# 21ST CENTURY ENERGY POLICY DEVELOPMENT TASK FORCE

Indiana Legislative Services Agency 200 W. Washington Street, Suite 301 Indianapolis, Indiana 46204

Wednesday, October 19, 2022

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# 21ST CENTURY ENERGY POLICY DEVELOPMENT TASK FORCE

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#### FINAL REPORT

# 21st Century Energy Policy Development Task Force

#### STATUTORY DIRECTIVE

The 21<sup>st</sup> Century Energy Policy Development Task Force (Task Force) is required to study the following issues not later than November 1, 2022, as set forth in further detail in IC 2-5-45.1-6(a):

- (1) The management of stranded utility assets.
- (2) Methods to assure fairness to all customer classes in retail electric rate structures, including alternative rate designs, such as time-of-use pricing, real-time pricing, and critical peak pricing.
- (3) Appropriate regulation of the deployment of distributed energy resources, consistent with Federal Energy Regulatory Commission Order No. 2222 (172 FERC 61,247 (2020)).
- (4) The impact on communities of utility plant or fuel source site closures.
- (5) The status of energy efficiency efforts in Indiana, and the potential development of a statewide energy efficiency plan.
- (6) Energy issues affecting:
  - (A) low income communities; and
  - (B) communities of color;

in relation to business and employment opportunities in those communities.

- (7) The potential use of "green zones," or "energy investment districts," in low-income communities or communities of color that have experienced inequitable environmental and economic hardships.
- (8) Methods for the state to encourage electricity storage technology research.
- (9) The impact of large scale electric vehicle deployment on electric grid capacity and reliability.
- (10) Electric vehicle charging station ownership and responsibility.
- (11) Demand response and pricing systems that incentivize temporal shifting of electric load.

In addition, under IC 2-5-45.1-6(b), the Task Force may, at the discretion of the Co-Chairs, examine any of the issues set forth in IC 2-5-45-6 (before its expiration) that were studied by the 21<sup>st</sup> Century Energy Policy Task Force that was established by IC 2-5-45 (before its expiration) and that met during the 2019 and 2020 legislative interims.

IC 2-5-45.1-7 requires the Task Force to develop recommendations for the General Assembly and the Governor concerning the issues set forth in IC 2-5-45.1-6(a) (summarized above) and, not later than November 1, 2022, submit a report setting forth those recommendations to the following:<sup>1</sup>

- (1) The executive director of the Legislative Services Agency for distribution to the members of the General Assembly.
- (2) The Governor.
- (3) The chair of the Indiana Utility Regulatory Commission.
- (4) The Utility Consumer Counselor.

# **SUMMARY OF WORK PROGRAM**

# 2021 Work Program

Although not required by statute, not later than November 1, 2022, the Task Force will submit the required report to individual members of the Legislative Council created by IC 2-5-1.1-1. The report will be submitted to the Executive Director of the Legislative Services Agency and to individual members of the Legislative Council in an electronic format under IC 5-14-6.

The Task Force met five times during the 2021 legislative interim: August 18, 2021; August 24, 2021; September 8, 2021; October 12, 2021; and October 26, 2021.

August 18, 2021: The Task Force reviewed its statutory directive, considered the processes and desired outcomes for its course of study, and received testimony on the following topics: (1) Reporting requirements for cooperatively owned power suppliers. (2) Fairness in retail electric rate structures. (3) Demand response and incentives for electric load shifting.

The minutes for this meeting may be found at:

https://iga.in.gov/legislative/2021/committees/ 21st century energy policy development task force

Archived video of the meeting may be accessed by visiting:

https://iga.in.gov/information/archives/2021/video/ committee 21st century energy policy development task force/

<u>August 24, 2021</u>: The Task Force heard testimony on the following topics: (1) Legislative policy on electric vehicle charging programs. (2) Electric vehicle manufacturing. (3) Charging station infrastructure requirements for electric vehicles. (4) The impact of electric vehicles on the electric grid.

The minutes for this meeting may be found at:

https://iga.in.gov/legislative/2021/committees/ 21st century energy policy development task force

Archived video of the meeting may be accessed by visiting:

https://iga.in.gov/information/archives/2021/video/ committee 21st century energy policy development task force/

<u>September 8, 2021</u>: The Task Force received testimony on the following issues: (1) The impact on the electric grid of distributed energy resources (DER), along with a status update on Federal Energy Regulatory Commission (FERC) Order No. 2222. (2) Stakeholders' assessments of FERC Order No. 2222 and of the impact of DER on the electric grid. (3) Whether statutory changes are necessary to optimize DER implementation.

