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agrees with Staff that the Company has not justified the full extent of its proposed expenditures under this project. Unlike Staff, the AG does not recommend that this project budget be reduced to a certain dollar amount or number of projects per year. Instead, the AG requests that the Commission view this project as evidence of the Company's deficient cost effectiveness approach and lack of transparency that justifies limiting the budget to historical levels plus inflation while leaving AIC the discretion to allocate investment prudently and subject to review in the reconciliation proceeding. AG RB at 36-37.

(d) Commission Analysis and Conclusion

The Commission agrees with the rationale for Staff's adjustment to the Company's proposed budget for project J11P1. The Company's evidence shows the reliability benefits line hardening in the manner proposed by the Company can provide, and the Commission supports the expansion of AIC's current line hardening efforts. However, it is not clear from the evidence presented that the significant increase in capital spending on line hardening projects is necessary to sustain and increase AIC's system reliability. As such, it is also not clear that the benefits that would be achieved under AIC's proposed spending justify the significant costs. A more significant expansion of the Company's line hardening efforts may be justified in a future MYIGP based on data and evidence collected in the coming years. As discussed in Section V.A., this Grid Plan is rejected. The Commission shall determine the appropriate budget for all proposed projects upon the Commission's approval of a refiled Grid Plan.

(ii) Project No. J11P2 – Subtransmission Resiliency Plan – Wood Pole Line Rebuild

(a) Ameren's Position

The Company proposes an investment of \$81.5 million in project J11P2, under which the Company will rebuild wood pole subtransmission lines that are at the end of their useful life.

The Company explains that its 69 kV and 34 kV wood pole subtransmission system is constructed of multiple circuits consisting of 6,400 miles of line. It notes that the average age of many of these subtransmission line segments is 70 years, and throughout their service life, these lines have had poles replaced on an as-needed basis to maintain reliability. The Company states that most of these subtransmission lines contain the original conductor, shield wire, and twist sleeves (which are inferior to modern compression sleeves), and have experienced a lifetime of storms, lightning strikes, and natural wear of the outer conductor strands at connection points on each structure. The Company further explains that these issues can lead to broken and damaged conductor strands, loss of conductor strength and conductor ampacity. The Company asserts that this results in a decrease of the reliability on the subtransmission system, a loss of resiliency during ice and wind events, and can have related negative consequences for public and employee safety. AIC Ex. 24.0 at 15-16. The Company notes that each of the wood pole subtransmission lines reflected in AIC Ex. 24.2 has been receiving life extension repairs for decades based on the Company's circuit and pole inspection

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program and that those specific lines are candidates for replacement rather than continued life extension repairs due in most cases to the condition of the conductor. AIC Ex. 51.0 at 14.

AIC asserts that this work supports Subsection 16-105.17(d)(2) of the Act by rebuilding assets at the end of life in a way that optimizes utilization of electricity grid assets and resources to minimize total system costs and that this project also indirectly supports Performance Metric #1. AIC Ex. 24.0 at 17. The Company explains that aged equipment fails at higher rates due to electrical and mechanical fatigue and that new construction using modern design standards performs better in adverse weather conditions as it can be expected to perform at full strength. Additionally, the Company asserts that rebuilding aged wood pole lines that are near end of life is expected to result in a reduction in increasingly reactive O&M repairs due to proactive replacement using a scheduled budget. *Id.* at 19.

AIC asserts that rebuilding aged wood pole lines that are at end of reliable life with stronger poles using modern construction standards and larger conductor supports the future reliability goals of P.A. 102-0662 by providing lower restoration times, improved customer and worker safety, and reduced costs associated with performing maintenance during outage events. The Company also asserts that rebuilt subtransmission lines allow associated DER interconnections the flexibility to provide power to the subtransmission system grid during system interconnect outages. *Id.* at 18. The Company discusses alternatives that it considered, including continuing to repair specific poles or line segments upon failure or reconductoring aged lines. Citing reliability and safety concerns and differences in construction and design standards, the Company determined that neither alternative was acceptable. *Id.* at 16.

The Company also describes its NPV analysis comparing the average cost per mile of a complete wood pole subtransmission line rebuild to reconductoring existing wood pole lines. See AIC Ex. 51.1. The analysis presents three scenarios: a complete rebuild and reconductoring an existing line with either 25% or 50% of existing poles being replaced. Based on its analysis, the Company asserts that a complete rebuild provides the greatest value. AIC Ex. 51.0 at 16.

Staff argues that the Company did not provide an analysis sufficient to justify spending project J11P2's \$81.542 million in plant additions rather than continuing to address line needs through the maintenance and repair approach it has used in the past. The Company notes that Staff also challenges the Company's project justification analysis provided with the surrebuttal testimony of Company witness Adams, asserting that the Company provided essentially no data showing that such large portions of the conductors on project J11P2 candidates are unfit for service now or will become so over the MYIGP period. Staff IB at 57.

In response, the Company asserts that a well-planned repair and maintenance approach is exactly what the Company has employed for decades to extend the lives of these lines, and that it will continue to extend component life and delay line replacements for decades via the implementation of the Company's circuit and pole inspection and resulting corrective maintenance program, as described in Grid Plan Appendix J, with a

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focus on sustaining and extending safe and useful life of subtransmission lines. AIC Ex. 51.0 at 4.

AIC asserts that it has in place a well-planned maintenance and repair program that is based on test results from the circuit and pole inspection program, developed by trained and experienced engineers and industry technicians, that follows common and standard industry practices. The Company adds that based on test results and inspections, the Company's subtransmission lines have thousands of deteriorated poles and hardware components replaced yearly, extending their safe and useful life until conductor end of life is identified. The Company asserts that wood pole and steel tower subtransmission lines with conductor at or near end of life are prioritized and identified in spreadsheets in the record as Ameren Exhibits 24.2 and 24.3. *Id.* at 5. Citing its circuit and pole inspection programs, the Company asserts that the maintenance practices it completes yearly contribute to providing a safe, reliable, and resilient subtransmission system. *Id.* at 5-6.

The Company asserts that the issue with aging subtransmission lines, both wood and steel, is the condition and remaining asset life of the aged and deteriorated conductor, which is not readily identified and adequately mitigated during the Company's foot patrol circuit and pole inspection program. The Company notes that based on historic common industry practices, identifying remaining or end of life of conductor requires cutting out a section of conductor and performing a forensic destructive analysis. The Company adds that nondestructive tools for assessing the health and physical condition of a conductor have only recently been developed. The Company asserts that common industry practices, in conjunction with nondestructive tools and conductor sample evaluations, have been and will be used to confirm and prioritize the condition of conductors in support of line replacement when end of conductor life is identified. *Id.* at 7. The Company asserts that until nondestructive means of analyzing conductors are more fully developed, the Company, and the Commission, should rely on the educated, experienced judgment of the Company's engineers, who have hands-on experience with these lines, and whose experience and analysis are the basis for the Company's plans for this project. AIC RB at 116.

The Company asserts that its analysis conclusively shows that rebuild of these lines is the most cost-effective solution relative to continuing to maintain them as Staff suggests. AIC therefore recommends approval of project J11P2 as proposed in its Grid Plan.

(b) Staff's Position

Staff proposes an adjustment that removes the full \$81.542 million proposed budget of project J11P2 from the Company's MYIGP.

Staff asserts that beyond general observations, the Company provides relatively little detail about rates of repair or why continued maintenance of the lines is insufficient. Staff argues that AIC did not provide an analysis sufficient to justify spending Project J11P2's \$81.542 million in plant additions rather than continuing to address line needs through the maintenance and repair approach it has used in the past. Staff asserts that rebuilds of this magnitude do not comport to a generally applied industry approach. Staff Ex. 40.0 at 13. Furthermore, Staff asserts that the Company did not provide any evidence

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that the maintenance and repair approach has been ineffective to date or that it would require substantial augmentation to remain effective.

Staff maintains that the Company failed to present information demonstrating that a well planned and executed repair and maintenance approach could not produce equally effective performance for an extended period and at a cost warranting extended delay in eventual line replacement. *Id.* at 3. Staff asserts that the alternatives to this project identified by the Company, which assume large-scale conductor replacement accompanied by replacement of between 25 and 100 percent of poles to accommodate conductors of a more current design, are themselves essentially major rebuilds. Staff argues that the Company provided essentially no data showing that such large portions of the conductors identified within the scope of project J11P2 are unfit for service now or will become so over the MYIGP period. Staff IB at 57-58.

