

**JOINT COMMENTS OF DESIGNATED ORGANIZATIONS REGARDING THE PRELIMINARY PARTIAL  
DRAFTS OF THE PRINCIPAL SECTIONS OF THE PLANNED REPORT OF THE INDIANA UTILITY  
REGULATORY COMMISSION TO THE 21<sup>ST</sup> CENTURY ENERGY POLICY TASK FORCE**

**Introduction**

In response to the January 23<sup>rd</sup> invitation of the Commission’s Chief of Staff, Ryan Heater, this is to provide the Joint Comments of a number of community-based organizations regarding the preliminary partial drafts of the principal sections of the Commission’s planned July 1, 2020 Report to the 21<sup>st</sup> Century Energy Policy Task Force (“Task Force”). Specifically, the organizations participating in these Joint Comments include: Citizens Action Coalition of Indiana, Hoosier Environmental Council, Energy Matters Community Coalition, Solarize Indiana, Solar United Neighbors of Indiana, Valley Watch, Hoosier Interfaith Power & Light, Indiana Distributed Energy Alliance, Sierra Club Beyond Coal, Carmel Green Initiative, and Earth Charter Indiana (“Joint Commenters”).

Joint Commenters welcome the opportunity to offer these comments and thank the Commission for providing it.

These comments are organized as follows:

- I. General Perspective on the Electric Industry Transition Which is the Focus of the 21<sup>st</sup> Century Energy Policy Task Force.
- II. General Policy Perspective regarding the Commission’s Report to the 21<sup>st</sup> Century Energy Policy Task Force.
- III. Specific Comments regarding the Preliminary Draft Sections of the Commission’s July 1, 2020 Report to the 21<sup>st</sup> Century Energy Policy Task Force

**I. Joint Commenters' General Perspective on the Electric Industry Transition Which Is  
the Focus of the 21<sup>st</sup> Century Energy Policy Task Force**

While they do not agree in every particular in their respective positions on the transition in the electric energy industry which is underway at this time in the state, nation and world, Joint Commenters are in general agreement that this transition is being driven by fundamental, global physical, environmental, economic and technological considerations which are scientifically undeniable, technologically irreversible, economically irresistible and environmentally essential. In this general context, Joint Commenters' shared view is that the 2019-2020 work of the Task Force is necessarily but the initial stage of a much longer term energy policy planning framework and process in which the State of Indiana must and should be actively and iteratively engaged into the indefinite future as the 21<sup>st</sup> Century enters its third decade. Accordingly, Joint Commenters strongly urge the Commission to adopt a similar perspective with respect to its July 1, 2020 report to the Task Force and use it to lay the foundation for a State electric energy policy planning framework and process extending until at least mid-century.

More specifically, Joint Commenters would strongly urge the Commission to adopt a broad, long-term perspective in its report based on these basic premises:

1. Indiana is neither a separate planet nor a sovereign island nation-state on planet Earth. Instead, geophysically speaking, Indiana is a defined geographic area in the northern hemisphere near the geographic center of the North American Continent of planet Earth. Moreover, geo-politically speaking, Indiana is a State of the United States of America under a national Constitution which establishes a federal system of government in a world organized by nation-state with an overlay of supra-national organizations of specific purposes and limited powers. Additionally, socio-economically speaking, Indiana is an integral but relatively small part of the United States with just over 2.0% of that nation's population and just over 1.7% of its Gross Domestic Product (GDP), with its state economy integrated into the United States' common market, the North American (relatively) free trade area, and an increasingly inter-dependent global economy. As such, Indiana is subject to geophysical, geopolitical and socio-economic forces that transcend its geo-political borders and are beyond the control of and subject only to marginal influence by its state political leaders.

2. In this larger context, Indiana's electric energy industry is currently dominated by the state-level subsidiaries of five investor-owned holding companies, Duke Energy, American Electric Power, NiSource, AES and CenterPoint. Of these holding companies, only NiSource is headquartered in Indiana. In addition to these large investor-owned utilities ("IOUs"), Indiana has numerous rural electric membership cooperatives ("REMCs") and municipally-owned utilities ("Munis") providing distribution services which are affiliated with three separate generation and transmission entities ("G&Ts) – Hoosier Energy ("Hoosier"), Wabash Valley Power Association ("WVPA"), and Indiana Municipal Power Agency ("IMPA").

3. While functionally managed on a corporate-wide basis by their respective holding companies, Indiana's five IOUs are regulated as if they were vertically integrated operating utilities with their own state-level generation, transmission, distribution, customer service and administrative functions. Consistent with the American federal system of government, the interstate transmission and wholesale operations of the Indiana IOUs are regulated by the Federal Energy Regulatory Commission (FERC) while their distribution and retail operations are regulated by the Indiana Utility Regulatory Commission ("IURC").