The minutes for this meeting may be found at:

https://iga.in.gov/legislative/2021/committees/ 21st century energy policy development task force

Archived video of the meeting may be accessed by visiting:

https://iga.in.gov/information/archives/2021/video/committee 21st century energy policy development task force/

October 12, 2021: The Task Force heard testimony concerning the following: (1) Energy storage research. (2) Current battery storage capabilities. (3) Developments in nuclear energy. (4) Hydrogen

technologies.

The minutes for this meeting may be found at:

https://iga.in.gov/legislative/2021/committees/ 21st century energy policy development task force

Archived video of the meeting may be accessed by visiting:

https://iga.in.gov/information/archives/2021/video/ committee 21st century energy policy development task force/

October 26, 2021: The Task Force's final meeting of the 2021 legislative interim included the following: (1) The receipt of testimony on: (A) retail electric rates for residential, commercial, and industrial customer classes; and (B) electric vehicle charging infrastructure at fueling stations. (2) Discussion by Task Force members of their work program during the 2021 legislative interim, along with plans for the 2022 interim. (3) Distribution of the Task Force's 2021 information report. (4) Following the meeting in the House of Representatives Chamber, an information-gathering tour of the Midcontinent Independent System Operator (MISO) facility in Carmel, Indiana, by Task Force members.

The minutes for this meeting may be found at:

https://iga.in.gov/legislative/2021/committees/ 21st century energy policy development task force

Archived video of the meeting may be accessed by visiting:

https://iga.in.gov/information/archives/2021/video/committee 21st century energy policy development task force/

# 2022 Work Program

The Task Force met five times during the 2022 legislative interim: August 9, 2022; August 30, 2022; September 13, 2022; September 26, 2022; and October 19, 2022.

<u>August 9, 2022</u>: The Task Force discussed its course of study for the 2022 legislative interim and received testimony on the following topics: (1) The reliability of the electric grid. (2) The reliability positions of individual electric utilities.

The minutes for this meeting may be found at:

https://iga.in.gov/legislative/2022/committees/ 21st century energy policy development task force

Archived video of the meeting may be accessed by visiting:

https://iga.in.gov/information/archives/2022/video/ committee 21st century energy policy development task force/

August 30, 2022: The Task Force heard testimony on the following subjects: (1) Electric transmission

assets and long-range transmission planning. (2) The transmission development process. (3) "Green zones," or "energy development districts." (4) Community solar. (5) The local impacts of utility plant or fuel-source site closures.

The minutes for this meeting may be found at:

https://iga.in.gov/legislative/2022/committees/ 21st century energy policy development task force

Archived video of the meeting may be accessed by visiting:

https://iga.in.gov/information/archives/2022/video/ committee 21st century energy policy development task force/

<u>September 13, 2022</u>: The Task Force received testimony on the following topics: (1) Electric service affordability. (2) Performance-based ratemaking. (3) Rate structure design. (4) Energy efficiency.

The minutes for this meeting may be found at:

https://iga.in.gov/legislative/2022/committees/ 21st century energy policy development task force

Archived video of the meeting may be accessed by visiting:

https://iga.in.gov/information/archives/2022/video/ committee 21st century energy policy development task force/

September 26, 2022: The Task Force took testimony concerning the following: (1) Hydrogen technologies and carbon capture and storage (CCS) technologies. (2) Hydrogen and renewable natural gas infrastructure. (3) Vehicle infrastructure and microgrids. (4) Public safety issues surrounding battery electrical storage systems. (5) Price volatility in energy markets. (6) The National Electric Vehicle Infrastructure Formula Program (NEVI). (7) The life cycle management of wind and solar infrastructure. (8) Electric service affordability.

The minutes for this meeting may be found at:

https://iga.in.gov/legislative/2022/committees/ 21st\_century\_energy\_policy\_development\_task\_force

Archived video of the meeting may be accessed by visiting:

https://iga.in.gov/information/archives/2022/video/committee 21st century energy policy development task force/

October 19, 2022: The Task Force's final meeting of the 2022 interim included: (1) discussion among Task Force members of a draft of the Task Force's statutory report under IC 2-5-45.1-7; (2) the incorporation by staff of suggested modifications to the report; and (3) a vote on the report, as amended.

### TASK FORCE FRAMEWORKS

#### Framework #1: The Five Pillars of Electric Utility Service

Throughout its work program during the 2021 and 2022 legislative interims, the Task Force has continued to focus on the five attributes or "pillars" of electric utility service identified by the previous iteration of the Task Force (as established by IC 2-5-45, before its expiration) as crucial considerations in the development of a statewide energy policy: (1) reliability; (2) resilience; (3) stability; (4) affordability; and (5) environmental sustainability.

