STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION

Illinois Commerce Commission	**:**	
On Its Own Motion	**:**	
	:	**22-0749**
Initiation of an Investigation to develop and	**:**	
adopt a Renewable Energy Access Plan	**:**	
pursuant to Section 8-512 of the	**:**	
Public Utilities Act.	**:**	

ORDER

May 30, 2024

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By the Commission:

I. INTRODUCTION

On December 15, 2022, the Illinois Commerce Commission ("Commission") entered an Initiating Order in this matter to develop a Renewable Energy Access Plan ("REAP"), pursuant to Section 8-512 of the Public Utilities Act ("Act"), 220 ILCS 5/8-512, in response to a Staff of the Commission ("Staff") Report dated November 18, 2022.

The Staff Report explains that Staff published the First Draft REAP Report ("First Draft") on July 12, 2022. Thereafter, Staff held a series of workshops and received comments from numerous stakeholders. Based on the workshops and comments, Staff developed the Second Draft REAP Report ("Second Draft"), which was attached to the Staff Report filed in this docket.

The Initiating Order directed that, unless a party objected, the proceeding would be conducted via written comments. The Initiating Order further stated that the comments should focus on the following: 1) corrections, clarifications, and technical edits to the Second Draft; 2) feedback, suggestions, and concerns regarding the analysis and conclusions in the Second Draft; and 3) feedback, suggestions, and concerns regarding the recommendations in the Second Draft.

The Administrative Law Judges ("ALJs") granted the following Petitions to Intervene: Advanced Energy United ("AEU"); Ameren Illinois Company d/b/a Ameren Illinois ("Ameren Illinois" or "AIC"); Clean Grid Alliance ("CGA"); Commonwealth Edison Company ("ComEd"); Electricity Consumers Resource Council ("ELCON"); Charter Dura-Bar, Inc., CITGO Petroleum Corporation, and Magid Glove & Safety Manufacturing Company LLC (collectively the Coalition to Request Equitable Allocation of Costs Together or "REACT"); the Illinois Power Agency ("IPA"); ITC Midwest LLC ("ITC Midwest"); University Park Energy, LLC, LSP University Park, LLC, Rockford Power, LLC, Rockford Power II, LLC, and Aurora Generation, LLC (collectively, "LS Power"); MidAmerican Energy Company ("MidAmerican"); Environmental Law and Policy Center,

Natural Resources Defense Council, and Vote Solar, jointly as Joint Non-Governmental Organizations ("Joint NGOs" or "JNGOs"); Direct Energy Business LLC, Direct Energy Services LLC, Direct Energy Business Marketing LLC, Energy Plus Holdings LLC, Green Mountain Energy Company, NRG Energy, Inc., Reliant Energy Northwest LLC d/b/a NRG Residential Solutions d/b/a NRG Retail Solutions d/b/a NRG Business d/b/a Reliant-NRG d/b/a NRG Business Solutions d/b/a Reliant d/b/a Reliant Energy, Stream Energy Illinois, LLC, and XOOM Energy, LLC (collectively the "NRG Companies" or "NRG"); Union of Concerned Scientists ("UCS"); and Vistra Corp. ("Vistra").

On March 31, 2023, verified Initial Comments ("Init.") were filed by Staff, AEU, Ameren Illinois, CGA, ComEd, ELCON/REACT jointly, ELPC, ITC Midwest, LS Power, NRG Companies, the UCS, the Joint NGOs, and Vistra. The following intervenors filed proposed redline changes to the Second Draft on April 18, 2023: AEU, Ameren Illinois, ELCON/REACT, ITC Midwest, LS Power, the Joint NGOs, NRG Companies, UCS, and Vistra.

On June 29, 2023, Staff filed verified Response Comments ("Resp.") and a Redlined Second Draft REAP Report ("Redlined Second Draft"). In the Redlined Second Draft, Staff made changes to the Second Draft incorporating some of Initial Comments and other public comments. In addition to Staff, verified Response Comments were also filed by: AEU, Ameren Illinois, CGA, ComEd, ELCON/REACT, the Joint NGOs, the IPA, ITC Midwest, LS Power, NRG Companies, the UCS, and Vistra.

On or about August 8, 2023, Reply Comments ("Rep.") were filed by Ameren Illinois, NRG Companies, ComEd, the IPA, Staff, LS Power, ELCON/REACT, CGA, and the Joint NGOs. Although ITC Midwest served its Reply Comments on August 8, 2023, they were filed on February 14, 2024 without objection.

In addition to the verified comments filed by intervenors, the Great Plains Institute ("GPI") and the Illinois Department of Natural Resources ("IDNR") filed public comments on the Commission's e-Docket. The Commission appreciates the public comments provided on the e-Docket system, as well as the time and effort expended by those who prepared and provided them. These comments have been considered by the Commission in reaching its conclusions in this Order, to the extent permitted by law.

On September 12, 2023, Position Statements or Draft Orders were filed by Staff, Ameren Illinois, ComEd, NRG Companies, LS Power, ITC Midwest, ELCON/REACT, CGA, and the Joint NGOs.

The ALJs served a Proposed Order on March 5, 2024. Briefs on Exceptions ("BOEs") were filed on April 2, 2024, by the following parties: UCS, AEU, Staff, ComEd, the Joint NGOs, Ameren Illinois, LS Power, NRG Companies, and ELCON/REACT. Reply Briefs on Exceptions ("RBOEs") were filed on April 16, 2024, by the following parties: AEU, UCS, Staff, ITC Midwest, ComEd, Vistra, ELCON/REACT, LS Power, the IPA, the Joint NGOs, and NRG Companies.

II. LEGAL FRAMEWORK

A. P.A. 102-0662

Public Act 102-0662 ("P.A. 102-0662") went into effect on September 15, 2021, and, among many other things, added Section 8-512 to the Act. 220 ILCS 5/8-512. Section 8-512 requires the following:

> (b) Consistent with the findings identified in subsection (a), the Commission shall open an investigation to develop and adopt a renewable energy access plan no later than December 31, 2022. To assist and support the Commission in the development of the plan, the Commission shall retain the services of technical and policy experts with relevant fields of expertise, solicit technical and policy analysis from the public, and provide for a 120-day open public comment period after publication of a draft report, which shall be published no later than 90 days after the comment period ends.

220 ILCS 5/8-512(b).

Subsection 8-512(a) recognizes the policy of the State of Illinois is as follows:

> It is the policy of this State to promote cost-effective transmission system development that ensures reliability of the electric transmission system, lowers carbon emissions, minimizes long-term costs for consumers, and supports the electric policy goals of this State.

220 ILCS 5/8-512(a). Subsection 8-512(a) of the Act also contains the findings of the General Assembly of the State of Illinois as it relates to the REAP. They are as follows:

> (1) Transmission planning, primarily for reliability purposes, but also for economic and public policy reasons is conducted by regional transmission organizations in which transmission-owning Illinois utilities and other stakeholders are members.
>
> (2) Order No. 1000 of the Federal Energy Regulatory Commission requires regional transmission organizations to plan for transmission system needs in light of State public policies and to accept input from states during the transmission system planning processes.
>
> (3) The State of Illinois does not currently have a comprehensive power and environmental policy planning process to identify transmission infrastructure needs that can serve as a vital input into the regional and interregional transmission organization planning processes conducted under Order No. 1000 and other laws and regulations.
>
> (4) This State is an electricity generation and power transmission hub, and can leverage that position to invest in infrastructure that enables new and existing Illinois generators

to meet the public policy goals of the State of Illinois and of interconnected states while cost-effectively supporting tens of thousands of jobs in the renewable energy sector in this State.

(5) The nation has a need to readily access this State's low-cost, clean electric power, and this State also desires access to clean energy resources in other states to develop and support its low-carbon economy and keep electricity prices low in Illinois and interconnected States.

(6) Existing transmission infrastructure may constrain the State's achievement of 100% renewable energy by 2050, the accelerated adoption of electric vehicles in a just and equitable way, and electrification of additional sectors of the Illinois economy.

(7) Transmission system congestion within this State and the regional transmission organizations serving this State limits the ability of this State's existing and new electric generation facilities that do not emit carbon dioxide, including renewable energy resources and zero emission facilities, to serve the public policy goals of this State and other states, which constrains investment in this State.

(8) Investment in infrastructure to support existing and new electric generation facilities that do not emit carbon dioxide, including renewable energy resources and zero emission facilities, stimulates significant economic development and job growth in this State, as well as creates environmental and public health benefits in this State.

(9) Creating a forward-looking plan for this State's electric transmission infrastructure, as opposed to relying on case-by-case development and repeated marginal upgrades, will achieve a lower-cost system for Illinois' electricity customers. A forward-looking plan can also help integrate and achieve a comprehensive set of objectives and multiple state, regional, and national policy goals.

(10) Alternatives to overhead electric transmission lines can achieve cost-effective resolution of system impacts and warrant investigation of the circumstances under which those alternatives should be considered and approved. The alternatives are likely to be beneficial as investment in electric transmission infrastructure moves forward.

(11) Because transmission planning is conducted primarily by the regional transmission organizations, the Commission should be advocating for the State's interests at the regional transmission organizations to ensure that such planning

> facilitates the State's policies and goals, including overall consumer savings, power system reliability, economic development, environmental improvement, and carbon reduction.

220 ILCS 5/8-512(a).

Subsection 8-512(b) of the Act states the minimum requirements of the REAP as follows:

> (1) designate renewable energy access plan zones throughout this State in areas in which renewable energy resources and suitable land areas are sufficient for developing generating capacity from renewable energy technologies;
>
> (2) develop a plan to achieve transmission capacity necessary to deliver the electric output from renewable energy technologies in the renewable energy access plan zones to customers in Illinois and other states in a manner that is most beneficial and cost-effective to customers;
>
> (3) use this State's position as an electricity generation and power transmission hub to create new investment in this State's renewable energy resources;
>
> (4) consider programs, policies, and electric transmission projects that can be adopted within this State that promote the cost-effective delivery of power from renewable energy resources interconnected to the bulk electric system to meet the renewable portfolio standard targets under subsection (c) of Section 1-75 of the Illinois Power Agency Act;
>
> (5) consider proposals to improve regional transmission organizations' regional and interregional system planning processes, especially proposals that reduce costs and emissions, create jobs, and increase State and regional power system reliability to prevent high-cost outages that can endanger lives, and analyze of how those proposals would improve reliability and cost-effective delivery of electricity in Illinois and the region;
>
> (6) make findings and policy recommendations based on technical and policy analysis regarding locations of renewable energy access plan zones and the transmission system developments needed to cost-effectively achieve the public policy goals identified herein; and
>
> (7) present the Commission's conclusions and proposed recommendations based on its analysis and use the

> findings and policy recommendations to determine actions that the Commission should take.

220 ILCS 8-512(b)(1)-(7).

B. Scope of the REAP

1. Staff's Position

Staff recommends the Commission adopt the Redlined Second Draft as the Commission's REAP and direct Staff to take the recommended actions in the five Strategic Elements and as outlined in both the Redlined Second Draft and below.

In preparing its draft REAP reports, including the Redlined Second Draft, Staff considered the limitations in developing a REAP. Staff notes the Federal Power Act ("FPA"), 16 U.S.C. § 791 *et seq*., and principles of cooperative federalism limit Illinois' authority over transmission planning. Under the FPA, Congress confers jurisdiction over electric transmission planning on the Federal Energy Regulatory Commission ("FERC") and jurisdiction over generation to the states. 16 U.S.C.S. § 824(b)(1). Under the Act, Illinois does have authority over transmission siting. 220 ILCS 5/8-406, 406.1; *see also Serv. Pipe Line Co. v. Ruder*, 19 Ill. 2d 332 (1960) (State exercises "prudential control" over interstate utility projects where eminent domain is to be exercised). However, FERC recently issued a proposed rule, *Applications for Permits to Site Interstate Electric Transmission Facilities*, 181 FERC ¶ 61,205 (2022), proposing to revise existing regulations governing applications for permits to site electric transmission facilities under Section 216 of the FPA, as amended by the Infrastructure Investment and Jobs Act of 2021. Pub. Law No. 117-58 (Nov. 15, 2021). This final rule is still pending. Staff Resp. at 2-3.

While the FPA does give jurisdiction over generation facilities to the states, Staff explains that the Illinois General Assembly deregulated generation in 1997 with the Electric Customer Choice and Rate Relief Act of 1997. 220 ILCS 5/16-101 *et seq*. As part of this move to retail access, the General Assembly directed the Commission to "act to promote the development of an effectively competitive electricity market that operates efficiently and is equitable to all consumers." 220 ILCS 5/16-101(A)(d). Illinois now relies on competitive wholesale markets to achieve resource adequacy. The IPA also conducts procurement under the Illinois Power Agency Act ("IPA Act"). 20 ILCS 3855/1-5 *et seq.*; Staff Resp. at 3.

Staff states that for the last several years, FERC has been exploring possible reforms to the transmission planning framework. FERC issued a notice of proposed rulemaking ("NOPR") in Docket No. RM21-17-000 on electric regional transmission planning, cost allocation, and generator interconnection. *Building for the Future Through Electric Regional Transmission Planning and Cost Allocation and Generator Interconnection*, 179 FERC ¶ 61,028 (2022) ("*Building for the Future NOPR")*. In addition, FERC and the National Association of Regulatory Commissioners ("NARUC") are participating in a Joint Federal-State Task Force on Electric Transmission in Docket No. AD21-15-000. *Joint Federal-State Task Force on Electric Transmission*, 175 FERC ¶ 61,224 (2021). This task force has met several times and is addressing electric transmission issues, which could lead to changes in the industry. Additionally, FERC held

a technical conference and requested comments on transmission planning and cost management in Docket No. AD22-8-000 in which it is exploring transmission planning and cost management that includes, among other things, local transmission planning issues. *Transmission Planning and Cost Management, Notice of Technical Conference*, Docket No. AD22-8-000 (Apr. 21, 2022); *Transmission Planning and Cost Management, Notice Inviting Post-Technical Conference Comments*, Docket No. AD22-8-000 and *Joint Federal-State Task Force on Electric Transmission*, Docket No. AD21-15-000 (Dec. 23, 2022) (not consolidated). FERC also issued a proposed rule on generation interconnection. *Improvements to Generator Interconnection Procedures and Agreements*, 179 FERC ¶ 61,194 (2022). FERC issued the final rule, Order No. 2023, on July 28, 2023. 184 FERC ¶ 61,054 (2023); Staff Resp. at 4-5.

Staff explains the Redlined Second Draft incorporates stakeholder comments and, in Staff's opinion, meets the statutory obligations of Section 8-512. First, subsection 8-512(b)(1) requires the REAP to designate renewable energy access zones ("REAP Zones"). 220 ILCS 5/8-512(b)(1). Strategic Element 3 of the Redlined Second Draft addresses criteria and considerations for identifying REAP Zones. Redlined Second Draft at 28-47. The report explains, "[a] key element to the desirability of a specific geographic location for renewable energy development is the area's resource potential." *Id.* at 33. Staff explains that land use and crop productivity are two additional criteria that some stakeholders have identified as considerations for identifying REAP Zones. *Id.* at 34. The Redline Second Draft REAP considers equitable access to clean energy as a factor in the selection and prioritization of candidate REAP Zones ("Candidate Zones"). *Id.* at 35. It further considers the feasibility of utilizing interconnection capability associated with fossil fuel generation retiring as a result of economic pressures and environmental policy. *Id.* at 37. Staff recommends the Commission adopt these Candidate Zones as the designated REAP Zones. Staff Resp. at 36.

Consistent with the requirements of subsection 8-512(b)(1) and the factors just described, Staff identified two types of REAP Zones, Level 1 and Level 2. *See* Redlined Second Draft at 40-41, Fig. 18. Staff recommends the Commission adopt the five Level 1 Demonstrated Interest Zones ("Level 1 Zones") described in the Redlined Second Draft as REAP Zones. *Id.* at 40-44. Staff also recommends the Commission adopt the two described Level 2 Zones as identified zones that have significant potential to become REAP Zones in Strategic Element 3. *Id*. at 43.

Regarding the requirement that renewable energy resources and suitable land areas are sufficient for developing generating capacity from renewable energy technologies, pages 13-15 of the Redlined Second Draft address the outlook for renewable supply needs. In terms of total energy, the report shows that Illinois will require between 152-450 terawatt-hours ("TWh") of clean electricity in 2050. Renewable deployment within or electricity nearby Illinois will need to rise to a minimum of approximately 62 TWh to achieve the 50% Renewable Portfolio Standard ("RPS") target in 2040. Redlined Second Draft at 13-14.

Second, subsection 8-512(b)(2) requires the REAP to develop a plan to achieve transmission capacity necessary to deliver the electric output from renewable energy technologies in the REAP Zones…" *See* Redlined Second Draft at Strategic Element 4. Consistent with the principles of proactive planning, for which Staff advocates throughout

the Redlined Second Draft, and in addition to items discussed above, Staff describes various actions that comprise the REAP including, but not limited to, recommendations that the Commission:

- Adopt Level 1 and Level 2 REAP Zones (Strategic Element 3);
- Direct Staff to continue working with both regional transmission organizations ("RTOs") PJM Interconnection, L.L.C. ("PJM") and Midcontinent Independent System Operator, Inc. ("MISO") for purposes of tracking greenhouse gas ("GHG") emissions and leakage (Strategic Elements 1 and 2);
- Direct Staff to submit information regarding the Level 1 REAP Zones to MISO and PJM for purpose of transmission planning (Strategic Element 4);
- Direct Staff to work with PJM and MISO to perform headroom analyses (Strategic Element 3);
- Direct Staff to Continue its involvement with Organization of PJM States ("OPSI"), PJM, Organization of MISO States ("OMS"), MISO and FERC to improve transmission planning and the interconnection processes in both RTOs by incorporating adopted Level 1 REAP Zones and improving the mechanisms to access and redeploy the transmission headroom created by retiring fossil resources, (Strategic Element 4);
- Explore further development of transmission infrastructure in Illinois, and possibly neighboring states) with consideration to the legal and policy considerations associated with PJM's State Agreement Approach ("SAA"), (Strategic Element 4);
- Continue to support MISO's existing proactive transmission planning and advocate for PJM to adopt a similar strategy (Strategic Element 4); and
- Advocate and promote clean energy markets in PJM (Strategic Element 5).

Staff Resp. at 36-37.

Specifically, the plan is developed in the REAP findings and recommendations. Redlined Second Draft at 45, 67. The Commission should adopt the concepts of Level 1 and Level 2 Zones to guide the Commission's participation in MISO and PJM's interconnection and transmission planning processes. *Id.* at 46. Staff indicates that "[i]n addition to monitoring the outcomes of recently approved reforms, [Staff] can seek further reforms to improve and expedite renewable interconnection through the use of Level 1 REAP Zones, the implementation of an improved mechanism to access and redeploy headroom from retiring fossil for renewable resources…" *Id.* at 68-69. Staff further explains the Commission can, in close coordination with MISO and PJM, conduct a study to identify headroom that exists on the existing transmission grid that integrates new renewable resources in Illinois. *Id.* at 41, 46.

Based on Staff's findings, the Redlined Second Draft makes several recommendations to improve the RTO's planning and interconnection processes and the Commission's participation in those processes. It provides a blueprint for potential

immediate actions alongside those that may require legislative reform. Staff explains that Level 2 REAP Zones adopted by the Commission can be submitted to MISO for consideration in its processes and used to inform ongoing reform advocacy within PJM. Staff Resp. at 16-17.

Staff explained that it can "continue supportive efforts… to reform the regional pursuit of more cost-effective transmission solutions to wide-scale regional clean energy needs. Immediate efforts can focus on the PJM Master Plan setting out PJM's proposed vision for scenario-based long-term transmission planning…" Redlined Second Draft at 68.

Staff's recommendations are all predicated on the principle that RTO planning is conducted in a manner that is most beneficial and cost-effective to customers. "Proactive planning has to incorporate policy goals and consider multiple value streams over a wide range of future scenarios to identify the most cost-effective, most beneficial grid solutions." Redlined Second Draft at 48. Staff reported, "[p]roactive transmission planning will lead to substantially more cost-effective and efficient transmission solutions than relying on the slow, piecemeal interconnection process to expand the grid." *Id.* Staff further explained, "[b]y addressing the incremental need more holistically… and relying on competitive solicitations for some of the identified needs, the selected solutions are significantly more cost-effective than what would otherwise be available through generators seeking interconnection to PJM." *Id.* at 49.

Staff states that because FERC has jurisdiction over transmission planning, the Commission has long been active before FERC in representing the interests of Illinois consumers, utilities, and businesses to ensure reliable electric service at reasonable rates. In FERC Order No. 1000, FERC established the current framework for transmission planning within the regional transmission organizations. *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, 136 FERC ¶ 61,051 (2011) ("FERC Order No. 1000"); Staff Resp. at 3-4.

Staff recognizes the importance of interested stakeholders participating in transmission planning processes at PJM and the MISO to have their views and interests considered in decision making. The Commission can be most effective when it coordinates with other state commissions where Illinois interests dictate that it do so, particularly within the RTO stakeholder processes. As such, the Commission is a member of two regional state committees within these two RTO regions – OPSI and OMS. In this capacity, the Commission leverages the resources of both regions' state commission community to best achieve the interests of its member states and their regulated utilities, including the distribution utilities here in Illinois and their end-use customers, in matters before FERC and within the RTO stakeholder processes. Staff Resp. at 3-4.

In addressing long term planning, Staff said that "[b]enefits included in [the Long-Range Transmission Planning ("LRTP") analysis] include congestion savings, avoided capital costs of local resource investments, avoided risk of load shedding, and others illustrated by MISO in Figure 20." Redlined Second Draft at 49. The full set of benefits include congestion and fuel savings, avoided capital cost of local resource, avoided transmission investment, resource adequacy savings, avoided risk of load shedding, and

decarbonization. Staff reports that "[t]ransmission planning often focuses on large-scale additions of high-voltage lines, transformers, and substations. But these processes sometimes overlook grid-enhancing technologies that can quickly and cost-effectively debottleneck transmission constraints, reduce congestion costs, and help integrate renewable resources." *Id.* at 52.

Staff also contemplated the use of a SAA to project development. Staff looked at both the costs and benefits. Staff recommends that it "continue to explore transmission development through PJM's [SAA]." Redlined Second Draft at 69. A single-state SAA does not provide any benefits of incorporating the public policy needs of other states, thereby limiting the economies of scale and consideration of countervailing flows that would be major benefits and sources of cost reduction of a coordinated public policy planning process." *Id.* at 66. Staff noted, however, that "[i]n comparison, a single-state SAA provides Illinois a higher degree of control over the procurement, selection, and outcomes of public policy transmission projects designed uniquely for Illinois' identified policy needs, but its narrower scope would limit available efficiency benefits and require Illinois to bear all associated costs." *Id.* at 67.

These recommendations are part of Staff's proposed REAP which complies with subsection 8-512(b)(2) and ensures that Illinois achieves the transmission capacity necessary to deliver the electric output from renewable energy technologies to customers in a beneficial and cost-effective manner. Staff recommends the Commission adopt Staff's recommended and holistic proactive transmission plan as part of its REAP.

Third, Staff states that subsection 8-512(b)(3) provides the REAP should "use this State's position as an electricity generation and power transmission hub to create new investment in this State's renewable energy resources." 220 ILCS 5/8-512(b)(3); *see also* Redlined Second Draft at Strategic Elements 2, 3, 5. "Illinois' centrally-located position within two RTO regions means that the state has a unique role and opportunity to engage in a coordinated clean energy transition across large, interconnected regions." Redlined Second Draft at 24. The proposed Level 1 and 2 REAP Zones identify areas where new renewable resources can site which, in turn, will help to create new investment in clean energy resources. *Id.* at 28-29. Although Staff recognizes that additional studies are needed to fully leverage Illinois' position as a hub, e.g., identifying mechanisms to account for GHG emission leakage, *id.* at 25, because "[i]n the long term, the most cost-effective and balanced 100% clean electricity resource mix will likely need to account for the ability to import clean electricity from other decarbonizing states and export clean energy when Illinois is in surplus." *Id.* at 24.

Staff recommends the Commission advocate, or direct Staff to advocate, for MISO and PJM to perform a joint interconnection study modeled on the Joint Targeted Interconnection Queue ("JTIQ") performed by MISO and the Southwest Power Pool RTO. Redlined Second Draft at 39, 69. Finally, in Strategic Element 5 of the Redlined Second Draft, Staff set forth additional recommendations to leverage regional electricity markets to facilitate the realization of Illinois' decarbonization goals. These recommendations include a request for Commission direction to:

- Study and assess options to address the MISO resource adequacy gap;

- Advocate for market reforms in MISO including a sloped demand curve, a clean capacity product, and 2 to 3 year forward markets;
- Seek PJM support to expand its capacity auction to support the capacity needs in MISO's Zone 4;
- Continue its participation in PJM's Clean Attribute Procurement Senior Task Force for the purpose of designing and implementing new clean energy markets; and
- In coordination with the RTOs, study the range of impacts fossil generation retirements will have on system reliability and the capacity markets.

Redlined Second Draft at 68-83.

Though the State of Illinois does not have an agency with direct authority to approve and implement these essential reforms to these broad regional markets (which are governed under FERC-jurisdictional authority), the Commission and other Illinois state agencies do play a substantial role in shaping the RTOs' organizational priorities and market reforms efforts. Redlined Second Draft at 72. Illinois, like other states, can influence and lead the direction of these RTO reform efforts through participation in OPSI and OMS, by participating in individual RTO stakeholder committees and task forces, by filing formal comments in FERC dockets, through informal communications with RTO staff, through public agency investigations, and by participating as a voting member under stakeholder governance rules in MISO. *Id.* These are some of the many ways Staff suggests the Commission can use Illinois' position as an electricity generation and transmission hub to create and foster new investment in the State's renewable energy resources. Staff Resp. at 38.

Fourth, subsection 8-512(b)(4) requires the Commission to "consider programs, policies, and electric transmission projects" that promote the cost-effective delivery of power from renewable energy resources to meet the RPS targets of the IPA Act. 20 ILCS 3855/1-75(c). Notably, Section 8-512 emphasizes the need for "cost-effective" solutions seven times. 220 ILCS 5/8-512. Consistent with the statute's requirements, Staff stressed throughout the Redlined Second Draft, the necessity to cost-effectively deliver renewable energy when it identified the "programs and policies" the Commission should consider and adopt at the conclusion of each of the Strategic Elements 1-5. Therefore, the Redlined Second Draft meets the requirements of subsection 8-512(b)(4). Staff Resp. at 38.

Neither Staff nor any other party in this docket recommended any specific electric transmission projects as referenced in subsection (b)(4), however, the Redlined Second Draft does address the topic. For the reasons set forth in Strategic Element 4 of the Redlined Second Draft, Staff found that specific projects within the categories of Supplemental Projects or PJM's SAA are generally not cost-effective solutions. However, this finding does not preclude the idea that in the future there may be specific projects that do result in cost-effective solutions to meet Illinois' need for renewable energy. Redlined Second Draft at 63, 65-67.

Fifth, Staff states that subsection 8-512(b)(5) requires the Commission to "consider proposals to improve" RTOs planning processes, "especially proposals that reduce costs

and emissions, create jobs, and increase . . . reliability." Strategic Element 4 of the Redlined Second Draft, Effective Transmission Planning and Utilization, is dedicated to the elements of subsection (b)(5). Strategic Element 4 describes foundational reform concepts and then identifies several proposals to improve the RTO's interconnection queues, and transmission planning processes. *Id.* Subsection (b)(5)'s requirement to consider proposals to increase reliability, is also addressed under the heading of "Maintaining Reliability in Transition to 100% Clean Energy." Redlined Second Draft at 80-81. In sum, the requirements of subsection 8-512(b)(5) are met. Staff Resp. at 39.

Sixth, subsection 8-512(b)(6) requires the Commission make findings and policy recommendations based on technical and policy analysis regarding locations of REAP Zones and the transmission system developments needed to cost-effectively achieve the public policy goals identified herein. The Redlined Second Draft contains findings and policy recommendations based on the technical and policy analysis performed by Staff and The Brattle Group ("Brattle") as further informed by the pre-docket workshop process and the comments filed by the parties in this docketed proceeding. Staff Resp. at 39.

At the conclusion of each Strategic Element in the Redlined Second Draft, Staff and Brattle describe their findings. These findings are set forth fully below. Staff urges the Commission to adopt these findings as Commission findings for the purposes of its REAP. Accordingly, subsection 8-512(b)(6) is met.

Seventh, subsection 8-512(b)(7) requires the Commission to present its conclusions and proposed recommendation to determine the actions it should take. Based on the findings related to each of the Strategic Elements described above, Staff and Brattle presented policies the Commission can adopt and actions it can take. Staff recommends that the Commission adopt and implement these policies and actions it can take as part of its final REAP. These policies and actions are set forth fully below along with Staff's recommendation that the Commission adopt these policies. Staff Resp. at 39-40.

Staff opines the REAP is actionable and indicates it purposefully did not include specific dates by which all tasks would be deliverable because without adequate resources or funding it is not realistic to commit to exact dates. P.A. 102-0662 did not provide funding for additional studies; therefore, it is not clear whether there will be any funding or sufficient funding to conduct further studies. Staff notes that some of the studies would require specific engineering and modeling expertise regarding transmission planning, which the Commission does not currently have and would need to secure with additional funding to execute. Modeling to meet such tasks would also require the Commission to acquire certain industry standard proprietary software. Staff BOE at 4.

2. Joint NGOs' Position

The Joint NGOs assert the Second Draft does not meet the requirements of the statute, because it is not an actionable plan. The Joint NGOs examine the clean energy requirements of P.A. 102-0062 along with the language requiring the REAP to buttress their argument. P.A. 102-0062 sets out to transform Illinois. *Id.* at 1-2. P.A. 102-0662 sets a requirement that Illinois procure 50% of its energy from renewable energy resources built in Illinois or located in neighboring states by 2040, representing at least 64 TWh per year of clean generation, phase out all fossil fuels by 2045, and establish a

goal of 100% clean electricity goal by 2050. *See* Second Draft at 2, 6. There is simply no way to achieve this level without more transmission capacity to deliver clean energy. *Id.* at 2. For that reason, Joint NGOs explain P.A. 102-0662 created the REAP process to establish a road map to help achieve its goals. 220 ILCS 5/8-512. The language establishing the REAP clarified and expanded the Commission's role in ensuring the wholesale grid would not limit the objectives of P.A. 102-0662. 220 ILCS 5/8-512; JNGOs Init. at 2-4.

The Joint NGOs emphasize that the requirements of the REAP go beyond mere reporting and listing potential issues or opportunities. *Id.* The Joint NGOs underscore the plan is meant to lead to Commission action. *Id.* P.A. 102-0662's language made clear the Commission should advocate at the RTOs for the State's interest, including the goals of P.A. 102-0662. 220 ILCS 5/8-512(a)(11). P.A. 102-0662 also lists "at a minimum" what the REAP must do. 220 ILCS 5/8-512(b). These requirements include creating zones where renewables can be built and "develop[ing] a plan to achieve transmission capacity necessary to deliver the electric output from renewable energy technologies…" 220 ILCS 5/8-512(b)(1)-(2). Further, the Joint NGOs argue that the REAP is not just a survey of possibilities. Thus, as required by law, the Commission should use the REAP "to determine actions that the Commission should take." 220 ILCS 5/8-512(b)(7). The Joint NGOs also note that the requirement that the Commission act, not merely report or consult, is further underscored in the statutory language which establishes the RPS amounts are based on the amount of electricity demand served by distribution utilities ComEd, Ameren Illinois, and the portion of MidAmerican that requires the REAP be revised every two years. 220 ILCS 5/8-512(c); JNGOs Init. at 3.

The Joint NGOs argue that the REAP is not supposed to merely list barriers to achieving P.A. 102-0662. It is meant to be a plan that sets out clear actions. They are unpersuaded by Staff's assertion that the plan has enough details to meet the requirements. Further, the Joint NGOs find that Staff's recognition of complexity and fluidity of timelines, funding, and coordination in the REAP make more planning necessary, not impractical. The Joint NGOs argue that adopting their proposal will allow the REAP to set forth clear intentions without being overly restrictive. In fact, Joint NGOs respond that Staff has the ability and experience to balance this, as demonstrated in the IPA's Long-Term Renewable Resources Procurement Plan ("LTRRPP") proceeding. JNGOs Rep. at 3-4.

In response to the Staff's argument that the REAP is not meant to implement P.A. 102-0662, the Joint NGOs respond that it was created to advance the goals of P.A. 102-0662. At a minimum, the REAP is meant to ensure that the wholesale grid does not hinder P.A. 102-0662's goals. JNGOs Rep. at 5-7.

Despite the Redlined Second Draft listing many issues that can and do impact Illinois' ability to reach the clean energy goals delineated under P.A. 102-0662, it does not list clear next steps, necessary resources, what are priorities in the long list of actions, and timelines. The Joint NGOs contend that greater details and information are needed for the Commission to meet the requirements of the statute. JNGOs Rep. at 2.

The Joint NGOs request that the Commission require Staff to revise the REAP to establish clear next steps, prioritize actions, establish timelines, list staff needs (including

funding), identify whether statutory or regulatory changes are necessary to accomplish the REAP's goals, and add more analysis where necessary to complete its required objectives. The Joint NGOs propose a sample table that Staff could fill in to meet this request. *See* Joint NGOs Proposed Language at 2-3; *see also* JNGOs Init. at 5-9.

3. UCS's Position

The UCS affirms that the REAP appropriately considers equitable access to clean energy as a factor in the selection and prioritization of Candidate Zones. The Second Draft's analysis, conclusions, and recommendations regarding the issue of reducing carbon dioxide ("CO2") and co-pollutants in Illinois, particularly in equity and environmental justice ("EJ") communities, is the fundamental core of P.A. 102-0662's mandate to the Commission. However, the UCS is concerned that the framing and discussion of emissions reductions, and expectations of delays in meeting those emissions reductions, underestimates the role of transmission infrastructure upgrades. Without greater attention to the grid limitations that may delay closing fossil power plants, emission reductions in EJ communities on the schedule directed by P.A. 102-0662 are threatened. UCS Init. at 5.

The UCS states the Second Draft correctly concludes that current transmission planning practices, even with possible reforms under discussion by FERC and PJM, will not create sufficient, if any, new infrastructure relevant to the requirements in P.A. 102-0662 for emissions reductions in 2030. Second Draft at 65. The Second Draft elsewhere describes the risk of "excess emissions if RTOs must frequently utilize reliability backstop procedures to call on resources to operate beyond established emissions limits." *Id*. When these two aspects are considered together, a picture emerges of many years of emissions waivers required to maintain reliable electricity supplies. The REAP should describe the implications of the RTOs' rules that require that the transmission needed for reliability in the event of a plant closure are only determined and authorized after the plant owners' announcement to close the power plant. UCS Init. at 8-9.

4. Commission Analysis and Conclusion

The Commission finds that while the Second Draft provides a helpful outline of ideas to pursue to achieve a 100% clean energy economy by 2050, it is not an actionable plan as it purports to be. At the very least, an actionable plan requires clear timelines for the State to continue making measurable progress towards its goals. The Commission has provided additional deadlines and reporting requirements where necessary so that the REAP satisfies the statutory requirements of Section 8-512 and the overall objectives of P.A. 102-0662. The Commission directs Staff to report back within this docket on the action items described below no later than before the initiation of the next REAP docket or as otherwise indicated. Reports, studies, or other information to be filed with the Commission in this docket may be consolidated in one document or series of documents.

In addition to the statute's clean energy goals, the Commission would be remiss not to highlight P.A. 102-0662's considerations of equity and EJ communities. The Commission has made additions as suggested by the UCS where equitable access to clean energy and the impacts on EJ communities should be further analyzed as Staff and others carry out the actions prescribed by the REAP. The Commission encourages the

stakeholders to continue to consider the impacts on EJ communities looking forward as well.

C. Subsequent REAP Proceedings

The Act describes the REAP investigatory process as follows:

> No later than December 31, 2025, and every other year thereafter, the Commission shall open an investigation to develop and adopt an updated renewable energy access plan that, at a minimum, evaluates the implementation and effectiveness of the renewable energy access plan, recommends improvements to the renewable energy access plan, and provides changes to transmission capacity necessary to deliver electric output from the renewable energy access plan zones.

220 ILCS 8-512(c). The Commission notes that subsection (b)(6.5) became effective January 1, 2024 and will be addressed in the next REAP.

The Commission acknowledges that some elements of the data and analyses underlying this 2024 Illinois REAP may not be entirely current. They may have been overtaken by the pace of technological, regulatory, and market changes that are relevant to Illinois' promotion and use of renewable energy. The Commission expects that future updates to the REAP will incorporate analyses and plans based on newer data, technology, laws, regulations, and policies not accounted for in this final 2024 REAP. Cognizant of those dynamics, the Commission will evaluate the effects of such continuing changes in the Commission's investigation of the next REAP, and in every iteration thereafter.

