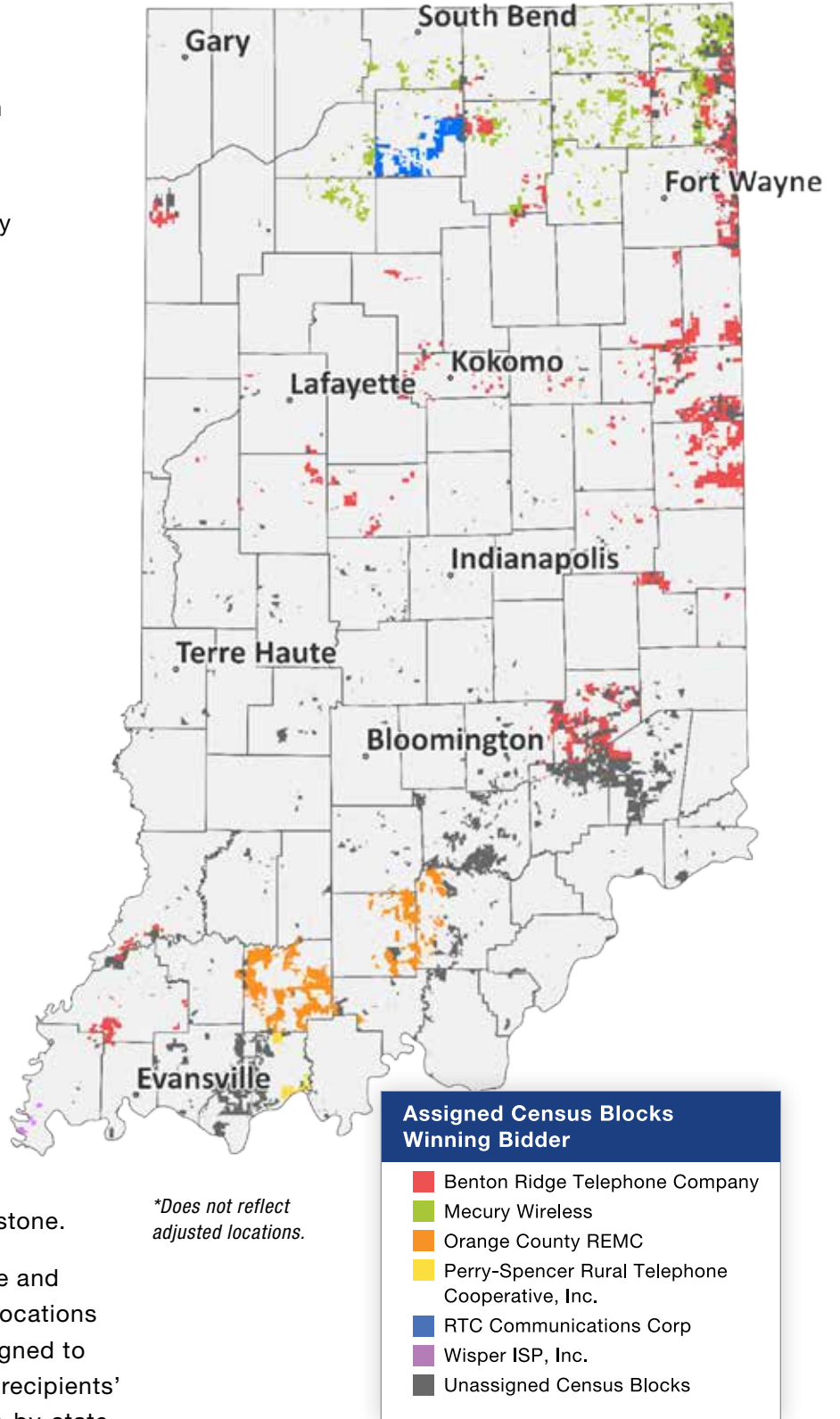
Winning Bidder	Total Assigned Support, over 10 Years	Annual Support Amount	# Locations Assigned to Winning Bidders	Adjusted Eligible Locations	Adjusted Support Amount
Benton Ridge Telephone Company (assigned to affiliate, W.A.T.C.H TV Company)	\$14,883,684.70	\$1,488,368.47	11,537	---	---
Mercury Wireless	\$1,400,844.80	\$140,084.48	7,371	---	---
Orange County REMC	\$10,200,496.30	\$1,020,049.63	4,046	---	---
Perry-Spencer Rural Telephone Cooperative, Inc.	\$1,182,425.70	\$118,242.57	359	---	---
RTC Communications Corp. (assigned to affiliate, Marshall County Fiber, LLC)	\$1,326,394.00	\$132,639.40	1,203	981	\$1,081,623.04
Wisper ISP, Inc.	\$123,648.00	\$12,364.80	14	9	\$79,488.00
TOTALS	\$29,117,493.50	\$2,911,749.35	24,530		
ADJUSTED TOTALS				24,303	\$28,828,562.54

important to note that none of the six winning bidders in Indiana were assigned any locations in the “Baseline” performance tier. That means that all the winning bids in the state were for speeds of 25/3 Mbps or higher.

The Commission designated the six winning bidders, listed above, as ETCs on Feb. 20, 2019. These ETCs are required to meet their first broadband deployment milestone of 40 percent of the locations by the end of the third year of support (i.e., by the end of 2022). Each following year, they are required to achieve an additional 20 percent deployment until reaching 100 percent deployment at the end of the sixth year of support (2025). Carriers are required to file and certify annually, in USAC’s High-Cost Universal Broadband (“HUBB”) portal, all locations deployed in the prior year. This certification is due by March 1 of each year. After filings are submitted, the USAC compliance team will conduct verification reviews of both interim and final milestones to confirm deployment to a sample of the locations reported to the HUBB. However, CAF II reverse auction winners were not required to report their progress toward achieving the 40 percent milestone until March 1, 2023. Therefore, exact percentages have not been verified. However, according to a contact at the FCC, none of the six carriers from Indiana have reported that they did not meet the 40 percent milestone and have all certified in the system that they hit or exceeded the milestone.