4. The distribution and retail customer service operations of the Indiana REMCs and Munis are managed locally, while their generation and transmission operations are managed at the state (and, in the case of WVPA, interstate) level by their respective G&T affiliates. However, the governing boards of the G&T affiliates are comprised of representatives of their respective member REMCs and Munis. Indiana's local REMCs and Munis have largely "opted out" of IURC regulation, but their G&T affiliates are still subject to both state and federal regulation in certain important respects relevant here, especially although not exclusively relating to the coordinated planning and operation of their generation and transmission systems.

5. In major parts of the United States, including Indiana, the planning and operation of electric energy generation and transmission systems has become significantly regional in scope through the organization and operation of FERC-regulated but privately owned and operated entities commonly called Regional Transmission Organizations ("RTOs"). Because of the physical interdependence of generation and transmission operations, these RTOs have been organized around the operational features of those systems. This form of organization has resulted in the State of Indiana being divided geographically between two RTOs, the Midcontinent Independent System Operator ("MISO") and the PJM Interconnection ("PJM"). Moreover, both MISO and PJM have initiated regional wholesale power markets in order to more reliably and efficiently balance electric energy supply and demand on their respective systems. As a result, PJM and MISO have initiated a joint stakeholder process to address issues associated with the operation of their systems at their "seam" known as the PJM/MISO Joint & Common Market Initiative.

6. In Indiana, the five IOUs and the three REMC/Muni G&Ts are all subject to state statutory and regulatory requirements relating to the "integrated resource planning" of their generation, transmission and distribution systems consistent with applicable provisions of the Federal Power Act, rules and orders of the FERC, and practices and procedures of MISO and/or PJM.

7. In Indiana, the five IOUs and the many local distribution REMCs and Munis are all assigned retail service territories by the IURC pursuant to the state's Service Area Assignments Act. However, these service area assignments do not limit other entities from siting electric

energy generating facilities within the State to provide electricity to PJM or MISO wholesale power markets subject to applicable statutes, regulations, orders, practices and procedures. These service area assignments also do not limit individuals and organizations from self-provisioning of their own electric service, either individually or jointly within purely private arrangements not purporting to offer service to the public at large.

8. While changing global “laws of nature,” international treaties, federal and state constitutions, and federal statutes and regulations are beyond the purview of the Task Force, recommending changes to any Indiana state laws and regulations relating to electric energy are within the purview of the Task Force.

## **II. Joint Commenters' General Policy Perspective regarding the Commission's Report to the 21<sup>st</sup> Century Energy Policy Task Force**

While they do not agree in every particular in their respective positions regarding the Commission's report to the Task Force, Joint Commenters do share the following general policy perspective:

### **1. The Importance of Mitigating Climate Change to Future Electric Industry Resource Planning**

As Synapse Energy Economics recently stated in its report to the Commission on behalf of several of the Joint Commenters regarding the Integrated Resource Plan (IRP filed by Duke Energy Indiana (DEI) on July 1, 2019<sup>1</sup>:

*Climate change is an existential threat to society and the planet's ecosystems, and it is already harming communities, damaging infrastructure, and causing extinctions. According to the 2018 Special Report [of the Intergovernmental Panel on Climate Change (IPCC)], "Without increased and urgent mitigation ambition in the coming years, leading to a sharp decline in greenhouse gas emissions by 2030, global warming will surpass 1.5°Celsius in the following decades, leading to irreversible loss of the most fragile ecosystems, and crisis after crisis for the most vulnerable people and societies." After considering the costs associated with global warming and sea level rise, the IPCC estimates the global economic damages of climate change to be \$54 trillion if we manage to limit the Earth's warming to 1.5°Celsius and \$69 trillion if we reach 2°Celsius.*<sup>2</sup>

In the United States, the leading authority on climate change is the [U.S. Global Change Research Program](#) (USGCRP), which is a non-partisan program established in 1989 under President George H. W. Bush. Thirteen government departments and agencies contribute to the program.<sup>3</sup> The USGCRP is [mandated](#) by the Global Change Research Act of 1990 to deliver a report to Congress and the president every 4 years. The Fourth National Climate Assessment was just released in

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<sup>1</sup> Synapse Energy Economics, Incorporating the Costs of Climate Change in Duke Energy Indiana's 2018 Integrated Resource Plan, Dec. 6, 2019, p. 2 (internal footnotes omitted).