III. THE REAP

A. Overall Comments on the REAP

With a few exceptions, the parties are generally supportive of the REAP and suggest additions to enhance it. While the parties comment specifically on the Strategic Elements below, some also provide overall comments. ComEd urges the Commission to include a more expansive regular reporting requirement of P.A. 102-0662's fossil fuel phase out requirements. Ameren Illinois is supportive of the development of cost-effective renewable energy and is mindful of its impacts on customers who may ultimately be asked to pay for some or all the system upgrades. LS Power suggests that stakeholder feedback should not be limited because the REAP is an evolving roadmap for achieving P.A. 102-0662's goals. ITC Midwest appreciates the parties' engagement in the REAP process and notes that a long-term plan for transmission expansion not only will help Illinois integrate and deliver clean and cost-effective renewable energy to customers, it also will provide resiliency. ELCON/REACT note that the REAP should be revised to further consider reliability, customer costs, a plan for regulatory coordination, and cost control mechanisms. CGA emphasizes that the purpose of the REAP is to ensure Illinois has sufficient transmission infrastructure to meet key comprehensive objectives, like those in P.A. 102-0662.

The above statements were summarized from lengthier comments regarding the parties' policy positions. Some of these comments were submitted to the Commission for consideration under "Scope," but are included here. All comments were considered by the Commission in their entirety. Summaries are included here as the parties' policy positions are often reiterated throughout the Order.

B. Strategic Element 1: Tracking Progress Toward Illinois' Policy Goals

1. Staff's Position

In Strategic Element 1, Tracking Progress Toward Illinois' Policy Goals, Redlined Second Draft at 1-7, Staff sets forth, *inter alia*, benchmark dates related to the decarbonization of Illinois' economy as supported by the RPS and phase out of fossil fuel generation. The Redlined Second Draft also explains why an equitable transition to decarbonization is required and necessary. *Id.* at 5-6. P.A. 102-0662 demonstrates Illinois' commitment to decarbonization by putting the State on a path to a 100% clean energy economy by 2050. It provides the initial direction required to meet this goal by setting an intermediate target of 50% renewable electricity by 2040 for most consumers, requiring complete phase out of fossil fuel emissions from electric generating units by 2045, and introducing new forms of support to retain the state's nuclear supply. Redlined Second Draft at 1. P.A. 102-0662 seeks to further Illinois' decarbonization goals while ensuring that the State's energy needs are met equitably, reliably, and cost-effectively. *Id.*

As set forth in the Redlined Second Draft, based on P.A. 102-0662, the scope and purpose of Section 8-512, and equity principles, Staff found that "significant efforts are required to meet the long-term goal of completely decarbonizing the Illinois economy by 2050." Redlined Second Draft at 6. Staff recommends that the Commission adopt these findings as their own.

Staff adopts language in the Redlined Second Draft in response to public comments. Staff Resp. at 70-76.

Based on the above findings, Staff recommends two specific actions the Commission can take as part of its REAP to aid the State in meeting P.A. 102-0662's zero-carbon goals and meeting the IPA's RPS targets described in 220 ILCS 5/8-512(b)(4). Specifically, these actions are to enhance reports to capture progress against goals and to develop a GHG accounting methodology. Staff recommends the Commission adopt these actions as part of the final REAP. Redlined Second Draft at 26.

Staff takes exception to the directive imposing a time limitation on the completion of the GHG accounting methodology study. Staff notes that while widely accepted accounting practices for GHG emissions already exist, Staff would need to consult with other State agencies and decarbonizing states to arrive at a consensus on a suitable methodology. Staff also notes that the timing of this directive assumes that Staff is available and assumes that other State agencies and decarbonizing states would be available and willing to engage in such an effort within the timeframe allotted. Staff BOE at 7-8.

Regarding the process to host discussions for the next REAP, Staff clarifies in its BOE that it would be premature to set forth a process to hold monthly stakeholder

meetings or workshops at this time and suggests a more appropriate approach would be to encourage stakeholders to submit suggestions for future topics for consideration in the next REAP and require Staff to work with stakeholders to schedule meetings or workshops on a schedule that provides for adequate attention to these matters considering the current volume of proceedings many stakeholders are currently participating in before the Commission. Staff BOE at 7, 30.

Staff further clarifies in its RBOE it objects to the inclusion of ELCON/REACT's working group language. Staff believes that it is premature to set the deadlines and parameters proposed and suggests instead to begin with a paper workshopping process by which stakeholders may submit their suggestions to Staff on the range of topics in the next REAP. Staff RBOE at 6.

2. Ameren Illinois' Position

As will be discussed in further detail under Strategic Element 5, Ameren Illinois states it has no objection to and generally supports efforts by Staff to engage with MISO to continue the discussion around GHG accounting processes in support of Illinois' policy goals. Ameren Illinois states it is interested in collaborating with the Commission to understand what exact data it is interested in and how that data will be used in subsequent efforts. Ameren Illinois points out its primary focus is on maintaining low-cost, reliable service to its customers while working with the State and Commission to effectively move to meet the goals of P.A. 102-0662. AIC Init. at 6.

3. ComEd's Position

ComEd supports the REAP requiring Staff to issue a regular report containing information compiled in consultation with other relevant entities regarding Illinois' progress toward P.A. 102-0662's goals. ComEd further urges the Commission to include such reporting content within, or in lockstep with, future REAP cycles. Such reporting would increase transparency and public awareness of where the State stands in relation to these goals, which should help Illinois to reach its goals. ComEd recommends expanding the REAP's analysis of P.A. 102-0662's fossil fuel phase out requirements by updating the status of actual fossil fuel resource retirements in each biennial REAP cycle and to add zero-carbon resource retirements to the analysis and reporting, as well as planned zero-carbon replacement for that retired generation. Including such information in a public report will provide valuable information to interested parties and investors such as renewable generation developers, which may facilitate P.A. 102-0662's goals. ComEd Init. at 3.

4. CGA's Position

CGA asserts that the REAP Zones are the heart of the plan for promoting new transmission capacity so Illinois can meet its long-term energy policy goals and fulfill its programs as defined in subsection 8-512(a). CGA further asserts that the purpose of the REAP Zones is most succinctly captured by subsection 8-512(a)(9), "to create a forward looking plan for this state's electric transmission infrastructure, instead of building transmission on a case-by-case basis that would focus on marginal network upgrades." Through the REAP Zones, Illinois is to foster the planning of enough transmission to allow

for the effective use of existing and new renewable energy resources and non-carbon dioxide emitting resources. CGA Init. at 12.

CGA asserts that unlike other provisions of P.A. 102-0662 or the Act, the General Assembly has called for the Commission to have a long-term strategy for Illinois transmission development. CGA explains that transmission impacts state, regional, and national grids and is affected by decisions made at state, regional, and national bodies. CGA states, therefore, the strategy needs to be a long-term forward-looking plan that integrates and achieves a "comprehensive set of objectives" that effectuates pro-Illinois policies at the "state, regional and national" bodies that affect transmission in Illinois. The policies and goals need to have a consistency that carries through from the state to the federal level. CGA Init. at 14.

CGA proposes that because the RTO's need to approve new transmission, the REAP needs to describe a plan for incorporating the REAP Zones into RTO system planning. Therefore, the REAP needs to consider each RTO's current transmission planning process and how to ensure each RTO planning process correctly accounts for and depicts Illinois' objectives and energy policies. CGA Resp. at 4.

CGA's recommendation is that the REAP Zones be used by MISO in its top-down planning process and by PJM in its Regional Transmission Expansion Plan ("RTEP") long-term planning processes (as currently reflected in PJM Manual 14B and as may be amended in the future). The RTO is to use the REAP Zones to plan transmission lines that will reliably and cost effectively deliver energy from the zones to customers. CGA Resp. at 4.

CGA points to subsection 8-512(a) which emphasizes "a forward-looking plan" for transmission infrastructure and not a "case-by-case development" of transmission infrastructure. CGA asserts that this is specific messaging for the Commission relative to RTO transmission planning. CGA explains that case-by-case development of transmission is what the RTO's and utilities do to ensure reliability and to interconnect new generators. It is generally considered bottom-up planning. In contrast, CGA explains that a forward-looking plan is holistic planning identifying transmission needed 10, 15, or 20 years in the future and engineered to provide improved reliability, electricity production cost savings, improved resilience, or achieve public policies. CGA also states this is an interpretation consistent with FERC's use of the term of "forward-looking planning" in its transmission NOPR issued in May 2022. *Building for the Future NOPR,* ¶ 27. The electricity production cost savings are what ensure that the long-term planning is more cost-effective than transmission lines and network upgrades planned through the bottom-up process. CGA Resp. at 4-5; CGA Rep. at 15-16.

CGA asserts that the REAP should not perform the transmission engineering analysis or pre-select transmission lines, because that would conflict with the Commission's authority to approve a certificate for the line. Instead, the REAP is meant to develop a plan that will yield new transmission approved by the RTOs that cost-effectively delivers energy to meet relevant public policies in subsection 8-512(a). The REAP should identify one or more key public policies that would drive a need for transmission. The REAP should also include inputs or parameters that reflect or account for those policies. These inputs would be used in the RTO transmission planning process

to identify transmission lines for the defined key public policy or policies. Because a REAP is to be issued every two years, Staff should have a process to host discussions on topics for the next REAP, including a discussion on the selection of a new public policy driver, as needed. This process allows the State to promote transmission that cost-effectively delivers energy from renewable resources to meet the State's key policies. CGA Resp. at 5.

CGA asserts that because PJM and MISO manage and coordinate transmission development there is a need for the REAP to consider proposals to improve the RTO's system planning processes. CGA explains that system planning processes include functions, such as transmission planning, generation interconnection, resource adequacy, and operational reliability. Subsection 8-512(b)(5) directs the Commission to work to improve PJM's and MISO's "regional and interregional system planning processes", and list specific policies guiding that advocacy. CGA states that what appears to be an open question is the application of policies in subsection 8-512(a) to subsection 8-512(b)(5) work, because subsection 8-512(b)(5) includes a specific list of policies. Perhaps this issue is best left answered on a case-by-case basis; by issues as they arise in subsequent REAP updates. CGA Resp. at 5-6.

CGA points to subsection 8-512(b)(6), which states that the Commission should make findings regarding the locations of the REAP Zones and the transmission expansion needed to cost effectively achieve the public policy goals based on technical and policy analysis. CGA asserts that the zones' locations and forecasted generating capacity are to be determined by facts and analyses of key policies and laws impacting renewable generation development in Illinois. For example, the State has a policy for retiring fossil fuel-fired electric generating plants by 2045. This policy is overseen by the Illinois Environmental Protection Agency ("IEPA"), and it may find or establish a rule affecting the timeline of plant retirements, which MISO or PJM may not necessarily be tracking. CGA explains that the Commission would include and weigh this information in subsequent REAP updates as factors influencing PJM's and MISO's transmission expansion planning processes. Another example would be a new Illinois law or study regarding Illinois' beneficial electrification, or actions taken in the Multi-Year Integrated Grid Plan ("MYIGP") dockets that affect inputs to the RTOs transmission expansion planning process. A third example is a new federal law affecting generating plants in Illinois. In these three examples, a subsequent REAP would translate those laws, studies and policies into the inputs or parameters that could be used by MISO and PJM for transmission expansion planning. CGA Resp. at 6-7.

The REAP is to be revisited every two years, therefore, a framework should be established for creating those plans including a process to identify topics to be addressed in each REAP. Not every aspect of the REAP will need to be revisited in each plan. For example, the REAP Zones flow into long-term transmission plans to be developed by MISO and PJM. The zones should be designed with a target date consistent with the key public policy so the nameplate capacity of the renewable resources needed for the policy can be compared to the zones to determine if they will have suitable area for the renewable resources to meet the key public policy. Consequently, the transmission lines to be planned for Illinois will be planned to carry the capacity forecasted for the REAP Zones. The REAP Zones will not need to be updated every two years, the locations and

capacity will only need to be updated to address significant changes in Illinois energy policy or the market. CGA Init. at 16.

CGA proposes the REAP should define a process for identifying new, relevant topics to be addressed in any upcoming biennial plan update. After review of those topic suggestions, stakeholders should be notified of the new topics to be addressed. The complexity of a topic impacts the amount of time needed to prepare comments. The overall process or initiating order needs to allow sufficient time for stakeholders to prepare materials. CGA Init. at 16-17.

CGA recommends that the Commission set up a process, similar to MISO's Planning Advisory Committee whose purpose is to solicit stakeholder feedback on PJM's and MISO's transmission planning matters that could impact the REAP. MISO's Planning Advisory Committee meets on a monthly basis to address matters and shape MISO policy related to transmission planning. Similarly, Staff would convene meetings of stakeholders during the period between REAPs to work on specific issues related to the next plan. These working groups or committees would meet on a regular basis. Staff would coordinate meetings so that issues for the next REAP can be worked on in a collaborative fashion then that can serve as an open forum for all interested parties and State agencies to participate in matters related to the REAP. CGA Resp. at 13.

Some topics may be so intensive that multiple meetings would be needed to work through an issue. Topics may require their own working group and meeting schedule. Each meeting would have an agenda, a presentation that provides background on the issues, and frames the discussion and requests for input. Stakeholders and public experts can then provide feedback on the issue presented in a manner appropriate for the issue. Based on this informal feedback Staff would refine the contents of the next REAP. This informal process has the benefit of narrowing issues to be resolved in the contested case. CGA Resp. at 13-14.

CGA notes that, in Staff's Response Comments, Staff agrees with CGA's proposal to develop topics, but Staff did not respond to the regular meeting process proposal.

CGA argues that the Commission cannot rely on the public comments to form the basis of a Commission finding or decision. Also, because this is an investigation and therefore a contested proceeding, CGA states that reliance on public comments would be improper. CGA Resp. at 18-19.

5. UCS's Position

The UCS strongly agrees with the recommendation to issue an annual report tracking progress relative to P.A. 102-0662's goals for clean energy, renewable energy, and economy-wide decarbonization. Second Draft at 6-7. Energy investments for homes, communities and the grid are dispersed, and decisions are decentralized. Illinois will make progress in varied ways that will not otherwise be collected, tabulated, and incorporated in the plans of one utility or state agency. UCS Init. at 5-6.

The UCS posits this improved tracking of progress can provide the agencies, the public, and affected communities with information on the reduction in operations at the fossil fuel plants in the state, and any grid operators' use of waivers for generators to emit more pollutants than the P.A. 102-0662 law permits. Tracking information about plant

operations and grid limitations that cause reliability needs for waivers will be important feedback for planning investments to meet P.A. 102-0662 requirements. UCS Init. at 6.

The UCS states it performed preliminary analyses and compared those with the PJM Illinois Generation Retirement Study ("PJM August Report") to understand the scale and immediacy of transmission constraints on plant closings. Both the UCS analysis and the PJM August Report reveal risks for continued operation through waivers allowed under provisions in P.A. 102-0662 for the grid operators to avoid power system deficiencies. Any such study is a snapshot of potential future conditions. Making annual progress reports on the volumes of renewable electricity produced, the volume of CO2 and other pollutants, and the allowances provided as waivers from the grid operators will track actual recent conditions. All decarbonization activities and clean energy procurements will contribute to these measured results. The UCS believes the Commission can be an active regulator of the electric system investments to ensure progress towards decarbonization of the electric generation supply and the goals for emissions reductions. UCS Init. at 6-7.

6. ELCON/REACT'S Position

ELCON/REACT propose that the Commission establish a working group within the REAP process to facilitate the development of the next REAP. ELCON/REACT suggest that a working group would provide a structure to support specific tasks while providing a recognized platform for transparent engagement between Staff and stakeholders. The working group would also serve as a forum to identify the range of topics and areas to be considered by the next REAP, specifying the type and nature of actions that can be proposed for consideration in the REAP process, and proposing and reviewing methods by which progress on the REAP will be measured. By focusing on these workflows now, ELCON/REACT argue the REAP working group could make substantial progress ahead of the next REAP and thereby facilitate a process that would be more commonly understood and efficient. ELCON/REACT BOE at 5.

7. LS Power's Position

LS Power appreciates the strain put on Staff with the REAP process, but clear timelines are needed to keep track of progress and meet applicable goals. While the cost of implementing the directives is a legitimate issue, the Commission should identify the most cost-beneficial way of taking the next steps. Accordingly, LS Power supports ELCON/REACT's proposal for the Commission to mandate a structured working group be convened to commence planning for the next REAP. By starting now, the REAP working group should be able to help the Commission immediately address reliability issues and make substantial progress ahead of the next REAP deadline. LS Power RBOE at 4-5.

In response to Staff's exception to the timeline for developing a GHG emissions accounting methodology, LS Power suggests language to include the working group in this directive. LS Power RBOE at 8-9.

8. Joint NGOs' Position

The Joint NGOs believe a working group with the option to provide written comments would be a more effective forum to provide iterative feedback on future REAP's

development but have concerns that ELCON/REACT's proposal is too prescriptive. Thus, the Joint NGOs support ELCON/REACT's recommendation to set up a working group with modifications. The Commission has hosted working groups geared at stakeholder engagement many times. The Joint NGOs highlight the value of requesting topics for discussion, providing a working draft of the REAP ahead of working group meetings, and proposing topics for consideration to encourage participation and progress towards the working group's goals. JNGOs RBOE at 5.

In addition, the Joint NGOs note that Staff takes exception to the directive to study potential strategies to limit GHG leakage based on an infeasible timeline and insufficient resources and staff capacity. The Joint NGOs suggest Staff provide an explanation of what resources it requires to make this plan feasible. The Joint NGOs recommend that Staff revisit the framework previously proposed by the Joint NGOs. Once a detailed list of necessary resources has been provided, the Commission should evaluate near-term priorities–including meeting the RPS target by 2040, planning for plant closures mandated in CEJA, and prioritizing environmental justice concerns. If so, the Commission should provide the resources necessary to undertake the study. JNGOs RBOE at 13-15.

9. Commission Analysis and Conclusion

Strategic Element 1 contains findings and recommendations that supplement State policy goals and identify gaps in the current status quo. *See* REAP Strategic Element 1. The Commission adopts Strategic Element 1 of the Redlined Second Draft as amended by this Order. There are action items outlined under Strategic Element 1, the details of which are included in the REAP but are referenced more succinctly below.

The Redlined Second Draft REAP advocates for enhanced reporting to capture State progress against the decarbonization goals of P.A. 102-0662. *See* Redlined Second Draft REAP Conclusion 1A. ComEd, CGA, and UCS support this reporting requirement. The Commission recognizes the value of enhanced tracking and reporting on State progress given the many agencies and stakeholders that are implicated. Accordingly, the Commission directs Staff to consult with the IEPA, the IPA, PJM, MISO, and any other entities Staff deems relevant, assuming there is adequate cooperation, participation and funding, to prepare a written report that tracks Illinois' progress towards P.A. 102-0662's goals related to clean energy, renewable energy, and economy-wide decarbonization. This data shall be reported annually to the Commission and the General Assembly starting in 2025, and every year thereafter until 2029, to inform future REAP cycles.

The Redlined Second Draft REAP advocates for the development of a GHG accounting methodology to support accurate tracking of emissions in the context of the regional electricity markets. *See* Redlined Second Draft REAP Conclusion 1B. Ameren Illinois states that it has no objection. Within its BOE, Staff objects to the imposition of a deadline on the development of this methodology. *See* Staff BOE at 7-8. The Commission must balance the limited availability of its own resources with the value of creating a State-specific accounting methodology where widely accepted protocols already exist. Accordingly, the Commission declines to order the development of a GHG accounting methodology at this time. However, the Commission notes this may be an

appropriate topic for the working group, authorized below, to discuss and make recommendations in future REAPs, where feasible and appropriate.

CGA recommends Staff should have a process to host discussions on topics for the next REAP. Staff agreed to a process as suggested by CGA in its Response but clarified in exceptions that it would prefer to limit the process to the submission of written comments. ELCON/REACT proposed a working group format, which LS Power supports. The Joint NGOs also support the proposal with some changes. The Commission finds additional transparency into the REAP process will better advance its goals. As such, the Commission adopts ELCON/REACT's proposal as modified by the Joint NGOs (hereafter referred to as "Working Group") and directs Staff to host a series of stakeholder workshops which will aim to achieve several goals. First, it will help identify topics and areas to be considered by the next REAP. Second, it will help define the type and nature of actions that can be proposed for consideration in the REAP process. Third, it will help establish the methods by which progress on the REAP will be measured with regards to timing, capacity, cost, and other metrics as defined and accepted by the Commission. Fourth, it will support Staff in ensuring that subsequent REAPs are actionable.

The Commission directs Staff to lead the Working Group, which will be open to all stakeholders. To facilitate progress, stakeholders shall submit written feedback on the four goals of the workshops to Staff prior to the initial Working Group meeting. The first Working Group meeting must occur before February 1, 2025. A schedule of meetings and a work plan will be presented at the initial meeting by Staff.

The Commission notes CGA has highlighted some topics that may be valuable to analyze in forthcoming REAPs. While the Commission agrees with CGA that the REAP process will continue to evolve, it declines to further delineate the required topics beyond those which are currently set forth by Section 8-512 of the Act. Nothing precludes these topics, and others, from being discussed in future REAP proceedings or by the Working Group. In addition, the Commission directs Staff to present the REAP Zones to the RTOs for consideration in their long-term planning processes. The Commission's conclusions under Strategic Elements 4 and 5 discuss in further detail Staff's directives in relation to the RTOs.

The Commission notes that Staff's Response proposes language based on public comments. The language recognizes that IDNR should play a role in future iterations of the REAP. The attached REAP includes modified language directing Staff to work with IDNR.

C. Strategic Element 2: Transitioning to 100% Clean Electricity Mix

1. Staff's Position

In Strategic Element 2, Transitioning to 100% Clean Electricity Mix, Redlined Second Draft at 8-27, Staff sets out in detail the facts and issues which must be addressed to meet the goal of 100% economy-wide decarbonization by 2050. To develop a viable plan for achieving a 100% clean electricity mix, Staff considered the need to replace the reliability and balancing services that have traditionally been provided by fossil resources. Renewable resources offer relatively less contribution to reliability and balancing needs as compared to other clean resources such as nuclear, batteries, and demand response.

With these limitations in mind, Staff considered the current resource mix in both MISO and PJM, the outlook for renewable supply needs and policy interactions with nuclear generation and fossil fuel generation. Staff also considers resource adequacy needs as impacted by fossil fuel retirements and Illinois' role as hosting substantial volumes of clean energy which other states purchase to meet their RPS goals. Based on these considerations, and the comments of other parties, Staff found "achieving a 100% clean electricity mix for Illinois is likely to require a coordinated set of Illinois policies and market incentives to support the most cost-effective and reliable resource mix throughout the clean energy transition." Redlined Second Draft at 24. Staff further highlights gaps that may need to be addressed through further policy and regional market reforms including clean energy requirement gaps that may occur after nuclear support payments expire in 2027, changes in RTO rules to allow entities serving load in the State to reflect the preferences of Illinois' policies regarding resource mix, improvements to opportunities for clean energy trade and access to renewable power from other states, GHG leakage risks, utilization of transmission assets at existing power plants, and consideration of near-term reliability fixes while pursuing lasting reforms. Staff recommends the Commission adopt these findings as its own. Redlined Second Draft at 8-27.

Based on these findings, Staff recommends several actions the Commission should take as part of its REAP to promote Illinois' decarbonization goals and address the gaps existing in the status quo aid the State in meeting P.A. 102-0662's zero-carbon goals. Specifically, these actions are to identify resources and strategies to meet P.A. 102-0662's economy-wide decarbonization goals, identify mechanisms to limit leakage, prepare transmission planning for plant closures, encourage regional market reforms, encourage utilities to work with RTOs, and track and promote energy efficiency and demand response as non-wires alternatives. Redlined Second Draft at 26-27.

Nonetheless, Staff takes exception to the directive to conduct a study to understand the economy-wide strategies and pace of electrification because it argues the timing is infeasible, and it is unfunded. Staff states it would require extensive modeling expertise and computer power similar to other large-scale industry standard studies, and sufficient time to properly conduct and analyze the study. While the Commission is limited in jurisdiction to only certain utility and transportation sectors and may only conduct activities consistent with state and federal laws, Staff asserts it is prepared to support such a study to the extent it is feasible and adequately funded and consistent with state and federal law. Staff notes that the modeling of other sectors could be conducted with public information and assessed on how Commission regulation of certain industries, such as transportation, impacts other sectors and thereby their decarbonization. Modeling also takes considerable time. Staff notes that this would likely require the hiring of a consultant with the appropriate level of specialized technical expertise and experience. If not using contractors, Staff would likely need the cooperation and coordination of National Renewable Energy Laboratory or Lawrence Berkeley National Lab. This coordination would also take a significant amount of time, resources, and the willingness of either lab to perform the study. Staff notes that the P.A. 102-0662 requirement for a study with the IEPA and IPA, 415 ILCS 5/9.15(o), is intended to measure P.A. 102-0662 targets and progress and is likely to address, at least indirectly, the focus of this directive. As such, Staff argues this directive also seems duplicative in

part and not the best use of Commission resources even if it were to be funded. Staff BOE at 5-6.

Staff further clarifies it is premature to refine topics covered by the REAP at this time. Thus, Staff does not describe how it would handle any overlap between the studies directed by this Order. Rather, Staff encourages input from stakeholders regarding topics to be covered in the next REAP. Staff BOE at 30.

Nonetheless, if the Commission directs Staff to conduct such a study, it does not necessarily object to ComEd's proposal to include an assessment of the most likely cost-effective proportion of alternative technologies, existing and new resources including transmission infrastructure to deliver electric output from renewable energy technologies that can be implemented under existing state and RTO policies. Staff modifies ComEd's language to allow Staff to consider stakeholder assessments rather than to conduct its own. Staff RBOE at 5.

Staff also expresses concerns with reviewing brownfields definitions and asserted that it was outside the scope of the REAP. Staff BOE at 12-13.

Staff does not object to Ameren Illinois' proposed language to require an annual meeting with Ameren Illinois and ComEd to better understand the solutions being evaluated in advance of the formal MISO and PJM processes for plant closings as these processes generally do not identify or initiate construction of transmission needed for local reliability until the formal announcement of a plant closing by its owner. Staff RBOE at 3.

2. Ameren Illinois' Position

Ameren Illinois indicates that it has no objection to the Commission conducting a study of potential interventions that may limit and prevent GHG emissions leakage. Ameren Illinois did not specifically address Strategic Element 2, although many of the comments provided in response to Strategic Element 4 at least indirectly relate to the clean energy transition.

Ameren Illinois has no objection, in general, to the added 2.C language found at page xi of the REAP. Ameren Illinois supports proactive transmission planning and regularly works with MISO to evaluate system conditions based on known and anticipated changes. Ameren Illinois does, however, offer exception language in an attempt to clarify the recommendation and, in the case of the suggested annual (as opposed to quarterly) meeting, to better align the sharing of information with the established MISO MTEP process and annual approval cycle. Ameren Illinois believes its edits are generally consistent with the intent of the section and, without creating an entirely new and overly burdensome process, the Company's proposed edits will still provide the Commission and Staff an opportunity to interface with utilities and RTOs to better understand what solutions are being evaluated in an effort to address known and anticipated plant closures and changing system conditions. AIC BOE at 2.

3. ComEd's Position

ComEd recommends revising the REAP to increase the accuracy and avoid double-counting of GHG emissions calculations. Specifically, ComEd advises that categories of emissions leakage avoid overlapping definitions, such as "(e) excess emissions if RTO's must frequently utilize reliability backstop procedures to call on

resources to operate beyond established emissions limits," which has potential of overlapping with (and thus double-counting) "(b) increases in GHG emissions from fossil resources outside of Illinois to offset decreases in Illinois fossil production." ComEd Init. at 3-4. ComEd also states that a consumption-based, or "bottoms-up," approach for calculating GHG emissions data is preferable and produces more accurate measurements. ComEd Init. at 4.

ComEd also notes that the Redlined Second Draft finds the Commission has authority to conduct a study to understand economy-wide strategies and pace of electrification required to achieve decarbonization goals and to refine the outlook for renewable and clean energy supply needs that must be achieved. Redlined Second Draft at 25. However, ComEd points out that such a study would overlap with the current scope of the REAP itself, which includes such things as quantifying needs to fulfil 100% renewable electricity supply, accounting for increases in electricity demand from electrification, and the interactions amongst renewable, nuclear, and fossil supply throughout the clean energy transition. ComEd urges the Commission to clarify the substantive differences between such a study and the REAP itself, and how such a study would provide distinct value, to ensure whether there is a need for such a study. ComEd Init. at 5.

ComEd agrees that Staff should conduct a study, but that it should also specifically include direct analysis of the potential for achieving near and long-term transmission solutions in accordance with existing RTO or state level policies. Specifically, the Order should direct Staff to assess what can be achieved under existing policies for this forward-looking study. ComEd BOE at 5.

In addition to directing an assessment of the most likely cost-effective proportion of alternative technologies, existing and new resources, and in-state vs. out-of-state supply for meeting energy and reliability needs, the Commission should require such assessment to include what can be achieved under existing state or RTO policies to deliver electric output from renewable technologies. By requiring assessment of existing options to achieve transmission solutions, and assessment of how those solutions might interact with state imports or exports, the study will help the Commission develop a more forward-looking and actionable plan for electric transmission infrastructure in Illinois. ComEd BOE at 6-7.

For the same reasons, to help create a forward-looking and more actionable plan, the Order should clarify that its direction for Staff to work with parties to pursue RTO reforms requires consideration of near and long-term measures to deliver transmission capacity for renewable energy. ComEd BOE at 7.

ComEd further asserts the directive for transmission solutions is inappropriate and outside of its authority. Further, ComEd argues the Proposed Order does not sufficiently require a consideration of at-risk generation. ComEd's proposed edits would align the REAP with federal and state laws and regulations regarding transmission planning while ensuring that Illinois' analysis of at-risk generation works in concert with its analysis of transmission solutions to achieve its clean energy goals. The Commission should therefore leverage its authority over generation and honor its limitations with regard to transmission planning. ComEd BOE at 9.

4. NRG Companies' Position

NRG Companies agree with Staff's inclusion of language regarding the utilization of transmission assets at existing power plants and provided several additional suggestions. First, NRG Companies explain defining the term "brownfields" in the context of the Illinois RPS as including former central power plant sites would allow those sites to bid for renewable energy credit ("REC") contracts through the IPA's special carve-outs for brownfield sites. The result would be to prioritize renewable projects located at locations that require minimum or no additional transmission buildout, thus accelerating deployment and reducing the total project costs. NRG Init. at 3-4.

NRG Companies note that Staff acknowledged that a better definition of brownfield sites is a reasonable consideration and suggests that the issues may be appropriate for consideration in future REAP reports and noted "[s]imilarly, the NRG comments request a better definition of brownfield sites that would be included in the zones. These are reasonable considerations." *See* Staff Resp. at 5-6. Despite this, Staff's Response objects to addressing this issue in this iteration of the REAP. NRG Rep. at 9-10.

In addition, NRG Companies point out that Staff further suggests that including a recommendation that former central power plant sites be classified as "brownfields" is "outside the scope of the REAP noting that the [IPA] Act currently defines "clean coal SNG brownfield facility'". Staff Resp. at 50. The IPA, ELPC, and the Joint NGOs make similar arguments regarding this recommendation being "beyond the scope" of the instant proceeding and cite to the definition of "brownfield site photovoltaic project" in the Coal-to-Solar provisions of P.A. 102-0662. *See* IPA Resp. at 6 *citing* 20 ILCS 3855/1-10; JNGOs Resp. at 6-7. Further, the IPA noted that the two mandated Coal-to-Solar procurement events already have been run with reference to "brownfield site photovoltaic projects". *See* IPA Resp. at 6; NRG Rep. at 10.

Second, NRG Companies recommend transmission assets serving existing power plants in Illinois should be utilized to the extent possible. Staff agreed with the NRG Companies' observations and supported the incorporation of this concept into the REAP. NRG Rep. at 11.

Third, regarding their recommendation that energy storage should be included in utility-scale renewable energy proposals, the NRG Companies note Staff supported the concept of encouraging replacement resources such as storage but stated that the language proposed by the NRG Companies to be "likely out of scope of this transmission-focused report. When the Second Draft touches on resource adequacy and greenhouse gas emissions, it does so within the context of exploring transmission as a contributing solution." *See* Staff Resp. at 50; NRG Rep. at 11.

Fourth, NRG Companies explain Staff noted that the Self-Direct RPS program is a subject that is addressed in the IPA's LTRRPP and asserted that, as a result, a discussion of this policy recommendation is outside of the scope of the REAP. However, neither Staff nor any other party took issue with the fact that the Self-Direct RPS should be an effective way to engage large energy users in the State's clean energy transition in a way that could encourage different approaches to renewable energy development in Illinois that may have lower impacts on transmission capacity. Likewise, neither Staff nor any other party took issue with the conclusion that the current Self-Direct program appears to

provide sufficient value to encourage participation with only two customers participating in the current the program. NRG Rep. 12.

5. LS Power's Position

LS Power makes three recommendations regarding revisions to Strategic Element 2. First, LS Power recommends that the REAP recognize that the State's current policies toward peaker plants is risky, costly, and counterproductive toward achieving P.A. 102-0662's clean energy goals. Second, LS Power recommends that the REAP include a comprehensive discussion of the costs associated with P.A. 102-0662. Finally, LS Power proposes that the REAP include a recommendation that benefit-cost analyses be required prior to adopting policies and should also promote energy efficiency and demand response to engage consumers in the clean energy transition. LS Power Rep. at 6.

LS Power requests that the Second Draft be revised to include a finding regarding the consequences of penalizing and prematurely shuttering peakers, noting that under the current statutory scheme there will be an increased risk of blackouts, increased costs and, ironically, increased emissions. Moreover, LS Power argues that the REAP should recognize that economic factors may result in plant closures prior to the deadlines mandated in P.A. 102-0662. For example, if a peaker plant needs a capital infusion for maintenance, investors may decide to shutter the facility rather than operate, recognizing the mandated retirement is on the horizon. As a result, LS Power respectfully requests that the REAP be revised to include a recommendation P.A. 102-0662 should be amended to delay the mandatory phase out of peaker plants to better achieve the goals of P.A. 102-0662. LS Power Rep. at 7.

LS Power notes that peaker plants are a critical component in the Illinois electricity market, as well as in the broader PJM and MISO market, keeping the lights on when demand is the greatest and providing a cost-effective way to ensure reliability. Given their location, the peaker plants in ComEd's service territory also can be dispatched to help MISO manage its grid. As the name suggests, "peaker plants" are power plants that are specifically designed to provide additional electricity during periods of peak demand. Unlike "baseload generation," which operates nearly continuously, peaker plants are designed to operate for limited hours, preventing blackouts when the grid is experiencing its greatest stress. In Illinois today, 90% of this flexible generation capacity comes from natural gas combustion turbine peaker plants, and these peaker plants will play an increasingly important role, as the amount of weather-dependent renewable energy resources are added to the grid more flexible generation resources are needed to keep the grid in balance. LS Power Init. at 4.

In support of its comments, LS Power presented a comprehensive report that begins to quantify the risk and the potential cost of forcing the retirement of otherwise economic natural gas peaker plants, whose primary role is to help keep the lights on when the grid is experiencing its greatest stress. Given P.A. 102-0662's emphasis on the electrification of the transportation sector and the more frequent occurrences of extreme weather events, it will become even more important that peaker plants are available as a resource. In July alone, PJM issued four Maximum Generation Emergency Alerts, which PJM uses as an early alert system to inform grid participants that the operating reserve

requirement is greater than what is scheduled to operate and could require the use of PJM Emergency Procedures. LS Power Rep. at 7.

The report explains that the current policies will increase Illinois' reliance on out-of-state fossil-fueled resources over which Illinois has little if any control or in-state resources that operate around the clock and produce much higher emissions of CO2 and criteria pollutants. CO2 emissions will increase by more than 8 million tons over the 2022-2029 period, the equivalent of adding 1.6 million gasoline burning cars to the Illinois roads. Moreover, the increased reliance on other in-state generation will increase sulfur dioxide ("SO2") emissions by 4.5% or more than 3,000 tons over the 2022-2029 period, negatively impacting the very EJ communities in Illinois that P.A. 102-0662 seeks to protect. Further, by increasing the reliance on out-of-state fossil fueled generation, SO2 emissions cumulatively increase by approximately 13,500 tons over the same period, potentially burdening EJ communities outside of Illinois as well. *See id.* As detailed in LS Power's Response, these concerns have been echoed and amplified by top regulators and industry stakeholders. LS Power Rep. at 8.

LS Power observes that no party addressed the merits of the report or the concerns expressed by industry stakeholders, and the representatives of large energy users agreed that it is important that the REAP address the risk of blackouts. *See* ELCON/REACT Resp. at 11 ("Maintaining the option of continuing the operation of existing thermal plant[s] should be explicitly included within the REAP."); LS Power Rep. at 9.

LS Power explains that maintaining the peaker plants as a resource is just as much of a "non-wires alternative" as energy efficiency, demand response, or distributed energy, which the Commission is directed to investigate:

> Alternatives to overhead electric transmission lines can achieve cost effective resolution of system impacts and warrant investigation of the circumstances under which those alternatives should be considered and approved.