In 2021, the FCC implemented a challenge and adjudication process, called the Eligible Locations Adjustment Process (ELAP), which is designed to facilitate changes to Auction 903 support recipients’ defined deployment obligations on a state-by-state

CAF II Auction (903) Results – Census Blocks with Assigned and Unassigned Locations



basis, in situations where there is a discrepancy between the number of eligible locations and the number of funded locations. Marshall County Fiber (indicated above as RTC Communications Corp.) and Wisper ISP, Inc. participated in this challenge process. Marshall County Fiber sought to reduce the locations it is required to serve from 1,203 to 981 locations and Wisper ISP, Inc. sought to reduce their locations from 14 to 9. The FCC concluded the challenge process on Feb. 9, 2023, by issuing an order confirming the revised locations listed in the table above. However, the revised locations are not reflected in the map on the previous page.

The Rural Digital Opportunity Fund (RDOF)

In January 2020, the FCC established the RDOF, allocating up to \$20.4 billion over 10 years through a two-phase competitive reverse auction to help connect millions of unserved rural homes and small businesses to high-speed broadband. RDOF will more than double the minimum speeds that were required in the CAF II auction to 25/3 Mbps.

RDOF support recipients are permitted to offer a variety of broadband service offerings, as long as they offer at least one stand-alone voice plan and one service plan that provides broadband at the relevant performance tier and latency requirements, and these plans must be offered at rates that are reasonably comparable to rates offered in urban areas. For voice service, a support recipient will be required to certify that the pricing of its service is no more than the applicable reasonably-comparable rate benchmark that the FCC’s Wireline Competition Bureau releases each year. For broadband services, a support recipient will be required to certify that the pricing of a service that meets the required performance tier and latency performance requirements is no more than the applicable reasonably comparable rate benchmark, or that it is no more than the non-promotional price the support recipient charges for a comparable fixed wireline

broadband service in urban areas in the state or U.S. territory where the ETC receives support.

In addition, the FCC established timeframes to govern RDOF broadband deployment efforts: RDOF recipients must serve 40 percent of the estimated number of locations in a state by the end of the third year of support and an additional 20 percent by the end of the fourth and fifth years of support. Revised location totals will be announced by the end of year six. If there are fewer actual locations than originally estimated by the cost model, support recipients must serve 100 percent of the actual (revised) number of locations. If there are more locations than originally estimated by the cost model, support recipients must serve 100 percent of the originally estimated number of locations by the end of year six and must serve the remainder of the locations by the end of year eight. All support recipients must serve locations newly built after the revised location total but before the end of year eight upon reasonable request. Notwithstanding these overall buildout deadlines, it is important to note that the exact deployment schedule for each individual location is determined by the carriers themselves, not the FCC.

On Dec. 7, 2020, the FCC issued a public notice announcing the 180 winning bidders of a total of \$9.23 billion in support over 10 years covering 5,220,833 locations. This leaves at least \$11.17 billion available to be awarded in Phase II of the RDOF auction which will be for partially served locations, locations that were not won in Phase I, and precision agriculture support for eligible farms and ranches. The \$9.23 billion included \$169,379,964.50 awarded to 11 winning bidders in 152,983 locations in Indiana.

Since that time, the FCC has issued “Authorization” public notices for various RDOF long form applicants and winning bids across the country. Additionally, the FCC has released bid default announcements regarding winning bids for which the winning bidder was later found to be in default for at least part of the bid. The most significant of these announcements occurred on Aug. 10, 2022, when

the FCC’s Wireline Competition Bureau announced that two companies – including LTD Broadband – had defaulted on all their RDOF bids nationwide because they had not demonstrated a reasonable chance of complying with the FCC’s RDOF requirements. The Bureau also said its decision to withhold all RDOF funding from these companies would “avoid extensive delays in providing needed service to rural areas, including by avoiding

subsidizing risky proposals that cannot deliver the speeds they promise and/or propose unrealistic deployment plans or that are based on aggressive forecasts and assumptions.”

In Indiana, as of Jan. 13, 2023, 19 of the 21 winning bidders or their designees have received final authorization to receive RDOF funding to serve 98,714 locations spread over 14,227 authorized