Staff asserts that Ameren cites no evidence about: (1) the historic costs of continuing a routine maintenance approach for any of the many circuits included as candidates for work under project J11P2; (2) how, if at all, continuation of the currently applied routine maintenance approach would call for material increases in historic levels of expenditure; (3) how or why the levels of reliability or safety produced through the application of its routine maintenance approach are and will be insufficient; and (4) how or at what levels of spending the continuation of the routine maintenance approach would begin to become inadequate to sustain sufficient levels of reliability and safety during the MYIGP period. Staff argues that without that information, the Company has provided no foundation for moving from a traditional routine and maintenance approach relying on O&M expenditures to the investment-heavy, proactive-approach that the rebuilds proposed under J11P2 involve. Staff RB at 32.

Staff notes that AIC claims the rebuilds under Project J11P2 will optimize grid assets and resources to minimize total system costs. However, Staff asserts that the lack of a comparison between the large expenditures under the project with continuation of the historically effective routine maintenance approach means that this statement has no substantial support and therefore should be disregarded. *Id.* at 33.

(c) AG's Position

The AG asserts that Staff's findings related to project J11P2 reinforce the AG's position that AIC's Grid Plan lacks capital spending governance and demonstrates the need for a risk-informed benefit-cost analysis. The AG argues that both the Company's proposed projects and the alternatives presented assume that the equipment in question will need to be replaced one way or another during the Grid Plan period, but that the Company has presented no evidence to demonstrate that this is the case. Further, the AG asserts that the Company does not appear to have considered that some or all of these projects could be deferred by using industry-standard, cost-effective repair and maintenance strategies. The AG asserts that as with the storm hardening project, the wood pole replacement project is evidence of the Company's deficient cost-effectiveness approach and lack of transparency. The AG shares Staff's concerns with this project, but the AG believes the appropriate remedy is to restore capital spending governance by limiting the Company's corrective maintenance budget as a whole to 2019-2022 average levels, plus inflation. AG RB at 38.

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(d) Commission Analysis and Conclusion

The Commission agrees with Staff's adjustment to the Company's proposed budget for project J11P2, which removes the entire proposed budget from AIC's Grid Plan. The Commission agrees with Staff's assertion that the Company has not sufficiently justified its proposed investment in project J11P2 and has not presented information demonstrating that AIC's maintenance and repair approach has been ineffective to date or that it requires substantial augmentation to remain effective. The Company notes that new conductor testing methods are increasingly being developed and deployed. Such tools could be used to form the justification for wood pole line rebuilds based on conductor condition in future MYIGP periods. Additional support for such a project in a future MYIGP should include information related to numbers of interruptions and of customer minutes of interruption and evidence demonstrating that existing maintenance and repair practices and expenditures are insufficient to maintain circuits at acceptable levels of reliability and safety.

Based on the evidence submitted in support of project J11P2, the Commission agrees with Staff's evidence that the Company has not shown that the extensive wood pole line rebuilds proposed under the project during the current MYIGP are necessary to ensure the continued reliability and safety of AIC's distribution system. As discussed in Section V.A., this Grid Plan is rejected. The Commission shall determine the appropriate budget for all proposed projects upon the Commission's approval of a refiled Grid Plan.

(iii) Project No. J11P3 – Subtransmission Resiliency Plan – Steel Tower Line Rebuild

(a) Ameren's Position

The Company proposes an investment of \$35.6 million in project J11P3, under which the Company will rebuild steel tower subtransmission lines that are approaching 100 years of age and are at the end of their useful life.

The Company explains that this project involves the proactive rebuild of subtransmission lines with steel lattice construction that have been identified as beyond normal repair due to the extensive age of the equipment. The Company asserts these aging lines exhibit wear on the structures, components, and the conductor that must be addressed in light of significant reliability, resiliency, and safety concerns. AIC Ex. 24.0 at 27.

The Company asserts that it prepared an analysis of extending facility life compared to rebuilding a representative steel tower line reflected in AIC Exhibit 51.2 and AIC Exhibit 51.3. The Company states that this analysis compares the NPV of the line rebuild cost of \$60M to the complete O&M cost to extend the tower life for 20 years. AIC asserts that its analysis conclusively demonstrates that rebuilding the Company's oldest, most deteriorated steel tower subtransmission lines provides a better value for customers than continuing to attempt to extend their lives with costly repairs. The Company reiterates that the Company has been repairing and extending the safe and useful life of this example line since the first hook and plate connection failure in 1999. *Id.* at 22.

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AIC argues that the discussion, photographs, and analysis provided in the Company's briefs, as well as the NPV scenario comparisons, merely illustrate conditions that apply to all of the steel lattice tower lines the Company has identified as potential candidates for rebuilding based on the condition of the hook and plate connections and the condition of the direct imbedded footers of those other lines. For all the candidate lines, the Company asserts that it would expect an NPV analysis to show that a complete rebuild is appropriate when structural integrity requires considerable O&M expenditure to extend the conductor life when the conductor is at or near end of life. *Id.*

The Company notes that Staff recommends an adjustment to this project to remove the full amount of this project from the Grid Plan, a reduction of \$35.6 million, arguing that the Company has not demonstrated why continued maintenance is not an adequate alternative to rebuilding the lines at issue. Staff IB at 57. As with project J11P2, the Company asserts that it is precisely AIC's inspection and maintenance program that has allowed these lines to remain in service for as long as they have, in excess of 100 years in some cases. The Company asserts that given the deteriorated state of these structures, it is the Company's judgment based on the hands-on experience of its engineers that it is no longer cost effective, safe, or consistent with the Company's efforts to achieve the State's ambitious clean energy goals, to rely on maintenance as the only solution to the serious problems caused by age. The Company emphasizes that it has extended and will continue to extend component life and delay line replacements for decades via the implementation of AIC's circuit and pole inspection and resulting corrective maintenance program, as described in Grid Plan Appendix J, with a focus on sustaining and extending safe and useful life of subtransmission lines. AIC Ex. 51.0 at 4. AIC asserts that given the deteriorated state of the oldest lines, the related costs and safety risks, and practical planning considerations, the time has come to begin the process of replacing them. AIC RB at 119. The Company asserts that it provided substantial confidential evidence justifying the conclusion that there is an immediate need for section work on the line identified in the Company's testimony. AIC IB at 156-162.

The Company also asserts that Staff fails to give sufficient weight to the analysis provided with AIC witness Adams' rebuttal and surrebuttal testimony, which the Company argues establishes that rebuilding these lines is more cost effective than the work the Company believes, based on the judgment of its engineers, will be required to maintain them. AIC RB at 120-121.

(b) Staff's Position

Staff proposes an adjustment that removes the full \$35.609 million proposed budget of project J11P3 from the Company's MYIGP. Staff states that a program generally calling for rebuild versus repair of old lines is not typical and should be accompanied by comprehensive analysis, which Staff asserts was absent in this docket. Staff Ex. 40.0 at 3.

Staff asserts that the record contains no evidence showing an analytically based or even rough estimate of the numbers of configurations at sufficient risk of failure to support rebuilding an entire line. Staff also asserts that the Company did not provide a specific number of hardware or conductor failures, the years any such failures occurred, or any other corresponding data to properly analyze the likely rate of occurrence in the

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future. Staff IB at 60. Staff also notes that AIC cited deteriorating conductors in support of the need for plant additions amounting to \$35.609 million in steel tower line rebuilds, but Staff asserts the Company has not supported that amount with citations to more than a single conductor failure. AIC Ex. 51.0 at 16.

Staff asserts that AIC failed to show why what has presumably been a reasonable and prudent approach to date must be replaced by a vastly more expensive one. Staff argues that data identifying a very small number of repair needs and the absence of data or analysis showing that those needs will increase provide a more accurate picture of the circumstances compared to a small collection of photographs at a few locations. Staff IB at 61. In response to the Company's assertion that repairs are necessary to increase capacity to support general load growth or DER interconnection (AIC Ex. 24.0 at 25), Staff notes that other MYIGP projects address capacity needs. Staff notes that with respect to DER interconnections, as is generally true for capacity additions, more capacity will always have the benefit of serving more load and more DER. Staff asserts, however, that does not call for adding more capacity everywhere, but only where, as P.A. 102-0662 requires, it serves to optimize utilization of electricity grid assets and resources to minimize total system costs. Staff asserts that the Company fails to provide meaningful information on the degree to which reductions in expenditures for project J11P3 will materially diminish the ability to accommodate DER interconnection over the MYIGP period. Staff IB at 61-62. Staff argues that the Company provides no useful information for determining the extent, if any, to which reliability or safety will be negatively affected by continuing its routine maintenance approach, and Staff recommends that the Commission eliminates the full proposed budget for project J11P3.

