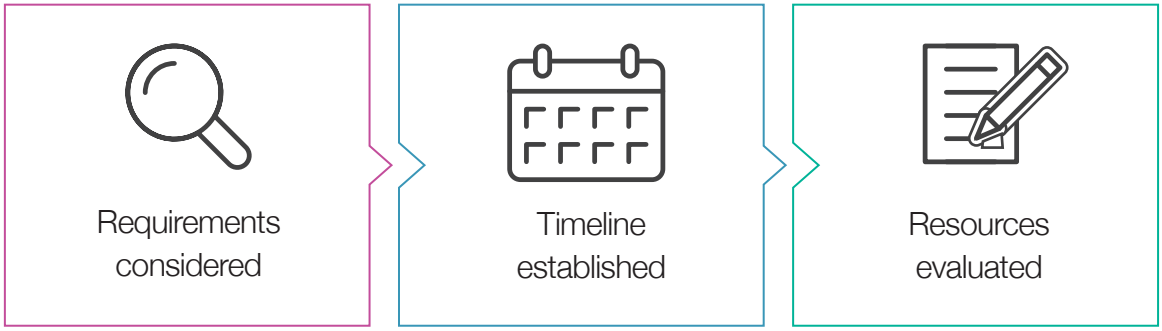
2020 EXECUTIVE SUMMARY

INTEGRATED RESOURCE PLAN

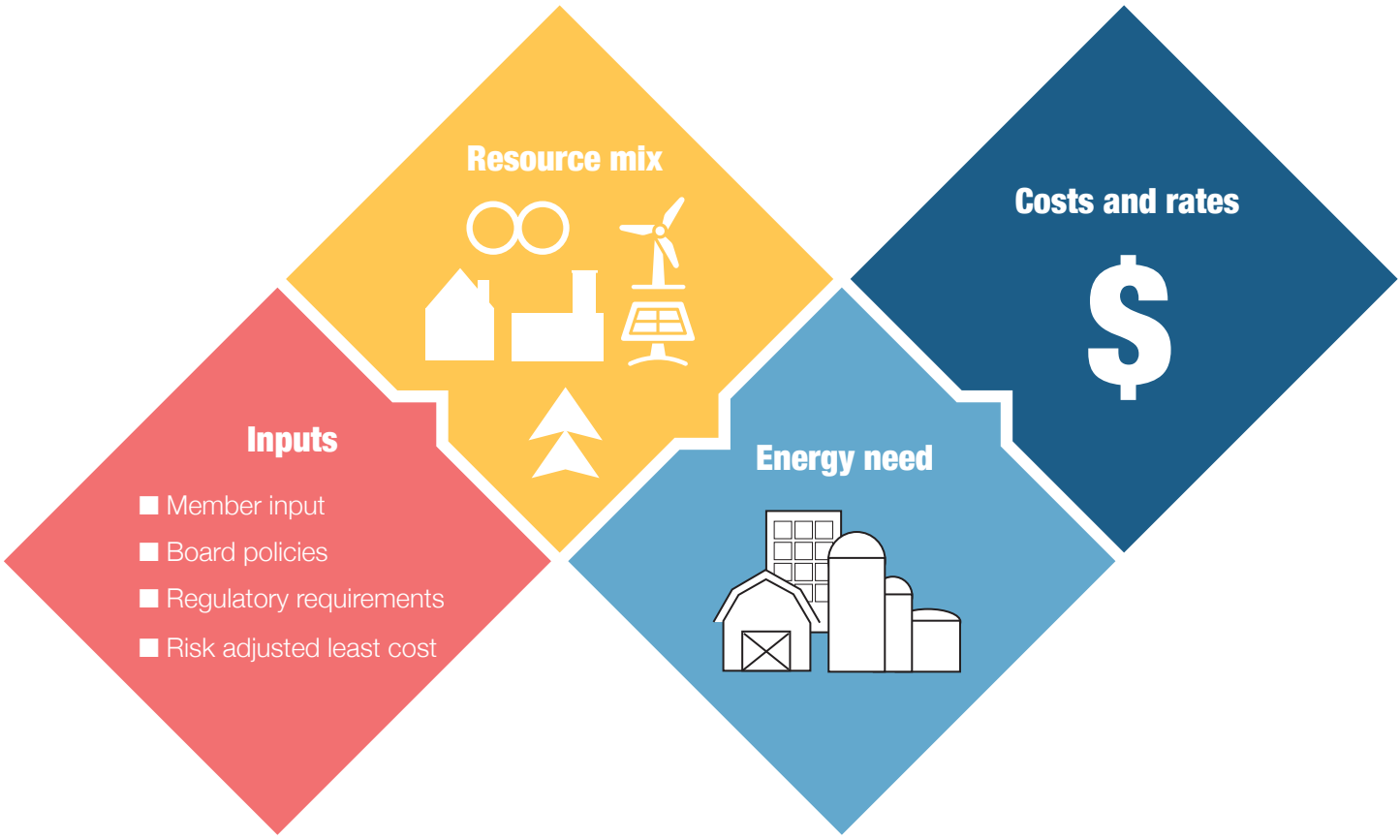
HOOSIER ENERGY

THE INTEGRATED RESOURCE PLANNING PROCESS



WHAT IS RESOURCE PLANNING?

Key features



The resource planning process projects future consumer needs and comprehensively evaluates options for meeting those needs.

Resource plan inputs include:

- Energy, peak demand and customer forecasts
- Resource strategies, regulatory policies and member input
- Cost estimates for current and future resources including capital, fixed and variable operating and maintenance costs
- Market projections for commodities

Risk analysis