<sup>2</sup> As the world's leading authority on climate change, the IPCC is comprised of thousands of climate scientists from around the world and its reports synthesize over 9,000 peer-reviewed studies to publish its global assessments every few years. Its reports confirm that climate change is occurring on all continents and across all oceans, and that it is primarily caused from the burning of fossil fuels.

<sup>3</sup> Including the Departments of Energy, Transportation, Commerce, Defense, Health and Human Services, Agriculture, Interior, and State, as well as NASA, EPA, National Science Foundation, Smithsonian Institution and Agency for International Development. The National Oceanic and Atmospheric Administration ([NOAA](#)) is the lead author, in collaboration with major universities and research organizations. NOAA is part of the Department of Commerce.

2017/18. See <https://www.globalchange.gov/>. [The Climate Science Special Report](#) (CSSR) is designed to be an authoritative assessment of the science of climate change, with a focus on the United States, to serve as the foundation for efforts to assess climate-related risks and inform decision-making about responses. Volume 1 of the Assessment was published in 2017 and was published to document in detail the effects and the causes of climate change. See <https://science2017.globalchange.gov/>. Volume 2 of the Assessment was written to help inform American decision-makers, utility and natural resource managers, public health officials, emergency planners, and other stakeholders by providing a thorough examination of the effects of climate change on the United States. See <https://nca2018.globalchange.gov/>. The Assessment confirms that climate change is affecting Americans in every region of the U.S. Most of the country has seen an increase in annual temperatures, hotter summers, more heat waves, and milder winters. Most of the country has also seen an increase in annual precipitation, more heavy downpours and floods, and an increase in 1000-yr floods. However, some parts of the southwest which would have welcomed more precipitation have seen a decrease in precipitation, longer more intense droughts and more wildfires.

In Indiana, the Purdue Climate Change Research Center has emerged as the leading authority on climate change as it is impacting the Hoosier State. The Center has issued several [reports](#) which compile the latest research on climate impacts from universities across Indiana. The reports confirm that climate change is affecting all regions of Indiana. See <https://ag.purdue.edu/indianaclimate/>.

All of this research has conclusively established beyond any reasonable doubt that:

*The costs of continuing to emit greenhouse gas emissions to power our economy as we do today are too high for business as usual to be a viable path forward. Instead, we must take actions to dramatically reduce greenhouse gas emissions associated with energy consumption.<sup>4</sup>*

The only real issue facing the world, the nation and the state, then, is what those actions are. Synapse Energy Economics, among many others, has urged its clients and the Commission to follow this course of action:

*First, we must minimize energy waste by increasing energy efficiency across the residential, commercial, industrial, and transportation sectors. Reducing energy consumption is one of the most cost-effective ways to reduce emissions. Simultaneously, energy consumption will need to shift away from polluting fossil fuels and toward clean energy sources. The IPCC has highlighted solar, wind, and energy storage as important tools during this energy transition due to the dramatic improvements in their political, economic, social, and technical feasibility. For example, the cost of installing solar has decreased by over 70 percent since 2010 and is currently at an all-time low. The*

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<sup>4</sup> Synapse, *id.*, at 3.

*levelized cost of wind energy in the United States has fallen by 45 percent since 2008. Zero carbon technologies are readily available and affordable today.*

*Decarbonizing the electric power sector is essential not only because of the importance of reducing electric power sector emissions, but also because the most viable path for reducing emissions from most other sectors is electrification. Electric vehicles (EVs) are already beginning to increase in market share, particularly in Europe and China. Bloomberg New Energy Finance forecasts that EVs will make up 31 percent of new vehicle sales in the United States by 2030. Similarly, in the buildings sector, electric technologies are increasingly competitive with appliances using fossil fuels such as natural gas, oil, or propane. Heat pumps can affordably and efficiently provide space and water heating, even in cold climates, and governments are increasingly seeking to accelerate heat pump adoption. For example, Maine has set a target of installing 100,000 new heat pumps in homes between 2020 and 2025, which will result in the installation of heat pumps in nearly 20 percent of Maine's 554,000 households.*

*In September 2019, Duke Energy publicly recognized the importance of reducing emissions from the power sector and committed to achieving net zero carbon emissions by 2050. The Company set an interim target of reducing carbon emissions by at least 50 percent by 2030. These goals are necessary steps for mitigating the worst impacts of climate change. Duke must now take appropriate steps to make sure that each of its regulated utilities will meet these targets.*