220 ILCS 5/8-512(a)(10). Further, Section 8-512 recognizes that "ensur[ing] reliability" is one of the primary goals of Illinois electric policy. 220 ILCS 5/8-512(a); LS Power Rep. at 9.

LS Power stresses that the General Assembly did not mandate the Commission limit the scope of the REAP; instead, subsection 8-512(b) of the Act merely refers to the minimum requirements of the REAP. Neither Staff nor any of the other parties provide any rationale for limiting the REAP in a way that fails to address what could be the most significant risk to the clean energy transition in Illinois. LS Power Rep. at 9-10.

LS Power also notes that one of the core directives of the Commission is to maintain reliability of the grid. 220 ILCS 5/1-102(c). If the REAP actually is going to "comprehensively and actionably outline[] the path to an equitable, reliable, and affordable path to meeting Illinois' policy requirements for a clean electricity system" then it must recognize this risk of blackouts and detail the path to avoid them. Redlined Second Draft at 2. This acknowledgment is far from an attempt to "undermine the decarbonization goals" of P.A. 102-0662 as asserted by CGA, LS Power argues that retaining the peaker

plants would result in substantially less CO2 and other pollutants. *See* CGA Resp. at 15-16; LS Power Rep. at 10.

Finally, LS Power explains that it simply would be good business for the State of Illinois to demonstrate that it is proactively addressing any risk of blackouts because the risks associated with poor reliability and potential blackouts directly impact economic development in Illinois. LS Power notes that in 2019 the General Assembly adopted tax incentives for attracting data centers as part of expanded economic development efforts. *See* 20 ILCS 605/605-1025. The importance of power reliability for new and existing data centers cannot be overstated. LS Power Rep. at 10.

LS Power also requests that the Second Draft be revised to include a discussion of the likely costs associated with the various scenarios to realize the goals of P.A. 102-0662. LS Power explains that any discussion of those costs should include a recognition of the costs of blackouts and increased power prices that would result from prematurely retiring peaker plant as well as information about the ways in which energy efficiency and demand response could lower the costs. LS Power notes that ELCON/REACT as well as Ameren Illinois embrace the idea of including benefit-cost analysis as a central component of the REAP's guide for policymakers. LS Power Rep. at 11.

LS Power explains that the Commission gets to decide the scope of the REAP and neither Staff nor any other party provides a reason to exclude the cost of blackouts from a calculation of whether a policy is cost-effective. Indeed, to do so could result in the REAP embracing solutions that appear acceptable but for the fact that they cause life-threatening, devastating blackouts. LS Power maintains that the Commission should interpret the Act to avoid such an absurd result. *See People v. Hanna*, 207 Ill. 2d 486, 498, 800 N.E.2d 1201, 1207 (2003) ("where a plain or literal reading of a statute produces absurd results, the literal reading should yield"); LS Power Rep. at 12.

LS Power next argues that the Second Draft should be revised to include recommendations to require that benefit-cost analyses be performed for regulatory or legislative solutions prior to them being adopted and to promote energy efficiency and demand response at the state level. LS Power Rep. at 12.

LS Power reiterates that a number of parties support including in the REAP a recommendation that policymakers use benefit-cost analyses to guide their decisions and notes that Staff also recognizes the benefit of such analyses. *See, e.g.*, NRG Companies Resp. at 4-5; ELCON/REACT Resp. at 17-18; AIC Resp. at 2-3; *see also* Staff Resp. at 7. LS Power also agrees with the slightly revised language that Staff proposed to be included in the REAP regarding energy efficiency and demand response. LS Power Rep. at 13.

In response to Staff's exception to the electrification study, LS Power notes it understands Staff's concerns about funding, but that such comprehensive studies are crucial to the State's decarbonization efforts. As such, LS Power suggests this analysis should be part of the stakeholder process as ELCON/REACT propose. LS Power BOE at 6.

In the context of reviewing the utilities' MYIGPs, LS Power notes the Commission recently recognized that even though such analyses may be difficult, benefit-cost

analyses are essential to determine whether proposals are cost-effective. *See, e.g., Ill. Commerce Comm'n On Its Own Motion v. Commonwealth Edison Co.*, Docket Nos. 22-0486, 23-0055 (consol.), Order at 40 (Dec. 14, 2023). LS Power argues the Order should embrace the idea using a transparent, systematic, and rigorous approach to evaluating the economic viability and desirability of policies to help guide policymakers through the myriad of issues they inevitably will face as the State transitions to its clean energy future. LS Power RBOE at 7.

In addition, LS Power generally agrees with ComEd that the study should analyze the potential for achieving near and long-term transmission solutions in accordance with existing RTO and state level policies. Any study that impacts regulatory requirements and customer costs should be done in an open, transparent and inclusive manner. While LS Power is not against Staff conducting such a study, LS Power suggests that any studies that potentially affect policymakers' decisions should be done through a collaborative process to leverage all existing processes because stakeholders may have different solutions. LS Power RBOE at 13-14; LS Power RBOE at 18.

6. ELCON/REACT's Position

ELCON/REACT recommend that Strategic Element 2 of the REAP be revised to: (1) prioritize immediate reliability concerns in PJM and MISO; and (2) advocate for policies that would minimize the cost of the transition to a "green economy." First, ELCON/REACT request that the REAP be revised to prioritize immediate reliability concerns in PJM and MISO. Staff recognized that certain interventions "can essentially buy time for transmission planning reforms and processes to take place" and recommend language regarding the consideration of near-term reliability fixes while pursuing lasting reforms. Staff Resp. at 54. ELCON/REACT support including Staff's proposed alternative language. ELCON/REACT Init. at 2; ELCON/REACT Rep. at 5-6.

Second, ELCON/REACT request that the REAP include language that prioritizes the concept of minimizing the cost of the transition to a "green economy" for consumers. They note that Staff recommended against including the language proposed by ELCON/REACT as unnecessary and stated that cost allocation issues are in discussion in various forums. *See* Staff Resp. at 55. ELCON/REACT acknowledge that the issue of cost minimization is embedded within other sections of the REAP. However, ELCON/REACT recommend including a direct statement concerning consumer costs to prevent any ambiguity in future proceedings where competing parties may claim that consumer costs are secondary to other considerations. As to the issue of cost allocation, ELCON/REACT agree that such issues will necessarily be settled in subsequent and separate forums. However, ELCON/REACT believe that the REAP can serve as an additional forum in which the Commission can engage with a different group of stakeholders to gain new perspectives on the relevant issues. As such, ELCON/REACT request that the Commission revise the REAP to include this concept. ELCON/REACT Init. at 2; ELCON/REACT Rep. at 7.

ELCON/REACT note that LS Power agrees that the REAP should adopt recommendations and concepts that support minimizing consumer costs. *See* LS Power Resp. at 8. Ameren Illinois also agrees with the principle of responsible and cost-effective approaches to transmission system deployments but clarified that it believes that the

language proposed by ELCON/REACT "advocat[es] for solutions that are lowest cost – in light of the benefits they will unlock". *See* AIC Resp. at 2-4. ELCON/REACT appreciate Ameren Illinois' support of including the concept of cost-effectiveness into the REAP and recommend that the REAP include its slightly revised language. ELCON/REACT Rep. at 3-4.

ELCON/REACT maintain that including a direct statement identifying that the REAP must consider consumer costs is paramount to protecting consumer interests and the economic viability of the Illinois economy. ELCON/REACT Rep. at 4.

7. IPA's Position

The IPA notes that NRG Companies recommend that the REAP note that the Commission has the authority to modify the Self-Direct Program rebate value and rebate term to increase private sector investment in utility-scale wind and solar in Illinois. 220 ILCS 5/8-512(b). This recommendation is inconsistent with Illinois law, which requires any changes to the Self-Direct Program to be conducted through the Commission's approval of the IPA's LTRRPP. As a result, NRG Companies' proposal sits outside of the scope of the current proceeding and should be rejected by the Commission. IPA Resp. at 2-3.

NRG Companies' proposed changes include the claim that the "structure and compensation levels provided under the RPS Self-Direct program were proposed by the IPA in its [LTRRPP] and a modified program was approved by the Commission last year." NRG Proposed Language at 4-5. This claim is incorrect. The structure of the Self-Direct Program is established by statute in subsection 1-75(c)(1)(R) of the IPA Act. The IPA's LTRRPP outlines the IPA's approach to implement these statutory directives. The core structure and credit level of the Self-Direct Program cannot be changed through an unrelated Commission proceeding. IPA Resp. at 3.

Subsection 1-75(c)(1)(R) of the IPA Act establishes threshold eligibility requirements for customers seeking to receive RECs through the Self-Direct Program. Subsection 1-75(c)(1)(R)(2)(iii) requires the underlying REC contract to be long-term with a length of at least 10 years, whereas subsection 1-75(c)(1)(R)(2)(iv) requires the REC contract to have certain delivery stipulations. The underlying REC contract must be equivalent in volume to at least 40% of the eligible Self-Direct customer's usage, determined annually by the customer's usage during the previous delivery year, measured to the nearest megawatt-hour. 20 ILCS 3855/1-75(c)(1)(R)(2)(iv). IPA Resp. at 3.

Further, the IPA states pursuant to subsection 1-75(c)(1)(R)(4), the IPA must annually determine the Self-Direct credit amount for new and existing eligible Self-Direct customers and submit this calculation in an annual compliance filing. The Commission was required to approve the Self-Direct credit amount by June 1, 2023, and will be required to approve the credit amount by June 1 for each subsequent delivery year. 20 ILCS 3855/1-75(c)(1)(R)(4). The IPA Act does not authorize the Commission to change any element of the Self-Direct Program through the REAP process, or for that matter, through the IPA's LTRRPP. Any of the structural changes that may be contemplated by NRG Companies would require a statutory amendment of subsection 1-75(c)(1)(R) of the IPA Act. IPA Resp. at 34.

In addition to being contrary to the statutory requirements of the Self-Direct Program, the IPA notes NRG Companies' recommendation seeks to inappropriately resolve a question related to the IPA's LTRRPP outside of the statutorily mandated process for amending that Plan. Pursuant to the requirements of subsection 1-75(c)(1) of the IPA Act and subsection16-111.5(b)(5) of the Act, the implementation processes for the Self-Direct Program were set out in the IPA's 2022 LTRRPP, which was filed by the Agency in Docket No. 22-0231 on March 21, 2022, and approved by the Commission with modifications on July 14, 2022. Any changes to the Self-Direct Program implementation must be made through a modification to the LTRRPP and with the approval of the Commission in the appropriate docket. IPA Resp. at 4.

The IPA next argues the Commission should reject NRG Companies' recommendation to include retired or retiring large central power plants in utility-scale solar REC procurements. Not only are these procurement events outside of the scope of the REAP, but NRG Companies are conflating the IPA's competitive procurement events for indexed RECs with the IPA conducting coal-to-solar procurement events. The IPA's utility-scale procurement events follow separate statutory directives found in subsection 1-75(c)(1)(C) of the IPA Act and are conducted differently than the coal-to-solar procurement events, found in subsection 1-75(c-5) of the IPA Act. IPA Rep. at 6-7.

Subsection 1-75(c)(1)(C) of the IPA Act directs the IPA to procure 10,000,000 RECs delivered annually by the end of the 2021 delivery year, increasing ratably to reach 45,000,000 RECs by the end of delivery year 2030. 20 ILCS 3855/1-75(c)(1)(C). These utility-scale procurement events include RECs from utility-scale wind projects, utility-scale solar projects, and brownfield site photovoltaic projects. P.A. 103-0380 passed on July 28, 2023 and requires the IPA to procure RECs from existing hydropower facilities, including newly modernized or retooled hydropower dams, in the IPA's utility-scale procurement events after the Act's effective date of January 1, 2024. IPA Rep. at 6-7.

Subsection 1-75(c-5) of the IPA Act directs the IPA to conduct only two "coal-to-solar" procurement events to procure RECs from new renewable energy facilities installed at or adjacent to the sites of electric generating facilities that burn or burned coal as their primary fuel source. 20 ILCS 3855/1-75(c-5). Both procurement events were conducted in 2022 in accordance with the requirements of the IPA Act. The IPA has no statutory authority to conduct additional coal-to-solar procurement events under this or any other program. The Coal-to-Solar Program does not fall under the provisions of the IPA's LTRRPP, and therefore is not subject to future modification through any process other than a statutory change. Additionally, the completed procurement events did not achieve the REC targets for the Coal-to-Solar Program set in statute, and the second procurement event received no bid proposals at all. As a result, the IPA believes there to be little interest in developing projects under the Coal-to-Solar Program, belying the purported need to expand the program. Therefore, the Commission should reject NRG Companies' recommendation to revise the REAP to include retired or to-be-retired central power plants with energy storage in the Agency's utility-scale wind, utility-scale solar, and brownfield site photovoltaic project procurement events. IPA Rep. at 7-8.

Further, the IPA points out NRG Companies' proposal that the Commission change how the definition of "brownfield site photovoltaic project" (20 ILCS 3855/1-10) is "read" within the IPA Act exceeds the scope of the REAP and the administrative authority

of the Commission and the IPA. While P.A. 102-0662 expanded the definition of brownfield site photovoltaic projects under Section 1-10 of the IPA Act to include former coal mines, any change to a definition within the IPA Act or change to the Coal-to-Solar Program itself must be effectuated by legislative action, not through a directive from the REAP. IPA Resp. at 6-7. In its RBOE, the IPA agrees with the Proposed Order that any change to a definition within the IPA Act must be adopted by the General Assembly amending this definition, not through the REAP. IPA RBOE at 4-5.

The UCS asserts that the Redlined Second Draft incorrectly concludes that regional energy and capacity procurements, rather than Illinois government action or utility sector planning, are sufficient to secure transmission system reliability with fossil plant operation limitations. UCS Init. at 7. The UCS provided specific edits and proposed additions to the REAP, including the Commission committing to direct the electric utilities to work with transmission owners to proactively plan solutions to address required fossil fuel plant closures and renewable energy additions. IPA Resp. at 7.

The IPA conceptually agrees that Illinois' clean energy transition and grid planning must be aligned to meet P.A. 102-0662's clean energy goals and transition Illinois to 100% clean energy by 2050. 20 ILCS 3855/1-5(1.5). The IPA agrees that the REAP should more directly address the Commission's authority over transmission and should provide specific actions the Commission might take to facilitate robust transmission planning. However, grid planning must be a multi-stakeholder process involving State and federal regulators, grid owners and operators, local governments, and communities. The IPA does not support or oppose any of the UCS's specific proposed changes to the REAP, but rather expresses its general support for the UCS's broader point regarding the inclusion of actionable next steps in the REAP. IPA Resp. at 7.

8. UCS's Position

The UCS asserts the Second Draft has too narrowly described "Interactions with Fossil Phase Out" in Strategic Element 2: Transitioning to a 100% Clean Electricity Mix. The core of the analysis and conclusions in this section emphasize volumes of energy available to Illinois, and the replacement of resources to provide energy and an adequate supply. The UCS states the narrowness is in understating and failing to address the transmission system requirements that are associated with the reduced use of the existing fossil plants. While the Second Draft notes P.A. 102-0662 calls for expedited reduction in emissions nearer to EJ communities, it misdirects the Commission by concluding that energy and capacity procurements of the region—rather than Illinois government action or utility sector planning—are needed to secure the reliability of the transmission system with the limitations on fossil plant operations. *See* Second Draft at 17. Illinois law directs the Commission to make plans with its authority over the utility sector to accomplish these emissions reductions. 220 ILCS 5/8-512. The UCS explains the Second Draft continues with an assumption that additions of renewable supply and reductions in fossil plant operations and emissions will "naturally balance" through "energy imports and exports." *Id*. The UCS contends the weakness of this discussion sets a tone for the recommendations in Strategic Element 2 and in other analyses. The Second Draft proposes no activities with the transmission owners or RTOs regarding proactive planning for the closing of plants. The UCS argues this lack of guidance is inadequate, as there is no other planning provided in advance for plant closings under

PJM rules, for example. In the section "Interactions with Fossil Phase Out" and throughout, the REAP should be more deliberate in describing the timing of the sequence of actionable requirements for the energy system that will enable the power grid to remain reliable with the operating limitations and eventual closings of the fossil fuel plants. UCS Init. at 7-8.

The UCS's concerns regarding this analysis draw on two aspects of the P.A. 102-0662 law: the opportunity for continued operation of fossil-fueled plants despite the law's intention of expediting the reduction of emissions in EJ communities, and the provisions in the law for the REAP to address transmission system needs to support both consumers and new energy supplies. The Commission should extend this section of the REAP to reflect the interactions of transmission needs with the fossil generation phase out. The Commission should also use this section of the REAP to discuss the interaction between transmission needs and reliability violations that will cause PJM and MISO to grant waivers on emissions limits. PJM and MISO have defined several circumstances that they would deem necessitate the operation of fossil plants otherwise limited by P.A. 102-0662, and thus cause for the grid operator to issue waivers of the P.A. 102-0662 limits. UCS Init. at 8-9.

The UCS asserts the law authorizes proactive planning and preparation for both adding more renewable energy supplies and reducing and eliminating emissions from fossil plants. *See, e.g.*, 220 ILCS 5/8-512(b)(4), (5). The Second Draft makes frequent exhortations for proactive implementation of investments to ensure reliability in the transition to clean energy. The Second Draft, however, does not advise the Commission or stakeholders that the MISO and PJM planning processes for plant retirements are only reactive in nature. PJM will not include benefits of CO2 emissions reductions, prospective plant closings, or the reduction of emissions in EJ communities as part of PJM planning or markets. The Second Draft acknowledges this point but only recommends that Illinois advocate for changes in the RTO planning and markets, reforms that are notoriously slow and sometimes hostile to State policies. The UCS argues the final REAP should address the responsibility to meet the requirements of the law, and not suppose this can be delegated to an RTO stakeholder process where the State of Illinois has no vote, and the overwhelming majority of the RTOs' voting members have no interest in assisting the State in meeting those goals. UCS Init. at 9-10.

The UCS maintains Strategic Element 2 needs to be amended to reflect the need to address the expected fossil fuel plant closings. The transmission system's limitations are monitored continuously by the grid operators. A successful plan for Illinois to transition to clean energy will plan to minimize overloads (thermal violations) or instabilities (voltage violations) of the transmission system. These forms of reliability needs do not arise as a linear response to the reduction in energy production from generation, and thus cannot be communicated or understood by a comparison of quantities of energy or generator capacity that are retired and replaced. PJM and MISO will assess emissions limits on existing fossil generation for the types of potential transmission violations described above as P.A. 102-0662's limits on gas and coal generation in Illinois have already begun. The UCS emphasizes the REAP should be explicit that the capability of existing transmission is a constraint on importing energy and on operating the power system with reduced in-state generation. Further, the UCS

suggests the Commission should use authority in subsection 8-512(b)(2) and subsection 8-512(b)(4) to prepare actionable steps on transmission planning that can provide system upgrades to avoid extra emissions from grid operators' waivers. UCS Init. at 10-11.

UCS disagrees with ComEd over what information the transmission owners should be expected to bring to the Commission in REAP-related efforts, and what information the transmission owners reserve for discussions only within the RTOs' quarterly sub-regional planning meetings. Under ComEd's approach, proactive planning for plant closures is a welcome and supported task for the transmission owners. UCS notes ComEd's approach, however, does leave Illinois agencies, communities, and ratepayers out of the discussion of transmission solutions. ComEd's suggestions for changes do not offer the Illinois public a means to recognize the need for investments in the communities and areas around the closing plants for new generation. UCS RBOE at 2-3.

UCS argues ComEd offers only a partial means for Illinois to understand the benefits of any solution, such as end-use demand reduction measures that will reduce the need for extended operation of the emitting generators beyond the limits of P.A. 102-0662. By recognizing that the RTOs' responses to plant closures do not consider new clean generation or targeted efforts to reduce end-use demand and are not made in advance of plant owners' announcements of plant closing, ComEd provides an endorsement of proactive planning and acceptance of increased information exchange with the public and Illinois agencies—though that information would be limited to the problems and not the solutions. UCS RBOE at 3.

9. Vistra's Position

Vistra agrees with the NRG Companies that the statutory definition of "brownfield" sites, as defined in Section 1-10 of the IPA Act, should be expanded to include the sites of retired and soon-to-be-retired fossil-fueled generating plants in Illinois. 20 ILCS 3855/1-10. There are multiple retired or retiring fossil-fueled plant sites in Illinois that would be suitable for development of solar generation projects but, due to their remediation costs and other site-specific issues, may be unable to compete successfully in bid-price-based utility-scale solar project procurements conducted by the IPA. Including such sites within the statutory definition of "brownfield site photovoltaic project" would incent the development of these otherwise derelict sites to help the State of Illinois to meet its renewable energy objectives. Vistra Resp. at 2.

In addition, Vistra agrees with NRG Companies' recommendation that policies to encourage the development of utility-scale wind and solar generation projects, as well as brownfield solar projects, should include preferences for projects that include the development of associated energy storage systems to enhance the usefulness of otherwise standalone renewable energy projects. Vistra Resp. at 2.

Vistra reasserts implementation of these recommendations may or will require statutory amendments or other actions outside the scope of this proceeding (and/or the Commission's authority and ability to implement); however, as with Ameren Illinois' recommendations for improvements to the MISO capacity market construct, the Commission should be an advocate for these recommendations. Vistra Resp. at 2-3.

10. CGA's Position

In Strategic Element 2, CGA suggests that the REAP include an additional sentence under "Interactions with Resource Adequacy Needs." CGA suggests the REAP state that "[b]attery storage and demand responses resources can also play an important role in meeting capacity and flexibility needs as fossil resources retire." CGA highlights that no party objected to the word change or additional sentence. CGA Ex. 1.5 at 20.

In response to ELCON/REACT's proposed policy statement regarding lowest cost options, CGA asserts that it should be rejected for 3 reasons. First, ELCON/REACT's proposed policy statement for Strategic Element 2 is not a correct representation of subsection 8-512(a). Second, the proposed policy statement is not tied to a specific transmission planning action, therefore it is the inherent risk of unintended consequences or limitations. Third, when read in concert with the ELCON/REACT comments, it appears to demonstrate a Commission intent to evaluate transmission lines within the REAP process or to imply that the Commission is approving deployment of generation that replaces retiring fossil fuel plants. CGA Resp. at 23-24.

Similarly, CGA responds to ELCON/REACT's proposed statement "the Commission will recommend that policymakers seek in all cases to place financial and performance risk on competitive transmission and generation asset developers" and states that it is unclear what financial and performance risk would be evaluated or shifted, just that it be allowed in "all cases." ELCON/REACT Init. at 7. That statement is not tied to a specific transmission planning action, therefore, it could be interpreted or applied in any number of ways relative to future topics proposed for the REAP and have unintended consequences or limitations in implementing Section 8-512. CGA Resp. at 26.

LS Power requests the REAP review and refine the timing and terms for natural gas peaker plant retirements. Furthermore, LS Power encourages the REAP "to recognize the unique role that peaker plants play in the clean energy transition and the risks associated with phasing out peaker plants too quickly." CGA Resp. at 14.

CGA's position is that LS Power's recommendation is outside the scope of Section 8-512. The statute does not expressly grant the Commission authority to review matters related to retirement of fossil fuel plants. LS Power's comments do not fall within subsections 8-512(b)(1), (b)(2), or (b)(5) because they are not directed at the size or location of the REAP Zones, or at policy advocacy at the RTOs. Nor is it included in "Scope and Purpose of the REAP" in Section I.B of the REAP. CGA Resp. at 15-16.

In its Response, Staff states that it believes the findings proposed by LS Power related to natural gas peaker plant retirement schedule is outside the scope of the REAP but notes the cost effectiveness is relevant to several elements of Section 8-512. CGA agrees with Staff's position that LS Power's proposed findings are outside the scope of the REAP is consistent with CGA's Response comments on this topic but disagrees with Staff's application of cost-effectiveness in Section 8-512. CGA explains below that cost-effectiveness is evaluated through the RTO processes, not a new and additional State evaluation. CGA Rep. at 7.

CGA asserts that Staff presents a nuanced point regarding cost-effectiveness, that turns on the scope of the REAP. Section 8-512 focuses exclusively on the Commission's

advocacy at the RTO's regarding transmission expansion planning and the RTOs policies that shape the RTOs work. The concept of cost-effective transmission development in Section 8-512 is a reference to the RTOs' current methods for determining cost effectiveness of lines. It is not intended to be some form of Commission evaluation of transmission cost-effectiveness separate from and outside of RTO planning of transmission, which is already heavily focused on cost-effectiveness. Creating a separate State administered cost control standard or mechanism could result in a paradox in which an RTO says the project(s) should be built because it brings economic benefits, but the State says no. This paradox could impede the construction of new transmission, which would imperil state decarbonization policies. CGA Rep. at 8.

CGA explains that current transmission planning methodologies are specifically intended to include cost-effectiveness as a metric or factor for consideration, and therefore a separate State standard is not needed. MISO's long-term transmission expansion planning has a benefit-cost analysis component to ensure the top-down transmission lines it identifies – specifically, Multi Value Projects ("MVP") or market efficiency projects -- provide more value over time than their cost. MISO's process for evaluating cost-effectiveness is documented in MISO's Business Practice Manual. MISO's bottom-up planning process prioritizes cost-effectiveness among the alternative transmission solutions that are identified. Transmission projects that are not replacing existing lines will also be reviewed by the Commission for a certificate of public convenience and necessity. That process includes a least-cost test. PJM's transmission expansion planning process uses a benefit-cost analysis to evaluate proposed economic (i.e., market efficiency) transmission projects, while all other types of transmission projects, including SAA projects, are planned to minimize cost while meeting identified needs. New Jersey's State Agreement and the use of a competitive solicitation provides some guidance on planning cost-effective transmission. The Commission may elect to utilize the SAA and incorporate the cost effectiveness components of that approach into the REAP process. CGA Rep. at 8-9.

Using the current cost-effectiveness tests employed by the RTOs should not deter the Commission from continuing to advocate for improvements to planning practices at the RTOs. As espoused in the Second Draft, CGA's comments and redline edits to the REAP and comments of others, the Commission should continue to advocate for reasonable changes at MISO regarding cost-effectiveness testing, and to advocate for PJM to adopt multi-value planning instead of its current siloed approach.

CGA notes that LS Power further requests the REAP discuss the likely costs of various scenarios to realize P.A. 102-0662's goals. The discussion would include: (1) a benefit-cost analysis "to systematically and objectively evaluate clean energy proposals and projects and optimize state policy"; (2) potential costs of blackouts; and (3) increased power prices related to retirements of peaker plants. CGA Resp. at 16.

CGA states that all three studies or analyses are simply an analysis of P.A. 102-0662, and the statutory requirements to retire fossil fuel plants, which is not what is directly required by Section 8-512. If the General Assembly had wanted an analysis of its statutory decarbonization goals, it would have clearly stated such a purpose in Section 5/9.15 of the Illinois Environmental Protection Act. 415 ILCS 5/9.15. Moreover, if the General Assembly had intended for the Commission to have the authority to modify

decarbonization targets managed by the IEPA and managed by the Illinois Pollution Control Board, such authority would have been explicitly set forth in Section 8-512, and not left as an unintended consequence of a discretionary program or policy the Commission embarks upon when trying to foster beneficial long-term transmission infrastructure. In effect, LS Power's request is an attempt to have the Commission perform an analysis to undermine the decarbonization goals of P.A. 102-0662. LS Power's proposal for these studies and analyses is outside the scope of subsections 8-512(a) and (b), is inconsistent with, if not contrary to, the intent of the General Assembly and should be rejected. CGA Resp. at 19.

LS Power requests the REAP include recommendations to promote energy efficiency and demand response at the State level and require that benefit-cost analyses be performed for regulatory or legislative solutions prior to adoption of such solutions. CGA's response to this proposal is it is outside the scope of Section 8-512. LS Power asks that energy efficiency and demand response programs be considered but it did not propose a plan for consideration. Finally, if this request were to be accepted, there are deficiencies that need to be resolved so the proposal is within the scope of Section 8-512 and relates to Commission inputs into the RTO transmission expansion planning process. CGA Resp. at 20-21.

CGA explains that LS Power's recommendations must be grounded in subsection 8-512(b)(4) and consistent with subsection 8-512(a). RTO transmission expansion planning already accounts for energy efficiency and demand response programs. Also, there is no actual proposal to accept into the REAP; at best, this is an idea for future consideration. Thus, LS Power's request should be denied. CGA Resp. at 21-22.

CGA states that if this request were to be accepted, the aforementioned deficiencies need to be resolved and a determination made as to how energy efficiency and demand response are not just beneficial to the state but tangible to the REAP's transmission strategies. CGA therefore recommends, if this proposal is accepted, that it not be included in this REAP but it be included as a topic in workshops or stakeholder meetings convened by Staff to prepare matters for the next REAP. CGA Resp. at 22-23.

Staff responds to NRG's statement that the REAP include a recommendation to interpret the "definition of 'brownfields' in the context of the RPS should be read as including former central power plant sites." Staff's response is that this suggestion be considered in future REAPs. CGA Rep. at 10.

CGA asserts that current plant locations have no effect on REAP Zones and their input into transmission planning. If the REAP Zones are to be used as inputs for long-term transmission expansion planning, the zone locations should not be changed. Any contemplated changes to zone locations approved in the REAP need to be coordinated with the RTO to avoid adversely impacting RTO transmission expansion planning and generation interconnection planning. CGA Rep. at 10-11.

CGA supports the UCS's proposal for Illinois utilities to coordinate transmission planning with PJM and MISO and asserts that it should be used as a key policy driver for new transmission infrastructure planning. It falls within the scope of policies in subsection 8-512(a) and can potentially be resolved by adding new transmission and new renewable resources. The UCS proposes that the REAP develop an actionable plan or strategy to

plan for transmission infrastructure and renewable resource generation additions as a coordinated discussion among Staff, ComEd, Ameren Illinois, and the RTOs.

Given that the UCS's proposal is intended to fill a gap in the RTO transmission planning process, CGA supports the need for the coordination among utilities, Staff, and the RTOs that the UCS has proposed. This is the main function of the REAP– to identify key policy drivers of transmission and develop a strategy for getting transmission infrastructure planned so the state can meet its policy. The REAP should not go so far as to identify and approve new transmission lines but could direct the utilities and Staff to develop a plan or strategy for analyzing and identifying transmission solutions for this particular policy that could then be added into the RTOs' transmission planning and approval processes through each RTO's bottom-up planning process. That plan or strategy could then be submitted in the next REAP for approval by the Commission, as the UCS has suggested as an option. CGA also agrees that this topic should be further developed and presented in firmer detail in the next REAP.

The UCS states that the REAP's proposed headroom analysis as having practical limitations in the transmission infrastructure planning it is proposing, because generation in MISO and PJM generation queue are not guaranteed headroom when another plant retires. CGA agrees with this and recommends that the headroom analysis not be used to establish REAP Zones for reasons set forth in CGA's Initial Comments. CGA Resp. at 12-13.

The redline edits the UCS has proposed in the Second Draft to Policies 3.C., 3.D., 4, 4.A., and 4.B. reflect policies related to this one proposal. CGA recommends these five sections be presented as a package for implementing the UCS's specific study. They should not be spread over three Strategic Element chapters.

11. Joint NGOs' Position

The Joint NGOs refute LS Power's assertions about the necessity of fossil fuel generation and their proposal to weaken or eliminate the zero-emissions deadline statutorily required in P.A. 102-0662. The Joint NGOs point out that the recommendation to weaken or eliminate the zero-emission deadline is outside of the scope of the REAP and P.A. 102-0662. In P.A. 102-0662, the General Assembly unequivocally requires certain gas-fired power plants to be phased out according to a staggered schedule based on pollution rates and proximity to environmental justice communities. 415 ILCS 5/9 15(I). LS Power recommends relaxing this critical component of the law. The Joint NGOs argue that the statute directs the Commission to begin and end the REAP process on the premise that Illinois is committed to "the State's achievement of 100% renewable energy by 2050." 220 ILCS 5/8-512(a)(6). Further, the Joint NGOs point out gas plants have underperformed in recent extreme weather events (2021 Winter Storm Uri and 2022 Winter Storm Elliott) demonstrating that gas-fired power plants are not guaranteed to add reliability to the system as LS Power implies. JNGOs Resp. at 2-3.

The Joint NGOs disagree with LS Power's assertion that the REAP must undertake a cost-benefit analysis to determine if it is cost-effective to "implement and/or modify" P.A. 102-0662 itself, particularly the "financial impacts of prematurely retiring peaker plants" and other hypotheticals that LS Power envisions. *See* LS Power Init. at 13. The purpose of the REAP as clearly defined in statute is to support the clean energy and zero-carbon

goals set in P.A. 102-0662 by creating a transmission system that would help displace fossil-fuel resources and increase the supply of clean energy. The REAP's scope is to ascertain how the State can access "low-cost, clean electric power." The Joint NGOs find that the General Assembly neither asked nor authorized the Commission to opine on the fossil fuel closures as part of the REAP process. 220 ILCS 5/8-512(a)(5). The Joint NGOs argue that LS Power conflates any mention of costs with the need to conduct an analysis. No provision of P.A. 102-0662 requires a cost-benefit analysis of keeping fossil fuel generation online. Similarly, the finding that "alternatives to overhead electric transmission lines can achieve cost-effective resolution of system impacts" clarifies that non-wires alternatives can be cost-effective tool to achieve P.A. 102-0662's goals and does not require a cost-benefit analysis of keeping fossil fuel generation online. JNGOs Resp. at 4.

The Joint NGOs argue that each section LS Power attempts to use to justify a cost-benefits analysis of whether fossil fuels should stay online beyond the timelines set in statute in Illinois does not support LS Power's suggestion. The Illinois General Assembly's clear intent is to develop a plan for cost-effective transmission system development. LS Power's proposal runs counter to those findings. JNGOs Resp. at 6.

The Joint NGOs disagree with the NRG Companies' recommendations that the REAP should address the coal-to-solar program, the RPS Self-Direct option, and rate changes for residential and small commercial customers. Without taking a position on the substantive merits of the NRG Companies' policy positions, the Joint NGOs believe that this proceeding is not the proper forum for these concerns and would lead to unnecessary delays in implementing the REAP's vital mandate to develop a transmission plan and related REAP Zones. The proper forum to implement or modify the coal-to-solar program and RPS Self-Direct Compliance Program are proceedings before the IPA, which the General Assembly charged with administering the programs. 220 ILCS 3855/1-75(c)(1)(R); 220 ILCS 3855/1-75(c-5). NRG Companies' proposed rate changes for residential and small commercial customers may require legislation or, in some cases, may be appropriately addressed through other proceedings at the Commission. JNGOs Init. at 3-10; JNGOs Resp. at 6.

The Joint NGOs find the scope of the REAP process does not extend to all P.A. 102-0662-related issues; it is limited to the development of transmission infrastructure. The Commission is empowered to make "findings and policy recommendations . . . regarding the locations of renewable energy access plan zones and the transmission system developments needed to cost-effectively achieve" the goal of creating a transmission system that would enable a zero emissions future. 220 ILCS 5/8-512(b)(6). NRG Companies' concerns do not fall within this scope. To avoid delay, the Commission should maintain its focus on transmission infrastructure. JNGOs Resp. at 6-7.

The Joint NGOs also argue that the REAP is not the proper forum to address concerns with the definitions of "brownfield site photovoltaic projects" or "clean coal SNG brownfield facilities" as it is outside of the scope of the REAP. JNGOs BOE at 6-7; JNGO RBOE at 22.

Consistent with its above recommendations, the Joint NGOs recommend Staff provide an explanation of what resources they require to make a study to understand the

economy-wide strategies and pace of electrification required to achieve decarbonization feasible. JNGOs RBOE at 13-14.

The Joint NGOs note ComEd recommends language that directs the economy-wide strategies and electrification study to include considerations of cost-effective alternative technologies, existing and new resources that can be implemented under existing state and RTO policies. Joint NGOs advise the Commission to reject this suggestion, as it narrows the scope of options the Commission can consider. In particular, the use of "cost-effective" and "existing state and RTO policies" and "current policies" are restrictive. The use of "most likely cost-effective" may stop the Commission from considering options that have other benefits beyond cost, including health, equity, reliability, etc. The use of "existing" and "current" could be narrowly construed to stop the Commission from considering new actions or changes at the RTOs or FERC. In fact, limiting the purview of the Commission to "existing state and RTO policies" would not include the Commission's current advocacy efforts at PJM. Therefore, Joint NGOs recommend the Commission reject ComEd's proposals. JNGOs RBOE at 13-14.

12. AEU's Position

AEU recommends that the Commission take advantage of the opportunity presented by the MYIGPs to coordinate distribution and transmission planning where appropriate to lessen the burden on the transmission system and facilitate the transition to a 100% clean energy mix. AEU reasons that a distribution system that accommodates DER, DR, and energy storage will aid the transmission system by decreasing the need for transmission capacity and enhancing system flexibility. AEU notes that such resources on the distribution system benefiting the transmission system can be deployed more quickly than many larger scale transmission system enhancements. AUE BOE Att. at 1.