Inputs for the resource planning process are not absolute. Variables are stressed to understand the implications and interaction of inputs and impacts on costs and rates.

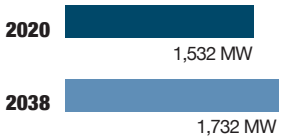
Uncertain future

Resource plans will change over time. Course adjustments will reflect input from members and regulators, changes in growth patterns and financial considerations.

THE HOOSIER ENERGY POWER NETWORK

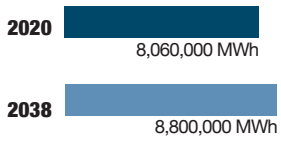
Peak demand

Member peak demand is projected to increase 13 percent by 2038.



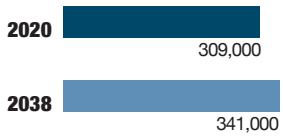
Energy requirements

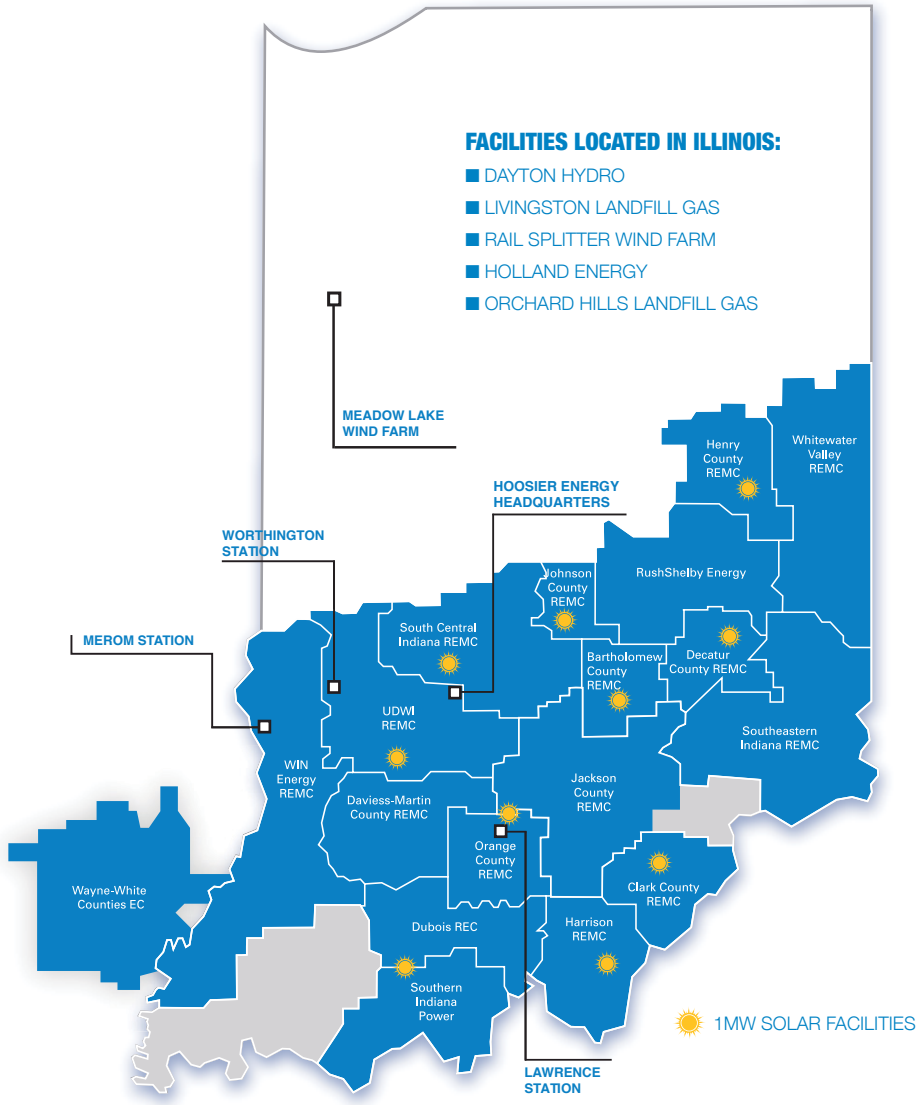
Member energy needs are projected to increase 9 percent by 2038.