*To decarbonize by 2050, the electric power sector must make substantial shifts toward clean generation sources in the next few years. Investments in generation have traditionally been long-lived, but if new fossil fuel-powered generation is built today it will need to be retired relatively soon to achieve necessary emissions reductions. Utilities should be exceedingly cautious about investing in fossil fuel power plants that can only be utilized for a short amount of time. The required accelerated depreciation imposes larger costs on customers that could render the investments imprudent. Transitioning to a clean power grid will be easier if utilities prepare in advance. Another critical consideration is that the carbon emissions from these power plants during their years of operation contribute to cumulative emissions and climate change even if emissions targets are met in later years. The IPCC findings on climate change mentioned above make clear that clean energy shifts need to happen immediately, meaning that utilities need to adapt their resource planning now. Climate damages continue to grow every year utilities delay.*

*To best serve its customers during this power sector transition, DEI must conduct a resource planning process that adequately addresses climate change.<sup>5</sup>*

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<sup>5</sup> Synapse, *id.*

Joint Commenters submit that this same imperative applies with equal force to all of the Indiana utilities required to submit IRPs to the Commission as well as to the Commission in submitting its July 1 report to the Task Force. To do otherwise is to view the future with one eye shut to avoid seeing the very real environmental harms and economic damages associated with unmitigated climate change.

## **2. The Necessity of Incorporating the Social Cost of Carbon Emissions into Future Electric Industry Resource Planning**

As Synapse Energy Economics also explained in its report on the DEI IRP to the Commission<sup>6</sup>:

*The social cost of carbon should be incorporated into long-term power sector investments. These investments often cause more climate damage than short-term financial benefit. As such, failing to incorporate the social cost of carbon leads optimization models to make incorrect choices. In addition, ignoring these costs puts excessive risks on ratepayers, who are too often held responsible for the costs of poor utility investment decisions. Future governments are likely to pursue climate action to reduce greenhouse gas emissions through public policies that can change much faster than a utility's generation fleet typically turns over. Policies could take the form of regulation or market-oriented programs that price carbon, but either way investments in fossil fuel-powered assets could quickly become uneconomic or not "used and useful" in providing service to customers. Decisions to invest in such assets could be found to be imprudent. Accordingly, zero carbon alternatives capable of both near-term and sustained deployment in lieu of new fossil fuel generation must be characterized, evaluated, and planned starting now.*

*Some utilities and jurisdictions have already taken the lead and use carbon prices in planning. For instance, Colorado passed a law in 2019 directing its Public Utilities Commission to have utilities incorporate the social cost of carbon when evaluating electric generation resources.*

*DEI should include at least one deep decarbonization scenario in its IRP to accommodate the high cost of climate damages and the potential for government mandates to reduce carbon emissions. The risk of extreme damage and costs related to climate change is too severe to exclude an evaluation of what it would take to meet necessary emissions reduction targets. If modeled cases including higher carbon prices fail to achieve emissions reductions in line with IPCC and other recommendations, an emissions cap should be imposed and used to develop an optimized portfolio. This scenario must be modeled appropriately. Arbitrary constraints and excessively conservative treatment of renewable energy technologies render the planning process useless for evaluating the*

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<sup>6</sup> Synapse, *id.* at 6-7 (internal footnotes omitted).



*potential to achieve deep decarbonization. Unknowns related to transitioning to an electric grid powered mostly by renewables and storage should be noted and studied prior to the completion of the IRP. Renewable and storage powered systems will operate differently than today's legacy infrastructure, and there will be times when utilities will need to perform such studies to understand the effects of this shift. However, this is not a reason to leave deep decarbonization out of integrated resource planning. Utilities should not exclude scenarios simply for being unfamiliar.*

*Modeling tools must be capable of simulating important characteristics of zero emissions technologies so that the planning process is not biased toward traditional generation. Portfolios of intermittent renewable energy can reliably support the electric grid and may achieve similar or greater levels of reliability in different ways. In recognition of the fact that hybrid renewable and storage generation resources become increasingly competitive as the cost of battery storage declines, DEI should analyze the potential for storage technologies to be combined with variable renewable resources to provide dispatchable power. DEI should also incorporate the reliability benefits of a diverse set of intermittent resources. Utilizing solar and wind generation from a wide geographic area can decrease the volatility of total renewable generation and provide a steadier and more predictable generation profile. In addition, the Company should look to take advantage of the services that demand resources can provide. Existing and new flexible loads (such as water heating and electric vehicles) can provide the grid-balancing services historically provided mostly by fossil fuel power plants.*