These five pillars, as described below, have served as the lens through which the Task Force has viewed all potential policy options, and constitute the framework for the findings and recommendations included in this report:

(1) *Reliability:* Reliability consists of two fundamental and aspirational concepts—adequacy and operating reliability:<sup>2</sup>

Adequacy is the ability of the electric system to supply the aggregate electrical demand and energy requirements at the end-use customers at all times, taking into account scheduled and reasonably expected unscheduled outages of system elements.

Operating reliability is the ability of the electric system to withstand sudden disturbances such as electric short circuits or unanticipated loss of system components.

Decisions regarding Indiana's generation resource mix must consider the reliability of the electric delivery system as a whole, as well as reliable electric utility service for all customer classes of individual utilities.

- (2) *Resilience*: Resilience is the ability of a system or its components to adapt to changing conditions, and to withstand and rapidly recover from disruptions or off-nominal events. The state's energy policies must consider the attribute of resilience with respect to any decisions regarding Indiana's generation resource mix and energy infrastructure.
- (3) *Stability:* Stability refers to the ability of an electric system to maintain a state of equilibrium during normal and abnormal conditions or disturbances.<sup>3</sup> A stable source of electricity, in which frequency and voltage are maintained within defined parameters, is crucial to the manufacturing industry on which Indiana's economy depends. Accordingly, Indiana's energy policies must take into account the ability of the electric system to withstand sudden disturbances and to deliver stable electric service to industrial consumers and all other classes of end users.
- (4) Affordability: Reliable, resilient, and stable electricity is an essential service for Indiana residents, businesses, and manufacturers. Decisions regarding Indiana's generation resource mix and ratemaking constructs must result in retail electric service that is affordable across the residential, commercial, and industrial customer classes.
- (5) Environmental sustainability: The Task Force received testimony from regulators and industry stakeholders about the impact of environmental regulations on the cost of providing electric utility service. The Task Force also heard from Indiana businesses and economic development professionals about the increasing demand from corporate and other consumers for environmentally sustainable sources of generation. Decisions regarding Indiana's generation resource mix must take into account

<sup>2</sup> Reliability Issues Steering Comm., N. American Elec. Reliability Corp., Report on Resilience iv (Nov. 8, 2018).

<sup>3</sup> N. American Elec. Reliability Corp., Glossary of Terms Used in NERC Reliability Standards (Mar. 29, 2022).

both environmental regulations and consumers' demands for sustainable sources of generation.

# Framework #2: A Managed Transition to Renewable Energy Resources

The testimony received by the Task Force throughout its two-year work program suggests that market conditions, environmental factors, and consumer preferences will continue to drive the increasing role of renewable energy resources in Indiana's electric generation mix. The Task Force acknowledges that this transition is inevitable and ought to be encouraged, that it comes with both costs and benefits, and that it occurs in the context of an interconnected regional transmission system that crosses state borders.

At the same time, the Task Force has determined that the transition to an increased reliance on renewable energy resources must be managed in a way that doesn't compromise the reliability, resiliency, and stability of electric utility service, and that maintains affordability for all customer classes. Like the five pillars themselves, the concept of a measured and smooth transition to renewable generation sources serves as a guiding principle for the findings and recommendations included in this report.

# **TASK FORCE FINDINGS**

#### General

- (1) The five pillars of reliability, resilience, stability, affordability, and environmental sustainability are the foundation of Indiana's energy policy. Any consideration of the state's energy policy, or any statutory changes affecting the state's energy policy, should take into account the impact on the five pillars, both individually and as a whole.
- (2) The five pillars not only constitute the foundation of Indiana's energy policy and the electric service provided to Hoosiers, but they also underpin our modern society. Without an electric system that satisfies all five pillars, Indiana would not be an attractive place for citizens to live, work, play, study, raise a family, and retire.
- (3) In the short- and medium-term, or until new technologies are developed, or significant advancements in existing technologies occur, Indiana's electricity needs are best served through a diverse resource mix that leverages the strengths of, and mitigates the weaknesses inherent in, each type of generation resource. This "all of the above" approach provides the best path forward to ensure that all five pillars are appropriately balanced.
- (4) Federal mandates and spending, the adoption of innovative technologies, and changing market dynamics have quickened the pace of the energy transition. With the world rapidly changing, Indiana must ensure its regulatory system can keep pace. The Indiana Utility Regulatory Commission (IURC) should continually evaluate regulatory and ratemaking processes to ensure that regulation is aligned with state policy and with shifting market and consumer dynamics, and that innovative technologies can be adopted for the benefit of the overall system, without compromising the five pillars.
- (5) Energy storage technologies continue to advance at a rapid pace. However, there remain significant technological, logistical, and affordability challenges in the near-term that may hinder the ability of Indiana to more quickly transition to an electric grid that is primarily powered by intermittent generation sources, while still retaining the same robust level of reliability that Hoosiers have enjoyed over the past decades. Thoughtful attention to fact-based and rational timelines with respect to energy storage technologies is necessary to transition responsibly to a grid that is increasingly powered by intermittent sources.
- (6) As innovative power train technologies are developed and deployed, Indiana will need to encourage the