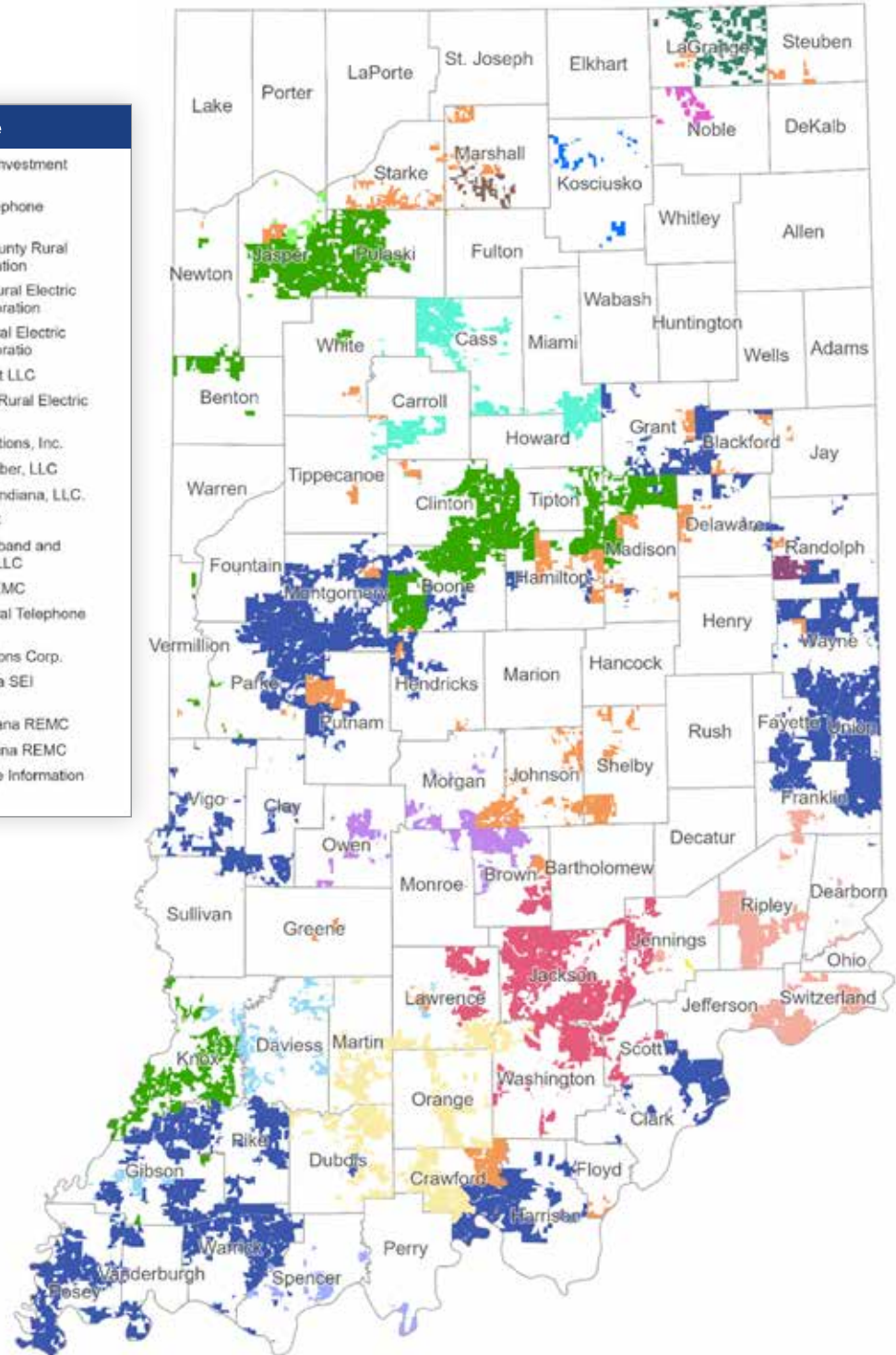
RDOF Funding Recipients

Winning Bidder/ Designee	Total # of CB Won	Defaulted Census Blocks	Total # of Locations	Total 10 Years of Support	Authorized to Receive Funds (Yes or No)
AMG Technology Investment Group LLC	2,235	0	11,803	\$18,947,203.50	yes
Cincinnati Bell Telephone Company LLC	9	0	68	\$56,802.00	yes
Daviess-Martin County Rural Telephone Corporation	381	0	1,371	\$3,565,039.40	yes
Effective Systems Fiber Network, LLC	57	57	0	\$0	n/a
Jackson County Rural Electric Membership Corporation	1,105	0	7,999	\$2,188,212.00	yes
Jasper County Rural Electric Membership Corporation	47	0	262	\$281,470.00	yes
Kosciusko Connect LLC	66	0	571	\$385,496.10	yes
LaGrange County Rural Electric Membership Corp	345	0	2,314	\$1,631,109.70	yes
LigTel Communications, Inc.	65	0	416	\$385,924.00	yes
LTD Broadband LLC	5,458	5,458	0	\$0	n/a
Marshall County Fiber, LLC	101	0	758	\$645,254.00	yes
Mercury Wireless Indiana, LLC.	2,384	702	13,529	\$9,437,647.80	yes
Miami Cass REMC	654	0	3,391	\$4,719,512.50	yes
New Lisbon Broadband and Communications, LLC	65	0	281	\$393,412.00	yes
Orange County REMC	823	0	6,521	\$5,946,190.40	yes
Perry-Spencer Rural Telephone Cooperative, Inc.	101	0	565	\$1,186,542.80	yes
RTC Communications Corp.	4	0	30	\$78,006.00	yes
SEI Data, Inc. d/b/a SEI Communications	23	0	136	\$64,345.80	yes
South Central Indiana REMC	488	0	4,131	\$3,405,921.90	yes
Southeastern Indiana REMC	637	0	5,107	\$888,747.40	yes
Time Warner Cable Information Services (Indiana)	7,672	2,276	39,461	\$48,334,325.60	yes

census blocks. As of Dec. 16, 2022, the FCC had identified a total of 8,493 Indiana census blocks covered by previously announced bid defaults for four Indiana RDOF reverse auction winners. On July 22, 2022, the FCC proposed over \$4 million in fines against 73 applicants in the Auction 904 for apparently violating Commission requirements by defaulting on their bids. Indiana bidders included in this list of applicants include Effective Systems Fiber Network, LLC, Time Warner Cable Information Services, and Steuben County REMC. On May 1, 2023, the FCC proposed almost \$9 million in fines against another 22 applicants which included Mercury Wireless in Indiana. The table on the previous page lists auction winners/designees in Indiana and the number of Census Blocks and locations they committed to serve, and breaks down the winners and the number of census blocks in which each defaulted. The maps that follow the table depict the Census Blocks Authorized for Funding and the Defaulted Census Blocks, respectively.