(c) AG's Position

The AG agrees with Staff's conclusion that the Company has failed to demonstrate its basis for spending \$35.6 million to rebuild steel towers. The AG asserts that the record shows the problem is not limited to steel tower rebuilds or subtransmission hardening, but is indicative of a lack of capital spending restraint in the Company's corrective maintenance budget as a whole. The AG asserts that the remedy to this problem is limiting the Company's capital spending on corrective maintenance rather than focusing on a specific adjustment to this particular program. The AG asserts that nothing in the AG's recommendation would prevent the Company from improving its oldest, most deteriorated equipment where warranted, but argues that by limiting AIC's capital spending budget, ratepayers would be assured that the Company is prioritizing the equipment most in need of replacement and using the most cost-effective maintenance strategies. AG RB at 39.

(d) Commission Analysis and Conclusion

The Commission agrees with Staff's adjustment to the Company's proposed budget for project J11P3, which removes the entire proposed budget from AIC's Grid Plan. The Commission agrees with Staff's assertion that the Company has not sufficiently justified its proposed investment in project J11P3 and has not presented information demonstrating that AIC's maintenance and repair approach cannot sustain the lines encompassed by project J11P3 and meet the Company's safety and reliability objectives.

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Given the age of the steel towers in portions of the Company's distribution system, the Commission recognizes that rebuilding certain steel tower subtransmission lines may, with sufficient analysis and evidence, be justified in the future. However, the record evidence shows that AIC has not demonstrated that beginning to proactively rebuild steel tower subtransmission lines during this MYIGP is necessary and justified. As discussed in Section V.A., this Grid Plan is rejected. The Commission shall determine the appropriate budget for all proposed projects upon the Commission's approval of a refiled Grid Plan.

(iv) Previous Review of Subtransmission Line Hardening

The Commission's analysis, findings, and conclusions regarding projects J11P1, J11P2, and J11P3 within the corrective maintenance category are set forth in Sections V.C.6.c.iv.(b)(i)-(iii) of this Order.

(c) Proactive Substation Equipment Replacement Program

(i) Ameren's Position

The Company proposes an investment of \$70 million in its proactive substation equipment replacement program as set forth in its Grid Plan and further detailed in AIC witness Bauza's testimony. AIC Ex. 2.1GP, App. L at 4; AIC Exs. 23.0, 50.0.

The Company asserts that proactive replacement of this equipment is necessary to avoid a potential future situation where the need for replacements outstrips the Company's ability to complete them, due in part to increases in equipment lead times. The Company also asserts that replacement will ensure public safety, promote effective grid operation, improve the reliability and resiliency of the aging substation infrastructure, and reduce O&M expenses. Finally, AIC asserts that replacement of transformers is necessary to avoid significant risks associated with equipment failure and voltage regulation, and to prepare the grid for the clean energy future. AIC Ex. 23.0 at 8-9, 22-23.

Under this program, the Company seeks approval of \$20 million in capital investments to proactively replace 50 substation circuit breakers and \$50 million in capital investments to replace 10 transformers. Regarding breakers, AIC states that the goal of this program is to proactively replace breakers that have reached end of useful life in an effort to ensure public safety, promote effective grid operation, improve the reliability and resiliency of the aging substation infrastructure, and reduce O&M expenses. AIC Ex. 23.0 at 10. The Company states that transformer replacements may be necessary per Company planning criteria due to overloading conditions and voltage regulation during both normal system operation and abnormal system operating conditions where a portion of the system is not available due to forced or planned maintenance outage, including to prepare for the expected increase in distributed generation consistent with the State's clean energy goals. The Company asserts that this work is necessary to ensure correct protective device operations for public safety, along with maintaining and improving grid reliability and resiliency. The Company also asserts that the work is necessary to avoid significant risks associated with equipment failure and voltage regulation, and to prepare

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the grid for the clean energy future. *Id.* at 8-9. The Company provides additional information about both components of this program, breakers and transformers, including the Company's justification and cost-benefit analysis for the program, in its testimony and briefs. See AIC Ex. 23.0.

The Company notes that the AG is the only party to challenge AIC's proactive substation equipment replacement program. The Company states that the AG claims that because the 50 breakers the Company has identified as candidates for replacement in this program have all passed their most recent functional tests, there is no need for proactive replacement, including based on their argument that substation equipment is designed with reserve capacity to handle load in the event of equipment failure. AG IB at 61-62. The Company asserts that the AG also references an age of 30 years for the Company's breakers out of context, and selectively quotes from the Liberty Baseline Assessment Report for a general statement regarding equipment age. *Id.* The Company maintains that none of these assertions and arguments serve to rebut the Company's evidence justifying the urgent need for this program.

The Company notes that its entire fleet of 1,220 subtransmission oil circuit breakers in service are over the age of 30 years. The Company emphasizes that it is not proposing to replace all 1,220 breakers, but rather those that are the oldest, and at the end of their useful life. The Company explains that it must replace at least 14 breakers per year to maintain a mean fleet age of 32 years, just under the average life expectancy of these breakers of 40 years. Based on this, the Company asserts that its proposal to replace 10 breakers per year is conservative. AIC IB at 170. The Company also asserts that the unavailability of parts for certain of its breakers and long lead times to procure new breakers means that if AIC runs its breakers to failure, as it asserts the AG proposes, it would create an untenable situation where the average age of in-service breakers rapidly increases to an unmanageable age level that cannot be corrected in a short timeframe. The Company asserts that such a situation would have negative consequences for reliability and safety. AIC Ex. 23.0 at 11-12. The Company also asserts that the AG fails to acknowledge the Company's evidence regarding O&M savings that are expected to result from breaker replacements. *Id.* at 15-16.

The Company responds similarly to the AG's arguments related to AIC's replacement of transformers, asserting that long lead times make proactive planning much more important and leave less room for the Company to adapt in the event of equipment failures. *Id.* at 9. The Company explains that the AG also asserts that voltage regulation issues do not justify the proposed transformer replacements, that the Company reports no violations of the voltage limits specified by the Illinois Administrative Code, and that the Company can document no customer voltage complaints associated with the transformers the Company has identified as candidates for replacement in Ameren Exhibit 23.2. AG IB at 63. The Company asserts that this issue also relates to expansion of DER on the Company's grid, since as DER interconnect on the distribution system, they contribute to voltage rise during minimum loading, exacerbating existing voltage regulation issues. The Company explains that as large, centralized generation that has been operating for many decades are being retired, voltage fluctuations on the transmission system have increased throughout the year, which has identified new criteria violations that did not exist previously for bulk transformers that do not have a load tap

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changer. The Company notes that while it is true that voltage variation is routine at substations as load is constantly changing, due to the increased magnitude of the fluctuations throughout the year, without the centralized generators providing adequate voltage regulation on the Transmission system, other alternatives to regulate voltage on lower voltage systems such as the subtransmission system are needed. AIC Ex. 50.0 at 6-7. Regarding the lack of customer voltage complaints, the Company notes that it does not track customer complaints in a way that allows them to be readily associated with specific equipment failures. AIC Ex. 50.4 at 2.

(ii) AG's Position

The AG argues that the Company's proposed proactive substation equipment replacement program is another example of a corrective maintenance program for which the Company is proposing unreasonable spending levels. The AG asserts that the concern raised by the Company regarding reliability and outages is exaggerated, given that objective functional tests that the Company uses are a reliable and cost-effective approach to predicting equipment failure, the subtransmission system has a high level of redundancy such that service interruptions as a result of failures will be rare, and that, as a practical matter, in-service failures were exceedingly rare. AG IB at 63-64; Grid Assessment at 17-18.