development of robust infrastructure to serve a variety of vehicle types, including hybrids, battery electric vehicles, and hydrogen fuel cell vehicles, in order to ensure that Indiana retains its designation as the "Crossroads of America."

- (7) The sites of former electric generating stations and mines often include land and critical infrastructure that can be leveraged for economic development opportunities. The re-use of such sites should be prioritized, especially in areas that are economically distressed.
- (8) Appropriate statutory authority exists for utilities to establish community solar programs. In considering any community solar program, individual utilities and the IURC should consider the potential impact the program would have on all ratepayers, including non-participating ratepayers.

# Reliability

- (9) Reliable electric service provides Hoosiers with the means to earn a living by providing reliable power to Indiana businesses and industries that rely on it to thrive and expand within the state. A portfolio of supply-side and demand-side resources that collectively can provide power reliably to customers also provides safety and security, enabling citizens to participate in and enjoy the benefits of modern society, while helping to keep critical facilities online on an around-the-clock basis.
- (10) Generation, energy storage, and demand response resources that provide reliability characteristics, such as generator capacity,<sup>4</sup> dispatchability,<sup>5</sup> and load-following capabilities<sup>6</sup> are important to ensuring the overall reliability of the electric grid.
- (11) The necessity of a diverse and reliable generation portfolio was highlighted in the summer of 2022 as both the Midcontinent Independent System Operator (MISO) and the North American Electric Reliability Corporation (NERC) indicated that Indiana faced a higher risk of energy shortfalls during peak summer conditions because of increased demand, capacity shortfalls resulting from generation retirements, and lower levels of accredited capacity.
- (12) The IURC should maintain its focus on ensuring that Hoosiers receive safe and reliable service, and that utilities fulfill their obligation under the regulatory compact to provide that service safely and reliably.

#### Resilience

- (13) Catastrophic events and natural disasters are inevitable and may strike at any moment. Indiana's electric infrastructure should be appropriately invested in and maintained, and the necessary resources provided, in order to respond to these off-nominal events.
- (14) Communities and utilities should work collaboratively and often to ensure that communities are prepared
- 4 "Generator capacity" means "[t]he maximum output, commonly expressed in megawatts (MW), that generating equipment can supply to system load, adjusted for ambient conditions." U.S. Energy Info. Admin., Glossary, <a href="https://www.eia.gov/tools/glossary/index.php?id=G#gen\_cap">https://www.eia.gov/tools/glossary/index.php?id=G#gen\_cap</a> (visited Oct. 14, 2022).
- 5 "Dispatchability" refers to the ability of a generation facility to be available at the request of power grid operators when needed to meet market needs. (For further information, see the following: Energy Education, University of Calgary, <a href="https://energyeducation.ca/encyclopedia/Dispatchable\_source\_of\_electricity">https://energyeducation.ca/encyclopedia/Dispatchable\_source\_of\_electricity</a> (visited Oct. 12, 2022). Understanding the Term "Dispatchable" Regarding Electricity Generation, NMPP Energy, <a href="https://www.nmppenergy.org/energy-education/understanding-term-dispatchable-regarding-electricity-generation">https://energyeducation/understanding-term-dispatchable-regarding-electricity-generation</a> (visited Oct. 12, 2022)).
- 6 "Load-following capability" refers to the ability of the power output of an electric generation facility to be adjusted to maintain the electric system's ability to match supply and demand. (*For further information, see the following:* Load Following Power Plant, <a href="https://www.nuclear-power.com/nuclear-power/reactor-physics/reactor-operation/normal-operation-reactor-control/load-following-power-plant/">https://www.nuclear-power.com/nuclear-power/reactor-physics/reactor-operation/normal-operation-reactor-control/load-following-power-plant/</a> (visited Oct. 12, 2022)).

for and can respond to events during which electricity may not be available for periods of time. This collaboration may include the following:

- Communicating regarding critical facilities and services in communities, such as community heating and cooling centers, so that utilities can prioritize critical community services in restoration efforts.
- Ensuring that community members who need electricity for oxygen or other medical equipment know how to contact the appropriate utility for priority service restoration.