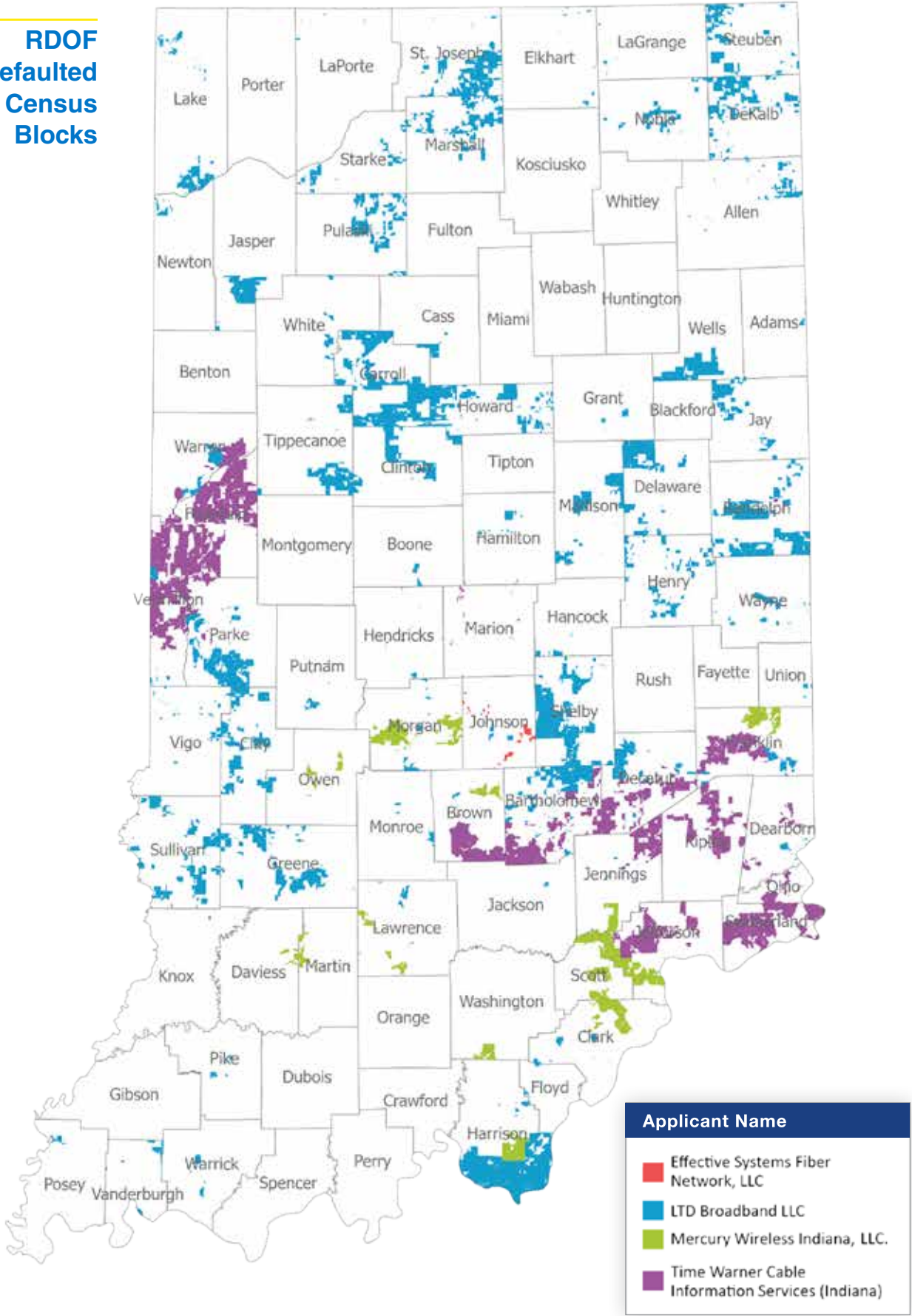
Indiana RDOF Census Blocks Authorized for Funding

Applicant Name	
■	AMG Technology Investment Group, LLC
■	Cincinnati Bell Telephone Company LLC
■	Davless-Martin County Rural Telephone Corporation
■	Jackson County Rural Electric Membership Corporation
■	Jasper County Rural Electric Membership Corporation
■	Kosciusko Connect LLC
■	LaGrange County Rural Electric Membership Corp
■	LigTel Communications, Inc.
■	Marshall County Fiber, LLC
■	Mercury Wireless Indiana, LLC
■	Miami Cass REMC
■	New Lisbon Broadband and Communications, LLC
■	Orange County REMC
■	Perry-Spencer Rural Telephone Cooperative, Inc.
■	RTC Communications Corp.
■	SEI Data, Inc. d/b/a SEI Communications
■	South Central Indiana REMC
■	Southeastern Indiana REMC
■	Time Warner Cable Information Services (Indiana)



**Does not include defaulted census blocks on next page.*

**RDOF
Defaulted
Census
Blocks**



Recent Developments and Improvements in Broadband Mapping

In 2020, the Broadband Deployment Accuracy and Technological Availability Act, or “Broadband DATA Act” was signed into law. This Act required the FCC to change the way broadband data is collected, verified, and reported.

Specifically, it required the FCC to collect and disseminate granular broadband service availability and service quality data (broadband maps) from wired, fixed wireless, satellite, and mobile broadband providers. To do this, the FCC was required to establish the Broadband Serviceable Location Fabric (fabric), a dataset of geocoded information for each individual U.S. address or location where fixed broadband can be installed. The fabric also serves as the vehicle for reporting broadband service availability data, as various broadband maps can be overlaid on top of it.

Additionally, the FCC was required to create processes to enable the submission of independent data challenging the accuracy of FCC broadband availability data and maps. The FCC’s initial efforts to implement the Broadband DATA Act resulted in the development of the National Broadband Map. Version 2 of the National Broadband Map was released on May 30, 2023; it shows location and availability data as of Dec. 31, 2022.

For decades, the FCC produced broadband maps based on census blocks. In practice, this meant that if there was high-speed Internet service at a single location in a census block, the agency assumed there was service throughout the entire census block. Simply put, this methodology left a lot to be desired. The lack of granular data meant that the FCC’s maps likely overstated where broadband infrastructure was available, both nationwide and

here in Indiana. These problems with the FCC’s methodology and maps created uncertainty for policymakers, who were often relying heavily on those same FCC maps to determine where federal and/or state broadband funding was most needed to help overcome the digital divide.

In November 2022, the FCC developed its first location-based broadband map to help it paint a more accurate picture of where broadband is and is not available across the United States. This new map no longer relies on census block-level reporting. Instead, it identifies every household and small business in the country where fixed broadband Internet access service is or could be installed. For context on how much more granular this is than what came before, this current mapping effort identified over 114 million such individual locations; prior FCC maps considered just 8.1 million census blocks, nationwide. This map can be found here: <https://broadbandmap.fcc.gov/home>.