In addition, AEU is sympathetic to the burden Staff is under as it continues to implement P.A. 102-0662 as well as manage its regular workload unrelated to P.A. 102-0662. Nevertheless, there is considerable value in understanding the economy-wide strategies and pace of electrification required to achieve 100% decarbonization. Such a study is consistent with subsection (a)(6) of Section 8-512 as well. Having this information will enable the Commission to refine the outlook for renewable and clean energy needs that must be achieved, which will aid the next REAP cycle. The absence of such information may risk Illinois' progress in reaching its decarbonization goals and could raise utility rates for consumers over the long run. AEU RBOE at 2.

AEU states Staff's concern regarding the Commission's jurisdiction need not dissuade the Commission from directing Staff to conduct the study. While it is true that the Commission lacks plenary authority over electrification efforts, there is no reason that the Commission cannot ask for an examination of broader electrification efforts; the Commission simply cannot exert authority over those areas it lacks jurisdiction. A broader review of electrification efforts will enable the Commission to wield its authority where it does have jurisdiction in a manner complementary to those areas where it does not have jurisdiction. If such a study were limited to only those sectors of the utility and transportation industries where the Commission can influence electrification efforts, there would be substantial risk that ignorance of the electrification efforts in other areas would

lead to costly and perhaps counterproductive grid and resource allocation outcomes by regulated utilities. AEU RBOE at 3.

AEU argues the potential for overlap with the study required under 415 ILCS 5/9.15(o) does not justify its rejection because understanding the pace of electrification, and strategies fostering such, will provide information about where further effort is needed to electrify and is not addressed by the study under Section 9.15(o). To ameliorate the burden on Staff, the Commission may want to consider granting Staff until the end of 2027 to complete the study as it will provide Staff with more time to evaluate how to conduct the study, identify funding sources, and reach out to the National Renewable Energy Laboratory and/or Lawrence Berkeley National Lab for assistance. Another potential advantage of deferring the study may be that it could provide a better picture of the pace of electrification. Efforts to electrify sectors of the Illinois economy are just beginning. Though there may not be much progress in the next 18 months approximately, the period during which Staff would have to evaluate the pace of electrification under the Proposed Order's directive, there is the potential to begin scaling at a more representative pace by 2027. AEU RBOE at 3-4.

13. Commission Analysis and Conclusion

Strategic Element 2 examines the incentives and enforcement mechanisms that may be needed to support competitive investment in a reliable mix of resources throughout Illinois' transition to 100% clean electricity. *See* REAP Strategic Element 2. The Commission adopts Strategic Element 2 of the Redlined Second Draft as amended by this Order. There are action items outlined under Strategic Element 2, the details of which are included in the REAP but are referenced more succinctly below.

The Redlined Second Draft REAP recommends Staff conduct a study "to understand the economy-wide strategies and pace of electrification required to meet 100% economy-wide decarbonization, and refine the outlook for renewable and clean energy supply needs that must be achieved." *See* Redlined Second Draft REAP Conclusion 2A. There are no objections to this study. The Commission finds this study to be informative and necessary to the furtherance of P.A. 102-0662 goals. Staff opposes a timeline for completion of this study and notes it is unfunded. *See* Staff BOE at 5. In response to Staff's concerns, the Joint NGOs recommend Staff detail its needs to conduct this study and delineate appropriate timelines and reporting requirements. JNGO RBOE at 3. The Commission agrees with Joint NGOs that a proposed timeline would be beneficial. Therefore, the Commission directs Staff to make a filing proposing a feasible timeline for the completion of this study.

While the Commission prioritizes cost-effective solutions, it declines to adopt ComEd's language so as not to exclude consideration of other factors such as reliability, health, and equity from an electrification study. The Commission indicates that topics covered by future REAPs and potential overlap between studies can be further contemplated by the Working Group. The Redlined Second Draft REAP recommends GHG leakage risks be studied and addressed through further policy and regional market reforms. *See* Redlined Second Draft REAP Conclusion 2B. Ameren Illinois indicated that it has no objection to such a study, and it is supported by the UCS. Staff objects to the imposition of a timeline for such a study. *See* Staff BOE at 6. As the Commission

stated in Section II.B.4 of the Order above, at the very least, an actionable plan requires clear timelines for the State to continue making measurable progress towards its goals. Given Staff's concerns with resources, the Commission declines to require this study at this time. The Commission notes other State agencies have more expertise on GHG related issues. Accordingly, the Working Group may be an appropriate forum to discuss this topic for inclusion in future iterations of the REAP. The Commission notes that ComEd's concerns regarding the accuracy and potential double-counting of GHG emissions calculations may be taken into consideration in the Working Group and does not necessitate further revisions to the REAP.

UCS proposes Staff and Illinois utilities coordinate with PJM and MISO on transmission planning to ensure system reliability in advance of fossil fuel plant closures. *See* UCS Response Comments at 10. The original language is supported by NRG Companies. The Commission agrees with Staff's argument that UCS's proposal is duplicative of the reliability analysis performed by MISO and PJM when a resource retires or suspends operation and declines to adopt it. *See* Staff BOE at 10. The Commission adopts Ameren's proposed annual meeting requirement between Staff and utilities to help parties better understand what solutions are being evaluated in an effort to address known and anticipated plant closures and changing system conditions.

The Commission has made clear above that the REAP shall not and is not intended to conflict with, abridge, or otherwise undermine the state and federal legal or regulatory requirements of any public utility as defined in Section 3-105 of the Act. Therefore, the Commission declines to accept ComEd's changes to 2.C in the REAP as an annual meeting process should provide sufficient flexibility to the parties to share relevant information within the contours of the law. When formulating transmission solutions, the Commission encourages the parties to seek input from affected communities when appropriate as suggested by UCS.

The Commission directs the Working Group to track energy efficiency and demand response efforts and include them as non-wires alternatives in the REAP. To the extent possible, the Working Group shall utilize existing publicly available information, such as reports from the Illinois Energy Efficiency Stakeholder Advisory Group. Staff will examine ways in which it can encourage and enable additional energy efficiency and demand response engagement as non-wires alternatives to transmission lines.

The Commission adopts CGA's suggested changes to "Interactions with Resource Adequacy Needs" including the variable nature of renewable resources and that "[b]attery storage and demand responses resources can also play an important role in meeting capacity and flexibility needs as fossil resources retire." CGA highlights that no party objected to the word change or additional sentence.

There are several proposals that the Commission declines to include in the REAP. In agreement with the IPA, CGA, and the Joint NGOs, the Commission declines to adopt NRG Companies' proposed changes to include energy storage in utility-scale renewable energy proposals and modifications to the Self-Direct RPS program because they are outside of the scope of the REAP and should be addressed in other proceedings. Similarly, the Commission declines to classify former central power plant sites as "brownfields" in the REAP as suggested by NRG Companies and supported by Vistra as

there are statutory definitions provided in the IPA Act for a "clean coal SNG brownfield facility" and "brownfield site photovoltaic project". 20 ILCS 3855/1-10. The Commission agrees with Staff that changes to these definitions are outside the scope of the REAP. Such definitions have already been carefully curated by other state agencies, with stakeholder input, and passed by the General Assembly. The Commission is unconvinced any further review by Staff is necessary and declines to require it at this time.

The Commission also declines to include LS Power's recommendations regarding the State's current policies toward peaker plants, the costs associated with P.A. 102-0662, or a cost-benefit analysis requirement. The Commission further declines to include ELCON/REACT's language calling for a plan to advocate for policies that would minimize costs and prioritize reliability concerns in PJM and MISO. Both the concepts regarding costs and reliability are considered by the REAP and do not need to be further contemplated here.

The Commission declines to adopt AEU's proposal to include the MYIGPs in this REAP. While the Commission acknowledges there may be overlapping concepts of the REAP and the MYIGPs, they are separate and developing ongoing dockets. The Commission is not convinced of the necessity or feasibility of including MYIGP considerations into this iteration of the REAP.

D. Strategic Element 3: Managing Land Use in Renewable Deployment

1. Staff's Position

In Strategic Element 3, Managing Land Use In Renewable Development, (Redlined Second Draft at 28-47), Staff recommends Candidate Zones to be adopted as the REAP zones required by subsection 8-512(b)(1). As an initial matter, Staff notes the title of this element caused some parties to become confused and incorrectly argue that the Redlined Second Draft interpreted Section 8-512 as granting the Commission "enforcement authority over renewable generation development." Staff Resp. at 62 (*citing* CGA Init. at 3-4). To the contrary, Staff developed the Level 1 and 2 Candidate Zones based on input from the Smart Energy Design Assistance Center ("SEDAC") for the purpose of holistically considering resource suitability, developer interest, access to transmission and [S]tate public policy." Redlined Second Draft at 28. In addition, "[d]ata provided by the Great Plains Institute and The Nature Conservancy depict areas to be avoided in renewable development, given their importance to natural preservation, as shown in Figure 12 [of the Redlined Second Draft]." *Id.* at 29. Based on public comments submitted by IDNR, siting of renewable generation must be consistent with the IDNR's Impact Assessment and "[f]uture iterations of the REAP should include consultation with the Impact Assessment group at the [IDNR]." *Id.* at 29-30.

As to "enforcement authority," the Redlined Second Draft simply notes that "local and state permitting processes must be followed for renewable project development." Redlined Second Draft at 30. This type of compliance is not within the purview of the Commission and the General Assembly recently amended the Counties Code to prohibit counties from establishing siting requirements more restrictive than those found in 55 ILCS 5/5-12020. *Id.* at 31. Staff emphasizes that a review of its enforcement authority is ambiguous, unduly burdensome, and not within the jurisdiction of the Commission as

IDNR or IEPA may have jurisdiction over renewable resource development or regulation of insurance or drainage plan. Staff BOE at 18. Staff also expressed concerns in its BOE about the scope and timing of the review of state and local laws, rules, and policies that can help effectively and efficiently build transmission and the timeline within which it must be completed. Staff BOE at 19.

Staff states that the Redlined Second Draft provides a process for the Commission to identify REAP Zones and align them with regional, local, and distribution system planning to help meet P.A. 102-0662's goals. The framework set out concludes by identifying Candidate Zones, designed to be refined through stakeholder feedback within the REAP proceeding, and re-evaluated in future iterations of the REAP. This process is intended to serve as a foundation for future REAP updates to holistically consider resource suitability, developer interest, access to transmission, and State public policy. Redlined Second Draft at 28. Staff recommends the Commission adopt the concept of Level 1 and Level 2 Zones.

Staff takes into account several considerations when identifying the Candidate Zones including, transmission headroom, resource potential developer interest, existing land use, crop productivity, the location of EJ communities and equity investment eligible communities, and the location of fossil fuel generation mandated to retire. Redlined Second Draft at 32-38. Based on these criteria, Staff recommends the Commission adopt five Level 1 Zones and two Level 2 Zones as depicted in Figure 18 in the Redlined Second Draft. *Id.* at 40-41.

Staff also notes the potential for future refinement of these Level 1 and 2 Zones based on a comprehensive headroom analysis. *Id.* at 32, 41-43. Staff "requested both RTOs to do a headroom analysis but, given the timeline it was not possible to perform this analysis prior the completion of [the Second Draft]." *Id.* at 32. Staff recommends that this analysis be performed before the Commission adopts its next REAP. *Id.* Staff also notes that the Level 2 Zones identified might be refined through different weighted scoring that was loosely used in the Redlined Second Draft. *Id.* at 43.

Staff based its findings on consideration of the foregoing items and some of the comments by other parties in this docket. Redlined Second Draft at 45. Staff recommends the Commission adopt these findings as their own.

Furthermore, Staff recommends the Commission adopt REAP Zone concepts, quantify renewable interconnection capability through a comprehensive transmission headroom analysis, adopt expansion zones for transmission planning purposes, and develop a model ordinance. Redlined Second Draft at 46-47.

The Joint NGOs also suggest additional language regarding high voltage direct current ("HVDC") lines. Staff explains that it will examine how new technologies can serve to meet the goals of Section 8-512. HVDC is one of several new technologies that could enable Illinois to use more renewable energy but the value proposition of HVDC is also highly situation dependent. Further, legal questions exist in Illinois regarding whether an HVDC line can be devoted to public use. Staff recommends a more general discussion of potential new technologies that should be explored to improve or maximize the transmission grid. The proposed 60-day timeline is not practical. Staff recommends that

the Commission may want to consider HVDC lines and other transmission technologies in future REAP updates. Staff Resp. at 24.

Staff adopts language in the Redlined Second Draft in response to public comments. Staff Resp. at 70-76.

In its BOE, Staff opposes creating a model ordinance because it argues it is outside the jurisdiction of the Commission, unduly burdensome, overly broad in scope, and would likely require additional funding and time. Staff BOE at 16-17. Staff emphasizes that a model ordinance is unnecessary because State law (55 ILCS 5/5-12020) already provides the relevant information for developers. Staff BOE at 16.

Staff also takes exception to the directive to monitor Level 1 and Level 2 Zones for development trends and changes in State and local law to help gauge the success of the zones and inform Staff's assessments of what improvements should happen in future REAP discussions. Staff argues it is ambiguous and would be unduly burdensome. Staff requests clarification on: (1) what is meant by "development trends" and "change in state and local law;" (2) how this would be monitored; and (3) whether this directive is intended to include all local laws throughout the State of Illinois or just in the Level 1 and Level 2 Zones. Staff BOE at 13-14.

Staff argues it is ambiguous and unduly burdensome to address how the power system reliability requirements can be met without excess operations of fossil generation and emissions at the plants closest to the EJ communities and address actions to enable the grid to avoid thermal overload of transmission, or voltage violations, that otherwise will cause the grid operators to authorize excess generation and emissions at the plants closest to the EJ communities in the next REAP proceeding. In addition, Staff states this directive requires transmission-planning engineering expertise which the Commission does not currently have. Staff seeks clarification on what is being requested and whether the Commission plans to secure that engineering expertise or funding to hire a consultant with relevant expertise. The directive appears to require a full power flow study with the variable data related to fossil generation being removed via legislative targets at the deadlines. Staff estimates, under a best-case scenario, that it would take about six to eight months to secure an outside consulting firm and have them complete a power-flow study of this magnitude. The RTOs would not necessarily be needed to run it, but this would require a contractor that is licensed to pull the data from PJM and MISO, which could impact the cost and timing of performing such a study. Staff BOE at 15-16.

In response to questions about the REAP's maps, Staff explains and clarifies in its BOE that proximity to load was not included in the Brattle analysis. Instead, Brattle's analysis focused on providing renewables with access to the grid, and less on accessing renewable energy from the grid. With additional locational load data, Staff notes it may be possible to consider proximity to load in a future REAP. Staff recognizes that reporting on proximity would help with construction that avoids congested nodes. Staff also provides a table with names, sizes, and locations of the plants and their schedule of emissions reduction requirements. Specifically, the data includes the facility name, unit ID, city, county the unit is located in, and the average CO2 emissions for 2018-2020 for generating units affected by 415 ILCS 5/9.15. This is public data derived from IEPA and Energy Information Administration information. Staff RBOE at 30-31.

Staff is also working with MISO on developing an emission study for the Illinois zone in the MISO region. The confidential nature of the data will likely limit the granularity of the study, and while it is only a pilot study focused on the Illinois zone, there is the possibility that it could be expanded to include the entire MISO footprint. Staff RBOE at 31.

Regarding the Vistra question of whether some of its sites were excluded, Staff provided the underlying information it relied upon and welcomes Vistra to identify such exclusions. Staff RBOE at 32.

2. Ameren Illinois' Position

Ameren Illinois does not directly address Strategic Element 3 but has no objection to the recommendations to adopt REAP Zone concepts, adopt expansion zones for transmission planning purposes, and develop a model ordinance.

3. ComEd's Position

ComEd notes that the Second Draft states that the REAP will establish a process for incorporating REAP Zones into regional, local, and distribution system planning. To the extent that may implicate ComEd's provision of distribution or transmission services, ComEd notes that it is obligated to process all requests for transmission and distribution services in a non-discriminatory manner and in accordance with its tariffs and applicable regulations. ComEd Init. at 5-6 *citing* 220 ILCS 5/16-119A; 83 Ill. Adm. Code 452.280; 16 U.S.C. 824d – 824e. ComEd notes that any REAP-induced changes to the treatment of service requests would have to be consistent with federal law and may impact interconnection queues, system planning processes, and potentially socialized costs. *Id.* at 6. While ComEd does not support such changes, it notes that if REAP Zone resources are to be preferred in local and distribution planning, then the REAP should address what entity will implement such a preference, how those are fairly weighed, who is responsible for such activity, and what, if any, existing obligations are likely to be modified as well as what new obligations are to be added as a result. *Id.* ComEd argues that the REAP should make clear that it is not intended to conflict with, abridge, or otherwise undermine these and other regulatory or legal obligations. *Id.*

ComEd recommends updating the REAP Zone selection criteria to include proximity to load as a factor or otherwise explain if such a criterion is already included. ComEd notes that resources that are electrically far away from demand will likely require higher interconnection and upgrade costs, including due to a lack of existing infrastructure nearby. *Id*. at 8.

ComEd agrees with Staff and several other intervenors that the REAP must acknowledge and abide by P.A. 102-1123, which outlines zoning and other similar considerations for wind and solar resources in Illinois. 55 ILCS 5/5-12020.

ComEd argues that because REAP Zones may be intended for use in transmission planning processes they should not be established or refined based on short-term or real-time operations or tools such as a comprehensive headroom analysis or other "advanced transmission technologies, such as dynamic line ratings, power flow control devices, and topology optimization." Second Draft at 40, 44. ComEd notes that while these products may provide benefits, they are not relied upon in transmission planning models which use

static or seasonal ratings to analyze worst-case conditions over any given planning period. ComEd Init. at 9.

ComEd proposes to clarify that the Staff survey must include recommendations regarding the potential for achieving near and long-term transmission solutions under existing RTO or state level policies is reasonable and supported by substantial evidence in this proceeding. ComEd BOE at 13.

4. Vistra's Position

Vistra is concerned that imprecisely drawn renewable boundaries and zones, or opaque renewable qualification requirements, could result in a reduction of new, and much needed, wind and solar projects throughout the state. Figure 18 in the REAP, a map of Candidate Zones, excludes certain former or scheduled to be retired coal-fired power plants sites, as well as gas-fueled plant sites, that could be suitable for renewable development because of their existing transmission headroom. Second Draft at 39. One of the key "strategic elements" addressed in the REAP is prioritizing renewable projects in locations that are "maximizing the use of existing transmission infrastructure." *Id*. at v. The report also indicates that priority REAP Zones are those areas "where existing transmission headroom, or headroom created by the retirement of fossil resources, could enable public policy resources." *Id*. at ix. Importantly, the REAP notes that "Zones developed as part of this REAP are indicative in nature, subject to refinement and approval through the subsequent [Commission] review and investigation, and informed by future study of statewide headroom." *Id*. at 38. With this as background, Vistra believes this map should be refined and redrawn to include more precise coordinates on the existing sites and locations that meet the "Level 1 Demonstrated Interest Zones" requirements. Vistra Init. at 2-3.

Several of Vistra's own sites appear to be excluded from the Level 1 Demonstrated Interest Zones in Figure 18 but should qualify because of 1) existing transmission headroom and 2) retired, or soon to be retired, fossil resources at those locations. This includes both recently closed coal power plants, and existing coal plants that are scheduled to cease operations by the end of 2027. Vistra notes the following sites are excluded but should qualify under the Level 1 criteria: Joppa (Joppa, IL), Havana (Havana, IL), Duck Creek (near Canton, IL), Edwards (near Bartonville, IL), and Newton (near Newton, IL). It is noteworthy that each of these sites have already been awarded renewable projects (solar and/or energy storage) that are in various stages of development or are sites that contain additional parcels of land and transmission headroom. Similarly, the announced retirement of the Kincaid Power Plant (Kincaid, IL) no later than the end of 2027 presents another opportunity for brownfield renewable energy redevelopment with existing transmission headroom, and its location should be included in a Level 1 Zone. It is also unclear from the Candidate Zones map, if the natural gas-fueled Kendall plant site (Minooka, IL) is included in a proposed Level 1 Zone. The Kendall site currently has land suitable for renewable development along with transmission headroom. The natural gas-fueled Calumet site (Chicago, IL near Calumet Harbor) is also not included in a proposed Level 1 Zone, but has land to develop renewable or storage technologies, and could also be an interconnection site for Lake Michigan wind, if developed in the future. Vistra Init. at 3-4.

In addition to meeting the REAP's emphasis on sites with mandated fossil generation retirements and existing headroom, the above listed Vistra sites may also meet several of the other goals of the REAP. For example, because the Vistra sites would constitute redevelopment of brownfield sites they would not impact current land use, environmental stewardship, or crop productivity. *See* Second Draft at 32-33. The Vistra sites may also help meet the REAP's priority of "equity zones for development as opportunities to share in tax revenues and economic development benefits." *Id*. at 33. Redevelopment of retired fossil generation sites, like the Vistra sites noted above, will help mitigate adverse tax, employment, and economic consequences for those communities from mandated generation retirements. Vistra Init. at 4-5.

Vistra also recommends that when developing future REAP Zones to meet a key public policy driver, Staff and the Commission should seek input from MISO, PJM, transmission owners in Illinois, and companies building renewable energy generation that will be interconnecting into the transmission system. Vistra agrees that these entities are in the best position to provide useful input regarding the impacts of new REAP Zones on operating characteristics of the transmission system. As a developer, builder, and prospective operator of new renewable energy generation facilities in Illinois, Vistra emphasizes the importance of obtaining input from renewable generation developers. Vistra Resp. at 4-5.

Vistra has reviewed Staff's list of fossil-fuel generating units provided as an attachment to its BOE and finds that generating units at four of Vistra's coal-fueled generating plant sites are omitted, specifically, at Vistra's Coffeen, Hennepin, Duck Creek and Havana power stations. Vistra states these additional coal-fueled generating units should be represented in the map of "CEJA Mandated Fossil Plant Retirements" that was Figure 16 in the Second Draft REAP presented in this docket, and in any subsequent version of the REAP that is presented as a result of this proceeding. Vistra notes that all of these generating units should be included in the category "Coal Non-Public – Required Shutdown 1/1/2030 – [415 ILCS 5/9.15(g)]." Vistra RBOE at 2.

In addition, Vistra's original comment relating to its retired and to-be-retired fossil-fueled generating plants concerned the lack of granularity and clarity in Figure 18 in the Second Draft REAP, the map of proposed Candidate Zones. Vistra noted that Figure 18 appeared to omit some former or scheduled-to-be-retired coal-fueled and gas fueled plant sites that could be suitable for renewable energy development because of their attributes, including existing transmission headroom, and whose development as renewable energy sites would be consistent with the policy objectives of redevelopment of power plant properties and avoiding adverse impacts to current land use, environmental stewardship, or crop productivity, and lessening economic impacts of fossil plant retirements on nearby communities. Vistra also noted that existing fossil plant sites may have attributes that support reasonably rapid redevelopment of these sites for renewable energy projects. Vistra therefore recommends that retired and to-be-retired fossil-fueled plant sites should be identified as "Level 1 Demonstrated Interest Zones" in the REAP and represented as such in Figure 18. Vistra RBOE at 2-3.

5. ITC Midwest's Position

ITC Midwest notes that the REAP Zone approach makes sense for more timely near-term development to advance Illinois' clean energy goals, focusing on the projects that already have been identified and are not yet advancing due to existing interconnection backlogs. However, ITC Midwest stresses that will be important for policymakers to layer this additional process into the more holistic and comprehensive regional transmission expansion process that addresses fundamental grid needs. ITC Midwest supports inclusion of Staff's proposed revised language supporting this approach in the REAP's Findings. ITC Midwest Init. at 3; ITC Midwest Resp. at 3.

ITC Midwest recommends that several additional findings and recommendations be included in the REAP regarding the transmission planning process. Staff explicitly supports inclusion of ITC Midwest's language stating that PJM can look at MISO's transmission planning as a model and is supportive of additional work to consider and the benefits of implementing grid enhancing technologies to delay or replace some larger investments, where appropriate. Staff proposed slight modifications, which ITC Midwest universally supports. ITC Midwest also recommends language, which was modified to address Staff's concerns, regarding RTOs' planning processes and the balancing of grid-enhancing technologies against the attendant costs. ITC Rep. at 3-4.

6. UCS's Position

The UCS recommends the Commission begin promptly to establish plans to begin construction of new transmission for initial REAP Zones. The Commission should make a clear decision in the final REAP to initiate a proceeding with transmission owners Ameren Illinois and ComEd to authorize zones and related transmission investments. Commission activity with the transmission owners should proceed in parallel with efforts to enlist the support of PJM and MISO, especially on development at the seam between Illinois utilities and the RTOs. Yet, the Second Draft does not have a single recommendation suggesting the Commission engage with ComEd or Ameren Illinois on implementing transmission expansion under the REAP. UCS Init. at 18.

The UCS asserts the REAP should be expanded beyond the recommendations in the current draft to proceed with actions that will create needed transmission infrastructure. The Commission should begin acting now to strengthen its knowledge and evidence on record, to be better able to engage with MISO and PJM. The status of the current draft REAP with respect to interconnection analyses and reforms, and the influence that PJM and MISO can exert on any headroom analysis, should be cause for stronger action by the Commission. UCS Init. at 18.

The mandate for reducing the emissions from fossil generation and the expansion of renewable generation is going to require several parallel and complimentary transmission and interconnection efforts according to the UCS. The proposition in the Second Draft recommendations that the Commission seek a comprehensive headroom analysis is going to clarify and optimize transmission planning is overly simplistic. The Second Draft describes this headroom analysis as a "review of volume of renewable supply that could be accommodated within various locations in the state," with (1) current procedures, (2) retirements of existing fossil generation, and (3) reformed processes. Second Draft at 40. To get beyond a wide-scale information-gathering effort, the

Commission should define a fuller set of steps to implement transmission expansion pursuant to P.A. 102-0662. The discussion that follows describes decisions regarding the sequence of interconnection studies of interconnection, and how assumptions can lead to distinctly different results. The Commission will need to set its priorities regarding sequence and objectives for such studies, and direct both the transmission owners and the RTOs to proceed accordingly. UCS Init. at 19.

The UCS agrees the Second Draft recommendation to quantify renewable interconnection capability through a comprehensive transmission headroom analysis is appealing in pursuit of an ideal, optimal design of the future power system. But it must be understood as having practical limitations. The Commission can pursue a study to identify headroom that exists on the existing grid to integrate new renewable resources in Illinois, but the results will be dependent on the assumed timing of new plant additions, both in operation and already requesting interconnection that use headroom and the retirement of existing plants that release headroom. Further, the variables assumed or omitted from such a study will leave the Commission and stakeholders uncertain as to the meaning of the results. UCS Init. at 19-20.

In addition, the UCS points out the variables for a large study of interconnection capacity are partially suggested in the Second Draft. Specifically, the Second Draft allows the study to include transmission expansion "created through upgrades." This suggestion begs the question of existing headroom, as it allows for an open-ended answer using an unbounded potential to build more transmission. The UCS notes the other generic problem the Second Draft raises, but does not resolve, is the objective of new generation being capable of capacity injection or non-firm, energy-only injection. The UCS opines the Commission should expect the clean energy buildout will rely on generation with some amount of energy injections greater than the desired capacity injection capability. These assumptions will vary and will affect the headroom study results and interpretation. UCS Init. at 20.

The UCS highlights the greater concern regarding a headroom analysis and its place in the REAP involves timing and sequence. A renewable energy plan that relies on the retirement of existing plants to make headroom for new plants could supplement the creation of REAP Zones, but care and proactive planning are required to comply with the P.A. 102-0662 timelines. The practical reality of headroom from retirements must be considered. Generation in the MISO and PJM interconnection queues are not able to use the headroom that may become available from the retirement of other plants. UCS Init. at 20-21.

The UCS explains the interconnection rights held by the old plant owner survive for a time after the closing of the old plant. This preservation of the headroom for the owner of the retiring plant continues for some time notes the UCS. There is an expectation in the rules that no replacement is built and ready in the day of the retirement, or on any forecasted day in the future. Thus, the response from the RTOs is to prepare the smallest transmission fix to any importation needs for that area. That is, no other considerations or benefits are sought or recognized in the transmission planning for a plant retirement. UCS Init. at 21.

Additionally, the UCS states because the RTO will preserve the ownership of the injection rights for the plant owner, new plants already in queue will not have use of the headroom created by the plant closure. Those remaining or residual rights to the headroom will appear in the interconnection studies for other generation owners following the announcement of plant retirement, with the model assuming there is a supply source represented by the remaining interconnection rights of the owner of the closed plant at that location. This methodology will increase the need and cost for the new generation that is owned by a new developer because the model has not released the capabilities held by the retiring plant. UCS Init.at 22.

The UCS argues the final REAP should refer to the RTO practices for plant closures as reactions that can include extending the operations of those plants until the time that transmission planning and construction can make the system operations safe and reliable with the plant retirement. The final REAP must better integrate the analysis of transmission planning practices, especially in PJM, with the need for proactively provide transmission that will allow emissions reductions. UCS Init. at 12.

The UCS points out the Second Draft's Figures 15 and 16 display the locations of equity and EJ communities along with fossil fuel plants that must reduce and eliminate pollution emissions. These figures are the only place in the Second Draft that illustrates the quantity, location, and proximity of emitting fossil plants. The final REAP should make clear the details displayed in Figure 16. To build on the analysis and conclusions, and create actionable plans, the final REAP should provide names, sizes, and locations of the plants and their schedule of emissions reduction requirements. UCS Init. at 13.

In addition, the UCS suggests the REAP should make additional analysis and conclusions regarding the plant closures and needs to serve the electricity demands of Illinois residents and consumers. The Second Draft does not address how the power system reliability requirements can be met without excess operations of fossil generation and emissions at the plants closest to the EJ communities. To plan for gas-fired plants in EJ communities to limit and end emissions, the Commission and stakeholders need details on how the electricity demand will be met within the limitations of the transmission system, or the Commission-directed actions to plan and build transmission or related grid supply upgrades. UCS Init. at 14.

P.A. 102-0662 directs the Commission to plan for the transmission needed to operate the power system reliably with the emission reductions required by P.A. 102-0662. 220 ILCS 5/8-512; 415 ILCS 5/9.15(o). In particular, the final REAP should make clear that neither a shortfall or satisfaction of renewable energy supplies needed for meeting the RPS will not itself prevent the RTOs from issuing waivers and allowing excess fossil generation and emissions. In addition, the final REAP should address actions to enable the grid to avoid thermal overload of transmission, or voltage violations, that otherwise will cause the grid operators to authorize excess generation and emissions at the plants closest to the EJ communities. Therefore, the final REAP should describe the imperative for construction of new energy supplies and energy demand reduction in the areas around EJ communities, and in Illinois generally, to meet the goals of emissions reductions in EJ communities. UCS Init. at 14.

In support of the recommendation of the Second Draft to engage in proactive planning, the UCS commissioned a reliability analysis of the transmission system capability to operate without portions of the fossil fuel fleet to show the role of transmission limitations delaying the reduced operation and emission reduction of fossil plants due to reliance by grid operators on waivers from the emission limits for fossil generators. The UCS ran modeling cases, which show no transmission needs for the PJM-area coal plant closings. With this independent analysis, the UCS observes that transmission and the selection of new supplies will affect plant emissions. Actual conditions will be modeled routinely by PJM and MISO. An unaddressed violation of reliability limits will be a key factor for issuing waivers for continued operation of emitting plants day after day. This information regarding transmission limitations is not discussed in the Second Draft. The Commission should describe proactive planning for the reliability needs stemming from fossil plant limitations to meet the emissions reductions for EJ communities directed by the law. UCS Init. at 16.

The UCS proposes Illinois stakeholders need the Commission to develop an alternative plan to the PJM and MISO response to fossil plant closings. As described earlier, PJM and MISO rules direct transmission planners to assess the changes on the transmission system from plant closings after the plant owner notifies the grid operator of the intention to close the plant. The planning and deployment of transmission fixes only begins after that notification. The costs for those transmission reinforcements are assigned to the utilities and ratepayers are immediately affected (i.e., Illinois will pay for these fixes.). Further, there is no provision for PJM or MISO to anticipate additional closings (even though mandated by P.A. 102-0662) or to plan for improvements that will increase the interconnection of new clean energy. The final REAP should address this weakness in the existing response to plant closures. UCS Init. at 17.

The final REAP should direct the start of transmission planning that identifies the overloaded transmission that results from plant closures and transmission improvements needed for a significant amount of clean energy generation already in the interconnection queues. This integration of both the transmission driven by plant closings and the transmission needed for new clean energy can be accomplished if the Commission seeks either a SAA with PJM (and similar collaboration with MISO) or directs Ameren Illinois and ComEd to provide the transmission upgrades under Commission authority and the Supplemental and Other categories of MISO and PJM, respectively. UCS Init. at 17.

7. CGA's Position

CGA argues the REAP lacks information needed as inputs into the RTO long-term transmission planning process, as well as a coordinated process for the development of those inputs. The Second Draft identifies the four key components of the REAP set forth in subsection 8-512(b), but it lacks a strategy and a timeline for planning transmission to deliver renewable resources to meet the key policies in P.A. 102-0662 driving a significant change in generation requiring transmission. The four key policy drivers in P.A. 102-0662 that are relevant to renewable resources are to:

(a) meet the State RPS targets;

(b) contribute energy to facilitate the 100% clean energy/electricity by 2050 goals;

(c) facilitate the 100% fossil emissions phase out by 2045; and

(d) meet potential growth in energy demand from increased electrification.

CGA suggests the addition of a fifth driver – to meet any future laws increasing renewable energy demand in Illinois - because the REAP is ongoing and State public policies may yet be established that significantly affect transmission and explains the transmission drivers above should be organized chronologically. The list above is non-exclusive and could be expanded to add public policies that drive a significant need for transmission and are consistent with the scope of Section 8-512. Multiple key policy drivers can be grouped together for analysis to improve the efficiency of the planning process or to better fit into an RTO's planning processes. Key policy drivers have deadlines or implementation dates, that drive the timing of the planning. Therefore, whether the long-term planning performed by the RTO is a one-off study or integrated into an upcoming regional study needs to be coordinated with each RTO. Moreover, long-term transmission planning requires addressing key policies that drive significant and potentially rapid changes in wholesale than what would occur from the normal increases in electricity that customers demand and is addressed through bottom-up planning. CGA Init. at 33-35.

In response, Staff argues that CGA fails to consider the policy drivers identified by the General Assembly in Section 8-512 and fails to account for managing costs for Illinois' electric customers. Further, Staff asserts that ensuring Illinois' public policy requirements are included in transmission expansion planning processes is better than using the REAP Zones and a nameplate capacity goal. Both PJM and MISO have processes for planning transmission to meet system changes due to public policy. CGA Rep. at 12.

CGA replies that Staff's understanding is inconsistent with public policy drivers in transmission expansion planning, inconsistent with what Staff identified as Key Clean Energy Policies in Illinois, and inconsistent with subsection 8-512(a)(3), which states the following:

> The State of Illinois does not currently have a comprehensive power and environmental policy planning process to identify transmission infrastructure needs that can serve as a vital input into the regional and interregional transmission organization planning processes conducted under Order No. 1000 and other laws and regulations …

220 ILCS 5/8-512(a)(3). CGA argues the General Assembly would not have included this provision unless it had the expectation that the Commission would identify "transmission infrastructure needs that can serve as vital inputs" into RTO transmission expansion planning. CGA disagrees that the REAP should simply restate State energy policy goals. Inputs into the transmission expansion planning process needs to be framed in a way useful for the RTO. The transmission expansion planning process uses models that forecast generation expansion and models energy flows so the RTO can forecast and solve reliability issues by adding new transmission. The REAP Zones called for in the statute are the minimum level of input into the RTO transmission expansion planning process that identify the type of resource to be built, the amount or nameplate capacity of resources to be built and their location. Staff can propose inputs into the RTO

transmission expansion planning process it believes are needed or reasonable, and parties can comment on those proposals or propose other inputs via the REAP process. CGA Rep. at 12-13.

CGA also asserts that Staff is incorrect in that the REAP statute identifies public policy drivers for transmission planning. A public policy driver is a government sponsored policy goal or mandate that creates a need for a transmission solution. The RTO will model the system and identify network upgrades or new transmission additions to solve those reliability issues. CGA Rep. at 13-14.

Staff identified "managing cost" as a key public policy driver. CGA disagrees because cost does not create a problem in the transmission system requiring transmission to be built. Cost-effectiveness is a metric within transmission expansion planning to protect the public interest or to help select between multiple options. CGA Rep. at 14.

CGA notes that PJM's SAA requires the State to identify a public policy driver. The Second Draft states that PJM's RTEP "does not enable PJM to identify on its own any public policy needs that could be solved through RTEP." The Second Draft pointed to New Jersey's Offshore Wind Project as an example of an SAA. New Jersey's Executive Orders setting offshore wind targets totaling 11,000 Megawatts ("MW") of offshore wind by 2040 was a key public policy driver for the SAA. That is similar to the sizing of the REAP Zones for a key public policy driver. CGA Rep. at 14.