#### **Stability**

(15) Indiana's economy will increasingly include advanced manufacturing industries and other businesses that must have a stable source of electricity at all times. Indiana's electric system should maintain and be able to deliver a stable source of electricity, with increasingly higher levels of stability available for advanced manufacturing companies. Such higher levels of stability should be paid for by those customers who require it, in adherence to the cost-causation principles of ratemaking.

# **Affordability**

(16) Any consideration of the state's energy policy, or any statutory changes affecting the state's energy policy, should take into account the policy stated in IC 8-1-2-0.5:

The general assembly declares that it is the continuing policy of the state, in cooperation with local governments and other concerned public and private organizations, to use all practicable means and measures, including financial and technical assistance, in a manner calculated to create and maintain conditions under which utilities plan for and invest in infrastructure necessary for operation and maintenance while protecting the affordability of utility services for present and future generations of Indiana citizens.

- (17) Customer assistance programs, such as the Low-Income Home Energy Assistance Program (LIHEAP) and the Weatherization Assistance Program (WAP), are important resources to help low-income customers afford their energy bills, especially during the winter heating season. In addition, utility-sponsored energy efficiency programs enable customers to take advantage of opportunities to reduce their overall bill. Together, customer assistance programs and energy efficiency programs can assist customers, particularly low-income customers, and mitigate the financial impacts of higher energy prices.
- (18) The ability to draw power from multiple types of resources as part of a diverse generation resource mix allows for the mitigation of price volatility and serves as a hedge against constraints, such as those involving fuel supplies and supply chains, and against other potential future disruptions in supply.
- (19) In an ever-changing energy landscape, Indiana's regulatory framework should allow the opportunity for innovation and flexibility to ensure Indiana utilities can act in a timely manner for the benefit of their customers. To that end, the General Assembly and the IURC should continue to improve procedural efficiencies through multiple pathways and opportunities, without compromising the five pillars.
- (20) The increased use of intermittent generation resources is dependent on a significant expansion of the existing electric transmission system. Additionally, with Indiana's location on or near several key seams between transmission planning regions, it is expected that more land will be used to host the growth of transmission systems, making Indiana the "Crossroads of America" for more than just roads. Given these realities, it is important that state regulators and policymakers closely monitor the impact that transmission

investments can have on local communities, along with the upward pressure such investments can impose on utility rates.

(21) The affordability of electricity has become a more important concern because electricity prices in Indiana are no longer, as they once were, among the lowest of the fifty (50) states.

### Environmental Sustainability

- (22) The transition to clean energy resources and innovative technologies is occurring and should be encouraged. The state should take reasonable steps to reduce barriers to these resources and technologies, so as to enable the market to drive innovation, and should encourage the economic growth that these resources and technologies may bring to Indiana. Further, rapid adoption of new technologies has the potential to significantly affect both the pattern of electricity usage and the demands placed on electric distribution infrastructure. The state should continue to manage this transition carefully and in a way that does not compromise the reliability, resiliency, and stability of electric service, and that maintains affordability for all customer classes. As new technologies, such as distributed energy resources (DERs) and electric vehicles (EVs), integrate with and operate in parallel to the electric system, they should be continually evaluated to ensure they are in compliance with reasonable reliability and safety standards.
- (23) Renewable energy generation sources are highly desirable with respect to reducing carbon emissions, and are presently economically competitive with existing conventional generation resources because of technological advancements, market innovations, and federal government subsidies.
- (24) To keep Indiana competitive in attracting and retaining certain businesses, the state must encourage the deployment of renewable energy resources, while not compromising the reliability and affordability of electric utility service.
- (25) Renewable energy offers new opportunities for Indiana to leverage its comparative advantage in manufacturing and attract new investment, jobs, and infrastructure that grow local economies.

#### TASK FORCE RECOMMENDATIONS

- (1) The General Assembly should consider legislation instructing the IURC to evaluate the use of innovative ratemaking designs and to implement approaches (such as alternative rate designs that include performance incentive mechanisms) that may enhance Indiana's traditional regulatory framework and support greater alignment among policymakers, regulators, utilities, and customers with respect to goals and desired outcomes for Indiana's electric delivery system.
- (2) Indiana's regulatory landscape should remain flexible and should reasonably encourage the adoption of innovative technologies that may enhance the reliability of the electric system or reduce customer costs.<sup>7</sup>
- (3) Lawmakers should work collaboratively with the IURC to explore opportunities to establish reasonable periods of time between utility base rate cases, such as the use of multi-year rate plans, so as to increase