Brief Discussion of the FCC’s Broadband Funding Map

A different federal statute, the Infrastructure Investment and Jobs Act (IIJA), signed into law in November 2021, required the FCC “to establish an online mapping tool to provide a locations overview of the overall geographic footprint of each broadband infrastructure deployment project funded by the Federal Government.” The Broadband Funding Map, released in May 2023, contains data received from the Department of Agriculture (USDA), the National Telecommunications and Information Administration (NTIA), and the Department of Treasury, as well as the FCC’s own data. Any funding data that are submitted to the FCC by other federal agencies in the future will be added to the map as part of regular updates the FCC will make to the map in accordance with the IIJA. It also includes broadband availability data as of Dec. 31, 2022.

As the FCC updates the broadband availability data on the National Broadband Map, the availability data on the Broadband Funding Map will also be updated. This funding map is an indicator of possible future broadband availability tied to funding from the specific federal agencies listed here or identified by the FCC in the future. This map can be found here: <https://fundingmap.fcc.gov/home>.

Additionally, NTIA is scheduled to award \$42.5 Billion in Broadband Equity, Access, and Deployment (BEAD) funding to state, local, and tribal governments. On June 26, 2023, the White House announced how much BEAD money each state is going to get. Every state participating in the BEAD program, including Indiana, is guaranteed to receive at least \$100 million in grants under the IIJA, with the remaining funding to be awarded nationwide based on a formula that weights areas lacking reliable high-speed Internet access. Those areas will initially be determined based on Version 2 of the FCC's National Broadband Map, discussed above. Indiana was allocated over \$868 million. On June 30, NTIA issued a formal notice of allocation amounts to all 50 states, the District of Columbia, and U.S. territories, each of whom has 180 days to submit its Initial Proposal explaining how it plans to administer the BEAD program.

AREA CODE RELIEF

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.

The last time area code relief was necessary was in 2014 and 2015 for area codes in Indiana's 812 and 317 territories. In both cases, the Commission issued all services distributed overlays using area code 930 in the 812 region and 463 in the 317 regions. This enabled consumers and businesses

Indiana Area codes

to keep their existing telephone numbers. After the changes went into effect, it became necessary for all parties to dial 10 digits (3-digit area code + 7-digit telephone number) instead of seven digits for local calls. Additionally, in 2022, the FCC established a three-digit hotline (9-8-8) known as the National Suicide Prevention Lifeline and, in its order, recognized that some areas of the country that had not implemented 10-digit dialing and already had 988 in use as an exchange number would have technical difficulties implementing the three-digit hotline. To remedy this problem, the FCC mandated the implementation of 10-digit dialing for local calls in such area codes. In Indiana, 10-digit dialing was implemented in the 219 and 574 area codes due to the implementation of the hotline. While the Commission was not responsible for the implementation, it participated with and supplemented NANPA and industry stakeholders with implementation planning, outreach, and education.

The next area code in Indiana that will need relief is likely to be 765, which is projected to exhaust in the first quarter of 2027. However, NANPA will publish updated exhaust projections in late October 2023, so this projection could be revised. NANPA begins area code relief



preparation three years in advance of the expected exhaust date, so based on the current exhaust projection, area code relief preparation will begin in the first quarter of 2024.

The following table shows the results of NANPA exhaust forecasts released in April 2023.

NANPA Exhaust Forecasts

Area Code	Projected Exhaust Date
219	2048 2Q
260	2043 3Q
317/463	2048 2Q
574	2059 2Q
765	2027 1Q
812/930	2045 2Q

VIDEO

Legislation, the rise of video streaming, and ongoing technological advancements have all 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

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. Additionally, the Indiana General Assembly, amended the definition of video service in 2023 to clarify certain services that are not included in the definition, specifically, direct to home satellite service and video programming accessed via a service that enables users to access content, information, electronic mail, or other services offered over the Internet, including digital audiovisual works.

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/communications-division/video-service-providers. VSPs are required to provide only the information, which is statutorily required, including a description and map of the designated service areas (DSAs) in which the VSP expects to provide video service. Any contiguous areas may be considered a single DSA, and additional DSAs are 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. An administrative law judge then issues an order granting the company a CFA to provide video service in those DSAs.

The most recent biennial report was collected in 2023 for information as of Dec. 31, 2022. The map on the previous page is a compilation of all the data submitted by video providers and shows the number of providers that reported offering video service in a specific census block group.

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:

- 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 General Assembly every year.

Competition and Technological Changes

The video market has undergone major changes due to the growing use of video streaming. In addition to the traditional cable or satellite TV offerings, consumers can now receive video service over the Internet with services like Internet Protocol Television (IPTV) and Over-the-top (OTT) Streaming. IPTV is TV from providers like AT&T (U-Verse) and CenturyLink (Prism TV), delivered over the Internet via a privately managed network typically accessible using devices (e.g., receivers) issued by the operator to deliver the content to the consumer's television. OTT streaming is TV from third-party services like Netflix, Hulu, and YouTube, delivered over the open Internet and can be used with any device that can access the Internet, such as phones, tablets, and smart TVs with a broadband connection.

Although traditional cable and satellite TV subscribership has declined, digital video subscribership has increased, causing new companies across multiple industries to enter the video market. The traditional cable video providers are now competing with telephone, broadband, and wireless companies for video customers. Consumers 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. Video providers trying to keep up with the market have begun providing more than just television service, but also video entertainment, Internet connectivity, and digital telephone services.

Direct Marketing

The Commission's role of granting direct marketing authority to VSPs was established in 2013, pursuant to Ind. Code § 8-1-34-30. Direct marketing authority permits companies to conduct activities, such as door-to-door sales, only to residential properties in Indiana. In 2018, the statute was amended to allow direct marketing to businesses. Rather than requiring VSPs to obtain a permit in multiple municipalities where they plan to conduct sales activities, the Indiana 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 must 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.

Commission orders granting direct marketing authority are posted on the Commission's website at www.in.gov/iurc/communications-division/telecommunications-and-information-services/direct-marketing-authority. Additionally, the page includes a roster of all current and former employees who are certified by the company to conduct direct marketing under the requirements of the law. 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 2020-2, which can be found on the Commission's website at www.in.gov/iurc/general-administrative-orders.