Staff cites a number of provisions in Section 8-512 as public policy drivers. Staff is incorrect, as those provisions are not public policies that drive or necessitate the planning of new transmission. CGA argues subsection 8-512(a)(9) was specifically added to emphasize the need for the REAP to focus on long-term planning and not near-term planning:

> Creating a forward-looking plan for this State's electric transmission infrastructure, as opposed to relying on a case-by-case development and repeated marginal upgrades, will achieve a lower cost system for Illinois' electric customers. A forward-looking plan can also help integrate and achieve a comprehensive set of objectives and multiple state, regional, and national policy goals.

220 ILCS 5/8-512(a)(9). CGA posits forward-looking is synonymous with long-term transmission planning, as evident from FERC's Transmission Planning NOPR, in which it states:

> In light of those concerns, we propose reforms to require public utility transmission providers to conduct long-term regional transmission planning on a sufficiently long-term, forward-looking basis to identify and plan for transmission needs driven by changes in the resource mix and demand. Absent such reforms, we are concerned that meeting transmission needs driven by changes in the resource mix and demand through short-term, piecemeal transmission

> expansion will result in unjust and unreasonable and unduly discriminatory and preferential Commission-jurisdictional rates for customers.

Building for the Future NOPR, ¶ 27. Subsection 8-512(a)(10) is not a public policy driver of new transmission because it has the Commission evaluate the undergrounding of transmission lines. References to subsection 8-512(b) are not drivers, they are components of the REAP; they are the minimum actions to be included in the REAP. CGA Rep. at 15-16.

CGA asserts that a public policy driver is needed for REAP Zones to be a useful input into the RTO transmission expansion planning process. That is why CGA chose the 2040 RPS goal. The State RPS is specifically mentioned in subsection 8-512(b)(4). Subsequent REAPs will have to identify other drivers and how they get incorporated into the RTO transmission expansion planning process such that Illinois has sufficient transmission to accomplish its energy and decarbonization policies. CGA Rep. at 16-17.

Staff asserts that CGA's methodology for calculating resource capacity in each zone did not account for managing costs. CGA did account for managing costs. CGA's proposal relies on the planning processes PJM and MISO have established for public policy projects, and they have their own cost-effectiveness tests for managing costs. CGA asserts that the REAP's cost effectiveness test should rely upon those established methodologies for selecting the cost-effective solution. CGA Rep. at 17.

CGA states that MISO and PJM have different approaches for establishing cost effectiveness and transmission expansion planning. CGA encourages the Commission to advocate for improvements in the RTOs' transmission expansion processes while advocating for the input in the models. CGA Rep. at 17-18.

Finally, there is the implication in Staff's comments that Illinois needs its own State cost-effectiveness or cost management test. CGA cautions against that as an approach applied to both RTOs. It appears that PJM's process is open to the State defining a cost-effectiveness; however, MISO already has a cost-effectiveness test. A separate State test could cause the State to reject transmission projects MISO selects as cost-effective without the State having a method for selecting alternative lines. The Commission will have to work with PJM and determine whether PJM's competitive solicitation process or some other PJM process is the best manner to ensure cost-effective lines are selected for the ComEd territory. CGA Rep. at 18-19.

Staff asserts that ensuring Illinois' public policy requirements are included in transmission expansion planning processes is better than using the REAP Zones and a nameplate capacity goal. Staff's position conflates advocacy to change RTO transmission planning policies, with advocacy for inputs into the RTO's transmission expansion planning modelling. CGA Rep. at 19.

CGA maintains that the REAP has two primary functions relative to the RTO – provide inputs into the transmission expansion planning process and advocate for improvements to the RTOs' system planning processes. They are two separate processes. Staff appears to believe that public policy advocacy in the RTO's system planning processes is sufficient, however, that will not yield new transmission

infrastructure. That yields policy changes. New transmission infrastructure is planned and approved through the transmission expansion planning process. Therefore, the REAP needs a strategy for identifying the inputs into the transmission expansion planning processes that yield beneficial transmission for Illinois so the State can attain its key public policies. The REAP Zones are one input, and the minimum input into, the RTO transmission planning process. CGA Rep. at 19.

CGA states that Section 8-512 recognizes that transmission expansion planning advocacy is separate and distinct from improvements in system planning processes. subsections 8-512(b)(1) and (2) work together regarding inputs into the RTOs transmission expansion planning process. The REAP Zones, specified in subsection (b)(1), are based on the process MISO used for developing its MVP transmission lines for delivering energy from forecasted wind resources. It is also comparable to the process used by New Jersey when using the SAA for its Offshore Wind Project. Subsection 8-512(b)(2) directs the REAP to develop a strategy for using the REAP Zones in each transmission expansion planning process, given that Illinois has two RTOs and they have dissimilar transmission expansion planning approaches for public policy-driven lines. And in a wholly separate section, subsection 8-512(b)(5) directs the REAP to consider policy proposals to improve RTO system planning processes. CGA Rep. at 19-20.

CGA states that subsection 8-512(b)(5) requires the REAP to "consider proposals to improve" the RTOs system planning processes, such as advocating for PJM to use a regional cost allocation methodology instead of the SAA, or for PJM to cluster its generation interconnection requests into one analysis instead of analyzing each generation interconnection in serial order. These topics are distinctly different than inputs into the transmission expansion planning process. For example, inputs into the transmission expansion planning process would include the REAP Zones' locations and capacities, forecasts of how energy efficiency or distributed energy resources Illinois will change or increase over the next 15 or 20 years, and the factors the RTO transmission expansion models account for when forecasting the timing of plant retirements. CGA Rep. at 20.

Therefore, CGA asserts that advocating for public policies at the RTOs is not the same as participating in the transmission expansion plans or at a minimum designing REAP Zones that can be used for transmission expansion planning by MISO and PJM. Neither RTO can perform transmission expansion planning that ensures there will be proper transmission in place for key Illinois energy policies that are to be achieved by 2050 unless the REAP Zones have an electric generating capacity that new transmission lines need to deliver to load centers. CGA Rep. at 20-21.

CGA states that the Second Draft identifies seven Candidate Zones but does not forecast the capacity that should be in each zone, so the zone can be used by the RTOs for transmission planning. RTOs cannot plan long-term beneficial transmission lines unless the generation capacity from each zone is specified so the RTO knows how much energy the transmission needs to deliver. To forecast capacity for the zones, the REAP needs to identify a public policy driver, which will inform the amount of required renewable resources. CGA Init. at 40-41.

CGA states that the Second Draft identified three interim goals and four primary goals, heavily emphasizing the 100% clean energy economy by 2050, but did not select one for use in planning REAP Zones for long-term transmission planning. CGA asserts that the most logical policy to target at this time is the State RPS's 50% target by 2040. In support, CGA argues it takes seven to twelve years for a portfolio of transmission lines to be planned, approved by state regulatory agencies, built, and placed into service. Under that timeline, the earliest that new transmission lines could be placed in-service to meet a target is 2032 to 2035. This timeline matches up well with the RPS target in 2040. It allows the line(s) to be in place for approximately 5 years before they approach the planned capacity. It is prudent for the lines to be placed in-service earlier than the targeted planning year because it reduces the potential for curtailment of renewable energy projects placed in-service prior to that date. A reduction in curtailment reduces the net production cost of electricity in a wholesale market and results in Illinois customers having lower electricity rates. CGA Init. at 42-43.

CGA states that no party objected to this proposal, beyond Staff's arguments that were addressed in the prior CGA position, to the extent they are applicable to this CGA position.

CGA states that the use of the REAP Zones for RTO transmission planning is not clearly explained. In addition, the Second Draft leaves the impression that the REAP Zones will be updated or changed in each plan. They should not because the purpose is to guide MISO and PJM's long-term planning of transmission lines. To determine REAP Zone location and size, CGA recommends that the Commission use a methodology that has already worked for MISO's MVP Portfolio and for ERCOT's competitive REAP Zones. In both of those plans the REAP Zones identified the likely location and capacity of wind resources that could be built to meet a planning year need. This information is then used by MISO and PJM to identify the transmission upgrades that will allow existing and new renewable resources to effectively deliver their energy into the wholesale market to meet the demand of Illinois' electric customers. CGA Rep. at 10-11.

CGA's approach to Section 8-512 is that land use consideration should be limited to the assessment of resource potential for the purpose of the RTO planning transmission lines. CGA recommends that Strategic Element 3's focus be on the development of REAP Zones. Those zones would include an estimate of the likely capacity of wind and solar resources for a key objective, and not be used for managing land use. CGA Init. at 22-23.

CGA states that the REAP Zones are identified in subsection 8-512(b)(1) as being a minimum level of input into the RTO's transmission planning processes. MISO's and PJM's transmission planning processes are dissimilar. MISO has an active top-down or long-term transmission planning process that has successfully identified transmission lines that solve multiple issues – reliability issues, improving system economics, or addressing state public policies. In addition, MISO has performed studies or long-range planning studies that flow into its annual transmission expansion plan. In contrast, PJM's transmission expansion plan is largely driven by reliability upgrades. PJM's transmission expansion planning process uses a benefit-cost analysis to evaluate proposed economic transmission projects, while all other types of transmission projects, including SAA projects, are planned to minimize cost while meeting identified needs. The Commission

may elect to utilize the SAA and incorporate the cost effectiveness components of that approach into the REAP process. Therefore, the REAP planning process will need to coordinate with MISO and PJM to get them to plan transmission portfolios in time to meet key policy driver deadlines. The REAP Zones only need to be developed when the Commission intends to request PJM and MISO perform transmission studies for a key policy driver. CGA Init. at 39.

In their Response, the Joint NGOs state that they agree that the REAP is to focus on transmission system development and should be framed from a transmission planning perspective. CGA, however, points out that the Joint NGOs then reference "smart from the start", which focuses on transmission siting, as an effective way to plan transmission. CGA asserts that the REAP is intended to focus on RTO planning of transmission expansion, as is evident from the reference to federal transmission policy in subsection 8-512(a) and is not intended to incorporate the transmission siting the Joint NGOs are proposing. CGA Resp. at 46-47; CGA Rep. at 22-23.

Finally, the REAP is to identify inputs into the transmission planning process at the RTO. There are no facts in the current RTO transmission planning process that identify a route for which discussion can be held on property to avoid.

CGA points to the first sentence of Strategic Element 3, asserting that it implies that the REAP is intended to be incorporated into distribution system planning:

> This REAP seeks to provide for [Commission] review a process for identifying REAP Zones and incorporating them into regional, local, and distribution system planning to help meet [P.A. 102-0662]'s goals.

Redlined Second Draft at 27. CGA asserts that this is an incorrect application of Section 8-512. The REAP is focused on transmission planning, which is performed by RTOs serving Illinois. RTO transmission planning is wholly separate from distribution system planning, as distribution system planning is managed by the local utility. In addition, there is no indication that the REAP is to perform distribution level planning because distribution systems are not mentioned within Section 8-512. Further, there is a separate statute giving the Commission authority to manage distribution grid planning efforts (220 ILCS 5/16-105.17), though there is likely a point requiring coordination of the two efforts regarding energy flowing from distributed generation systems onto the transmission grid. If Staff's intent is for coordination between the REAP planning and the distribution system planning in Section 16-105.17, then that should be clarified. CGA Init. at 24.

In response, Staff stated that it "did not and does not intend for the Commission-adopted REAP [to] disrupt the current processes for distribution planning." Staff Resp. at 64. CGA understands Staff's response to mean that Staff agrees with CGA's position that the REAP is not intended to incorporate or perform any distribution system planning. If CGA's understanding is incorrect, CGA's primary arguments in its Initial Comments stand unrebutted. The Commission should determine whether the REAP grants it authority to manage land use and renewable siting. CGA Rep. at 23-24.

CGA points to one phrase in Section 8-512 that refers to land area, and it appears that Staff interprets it as expanding the Commission's authority well beyond current law.

The common thread through these statements is that the Commission would govern non-public utility siting and development of new generating resources. That is a significant change in Commission authority because it would need to be expressly stated in the statute with accompanying language (*see Lowden v. Ill. Commerce Comm'n.*, 376 Ill. 225, 230 (1941). This expansion would in effect grant authority to: (1) establish environmental and cropland protections; (2) mitigate impacts on site and on neighboring properties; (3) oversee or regulate developer negotiations with landowners; (4) interpret and apply the Illinois Department of Agriculture's Agricultural Impact Mitigation Agreement; (5) define areas where an independent power producer could not build; and (6) limit independent power producers ability to develop to areas that are barren or less productive. CGA Init. at 26.

Staff's response is that CGA has incorrectly interpreted Staff's intentions, "that the final REAP Zones "will not require excess resource development in those locations nor preclude any particular develop [sic] in other locations." Staff Resp. at 64-65. Staff concludes by stating CGA's concern is misplaced. Staff states that the actions CGA is concerned with are not what Staff intended and that those actions are beyond the scope of Section 8-512. CGA Rep. at 24-25.

The Joint NGOs state that they disagree with CGA on the importance of not disturbing protected lands. The Joint NGOs state that the REAP should proactively identify, consider, and avoid areas of environmental importance in transmission system planning. The Joint NGOs also state that the REAP "rightly excludes certain protected areas like the Shawnee National Forest and ecosystems around the Illinois River from Candidate Zones, which will lead to better planning outcomes." CGA's position that Section 8-512 does not grant the Commission authority to actively manage land development of utility-scale renewables resources or CGA's position on "no development" protected areas. CGA Rep. at 25-26.

In the Second Draft Staff evaluates the Department of Agriculture's Agricultural Impact Mitigation Agreement ("AIMA"). It states that:

> Future REAP updates should review the degree of flexibility afforded to these negotiations to ensure whether optimal protections are being secured, and whether developed projects are observing the precautions envisioned by[the Illinois Department of Agriculture]'s AIMA agreements.

Redlined Second Draft at 32. CGA argues that the AIMA should not be considered as part of the REAP because it does not aide in the identification or forecasting of likely locations of renewable resource development. It is an agreement entered into with specific landowners. The REAP Zone planning is a macro forecast of likely utility-scale renewable resource development locations. Nothing presented in the Second Draft indicates that the AIMA affects or how it could affect development in zones such as to change or influence the siting or sizing of zones. CGA recommends that the discussion of the AIMA be removed; otherwise, a statement should be added that it is unclear if and to what extent the AIMA affects the location of REAP Zones or the forecast of the likely development in a zone for purposes of long-term transmission planning 15 to 20 years from now. CGA Init. at 28-29.

The Second Draft states that crop productivity was used as a measure of suitability of particular land to minimize impacts on prime farmland. CGA states that in terms of determining sufficient suitable land area, projects in the RTOs' generation interconnection queues are a better reflection of suitable land area than crop productivity. The RTOs' generation interconnection queue reflects the willingness of landowners to lease land because landowners are the ultimate decisionmakers as to allowing farmland to be used for wind or solar resources. Second, reviewing cropland appears to be too detailed of an input given the size of the REAP Zones. CGA Init. at 23.

Staff disagrees with CGA's position on crop productivity for a few reasons: First, if a developer already included crop productivity when submitting projects into the transmission queues, then REAP Zones incorporating productivity will simply confirm that Level 1 REAP Zones with many interconnection request demonstrating substantial interest in renewable generation are, in fact, correct. Second, crop productivity was suggested as a proxy for likely development during the stakeholder process. CGA Rep. at 28-29.

CGA opposes Staff's comprehensive headroom analysis because it is a bottom-up approach to transmission planning that is and has already been performed by renewable energy developers prior to applying for interconnection. CGA asserts that such a study is not likely to be informative for the purpose of the REAP, which is to drive long-term transmission studies and have a long-term strategy for transmission infrastructure development. The REAP Zones are established to be used with long-term planning processes of the RTO, which already complements the bottom-up planning in identifying a cost-effective transmission system. If a headroom analysis is to be used it should be performed by the RTOs as part of their transmission planning process or if needed. CGA states that a comprehensive headroom analysis could be useful for (1) identifying non-wires alternatives, and (2) for initiating PJM's SAA. However, neither of these uses is related to siting REAP Zones, and if either are performed it should not slow down the long-term planning process related to the REAP Zones proposed by CGA. CGA also argues that there is no need for the REAP to duplicate such work that most renewable resource developers already perform when deciding where to develop projects. CGA Init. at 53.

CGA further notes that the REAP suggests that MISO and PJM should improve their existing mechanisms that allow for redeployment of existing transmission headroom from retiring fossil plants to renewable generators to expedite deployment of Level 1 REAP Zones. This suggestion will not work for a few reasons. First, the transfer of capacity interconnection rights is subject to the clearing of the generation interconnection backlog. That process will be stressed and can contribute to protracted delay. Second, the process PJM uses to accelerate a project into service is really focused on network upgrades to accommodate the replacement resource versus broader system expansion to enable interconnection rights beyond the requirements of replacement generator. Finally, this proposal is focusing on a bottom-up solution, which is not the focus of the REAP. The REAP is focused on facilitating long-term planning, not near-term planning. CGA Init. at 73.

In addition, improving Capacity Interconnection Rights is a queue process issue. It is not a long-term planning. Moreover, it is not a factor influencing the estimation of

renewable generation capacity in a REAP Zone to meet a key policy driver in 20 years. Capacity interconnection rights is a near-term planning issue that needs to be addressed in the normal course of Commission advocacy at the RTOs so as to facilitate an efficient queue process. CGA provides edits consistent with these arguments. CGA Init. at 73-74.

In reply to Staff's support for a headroom analysis, CGA explains that a headroom analysis is not useful in identifying REAP Zones that are needed for long term planning of transmission that enables Illinois to meet key public policies. CGA points out that the Joint NGOs, ComEd, and Ameren Illinois share the same opinion as CGA. If the headroom analysis is approved, CGA recommends further discussions to refine the scope of the study, clarify who will conduct the study, and not delay the development of the REAP Zones. CGA Rep. at 31-32.

CGA states that the Second Draft identifies seven Candidate Zones but fails to perform key analyses needed to make the REAP Zones useful for RTO transmission planning. To make the REAP Zones ready for long-term transmission planning by the RTOs CGA explains that the REAP needs to: (1) identify a key public policy driver to calculate the renewable capacity for each zone, (2) calculate a forecasted target capacity for the key public policy driver, (3) describe a methodology for forecasting likely renewable energy growth in a zone, and (4) calculate a forecasted capacity for each zone that can be used by the RTOs for long-term transmission planning. This section performs the latter three functions (2 through 4) using the 2040 RPS Target as the key public policy driver. CGA asserts that RTOs cannot plan long-term beneficial transmission lines unless the generation capacity from each zone is specified so the RTO knows how much energy the transmission needs to deliver. CGA Init. at 40-41.

CGA recommends the key public policy driver for this REAP be the 2040 RPS target. Using data from the 2022 LTRRPP, CGA estimates that the RPS REC target in the 2040-2041 Delivery Year will require approximately 28.1 million wind RECs and 16.1 million utility-scale solar RECs, which is the equivalent of 28.1 million Megawatt-hours ("MWhs") from new wind generation and 16.1 million MWhs from new solar generation. CGA Init. at 45.

As such, CGA argues the Second Draft still needs to determine whether the Level 1 Zones have sufficient suitable land area for renewable resources to be built to meet a key public policy driver. If those zones do not have sufficient resources to meet the key public policy driver, then the REAP needs to determine whether the Level 2 Zones have sufficient suitable land area for renewable resources to meet the key public policy driver. If the Level 2 Zones are insufficient, then the REAP would either identify additional zones within Illinois or evaluate the ability to import RECs from out-of-state. Fortunately, CGA states, there is sufficient wind and solar resources currently being evaluated in the Level 1 Zones to indicate that there is suitable land in those zones for sufficient renewable resources to be built so that Illinois can meet the 2040 RPS REC requirement. CGA explains that its proposed process is similar to the one MISO used when it planned and implemented its successful MVP Portfolio of seventeen high-voltage transmission lines. CGA emphasizes that its positions are based on four expert witnesses with more than 50 years of transmission planning experience. CGA Rep. at 37-38.

Staff responds that does not have access to data that informs the conditions analyzed by MVPs and long-range transmission planning. CGA states that stakeholders in the PJM and MISO transmission expansion planning processes have the ability to advocate for changes to the scenarios and data inputs used by each RTO to model transmission expansion. CGA also argues that Staff's advocacy at the RTOs also needs to include the REAP Zones, and potentially data or information related to Illinois. Among other reasons in support of this position, CGA states that in interpreting this provision the Commission should consider the purpose of the legislation (*N. Ill. Auto Wreckers and Rebuilders Assoc. v. Dixon*, 75 Ill.2d 53, 61; 387 N.E.2d 320, 324 (1979)) and it should be construed in a way that will effectuate or carry out the statutes purpose even if such construction is not within the literal interpretation of the statute. *Jewel Co., Inc. v. Dept. of Revenue*, 58 Ill.App.3d 393, 396; 374 N.E.2d 733, 736 (1st Dist. 1978). CGA argues that the statute directs, or at least encourages, the Commission to participate in MISO's and PJM's transmission expansion planning processes. CGA Rep. at 39.

CGA counters the Joint NGOs' arguments against the use of interconnection queue data. CGA argues that the Joint NGOs' position should be disregarded because neither the Commission nor the RTO approves where an independent power producer or a generator interconnects. Section 8-512 also does not provide the Commission authority to manage land use or a utility-scale renewable resource developer's interconnection to the bulk electric system. When a generator interconnects to the bulk electric system the RTO will determine which network upgrades that the interconnecting generator owner must pay. Therefore, a wind, solar, or hybrid plant can interconnect at any location pursuant to local government approvals and compliance with federal, state, and local laws that protect land resources. CGA Rep. at 49.

The Joint NGOs argue that utility-scale renewable resource developers' incentives are not wholly structured to align with the public interest. CGA replies that a utility-scale renewable resource developer is a corporate entity whose primary purpose is to maximize profits and continue to exist. That is not illegal, improper, or against the public interest. A utility-scale renewable resource developer will need to comply with local siting ordinances and any federal, state or local laws protecting lands. Compliance with those processes is in the public interest. CGA Rep. at 49-50.

The Joint NGOs assert that the "project developers plan developments based on the current grid, not the future one." JNGOs Resp. at 8. CGA states that the Joint NGO's assertion is partially true. A utility-scale renewable resource developer is looking to build a project within three to five years. Therefore, the utility-scale renewable resource developer will build in locations where there will be transmission available in three to five years. While the RTO generation interconnection queue is not perfectly aligned with development over the next twenty years, it does reflect suitable land area. A utility-scale renewable resource developer will not enter the RTO generation queue if it does not believe it has a reasonable possibility of securing enough land to build a project. That demonstrates suitable land area sufficient for developing renewable energy plants. CGA Rep. at 50.

The Joint NGOs recommend fossil fuel plants closures, potential for grid stability issues, proximity to load centers and locations of environmentally sensitive lands be considered in determining REAP Zones going forward. CGA's reply is that all of these

factors are well known to utility-scale renewable resource developers, therefore, they are fully considered and weighed for each project in the RTO generation interconnection queue. Most are considered prior to the utility-scale renewable resource developer entering a project into the generation interconnection queue. Furthermore, CGA states that retirement of fossil fuel plants means capacity along a transmission line may become available. CGA Rep. at 50.

The Joint NGOs point to proximity to load centers as a consideration of the location of future REAP Zones. CGA's reply is that that is a consideration for community or distributed generation, which can locate on smaller tracts of land available near a load center. Utility-scale renewable resource projects usually locate far from load centers in rural areas where there is more open or available land to build a project. CGA Rep. at 50-51.

CGA also states that its changes to approved REAP Zones are limited. The only change that should be made to a REAP Zone is an increase in its forecasted renewable generating capacity. Therefore, any changes proposed to the REAP Zones for the next REAP Plan, should be coordinated with MISO and PJM to make sure the change does not undermine prior or current transmission expansion planning. CGA Rep. at 51.

CGA recommends that the REAP request PJM and MISO consider the REAP Zones' capacities in their long-term transmission planning processes and perform supplemental studies to further iterate the transmission lines the RTOs plan in response to the REAP Zones. CGA states that the Commission should acknowledge that pursuant to Sections 8-512 and 4-301 of the Act, the Commission has authority to request the RTOs perform specific types of studies that evaluate issues specific to the key policy driver or Illinois' situation beyond the standard long-term transmission analysis. These additional studies would account for features unique to the key policy driver or Illinois. Consistent with the forgoing, CGA recommends that the Commission formally request MISO and PJM to perform a transmission study, JTIQ, a curtailment study, and in coordination with a Targeted Market Efficiency Projects ("TMEP") study. In addition, CGA recommends that Staff establish a process by which the SAA is evaluated and potentially approved by the Commission for the portfolio of lines identified by PJM. CGA Init. at 59-60.

There are four Candidate Zones near the MISO-PJM seam – Zones 1 through 4. CGA estimates that the wind and solar resources in these zones will need to be at least 15.6 gigawatt of nameplate energy to deliver the RECs needed for Illinois to meet its 2040 RPS Target. MISO and PJM should analyze those zones on the seam, and others as necessary in a JTIQ. This study could potentially identify additional solutions that could be added or combined with the portfolio of transmission lines used to address system congestion or used as an iteration of those transmission lines. These could be more cost-effective solutions for both generators and load. CGA Init. at 59-60.

After the RTOs identify one or more transmission lines that solve congested-related issues arising from the 2040 RPS policy driver, those transmission lines should be evaluated under a curtailment study. Such a study would identify transmission or non-transmission solutions that would keep the annual curtailment of Illinois renewable resources interconnected to the transmission systems, at the time the policy driver is to

be met, at or below 3%. The target metric could be applied by a single RTO or as a joint analysis by both RTOs. This study could include several years of historical weather data to illuminate the correlated impact of weather on both customer demand and renewable energy output. Simulating hourly grid operations of the MISO and PJM systems would provide an assessment of the need for additional transmission import/export capacity into Illinois. This study could also identify additional grid operational flexibility to minimize curtailment of renewable resources. This analysis would ensure that the RTOs maintain a high level of energy injection from renewable resources that is needed to achieve the 2040 RPS target policy driver. CGA Init. at 60.

To the extent possible, the long-term study that identifies transmission lines that solve congestion issues arising from the 2040 RPS target policy driver should be coordinated with a TMEP study. MISO and PJM currently coordinate TMEPs. A TMEP is a small, low-cost project with limited impact. A TMEP study should consider reliability needs, economic congestion, and policy needs driven by P.A. 102-0662 and REAP. This study should also consider interregional transmission solutions that can improve reliable integration of renewable resources in the REAP Zones, especially those near the seam in both RTO footprints in Illinois. By completing a transmission study that considers multiple needs on the system, the transmission solutions identified are more likely to be least cost for consumers. CGA Init. at 60-61.

In response to ComEd's objections, CGA asserts that PJM and MISO have established processes for performing transmission expansion planning. CGA recommends those processes be used to identify transmission lines to meet Illinois public policy goals: the REAP Zones be used by MISO in its long-term planning process and by PJM in its RTEP relative to the SAA. CGA Rep. at 52-53.

The Joint NGOs agree with the curtailment study that CGA has proposed but recommend that annual level of curtailment be greater than the 3% CGA suggests. CGA argues that the Joint NGOs proposal undermines the effectiveness of the curtailment study CGA has proposed. CGA proposed that after the RTOs have performed their respective long-term transmission expansion planning analysis and identified transmission lines for Illinois, the RTOs should evaluate that portfolio with the three additional proposed supplemental studies. CGA Rep. at 53-54.

The Joint NGOs also propose a change to the curtailment analysis to allow generation in Illinois to have a higher annual level of curtailment than what has occurred over the past five years. This means that generators would be paid based on fewer megawatt-hours. This increases the $/MWh plants will need to charge to meet or exceed their costs. Adopting the Joint NGOs' proposal would mean the new REAP transmission lines could allow an annual level of curtailment above 3% before having to iterate the portfolio of lines. CGA recommends that the Joint NGOs' proposal be rejected. CGA Rep. at 54.

CGA argues that the REAP does not need to develop a model statewide wind and solar ordinances that can be adopted by individual counties as proposed. Subsequent to the issuance of the Second Draft, the General Assembly passed a bill establishing minimum statewide siting criteria that are broad enough to include wind and solar resources that would interconnect to the transmission system. Siting ordinances

established by local governments after January 27, 2023 must have siting requirements that are no restrictive than those set forth in 55 ILCS 5/5-12020. Existing siting and wind ordinances that have siting requirements more restrictive than Section 5-12020 are to be updated within 120 days of the effective date of the statute (May 27, 2023) to conform or not exceed the new siting requirements. CGA asserts that the Commission's development and approval of model state-wide ordinances for siting wind and solar resources appears to be consistent with the misperception that the REAP grants the Commission land management authority or regulation of wind and solar resource siting, which Staff states it is not attempting to do. CGA Init. at 68-69.

CGA argues that the policy proposal to review and refine enforcement authorities should be removed because it is outside the scope of Section 8-512 because the REAP is not intended to manage land use and siting standards. The REAP recommends legislation establishing enforcement authority for minimum standards over utility-scale renewable resource development. Section 8-512 does not give the Commission authority to recommend legislation or consider the topic of establishing enforcement authority for minimum standards over utility-scale renewable resource development. CGA Init. at 10; CGA Rep. at 55-57.

CGA analyzed whether Illinois has suitable land area that is sufficient for renewable technologies to meet the RPS target and decarbonization goals, as required in subsection 8-512(b)(1). CGA states that there are a number of ways to determine if Illinois has a sufficient amount of suitable land area for renewable energy technologies to meet the needs of the key public policy driver, but the one CGA proposes as the starting point is a review of the amount of renewable and renewable hybrid projects currently seeking development in the State. CGA reviewed MISO's and PJM's generation interconnection queue for Illinois and presented its findings on the current nameplate capacity of wind, solar, and renewable hybrid projects located in Illinois and seeking interconnection in MISO or PJM. Its findings show that the volume of RECs generated from these wind and solar resources exceeds the volume of competitively bid RECs needed for the RPS goal for 2040. CGA Init. at 32.

Illinois has a 100% clean electricity goal for 2050. CGA states that the total volume of electricity sales to ultimate customers in Illinois for 2021 was approximately 122,236,000 MWhs. The estimated energy output from utility-scale renewable and renewable hybrid projects nearly equals that volume of electricity. CGA contends that this indicates that there is sufficient land area in Illinois, at this point in time, to meet key Illinois policy targets. Future REAPs should monitor and forecast changes in the energy market because energy demands in Illinois will likely change, most notably due to electrification. CGA Init. at 31.

CGA therefore recommends that the Commission adopt a finding that the review of Illinois land area, as directed in subsection 8-512(b)(1), is to inform the Commission as to whether Illinois can meet its clean energy goals through in-state resources and that the REAP is intended to provide a long-term strategy regarding transmission development for Illinois to meets its RPS, energy and decarbonization goals. In addition, CGA recommends the Commission find that the RTO generation interconnection queues are a reasonable method for estimating sufficient land area for renewable resources, at this time, to meet the 2040 RPS target. CGA Init. at 62-63.

The Second Draft recommends using the SEDAC in subsequent REAPs to further refine the REAP Zones. Second Draft at 41. CGA states that SEDAC appears to be useful for identifying locations where solar and possibly wind projects could be built, but it lacks inputs that would prioritize or differentiate between areas that are equally weighted. The criteria SEDAC uses to evaluate land suitability lacks any input or consideration of developers interests when prioritizing sites. Instead, CGA recommends the REAP gauge land suitability by using the projects in the MISO and PJM generation interconnection queues. If the queue changes and does not identify sufficient wind or solar resources in-state to meet the planning year estimated clean energy needs, then CGA sees the potential for SEDAC to be beneficial. Until that time, Staff should work to refine how SEDAC could be used, and CGA would appreciate the opportunity to participate in that process. One concern CGA has with the use of SEDAC is the appearance that it is being used as a land management tool or method for controlling wind and solar development in Illinois, which is inconsistent with the scope of the Commission's responsibility as explained above. CGA Init. at 62.

The Second Draft proposes outreach to communities to solicit a broad swath of perspectives on REAP Zones. The Second Draft asserts that such input could be a factor in altering the weighting of or inclusion of specific criteria. Further, Staff references principles to be used as guidance for collaborating with impacted communities. CGA recommends that the community outreach should not be approved because the REAP Zones are early-stage inputs into transmission planning that are too conceptual in nature to likely yield substantive and constructive comments from the average resident. In addition, CGA recommends that the Commission not approve the principles to guide discussion with impacted communities. CGA Init. at 64-65.

The Second Draft refers to principles that stakeholders are developing in collaboration with impacted communities that could guide future REAP iterations. Second Draft at 42-43. It is unclear what principles Staff refers to, but CGA was able to locate a set of Smart Solar Principles, which appear to be consistent with Staff's misperception that the REAP grants the Commission land management authority or ability to regulate wind and solar resource siting. Furthermore, the purpose of Section 8-512 is to prepare a long-term strategy for transmission infrastructure in Illinois and for advocacy at state, regional and national bodies that affect transmission in Illinois. The REAP Zones are an input into the transmission planning process of RTOs. Therefore, CGA concludes that the Commission should not be taking any steps that in effect regulate land management or the siting and development of wind and solar resources. CGA Init. at 67-68.

If those principles were to be codified or included in ordinances by bodies that regulate the siting of wind and solar resources, then it would be appropriate for Staff to account for these factors in the Commission's role in the planning process. More specifically, it would be appropriate for Staff to estimate how the adopted principles affect the likely development of wind and solar resources in the state. That would then affect the potential wind and solar target capacities in each zone. CGA Init. at 68.

CGA agrees that topics should be presented to communities in preparation of future REAP plans, but there needs to be tangible topics for the public to comment upon and a plan for explaining the REAP, RTO transmission expansion planning, and the policies that shape RTO transmission system planning. CGA recommends that the

community outreach should not be approved because the REAP Zones are early-stage inputs into transmission planning that are too conceptual in nature to likely yield substantive and constructive comments from the average resident. Staff should refine the proposal for future REAP plans, focusing on topics that are understandable for the average electric customer. Further, CGA recommends that if community outreach discussions were to occur the discussions not focus on regulation of wind and solar resource development, because Section 8-512 does not grant such authority, and that Staff should explicitly identify the principles that are to be discussed with communities in future REAP proposals. CGA Init. at 66-67; CGA Rep. at 58-59.

There are several key policy drivers for which the REAP will need to request long-term top-down transmission planning at MISO and PJM over the next 10 to 15 years. As time passes, the available land area for renewable generators will change, and Staff should monitor those changes as it prepares REAP Zones for the next policy driver. Below are some key factors the Staff should monitor:

(1) trends of increasing development in a Level 2 Zone;

(2) trends of increasing development in areas not in Level 1 or 2 Zones and meriting the creation of a new zone;

(3) growth rate of wind or solar installed capacity in a REAP Zone;

(4) potential peak installed capacity for wind and solar resources in a zone;

(5) change in Illinois energy laws that affect the rate of renewable resource development; and

(6) change in local siting laws that affect the rate of renewable resource development in a REAP Zone.

CGA recommends the REAP acknowledge that Staff should be monitoring Level 1 and 2 Zones for use in planning transmission for the remaining key policy drivers, that the factors proposed by CGA in the list above are informative and should be taken into consideration when developing a monitoring plan. The Joint NGOs support CGA's position on this issue. As no other party responded to CGA's comments, CGA recommends the edits should be accepted. CGA Init. at 61-62.

ComEd requests the REAP "clarify whether the criteria for [REAP Zone] resources would exclude certain renewable or zero-carbon generation resources based on technical criteria or be intended for utility-scale resource development only." ComEd Init. at 7. CGA's response is that the REAP Zone resources or resources the REAP Zones are planned for are only for utility-scale renewable or renewable hybrid resources. Subsection 8-512(a) focuses exclusively on the transmission system and does not mention or refer to distribution system planning or interconnection of resources thereto. The REAP Zones, therefore, are intended to facilitate generation interconnected to the transmission system, which would be utility-scale resource development. To the extent ComEd's comment addresses the inclusion or exclusion of utility-scale zero-carbon generation resources based on technical criteria, CGA interprets the statute to indicate that the REAP Zones are planned for utility-scale renewable resources. CGA's position is that the REAP Zones are tailored for utility-scale renewable resources and not distributed generation or nuclear/zero-emission facilities. CGA Resp. at 38.

ComEd also recommends that the REAP be updated to include how much available land exists for the siting of additional renewable or clean generation resources in relation to areas of load around the State as a criterion for the creation of a REAP Zone. Moreover, ComEd believes that resources that are electrically far away from demand will likely require higher interconnection and upgrade costs. CGA argues it is unnecessary and unreasonable to invest more time and fiscal resources to identify available land for generation development. Moreover, it is outside the scope of Section 8-512 to identify such land for any purpose beyond that of transmission planning. CGA Resp. at 40.

Vistra proposes an opportunity for other asset owners to include assets in REAP Zones. ComEd raised a similar request in response to regarding whether the REAP Zones would include zero-carbon generation resources or only be for utility-scale resource development. CGA reiterates that the statute indicates that the REAP Zones are planned for utility-scale renewable resources. In addition, the REAP Zones are intended to be a factor or input into transmission expansion planning used for the delivery of electric output from new renewable generation resources. The existing transmission system is already designed for the reliable delivery of existing generators. Therefore, CGA argues that existing assets do not need to be added to the REAP Zones, but the zones could include other utility-scale renewable resource generators that could be built in the future. CGA Rep. at 61-62.