Number of meters

The number of meters are expected to increase 10 percent by 2038.





ELECTRIC CONSUMER FACTS

73%

Consumers who use LED light bulbs.

46%

Consumers who use programmable thermostats.

1,400

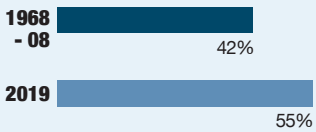
Estimated number of homes with plug-in electric or plug-in hybrid vehicles.

1,227 kWh

Since 2007, average household monthly electricity use has remained steady.

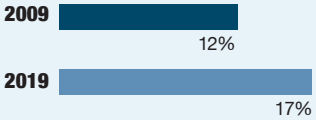
Growing market share for electric heat

From 1968 to 2008, 42 percent of new homes use electric heat. Since 2008, 55 percent of new homes use electric heat.



Growing market share for heat pumps

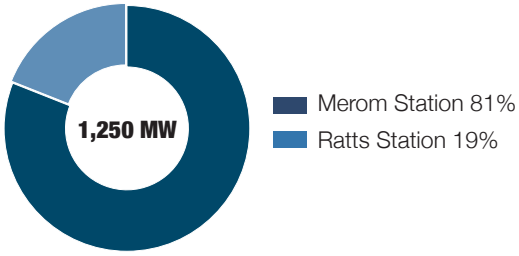
Use of heat pumps for air conditioning has continued to increase.



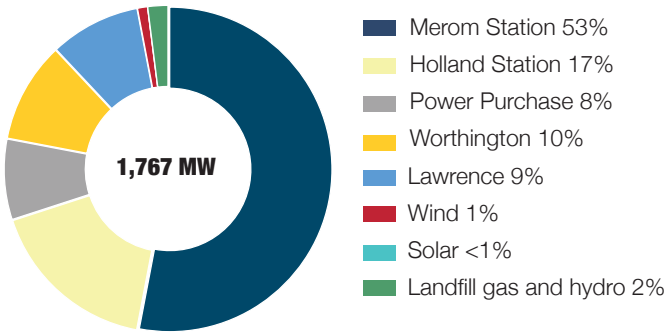
MEETING MEMBER NEEDS

The Hoosier Energy portfolio has grown and diversified to meet member needs and manage risk.

2000 CAPACITY



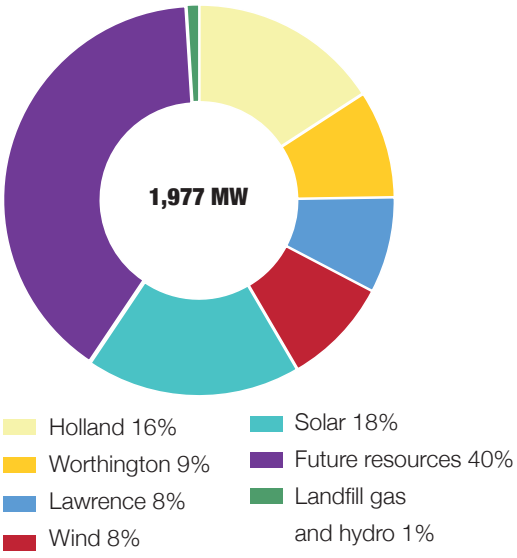
2020 CAPACITY



Changes from 2000 to 2020

- Increased portfolio size (in MW) about 41 percent between 2000 and 2020.
- Established target of 10% renewables by 2025 resulted in the addition of wind, solar, landfill gas and hydro resources.
- Added natural gas resources to lessen coal dependency
- Added purchased power agreements to shift operating risk
- Established MISO market, which provides price transparency, reserve sharing, and facilities financial hedging.

