



IRP

2018 Integrated Resource Plan Executive Summary

At NIPSCO, we're proud that our work provides the energy that northern Indiana families and businesses rely on to power their daily lives. We work each day with the goal of growing alongside our communities and responding to our customers' needs.

As our customers' needs have changed, so has the energy market. Now we stand at the crossroads of the future, with the opportunity to invest in balanced energy options and make energy more affordable and cleaner.

With an eye toward the future, we've been performing a comprehensive analysis of our future energy mix and meeting with our customers, our employees and local community leaders over the past year. The result of this process is an Integrated Resource Plan (IRP).

The plan—which presents over \$4 billion in long-term cost savings—is a balanced, gradual transition that will strengthen our region now and put us on a path to a more cost-effective, cleaner and more sustainable future.

It's "Your Energy" and it's "Your Future."



About NIPSCO

More than 460,000 northern Indiana homes and businesses depend on NIPSCO each day for safe, reliable and affordable energy. Northern Indiana is fortunate to be home to some of the top production facilities in the United States. This has a unique impact on NIPSCO's energy demand profile. Five of our largest industrial customers, primarily in steel and oil refining, account for about 40 percent of NIPSCO's energy demand.

As a member of the regional transmission organization Midcontinent Independent System Operator (MISO), NIPSCO is able to supplement its own energy resources through other participating utilities in MISO's footprint. This relationship helps ensure reliability and cost-effective operations.

About the 2018 Integrated Resource Plan

To help ensure that we continue to meet the needs of our customers, we must have a road map to prepare for future energy needs. Our 2018 IRP charts a path for how best to meet those needs over the next 20 years. NIPSCO presents this plan to the Indiana Utility Regulatory Commission (IURC).

The electric industry, customer needs, expectations and the way energy is consumed continue to evolve. Technologies are rapidly changing and expanding. The electric generation landscape is shifting dramatically, not just for NIPSCO but for the country as a whole.

NIPSCO's 2018 Integrated Resource Plan

Resource planning is a complex undertaking, one that requires addressing the inherent uncertainties and risks that exist in the electric industry. Key factors referred to in the IRP include market conditions, fuel prices, environmental regulations, economic conditions and technology advancements.

Using in-depth data, modeling and risk-based analysis provided by internal and external subject matter experts, we project future energy needs and evaluate available options to meet those needs.

New to NIPSCO's IRP, we issued a formal Request for Proposals (RFP) solicitation to uncover the breadth of actionable projects that were available to NIPSCO within the marketplace across all technology types. The RFP also served to collapse uncertainty about the costs of various technologies, particularly renewables.

The projections included in our plan are based on the best available information at this point in time. Changes that affect our plan may arise, which is why it's important for us to remain flexible and continually evaluate current market conditions, the evolution of technology—particularly renewables—and demand side resources, as well as laws and environmental regulations.

Engaging Customer and Public Stakeholders

Resource planning requires the consideration of diverse points of view, which is one of the reasons that external stakeholder involvement is a critical component throughout the development of the IRP.

We engaged stakeholder groups and individuals in a variety of ways throughout the entirety of the planning process.

Portfolio

- ✓ **Affordable**
- ✓ **Reliable**
- ✓ **Compliant**
- ✓ **Diverse**
- ✓ **Flexible**

NIPSCO initiated stakeholder advisory efforts for its 2018 IRP in March, hosting a public meeting and launching a web page for interested stakeholders to follow the progress. Four additional public meetings followed in May, July, September and October. NIPSCO also hosted public forums to discuss specific topics arising from the IRP.

In addition to posting public invitations on our IRP web page, we sent an invitation to past IRP stakeholder participants. Members of our executive leadership team and several of our subject matter experts attended each meeting to hear feedback and answer questions.

Throughout the IRP process, stakeholders were also invited to meet with us on a one-on-one basis to discuss key concerns and perspectives. Each interaction provided a forum for discussion and feedback related to the many components of the IRP.

Valuable discussions arose in several key areas, including environmental regulations, fuel costs, load forecasting calculations, energy efficiency program analysis and renewable energy development.