The Joint NGOs recommend that the REAP estimate the transmission capacity expansion required to achieve the renewable requirements set in P.A. 102-0662. Further, the Joint NGOs recommend the REAP develop metrics focused on expanding transmission capacity to help prioritize actions. These features can then be revised with every iteration of the REAP. CGA starts with the assumption that the Joint NGOs' proposal appears to recommend that the Commission identify the transmission capacity needed for the REAP Zones. CGA asserts that would require the Commission to propose new transmission lines, perform generation expansion modeling, evaluate the effectiveness of new or upgraded circuits in reducing congestion, resolve thermal and stability criteria violations, and quantify the impact of these projects on the overall net production cost of the system. CGA further asserts that these are functions Staff does not typically perform, but that they are functions that MISO and PJM perform through their long-term, regional transmission planning processes. Planning such lines requires a complex analysis of the lines' ability to effectively move power from new and existing wind and solar generation to customer demand, taking into account not just transmission within Illinois but also throughout the region and neighboring RTOs. The RTOs have the necessary information about their region's transmission system and the technical capability to perform this analysis. They also have the established transmission line cost allocation methodologies for interstate projects. CGA argues that it seems imprudent to have the Commission perform such a function in place of the RTOs. CGA Resp. at 27-28.

CGA explains that the RTO can estimate the needed transmission capacity expansion when it performs its long-term transmission planning. In its Initial Comments, CGA proposed that the Commission plan for transmission infrastructure using principles similar to what MISO already uses for its long-term transmission planning and similar to how it developed its MVP portfolio of transmission lines. If CGA's proposal is accepted

then the Commission would not need to perform the function's proposed by the Joint NGOs but would be planning for the inputs and parameters the RTOs would use in identifying the needed transmission capacity. CGA Resp. at 28-29.

CGA indicates NRG Companies support the Joint NGOs' proposal that the Commission identify ways distribution-connected resources can be utilized to benefit transmission needs in Illinois. The NRG Companies' reason for supporting such an analysis is that it "can accelerate clean energy deployments in Illinois by reducing the time and expense related to interconnection" of resources connected to the distribution system. NRG Companies Resp. at 4; CGA Rep. at 60.

CGA argues NRG's argument should be rejected because Section 8-512 is not focused on near-term benefits the distribution system can provide the transmission system. Section 8-512 is focused on long-term transmission expansion planning that will plan transmission to meet the public policy needs of Illinois. In addition, CGA points out the proposed finding does not define the work to be performed.

CGA represents Vistra believes the REAP's Zone map should be "refined and redrawn to include more precise coordinates on the existing sites and locations that meet the 'Level 1 Demonstrated Interest zones.'" Vistra Init. at 3; *see* Second Draft at 18. Vistra wants to ensure that fossil sites with transmission headroom are not inadvertently left out. Vistra also states that several of its sites have been awarded renewable or hybrid projects, are in various stages of development and have been excluded from Level 1 Demonstration Zones despite having transmission headroom and retired or soon to be retired fossil resources. CGA Resp. at 29.

CGA's position is that Vistra's requests should be rejected because the REAP Zones are intended to be inputs into RTO long-term transmission planning, which uses top-down transmission planning to identify transmission lines that are more cost-effective than transmission added to the system through bottom-up transmission planning. CGA Resp. at 29-30.

CGA states Vistra is concerned that some of their current plant locations are not included in a REAP Zone. Those plants do not need to be in a REAP Zone for the following four reasons. First, those plants have access to transmission. Second, the change from a fossil fuel unit to a renewable or hybrid generator will require the RTO, pursuant to its tariffs, to analyze that new generator's impacts on the transmission system and, if reliability concerns are identified, determine any needed network upgrades so that plant can reliably interconnect to the grid. That is part of the bottom-up transmission planning process. Third, long-term transmission planning focuses on generators that will interconnect up to 20 years from now. The Vistra plants will be included in the long-term planning analyses as existing generation in the transmission system. Therefore, Vistra's request for the REAP Zones to be redrawn or to include their plants should be rejected. CGA Resp. at 32.

In addition, CGA notes Vistra supports the use of granular information regarding land use and requests that impacted communities be taken into consideration in establishing the Level 1 Zones. CGA opposes the use of granular level data for establishing the REAP Zones because it is not necessary for the same reasons CGA provided in response to Vistra's proposed edits to account for precise locations of Level

1 Zones. Moreover, CGA notes granular level data tends to focus on a specific parcel of property or a specific generator, which does not drive a REAP Zone. CGA Resp. at 32-33.

CGA asserts that communities impacted by the energy transition brought about by P.A. 102-0662 are accounted for in the siting of the REAP Zones. First, when developing the REAP Zones the Staff considered the location of Equity and EJ Communities and Locations of Mandated Fossil Retirements. Second, CGA's proposed methodology for siting and sizing the REAP Zones relies on the IPA's incentives to drive utility-scale renewable resource projects in or near the aforementioned impacted communities. In contrast, Vistra is recommending the location be included in the REAP Zones as if development is mandated to be located in the communities impacted by the energy transition. CGA concludes that Vistra's requests should be rejected by the Commission. CGA Resp. at 35-36.

8. Joint NGOs' Position

The Joint NGOs argue the REAP needs to estimate the needed transmission capacity necessary to achieve the goals of P.A. 102-0662, which will help prioritize actions and measure success. *See* JNGOs Init. at 9. The Joint NGOs argue that the law requires the REAP to be a plan to achieve transmission capacity in REAP Zones but as written it does not quantify the needed transmission capacity. *Id*. The Joint NGOs clarify the Commission can and should do this analysis in partnership with the RTOs in response to critiques from Staff and CGA that such analysis is outside the scope of the Commission. *See* JNGOs Rep. at 7-8.

The Joint NGOs also recommend that Staff, in coordination with other state agencies, assess the effectiveness of existing Illinois state or local laws, rules, and policies. *See* JNGOs Init. at 12-13. The Second Draft does not examine whether current laws, rules, or policies will effectively and efficiently enable transmission line development. Given the significant amount of transmission lines that need to be built to meet the state's objectives, the Joint NGOs argue that Staff should examine the status quo of state and local laws, rules, and policies to determine if improvements are needed. *Id*. The Joint NGOs clarify in their BOE that they are not recommending a review of federal laws and suggest providing Staff with 180 days for its review. JNGO RBOE at 27-28. Furthermore, the JNGOs support Staff's recommendation to remove the directive to review its enforcement authorities from the REAP given the Commission's limited resources and noting the existence of recent legislation. JNGO BOE at 13; JNGO RBOE at 26.

The Joint NGOs argue that distribution-connected resources can provide many benefits to the wholesale transmission grid, including lowering system costs. *See* JNGOs Init. at 14. Due to the potential for substantial benefits, the Joint NGOs believe the REAP should devote more attention to understanding distributed energy resources' potential contributions, especially benefits to energy, capacity, and transmission needs. *Id*. at 14-15.

The Joint NGOs state that the REAP should investigate the value of high voltage direct current lines ("HVDC lines") to support the goals of P.A. 102-0662 under the REAP. JNGOs Init. at 13; 220 ILCS 5/8-512(a). The REAP should consider the benefits of HVDC

lines compared to alternative options and consider where Illinois can eliminate barriers and encourage HVDC development. JNGOs Init. at 13. The Joint NGOS recommend the final REAP include a section on evaluating the benefits of and barriers to building HVDCs. *Id.* at 12-13.

The Joint NGOs point out that on January 27, 2023, Governor Pritzker signed a law that revised siting laws in Illinois. *See* 55 ILCS 5/5-12020; JNGOs Init. at 16. This law removes the need to draft a model siting ordinance by establishing what counties can require, especially given the limited resources and many activities the Commission must undertake under Section 8-512 of the Act. *Id*. The Joint NGOs support Staff's exception to creating a model siting ordinance but recommend removing the requirement in its entirety due to the Commission's limited resources and the existence of recent legislation. JNGO BOE at 10; JNGO RBOE at 24.

The Joint NGOs point out that grid enhancing technologies are a tool that should be considered in the REAP to maximize efficiencies in transmission system. See JNGOs Init. at 16. The REAP should consider all ways to efficiently add capacity to the bulk electric power system, such as through advanced conductoring, dynamic line ratings, and other grid enhancing technologies. *Id*. at 16-17. Thus, the REAP should examine the benefits of grid enhancing technologies and how to best utilize them in Illinois. *Id*.

The Joints NGOs argue that the REAP should incorporate siting into transmission planning, through an approach Joint NGOs call "smart from the start." The Second Draft considers siting considerations when evaluating REAP Zones, as it excluded areas like Shawnee National Forest and areas along the Illinois River. *See* JNGOs Rep. at 9 (*citing* Second Draft at 32). However, the REAP should incorporate siting beyond this narrow use case. Integrating siting considerations into the planning process means that the grid planners, working with the input of resource planning agencies and other stakeholders, can reduce siting challenges early on. *See* JNGOs Init. at 17-18. When it is not possible to build on existing rights of ways, planners should minimize to the degree practical siting issues through consulting with state and federal agencies, community groups, and others that may be impacted by the transmission development. *Id.*

The Joint NGOs assert that the Commission can play a leadership role in the siting process by urging the RTOs to consider siting issues early on when planning for transmission lines, and the Commission can facilitate needed conversations with state agencies and other groups. The Joint NGOs recommend the REAP acknowledge opportunities to preference existing rights of way when reasonable and integrate siting considerations into transmission planning processes. *Id*. at 17-18. Contrary to Staff's critique that this proposal is not within the scope of the REAP, integrating siting considerations into planning processes can lead to more effective transmission planning and reduce siting challenges, and thus fall within the scope of the REAP to advance transmission development in Illinois. *See* JNGOs Rep. at 8-9. While Staff argues statutes limits it from considering siting, Joint NGOs point out there are ways to consider siting that are not just in the statutorily mandated approval of transmission lines. *Id*. Moreover, Staff already consider siting issues for renewables when it comes to the REAP Zones by avoiding large natural lands that deserve protection, like Shawnee National Forest and areas along the Illinois river. *Id*. In response to CGA's comment that siting considerations cannot be practically integrated into the current planning process, Joint NGOs note that

MISO Tranche 1 integrated siting considerations by locating ninety percent of lines on existing or adjacent rights of way. *See* CGA Resp. at 46-46; JNGOs Rep. at 9.

The Joint NGOs agree with CGA that the headroom analysis should not play a major role in identifying REAP Zones for long-term transmission planning. *See* CGA Init. at 36-37, JNGOs Resp. at 7. The headroom analysis can be an important indicator for near-term planning, and the Commission should conduct the analysis if it will help the Commission and RTOs prioritize improvements in the interconnection process for resources that may be able to connect on existing transmission lines. *See* JNGOs Resp. at 7-8.

On the other hand, Joint NGOs disagree with CGA that the RTOs' interconnection queue data should be the primary factor for determining REAP Zones going forward. *See* CGA Init. at 52; JNGOs Resp. at 8. While important, the interconnection queue data is an imperfect fit for proactive planning. The interconnection queue represents where developers believe resources should connect because of costs or other business decisions, not where it would be best for the operation of the grid or for benefits to Illinois ratepayers. Project developers plan developments based on the current grid, not the future one. *See* JNGOs Resp. at 8. Thus, while the headroom analysis in the near-term and the interconnection queue can inform the identification of REAP Zones, the Commission should also consider additional factors, such as the location of fossil fuel plant closures and the potential for thermal or voltage violations on the wholesale transmission grid after their closure (*see* UCS Init. at 10), proximity to load centers, and location of environmentally sensitive lands. *See* JNGOs Resp. at 8.

The Joint NGOs agree with CGA that the REAP should use the 2040 RPS target in P.A. 102-0662 as the first key policy driver for developing initial Candidate Zones, informing advocacy on RTO long-term planning, and developing an initial candidate portfolio of REAP transmission lines. *See* CGA Init. at 42-43; JNGOs Resp. at 10. Next, the REAP should support the deadline set forth in P.A. 102-0662 to achieve a 100% carbon-free power sector by 2045. *Id*. This ordering of policy drivers will help guide and prioritize actions by the Commission in the REAP to meet the goals of P.A. 102-0662. *Id*.

The Joint NGOs concur with CGA that the REAP should request the RTOs to conduct a long-term transmission study. *See* JNGOs Resp. at 10. The REAP should request either that the RTOs use REAP Zones as inputs to a new study or incorporate the information in the REAP into current processes for transmission planning, such as MISO's LRTP or PJM's 15 Year Enhanced Master Plan. *See* CGA Init. at 57; JNGOs Resp. at 10. The Joint NGOs also support in principle the additional request of MISO and PJM to perform a JTIQ study and TMEP study to refine the candidate portfolio of REAP transmission lines, as CGA suggests. *See* CGA Init. at 59-61; JNGOs Resp. at 7.

The Joint NGOs also agree on the importance of a curtailment study; however, the Joint NGOs suggest the curtailment study considers an annual level of curtailment greater than 3%, especially as Illinois achieves a higher penetration of renewables. *See* CGA Init. at 60; JNGOs Resp. at 11. As the percentage of renewable generation increases, the Joint NGOs expect that the level of curtailment will increase, especially during periods when load is low, and renewables are generating at or near peak output. *See* JNGOs Resp. at 11.

Lastly, it is important to underscore that all of these studies must be part of more robust, forward-looking interregional planning. In place of these studies, the Commission can consider a broader interregional study that considers larger solutions that are beneficial under higher penetrations of renewables. *Id*. Such a study should consider transmission solutions that provide a variety of benefits, including the benefits of locational diversity and reliability during emergency events. *Id*.

The Joint NGOs agree with CGA that Staff should monitor trends in REAP Zones and policy or legal developments as part of preparing future REAP reports. *See* CGA Init. at 61-62; JNGOs Resp. at 11. The REAP should state that Staff will develop a plan to monitor Level 1 and 2 Zones for future REAP reports to meet the RPS target and subsequent key policy drivers. *Id*. The plan should monitor the topics outlined by CGA such as trends of increasing development, growth rate of installed capacity, and changes in state and local laws impacting siting. *Id*.

The Joint NGOs also agree with CGA that the SEDAC Solar Suitability Study does not appear to be informative to identifying REAP Zones at present. *See* CGA Init. at 62-63; JNGOs Resp. at 11-12. The information provided through SEDAC can be useful for identifying locations where renewable projects could be built. *See* JNGOs Resp. at 11. However, that information is too granular to substantively inform the development of REAP Zones. *Id*. The Joint NGOs recommend that the Commission does not rely on the SEDAC to identify or refine future REAP Zones, especially given limited resources and the many activities the Commission must undertake under Section 8-512 of the Act. *Id*. at 11-12.

The Joint NGOs disagree with CGA that community outreach is unnecessary in future REAP updates. *See* CGA Init. at 65; JNGOs Resp. at 12. Community outreach may be less specific to evaluating REAP Zones at this juncture, and thus may not be critical for the development of the first REAP report, because the REAP Zones are too preliminary. *See* JNGOs Resp. at 12. However, as the Commission gains more insight into REAP Zones and planning processes, and more details about where transmission lines may be sited, community groups will be able to provide valuable feedback. *Id*. Thus, as the Commission updates the REAP, it should evaluate whether outreach with communities, especially targeted outreach to communities impacted, would assist with the implementation and effectiveness of the REAP. *Id*. This will allow for the incorporation of equity and environmental justice considerations into future updates to REAP Zones as Illinois makes progress on P.A. 102-0662's emissions reductions goals. *Id*.

The Joint NGOs also recommend consulting with EJ communities, equity investment eligible communities, and representatives of people of color, low-income communities, and other marginalized groups before the next iteration of the plan to ensure these communities have opportunities to appropriately engage on the REAP. *Id*. It is best to involve communities early on in the process and allow them to help shape the plan, not respond to already written draft. *Id*.

9. LS Power's Position

LS Power agrees with ComEd that a survey must be conducted and provides recommendations with an emphasis on achieving near and long-term transmission

solutions; however, any such survey, or any report or recommendations should be developed in an open and transparent process that enables all interested parties to participate. LS Power RBOE at 21.

LS Power supports the directive for Staff to address reliability in EJ communities because such an undertaking clearly must be done to prevent costly and potentially deadly blackouts. It is essential that there be a comprehensive analysis of reliability issues, not only for EJ communities, but for all of Illinois. LS Power RBOE at 11.

10. Commission Analysis and Conclusion

Strategic Element 3 identifies opportunities to equitably manage land use in renewable development and coordination with transmission development. *See* REAP Strategic Element 3. The Commission adopts Strategic Element 3 of the Redlined Second Draft as amended by this Order. There are action items outlined under Strategic Element 3. Additional details regarding these action items are included in the REAP but are referenced more succinctly below.

The Commission acknowledges ComEd's and Ameren Illinois' obligations to process distribution and transmission interconnection requests in accordance with state and federal law, and in accordance with their tariffs. Therefore, the Commission finds that the REAP shall not and is not intended to conflict with, abridge, or otherwise undermine the state and federal legal or regulatory requirements of any public utility as defined in Section 3-105 of the Act.

In executing the directives of the REAP, the Commission emphasizes that meeting the RPS target by 2040 then achieving a 100% carbon-free power sector by 2045 should be the primary policy drivers as supported by CGA and the Joint NGOs. The Commission highlights that these policies are also the objectives of P.A. 102-0662, which this REAP proceeding is intended to support.

The Commission adopts the REAP Zone concepts. The Commission further adopts Staff's proposed Candidate Zones Levels 1 and 2 as the designated REAP Zones consistent with subsection 8-512(b)(1). The Commission encourages Staff and stakeholders to continue discussions regarding the refinement of REAP Zones taking into account the results of the headroom analysis and other relevant information. The Commission declines to discard the SEDAC Solar Suitability Study and the REAP's reliance on it at this time as proposed by the Joint NGOs and CGA. The Commission sees a benefit to this information but directs Staff to refine how it will be used going forward as suggested by CGA. The Commission agrees with CGA and the Joint NGOs that Staff should monitor Level 1 and Level 2 Zones for development trends and changes in state and local law to help gauge the success of the zones and inform Staff's assessments of what improvements should happen in future REAP discussions. The Commission acknowledges Staff's desire for additional precision and suggests that the Working Group forum will allow for stakeholder collaboration in fulfilling the objectives of this directive.

The Commission notes UCS and Vistra both make observations regarding the precision of the REAP Zones. The UCS points out the Second Draft's Figures 15 and 16 display the locations of equity and EJ communities along with fossil fuel plants that must

reduce and eliminate pollution emissions. The UCS requests the final REAP make clear the details displayed in Figure 16 by providing names, sizes, and locations of the plants and their schedule of emissions reduction requirements. UCS Init. at 13.

The Commission notes these figures use publicly available data from sources cited below the maps. The Commission encourages Staff to provide more granular data with the details displayed in the Figure 16 map to the extent feasible in future REAPs.

Vistra states that several of its sites appear to be excluded from Level 1 Zones and argues for the redrawing of the Zones to include said sites. CGA explains these plant sites do not need to be in a REAP Zone because: (1) those plants have access to transmission; (2) the change from a fossil fuel unit to a renewable or hybrid generator will require the RTO to analyze impacts on the transmission system and determine any needed network upgrades to encourage reliable interconnection; and (3) Vistra plants will have opportunities to be included in long-term planning analyses as existing generation in the transmission system. *See* CGA Response Comments at 32. CGA argues Vistra's plants are already accounted for in the current bottom-up transmission planning process as existing transmission because they are looking to come on-line well before the 2040 RPS target. *See id.,* at 33-34. CGA notes that Vistra's plants are in various stages of development so they are not the types of plants to include in the REAP Zones. *Id*. The Commission agrees with CGA and declines to adopt Vistra's proposals to change the REAP Zones.

While proximity to load was not taken into consideration in this REAP, the Commission notes information on how proximity to load can help to avoid congested nodes could helpfully inform future REAPs. The Commission encourages the Working Group to discuss the value of considering proximity to load in the refinement of future REAP Zones.

To address the impact of continued fossil fuel generation operation on EJ communities as the State moves towards its clean energy goals, the Commission directs Staff to address how power system reliability requirements can be met without excess operations of fossil generation and emissions at the plants closest to the EJ communities. Staff is further directed to address actions to enable the grid to avoid thermal overload of transmission, or voltage violations, that otherwise will cause the grid operators to authorize excess generation and emissions at the plants closest to the EJ communities in the next REAP proceeding. A study regarding Staff's findings should be filed in this docket no later than before the initiation of the next REAP docket, if feasible.

The Commission acknowledges Staff's concerns regarding resources to conduct the study on EJ community impacts of fossil fuel generation operation but encourages Staff to consider already available resources that may inform this study. The State has made substantial strides in EJ planning recently. For example, the Illinois EPA, IPA, IDNR, and the Environmental Justice Commission ("EJ Commission") are valuable State resources that may provide helpful input to this study. Staff should engage with other State agencies and utilize existing State resources to inform and develop this study. The Commission recognizes many stakeholders have resources and expertise on this subject. For example, UCS has already conducted a study related to "transmission system capability to operate without portions of the fossil fuel fleet" and "powerflow modeling of

the PJM system" considering P.A. 102-0662's directives. UCS Init. at 14-15. UCS claims its study provides modeling of the PJM system to illustrate the location and scale of transmission system needs as the State continues to work towards P.A. 102-0662 goals. *See id*. The Commission suggests that Staff collaborate with the Working Group to address this important aspect of the State's clean energy future. The Commission encourages UCS and other stakeholders with relevant information to participate in the Working Group, particularly on this issue. If, after conducting this outreach, Staff still does not have the information necessary to complete this study, the Commission directs Staff to make a filing proposing a feasible timeline for the completion of this study.

The Commission agrees with the Joint NGOs that the distribution-connected resources can have benefits and should be considered in the REAP process as other parties have pointed to in this proceeding. The Commission adopts Staff's language modified from the Joint NGOs' proposal integrating the consideration of distributed energy resources under the discussion of headroom analysis. The Joint NGOs suggest further consideration of HVDC lines, which Staff and CGA agree likely have value in the REAP process. The Commission encourages further discussion regarding HVDC lines and other transmission technologies in future REAP updates but declines to include the Joint NGOs' language at this time. The Commission's conclusions regarding grid enhancing technologies are included under Strategic Element 4.

The Commission adopts Staff's proposal that future iterations of Level 2 REAP Zones should include consultation with the Impact Assessment unit at the IDNR.

The Commission finds that the public's input is vital to creating an equitable clean energy future and rejects CGA's proposal that future REAP updates will not involve outreach to communities. Working with communities can provide valuable insight and help address community concerns early in the process before any problems become pressing. Community feedback will also help inform what policies or laws need to be reexamined or changed in furtherance of the REAP.

The Commission agrees with Joint NGOs and CGA that 55 ILCS 5/5-12020 reduces the need to create a model siting ordinance. Staff ultimately opposed the requirement for this reason and the Joint NGOs also objected to it in light of the Commission's limited resources. Therefore, the Commission instead directs any proposed model ordinance to be discussed amongst stakeholders in the Working Group process adopted above.

Similarly, Staff and the Joint NGOs objected to the directive that Staff review and refine its enforcement authority where necessary to effectively enforce standards for responsible renewable resource development, including requirements such as for decommissioning insurance and comprehensive drainage plans. In consideration of the other REAP directives, the Commission declines to require this specific review and certification.

Nonetheless, the Commission agrees with the Joint NGOs that identification of Illinois' state and local laws, rules, and policies may help effectively and efficiently build transmission and further the goals of the REAP. Staff also believes this is worthwhile but notes that it is not explicitly required. The Commission agrees with Staff that a survey of State laws, rules and policies is not required here. The Commission must balance Staff's

limited resources with the utility of creating a resource that would require frequent monitoring and updating to remain current. However, the Commission acknowledges stakeholders in the Working Group may be well positioned to collect the most up-to-date regulatory information. Accordingly, the Commission finds the review of applicable regulations in Illinois is best suited for potential discussion amongst the Working Group. The Commission notes the Working Group stakeholders may identify such regulations that impact transmission development for Working Group review and recommendations for potential changes necessary to accelerate development of additional transmission capacity.

The Commission agrees with CGA and the Joint NGOs and directs Staff to request a long-term transmission study at the RTOs using REAP Zone inputs and a curtailment study.

There are many proposals that the Commission declines to adopt here. While the Commission agrees with the Joint NGOs that understanding the transmission capacity needed is critical to developing the REAP, the Commission agrees with Staff that the RTOs are best suited to make these estimates. The Commission also declines to adopt the Joint NGOs proposal regarding transmission siting requirements and agrees with Staff that they are already set forth in the Act. The Commission rejects the CGA proposal for the interconnection queue to be the exclusive factor for determining REAP Zones because the interconnection queue data is an imperfect fit for proactive planning and does not represent all the factors relevant to the determination of REAP Zones. The Commission agrees with CGA and Staff that the REAP is not intended to incorporate or perform any distribution system planning nor is it intended to manage land use and siting standards for utility-scale renewable resources in Illinois.

Finally, Staff's Response recommends that language be inserted in the REAP in response to public comments. Based upon Staff's support, this language is included in the attached REAP.

E. Strategic Element 4: Effective Transmission Planning & Utilization

1. Staff's Position

Staff explains that in Strategic Element 4, Effective Transmission Planning and Utilization, Staff analyzes the existing processes for transmission planning and interconnections in both MISO and PJM, explains the need for these processes be reformed in order for Illinois to meet its decarbonization goals, and the foundation reform concepts to be utilized to achieve the necessary changes. Redlined Second Draft at 48-70. Based upon this analysis, Staff makes findings and recommends solutions.

Staff states that the development of the regional grid occurs through the RTO transmission planning and interconnection processes. These two processes have been slow to evolve and are not yet well aligned with Illinois' policy goals. Future pursuit of the transmission upgrades necessary to enable Illinois' policy goals under P.A. 102-0662, including any use of the REAP Zones described above, will require reforms and closer coordination with, and participation in, RTO processes. Redlined Second Draft at 48.

According to Staff, there are four foundational reform concepts that properly frame the analysis of existing interconnection queues and the transmission planning process:

(1) proactive transmission planning is more effective than the generation interconnection process to cost-effectively address the region's renewable generation needs;

(2) proactive planning has to incorporate policy goals and consider multiple value streams over a range of future scenarios to identify the most cost-effective, most beneficial grid solutions;

(3) grid-enhancing technologies can expand transmission beyond planning new wires and cost-effectively increase the headroom necessary to integrate renewable generation; and

(4) cost allocation has to be addressed for public policy and multi-driver transmission investments, particularly in PJM.

Id. Applying these reform concepts, Staff analyzed PJM's and MISO's interconnection processes in detail and determined generally that the pace of the RTOs' generation interconnection process is likely to permit Illinois to meet its renewable energy needs in the short term, but in the long term, the pace of interconnections may result in a short fall of needed renewable generation. *Id.* at 53-61. Staff further analyzed the MTEP, PJM's RTEP, and PJM's SAA. *Id.* at 61-67. Based on this analysis, Staff made findings regarding the RTO interconnection and transmission planning processes. *See* Redlined Second Draft at 67. Staff recommends the Commission adopt these findings as its own.

Based on these findings, and the comments of other parties, Staff make recommendations to improve the planning and interconnection processes in MISO and PJM to enhance the Commission's participation in those processes. Staff's recommendations provide a blueprint for immediate action and identify the need for possible legislative reform. Several of these recommendations relate to reform processes already underway at the RTOs and should be updated in future REAPs as these processes conclude. *Id.* Specifically, Staff recommend the Commission provide input on policy requirements and REAP Zones to MISO transmission planning studies, advocate for reform in PJM transmission planning processes to ensure that Illinois and all states can cost-effectively achieve decarbonization goals, advocate for interconnection reforms, pursue joint interconnection study, consider pursuing transmission development through PJM's SAA, look for opportunities to prioritize non-wires alternatives, continue to support competitive bidding for new transmission assets, and support an independent transmission monitor ("ITM"). Redlined Second Draft at 68-70.

Under Strategic Element 4, Effective Transmission Planning & Utilization, prior to the final paragraph in "Pace of Illinois Interconnection Queue Throughput" pertaining to discussion of FERC's Generator Interconnection NOPR, AEU recommends the addition of a paragraph regarding FERC's adoption of a final rule on interconnection reforms. Staff recommends against adopting this proposed paragraph. Staff explains that the Commission filed comments in support of FERC's NOPR on interconnection reforms in Docket No. RM22-14-000. Once a Final Rule is issued, the Commission may consider reforms to advocate for in further engagement with FERC on the issue and dependent upon the timing of the Final Rule and Commission approval of its REAP, such advocacy can be based on the REAP. Staff agrees that many of the reforms may be more

appropriately addressed through an improved regional transmission planning process. Staff Resp. at 10-11.

Under "POLICIES…" in Strategic Element 4, AEU recommends the addition of a sixth policy action pertaining to exploring opportunities for federal funding to support the REAP to add 4.F. Staff does not recommend including this paragraph in the REAP but appreciates the urgency of the timeline for much of this funding. Staff notes that both Ameren Illinois and ComEd have applied for grants, as has the state of Illinois through the Illinois Finance authority and that the Commission has been working as advisors for the Illinois Finance authority. Also, the utilities in Illinois file biannual reports with the Commission on their funding requests for Infrastructure Investment and Jobs Act and Inflation Reduction Act, which should inform stakeholders as to the level in which parties are exploring opportunities for federal funding to support the REAP. Staff Resp. 11.

In response to the Joint NGOs' recommendation that the REAP contain language requiring Staff to meet with MISO and PJM, Staff states that the Commission's designated Commissioner-representative to OMS and OPSI are currently active in both RTOs and, with Staff, regularly meet with their representatives. Staff anticipates the Commission-approved REAP will be a regular part of these conversations and/or collaborations. Examples of ongoing conversations with the RTOs are the biannual meetings on Winter Preparedness and Summer Preparedness hosted by the Commission. During these meetings, many of the issues at hand relating to resource adequacy and the transition to renewable energy are likely to be explored with both RTOs in a public forum, along with utility and consumer representatives. Staff Resp. at 24.

Staff opposes ELCON/REACT's language regarding coordinating with other state agencies and regional partners. Staff appreciates the importance of coordination with a variety of stakeholders but recommends against inclusion of these paragraphs because it is unnecessary. The Commission actively engages OMS and OPSI staff and their boards, and routinely joins in formal letters and comments related to transmission and other matters pending before FERC. Governor Pritzker is the 2023 Chair of the Midwest Governors Association and has focused his term on interregional transmission planning. Staff has and will continue to work with a range of other state agencies, including the IDNR which provided public comments on the Second Draft. As directed, Staff will continue to work with necessary and interested agencies to advance the aims of Section 8-512. In addition, beginning in 2025, the Illinois Environmental Protection Act requires collaboration between the IEPA, the IPA, and the Commission to jointly prepare a report that examines, inter alia, Illinois' progress toward its renewable energy resource development goals and the status of GHG emissions. Staff Resp. at 56-57.

With respect to the Joint NGOs' language regarding transmission siting, Staff states that transmission siting requirements are set forth in other sections of the Act. Section 8-512 does not in way vitiate these statutory requirements and the Joint NGOs' recommendations are not appropriate for the REAP. Staff Resp. at 27.

The UCS also recommends a host of changes at pages 25, 39-41 and 65 that would require the Commission to direct ComEd and Ameren Illinois to prepare transmission solutions through the Supplemental and Other categories. Staff strongly opposes the recommended changes to Strategic Elements 3 and 4 that would direct the

use of Supplemental and Other categories. While Staff sees merit in reporting to the Commission the progress of meetings with affected communities in transmission planning and appreciates the support for conducting a headroom analysis, Section 8-512 does not authorize the Commission to direct ComEd or Ameren Illinois to prepare and file a set of transmission solutions, presumably through the Supplemental and Other categories nor indeed does any other provision of the Act do so. The Commission recently filed joint comments with the New Jersey Board of Public Utilities highlighting the overuse of these project categories and the lack of cost oversight. Staff recommends, alternatively, pursuing other ways to have the RTOs run scenarios to meet need for the state's public policy requirements and objectives, which would be more efficiently pursued in concert with other states. The Commission has an obligation to ensure that goals are achieved in the most cost-effective, efficient, and beneficial manner. The Commission has a long history of supporting competition and holistic transmission planning processes to achieve all of those aims. Staff Resp. at 42-43.

With respect to ELCON/REACT's proposed language regarding minimizing costs to consumer, Staff states that the Second Draft focuses throughout on cost containment and reliability while in pursuit of P.A. 102-0662's clean energy goals, such as including a focus on grid-enhancing technologies and introducing skepticism of the Supplemental, Other, and State Agreement Approach categories of transmission planning and cost allocation. Staff recommends against including this proposed paragraph, as it is unnecessary and touches on cost allocation issues that are still in discussion in various forums. Staff Resp. at 55.

In its BOE, Staff objects to the requirement that it perform a study of grid enhancing technologies, arguing that its ambiguous, unduly burdensome, unfunded, and requires engineering expertise regarding transmission planning. Staff further notes that the North American Electric Reliability Corporation and its Regional Entities have been studying grid enhancing technologies and their impacts on the grid for some time and have yet to make a determinative study on whether they maximize efficiencies on the bulk electric system. Staff BOE at 22.

2. Ameren Illinois' Position

Ameren Illinois supports proactive transmission planning and has been working with MISO and other stakeholders to identify and address the future needs of the grid. Ameren Illinois believes MISO, in coordination with stakeholders, including Ameren Illinois, is doing a good job in this respect as evidenced by MISO's recent and ongoing LRTP efforts, as well as the efforts that went into its previous MVP Portfolio. AIC Rep. at 5.

Ameren Illinois explains the current initiative – LRTP – represents the largest and most complex transmission study effort in MISO's history and proposes a set of least-regrets transmission projects that will help to ensure a reliable, resilient, and cost-effective transmission system as the resource mix continues to change. Ameren Illinois was a key stakeholder in the development of this portfolio and, although it appreciates the challenges associated with large-scale transmission development, is looking forward to executing these projects, aimed at expanding and enhancing the transmission grid in a way that will unlock future benefits for renewable developers and Ameren Illinois'

customers alike. Ameren Illinois explains that these efforts are aligned with the REAP's goals of helping to enable more renewable generation to connect to the grid in a timely and cost-effective way. Ameren Illinois encourages the Commission and its Staff to continue to work with MISO (its other member Transmission Owners), renewable developers, and other interested stakeholders in the development of future LRTP phases (referred to by MISO as "Tranches") to incorporate the REAP's findings and to make clear the public policy preferences of the State. AIC Rep. at 6.

Ameren Illinois explains while the Tranche 1 projects are substantial, MISO's long-term planning effort has not concluded. MISO, in conjunction with Ameren Illinois, other MISO Transmission Owners, renewable developers, and other industry stakeholders, is continuing its proactive planning to better understand and address additional Futures scenarios. Ameren Illinois explained that it expects that MISO will identify and recommend additional projects to account for and help mitigate these future state conditions. AIC Rep. at 8.

Ameren Illinois explains the next tranche – Tranche 2 – will focus on the same general geographic regions as Tranche 1, including Illinois. Although final projects and system upgrades have not yet been identified and approved, Ameren Illinois believes it is highly likely Tranche 2 will identify additional transmission projects in downstate Illinois. And like with Tranche 1, Tranche 2 investment will carry with it substantial benefits, not the least of which is the ability of the portfolio to aid in the cost-effective interconnection of generation. AIC Rep. at 8-9.

Ameren Illinois encourages the Commission, Staff, and other stakeholders to stay involved in the development of these Tranche 2 projects. As noted by CGA, "the Reap Zones [and Ameren Illinois would argue the broader REAP itself] can be used to inform Tranche #2 of the LRTP". CGA Init. at 50. CGA further recommends the Commission "request that LRTP Tranche #2 incorporate the REAP Zones and their targeted capacities into its analysis" which should not require MISO to adjust its resource expansion numbers forecasted for Illinois, just the location of capacity equal to what is approved in this REAP Report." *Id.* Regardless of its specific use case, Ameren Illinois agrees that the REAP can (assuming the initial version is concluded in a timely manner) be used to help shape the discussions around LRTP Tranche 2. AIC Rep. at 9.

Departing from LRTP and focusing on transmission planning more generally, Ameren Illinois recognizes there is room for improvement with integration of renewable generation projects in the RTO processes and in coordination between the RTOs. But Ameren Illinois also points out that MISO is having some success in getting generation under interconnection contract (typically Generation Interconnection Agreements ("GIAs")) and connected to the grid. AIC Rep. at 5.

Ameren Illinois explains it is working with the renewable developers in MISO to bring projects online and to create efficiencies between Ameren Illinois' project portfolio and these renewable integration efforts. Ameren Illinois points out in looking at the 2016-2019 MISO Queue Cycles, of the 86 Illinois projects originally in those queue cycles, 56 projects – representing over 9,800 MW – have GIAs or provisional GIAs that have been executed or that, at the time Ameren Illinois filed comments, were actively under

negotiation. *Id.* Ameren Illinois expects these numbers to increase as later queue cycles continue to progress through MISO's processes. AIC Rep. at 5.