2030 CAPACITY



Expected changes from 2020 to 2030

- Board adopted long range resource plan that contemplates Merom retirement in 2023
- This decision was made after year-long stakeholder process with the Board to fully explore all options and based upon the following Board-established criteria:

• Wholesale rates • Rate stability • Resource Diversity • Sustainability • Employee impacts

- Replacement resources are expected to include a combination of wind, solar, natural gas and purchased power.
- Increase market reliance in recognition of low price environment

RESOURCE MIX 2020

Baseload

Baseload resources refer to units with higher capacity factors that are available to operate throughout the year. Other resources could provide baseload energy but far less economically.

The coal-fired Merom Station has a production capacity of nearly 1,000 MW and complies with all emission requirements. Other resources include the 150 MW Purchased Power Agreements.

Intermediate

Intermediate resources provide energy for extended periods of the day. These resources are used to meet increasing demand in weekday hours. A combined cycle natural gas power plant is this type of resource.

Holland Energy, the 613 MW natural gas combined cycle plant jointly owned with Wabash Valley, is an important component of the portfolio that typically provides needed energy during peak months.

Peaking

Peaking resources provide energy on very short notice to meet customer energy needs during very few hours of the year. Natural gas combustion turbines are ideal for this application and demand response can help meet this need.

Lawrence and Worthington generating stations efficiently provide electricity from natural gas turbines to meet short term needs. Fast start capability adds power supply flexibility and the units help meet MISO reserve requirements.

Energy Efficiency

Consumers can help manage system demand through energy efficiency. When consumers use new strategies, products and technologies to reduce consumption, the effect can be equivalent to adding generation.

In 2019, annual savings from demand-side management programs totaled 26,300 MWh. Summer demand was reduced by 17 MW and winter demand reduced by 20 MW.

RESOURCE MIX 2020

Wind

Federal production tax and investment tax credits have helped make wind resources an attractive economic option for adding energy to the generation portfolio. Wind resources operate intermittently and provide less ca¬pacity value during the peak summer and winter periods. For example, MISO currently assigns an initial capac¬ity value of 15% of nameplate capacity for wind. Therefore, portfolios that contain a high level of wind resources may require supplemental resources to meet planning reserve requirements.

Hoosier Energy currently purchases 100 MW of wind through two separate PPAs. In addition, current portfolio modeling performed for the IRP suggests the addition of a significant amount of wind resources in future years.

Solar

Tax incentives, public policy requirements and increasing consumer support have led to widespread construction of solar projects across the nation.

During recent years, solar costs have fallen to levels that are more economic than new coal and competitive with new gas-fired generation, leading to rapid development of these resources. In addition, under the current MISO capacity construct, solar resources provide a higher capacity value than wind resources.

Hoosier Energy will add 200 MW of solar generation to the resource mix when the Riverstart solar PPA begins in 2022. Future additions of solar generation to the resource portfolio are expected to economically serve member load.

Other renewables

Other renewable generation resources includes hydro and biomass facilities, which can be cost-effective due to low fuel costs. These resources are generally small (less than 20MW) and there are limited opportunities for development. The current portfolio includes both a hydro PPA and ownership of two landfill gas-fired resources.

Market purchases

The forward power market remains a viable alternative to satisfy a portion of member needs. Recently, the impact of low natural gas and renewables prices has been depressed market power prices, thereby placing increasing pressure on coal-fired generation. Improvements in gas-extraction technology have increased sources of supply beyond those traditionally counted upon to supply markets and driven natural gas prices lower. Renewables prices have declined as lower capital costs and favorable policies have led to increased market penetration.

In the intermediate-to-longer-term, it is anticipated that downward price pressures will continue from gas-fired generation and renewables, particularly solar, as well as from limited load growth. Long-term market exposure can be hedged through assets or purchased power agreements.

KEY RISKS

Environmental rules and regulations

The Trump administration's EPA proposed the Affordable Clean Energy Rule (ACE) to effectively repeal and replace the Obama administration's Clean Power Plan (CPP), which would have required a 32 percent reduction in power plant CO2 emissions. The ACE rule was initially released in August 2018 with the final rule issued by the EPA in June 2019. The ACE rule establishes emission guidelines for states to limit CO2 emissions of coal-fired electric generating units and empowers states to develop plans to reduce greenhouse gases. The ACE rule directs States to establish performance standards for power plants based solely on heat rate improvements and includes a list of "candidate technologies" for improving heat-rate efficiency. IDEM is currently developing a plan to comply with ACE for the State of Indiana.