The move away from traditional video service in addition to redefining video service to exclude video services offered over the Internet has caused several video providers to terminate their state-issued video franchises. Following the most recent biennial video report, 10 providers filed Notice of Change Petitions to terminate their state-issued video franchise many citing the transition to video provided through streaming services. The number of video service providers has decreased significantly in comparison to what was reported in the 2021 biennial video report. In 2023, it was reported that 11 counties have five to six providers offering video service with Boone and Hamilton counties having the most providers offering video service under state-issued franchises with six providers. In 2021, for data as of Dec. 31, 2020, 17 counties had five or more providers offering video service with Hamilton County having the most with eight providers.



INDIANA UTILITY GUIDE 2023 EDITION

PIPELINE SAFETY DIVISION





Pipeline Safety Division

OVERVIEW OF REGULATION

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 intrastate pipeline facilities. The federal/state partnership is the cornerstone for ensuring uniform implementation of the pipeline safety program nationwide. It also authorizes federal grants 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

Indiana's Pipeline Safety Program, as established by statute, has historically received high marks from the annual federal evaluations.

The Pipeline Safety Division (Division) is responsible for enforcing state and federal safety regulations for Indiana's intrastate natural gas and hazardous liquid pipeline facilities as established under Ind. 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.

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 compliance actions, 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.

PROPERTIES OF NATURAL GAS

Natural gas is odorless, colorless, and tasteless in its natural state. While it is not inherently dangerous in its natural state, 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 (more than 90 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 1/600th 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.

INSPECTIONS

Historically, the Division conducts around 900 inspections days of approximately 89 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:

- Distribution
- Gathering lines
- Hazardous liquid
- Liquefied Natural Gas (LNG)
- Master meter
- Transmission

Probable violations identified during inspections lead to enforcement actions such as notice of 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.

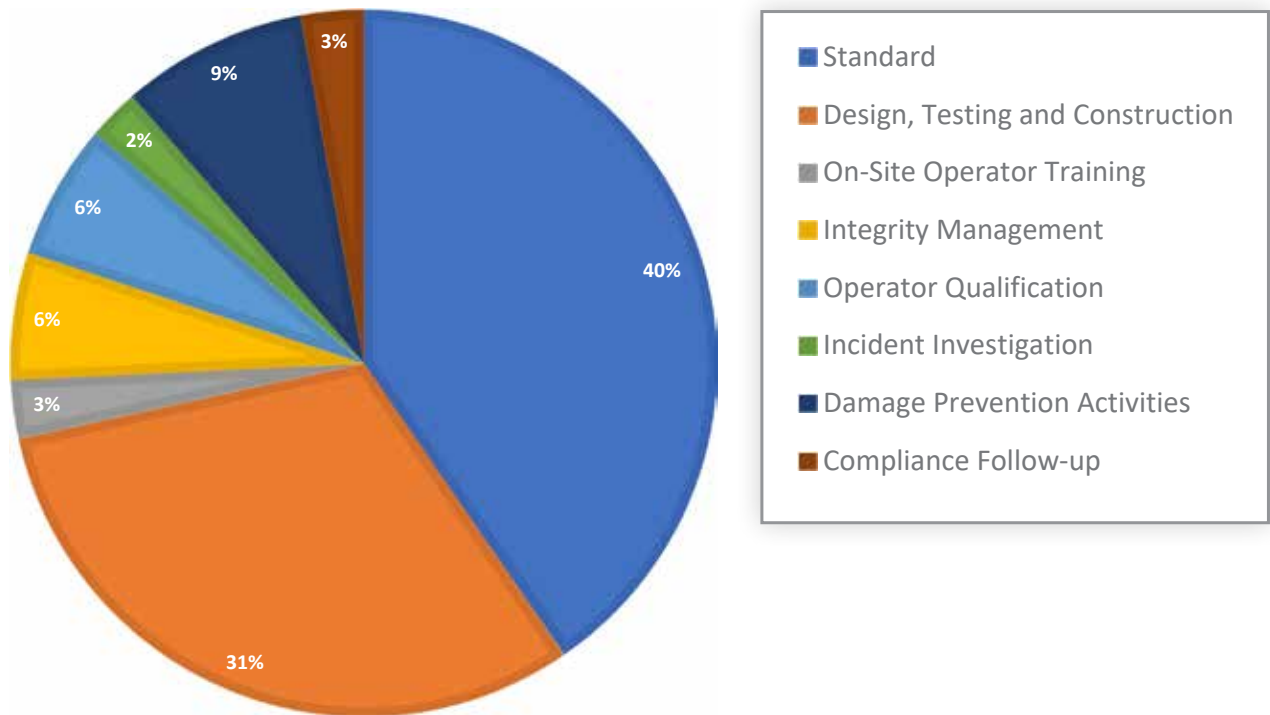
Although federal code sets the maximum time interval for inspections to be completed, the Division seeks to meet this requirement in two ways. First, the Division follows a four-year inspection plan with inspectors to examine each distribution, transmission, gathering and hazardous liquids operator every year (to perform at least one inspection) and each master meter operator every other year. This helps to balance the workload of not just the Division but the operators as well. Secondly, the Division maintains a data-driven risk model that prioritizes pipeline operators based on relative risk. This drives the Division's risk-based matrix which helps to ascertain if more inspections or training with an operator is needed. By design, this two-fold approach increases transparency in the inspection process while allowing the Division to evaluate an operator for risk and take proactive measures to address that risk.

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

- 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:

5 Year Average of Inspection Activities by Type



Inspector Training Requirements

The Division's inspectors must be PHMSA-qualified to perform operator inspections. The training requirements include six core instructor-led classes. 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:

- 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
- Integrity management programs
- Operator qualifications programs
- Regulations and compliance procedures
- Steel welding and plastic fusion materials

Select 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.

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 (e.g., 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 on requiring 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. Whichever way 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.