The feedback gathered during the stakeholder process raised valuable questions, helped us better evaluate our options and improved the final plan. A summary of the meeting materials, including presentations and stakeholder questions, is available at NIPSCO.com/IRP.

Forecasting Future Customer Demand

Projecting customers' energy needs is another key component of the IRP process. Looking 20 years into the future does not come without challenges, so we rely on data-driven models to help develop our best estimates. Specific models are developed for residential users, commercial users and industrial users, as well as for all other types of customers, including street lighting, public authorities, railroads and company use.

Data sources used in creating the forecast include energy, customer and price data, economic drivers, weather data and appliance saturation. Given the unique makeup of NIPSCO's customer base, industrial operations are another significant variable. In order to best model their load requirements, we rely on discussions with our 20 largest industrial customers.

With this data, we developed multiple scenario forecasts to capture the range of uncertainty for both energy requirements and peak demand.

Current Supply

NIPSCO's current resource portfolio is composed of hydroelectric, wind, demand-side resources and natural gas-fired sources in addition to the company's coal-fired plants.

Coal remains the largest part of NIPSCO's fleet, accounting for more than half of total capacity, followed by natural gas-fired electric generation.

NIPSCO also offers a Net Metering Program and a Feed-in Tariff Program (FIT), which allows commercial and residential customers to generate their own power from renewable resources such as wind, solar, hydro and biomass.

To further support renewable energy development, we give customers the power to choose green energy not only through the Net Metering and FIT Programs, but also through the Green Power Program, in which we buy renewable energy credits on customers' behalf.



NIPSCO Generating Resources

Resource	Unit	Fuel	Capacity NDC (MW)	Year in Service
Michigan City	12	Coal	469	1974
Schahfer	14	Coal	431	1976
	15	Coal	472	1979
	16A	NG	78	1979
	16B	NG	77	1979
	17	Coal	361	1983
	18	Coal	361	1986
Subtotal			1,780	
Sugar Creek		NG	535	2002
Bailly	10	NG	31	1968
Hydro	Norway	Water	4	1923
	Oakdale	Water	6	1925
Subtotal			10	
Wind		Wind	100	2009
NIPSCO			2,925	

Analyzing Future Supply Options—Request for Proposals

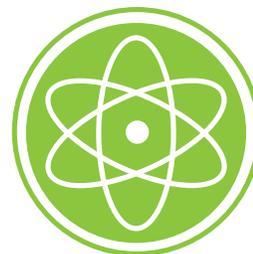
New to the process in the 2018 IRP, NIPSCO issued a formal Request for Proposals (RFP) to help inform the planning process, and to gain better information on available, real projects at real costs from within the marketplace.

All energy technologies were eligible to participate, and NIPSCO received 90 proposals—the sum of which represented over three times NIPSCO’s current generating capacity.

Evaluating each source of electric generation for its total cost, environmental benefits, reliability, impact on the electric system and risks is an important step in the IRP.

Results from the RFP provided better information that could be incorporated into the analysis and decision-making process.

Specific screening criteria include energy source availability, technical feasibility, commercial availability, economic attractiveness and environmental compatibility.



2018 Proposals Submitted to NIPSCO

Technology	CCGT*	CT*	Coal	Wind	Wind + Solar + Storage	Solar	Solar + Storage	Storage	Demand Resp.	Total Bids
# of Bids	15	1	3	14	1	35	11	9	1	90
Locations	IN, IL	IN	IN, KY	IA, IN, IL, MN	IN	IL, IN, IA	IN	IN	IN	

*CCGT—Combined Cycle Gas Turbine

*CT—Combustion Turbine

Energy Efficiency

Promoting energy efficiency not only is good for customers, it can play an important role in helping ensure that we can meet future energy needs. NIPSCO offers a variety of programs to help residential and business customers save energy. The programs are tailored to customers and designed to help ensure energy savings.

Since 2010, NIPSCO customers have saved more than 1 million megawatt hours of electricity by participating in the range of energy efficiency programs offered by NIPSCO.