The EPA's repeal of the CPP and replacement with the ACE rule has been challenged by more than two dozen States and numerous interest groups. It's currently unclear how the Courts will rule. The ongoing legal battles are expected to continue for some time perpetuating uncertainty around potential CO2 emissions limitations for coal-fired power plants. Regardless of the ultimate outcome of all this litigation, most industry observers project that some type of regulation limiting carbon emissions will be effective later in the 2020s.

Market price risk

The resource planning process includes market price forecasts for power, natural gas, capacity and other commodities. These forecasts change over time and dramatic changes, such as price spikes or an economic recession, will have material impact on expected outcomes.

While several market price scenarios are incorporated into the portfolio modeling to attempt to recognize a variety of market futures, it's impossible to capture all variability. Therefore, the Integrated Resource Plan should be viewed as a snapshot in time based upon current market forecasts and economic assumptions. The resources selected as part of the IRP process are highly dependent upon market price and will change over time.

KEY RISKS

Transmission price constraints

Congestion is a significant cost risk. Congestion is a result of the locational marginal pricing (LMP) methodology, which reflects the value of energy at specified locations throughout the MISO footprint. If the same priced electricity can reach all locations throughout the grid, then LMPs are the same. When there is transmission congestion generally caused by heavy use of the transmission system, energy cannot flow either from or to other locations. This forces more expensive and/or more advantageously located electricity to flow in order to meet the demand. As a result, the LMP is higher in the constrained locations.

Hoosier Energy has worked with both ACES and outside consultants to analyze congestion between the generation stations and the Hoosier load zones. The analysis, which includes the MISO-approved transmission expansion plans, generally shows some improvement to congestion impacts even though construction of those lines is currently impacting dispatch of generating units. Therefore, long-term congestion impacts appears to be a low risk at this time.

Hoosier Energy's success in preserving grandfathered agreements (GFAs) provides congestion and transmission cost benefits to members. GFAs act as a hedge against congestion costs and GFAs are exempt from charges for the largest and most expensive MISO transmission projects.

MISO is in the process of developing another portfolio of projects. This is a multi-year study to position the grid in support of changing resource mix. Therefore, Hoosier Energy continues to face transmission cost risk from new transmission projects authorized by MISO.

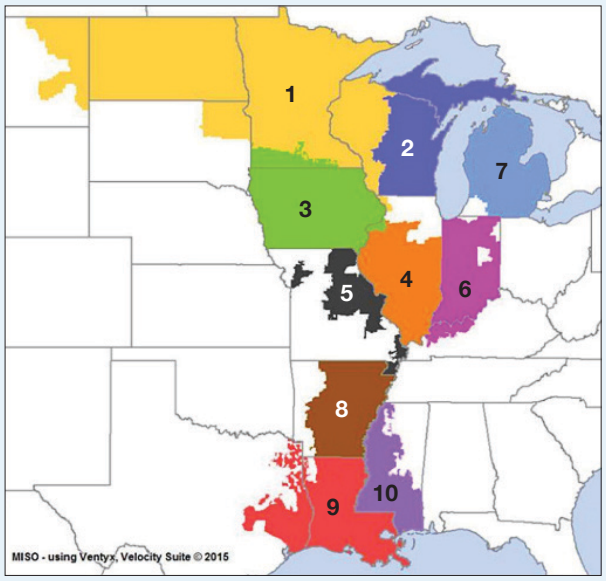
KEY RISKS

Midcontinent Independent System Operator

The MISO footprint is divided into 10 zones for resource adequacy purposes. The purpose of the zones is to reflect transmission capability between the zones and ensure reliability during peak conditions. Hoosier Energy has generation and load in two zones: Zone 6 (Indiana) and Zone 4 (Illinois). Hoosier Energy has a capacity deficit in Zone 6 of roughly 200 MW that is offset by excess resources of the same amount in Zone 4. Overall, Hoosier Energy's capacity resource portfolio is balanced.