Regarding circuit breakers, the AG argues that the Company has not demonstrated that its program to proactively replace circuit breakers will provide substantial benefits beyond what the Company would get with periodic functional testing. The AG asserts that these objective tests are highly reliable at identifying potential equipment failures and are consistent with the Grid Assessment's caution that generalizations about condition solely based on age are not probative, and that older equipment often was designed with a greater performance margin. AG IB at 57; Grid Assessment at 37.

Regarding transformers, the AG argues that the Company again has not established the need to proactively install load tap changer transformers. The AG argues that the transformers the Company seeks to replace have all passed functional testing and are currently operating in service. The AG notes that the Company asserts the transformer replacements are needed for reliability as well as voltage regulation. Regarding reliability, the AG argues that similar factors to those identified with respect to breakers reduce the value of proactive transformer replacement programs: the Company is already conducting periodic diagnostic and function testing that provide objective data, and the subtransmission system has a high level of redundancy that make in-service failures resulting in service interruptions rare. AG Ex. 1.0 at 56-58; Grid Assessment at 17-18. Regarding voltage regulation, AG witnesses assert that the 10 transformers the Company plans to replace experience thousands of voltage output variations that are higher or lower than desired every year, yet the Company reports no violations of the voltage limits specified by the Illinois Administrative Code and can document no customer voltage complaints associated with these transformers. AG Ex. 3.0 at 29; AG Ex. 3.1 at 16-19, 24. The AG contends that the proliferation of DER is likewise not a convincing justification for the amount AIC is proposing to spend. The AG asserts that although it is easier to manage DER-related voltage variation on a load tap changer transformer than a transformer without a voltage regulator, it has not been established that voltage

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variation from DER is especially problematic when DER capacity is low relative to the hosting circuit's load. AG Ex. 3.0 at 30. The AG further asserts that the Company has not conducted a forecast of expected DER by circuit, and it has not produced any evidence linking the ten transformer replacements to expected growth in DER penetration on those specific substations. AG IB at 64. The AG asserts that the Company's failure to produce a convincing quantitative business case to support these programs demonstrates that it has not carried its burden of proving the proposed investment levels are necessary. *Id.*

(iii) Commission Analysis and Conclusion

Based on the Commission's decision in Section V.A., the Commission is unable to determine if AIC's proposed proactive substation equipment replacement program should be approved at the funding level proposed by the Company.

The evidence in this proceeding demonstrates that this program is necessary. The targeted replacement of substation equipment that has reached the end of life will ensure the continued reliability of AIC's distribution system. The difficulty and expense of sourcing parts for aging substation equipment and the long lead times for new equipment support adopting a proactive approach to substation equipment replacement to avoid future safety and reliability issues. The Commission agrees with the Company that the time has come to begin a program to proactively replace this equipment in a responsible, cost-effective manner, as the Company proposes to do with this program, including due to increasing O&M costs associated with maintaining older equipment and the aforementioned part and equipment sourcing challenges. Based on this record, the Commission declines to determine if the Company's proposed program is compliant with the requirements of the Act.

The Commission finds that replacing older transformers with load tap changer transformers will provide benefits to the clean energy transition by ensuring the grid is prepared for the demands of DER interconnection. However, due to the Company's non-compliance with Section 16-105.17(f)(2)(f), the Commission declines to determine the necessary scope and funding levels for this project. The Commission finds that the requirements under Section 16-105.17(f)(2)(f) of the Act are necessary to inform the Commission's decision on whether this program complies with the Act.

(d) Project C3210 (UG Cable Emergent Replacement)

(i) Ameren's Position

The Company proposes an investment of \$94.63 million in project C3210, which is the Company's underground cable emergent replacement program. The Company asserts that this program sustains and improves reliability by replacing underground service cable as needed during routine grid operations. AIC Ex. 26.0 at 17-18. The Company notes that this involves costs associated with emergency repairs and replacement of direct buried cable upon failure/fault of the cable as part of the Company's corrective maintenance program, and that this project is reserved for work that must be performed due to customer service interruption and to sustain and improve system reliability. AIC Ex. 2.1GP, App. I at 2.

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The Company notes that primary cables purchased between 1960 and present day were constructed with varying qualities of insulation and jacketing that improved as primary cable manufacturers developed newer materials and construction methods. The Company explains that the earliest cable purchased for use on the Company's system came with a manufacturer's expected reliable life of 15 years; as the cable quality was improved, the expected life increased to 20, 25, or 30+ years. AIC Ex. 20.0 at 14.0. The Company further explains that older cable that continues to deteriorate, with an increasing number of faults, is present in all areas of AIC's primary underground system. The Company notes that the majority of faults are on a single-phase system that serves customers in subdivisions, and that the average number of primary cable faults between 2014 and 2019 was 2,287 with many cable sections experiencing multiple primary cable faults. *Id.* at 14-15. In its testimony and briefs, the Company explains that its policy prior to 2020 allowed for up to three primary cable faults on a cable section before the cable section was scheduled for replacement and that this policy caused many customers in subdivisions to experience multiple outages. The policy was updated in 2020 to replace a faulted primary cable section on first failure. The Company asserts that this policy better accounts for the fact that the cable failed for a reason, it is past the end of its life, and continuing to provide repairs to the cable does not provide the reliable service that the Company's customers expect. *Id.* at 15.

The Company asserts that customer reliability and outage frequency and duration have improved since 2020, based on the quantities of cable installed in each year. The Company asserts that project C3210 provides the funding needed to maintain the scope of the primary cable replacement policy with the intent to improve reliability to customers served on aged underground systems by reducing outage frequency and duration. *Id.*

The Company explains that, as with projects C3023, JOC3R, and C3327, discussed above, Staff recommends an adjustment to this project's budget based on Staff's review of historical spending. The Company notes that for this project, Staff's adjustment is based on assumptions regarding price escalation and Staff's decision to rely on an average of 2021 and 2022 work levels. The Company disagrees with Staff's adjustment and asserts that it fails to appropriately account for the Company's evidence, including the Company's recent experience with increases in material costs.

The Company explains that the forecast for this project utilized a two-year actual cost average, adjusted for escalation, to prepare the 2023-2027 budget. In order to determine the total capital additions in 2020 and 2021 under C3210, specific underground cable replacement projects funded by that blanket work order were included in the total. The Company notes that this was a departure from the Company's normal approach to budgeting blanket work orders, but asserts that the policy change in August 2020 meant that the volume of work in that year was not reflective of what expectations would be for the work going forward. The Company notes that the remainder of the forecast for this project utilized the same assumptions and bases as described above for project C3023. *Id.* at 16-17.

The Company maintains that it has proposed a reasonable budget for this project, based on credible evidence and reasonable escalation factors, that best approximates the likely cost of this program through the Grid Plan period. The Company states that for all the reasons discussed in the Company's briefs and in the rebuttal and surrebuttal

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testimony of AIC witness Irizarry-Robles, the Commission should reject Staff's adjustment for this important project and fully fund it at the levels proposed by the Company.

(ii) Staff's Position

Staff proposes a total reduction of \$4.058 million to project C3210 during the MYIGP. Staff Ex. 35.01 at 1.

Staff asserts that the Company does not appear to take issue with the use of escalated historical costs as a sound basis for projecting MYIGP plant addition values for project C3210, but rather the Company contests the means by which Staff determined those values. Staff notes that AIC also cited a 2020 policy change to reduce the number of failures at a location used as a criterion for initiating replacement, a factor that Staff asserts, all else equal would increase work levels and therefore costs. AIC Ex. 20 at 15. However, Staff asserts that it had already accounted for that work-increasing change by eliminating earlier years from the historical period used to calculate reliable estimates of MYIGP year plant additions. Staff asserts that to revise its adjustment in rebuttal testimony using new information from AIC, it used the average work units from 2021-2022, and applied the Company's 2022 unit cost, with escalation, to that result. Staff Ex. 35.0 at 11. Based on its calculations, Staff recommends a reduction to the Company's budget for project C3210.

(iii) Commission Analysis and Conclusion

As discussed in Section V.C.6.c.iii.(d)(iii) of this Order, the Commission agrees with Staff's methodology to prepare its proposed budget for project C3210, including its adjustments for escalation. As discussed in Section V.A., this Grid Plan is rejected. The Commission shall determine the appropriate budget for all proposed projects upon the Commission's approval of a refiled Grid Plan.

(e) Project C3178 (Substation Emergent Replacement)

(i) Ameren's Position

The Company proposes an investment of \$20.1 million in project C3178, which covers replacement of distribution electric substation equipment as needed during routine grid operations for projects under \$100,000. AIC Ex. 2.1GP, App. I at 14.