Ameren Illinois recognizes there is still work to do, but it wants to be clear that it has been improving and investing in the transmission grid in Illinois. It intends to continue to invest in that grid going forward. AIC Rep. at 5.

Ameren Illinois explains that any accusation that it isn't actively and deliberately investing in the transmission system in Illinois is incorrect. Ameren Illinois points to the Illinois transmission capital budgets for both Ameren Illinois and Ameren Transmission Company of Illinois ("ATXI") dating back to 2017. Ameren Illinois states that as is apparent, the amount of transmission investment by these entities has been, and remains, substantial – ranging from just over $400M in 2019 to nearly $700M in 2020 and 2022. Ameren Illinois states that it expects these numbers to rise in coming years as Ameren Illinois and ATXI commence work on the MISO LRTP portfolio as it continues to invest in non-LRTP-driven projects and initiatives. AIC Rep. at 4-5.

Ameren Illinois explains that the suggestion that the Commission open investigations with both Ameren Illinois and ComEd is not warranted at this time. A final REAP has not yet been adopted and it is unclear what will ultimately be contained in the adopted version. Ameren Illinois (and MISO for that matter) have shown a substantial commitment in recent years to investing in the transmission system and to working with developers to get their projects online. Ameren Illinois explained the LRTP represents the next step in the evolution of transmission development in the MISO region of Illinois. Ameren Illinois recommended that stakeholders continue to monitor the development of that portfolio and, to the extent they would like to influence the outcome of future projects, to work with MISO and the broader stakeholder community to provide input with respect to LRTP Tranche 2 and to incorporate the findings and recommendations of the REAP that is ultimately adopted. AIC Rep. at 9-10.

With respect to the ITM, Ameren Illinois maintains that it is premature to conclude that one is needed or that any findings to that effect should be included in the REAP. AIC Rep. at 3.

With respect to competitive bidding, Ameren Illinois urges the Commission to not be too quick to conclude that the competitive transmission process is in fact producing value for customer. Ameren Illinois urges the RTOs to continue to evaluate their practices and provide increased transparency into competitive solicitations and data should those solicitations continue to exist. AIC Rep. at 3.

3. ComEd's Position

ComEd supports forward-looking, long-term transmission planning using scenario-based methodologies and incorporating consideration of public policy like P.A. 102-0662 decarbonization goals. Incorporating such an approach into PJM's RTEP should benefit the PJM region and facilitate cost effective and timely achievement of P.A. 102-0662 goals. ComEd notes that existing regional and local transmission planning processes offer benefits to transmission customers, include options for incorporating public policy into planning, and are proven to maintain reliability. ComEd also generally supports FERC's proposed transmission planning and recently-finalized interconnection procedure

reform being addressed in ongoing FERC rulemaking dockets, which ComEd states are meant to complement, rather than replace existing planning processes. While ComEd supports forward-looking, long-term transmission planning, it advocates for the use of robust and thorough data and analyses and cautions against the REAP basing expectations upon incomplete studies, such as the PJM Offshore Wind Transmission Study Group Phase 1 results, which purport very substantial cost savings from proactive transmission planning, yet fail to identify where any transmission expansion would be physically located despite the fact that costs could vary based on location. ComEd Init. at 2, 9-10.

ComEd states that its primary concern with the REAP is the proposed approach toward long-term transmission planning. ComEd Rep. at 3. Specifically, ComEd notes that the REAP fails to appropriately distinguish between solutions that are aimed at resolving needs identified in long-term transmission planning exercises and technologies that may bring benefits during real-time operations but that are not appropriate for consideration in the long-term planning context. *Id*. In addition, ComEd notes that the REAP should seek to leverage all existing processes, including the Supplemental Projects approach, in order to meet the statutory requirements set forth in Section 8-512. 220 ILCS 5/8-512(b); ComEd Rep. at 3-4. ComEd also states that the REAP should not attempt to impose a requirement for use of competitive bidding for new transmission assets. ComEd Resp. at 3-4; ComEd Rep. at 5.

ComEd asserts that the REAP should not inappropriately rely on grid enhancing technologies for purposes of achieving long-term transmission goals, and ComEd states that each such technology should be treated as distinct, with different benefits it can deliver, cost of implementation, and technology readiness levels, and that each should not necessarily be viewed as a system planning tool. Further, each grid enhancing technology deployment opportunity is unique and blanket conclusions about appropriate applications are unwarranted. ComEd proposes redlines to the Second Draft REAP Report acknowledging that utilities currently consider grid enhancing technologies and implement these devices or methods where appropriate in their transmission planning solutions. ComEd also suggests that its redlines ensure that the REAP does not place any significant long-term transmission planning emphasis on grid enhancing technologies that are appropriately considered for their use as tools to improve real-time operations, such as dynamic line ratings and topology optimization. ComEd Init. at 8-9; ComEd Rep. at 4-5.

ComEd states that precluding PJM Supplemental Projects from the REAP, as suggested by Staff, would be detrimental to the REAP and Illinois' policy goals. ComEd notes that if the REAP shuns Supplemental Projects at the outset, Illinois may lose the opportunity to leverage more immediate beneficial and cost-effective transmission solutions, decreasing the likelihood that Illinois' transmission assets begin taking appropriate shape in time to support the renewable resources required to fulfill P.A. 102-0662 goals. ComEd understands that Staff and other parties critical of the Supplemental Projects approach argue a lack of oversight and cost-control over Supplemental Projects, but ComEd points out that Supplemental Projects are planned according to a transparent process that provides for stakeholder input, and that the scope and recovery of their costs through rates are subject to review at – and may be disallowed by – FERC. ComEd's

proposed redlines to the Second Draft REAP Report to further clarify the Supplemental Projects approach considering these points and how Supplemental Projects are incorporated into the PJM planning process, and ComEd urges the Commission to revise the REAP to acknowledge the value that Supplemental Projects can provide toward achieving P.A. 102-0662 goals. ComEd Rep. at 3-6.

ComEd states that Staff and intervenor arguments for the REAP to require or embrace competitive bidding for new transmission assets must be rejected as outside the scope or outside the authority of the REAP since the Commission must not engage directly in transmission planning. ComEd also disagrees with ELCON/REACT that competition promotes price transparency and least cost options, and ComEd states that empirical evidence shows that the competitive transmission planning structure established in PJM pursuant to FERC's Order No. 1000 has provided no such benefits. Rather, ComEd argues that the competitive transmission planning structure in PJM stymies critical collaboration among stakeholders, fails to reduce and may, in fact, increase costs and risks (including but not limited to administrative costs, dispute resolution costs, and risk of ex post opportunism associated with contract execution such as exemption from cost caps), and results in an approach to transmission investment that is inefficient and does not yield benefits when compared to the traditional regulatory framework. ComEd points out that it is inappropriate to assume that competitive bidding for new transmission assets will result in benefits because competitive generation resulted in benefits in Illinois or other states after deregulation. ComEd notes that competitive transmission planning does not hold the same promise as market competition for electric generation because, as ELCON/REACT commented, "whereas generation choices are arguably straightforward, transmission development is complicated with sophisticated modeling, assumptions, forecasting, and engineering." ComEd Resp.at 3-4 (*quoting* ELCON/REACT Init. at 17); ComEd Rep. at 5-6.

ComEd does not believe that implementation of an ITM would lead to beneficial outcomes and would instead result in the ITM performing functions duplicative of regulatory agencies, RTOs, and transmission owners ("TOs"). Further, ComEd notes that both regional transmission planning and the establishment of an ITM are outside the Commission's jurisdiction, are not to be decided in this proceeding, and should not be included in the REAP. ComEd Resp. at 4-5.

4. ITC Midwest's Position

ITC Midwest notes that it is fully committed to providing reliable transmission that is affordable for its customers. While ITC Midwest believes the sentiment found in comments that the transmission development needed to facilitate the clean energy transition must be timely and cost-effective is appropriate, these objectives can and should be achieved in different ways than those suggested by some parties. For example, ITC Midwest takes issue with ELCON/REACT's comments that advocate for the Commission to "explore ways in which competition can promote price transparency and least cost options". ELCON/REACT Init. at 7. ITC Midwest observes that, by its own admission, ELCON/REACT state that the success of FERC Order 1000 competition has been mixed, which is putting it nicely. ITC Midwest suggests that time is of the essence when it comes to the transmission development needed to facilitate the clean energy transition and sustain the continued electrification of our economy. Unfortunately,

competitive solicitations for large-scale transmission buildout are not feasible at this time, as the time delays associated with conducting solicitations similarly delay the reliability and economic benefits the projects provide end-use customers. ITC Midwest explains that these delays are only exacerbated when large-scale regional transmission investment is needed, which requires RTOs to conduct multiple solicitations for a regional transmission plan. This is evidenced by MISO needing to stagger its solicitations for the LRTP Tranche 1 projects, as most of the LRTP Tranche 1 projects subject to competition are still in the developer selection process, yet development of the portions assigned to incumbents is already underway. ITC Resp. at 4-5.

Additionally, ITC Midwest notes that it should not go unnoticed that MISO LRTP Tranche 1—a robust, impactful regional portfolio of transmission—occurred in the northern region of MISO where the majority of states provide a right of first refusal to incumbent utilities. ITC Midwest explains that MISO stakeholders are now discussing LRTP Tranche 2, which is also focused on MISO's northern region. ITC Midwest concludes that regional transmission planning works best in the collaborative environment right of first refusals cultivate. ITC Resp. at 2-3.

Lastly, ITC Midwest notes that calls for an ITM are unwarranted and unfounded. The existing transmission planning and formula ratemaking processes provide ample opportunities for stakeholder review and input. An ITM would simply be an additional hurdle, imposing costly administrative burdens on all parties involved without demonstrated benefit and duplicating functions already undertaken by the RTOs. ITC Midwest warns that adding layers of costly and unnecessary oversight to an already time-pressed process antagonizes the premise that these projects are desperately needed to carry out the State's ambitious goals. ITC Resp. at 5.

ITC Midwest supports the recommendation in the Second Draft that the Commission pursue a joint interconnection study to address the MISO-PJM seam and further recommends that the way in which the MISO-Southwest Power Pool ("SPP") seam was addressed should serve as a model. Second Draft at 65. Specifically, ITC Midwest recommends that the REAP should encourage the Commission to advocate for planning to occur within PJM on terms similar to the MISO LRTP and MVP planning processes as well as MISO's cost allocation methodology. ITC Midwest also would like the REAP to note that the Joint Targeted Interconnection Queue effort by MISO and the SPP to identify network upgrades along the MISO-SPP seam to enable new generator interconnections should serve as a model to address transmission needs at the MISO-PJM seam through the lens of proactively addressing constraints which limit generator interconnections. ITC Midwest notes that Staff does not object to the inclusion of either of these recommendations and recognizes that these revisions tie in to other points made in the REAP. *See* Staff Resp. at 48-49; ITC Midwest Rep. at 4.

5. ELCON/REACT's Position

ELCON/REACT advocate for four additions to Strategic Element 4 of the REAP. First, ELCON/REACT request that the REAP be revised to establish a comprehensive plan for regulatory coordination by including a plan for regulatory coordination of regional parties and a plan for coordination between State agencies in Section IV.D. They note that Staff identified that the Commission currently coordinates with various regional

parties, the Governor will be focusing on interregional transmission planning during his term as Chair of the Midwestern Governors Association, and the Clean Grid Alliance asserts that the proposed language regarding the Commission's role in coordinating with Regional Parties and State Agencies "is not needed." *See* Staff Resp. at 56-57; CGA Resp. at 34. However, ELCON/REACT request that the language be included not as a replacement of current and proposed engagements, but as an opportunity to elevate the Commission's role from a participant in these engagements to a that of a coordinator and advocate for energy reliability and cost-effectiveness in Illinois. ELCON/REACT Rep. at 9-10.

Second, ELCON/REACT recommend that Section IV.D of the REAP be revised to prioritize the transmission-related options that are evaluated by policymakers. They modified the originally proposed language for non-wires alternatives, maximization usage of existing transmission facilities, utilization of existing rights-of-way, and new transmission assets to address comments made by Staff regarding the limited ability of the Commission to make decisions related to transmission planning. Staff and other parties recognized the merit of ELCON's and REACT's recommendations that the REAP include alternative approaches to increasing transmission capacity in Illinois. *See* Staff Resp. at 57; Vistra Resp. at 4; ELCON/REACT Rep. at 12-14.

ELCON/REACT note that the REAP can and should serve as a platform to identify to policymakers any statutory constraints that hinder the state's ability to meet the specific goals of the RPS and the overarching goals of reliable, safe, affordable, and equitable utility service for consumers. The stated intent of the proposed language was to ensure that the REAP recommends that policymakers consider all options that hold the potential to cost-effectively increase transmission capacity within Illinois. ELCON/REACT Rep. at 14.

Third, ELCON/REACT recommend that the REAP prioritize transparency and adopt specific cost-control mechanisms. Staff agreed with the concepts and proposed revised language regarding continued support for competitive bidding for new transmission assets and support for an ITM, which ELCON/REACT support, to be included Recommendations in Section IV.D. ELCON/REACT note that ITC Midwest and ComEd assert that calls for an ITM are "unwarranted and unfounded" and that doing so would simply be costly "red tape," that would duplicate functions already undertaken by the RTOs. ITC Midwest Resp. at 5; ComEd Resp. at 4-5. ELCON/REACT observe that from a customer perspective there is a gap in the transmission construction and ratemaking processes and a very real risk that transmission projects will experience unjustified cost overruns that will simply be passed through to customers without appropriate regulatory oversight. ELCON/REACT explain that entities like the independent market monitors have provided high value to market participants and consumers by simply observing market operations and providing recommendations intended to improve transparency, competitiveness, and market efficiency. ELCON/REACT Rep. at 15-18.

Fourth, ELCON/REACT recommend that the REAP prioritize consumer participation by including its recommendation to encourage and facilitate consumer participation in the transition in Section IV.D. ELCON/REACT note that Staff stated that it generally supports efforts to "engage customers in the consideration of solutions to

resource adequacy and transmission planning needs" but also stated that customer-owned resources are not the focus of Section 8-512 and recommended against the inclusion of the proposed language. Staff Resp. at 59. While Staff objected to this proposed language, it expressed support elsewhere in its Response to "exploring non-wires alternatives to transmission assets" and the inclusion of language in the REAP that would support the inclusion of the concept. Staff Resp. at 57. ELCON/REACT request that the proposed language be included in the REAP to ensure that a range of non-wires alternatives are considered in the planning process. ELCON/REACT Rep. at 18-19.

6. IPA's Position

The IPA adds Illinois-specific context to the importance of the interconnection process for accelerating the deployment of renewable energy sources. The IPA has direct experience with the implications of transmission constraints and the interconnection process for new renewable energy resources and the State's clean energy goals, and generally agrees that addressing interconnection delays will alleviate some barriers to developing new renewable energy resources. The IPA facilitates competitive procurement events to procure RECs from utility-scale wind and solar projects to implement Illinois' RPS. The IPA states that there is anecdotal evidence that the risk associated with PJM's pause in interconnection application processing may have played a role in decreased participation. Additionally, interconnection delays negatively impact the date of project energization, which negatively impacts the future delivery of RECs, thus slowing Illinois' progress toward clean energy goals. IPA Resp. at 7-8.

Upon review of the Indexed REC procurement program in January 2023, the IPA issued an Indexed REC Procurement Request for Stakeholder Feedback. This request sought stakeholders' input on structural barriers that impacted participation in the IPA's Spring 2022 and Fall 2022 Indexed REC Procurement events. The IPA also sought feedback on measures to increase participation in future Indexed REC Procurement events. Feedback from stakeholders noted that current transmission infrastructure and interconnection delays create uncertainty in the timing of commercialization for renewable energy projects, resulting in project risk that may hinder participation in the Indexed REC procurement events. IPA Resp. at 9.

An April 2023 Lawrence Berkeley National Laboratory study analyzing interconnection queues across the United States found that developer interest in solar, storage, and wind energy resources is strong, but project completion rates are low. The study found interconnection wait times have increased in recent years, with the typical project built in 2022 queuing for five years. *Queued Up: Characteristics of Power Plants Seeking Transmission Interconnection as of the End of 2022*, Lawrence Berkeley National Laboratory, Joseph Rand, Rose Strauss, Will Gorman, Joachim Seel, Julie Mulvaney Kemp, Seongeun Jeong, Ryan Wiser (Apr. 2023) at 2-3. The study also found that only 21% of projects that requested interconnection from 2000-2017 reached commercial operations by the end of 2022. IPA Resp. at 10.

Given these significant delays in interconnection queues within PJM and MISO, the IPA supports the REAP addressing interconnection delays that hinder project development and may prevent Illinois from meeting its clean energy goals under P.A. 102-0662. IPA Resp. at 10.

The IPA notes that AEU encourages Illinois to leverage proactive planning processes that encourage local governments, communities, transmission owners/operators, utilities, agencies, and other relevant entities to collaborate and seek federal funding from programs such as the Infrastructure Investment and Jobs Act and the Inflation Reduction Act. The IPA is generally in favor of leveraging newly available federal resources to support building out existing electric grid infrastructure and interconnecting new renewable energy resources. IPA Resp. at 11.

7. UCS's Position

The UCS notes that the Second Draft describes in this section the greatest gaps and obstacles to Illinois meeting the requirements of P.A. 102-0662. Particularly in the portion of the Illinois power system planned and operated by PJM, the Second Draft has provided the Commission with suggestions for advocacy but no actions for a final plan. The "Foundational Reform Concepts" section correctly defines the challenge. The Second Draft uses the word "proactive" sixteen times in this section to describe the planning and investments that Illinois needs but makes no recommendations to initiate these activities. The Second REAP in this section acknowledges that the advocacy for reforms recommended in this and other sections will be inadequate, even if adopted, to meet the P.A. 102-0662 requirements. UCS Init. at 22-23.

In this section, where the Second Draft's analysis, conclusions, and recommendations address actions for the transmission system needed for both adding new renewable energy and reducing the emissions from existing power plants, the Draft REAP is inappropriately passive and fails to meet the statutory obligations established in P.A. 102-0662. UCS Init. 23. The UCS recommends that the Commission rework the analyses, conclusions, and recommendations regarding the initiation of planning and funding new transmission by recognizing the authority in Section 8-512 of the Act. The final REAP should reject the suggestion that the Commission is unable to approve investment in the transmission system unless Illinois law has made reference to provisions in the tariffs and manuals of private organizations MISO and PJM. The Second Draft has expressed that only one mechanism in the PJM rules, the SAA, is available for transmission expansion needed to comply with P.A. 102-0662 in the ComEd area of Illinois. The UCS avers that this is simply incorrect. The Supplemental category in PJM, and the "Other" category in MISO, of transmission projects planned under the direction of the utility and the Commission, are supported and integrated into the PJM and MISO systems, respectively. UCS Init. at 23-24.

The Supplemental Projects approach in PJM allows ComEd to propose, and move through PJM review and planning integration, the new transmission that serves needs ComEd must support. The MISO mechanism for local transmission investments presented by Ameren Illinois is named "Other." The UCS states that this approach is already established and has been used repeatedly by ComEd, Ameren Illinois, and other transmission owners. With these supplemental mechanisms, Illinois can use state authority over the local utilities, and apply a variety of EJ considerations through coordination with the allocation of funds provided by P.A. 102-0662 and siting decisions. Illinois can aim at fixing the gaps in the supply, keeping the transmission system needs moderate, and include local communities in the discussion and decision-making. UCS Init. at 25-26.

The UCS states that the Second Draft appropriately identified that interconnection processes are one of several immediate barriers to achievement of Illinois' P.A. 102-0662 mandates, particularly for resources seeking development in PJM. The Second Draft further states that, "[t]hough there are opportunities for reform over the medium and long term, PJM queue delays are likely to limit the ability to rapidly deploy resources for Illinois and other PJM states' needs." Second Draft at 64. However, the Second Draft does not provide the Commission with recommendations that Illinois can implement to meet the obligations of P.A. 102-0662. Because there are no suggested actions for the Commission other than advocacy with the private RTOs and their corporate members, the conclusions and recommendations are insufficient for the Commission to use in the final REAP. UCS Init. at 26.

The UCS observes that the recommendations regarding the Effective Transmission Planning & Utilization, and the "Foundational Reform Concepts" all rely on the adoption of reforms by entities outside the jurisdiction of the Commission. This is an insufficient plan which will not provide Illinois with the means to meet either the requirement for new clean energy supply or the demand for emissions reductions written into P.A. 102-0662. The conclusions in the Second Draft that put the Commission in this bind are incorrect. Both the legislative authority and existing RTO mechanisms are in place already. P.A. 102-0662 directs the Commission "to achieve transmission capacity necessary," to "create new investment," and "consider programs, policies, and electric transmission projects that can be adopted within this State." 220 ILCS 5/8-512. The PJM and MISO planning processes provide for state-directed actions by the transmission owners to introduce and build transmission required by regulatory directives. The final REAP should adopt the "Foundational Reform Concepts" in this section and direct the transmission owners to file proposals for transmission expansion that will accelerate the interconnection of renewable energy in Illinois and advance the decarbonization of the power supply by addressing voltage and stability limits that result from closing existing fossil plants. The final Order in this docket should also direct ComEd and Ameren Illinois to perform joint transmission planning to identify efficiencies and reliability enhancements from transmission that connects across their seams and lowers the cost of interconnecting additional new generation. UCS Init. at 26-27.

With this use of existing authority in Illinois supervision of ComEd and Ameren Illinois, and the RTOs' provision for locally planned transmission, the Commission can pursue a more holistic approach to planning transmission for P.A. 102-0662 requirements. Unlike the RTOs' responses to plant retirements, the Commission should direct ComEd and Ameren Illinois to develop transmission packages that accommodate both plant closings in advance of the closing requirement and provide for additional generation interconnection. The Commission should initiate this with the order on the final REAP, requiring initial meetings with affected communities, Staff, and the RTOs prior to the preparation and submittal of draft plans in the next REAP cycle. UCS Init. at 27.

The UCS suggests changes to the Second Draft that involve the transmission owners in preparing transmission solutions to enable the development of new renewable energy and prepare for the likely closure of fossil-fired generation attached to their transmission systems. The UCS explains that it made this recommendation because of the gaps and delays that exist if Illinois relies solely on the existing practices of the RTOs

to meet these requirements. The Second Draft makes clear the need for proactive planning for cost-effective and timely additions of renewable generation. The UCS's suggested edits to the Second Draft illustrate similar proactive planning will be needed to complete the reduction in fossil plant emissions required by P.A. 102-0662. Illinois can make use of workshops, technical conferences, or administrative proceedings to inform the Commission and the public regarding the several options available for the transmission owners and affected communities to participate in transmission planning. Regardless of regulatory format, the Commission should make clear in its Order that the transmission owners are expected to file a set of transmission solutions at the beginning of the next REAP cycle designed to: (1) enable a significant amount of clean energy generation already in the interconnection queues to be safely added to the bulk power system; and (2) enable retirements of fossil-fired generation in their service territories. The UCS urges the Commission to order the transmission owners to make quarterly reports to the Commission on progress of meetings with affected communities on the creation of plans that anticipate and prepare for plant closing notifications. UCS Resp. at 3.

To support the numerous Second Draft recommendations for Staff to engage with the RTOs, the UCS offers suggestions for the necessary preparation and commitment of Staff time related to the transmission expansion planning. The RTOs have numerous transmission-related meetings, but the subset of meetings that have a practical role for Illinois infrastructure can be discerned and specifically included in Commission directions to Staff and the transmission owners. UCS Resp. at 4-5.

The UCS urges the Commission to direct Staff to meet quarterly with ComEd and Ameren Illinois in advance of these key substantive meetings regarding transmission upgrades of the scale and scope necessary for Illinois' clean energy transition. The Supplemental and Other projects introduced by the transmission owners in their respective RTOs are, by definition, "locally planned transmission" serving the purpose of meeting state-directed objectives, among others. UCS Resp. at 5.

8. CGA's Position

CGA argues that the REAP improperly characterizes MISO's Other Projects as being the "one minor exception" to cost allocation for public policy projects. MISO can allocate costs of public policy projects that qualify as MVPs. In addition, CGA suggests adding a sentence consistent with Section 8-512's intent to reduce or minimize the over-all cost of planned transmission infrastructure. CGA Init. 70-71.

The "Pace of Illinois Interconnection Queue Throughput" section of the REAP states the following:

> In addition to or in the absence of FERC reform, PJM and MISO could emulate the MISO-SPP JTIQ process, which sought to "address the significant transmission limitations restricting the opportunity to interconnect new generating resources near the MISO-SPP seam."

Second Draft at 55-56. CGA recommends the REAP affirmatively advocate for MISO and PJM to initiate a JTIQ process or one similar to it. In addition, CGA's edits identify some of the key components of the JTIQ process. CGA Init. at 71.

CGA argues that PJM's interconnection queue is suffering from a lack of long-term transmission planning. Supplementing its bottom-up analyses with a long-term top-down form of transmission planning with broad cost allocation would reduce, if not alleviate queue backlog issues in PJM. Also, CGA suggests that future REAP reports should report on the status of PJM's cluster processing of interconnection. The REAP states that PJM's newly proposed approach of evaluating generation interconnection applications in clusters introduces a high degree of uncertainty. The REAP, therefore, finds that it would be premature to provide specific recommendation on PJM's cluster processing of generation interconnection requests and recommends not identifying any specific changes or improvements at this time. CGA's edits are mostly consistent with this view but add language stating that future REAP reports provide updates on the status of PJM's cluster review process. This process should be actively monitored and reported upon, and not monitored behind the scenes and only addressed when a recommendation is to be made. CGA Init. at 72-73.

CGA recommends adding a new section to the REAP that addresses improvements to MISO-PJM coordination. This new section would focus on three studies and cost allocation. CGA recommends the REAP support:

1. PJM and MISO performing an Illinois-specific seams study focused on reliability and improving the economics of the wholesale market;

2. a PJM-MISO inter-regional study focused on solving transmission issues driven by the interconnection queue as part of interconnection queue affected systems studies; and

3. a JTIQ similar study in coordination with the long-term planning analysis of the REAP Zones to refine or iterate transmission line solutions identified in the long-term planning analysis.

Finally, Illinois should encourage MISO and PJM to work on a cost allocation methodology for inter-regional transmission lines that benefit Illinois and its neighboring states. The SAA will hinder Illinois' ability to effectively attain its decarbonization goals in the 2040s. CGA foresees MISOs long-term transmission planning policy will allow transmission to be built in its footprint that is beneficial to Illinois' key public policy goals, but the SAA is impeding similar lines from ComEd's territory into Indiana and Michigan. Developing a shared cost for economic lines driven by seams studies would increase the likelihood of lines in Northern Illinois being built in the PJM footprint that benefit Illinois' decarbonization policies. CGA Init. at 74-75.

CGA notes that AEU proposes a finding that would have the Commission, through the MYIGP process, encourage utilities to work with RTOs and take steps to encourage adoption and grid beneficial operation of distributed energy resources. Staff states that these topics are outside the scope of the REAP. CGA primarily agrees with Staff but notes that MYIGP issues may arise that affect RTO transmission expansion planning or RTO transmission system policies, and if they do, they should be specifically identified

and considered for inclusion in subsequent REAPs. RTO transmission expansion planning does account for distributed generation and distributed energy resources as inputs to transmission expansion planning. In addition, the increase in energy on the distribution grid is affecting the typical delivery of energy from the bulk electric system to customers interconnected to the distribution system. Therefore, as specific issues on the distribution system arise that RTO transmission expansion planning or RTO transmission system policies, they should be considered for inclusion in subsequent REAP Plans. CGA Rep. at 6-7.

CGA notes that the UCS proposes that the REAP direct Staff and the Illinois utilities to coordinate with PJM and MISO on the planning of transmission that ensures system reliability in advance of fossil fuel plant closures pursuant to Illinois. CGA supports the UCS's proposal and proposes a few minor changes for the UCS's consideration and Commission approval. The UCS's proposal on this point includes proposed language reflected in Strategic Elements 2, 3, and 4 of the Second Draft REAP Plan because they are all related to the same proposal. CGA Resp. at 10.

9. Vistra's Position

Vistra agrees with ELCON/REACT that building new transmission lines is expensive and time-consuming, partly due to the challenges of siting, permitting, and routing these facilities. ELCON/REACT points out that using existing rights-of-way to upgrade existing infrastructure or build new facilities in the footprint of existing or retired transmission facilities eliminates many of the difficulties involved in siting and permitting new facilities. Further, there may be less resistance from local communities and the local public, since the rights-of-way used by existing or now-retired transmission facilities has already been set aside for that use, and there may be less need for environmental impact studies (or such studies can be less extensive) since impacts may already have been taken into account when the original infrastructure was built. The REAP should endorse the utilization of existing transmission rights-of-way to install new or additional transmission that may be needed to facilitate the interconnection, transport, and delivery of energy from new renewable energy generation facilities. Vistra Resp. at 4.

10. Joint NGOs' Position

The Joint NGOs recommend the Commission regularly meet with both RTOs to cover the progress toward policies detailed in the REAP and host public sessions on such progress. The Joint NGOs point out that much of the work Staff lays out in the Draft REAP is working at the RTOs. To ensure that progress towards these goals is made, the Joint NGOs recommend Staff meetings with the RTOs monthly and with the public quarterly to address how the RTOs are helping the state comply with its goals and helping meet the clean energy transformation envisioned in P.A. 102-0662. In response to Staff's argument that Staff already meets with the RTOs, the Joint NGOs point out that there is no process that is meant to directly address how the RTOs are working with Illinois to meet its goals. The Joint NGOs also explain these meetings do not include Illinois stakeholders that for various reasons may not engage at the RTOs. Further, because of concerns about pace of progress to meet the goals of the REAP, Joint NGOs recommend that the REAP require an evaluation of the work at the RTOs at the end of 2024 to see if new approaches are needed. JNGOs Init. at 9-12; JNGOs Rep. at 9-10.

The Joint NGOs agree with CGA that the Commission should identify and address issues on the MISO-PJM seam that limit the interconnection of new resources. This can take the form of the three joint PJM-MISO studies CGA identifies. JNGOs Init. at 10-11.

The Joint NGOs support these kinds of study efforts, but Joint NGOs encourage the Commission to consider how the studies can be consolidated, given the limited resources and the many activities the Commission must undertake under Section 8-512 of the Act. In addition, the REAP should acknowledge that the goal of the JTIQ study should be at least in part, to assist PJM and MISO in conducting better forward-looking interregional transmission planning processes. Seams interconnection issues are symptoms of insufficient interregional planning. The Commission should recognize that a JTIQ study effort should be just one tool in a comprehensive interregional transmission planning process when it considers integrating the results of the JTIQ study. JNGOs Init. at 10-11.

While the Joint NGOs agree with the UCS on the urgent near-term need to build transmission to achieve Illinois' clean energy goals, the Joint NGOs do not agree that the immediate or best solution necessarily lies in the Commission opening investigations with Ameren Illinois and ComEd in pursuit of PJM Supplemental or MISO Other projects. *See* UCS Init. at 2. The Joint NGOs acknowledge these projects can be useful to address local needs and can be valuable for improvements near the MISO-PJM seam. However, these options should be used as a last resort to existing RTO processes, as overreliance on these regional planning-exempt local projects can hinder effective and transparent regional transmission planning. In addition, these projects can often be less beneficial to the overall system than regional projects that bring a host of benefits to many customers. Thus, the Commission should critically examine the need for PJM Supplemental or MISO Other projects against other avenues to address near-term transmission upgrades mentioned above, including those that facilitate competition. For PJM, the SAA may be a superior way to address near-term transmission needs if regional wide transmission cannot move forward. In comparison to Supplemental projects, the Joint NGOs explain, the SAA is better integrated with regional planning and provides cost discipline by allowing competitive solicitation for projects. JNGOs Resp. at 14-15.

The Joint NGOs further agree that the Commission should monitor the progress of the transition and onset of the new rules and procedures of PJM's cluster processing approach to the interconnection queue. If PJM's effort to improve its interconnection process is delayed or ineffective, the Commission should take action. A functional interconnection queue process is critical to enabling new clean generation development, but a functional interconnection queue alone is not sufficient. While interconnection queue reform is critical to achieving the clean energy goals in P.A. 102-0662, it must be done in tandem with proactive transmission planning and expansion in PJM. JNGOs Resp. at 15.

In response to Staff's BOE, the Joint NGOs note that various studies have already found grid enhancing technologies to be beneficial and if Staff lacks resources to conduct a study of grid enhancing technologies as part of the REAP, the Commission should direct Illinois utilities to incorporate grid enhancing technologies into their operations and transmission planning. Illinois utilities should consider grid enhancing technologies when determining where to build new transmission lines in Illinois. Illinois utilities should also

consider grid enhancing technologies when planning interconnection of new resources and to resolve system reliability issues or capacity constraints. JNGO RBOE at 33.

11. AEU's Position

AEU recommends that the Commission urge FERC to issue a strong final order on its proposed interconnection reforms. Reforms would establish study deadlines, improve coordination across PJM and MISO, and allow for consideration of grid enhancing technologies. Moreover, the Commission should urge FERC to go a step further by standardizing the interconnection study process. Specifically, FERC should increase study transparency and predictability by adopting a more focused interconnection study approach that concentrates on upgrades needed to connect new resources reliably and ensures generators bear the full cost of upgrades triggered by their projects. Deeper network upgrades and broader buildout of the transmission grid are addressed more appropriately and efficiently through the regional transmission planning process. In addition to engaging with FERC in support of a strong final rule that will direct PJM and MISO to implement interconnection reforms, the Commission should also engage directly with the RTOs to urge an expedited review of the existing interconnection backlogs. This will help ensure successful implementation of FERC-approved reforms (for PJM) and of a future FERC order on generator interconnection (for both PJM and MISO). To support timely interconnection study reforms, the Commission should inquire about and support RTO staffing and resource needs. AEU Init. at 3.

AEU also supports the Commission's identification of opportunities to advocate at FERC and PJM on more effective regional planning. The Commission can engage FERC in support of a strong final order on its proposed rule regarding transmission planning and cost allocation to ensure that a final rule mandates proactive, long-term, multi-value regional planning in all regions. The REAP points to MISO's success through the LRTP process, and highlights shortcomings of PJM's approach. A final order from FERC is an important step toward improving PJM's planning process, as is direct engagement at PJM. The Commission is particularly well positioned to explain to FERC the contrast between the approaches taken in MISO and PJM, and the importance of standardizing a long-term, multi-value planning approach. AEU Init. at 3-4.

In addition, AEU supports the Commission exploring PJM's SAA to its transmission expansion plan as a promising mechanism for interstate coordination. Pursuing this approach could accelerate transmission expansion and address obstacles to permitting, planning, and cost allocation. AEU Init. at 4.

Also, AEU encourages the state to leverage the proactive transmission planning and collaborative processes of the REAP to maximize the environmental, equity, and economic benefits of, and access to, Grid Resilience and Innovation Partnerships Program funding from the Infrastructure Investment and Jobs Act. This program provides formula and competitive funding to upgrade, expand, modernize, and increase the resilience of their transmission systems and grid infrastructure and is open to local governments, utility commissions, microgrid owners, utilities, transmission owner/operators, and more to apply. The Commission should consider how this funding—specifically $3 billion for smart grid investments and $5 billion for innovative approaches to transmission, storage and distribution infrastructure—could support

transmission expansion and resilience, as annual funding opportunities will be announced through 2026. AEU Init. at 7.

The Inflation Reduction Act and Infrastructure Investment and Jobs Act provide several other funding opportunities, administered by the Department of Energy, which AEU recommends the Commission explore and support relevant agencies, RTOs, and other entities in pursuing. AEU Init. at 7-8.

AEU notes that ComEd recommends avoiding overreliance on grid enhancing technologies. AEU disagrees with the suggestion that grid enhancing technologies should be strictly limited to real-time operations as opposed to transmission planning. High-capacity advanced conductors and related technologies like dynamic line ratings, and advanced power flow control devices provide customers with more efficient and cost-effective solutions while maximizing limited rights-of-way and potentially avoiding or minimizing environmental and property impacts that can bog down siting and permitting proceedings. AEU recommends that the REAP encourage these types of advanced technology proposals and give preference to transmission proposals that incorporate these technologies as part of a comprehensive transmission plan. AEU Resp. at 3-4. In its BOE, AEU states it does not oppose a study of grid enhancing technologies but asserts the Commission should encourage utilities to actively incorporate them in both real-time operations and transmission planning. AEU BOE at 3.

12. Commission Analysis and Conclusion

Strategic Element 4 discusses strategies for maximizing the use of existing transmission infrastructure and proactive planning efforts around future needs to provide the necessary transmission cost-effectively and with reduced barriers to renewable development. *See* REAP Strategic Element 4. The Commission agrees with the edits adopted by Staff in the Redlined Second Draft and they are included in the attached REAP, with the exceptions noted below regarding competitive bidding and the ITM.