*The U.S. Mid-Century Strategy for Deep Decarbonization<sup>7</sup> offers a framework for how utilities can think about emissions reduction trajectories in deep decarbonization scenarios. The study can help determine an appropriate cap for power sector carbon emissions, given the expected trajectories of other sectors. The study can be useful for understanding how much electrification DEI should incorporate in a deep decarbonization scenario as heat pumps and electric vehicles become increasingly viable technologies for displacing fossil fuel consumption. Certain industrial end uses should be electrified as well. DEI should ideally conduct a service-territory-specific efficiency and electrification analysis. For example, the pace of building electrification and the resulting changes in electric consumption will depend on the building stock, existing heating fuels, and climate in the utility's territory. However, in the absence of other studies, DEI should at least estimate electrification load requirements by scaling the national results from the U.S. Mid-Century Strategy to its load. The report's benchmarks for emissions reductions and load growth can help guide DEI's future resource planning.*

Joint Commenters submit that this same need to incorporate the social cost of carbon emissions into resource planning applies with equal force to all of the Indiana utilities

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<sup>7</sup> See [https://unfccc.int/files/focus/long-term\\_strategies/application/pdf/mid\\_century\\_strategy\\_report-final\\_red.pdf](https://unfccc.int/files/focus/long-term_strategies/application/pdf/mid_century_strategy_report-final_red.pdf).

required to submit IRPs to the Commission as well as to the Commission in submitting its July 1 report to the Task Force. To do otherwise is to distort our view of the future by ignoring the very real economic effects of the social cost of carbon emissions.

### **3. The Emerging Central Role of Distributed Energy Resources and New Business and Regulatory Models in Future Electric Industry Resource Planning**

Until quite recently, Distributed Energy Resources (“DERs”) have only been marginal considerations in electric industry resource planning. However, as the Rocky Mountain Institute has found in its extensive studies, DERs have an emerging, central role to play in future electric industry resource planning. In turn, these rapidly emerging resources have both enabled and necessitated new business and regulatory models for future industry resource planning. As the Rocky Mountain Institute has so effectively explained<sup>8</sup>:

*The year 2018 was transformational in the energy system, marked by several milestones that revealed the powerful forces now emerging and exerting their influence across the electricity landscape.*

*Several states, including New York, New Jersey, and Washington, advanced proposals to achieve 100 percent clean energy in different timeframes. Xcel Energy became the first multistate investor-owned utility committed to 100 percent carbon-free electricity, with others announcing plans to rapidly move in that direction. Americans elected governors in several states who campaigned on clean energy platforms, several of whom seek 100 percent renewable energy portfolio standards. And commercial and industrial buyers set a new record in 2018 for total capacity of announced corporate renewable energy purchases.*

*These events are harbingers of the potential scale of change awaiting energy users and industry leaders across the country. But complex challenges remain, which is why in 2019, leaders working at the cutting edge of the electricity system transformation are collaborating to address complex problems and structural barriers that still stand in the way. Here we list the key issues that can further accelerate the transformation of the electricity industry, and the questions that still need to be addressed.*

#### **Revising Grid and Resource Planning**

*Driven by the rapidly declining price of renewable energy, power producers and suppliers are acting boldly and embracing new strategies to serve their customers’ needs. Xcel Energy, which operates across eight states, became the first large investor-owned utility to commit to 100 percent carbon-free energy by 2050. Michigan’s Consumers Energy is embarking on a large transformation of its generation portfolio.*

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<sup>8</sup> Rocky Mountain Institute, Successfully Shaping the Clean Energy Transition, Feb. 5, 2019, <https://rmi.org/successfully-shaping-the-clean-energy-transition/>.

*And others, including Northern Indiana Public Service Company and PacifiCorp, are looking hard at the economics of their existing fossil fleets.*

*As these utilities and others seek to capture the benefits of increasingly affordable, clean, and distributed energy technologies, new questions and challenges are emerging about current grid and resource planning processes:*

*Do current integrated resource planning processes sufficiently take new technologies and their capabilities into account?*

*The new capabilities offered by distributed energy resource (DER) technologies will be underutilized without reciprocal investments in the grid. How do we determine the right investments, who should be making them, and the correct price to pay for grid modernization?*

*As we pursue a more modern and cleaner energy system, how do grid and resource planning processes need to evolve to be more transparent and more inclusive so as to ensure we are actually building the grid of the future that everyone wants?*

### **Reforming Utility Business Models**

*As utilities and their regulators face tough questions about how to plan and build the grid of the future, they are also under pressure to evaluate how well they are operating their current systems and whether the conventional utility business model is ready for a transformed energy landscape. In the face of flat energy demand and the obligation to provide safe, reliable, and affordable service, utility players face new challenges. These include demands for improved environmental performance, the expansion of customer-sited energy technologies like rooftop solar and battery storage, a growing need for resiliency, new options to improve the performance of the grid, and new expectations for customer choice.*