The Company states that this work includes additions and retirements for substation land, structures, and equipment for distribution substations related to emergent work and as part of several corrective maintenance asset strategies based on test and inspection results as well as engineering review, including Proactive Low Voltage Breaker Replacement, Battery Replacement, Animal Mitigation, and Relay Replacement strategies. *Id.*

The Company explains that the capital investment in project C3178 allows for the upgrading or replacement of aging or outdated equipment within the substation. AIC asserts that older equipment is more prone to failures and can negatively impact reliability and that by investing in modern and more reliable equipment, such as transformers, circuit breakers, and relays, substations can enhance their operational reliability and reduce the risk of unexpected failures. AIC Ex. 20.0 at 17-18. The Company states that

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spending capital dollars under this project on necessary upgrades, technology implementations, infrastructure enhancements, and substation-related projects directly contributes to substation reliability improvements. AIC argues that by leveraging these investments, substations can enhance equipment performance, strengthen system resilience, optimize maintenance strategies, and adopt advanced technologies, ultimately ensuring a more reliable and efficient power supply for the Company's customers. *Id.* at 19.

The Company notes that to plan this work, substation and relay maintenance engineering personnel develop and maintain prioritized lists of locations and equipment for each strategy that are used to select work to be performed each year. The Company explains that while much of the work performed under project C3178 is planned one year in advance, certain events such as animal outages or newly identified equipment concerns over the course of a given year will cause maintenance engineering personnel to revise these priority listings, causing a small amount of unplanned emergent work to be added each year. This differs from other blanket distribution substation projects such as C3020, which is strictly used for emergency replacements due to equipment failures. *Id.* at 21-22.

The Company notes that Staff recommends an adjustment to this project budget totaling \$3.208 million based on Staff's use of five years of historical spending as a baseline and different inflation factors. The Company asserts that while it agrees with the approach of escalating prior years to arrive at a normalized baseline, the Company disagrees with the historical time period referenced and the inflation factors used.

The Company disagrees with the methodology used by Staff to establish a baseline for future escalation and maintains that the Company's projected expense for project C3178 is based on more recent activity, which is representative of operations, and already incorporates a conservative assumption for historical observed inflation to establish a baseline by using only 50% of the CPI factors observed for 2020-2021 and 2021-2022. The Company asserts that Staff's adjustment should be rejected, and this project should be funded at the level proposed by the Company. AIC Ex. 47.0 at 22.

(ii) Staff's Position

Staff proposes a total reduction of \$3.208 million to project C3178 during the MYIGP. Staff Ex. 35.01 at 1.

Staff notes that after rebuttal testimony narrowed the issues between the parties related to this project, the Company and Staff have arrived at a common starting point, using agreed-to historical values for an historical period to project plant addition values for the MYIGP period, accounting for escalation. Staff asserts that the principal issue in dispute is which historical period to use and how to apply escalation. Specifically, Staff adds that the issue regarding this project, as is true for project C3226 (addressed in the next section), is how to escalate historical costs to establish the basis for projecting more reliable estimates of 2023-2027 MYIGP plant addition values. Staff IB at 69-70.

Staff argues that based on arguments set forth in its Initial Brief, its adjustment to reduce funding for project C3178 by \$3.208 million remains appropriate and the Commission should accept it.

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(iii) Commission Analysis and Conclusion

As discussed in Section V.C.6.c.iii.(d)(iii) of this Order, the Commission agrees with Staff's methodology on how the Company should prepare its proposed budget for project C3178, including its adjustments for escalation. As discussed in Section V.A., this Grid Plan is rejected. The Commission shall determine the appropriate budget for all proposed projects upon the Commission's approval of a refiled Grid Plan.

(f) Project C3226 (Distribution Line Emergent Replacement)

(i) Ameren's Position

The Company proposes an investment of \$67.31 million in project C3226, which funds costs associated with emergency system repair that must be performed due to customer service interruption or due to an immediate safety hazard to employees, customers, or the general public (such as downed wires or broken poles). AIC Ex. 2.1GP, App I at 3.

The Company states that project C3226 includes a variety of major material items, such as regulators, reclosers, poles, crossarms, and cable, which are replaced on an emergency basis. The Company notes that it does not forecast specific major material items and projected quantities due to the unpredictability of the equipment, weather, animal, vegetation, and public vehicle related types of events that typically drive these additions, as well as the resources needed to prepare a forecast with such details. The Company explains that instead, and as described below, the Company utilizes a prior year historical cost average, adjusted for escalation, for forecasting material.

The Company states that for reference, in the first quarter of 2023, it has experienced significant stock material price increases. Compared to first quarter 2022, AIC equipment and material purchase prices have increased an average of 10%. For example, wood pole per item costs increased an average of 25.3%; transformers, regulators, and reclosers per item cost increased an average of 16.6%; and pole line hardware per item cost increased an average of 16.6%. The Company explains that due to these price increases, the Company departed from its default approach and used a two-year actual cost average, adjusted for escalation, to prepare the project's 2023-2027 budget. AIC Ex. 47.0 at 8. The Company asserts that actual additions in 2020 for project C3226 were an outlier – abnormally low due to fewer emergency orders that were required to be addressed, which was primarily driven by lower overall load on the system, in addition to a shift in load from commercial to residential customers during the global pandemic. These specific circumstances led to excluding 2020 spend in an average cost calculation for establishing a baseline. *Id.*

The Company disagrees with Staff's proposed adjustment as it excludes 2022 spend for no reason other than it appeared to be out of line with average spend. The Company states that, as explained above, in limited circumstances, the Company sometimes evaluates potential outliers by determining whether unusual circumstances, or what would be considered non-recurring events, drive historically observed costs too low or too high. AIC asserts that it did not consider 2022 to be an outlier, as that increased spend was the result of an offsetting shift in spend from blanket project C3223 (see

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Ameren Exhibit 47.4). AIC asserts that this shift was caused by implementation of Maximo as the Company's new work management system. Time and materials that were previously recorded to C3223 are now being recorded to C3226. In comparison the Company asserts that the onset of the global pandemic in 2020 resulted in lower overall load on the system, as well as a shift in load from commercial to residential customers. Consequently, the Company states the number of actual additions during 2020 was abnormally low and so it was excluded from the actual cost average as an outlier. *Id.* at 22-23.

(ii) Staff's Position

Staff recommends a total reduction of \$9.418 million to project C3226 during the MYIGP. Staff Ex. 35.01 at 1.

Staff asserts that if 2020 is excluded as an anomaly, 2022, when costs under this project exceeded the average by 35%, should also be excluded in determining the historical average. Staff Ex. 35.0 at 14-15. Staff asserts that the baseline should be calculated by excluding 2020 and 2022, and therefore proposes using the most recent remaining historical year (2021), which varied by less than 1% from the three-year average of \$10.40 million. Staff also revised the escalation rate applied to 2021-2022 to match the approach used to recalculate the adjustment for project C3178. *Id.* at 15. Staff recommends that the Commission accept Staff's proposed adjustment totaling \$9.42 million for the MYIGP period, which will reduce yearly MYIGP plant additions for Project C3226.

(iii) Commission Analysis and Conclusion

The Commission agrees with Staff's methodology on how the Company should prepare its proposed budget for project C3226. Staff states that, if 2020 is excluded as an anomaly, then in 2022, when costs for this project exceeded the average by 35%, should also be excluded in determining the historical average. The Commission agrees with Staff that it is inconsistent for Ameren to include higher 2022 costs, while excluding the low 2020 costs. The Commission further agrees with Staff's exclusion of both 2020 and 2022 in calculating its total reduction of \$9.418 million for this ITN. As discussed in Section V.A., this Grid Plan is rejected. The Commission shall determine the appropriate budget for all proposed projects upon the Commission's approval of a refiled Grid Plan.

(g) Full Microprocessor Relay

(i) Ameren's Position

The Company proposes an investment of \$32.3 million in its microprocessor relay upgrade plan, under which the Company will deploy 323 microprocessor relay panels over the course of the 2023-2027 Grid Plan period. AIC Ex. 47.0 at 22-23. The Company asserts that this will improve the security, reliability, and resiliency of the Company's subtransmission system, as well as the distribution system downstream from subtransmission equipment.