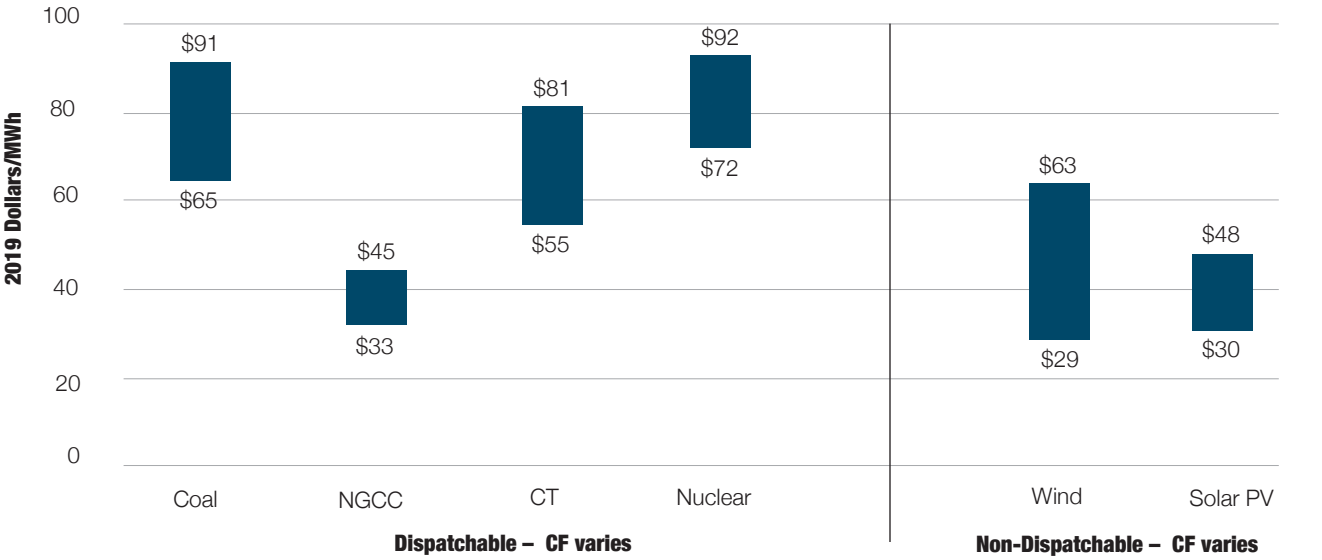
The results of a recent MISO Survey indicate that, based on current assumptions, there are sufficient resources to serve expected load through the 2025-26 Planning Year. This means that short-term capacity should be available and relatively inexpensive versus the long-term cost of dispatchable generation assets. In addition, ACES recently concluded in its annual Capacity Outlook that separation between Zones 4 and 6 is unlikely over the next few years. Therefore, given limited load growth and ongoing transmission investment, the price differential between the two zones should remain manageable. However, these are projections that may change, especially if load growth is different than expected and/or due to unanticipated resource retirements. MISO continues to propose changes to this construct with the stated goal of further enhancing long-term resource adequacy.

In 2018, MISO introduced its Resource Availability and Need (RAN) initiative, with the goal of assuring the conversion of committed capacity resources into sufficient energy every hour of the Planning Year. MISO has divided implementation into phases, with those proposals that could be more easily accomplished addressed earlier in the process. Phase 1 was implemented in 2019 and included changes to Load Modifying Resource and Outage Scheduling requirements. Phases 2 and 3 are currently in the stakeholder discussion phase and include a focus on resource accreditation and the potential move to a sub-annual Resource Adequacy construct. Tariff revisions are expected to be filed at FERC in mid-2021, with implementation proposed for the Planning Year 2022 – 23 Planning Resource Auction.



ENERGY COST OF NEW GENERATION

The chart below reflects the U.S. Energy Information Administration's forecasted ranges of levelized cost of electricity for new generation resources entering service in 2025, based on current dollars. The referenced coal facility includes carbon capture and storage and is assumed to remove 90 percent of the plant's CO2 emissions. This chart indicates that gas-fired, wind and solar generation will be the most economic alternatives as generation portfolio additions. While wind and solar generation may be less expensive on a levelized cost basis than some alternatives, they are intermittent energy sources. The future development of economic utility-scale storage is expected to increase the value of intermittent resources.



Source: Energy Information Administration

Counterparties

Hoosier Energy members are well served by maintaining a mix of owned and purchased resources. In addition to the purchased power agreements, Hoosier Energy uses PPAs to acquire wind, solar and hydro renewable resources. Hoosier Energy-owned generation includes a mix of sole and jointly-owned facilities.

Future resource options will likely include additional partnerships with existing or new Counterparties to meet capacity and energy requirements. In addition to traditional PPAs, options may include shared ownership or Hoosier Energy taking a partial interest in generation resources owned by other companies.