In the 2022 session of the Indiana General Assembly, progress with respect to this recommendation was made through the enactment of legislation that: (1) addressed the ownership and operation of EV charging stations and allowed the IURC to approve time-varying price structures and tariffs, or other alternative pricing structures or tariffs (HEA 1220-2022); (2) directed the IURC, in consultation with the Indiana Department of Environmental Management, to adopt rules concerning certificates of public convenience and necessity for the construction, purchase, or lease of small modular nuclear reactors (SEA 271-2022); and (3) provided that underground pumped storage hydropower qualifies as a "renewable energy resource" for purposes of the state statute providing certain financial incentives for energy utilities to invest in clean energy projects (SEA 147-2020).

regulatory efficiency and reduce regulatory costs.

- (4) The General Assembly should: (A) consider legislation reducing the thirty percent (30%) threshold for summer or winter unforced capacity (UCAP) that a public utility may acquire from capacity markets under Indiana's statutory reliability adequacy metrics (as set forth in IC 8-1-8.5-13); and (B) evaluate safeguards that may serve to protect Indiana customers from paying higher electricity prices as a result of other states' policy choices affecting the regional electricity markets of which Indiana is member.
- (5) The Indiana Housing and Community Development Authority, the IURC, the Indiana Office of Utility Consumer Counselor, and other relevant state agencies should engage with utilities and other stakeholders to increase eligible customers' awareness of, and participation in, customer assistance programs, such as LIHEAP, WAP, and those offered by individual utilities.
- (6) State lawmakers, the Indiana Office of Energy Development, and the Indiana Department of Homeland Security should collaborate with local units of government and relevant industries to publish best practices related to safety issues surrounding battery storage facilities, small modular nuclear reactors, hydrogen facilities and infrastructure, and other emerging energy technologies.
- (7) The IURC should evaluate its regulatory processes for possible areas of improvement, including the potential consolidation of certain proceedings or filings.
- (8) The General Assembly should adopt a resolution affirming the goal of the 2019-2020 Task Force for Indiana's average residential, commercial, and industrial retail electric rates to be among the lowest twenty-five percent (25%) of all states by the end of 2030.
- (9) The General Assembly should consider legislation that expands the use of: (A) time-varying price structures for retail energy service (such as time-of-use or off-peak pricing, critical peak pricing, variable peak pricing, and real-time pricing); or (B) other innovative pilot programs; that will reduce the need for new peak generation resources to meet increased electric demand as the modern economy continues to become increasingly electrified.
- (10) Indiana lawmakers should closely monitor the development of any federal transmission infrastructure siting reforms, and the General Assembly should explore legislation that would reduce state or local barriers that unduly delay necessary and useful transmission projects, while preserving local input and appropriate controls.
- (11) The General Assembly should consider legislation that would establish additional programs or incentives for the redevelopment of land on which electric generating stations or mines have been or are located, or for the redevelopment of land surrounding such sites.
- (12) The General Assembly should consider legislation to allow for the similar regulatory treatment of all generation resources, to the extent reasonable, by the IURC.
- (13) The General Assembly should consider legislation to authorize energy utility pilot programs that include the integration of alternative fuels to diversify utilities' fuel supplies and to support economic development.
- (14) The General Assembly should consider legislation recommending that a study be performed by an independent third-party to evaluate the technical impact of increasing EV adoption and to recommend programs or legislation on rate designs that equitably address the costs of infrastructure upgrades that may become necessary.

#### **2021 WITNESS LIST**

Peter Prettyman, Senior Vice President and General Counsel, Indiana Municipal Power Agency

Brian Christenberry, Vice President, Government Relations, Indiana Electric Cooperatives

Ron Holcomb, President and CEO, Tipmont REMC and Wintek

Jay Bartlett, President and CEO, Wabash Valley Power Alliance

Julia Frayer, Managing Director, London Economics International

Philip Hayes, Chairman, Board of Directors, Wabash Valley Power Alliance

Ahmad Faruqui, Ph.D., Principal, The Brattle Group (remote testimony)

Mike McQuillen, Director of Industry and Government Affairs, Indiana Housing and Community Development Authority

Danielle McGrath, President, Indiana Energy Association

Kerwin Olson, Executive Director, Citizens Action Coalition

Greg Ellis, Vice President, Energy & Environmental Affairs & Federal Relations, Indiana Chamber of Commerce

Brendon Baatz, Vice President, Gabel Associates (remote testimony on behalf of the Hoosier Environmental Council)

Joe Rompala, Director, Lewis Kappes, on behalf of Indiana Industrial Energy Consumers, Inc. (INDIEC)