The Company states that this program will upgrade electromechanical ("EM") or solid-state ("SS")-based devices that operate off of overcurrent or distance protection methods and have been identified as the highest priority for replacement, as they have the highest risk of failure to detect faults related to the introduction of inverter-based

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resources ("IBRs") and DER. The Company explains that the design of DER/IBR generation equipment has not been standardized to output power in the same way as older, traditional power sources, potentially causing problems for older relays that were designed to work with those older power sources. AIC Ex. 25.0 at 8. AIC asserts that this program will improve the security, reliability, and resiliency of the Company's subtransmission system and address significant protection, reliability, and safety concerns related to the introduction of DER/IBR generation equipment to the grid. *Id.* at 22.

The Company explains that microprocessor relays supersede both EM and SS relays and are the current modern design of protective relays. Microprocessor relays use computer chips to convert the power system values to digital quantities and make decisions off those measurements using computer algorithms and logic. Unlike EM and SS relays, microprocessor relays contain multiple functions, can be applied in a greater variety of situations, record and store disturbances using onboard memory, and provide self-checking systems to notify operators of problems. *Id.* at 7.

The Company notes that historically, it has identified EM/SS relays for replacement upon finding a failed relay during preventative maintenance, then replacing it through the Company's emergency replacement plan. The emergency replacement plan consists of finding like devices that can be substituted or finding a suitable solution for integrating spare microprocessor-based devices into the existing panel. AIC states that it is challenged in performing like-for-like emergency replacements when EM/SS failures occur due to the limited spare inventory of these aged devices, and the correspondingly higher costs that result from a limited supply. The Company explains that its scheduled replacement program for the EM/SS relays will address these challenges. *Id.* at 11.

AIC asserts that the risks to the grid if these upgrades are not completed are significant. The Company explains that its grid is at risk from EM/SS relaying technologies that will not be able to accurately detect or be set to clear faulted conditions, leading to significant safety and reliability concerns. The Company explains that at the time that EM/SS relays were designed, the power grid was entirely sourced from spinning turbine generation such as coal, nuclear, and hydro-electric plants. System faults can occur when animals, vegetation, weather conditions, or human operated equipment come into contact with lines and substation devices. When under a system fault, the generators at these power plants would output electrical quantities that differed from the ones they would output under normal conditions. AIC states that the designers of EM/SS relays centered the operation of the device around these values existing during a faulted condition. DER/IBR generation sources (such as solar and wind) create system power using electronics instead of spinning turbines. Under a faulted condition, DER/IBR generation sources will not output the faulted values required to make EM/SS relays operate, leaving the problem on the system for an extended period or indefinitely. The Company further explains the risks, both to safety and reliability, of such a fault. *Id.* at 12-13.

The Company asserts that this work supports Subsection 16-105.17(d)(2) and (3) of the Act by replacing assets in a way that optimizes utilization of electricity grid assets and resources to minimize total system costs and support efforts to bring the benefits of grid modernization and clean energy to all retail customers and specifically EJ/R3

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communities. AIC also asserts that this work also supports the reliable, dependable, and secure operation of the protection system for the grid. The Company reiterates that challenges are clearly presented with traditional based protection schemes, such as EM/SS relays, with the penetration of DER/IBR generation onto the power system. The Company asserts that the replacement of EM/SS relays that have a higher risk of failure will add to the reliability of AIC's system by allowing for more reliable tripping in the instance of high DER penetration.

In response to the recommendations of both Staff and the AG, the Company describes several examples it asserts illustrate the benefits and necessity of microprocessor relays. AIC Ex. 52.0 at 8-10. The Company disagrees with the AG's position that a reactive approach based on testing and maintenance is appropriate. *Id.* at 11. The Company asserts that its evidence reflects that replacing failed relays reactively, or any maintenance program based on reactive rather than proactive replacements, is not a sound maintenance strategy, and that running a system to failure nearly always results in the wider system being affected. *Id.* In response to the AG's argument that increasing penetration of DER does not justify microprocessor relay upgrades, the Company asserts that the AG underestimates the level of DER adoption expected by 2027. The Company further asserts that the need for investment to prepare for the significant, reasonably expected increase in DER penetration is considerably more urgent than the AG suggests. The Company maintains that failing to make appropriate investments in the grid as the Company proposes to do with this project will impede the clean energy transition, contrary to the intent of P.A. 102-0662. AIC RB at 147.

(ii) Staff's Position

Staff recommends a total reduction of \$17.693 million to the Company's microprocessor relay upgrade project during the MYIGP period. Staff Ex. 35.01 at 1.

After reviewing the Company's rebuttal testimony, Staff determined that the Company could justify continuation of investments at historical levels, adjusted for escalation, but not beyond that level. Staff cites a number of factors that it asserts were insufficiently explained and supported by the Company. Staff Ex. 36.0 at 21-23.

Staff recommends that the Company take certain measures to identify 2023-2027 installations and to improve transparency when the time comes to reconcile work units performed and costs actually incurred and address reasonableness and prudence in microprocessor relay installations. Staff specifically recommends: (1) a single, separate project identifier or work order encompassing each MYIGP project's microprocessor relay numbers and forecasted expenditures for each year from 2023 through 2027; (2) that AIC track planned versus actually installed microprocessor relay numbers and costs, subtracting those specifically identified relay numbers and expenditures from each MYIGP project affected and accumulating them under a single microprocessor relay designator; (3) that AIC track the costs of projects with the microprocessor relay values subtracted; and (4) that AIC track the microprocessor relay numbers and costs using the single separate project identifier or work order. Staff Ex. 35.0 at 18-19.

Staff notes that in surrebuttal testimony, the Company agreed to Staff's recommendations addressing isolation and tracking of microprocessor relays. AIC Ex. 52.0 at 4. However, Staff asserts that AIC did not provide a direct response to the other

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issues raised by Staff, specifically: (1) at what level of DER/IBR penetration and when in the future the Company will reach concern about diminishing use of legacy relaying technology as it continues to replace that technology under the amounts remaining after Staff's proposed adjustment, (2) what demonstrable safety improvements will result from AIC's proposed rate of installation, and why, if material, that rate was not accelerated historically, (3) what levels of marginal cost reduction it is reasonable to expect AIC to achieve by replacements at its proposed rate versus that attainable after Staff-proposed adjustment, and (4) the magnitude of other cost reductions likely to be achieved and by how much the resulting savings will be reduced after acceptance of Staff's proposed adjustments. Staff IB at 76.

Staff recommends that the Commission adopt its proposed adjustments to the Company's budget for its microprocessor relay upgrade project. In addition, Staff recommends that the Commission require the following project tracking measures, which Staff notes the Company accepted and agreed to (AIC IB at 199): (1) That Ameren employ a single, separate project identifier or work order encompassing each MYIGP project's microprocessor relay numbers and forecasted expenditures for each year from 2023 through 2027; (2) that Ameren track planned versus actually installed microprocessor relay numbers and costs, subtracting those specifically identified relay numbers and expenditures from each MYIGP project affected and accumulating them under a single microprocessor relay designator; (3) that Ameren track the costs of projects with the microprocessor relay values subtracted; and (4) that Ameren track the microprocessor relay numbers and costs using the single separate project identifier or work order.

(iii) AG's Position

The AG asserts that the Company's microprocessor relay program is an example of the Company's overspending on corrective maintenance. The AG acknowledges that microprocessor relays provide better diagnostic information but asserts that the Company does not provide any evidence as to how improved diagnostics translate to reliability improvements. AG Ex. 3.0 at 38-39. The AG notes that the Company currently operates approximately 10,320 relays on its system, and it reported just 8 incidents in which a relay mis-operated from 2018-2022. The AG adds that only 3 of these 8 incidents resulted in a service interruption. *Id.* at 63-64. The AG asserts that even if, as the Company claims, system aging will increase the failure rate, the Company provides no quantitative evidence to indicate that failures will occur substantially more often than they did from 2018-2022. AG Ex. 3.1 at 7-8.

The AG agrees with Staff's conclusion that the Company failed to carry its burden of proving the need for a substantial increase over historical levels of spending on microprocessor relays. The AG asserts that this is further evidence that the Company's corrective maintenance capital budget is excessive and should be limited to levels supported by past practice. The AG requests that the Commission reduce the Company's corrective maintenance spending to the levels recommended above.