*Readying utilities' business models is imperative to build a clean, safe, reliable, and affordable energy economy. In several states, regulators are moving to manage and shape the scale, speed, and complexity of this systemic transformation. Some efforts, like Hawaii's clean energy transition, are creating a new regulatory compact between the energy industry and customers. Increasingly, state lawmakers and utility regulators are attuned to the need for these reforms but wrestle with questions such as:*

*What is the best way to initiate comprehensive regulatory reform of a state's utility industry?*

*Who owns or shares the responsibility to lead such an effort?*

*Given existing and anticipated policy changes, like a 100 percent renewable portfolio standard, which utility business model reforms are most urgent to address?*

### ***Emergence of Beneficial Electrification***

*One emerging trend that is specifically testing utility business models, as well as grid planning processes, is the use of electricity to heat and cool homes. Seventy million American homes and businesses burn natural gas, oil, or propane on-site to heat their space and water.*

*Now, nearly all our buildings' energy needs can be met with electricity from an increasingly low-carbon electric grid, eliminating direct fossil fuel use in buildings and making obsolete much of the gas distribution system—along with its costs and safety challenges. Supported by demand flexibility strategies—the ability to shift some energy use in time—electrification of building heating and cooling is becoming more cost-competitive compared to traditional means, and it can provide a unique opportunity for utilities to increase market demand through customer-sited technologies.*

*As electric utilities and other stakeholders pursue the opportunity for beneficial electrification, the following questions emerge:*

*Can and should we integrate electricity and gas resource planning processes to make sure we are optimizing long-term infrastructure investments across resource types?*

*What are the options to transition hybrid—gas and electric—utilities to become electric-only?*

*Can we create pathways for natural gas utilities to be productive partners in this transition and ensure that customers are protected along the way?*

### ***How to Properly Value Distributed Energy Resources***

*A key means to get all of these smart electrified devices onto the system is identifying and properly compensating the value streams and services they provide to the grid. Two big questions are being wrestled with in boardrooms and commissions across the country:*

*As the grid moves away from a bulk power system composed of centralized generation sources to become more distributed and customer-focused, which value streams and services provide the greatest opportunity for the integration of DERs, and how can they be combined to provide even greater value to customers, utilities, and grid operators?*

*Will value stacking be elusive if we don't see market rules come out for DER participation, beyond battery storage, in organized markets in 2019?*

### ***Ensuring Equity in the Energy Ecosystem***

*As we consider the many opportunities to modernize the grid, it is more important now than ever to ensure that we don't forget about meeting the needs of all customers. Low- and moderate-income (LMI) customers represent a large group, with roughly a quarter of US households qualifying for federal energy assistance. Many LMI customers suffer inequities of elevated energy burdens and detrimental health and environmental impacts from power generation.*

*While technology and business model changes are creating new opportunities for utilities to collaborate with LMI customers to create value for both groups, regulators across the country now face the task of making the process of utility regulation more accessible and inclusive. In the balance, as state lawmakers and regulators pursue comprehensive regulatory reforms to modernize the grid, we risk that these voices will be underrepresented or unrepresented.*

### ***Dealing with Assets That Are No Longer Economic***

*Ensuring no customer groups bear unnecessary or disproportionate costs as the system transforms requires us to design and implement financial solutions that keep energy costs stable and protect the interests of all ratepayer groups.*

*Front and center in the transformation of the electricity system is coal generation. For decades a foundational fuel source for the US grid, coal has never been more challenged and is rapidly losing market share. The US retired 16 gigawatts of coal-fired power plants in 2018, and US coal power capacity has fallen by one-third since 2010. This trend is expected to continue if not accelerate.*

*Many of those retired plants were old, dirty, inefficient, and simply no longer competitive in today's lean and mean marketplace. The path from here gets more difficult and contentious:*

*How do we minimize market disruption and efficiently manage capital exit from coal and other uneconomic assets in line with their waning economic competitiveness?*

*One approach is securitization, the pooling of assets that generate a future revenue stream that can be sold to the public market as a private security. The proceeds from these ratepayer-backed bond pools could then be deployed by utilities to retire plants, invest in new clean energy, and provide transition assistance to affected communities. Securitization proposals are now under consideration in some state legislatures, including New Mexico's, with bill introductions in additional states likely this year. While securitization is one option, we know that it won't be the solution that works for every state and every utility. This leaves us to search for other financial innovations to address the costs to retire and replace uneconomic fossil generators.*