Throughout the REAP process, numerous parties have expressed the need for increased engagement between the Commission and RTOs. The Commission emphasizes the amount of time and work Staff and Commissioners spend advocating on behalf of Illinois and P.A. 102-0662 at the RTOs. *See* Staff Resp. at 23-24. The Commission's designated Commissioner-representatives to Organization of MISO States ("OMS") and Organization of PJM States, Inc. ("OPSI") are active in conversations with RTOs, other regulators, and utilities. The Commission participates in both the MISO Advisory Committee ("AC") and Planning Advisory Committee ("PAC"), which are established to provide general policy and transmission expansion advice to MISO. Illinois chairs the Independent State Agencies Committee ("ISAC"), a stand-alone committee consisting of members from state agencies in PJM's service territory. Several Commission Staff focus exclusively on federal policy matters and RTO-centric issues. The Commission monitors and participates in FERC dockets and RTO stakeholder processes as appropriate. Commissioners and Staff frequently attend OMS, OPSI, or ISAC meetings where issues important to the State of Illinois and the goals of P.A. 102-0662, including interconnection, transmission planning, and energy transition, are discussed in depth. This REAP will be a useful tool to help guide these conversations and collaborations.

The Commission agrees with Staff that the RTOs do not exclusively serve Illinois, are not within the Commission's jurisdiction, and are not bound by P.A. 102-0662 goals. However, the Commission is bound to P.A. 102-0662 and shall continue to diligently advocate actions necessary to further its goals, including with RTOs.

The Commission agrees with UCS and Staff that collaboration with ComEd and Ameren Illinois on efforts regarding transmission solutions with the RTOs is appropriate. The proposed reporting provides a path for including proactive planning in the preparation of the next REAP and encourages transparent collaboration. The utilities do not appear to object to the proposed reporting requirements. Accordingly, Ameren Illinois and ComEd shall provide annual reports detailing the utilities' efforts regarding transmission solutions with the RTOs to the Commission. Staff's suggested language to strive to meet quarterly with the RTOs and utilities to assess progress is adopted in paragraph 4.A of the REAP.

The Commission agrees transparency and accountability are important pillars to ensure the goals of P.A. 102-0662 are met and is not opposed to Joint NGOs' proposal to host meetings informing the public on progress at the RTO level. Extensive public and RTO outreach efforts at the Commission are already underway. The Commission is unconvinced that a direct mandate to host additional meetings is necessary at this time. Accordingly, the Commission adopts Staff's proposed language to "strive to host" quarterly meetings and biannual public meetings every six months to discuss progress on P.A. 102-0662's goals with RTOs and any other interested parties.

The Commission notes the REAP is an iterative process. Each iteration of the plan should inform the following plan. Accordingly, the Commission declines to strike the requirement for Staff to examine the progress at the RTOs compared to the goals of P.A. 102-0662 prior to the next REAP to determine if new approaches are required. This directive is not intended to criticize RTOs but rather to direct Staff to critically review the progress of the REAP and offer suggestions on how to better serve the State's goal within the next iteration. If, upon examination of this REAP, Staff finds deficiencies in its progress, Staff is directed to recommend alternative or additional actions to take in the next REAP.

The Commission finds that grid enhancing technologies can be beneficial to the transmission system, and Illinois should consider those benefits in the REAP process. The Commission appreciates Staff's proposal to work with utilities and RTOs to explore the incorporation of grid enhancing technologies going forward and Staff is directed to work with utilities to ensure the use of these technologies in Illinois. The Commission agrees with the Joint NGOs' proposal in its RBOE, that the benefits of REAP have been studied and that grid enhancing technologies should be considered when determining where to build new transmission lines in Illinois and when interconnecting new resources and addressing system reliability issues or capacity constraints. The REAP is modified accordingly and the Commission directs Staff to report to the Commission on the success of and obstacles to incorporating grid enhancing technologies before the next REAP investigation.

Although not specifically addressed by Ameren Illinois, the Commission adopts the proposed language of the UCS. It appears consistent with action Ameren Illinois is

already taking and it encourages Ameren Illinois to continue to participate in MISO planning in a manner consistent with the REAP and Section 8-512. This language is incorporated in paragraph 4.A of the REAP.

The Commission agrees that the existing regulatory framework will require the REAP to seek to leverage all existing transmission planning processes, including PJM Supplemental Projects and MISO Other Projects, to meet the minimum requirements, set forth in Section 8-512 of the Act. Although long-term transmission planning reform is underway at FERC and PJM, the Commission cannot overlook opportunities where Supplemental and Other Projects may help progress toward achieving P.A. 102-0662 zero-carbon goals. Accordingly, the Commission adopts some of ComEd's proposed redlines regarding Supplemental Projects, which are included in the REAP.

Additionally, the Commission finds that the REAP should consider non-wires alternatives to transmission network expansion unless there is convincing evidence that such alternatives are incapable of yielding direct or indirect benefit to the overall transmission system. Based on this, the Commission finds that the REAP must identify whether and to what extent non-wires alternatives, usage of existing transmission facilities and utilization of existing rights-of-ways can be deployed ahead of or in place of new transmission system expansions. Accordingly, the language proposed by ELCON/REACT regarding non-wires alternatives, and the use of existing transmission facilities and right-of-way is approved for inclusion in the REAP.

The Commission recognizes the potential benefit of the seam studies that CGA proposes. *See* CGA Init. at 73-74; JNGOs Resp. at 13-14. The Commission notes CGA proposes three studies be performed, but the Joint NGOs suggest that just two would be sufficient. Staff correctly notes the Commission is already advocating for interregional planning at the MISO-PJM Inter-regional Planning Stakeholder Planning Committee ("IPSAC") through OPSI and OMS, and in MISO's long-term planning process. Conducting these studies may better position the Commission to advocate for the State. Thus, the Commission finds that Staff should look at ways to consolidate such studies to appropriately manage resources to the extent feasible and consistent with state and federal law. This recommendation and proposal should be filed in this docket within 30 days. Also, CGA recommends that a new strategic element be added to the REAP to address these studies. The Commission does not find this to be necessary and approves the general format of the REAP as proposed by Staff.

The Commission recognizes that interconnection issues are addressed by various parties and that the Redlined Second Draft proposed by Staff already includes a recommendation that Staff advocate for interconnection reform at the RTOs and FERC. The Commission agrees that this is an issue that is important to further the goals of P.A. 102-0662. The Commission further adopts the language proposed by AEU and agreed to by Staff in its Response Comments regarding recommending expediting review of interconnection studies at PJM and MISO, as reflected in paragraph 4.C of the REAP. The Commission accepts Staff's arguments against the remainder of AEU's language and notes that AEU did not file Reply Comments. *See* Staff Resp. at 10-11. The Commission endorses this advocacy and finds that Staff's proposed language is sufficient, except that it is modified to require that Staff provide the Commission with an update on its activities prior to the next REAP proceeding.

The Commission agrees with CGA and the Joint NGOs that monitoring the status of PJM's proposed cluster processing of the interconnection queue is appropriate. *See* CGA Init. at 72; JNGOs Resp. at 15. If delays are apparent, future REAPs should reflect actions that need to be taken.

The Commission notes that the Joint NGOs propose language for inclusion in the REAP to guide the Commission on transmission siting. Similarly, ELCON/REACT along with Vistra propose that transmission be sited in existing rights-of-way. While the Commission does not necessarily disagree with these proposals, the Commission declines to adopt this language and agrees with Staff that other portions of the Act guide the Commission's decisions on siting.

The Commission declines to adopt as a policy the recommendations of ELCON/REACT to incorporate language regarding competitive bidding. Although Staff agreed with a modified version of ELCON/REACT's language, it is not clear to the Commission that this policy should be emphasized in the REAP. Several parties raise legitimate concerns regarding the role that competitive bidding should play in regional transmission planning. Staff's language is not included in the attached REAP.

The Commission notes that Staff also accepted the proposal to consider the creation of an ITM, but it is not clear to the Commission that this should be adopted. It could lead to additional oversight which conversely could create another level of review that could slow implementation of necessary changes. Also, ComEd claims that this is outside the jurisdiction of the Commission. With these outstanding questions, the Commission does not adopt this proposal in this REAP docket.

While the Commission appreciates the need to pursue federal funding, the language is not adopted. The Commission accepts Staff's explanation regarding the efforts already being put forth to procure federal funding. The Commission agrees with the IPA that all efforts to secure federal funding are necessary, but it is not clear that the REAP needs to address this further.

F. Strategic Element 5: Leveraging Regional Electricity Markets & Trade

1. Staff's Position

In Strategic Element 5: Leveraging Regional Electricity Markets and Trade, Staff describes the roles RTO markets play in the transition to clean energy. Staff also identifies the RTO market reforms necessary to align with Illinois policy including the need for Scope 2 GHG accounting, the challenges created with fossil fuel emissions caps, incentives for cost-effective clean resources deployment and retention, and the need for the RTO markets to evolve to ensure reliability while transitioning to an ever-increasing clean energy marketplace. Another critical element of a viable plan for a 100% clean electricity grid is the system of RTO electricity markets that establish the rules and incentives which guide most electricity resource investment and operational decisions. There are three general categories of RTO markets: energy, ancillary services, and capacity. Each of these markets will need to be enhanced to reliably deliver power at affordable prices as Illinois, other states, and consumers pursue the clean energy transition. *Id.* In addition to these traditional power markets, states and stakeholders in the PJM region have recently initiated discussions surrounding the potential to introduce

a new platform to support cost-effective clean resource procurements. In consultation with its stakeholders, PJM has begun the modeling of clean attribute market designs, with initial results indicating accelerated entry of renewables and cost increases for states with clean energy objectives, including Illinois. Redlined Second Draft at 71-87.

Some of the RTO market reforms that will advance Illinois' clean energy transition are already in progress, others are proposed, and yet others will be identified over time. In many cases, the reforms needed to support Illinois policy will be needed equally by other states and consumers across both MISO and PJM to enable the clean energy transition. In certain other circumstances, such as those related to the fossil generation phase out, Illinois faces a unique challenge with respect to how P.A. 102-0662 and other state policies could interact with existing RTO market structures. *Id.*

Staff's assessment of the RTOs' current markets include the finding that current markets, if left unaltered, will not produce the most cost-effective and reliable clean energy transition, and may in some cases produce economic incentives that conflict with Illinois policy mandates. After examining potential market reforms, Staff made findings regarding the need for RTO market incentives to align with Illinois' and other states' policy requirements and identify MISO's resource adequacy shortfall as the most urgent reform. The Redlined Second Draft notes that PJM's current capacity market design somewhat mitigates reliability concerns that a comprehensive approach to reliability is needed in PJM to ensure resource adequacy can be supported throughout fossil emissions phase out and manage the potential retirements that can be anticipated by 2030. Staff recommends the Commission adopt these findings as its own. Redlined Second Draft at 81-84.

Based on these findings, and the comments of other parties, Staff recommend specific actions the Commission can take as part of the REAP, including to evaluate options for maintaining resource adequacy in MISO, seek GHG emissions data from RTOs, contribute to regional market development for clean energy attributes, study reliability and operational implications of fossil fuel units' emissions limits under P.A. 102-0662, note that customer load management can help support grid stability and forestall transmission construction, and authorize use of identified regional solutions. Redlined Second Draft at 84-87.

2. Ameren Illinois' Position

Ameren Illinois explains that transmission efforts are critical to the success of the goals of P.A. 102-0662, market enhancements are also needed in the RTOs to ensure the proper signals and incentives are given to effectuate the change to meet P.A. 102-0662's goals. Ameren Illinois generally supports market reforms related to capacity within MISO and looks forward to working collaboratively with the Commission and MISO to ensure they are implemented in a thoughtful and timely manner. AIC Init. at 3-4.

Ameren Illinois points out that, as indicated in the Second Draft, "RTO market incentives must align with Illinois' and other states' policy requirements in order to enable a cost-effective and reliable energy system transition." Second Draft at 79-81. Both PJM and MISO are pursuing a range of market reforms focused on supporting cost-effective, reliable markets and operations throughout this evolution. Ameren Illinois looks forward to continuing to participate in these discussions. AIC Init. at 4.

Ameren Illinois agrees in principle with the REAP's goal of evaluating options for maintaining resource adequacy in MISO (related to Recommendations 5A, 5C, and 5D). Specifically, Ameren Illinois has long supported the need for a reliability-based (sloped) demand curve within the MISO Capacity Market construct. Ameren Illinois believes that the sloped demand curve sends the proper signals to generators to enable robust participation in the capacity auction. Coupled with the sloped demand curve, there is a need for a forward market to send the proper incentives for participation in the markets and to incent the proper capacity levels to serve the customers in Zone 4 (Illinois), and Ameren Illinois has traditionally supported these reform efforts. The Commission would need to work closely with the IPA on these reform efforts. AIC Init. at 4.

Furthermore, Ameren Illinois explains it supports the seasonal capacity market construct, review of a forward procurement plan for 100% of the capacity requirements and the need to define required reliability attributes. Ameren Illinois states it believes measures would help to inform the capacity market and potentially shield customers from large capacity market swings with the goal to keep costs as low as possible during the transition needed to meet P.A. 102-0662 policy goals. Ameren Illinois cautions that it is mindful that even with these reforms the capacity must exist to make the reforms effective. With this in mind, Ameren Illinois notes that parties will need to be thoughtful about the pace of the transition and open to collaborative and broad solutions. Ameren Illinois has initiated internal teams to monitor, participate and support these efforts in the discussions at MISO and with the Commission. AIC Init. at 4-5.

Ameren Illinois has no issue with efforts to initiate and discuss "clean energy" attributes. The proposals for improved product definitions for clean energy attributes and a new “clean capacity” product that Illinois could assess as one option to manage orderly retirement, retrofitting, and replacement of fossil capacity with reliable clean electricity supply resources is important. Cost to customers and reliability are at the forefront as the energy transition takes place. Ameren Illinois supports necessary studies and efforts to ensure that customer affordability and reliability are also top of mind as the Commission and RTOs determine resource adequacy coupled with timely achievement of the transition while dealing with the challenges of retirement cliffs or inadequate representation of emissions-capped fossil resources’ reliability value. AIC Init. at 2.

Ameren Illinois supports the efforts underway by MISO to perform a scenario analysis within the LRTP Future 2 work that specifically looks at the transmission needed to maintain reliability and stability through the process of implementing the goals of the transition detailed in P.A. 102-0662. Ameren Illinois explains it was mindful of the operational challenges it will face within Illinois during the transition and want to ensure that customers are not negatively impacted. AIC Init. 5.

Ameren Illinois supports the Commission's mindful approach to address concerns by having additional studies performed by MISO that will review the impacts of: (1) the potential frequency and severity of reliability events that could be associated with energy limitations (or excess emissions if violating limitations to preserve reliability); (2) the potential for asset owners’ self-management of emissions caps to produce reliability events or excess emissions; and (3) whether generators’ emissions limits should be reflected as a lower capacity value in the capacity markets. Ameren Illinois agrees that there should be some quantification of these concerns over time, to identify the likely

timeframe by which a solution should be implemented. The results of this work are crucial to understand the impacts to customers and to inform the timing of necessary reforms. AIC Init. at 6.

Finally, Ameren Illinois had no objections to and supports efforts by Staff to engage with MISO to continue the discussion of initiating their GHG accounting data processes in support of Illinois' policy goals and consumers' needs. There is additional interest from other stakeholders in MISO for this GHG accounting data and Ameren Illinois anticipates MISO will start work soon. Ameren Illinois states it is interested in collaborating with the Commission to understand what exact data they are interested in and how that data will be used in subsequent efforts. Ameren Illinois explained PJM and MISO will have to coordinate and collaborate on the information produced. Ameren Illinois supports the goal of providing the data to enable Illinois and consumers to understand both the physical operations of the grid and clarify state-level and consumer-level assessment of GHG emissions. The information can then be utilized to determine the impacts of the transition and how well abatement and policy goals are impacting emissions. Ameren Illinois points out its primary focus is on maintaining low-cost, reliable service to its customers while working with the State and Commission to effectively move to meet the goals of P.A. 102-0662. AIC Init. at 6-7.

3. ComEd's Position

ComEd fully supports Illinois' move toward 100% economy-wide decarbonization and states that incorporating public policies promoting zero-carbon energy resources into the administration of wholesale markets would help to enable that transition reliably, safely, and equitably. ComEd notes that currently there is no method of aligning the timing and pace of fossil retirements with that of renewable deployments and that doing so in real-time to the greatest extent possible (or conversely, mitigating the contemporaneous displacement of in-state emissions with out-of-state emissions) should help accelerate the path toward achieving P.A. 102-0662 zero-carbon goals. Therefore, ComEd supports the Second Draft's suggestion to consider implementing or seeking that RTOs implement a carbon border pricing policy at the Illinois border for imported GHG emissions, and ComEd recommends further evaluation of such a policy. ComEd further notes that maintaining reliability during the transition to 100% clean electricity is vital, and that all zero-carbon resources including nuclear resources should be given consideration to the extent they can, in the long term: (1) facilitate the achievement of statutory goals; (2) bolster reliability, balancing services, and the like; or (3) save costs to end use customers. ComEd Init. at 4-5.

4. CGA's Position

In the "Reliable Capacity Market Supply Throughout Fossil Phase Out" section of the Second Draft, CGA recommends edits acknowledging the dynamics of PJM and MISO capacity markets and how they impact the clean energy resources Illinois seeks to have built in the state and the reforms that are needed. CGA Init. at 75.

CGA provides suggested edits across this entire section that are intended to address areas not fully reviewed in the REAP. The edits to this section are self-descriptive and address the following topics:

- Fast frequency response;
- Standardized mechanism for reactive power;
- Avoid suppression of real-time market signals through new ramping and other products;
- Increased use of flexible capacity;
- PJM and MISO coordination on market products and how they attract new clean resources;
- Ensure market products provide fair compensation to renewable resources;
- Do not incentivize inflexible resources;
- End the use of uplift and other out-of-market payments;
- Adopt market rules that improve the accuracy of the minimum generation levels and ramp rates;
- Reform generator unit commitment processes to help electricity supply and demand due to the growth of variable resources;
- Increased use of probabilistic processes in electricity supply and demand forecasts used for unit commitment decisions;
- Make spinning and non-spinning contingency reserves available for unexpected renewable drop off events;
- Accounting for correlated outages of conventional generators' capacity value and in MISO's new Seasonal Capacity Construct; and
- Measures to incentivize the right performance and market signals during periods of scarcity, beyond reducing over-procurement of capacity.

CGA Init. at 75-76.

CGA notes that ComEd recommends that the REAP match the decrease in Illinois-based GHG emissions with deployment of new in-state renewable resources, in real-time. It is unclear to CGA what ComEd is proposing, but CGA states that nothing in the statute grants the Commission authority to manage or control the deployment or rate at which new renewable resources interconnect to the transmission grid. Nor does the statute grant the Commission the authority to actively manage operations of renewable resources. Dispatch of resources is controlled by PJM and MISO. Finally, replacement of thermal generation with renewable generation will not be tightly choreographed over time by the RTOs. MISO and PJM will study proposed plant retirements to assess grid reliability and follow tariff requirements if reliability impacts are noted. CGA Resp. at 60.

CGA further responds to ComEd's recommendations to state that they lack statutory authority or are outside the scope of the REAP. CGA suggests that specific topics related to nuclear resources be proposed and developed through a process Staff should use to identify and prepare topics for future REAPs. That process should include stakeholder workshops, meetings or processes managed by Staff through which policy recommendations (including those proposed by ComEd about nuclear resources) are proposed, vetted as being within the scope of subsections 8-512(b)(1) through (5), and refined. CGA Resp. at 65-66.

In response to the proposals of the NRG Companies regarding the competitive retail energy supply market, CGA asserts that these proposals are outside the scope of

the REAP. CGA asserts that Section 8-512 does not expressly grant the Commission authority to adopt policies regarding the competitive retail energy market or policies to generally meet the State's clean energy goals. CGA Resp. at 66-70.

With respect to NRG Companies' proposals regarding electric vehicles, CGA states that only the portions relating to transmission planning should be adopted. Specifically, CGA notes that the proposal to track electric vehicle deployment could be useful in transmission planning and states that MISO considers the impact of electrification in its futures. Any electric vehicle information tracked for the REAP should be presented in a format usable by or compatible with the electrification information RTOs use for long-term transmission planning. CGA Resp. at 70-73.

5. NRG Companies' Position

The NRG Companies propose the inclusion of four Proposed Additional Findings in Section V.D of the REAP including sections regarding customer load management, RES customer recruitment, time-of-use rates, and competitive market support for EV policies. The NRG Companies further support including language encouraging the General Assembly to allow non-utility parties to initiate the competitive declaration process or otherwise petition to revise the utilities' default rates under Potential Additional Policies Requiring Legislative Action into Section V.D of the REAP. NRG Init. at 9.

The NRG Companies note that Staff and other parties addressed the following recommendations of the NRG Companies: (1) that new technologies should be used to advance distributed energy resources; (2) that the structure of the self-direct renewable portfolio standard should be revisited; (3) that the concept of customer load management should be highlighted; (4) that revisions to rate design and utility default supply options should be considered; (5) that the Commission should promote the development of competitive market solutions for EVs; and (6) that the Commission should provide retail suppliers with better access to smart grid data.

First, the NRG Companies note that Staff acknowledged that the REAP plan could include "efforts to push for faster distributed energy resource aggregation and demand response aggregation in MISO" and recommended that future REAPs consider issues related to RTO visibility into distributed energy resource operation and the use of distributed energy resources management systems and distribution system organizations to equitably dispatch non-utility distributed energy resources. *See* Staff Resp. at 6; NRG Rep. at 15.

Second, regarding revisiting the structure of the Self-Direct RPS program, the NRG Companies note that Staff asserted that "[t]his program is the subject of the IPA's [LTRRPP], and outside of the scope of the REAP." *See* Staff Response at 51. Neither Staff nor other parties identified a legal or statutory basis that would prevent the Commission from evaluating the Self-Direct RPS Program. NRG Rep. at 15-16.

Third, regarding the NRG Companies recommendation that customer load management should be highlighted, they note that Staff responded that although it believes the issue of load management is addressed in several areas of the draft REAP, it did not object to including the language proposed by the NRG Companies. *See* Staff Resp. at 51; NRG Rep. at 16.

Fourth, regarding their recommendation that the rate design for utility default supply be revisited, the NRG Companies note that Staff recognized that the issue of rate design raised by the NRG Companies "are not unsound" but nevertheless asserted that they are "outside the scope of Section 8-512." Staff Resp. at 51. ComEd asserted that the issue of consumer data access lies outside the scope of the REAP, and the REAP is not the correct venue for such a policy decision noting that the Commission recently initiated a Data Access Working Group to discuss issues involving utility data access. Neither Staff nor ComEd identified a legal or statutory basis that would prevent the Commission from evaluating the Self-Direct RPS Program. NRG Rep. at 16-17.

While CGA similarly stated that it believes these topics are beyond the scope of the REAP, it noted that "[i]f the Commission were to find these policies were reasonably related to the REAP Plan, the Commission could direct the Staff to consider the policies for the next REAP Plan." CGA Resp. at 51. Additionally, Vistra noted that the REAP should include recommendations for the Commission to adopt policies that use Illinois' existing competitive retail energy supply market because if competitive retail suppliers and electricity consumers are provided with the appropriate tools and options, they can help the State meet its clean energy goals. *See* Vistra Resp. at 3; NRG Rep. at 17-18.

6. Vistra's Position

In addition to the REAP's current list of regional transmission organization market enhancements that will be needed to effectively support Illinois' policy mandates, Vistra strongly encourages the Commission to have Staff monitor MISO's ongoing non-thermal and thermal resource accreditation methodology discussions that are currently taking place at the MISO Resource Adequacy Subcommittee. MISO initiated these discussions because of its belief that existing accreditation methods for non-thermal resources require further evaluation to ensure that the accredited capacity value reflects the capability and availability of the resource during periods of highest reliability risk. The accreditation methodology that MISO ultimately selects for wind and solar resources will have a significant impact on the accreditation percentages assigned to individual solar and wind resources across the MISO footprint, including MISO Zone 4 which is comprised of the central and southern portions of Illinois. Vistra and other stakeholders have expressed concern to MISO that the accreditation methodologies currently under consideration for wind and solar resources fail to capture the actual reliability value these resources provide the power grid. Were MISO to settle on an accreditation methodology that assigns unreasonably low accreditation percentages to wind and solar resources, Illinois could see a decrease in new wind and solar projects across the central and southern portion of Illinois, which would make it more difficult for the state to achieve its clean energy goals. Vistra Init. at 6.

Similarly, Vistra encourages the Commission to have Staff carefully monitor stakeholder discussions at PJM. In the coming months, PJM and its stakeholders will consider changes to the resource adequacy construct, including potential changes to capacity accreditation, performance testing, and market mitigation rules that may impact the development and deployment of solar, wind, and storage resources. Changes to market mitigation rules, including the market-seller offer cap and capacity performance, are particularly necessary so that renewable resources can better reflect their risk of participation in the capacity market. Without such changes, widespread participation of

renewable resources in the PJM capacity market is unlikely. Additionally, PJM is considering the development of a clean energy attribute market which may provide an opportunity for renewable energy to monetize the low and zero carbon benefits they provide the electric grid and serve as a catalyst for additional resource development. Vistra Init. at 7.

Vistra agrees with Ameren Illinois' support for adoption of a reliability-based (sloped) demand curve within the MISO Capacity Market construct. Vistra strongly supports, and has advocated for, development and implementation by MISO of a Reliability-Based Demand Curve ("RBDC"), i.e. a sloped demand curve, for use in the MISO Planning Resource Auction ("PRA"). Vistra believes there is an urgent need in MISO for a properly developed sloped demand curve that will reflect the reliability value of surplus capacity resources in excess of the zonal minimum clearing requirement. Importantly, an RBDC will provide more accurate and stable price signals compared to MISO's existing vertical demand curve, which results in small capacity surpluses producing near-zero prices, and small capacity shortages pushing prices to the price cap of Cost of New Entry, as was witnessed during the 2022-2023 PRA. Vistra Resp. at 1.

Vistra supports the NRG Companies' proposal that the REAP include recommendations for the Commission to adopt policies that use Illinois' existing competitive retail energy supply market to help the State meet its clean energy goals through actions that will better equip competitive retail energy suppliers as well as electricity consumers with tools and options that will support meeting those goals. As the NRG Companies state, a specific action that will improve the ability of competitive retail suppliers to develop and provide service offerings to consumers, including on an individual basis, that will promote load responsiveness to the capabilities of the grid as it transforms to one primarily dependent on intermittent renewable generation resources, is to provide energy suppliers with greater access to individual retail customer load data maintained by the delivery utility (with, of course, the customer's consent). Such access will be provided if Senate Bill 1879, which passed both houses of the General Assembly and was sent to the Governor on June 9, 2023, is signed into law by the Governor. Vistra Resp. at 3.

Vistra also agrees with and supports the NRG Companies' recommendation that the Commission should identify and implement policies that will enable and promote the development and involvement of competitive markets in the deployment of electric vehicles in this State, including initiatives for competitive deployment of electric vehicle charging stations and infrastructure. Vistra agrees with the NRG Companies' proposal that the REAP should recommend that electric vehicle benchmarks be established and tracked as part of the REAP planning process. Vistra Resp. at 3.

7. UCS's Position

The analysis, conclusions, and recommendations in this section of the REAP extend the mistaken focus on idealized, FERC-approved reforms adopted by private actors who have no obligation and little interest in meeting the P.A. 102-0662 requirements. This section opens with: "Each of these markets [energy, ancillary services, and capacity] will need to be enhanced in order to reliably deliver power at affordable prices as Illinois, other states, and consumers pursue the clean energy

transition." Second Draft at 67. While the Commission would be better able to deliver on the goals of P.A. 102-0662 if the myriad of reforms described in this section were in place, the Draft REAP does little more than provide a list of these changes. UCS Init. at 28.

The analysis, conclusions, and recommendations in this section fail to offer the Commission and stakeholders a schedule and sequence for actions that Illinois can take to accomplish the requirements which are included in P.A. 102-0662. The Commission in the final version of the REAP should make an integrated plan that includes recommendations for study that are in the Second Draft and also conform with P.A. 102-0662's directive to "use the findings and policy recommendations to determine actions that the Commission should take." 220 ILCS 5/8-512. The Commission needs to adopt a plan that is actionable in a timeframe compatible with the law. In this section, and too often throughout the Second Draft, the Commission has been given recommendations to request studies from, and Staff to have discussions with, the RTOs that are not regulated by the Commission. UCS Init. at 28.

The Second Draft's discussion of actions required to achieve fossil emissions limits reveals the approach in the Draft is inadequate to ensure compliance with the terms of P.A. 102-0662. In order to have a REAP that leads to the emissions reductions established by the law, the UCS recommends that the Commission should create a plan that builds on the record, identifies actions under existing RTO and Commission authority to make transmission upgrades, and explicitly adopts plans to proactively minimize the reliability violations on the transmission system. As the MISO and PJM Guidance documents explain, the identification of transmission reliability issues in daily operations will drive continued operation of fossil plants through waivers granted by the RTOs. UCS Init. at 28-30.

8. Joint NGOs' Position

To align the role of RTO markets to the transition to a 100% clean energy grid, the Joint NGOs argue that REAP should acknowledge the need for PJM and MISO to better account for the ability of imports to meet resource adequacy needs and explore ways to credit the capacity value to new interregional transmission lines. The REAP should also state the need for MISO to improve its resource adequacy construct through modifications to its Planning Resource Auction methodology and associated accreditation methods such that they will support Illinois' path towards decarbonization. The REAP should also state the necessity for any switch to "marginal" accreditation methods, such as currently under consideration in PJM, not result in Illinois receiving credit for less than the full reliability value of resources built under P.A. 102-0662. JNGOs Resp. at 16.

9. AEU's Position

AEU encourages the Commission's ongoing engagement in both OPSI and PJM's Clean Attribute Procurement Senior Task Force. Well-designed and implemented regional clean energy markets will benefit consumers by enabling participation by a wide range of advanced energy developers, thereby encouraging competition and lowering the cost of achieving clean energy goals while meeting regional resource adequacy needs. AEU Init. at 4.

AEU agrees with the REAP's suggestions that new region-wide clean energy products, improved definitions of clean energy attributes, and a new clean capacity product are all effective methods for enabling the IPA to procure clean resources as well as developing an integrated clean capacity market that supports states in the PJM territory in meeting clean energy goals. AEU also supports a voluntary market for procuring clean energy resources for non-RPS obligated entities. A clean capacity product could also be an effective solution to adequately valuing the benefits of demand response, energy storage, and energy efficiency resources to the system during peak demand. Such resources, as discussed below, will be crucial to enabling a nimble grid and bringing new renewable generation online as fossil fuel generation is retired. AEU Init. at 4.

AEU notes the value of demand-side initiatives, including demand response, demand-side management, and DER, to supporting the outcomes of the REAP. The benefits of investment in these technologies, which can defer or avoid costly transmission and distribution investments and support more demand flexibility to improve integration of variable renewable energy resources, would also improve reliability and reduce energy costs for households and businesses. Moreover, the costs of these technologies are often borne by the owners of the technology, rather than utility ratepayers. P.A. 102-0662 further enabled utility energy efficiency programs and deployment of demand response technologies to reduce peak demand, which will also help mitigate the impacts of increases in demand from electrification while improving the manageability and flexibility of new load. AEU Init. at 4-5.

The longer-term outlook for RTO and FERC transmission planning, cost of transmission needed, and uncertainty of impacts that electrification will have on energy demand all underscore the need for nearer-term investment in the distribution system to enable technologies that reduce peak load and ultimately ensure that transmission investment is optimized. Over the next year, the Commission and stakeholders will continue to be engaged in the electric utilities' MYIGPs and multi-year rate plans, both focused on aligning utility investments in the distribution system with P.A. 102-0662's decarbonization goals. The Commission should ensure that utility investments, programs, and rates support the REAP and that utilities make distribution system investments that create opportunities for DERs and demand response to improve grid flexibility and reduce future capacity needs and consider how storage on the distribution system can support the capacity of the transmission system. AEU Init. at 5.

Storage can provide least-cost reliability and a market solution in wholesale markets given its ability to provide both transmission and generation services. The Commission should work with RTOs to enable storage as a transmission asset and storage as both a transmission and generation asset (dual-use asset), as the deployment of storage can be faster and more cost-effective than the construction of transmission lines. The Commission should continue to encourage RTOs to consider battery projects in lieu of traditional transmission and ensure that the appropriate tariffs for storage to be eligible for long-term compensation. AEU Init. at 6.

AEU agrees with Vistra that the Commission and Staff should closely follow and engage in the ongoing RTO processes to consider changes to resource adequacy, specifically through participation in OMS and OPSI. As Vistra notes, the RTOs' resource

accreditation methodologies could significantly influence wind and solar deployment in Illinois and hinder progress towards clean energy targets if they do not accurately capture their reliability value. AEU Resp. at 2.

Recent events have demonstrated that reliance on fossil resources is a major risk and capacity markets need to look beyond fossil resources and create an environment to stimulate investment in a diverse set of advanced energy resources that can improve reliability by reducing reliance on limited, unreliable fuel sources. The Commission should urge RTOs to properly account for the risk of thermal resources in markets while accurately valuing the contribution of advanced energy resources, including demand-side resources, demand flexibility, and renewable energy, and in doing so, encourage participation. AEU Resp. at 2.

10. Commission Analysis and Conclusion

Strategic Element 5 identifies opportunities for leveraging regional electricity markets and trade to access the most efficient resources, avoid emissions leakage, and maintain reliability. *See* REAP Strategic Element 5. The Commission adopts Strategic Element 5 of the Redlined Second Draft, including the findings recommended by Staff and the actions Staff recommends the Commission implement as part of the Commission's REAP.

Staff states it would need considerably more time and resources to complete the directives under Strategic Element 5. Staff estimates it will take at least 18 months to two years to complete each study. Staff BOE at 27. The Joint NGOs highlight the importance of Staff providing a realistic timeline for completion of these studies. *See* Joint NGO RBOE at 36. The Commission agrees with the Joint NGOs that proposed timelines would be beneficial. Therefore, the Commission directs Staff to make a filing proposing a feasible timeline for the completion of these efforts. To the extent feasible, and subject to availability of resources, Staff is directed to conduct or support efforts in line with REAP Strategic Element 5 Recommendations.

The Commission agrees that further evaluation of a potential border pricing policy applicable to imported GHG emissions is appropriate as a potential means to align the timing and pace of fossil retirements with that of renewable deployments, or, conversely, to mitigate the contemporaneous displacement of in-state emissions with out-of-state emissions. Accordingly, the Commission directs Staff to consider further evaluation of a border pricing policy for GHG emissions in future REAP cycles to the extent feasible.

Further, the Commission finds that the REAP should consider consumer-based options that reduce peak demand and utilization of regional transmission networks to allow for additional deployments of renewable energy resources. The REAP should consider recommendations concerning increased utilization of consumer-owned distributed generation resources and dynamic load management to reduce peak demand on regional transmission networks. Accordingly, the Commission retains the language proposed by the NRG Companies and included by Staff in the Redline Second Draft.

The Commission declines to adopt further language proposed by the NRG Companies for Strategic Element 5. The REAP is not meant as a catchall and data access, retail competition, and default supply rate are outside the scope of Section 8-512. Also, electric vehicles are not contemplated in the REAP, but the additional paragraph

regarding customer load management would presumably include efforts to induce customers to charge electric vehicles off peak. As noted above, the Commission declines to alter the Self-Direct Program in this docket.

The Commission agrees with CGA and the Joint NGOs regarding the dynamics of PJM's and MISO's capacity markets, their effect on clean energy resources, and necessary reforms. The REAP should acknowledge these issues. The Commission agrees that the REAP should also state the need for MISO to improve its resource adequacy construct to support Illinois' path toward decarbonization, which is reflected in the REAP attached to this Order.

IV. FINDINGS AND ORDERING PARAGRAPHS

The Commission, having considered the entire record herein and being fully advised in the premises, is of the opinion and finds that:

1) the Commission, pursuant to Section 8-512 of the Act, 220 ILCS 5/8-512, has jurisdiction over the subject matter herein;

2) the recitals of fact and conclusions of law reached in the prefatory portion of this Order are supported by the evidence of record and are hereby adopted as findings of fact and conclusions of law;

3) the Renewable Energy Access Plan, as revised pursuant to this Order, is reasonable and meets the statutory requirements and policy goals of Section 8-512 of the Act; and

4) the Renewable Energy Access Plan, which is attached to this Order, is hereby adopted pursuant to Section 8-512 of the Act.

IT IS THEREFORE ORDERED the Renewable Energy Access Plan, as attached to this Order, is adopted.

IT IS FURTHER ORDERED that any motions, petitions, objections, or other matters in this proceeding that remain outstanding are hereby disposed of consistent with the conclusions herein.

IT IS FURTHER ORDERED that pursuant to Section 10-113(a) of the Public Utilities Act and 83 Ill. Adm. Code 200.880, any application for rehearing shall be filed within 30 days after service of the Order on the party.

IT IS FURTHER ORDERED that subject to the provisions of Section 10-113 of the Public Utilities Act and 83 Ill. Adm. Code 200.880, this Order is final; it is not subject to the Administrative Review Law.

By Order of the Commission this 30th day of May, 2024.

(SIGNED) DOUGLAS P. SCOTT

Acting Chairman