(iv) Commission Analysis and Conclusion

The Commission agrees with Staff's adjustments to the budget for the Company's microprocessor relay upgrade plan. The Commission further agrees with Staff's

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assessment that important questions related to the cost savings and other benefits of the Company's expanded microprocessor relay upgrade plan were not sufficiently answered. The burden is on the Company to establish that its proposed increase in spending on microprocessor relay upgrades is reasonable and prudent. The Commission agrees that AIC has not met that burden in this Grid Plan and agrees with Staff's position that maintaining AIC's historical spending in this category, adjusted for escalation, will allow the Company to cost-effectively sustain its system's safety and reliability.

Additionally, the Commission finds that requiring the Company to track its microprocessor relay work, as proposed by Staff and agreed to by the Company, is reasonable. Specifically, the Company should:

- employ a single, separate project identifier or work order encompassing each MYIGP project's microprocessor relay numbers and forecasted expenditures for each year from 2023 through 2027;
- track planned versus actually installed microprocessor relay numbers and costs, subtracting those specifically identified relay numbers and expenditures from each MYIGP project affected and accumulating them under a single microprocessor relay designator;
- track the costs of projects with the microprocessor relay values subtracted; and
- track the microprocessor relay numbers and costs using the single separate project identifier or work order.

The Commission agrees with Staff's adjustments to the Company's microprocessor relay upgrade budget, as set forth in Staff Exhibit 35.01. As discussed in Section V.A., this Grid Plan is rejected. The Commission shall determine the appropriate budget for all proposed projects relating to capacity expansion upon the Commission's approval of a refiled Grid Plan.

d. Reliability-related project spending cap (IIEC)

i. Ameren's Position

Ameren notes that IFCUP witness Al-Jabir recommends a reduction in spending totaling \$354 million for certain reliability-related projects identified by IFCUP witness Fitzhenry to historic levels, adjusted for inflation. AIC Ex. 45.0 at 16. Mr. Al-Jabir asserted that the increase in spending on reliability-related projects in the Company's Grid Plan is not justified by the expected benefits in service quality and reliability. IFCUP Ex. 2.0 at 3-4. AIC asserts in response that Mr. Fitzhenry's analysis of AIC's reliability performance: (1) improperly compared the Company's performance to that of other utilities without considering system design differences; (2) only examined one component out of five components in Performance Metric #1; and (3) improperly used IEEE Standard 1366 instead of the methodology adopted by the Commission for Performance Metric #1, which limits the Company to only excluding 5 major event days ("MEDs") per year when calculating the Company's performance. AIC Ex. 26.0 at 27-28. The Company notes that Staff witness Kierbach reached a similar result regarding the unreliability of Mr. Fitzhenry's analysis, stating that it "does not include or consider the effect of MEDs on SAIDI, therefore, it does not provide enough of an explanation about achieving

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Performance Metric #1 targets.” Staff Ex. 31.0 at 10. The Company asserts that the Commission should entirely reject the analysis and recommendation of IIEC Group witnesses Al-Jabir and Fitzhenry related to spending on reliability. AIC IB at 201.

ii. IFCUP’s Position

See Section V.C.6.c.iii.(a)(iv) above.

iii. Commission Analysis and Conclusion

IFCUP recommend limiting the Company’s investments in capital projects during the MYIGP that support the achievement of Performance Metric #1 to current levels, with increases to match inflation. This amounts to a total reduction to plant-in-service of \$354 million. The burden is on AIC to prove its proposed budgets for Grid Plan investments are reasonable and prudent. IFCUP make an overarching argument that AIC failed to justify its proposed level of reliability-related investments during the MYIGP and that as such a cap on the Company’s reliability-related investments is warranted. The Commission agrees that that the Company failed to justify its proposed level of reliability-related investments in this Grid Plan.

As discussed in Section V.A., this Grid Plan is rejected. The Commission shall determine the appropriate budget for all proposed projects upon the Commission’s approval of a refiled Grid Plan.

7. Distributed Energy Resources

a. Current System DERs (Section 16-105.17(f)(2)(D))

Section 16-105.17(f)(2)(D) states that a utility’s Grid Plan must include:

System data on DERs on the utility’s distribution system, including the total number and nameplate capacity of DERs that completed interconnection in the prior year, current DER deployment by type, size, and geographic dispersion, to the extent that granular geographic information does not disclose personally identifiable information, and other data as requested by the Commission or determined by Commission rules.

220 ILCS 5/16-105.17(f)(2)(D).

i. Ameren’s Position

Ameren states that Section 10 of the Company’s Grid Plan explains adoption of generation DERs in its service territory. Section 10 provides tables that include cumulative DER installations and corresponding capacity information, DER by interconnection size across the Company’s service territory, the cumulative number of DER and corresponding capacity for generation categories including and extending beyond solar and wind, and DER by type. AIC Ex. 2.1GP at 172-75.

Staff witness Sanders’ testimony explains that Staff believes the Company’s Grid Plan meets the O&M investment requirements set forth in Section 16-105.17(f)(2)(D). Staff Ex. 19.0 at 4. Accordingly, the Commission should find that the Company’s Grid Plan complies with Sections 16-105.17(f)(2)(D).

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Additionally, Staff recommends that the Company be directed to update two data tables in the Grid Plan to reflect DER Type Information (Table 4 in AIC Exhibit 2.1GP, Appendix F), and DER deployment in EIECs (an additional table in AIC Exhibit 2.1GP, Appendix F) and include that updated information in annual MYIGP reports. As reflected in the rebuttal testimony of Company witness Parker and the surrebuttal testimony of Company witness Hardiek, the Company accepts this recommendation to narrow the contested issues in this docket and agrees to provide the specified information if readily available, as recommended by Staff. Accordingly, the Company agrees to provide that information as detailed above.

ii. Staff's Position

Staff recommends the Commission direct Ameren to incorporate DER type information on current deployment and the previous year's deployment of DER System Data in the Annual MYIGP Report to the Commission, as a replacement to Table 4 of Appendix F in the Company's MYIGP. AIC Ex. 2.1GP, App. F. Deployment data for the previous year and current deployment in the Annual MYIGP Report would assist in promoting data transparency, aid in future analysis on DER in Ameren's territory, and be provided in the format required by the Act, for DER deployment.

Additionally, Staff requests a separate update on EIEC data in the Annual MYIGP Report. Providing this relevant data on EIECs promotes data transparency, aids in future analysis on DER in Ameren's territory, provides more accurate insight into DER deployment in EIECs, and whether the EIECs receive the benefits from DER deployment. Staff posits that if Ameren makes this modification it will comply with the requested information on DER System Data as well as any other data as requested by the Commission or determined by Commission rules.

Staff states that the Company agreed to modify DER reporting tables for the next grid plan and annual report. This issue is uncontested.

iii. Commission Analysis and Conclusion

The Commission adopts Staff's proposal to require Ameren to update two data tables in the Grid Plan to reflect DER Type Information (Table 4 in AIC Exhibit 2.1GP, Appendix F) and DER deployment in EIECs (an additional table in AIC Exhibit 2.1GP, Appendix F) and include that updated information in annual MYIGP reports. The updated tables will increase transparency in the MYIGP. With this agreement, the Commission agrees that the Company's Grid Plan complies with Section 16-105.17(f)(2)(D).

As discussed in Section V.A., this Grid Plan is rejected. The Commission shall determine the appropriate budget for all proposed projects upon the Commission's approval of a refiled Grid Plan).

b. Projected DERs (Section 16-105.17(f)(2)(F))

This Grid Plan requirement is addressed above in Section V.C.5.

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c. Hosting Capacity (Section 16-105.17(f)(2)(E)(i))

i. Upgrades to Increase Hosting Capacity

Section 16-105.17(f)(2)(E)(i) includes Hosting Capacity and Interconnection Requirements, and provides that:

The utility shall make available on its website the hosting capacity analysis results that shall include mapping and GIS capability, as well as any other requirements requested by the Commission or determined through Commission rules. The plan shall identify where the hosting capacity analysis results shall be made publicly available. This shall also include an assessment of the impact of utility investments over the next 5 years on hosting capacity and a narrative discussion of how the hosting capacity analysis advances customer-sited distributed energy resources, including electric vehicles, energy storage systems, and photovoltaic resources, and how the identification of interconnection points on the distribution system will support the continued development of distributed energy resources.