RESOURCE CHANGES

2020-2023

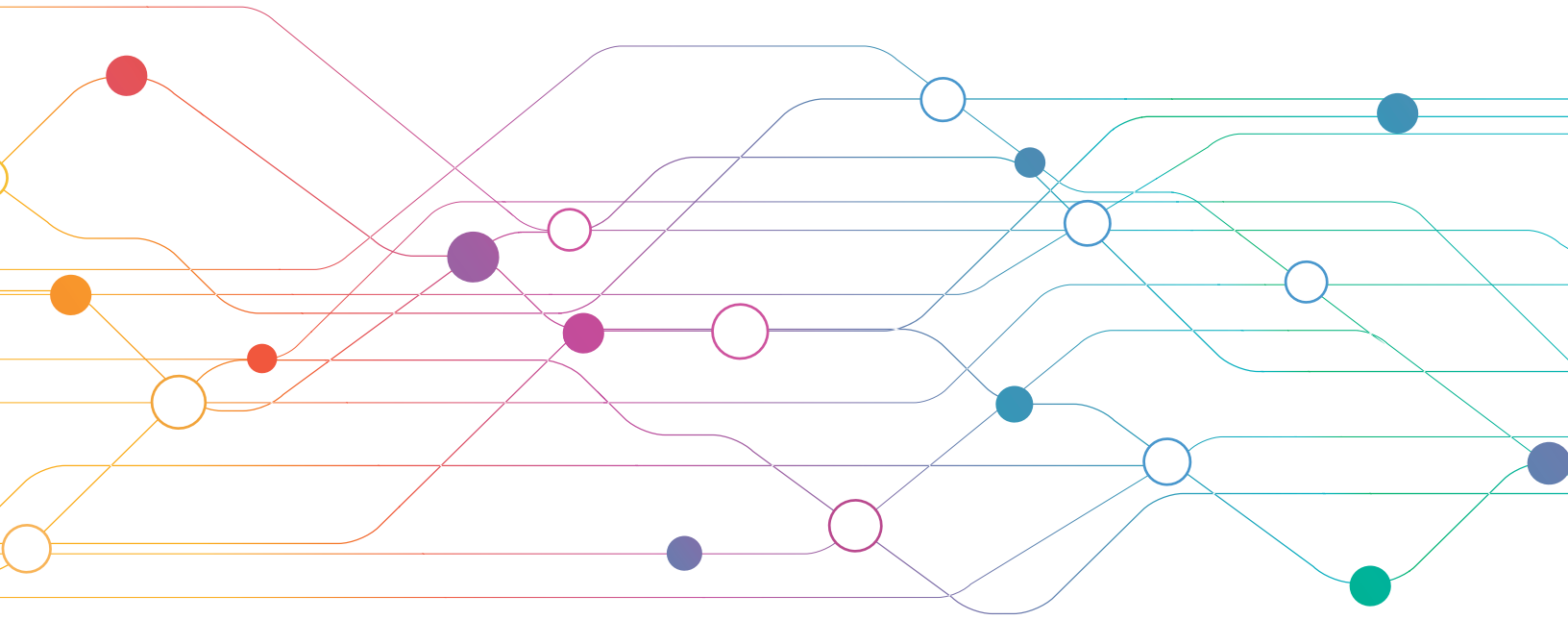
RESOURCE CHANGES:

- 200 MW Riverstart solar PPA begins in 2022.
- Expected retirement of 1,000 MW Merom Station in 2023.
- 100 MW PPA expires after Dec. 31, 2023.
- Portfolio modeling suggests the addition of 800 MW of wind PPAs, 500 MW of solar PPAs and 300 MW of natural gas-fired resources.

2023 and beyond

RESOURCE CHANGES:

- Portfolio modeling suggests the addition of 200 MW natural gas-fired resources in 2024.
- 50 MW PPA expires after Dec. 31, 2025.
- The capacity expansion plan projects a need for capacity in 2026, which allows for resource flexibility.



ACTION PLAN

MARKET INTERACTIONS

In the near-term, Hoosier Energy will use market purchases/sales to meet short-term needs. Longer-term, market interactions will be used to balance the resource portfolio, as necessary. Hoosier Energy will also employ hedging strategies to reduce market price risk, monitor markets for opportunities and explore opportunities to hedge capacity differential between MISO zones.