### ***Looking Ahead***

*As we can see, for all of 2018's progress, each industry breakthrough yields a new array of questions we must answer. The forces pushing this transition are growing in strength. As a growing number of US citizens, states, municipalities, and businesses prioritize carbon reduction and sustainability goals—alongside global efforts to meet the commitments of the Paris Agreement to combat climate change—we must reduce blockages and friction points on this transition pathway.*

*As we've laid out, numerous big opportunities raise important questions that remain to be answered, and in many instances, there will be no single right answer—but many paths forward.*

*Not only do we need more individuals and organizations to put their shoulder to the wheel if we're going to keep temperature rise below 1.5°C (which is necessary according to the most recent Intergovernmental Panel on Climate Change report). We also need places and processes where we can tackle these next critical questions. Rocky Mountain Institute's Electricity Innovation Lab (e-Lab) offers a space where leaders are coming together to do exactly this.*

*Our energy system is now clearly hearing the demand for change. Let's chart our course and get to work.*

Joint Commenters “second the motion” of the Rocky Mountain Institute and encourage the Commission also to hear the “demand for change” with respect to DERs and new utility business and regulatory models as it helps the 21<sup>st</sup> Century Energy Policy Task Force to “chart our course” and “get to work” creating the future of electric industry resource planning here in Indiana.

### **III. Joint Commenters Specific Comments regarding the Preliminary Draft Sections of the Commission’s July 1, 2020 Report to the 21<sup>st</sup> Century Energy Policy Task Force**

Consistent with the general perspectives advanced above, Joint Commenters would offer the following specific comments regarding the three preliminary draft sections of the Commission’s July 1, 2020 report to the 21<sup>st</sup> Century Energy Policy Task Force posted to the Commission’s website as of January 23, 2020:

#### **1. General**

While it may well go without saying, Joint Commenters would encourage the Commission to integrate the three separate, preliminary documents it has posted into a single comprehensive document which initially outlines the purposes of the report and then proceeds to accomplish those purposes sequentially. We also believe it would be helpful to the Task Force and other audiences for its report if the Commission outlined its own institutional perspective on the electric industry transition now underway that is the reason for the Task Force being created. We further believe that it would be useful if the Commission outlined its own institutional perspective on the key policy issues presented by that transition which represent Indiana state policy issues within the purview of the Task Force.

#### **2. Resource Planning Scenario Definition and Portfolio Development**

Joint Commenters fully recognize that there can be political controversy occasioned with some by even mentioning the two words “climate” and “change” together. Nonetheless, it is not necessary that everyone “believe” in “climate change” driven by greenhouse gas emissions for either the Commission or the Task Force, purely as a matter of professional, competent integrated resource planning to recognize that general geophysical phenomenon as a plausible basis for defining at least one of its primary scenarios for purposes of subsequent resource portfolio development and analysis. Accordingly, Joint Commenters would submit that at least one of the Commission’s scenarios should be what is commonly referenced as a scenario involving “deep decarbonization” of the power sector and “rapid electrification” of the transportation, industry and building sectors of the national and state economies.

In this context, Joint Commenters would specifically urge the Commission to review and develop an Indiana-specific counterpart to MISO’s most aggressive scenario included in its October, 2019 straw proposal for its 2020-21 planning cycle. More specifically, MISO is proposing three futures – one based on current announcements by states and utilities that will push MISO beyond 30 percent renewables by 2035, and two others that consider varying degrees of carbon emission reduction and renewable energy build out. The most aggressive future – designed to be a “bookend” of what might occur over the 15-year planning horizon includes:

- at least 50 percent of energy coming from renewable energy resources by 2035,
- an 80 percent reduction in carbon emissions compared to today's levels,
- retirement of nearly every coal unit in the MISO territory by the mid-2020s, and
- a 70 percent increase in electricity demand (along with changes in when that demand occurs) due to widespread adoption of electric vehicles, electrification of buildings (for example: shifting to electric heating rather than natural gas), and other shifts from fossil fuel-dependence to electrification.

See <https://cdn.misoenergy.org/20191017%20MTEP%20Futures%20Workshop%20%20Strawman392505.pdf> and <https://www.world-energy.org/article/4146.html> .

We would also submit that while it may well be supportable from a competent modeling perspective to have scenarios (or sensitivity cases within scenarios) in which there is no carbon tax or price assumed, we would not consider it to be appropriate for scenarios without carbon taxes or prices to exclude adverse climate change economic impacts in some form and amount in the absence of alternative mitigation strategies. See, e.g., <https://riskybusiness.org/report/national/>.