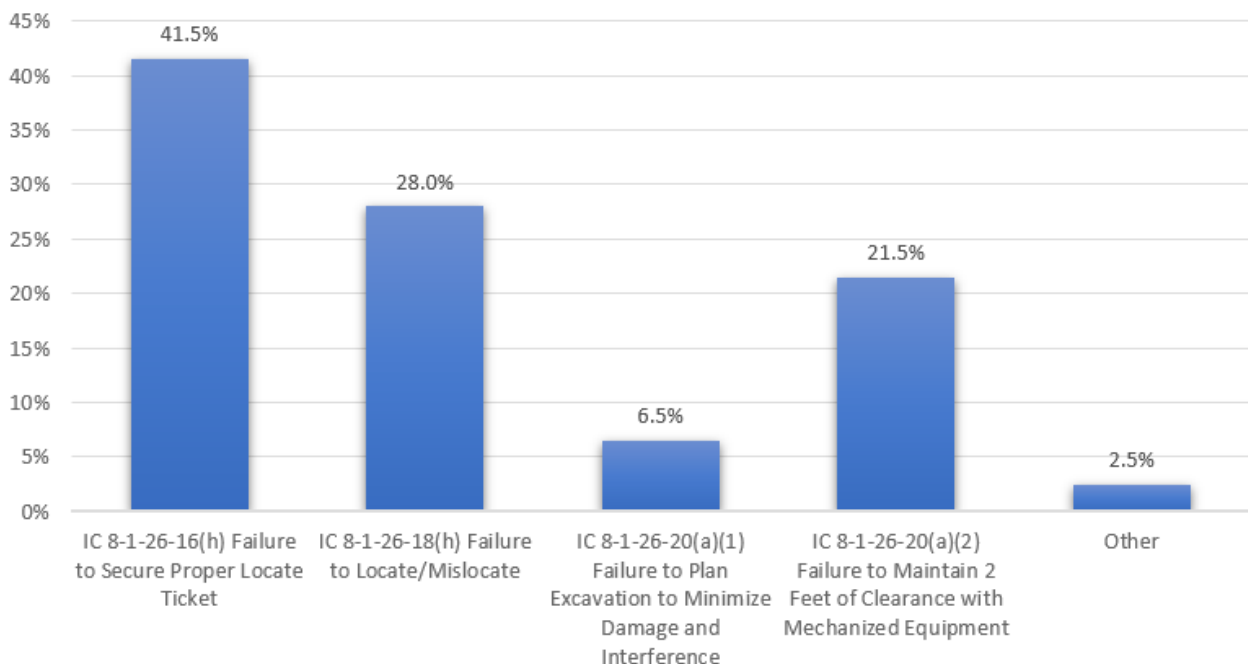
DAMAGE PREVENTION

The Division also is responsible for tracking and investigating all alleged violations of, the Damage to Underground Facilities Act (Ind. Code chapter 8-1-26), known as the Indiana 811 law, and is active in a variety of damage prevention efforts. On average, the Division investigates more than 2,000 cases of alleged violations 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 issue orders approving or denying the recommendation(s). Possible recommended penalties include a warning letter, training, written corrective action plans, and civil penalties (fines). Penalties are assigned based

on a penalty schedule and decision log to ensure consistency and fairness.

The UPPAC was established under Ind. Code § 8-1-26-23 to act in an advisory capacity to the Commission concerning the recommendation of penalties under the Indiana 811 law. 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, which is the association established under the law that handles the 811 calls and contacts and processes the tickets to locate underground utilities. UPPAC reviews approximately 200 cases each month and recommends penalties. The average distribution of damage causes is as follows:

5-Year Percentage of Damages by Cause



Attorneys from the Commission's Office of General Counsel serve as counsel and legal advisor to the UPPAC pursuant to Ind. Code § 8-1-26-3. The attorneys provide legal advice on penalty recommendations, warning letters, and training programs, as well as the development of plans to avoid future violations.

Due to increased Indiana 811 law 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/pipeline-safety-division/damage-to-underground-facilities.

It is important to note that, at this time, Division investigations and penalties are assessed for damages only to natural gas facilities. However, the 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.



UNDERGROUND PLANT PROTECTION ACCOUNT FUND

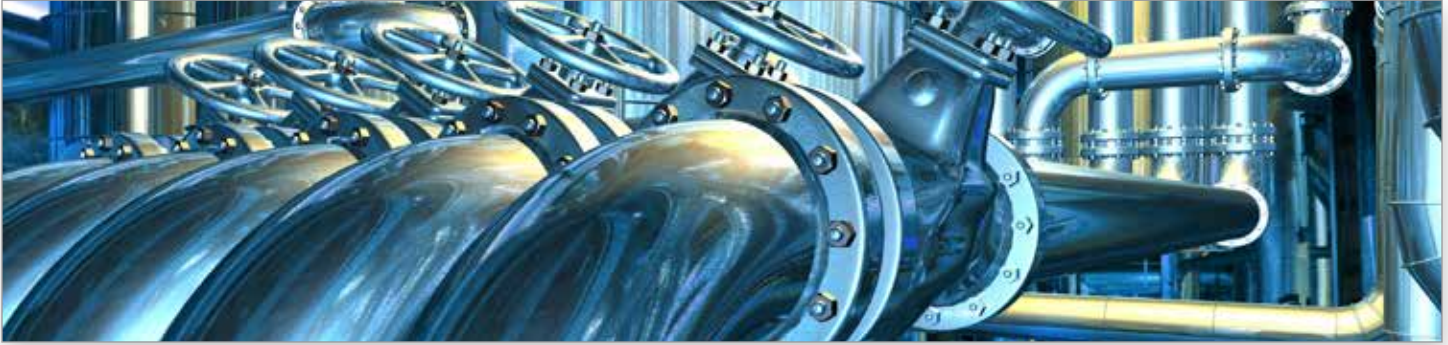
The Underground Plant Protection Account (UPPA) was created by Senate Enrolled Act 487 in 2009 (Ind. Code § 8-1-26-24) as a dedicated fund – meaning the balance does not revert to the state's General Fund at the end of each fiscal year.