Denise Abdul-Rahman, Chair, Environmental & Climate Justice, Indiana State Conference of the NAACP

Ryan Hadley, Executive Director of External Affairs, Indiana Utility Regulatory Commission

Karen Johnston, Regional Director, Government Affairs, Toyota Motor North America

Matt Norris, Krieg DeVault LLP (separately on behalf of the Alliance for Automotive Innovation and the Indiana Food and Fuel Association)

Francesca Wahl, Senior Charging Policy Manager, Public Policy and Business Development, Tesla, Inc. (remote testimony)

Andrea Zimmerman, Legislative Director, Indiana Department of Transportation (INDOT)

Chris Creighton, Chief of Staff, INDOT

Philip Jones, Executive Director, Alliance for Transportation Electrification (remote testimony)

Kellen Schefter, Director, Electric Transportation, Edison Electric Institute (remote testimony)

Bruno Pigott, Commissioner, Indiana Department of Environmental Management

Jordan Wallpe, Electric Transportation Project Manager, Midwest Region, Duke Energy (on behalf of the Indiana Utility Group)

David Jankowsky, Founder and Chief Executive Officer, Francis Energy

Bryce Carpenter, Vice President, Industry Engagement, Conexus Indiana

Scot Imus, Executive Director, Indiana Food & Fuel Association

Kerri Garvin, Executive Director, Greater Indiana Clean Cities, Inc. (remote testimony)

Gary Langston, President, Indiana Motor Truck Association

Doug Gotham, Ph.D., Director, State Utility Forecasting Group

Tim Caister, Deputy General Counsel, Regulatory Legal, Midcontinent Independent System Operator (MISO)

Patrick Poer, Co-Founder, Sun FundED

Kelly Hipskind, Co-Founder, Sun FundED

Eric Jung, CEO, Northeastern REMC

Ashley Brown, Retired Executive Director, Harvard Electricity Policy Group, Harvard University John F. Kennedy School of Government (remote testimony)

Ben Inskeep, Principal Energy Policy Analyst, EQ Research

Will Kenworthy, Regulatory Director, Midwest, Vote Solar

Jesse Kharbanda, Executive Director, Hoosier Environmental Council (remote testimony)

Jim Straeter, Founder, Ag Technologies, Inc.

Shelby Linton-Keddie, Esq., Senior Director, State Energy & Regulatory Policy, Edison Electric Institute

Jason Stephenson, Vice President, Associate General Counsel of Regulatory Legal, CenterPoint Energy Mark Brown, Consumer Energy Alliance

Peter Schubert, Ph.D., P.E., Director, Richard G. Lugar Center for Renewable Energy, Indiana University Purdue University Indianapolis

Dan Patry, Manager—Policy Innovation, Fluence (remote testimony)

Jeff Bishop, Co-Founder and CEO, Key Capture Energy (remote testimony)

Aaron Bloom, Senior Director, Regulatory Affairs, NextEra Energy Resources (remote testimony)

Vilas Pol, Ph.D., Professor, Davidson School of Chemical Engineering, Purdue University (remote testimony)

Zak Kuznar, Ph.D., Managing Director, Grid Solution Development, Duke Energy

Jessica Garcia, Energy Policy Research Consultant, Union of Concerned Scientists (remote testimony)

Suzanne Jaworowski, Energy Consultant, NuScale Power

Dom Claudio, Director of Sales, NuScale Power

Joel Gebbie, Senior Vice President, Chief Nuclear Officer, Indiana Michigan Power, American Electric Power Gary Parker, Director, Engineering Programs, New Power Business, Cummins, Inc.

Jason Rowell, Associate Vice President, Director—Global Decarbonization Solutions, Black & Veatch (remote testimony)

Haresh Kamath, Director, Distributed Energy Resources and Energy Storage, Electric Power Research Institute (remote testimony)

Mindy Westrick Brown, Vice President, Indiana Energy Association

#### **2022 WITNESS LIST**

Bob Kuzman, Regional Director Customer Affairs—Central Region, Midcontinent Independent System Operator (MISO)

Tim Burdis, Manager, State Policy Solutions, PJM Interconnection

Jim Huston, Chairman, and Dale Thomas, Chief Technical Advisor, Indiana Utility Regulatory Commission (IURC)

John Moura, Director, Reliability Assessment and Performance Analysis, North American Electric Reliability Corporation (NERC) (remote testimony)

Johnny Gest, Manager, Engineering & System Performance, ReliabilityFirst (remote testimony)

Ben Inskeep, Program Director, Citizens Action Coalition (CAC)