On a separate matter, Joint Commenters (perhaps mistakenly) perceive the Commission as developing scenarios and portfolios on a statewide basis without “breaking them down” on a utility service territory basis. That seems to us to create a troubling “disconnect” between the utility IRP process and the statewide planning process. It seems to us that there would be “compare and contrast” value to the Commission, the utilities, and other audiences to be able to have both utility and Commission planning processes result in service territory-specific results for the same time period.

### **3. Economic Impact Analysis**

This may also be a misunderstanding on Joint Commenters' part based on incomplete information at this stage of report development, but the preliminary document on this matter (especially but not exclusively the referenced use of the IMPLAN model) appears to be focused on coal plant retirements/replacements rather than resource plans as a whole. At the very least this should be clarified, maybe even changed, to assure that the reported results are not skewed by limiting the data and the analysis to only one aspect of the total economic impact equation.

### **4. Distributed Energy Resources**

Joint Commenters are excited by the prospect of Indiana receiving the benefit of the justifiably renowned technical expertise and research capabilities of the Lawrence Berkeley National Laboratory (LBNL) focused on the future development of Distributed Energy Resources (DERs) in our State. We are especially excited to see the issues of “Value of DER,”



“Utility of the Future,” and “DER Forecasting and Planning Integration” included in the LBNL prospectus for this section of the Commission report. However, from what we have read to date, we are not clear how these important aspects of DER development will be integrated into the Commission report. Specifically, we are quite concerned that DERs represent an inherently competitive marketplace with today’s technology which have the potential to become even more competitive with tomorrow’s technology but we are still using business and regulatory models here in Indiana which will have the perverse, anti-competitive result of sustaining an unnecessary and “unnatural” monopoly at the distribution level and “behind the meters” of Indiana’s electric system with the effect of unreasonably restricting DER development in our State.

Notably, a growing body of research has demonstrated that distributed solar provides a wide range of fiscal, environmental, and health benefits to utilities, customers and the general public.

At least six recent independent “value-of-solar” studies (i.e., ones conducted for independent agencies rather than utilities or the solar industry) have found that electricity generated by distributed solar energy has a net positive value to electric utilities, even without including societal benefits related to climate change or job creation. (For more on “value of solar” studies, see the Brookings Institute’s 2016 Value of Solar meta-analysis, and the compilation of state studies from the Solar Energy Industries Association with links to the studies. See <https://www.brookings.edu/research/rooftop-solar-net-metering-is-a-net-benefit> and <https://www.seia.org/initiatives/solar-cost-benefit-studies>.)

More recent research confirms these analyses. For example, the state of Maryland-commissioned report (Benefits and Costs of Utility Scale and Behind the Meter Solar Resources in Maryland, April 10, 2018, Daymark Energy Advisors) found that distributed solar’s economic benefits – mostly labor associated revenue – was worth six times the value of the electricity to the grid. See <http://www.psc.state.md.us/wp-content/uploads/MD-Costs-and-Benefits-of-Solar-Draft-for-stakeholder-review.pdf>. A 2019 Virginia Commonwealth University study, “Assessing the Benefits of Distributed Solar in Virginia, found that the total economic impact of distributed solar in Virginia is an estimated \$727 million, and that for every \$1 invested in distributed solar, an additional \$0.60 is added to the state economy. The study concluded that installing 2,500 MW of distributed solar in Virginia would lead to an estimated 29,500 direct jobs, plus 17,000 more indirect and induced jobs, resulting in over \$7 billion in total economic impact, generating over \$860 million in federal, state, and local tax revenues. See [https://virginiasolarforall.com/wp-content/uploads/sites/62/2020/01/cura\\_solar\\_report\\_-\\_1-22-20.pdf](https://virginiasolarforall.com/wp-content/uploads/sites/62/2020/01/cura_solar_report_-_1-22-20.pdf).

Thus, Joint Commenters strongly believe that the Commission should recommend to the Task Force that the State of Indiana study, identify, and quantify the value of DERs to its distribution grid, its electricity suppliers and customers, and its economy as a whole.

## **Conclusion**

Joint Commenters Citizens Action Coalition of Indiana, Hoosier Environmental Council, Energy Matters Community Coalition, Solarize Indiana, Solar United Neighbors of Indiana, Valley Watch, Hoosier Interfaith Power & Light, Indiana Distributed Energy Alliance, Sierra Club Beyond Coal, Carmel Green Initiative, and Earth Charter Indiana, respectfully submit these comments for the consideration of the Commission in completing its July 1, 2020 report to the 21<sup>st</sup> Century Energy Policy Task Force.

Thank you once again for the opportunity to provide them. We would welcome any questions or comments which the Commission, its staff, or its consultants may have regarding them.

### **Organizations Signing these**

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