The UPPA 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 Indiana 811 law. Civil penalties from Indiana 811 law violations are recommended by the Governor-appointed Underground Plant Protection Advisory Committee (UPPAC) and approved by the Commission. The UPPA fund accrues more than \$1 million in civil penalties each year and reinvests those funds into underground utility safety and damage prevention efforts.

Use of UPPA Funds

UPPA funds are used to provide programs designed to reduce damages done to buried facilities during excavation due to violations of the Indiana 811 law. Per statute, 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 Indiana 811 law violations



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

Voting members include:

- Chair of the Commission
- Commissioner
- Chief of Staff
- General Counsel
- Chief Administrative Law Judge
- Executive Director of Strategic Communications
- Pipeline Safety Division Director (or designee depending on PSD availability)

Non-voting, advisory members include:

- Underground Plant Protection Account Program Manager
- Executive Director of Legislative & Public Affairs
- External Affairs Specialist
- Pipeline Safety Engineer(s)

Examples of UPPA fund uses include:

- Partnering with the Indiana Broadcasters Association (IBA) to annually air approximately 50,000 utility safety focused public service announcements across the state on Indiana-based broadcast TV, as well as AM and FM radio stations

- Acquiring and distributing more than 1,000 dig safety “hit kits” to Indiana contractors
- Funding utility safety education for fourth grade classes around Indiana
- Providing competent person and traffic control training for Indiana damage prevention council (DPC) members
- Developing and annually expanding a free, multi-module, online safety training system for members of the underground facility community, which can be found at SafeDigIndiana.com
- Utility safety education through the Indianapolis Children’s Museum

The Commission maintains a dedicated UPPA fund website where current account balances, spending and deposit history, training opportunities, and current grants awarded are regularly updated. You can access UPPA information at www.in.gov/iurc/pipeline-safety-division/uppa-fund.

Those interested in creating a project focused on increasing underground facility safety can apply for a grant from the UPPA fund by visiting www.in.gov/iurc/pipeline-safety-division/uppa-fund/upp-account-grant-request or suggesting a general use for the UPPA fund at www.in.gov/iurc/pipeline-safety-division/uppa-fund/underground-plant-protection-upp-account-spending-plan-suggestions.



INDIANA UTILITY GUIDE 2023 EDITION

GLOSSARY OF TERMS





Glossary of Terms

- **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.
- **BIAS (Broadband Internet Access Service):** a mass-market retail service that can be offered using either fixed or mobile technologies
- **Bill and Keep:** One type of Intercarrier Compensation between interconnected carriers in which neither carrier charges the other for terminating certain types of traffic that originated on the other carrier's network; the terminating intercarrier compensating rate is effectively \$0.00. The cost recovery burden is shifted first to the carriers' own end user customers and then to a universal service funding mechanism. (See Intercarrier Compensation)
- **Biosolids:** When wastewater is treated, bacteria is used to consume the organic waste products in the water. Eventually, these bacteria become bulky, numerous and must be disposed of. These bacteria are concentrated using a digestion process and often are dewatered to make them easier to handle. The resulting product are biosolids, informally referred to as sludge.
- **Blackouts:** The uncontrolled successive loss of electricity. When a massive power failure occurs, the lack of electricity can result in total or near total 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:** The management, operational, and technical methods, policies, and procedure, both manual and automated, prescribed to protect the confidentiality, integrity, and availability of a system and its information.
- **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 (DR):** Voluntary reduction of usage, usually electricity used, by a customer. If a customer agrees to reduce its demand during peak use times, it can get a better overall rate, depending on the utility's tariff on demand response.
- **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, the health effects of which, if any, are largely not understood. It is generally accepted that the health benefits of disinfection of water are far greater than any health risk that may be posed by disinfection byproducts.
- **Distribution line (electric):** The wires and other infrastructure that move electricity from the transmission line to end users' service lines.
- **Distribution line (natural gas):** 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 (natural gas):** See distribution line.
- **Distribution system (electric):** Generally, the low-voltage lines and transformers that transmit electricity from the large, bulk-power system to retail customers.
- **Distribution system (water):** Consists of the infrastructure (distribution pipes, storage tanks/towers, booster pumps, and more) that deliver water from the treatment facility to the end user.
- **Distribution system (natural gas):** The pipelines transporting natural gas within a designated service area of an LDC.
- **Economies of scale:** Economies of scale exist when the costs of production decline as size of the utility, the plant size, and/or the amount of goods or services produced increase.
- **Energy:** Power derived from the utilization of physical or chemical resources, especially to provide light and heat or to work machines. Energy is the capacity for doing work; it may exist in potential, kinetic, thermal, electrical, chemical, nuclear, or other forms. As used in the utility industry, it includes producing, storing, refining, transporting, generating, transmitting, conserving, building, distributing, maintaining, and controlling energy systems and system components.
- **Energy efficiency (EE):** Refers to measures or technologies that reduce the consumption of energy for a given service level.

- **Exhaust:** With reference to telecommunications, it is a point in time at which the quantity of telephone numbers at the prefix level within an existing area code equals zero. When an area code nears exhaust, an additional new area code must be put into place.
- **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.
- **High-Cost area:** Areas for which the cost of providing local voice telephone service was above the national average.
- **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. The electric utility must submit its integrated resource plan (IRP) to Commission staff for review on a regular basis, at least, every three years.
- **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 (IOU):** 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.
- **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.
- **Supported Service:** Services designated by the FCC for monetary support from the federal universal services program. Currently, voice telephony service is the only supported service recognized by the FCC.
- **Title I Regulation:** Refers to Title I of the federal Communications Act of 1934, which is titled "General Provisions" and outlines the regulation of Information Services.
- **Title II Regulation:** Refers to Title II of the federal Communications Act of 1934, which is titled "Common Carriers" and outlines the regulation of carriers classified as such (i.e., telecommunications services).
- **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.
- **Voice telephony service:** Includes 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. (See 47 CFR 54.101 (a))

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