Tim Maloney, Senior Policy Director, Hoosier Environmental Council

Jack Alvey, President & CEO, Indiana Municipal Power Agency (IMPA)

Stan Pinegar, President, Duke Energy Indiana

Steve Baker, President & COO, Indiana Michigan Power

Jason Stephenson, Vice President, Associate General Counsel Regulatory Legal, CenterPoint Energy

Mike Hooper, President & COO, Northern Indiana Public Service Co. (NIPSCO)

Jeff Conrad, CEO, Wabash Valley Power Alliance (remote testimony)

Rob Horton, Executive Vice President & COO, Hoosier Energy

Aaron Cooper, Chief Commercial Officer, AES US Utilities

Rachel Hazaray, Deputy General Counsel and Senior Manager, Legal & Corporate Social Responsibility, Subaru of Indiana Automotive, on behalf of Indiana Industrial Energy Consumers, Inc. (INDIEC)

Christopher Norrick, Evansville, IN

Laura Arnold, Indianapolis, IN

Laura Rauch, Sr. Director of Transmission Planning, MISO

Simon Whitelocke, Vice President, ITC Holdings Corp., and President, ITC Michigan

Josh Burkholder, Director, Transmission RTO Policy, American Electric Power/Indiana Michigan Power

Allen Fore, Vice President, Public Affairs, Kinder Morgan Energy Partners, L.P. (remote testimony)

Denise Abdul-Rahman, State Chair, Environmental & Climate Justice, Indiana State Conference of the NAACP Jeremy Kalin, Avisen Legal

Carlo Cavallaro, Midwest Regional Director, Coalition for Community Solar Access (CCSA)

Scott Risley, Executive Director, Public Policy, CCSA

John Farrell, Co-Director, Institute for Local Self-Reliance (ILSR), and Director, ILSR Energy Democracy Initiative (remote testimony)

Roland Rosario, Renewable Energy Development Manager, CenterPoint Energy

Ashley Polen Willis, Executive Director, Pike County Economic Development Corp.

Tom Dakich, Managing Member and General Counsel, Digital Crossroad

Kacey Crane, Executive Director, Indiana Conservative Alliance for Energy

Bob Rice, Energy Manager, Hamilton Southeastern School Corporation

Benjamin Davis, Lafayette, IN

Matt Jaworowski, External Affairs Specialist, IURC

Mark Wasky, Senior Vice President, Community Affairs, Indiana Economic Development Corp.

Kerwin Olson, Executive Director, CAC

Matt Bell, CEO, Reliable Energy

Danielle McGrath, President, Indiana Energy Association

Michael Charbonneau, Director, External Government Relations, Indiana Electric Cooperatives

Andrew Campbell, Director, Portfolio Planning & Origination, NiSource, Inc.

Travis Kavulla, Vice President, Regulatory Affairs, NRG Energy (remote testimony)

Sanem Sergici, Ph.D., Principal, The Brattle Group (remote testimony)

Jennifer Washburn, Counsel, CAC

Gregory Ehrendreich, Senior Analyst, Midwest Energy Efficiency Alliance

Joe Rompala, Director, Lewis Kappes, on behalf of INDIEC

Tim Duff, General Manager, Portfolio Analysis and Regulatory Strategy, Duke Energy Corp.

Shannon Anderson, Advocacy Director, Earth Charter Indiana

Barton Heath, Newburgh, IN

Jarad Daniels, CEO, Global CCS Institute (remote tesimony)

Damian Bilbao, Vice President, US Business Development & Integration, BP

Brian Wagaman, P.E., Vice President, Gas Supply and System Operations, CenterPoint Energy

Casey Holsapple, Vice President of Business Development, Energy Transition, Kinder Morgan, Inc.

Josh Fisher, Director of State Affairs, Alliance for Automotive Innovation

Gary Johansen, Vice President—Power Systems Engineering, Cummins, Inc.

Neil Banwart, Program Director—NPROXX, New Power Business Unit, Cummins, Inc.

Dan Patry, Manager—Policy Innovation, Fluence (remote testimony)

John Quackenbush, President, JQ Resources, LLC (remote testimony)

Scott Manning, Deputy Chief of Staff, Indiana Department of Transportation (INDOT)

Kenna Mulligan-Sissman, Associate, Government Affairs, Invenergy (remote testimony)

Steffanie Dohn, Director of State and Regulatory Affairs, SOLV Energy

Natalie Robinson, Indiana State Director, National Federation of Independent Business (NFIB)

Joe Grossbauer, Owner, GGNet Technologies (remote testimony)

Kyle Barlow, Shelby County, IN