WIND AND SOLAR RESOURCES

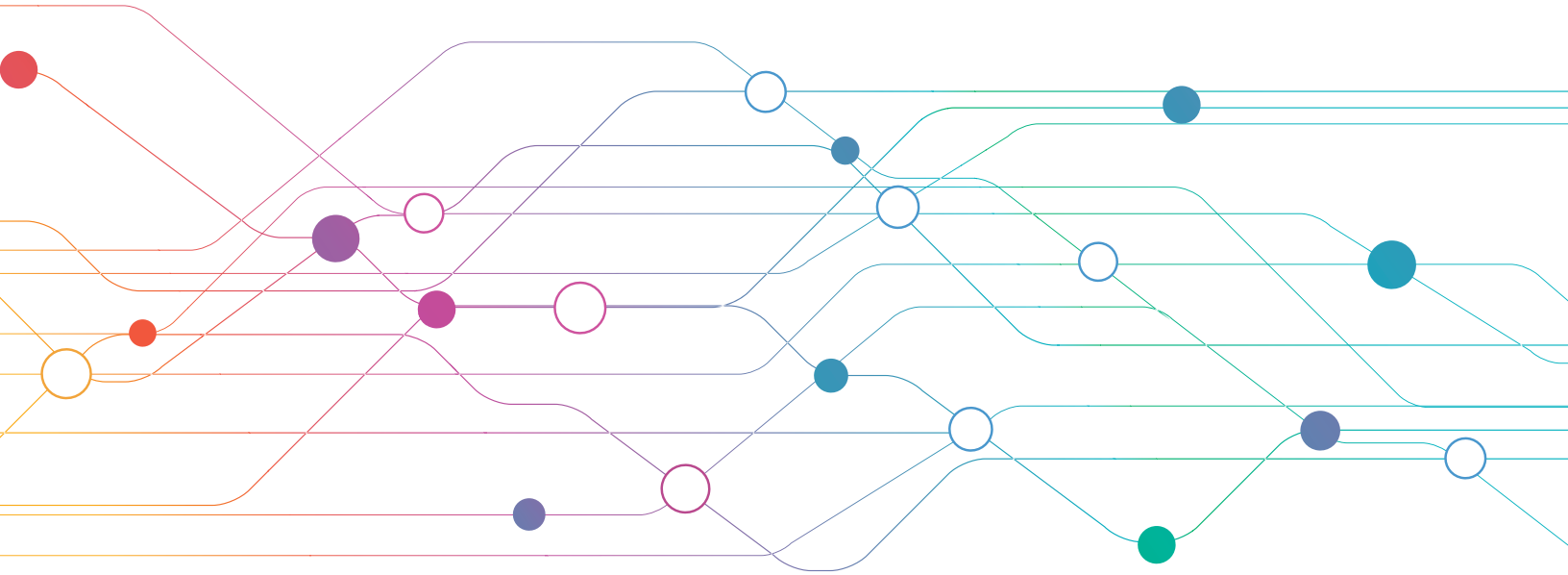
Expected future changes to the portfolio mix will highlight the benefit of adding wind and solar resources to economically serve member load. Hoosier Energy will add 200 MW from the Riverstart PPA in 2022 and will pursue additional wind and solar resources in subsequent years. Future resources are expected to be added through PPAs.

CARBON EMISSIONS

Many utility industry forecasters anticipate some form of carbon regulation to become effective by the late-2020s. Several scenarios incorporating that assumption were included in the portfolio modeling, which led to increased additions of wind, solar and storage resources.

LONG -TERM NEEDS

Hoosier Energy worked with Charles River Associates to perform a resource screening and portfolio analysis, including a comprehensive analysis of portfolio performance under differing economic and regulatory scenarios. The analysis consisted of a 20-year forward assessment of the member load forecast and resources required on a low cost and reliable basis. The preferred strategy is to retire Merom in 2023 and replace with a portfolio of wind, solar, natural gas and market resources.



ACRONYMS USED

ACES
Alliance for Cooperative Energy Services

CF
Capacity Factor

CO2
Carbon Dioxide

CPP
Clean Power Plan

CT
Combustion Turbine

EPA
Environmental Protection Agency

FERC
Federal Energy Regulatory Commission

FIP
Federal Implementation Plan

GFA
Grandfathered Agreements

IDEM
Indiana Department of Environmental Management

kWh
Kilowatt-hour

LED
Light-emitting diode

LMP
Locational Marginal Price

MISO
Midcontinent Independent System Operator

MW
Megawatt

MWh
Megawatt-hour (equivalent to 1,000 kWh)

NG
Natural Gas

NGCC
Natural Gas Combined Cycle

PPA
Purchased Power Agreement

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