Technologies continue to change, and it's important that we constantly evaluate our offerings. We regularly track and report on program performance, which helps to inform and improve future program filings and customer offerings.

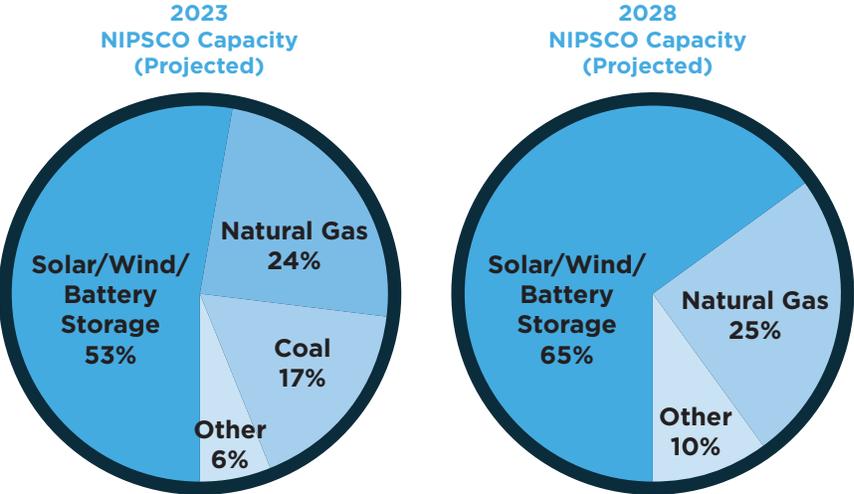
Findings and Next Steps

Throughout the IRP analysis, we are striving to balance the needs of our customers, employees and other community stakeholder interests.

Our goal as we look forward is to transition to the best-cost, cleanest electric supply mix available while keeping options open for the future as technologies and markets change.

Analysis shows that the most viable path for customers involves accelerating the retirement of a majority of NIPSCO's remaining coal-fired generation in the next five years and all coal within the next 10 years. Replacement options point toward lower-cost renewable energy resources such as wind, solar and battery storage technology.

As we gradually transition to creating a more diversified energy mix that will be more cost effective and better serve customers in the future, we are committed to ensuring that this plan limits the impact on local employees and our economy as a result of the remaining coal retirements.



Short-Term Action Plans (2019–Through 2021)

The objective of the plan is to ensure that NIPSCO can confidently transition to the least-cost, cleanest supply portfolio available while maintaining reliability, diversity and flexibility for technology and market changes during this period.

- Initiate retirement of R.M. Schahfer Coal-Fired Units 14, 15, 17, and 18 by 2023
- Identify and implement required reliability and transmission upgrades resulting from retirement of the units
- Select replacement projects identified from the 2018 RFP evaluation process, prioritizing resources that have expiring federal tax incentives to achieve lowest customer cost
- File for Certificate(s) of Public Convenience and Necessity and other necessary approvals for selected replacement projects
- Procure short-term capacity as needed from the MISO market or through short-term PPA(s)
- Continue to actively monitor technology and MISO market trends, while staying engaged with project developers and asset owners to understand landscape
- Conduct a subsequent All-Source RFP to identify preferred resources to fill remainder of 2023 capacity need (likely renewables and storage)
- Continue implementation of filed Energy Efficiency Programs Plan for 2019 to 2021
- Comply with North American Electric Reliability Corporation, U.S. Environmental Protection Agency and other regulations
- Continue planned investments in infrastructure modernization to maintain the safe and reliable delivery of energy services

Long-Term Action Plans (2023–Beyond)

- Fully retire the R.M. Schahfer Coal-Fired Units 14, 15, 17, and 18 by the end of 2023 and the Michigan City Coal-Fired Unit 12 by the end of 2028
- Monitor market and industry evolution and refine future IRP plans

While NIPSCO will continue to update its long-term plan within the next IRP, we believe that these actions coming out of the 2018 IRP will place NIPSCO on a course to continue providing reliable power while enabling lower costs and providing significant environmental benefits.