220 ILCS 5/16-105.17(f)(2)(E)(i).

(a) Ameren's Position

Ameren explains that Section 11 of the Company's Grid Plan discusses hosting capacity and DER Interconnection. This section also includes a description of future hosting capacity enhancements and considerations, and the potential positive impacts of hosting capacity. AIC Ex. 2.1GP at 199-200. The Grid Plan also explains that the Company plans to begin periodic screenings for system impacts caused by aggregated Level 1 interconnections. *Id.* Section 11 further provides an overview of hosting capacity, and explains that in August 2022, the Company published its first hosting capacity map for public use on its website and provides examples of hosting capacity maps and the web address. AIC Ex. 2.1GP at 192-94. It also explains how information is loaded into the modeling system and describes the hosting capacity process. *Id.* at 194-95. There is a description of the methodology for these analyses, and an overview of the hosting capacity process and calculation. Section 11 also describes the hosting capacity validation process, as well as GIS improvements that improved the quality of base models. *Id.* at 195-97. The Company's Grid Plan further notes that customer-owned renewable generation and other DERs will be critical in the shift from centralized carbon emitting generation to carbon neutral future. *Id.* at 200. Further, the Company's DER interconnection processes have evolved and will continue to evolve in support of customer DER adoption, state goals and requirements, input from stakeholders, and lessons learned during the process. *Id.* at 201.

AIC notes that Staff witness Sanders' testimony explains that Staff believes the Company's Grid Plan meets the hosting capacity analysis requirements set forth in Section 16-105.17(f)(2)(E)(i). Staff Ex. 19.01 at 4. Accordingly, the Commission should find that the Company's Grid Plan complies with Sections 16-105.17(f)(2)(E)(i).

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Ameren further notes that JSP witness Balakrishnan addressed the issue of lack of hosting capacity as criteria for upgrades in her rebuttal testimony, particularly as it relates to systems that interconnect at level 2 or above under Part 466 or any system size under Part 467. JSP Ex. 6.0 at 1. She states that JSP believe that the Commission should direct Ameren to include lack of hosting capacity as one of the criteria for considering feeder or substation assets for upgrades under the Grid Plan. *Id.* at 2. She further recommended that in addition to any other methods Ameren may now or in the future use to identify a lack of hosting capacity that an estimated interconnection cost of over \$0.75/Watt on any Ameren-issued study under Part 466 or Part 467 lead to inclusion of the relevant distribution assets in the queue for upgrades. *Id.*

However, Ms. Balakrishnan explained that if Ameren commits to time-limited good faith negotiations to address operational details followed by a filing to the Commission to amend the MYIGP to add a program consistent with the goals of her proposal, JSP believe that would be a satisfactory outcome. *Id.* In response, the Company agrees to commit to time-limited good faith negotiations in an attempt to achieve consensus in regard to increasing hosting capacity on Ameren's distribution system while continuing to focus on serving customers in a reliable, equitable, and cost-effective way. AIC Ex. 54.0 at 12. For example, the Company would commit to a collaborative process with JSP and interested stakeholders in an attempt to achieve consensus on issues like: determining what is deemed to be adequate hosting capacity given Ameren's unique characteristics including but not limited to circuit voltage, urban/rural circuit geographics, and acknowledgment that hosting capacity decreases when DER penetration increases on a circuit; developing criteria to allow Ameren to prudently choose and prioritize 'no regrets' projects with the primary purpose to increase hosting capacity. *Id.* As a starting point, such a process could include discussions around setting a \$/Watt threshold to help bring into consideration projects in queue or that recently withdrew from queue; setting minimum targets and guidelines for adequate hosting capacity, capital funding considerations and limitations; considerations of helping to increase hosting capacity for both load (EV) and generation along interstate corridors and considerations involving impact on EIECs. *Id.* at 12-13.

In summary, the Company supports the clean energy transition and P.A. 102-0662's decarbonization goals and appreciates the work and collaboration with JSP on this important issue. The Company is open to discussions to attempt to achieve consensus regarding increasing hosting capacity on Ameren's distribution system while continuing to focus on serving customers in a reliable, equitable and cost-effective way, as reflected in the Company's proposal detailed above on this topic. *Id.* at 13-14.

(b) Staff's Position

Staff argues that JSP's proposal can, at best, supplement Ameren's planning. It could be one factor Ameren might use to focus its infrastructure spending, but it raises issues about the allocation of costs between ratepayers and DER suppliers. If hosting capacity is increased by 20 MW to accommodate more DER installations, unless other programs are set up, those costs will be solely borne by ratepayers. An alternative arrangement would need to be established to allocate a portion of those upgrade costs to DER facilities that are installed after capacity is increased. As a result, JSP's proposal to change investment planning requires investigation and discussion to ensure that

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ratepayers are not unfairly burdened, and thus, Staff cannot agree to this proposed change. Staff Ex. 28.0 at 13-14.

(c) JSP's Position

The Joint Solar Parties originally proposed that the Commission direct Ameren to determine a trigger for including feeders and substations for upgrade as part of the MYIGP based on actual studies issued pursuant to Part 466 of the Commission's rules exceeding a threshold value. JSP Ex. 6.0 at 2. While the Joint Solar Parties believe their original proposal to trigger inclusion of all feeders and substations for which a study issued under Part 466 exceeds \$0.75/Watt had compelling support for Commission approval, the Joint Solar Parties commit to work with Ameren given Ameren's constructive engagement on the issue. See AIC Ex. 54.0 at 12-13. The Joint Solar Parties accept Ameren's proposal and thus request that the Commission direct Ameren to implement such a hosting capacity upgrade approach subject based on the results of the stakeholder process. Ameren witness Parker expressed that Ameren believes it does not need to request a modification of the MYIGP to implement such a program following the stakeholder process. See AIC Ex. 54.0 at 13. The Joint Solar Parties agree.

JSP witness Balakrishnan explained that when a Level 2 through Level 4 system under Part 466 or any system under Part 467 applies for interconnection, the interconnecting utility must engage in several studies that include non-binding cost estimates. JSP Ex. 3.0 at 3-4. If there is "hosting capacity" available, the non-binding cost estimates for upgrades are likely to be relatively lower; if there is not capacity available those upgrades are likely to be higher—in fact, at times so high that it becomes impractical for most systems to interconnect at a specific point. *Id.* at 4-7. The interconnection customer must pay for 100% of such upgrades. *Id.* at 6; 83 Ill. Adm. Code 466.App. D at §§ 5.1-5.2.

Because hosting capacity is of critical importance for the clean energy transition and Ameren's MYIGP does not currently address how to increase hosting capacity, the Commission should adopt the Joint Solar Parties' and Ameren's proposal for a stakeholder process to address how Ameren will identify distribution assets to upgrade to increase hosting capacity.

JSP note that Staff does not support the Joint Solar Parties' original proposal to upgrade hosting capacity by 20 MW on feeders or substations where interconnection cost estimates in studies under Part 466 or 467 exceed \$0.75/Watt. The Joint Solar Parties explain in response that their original proposal is not directly relevant to whether the Commission should approve the alternative proposal of the Joint Solar Parties—supported as well by Ameren—to utilize an Ameren-led stakeholder process to try to reach consensus on triggers for Ameren to upgrade their distribution system in response to hosting capacity constraints. Staff did not comment on this alternative proposal.

(d) Commission Analysis and Conclusion

The Commission notes JSP's clarification that their proposal does not impact who pays for interconnection upgrades but rather provides another method for identifying where infrastructure upgrades are needed. The Commission agrees that JSP's proposal and Staff's concerns regarding who bears the costs are issues for workshops should

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continue to be discussed among parties and through broader stakeholder engagement. The Company should combine its agreement with JSP with a plan to further refine details through workshop discussions consistent with Section V.B.9 when the Company refiles the Grid Plan.

ii. Updating Hosting Capacity Maps

(a) Ameren's Position

Ameren notes that Staff states that the Commission should approve the Company's commitment to update hosting capacity maps on a quarterly basis. Staff also recommends that the Commission direct the Company to update its hosting capacity maps monthly for individual feeders on which the penetration of DERs is high and still accelerating. On this issue, the Company notes that JNGO witness Balakumar withdrew his recommendation requesting the Company update the hosting capacity analysis for individual feeders monthly that meet certain thresholds. Instead, he recommends that the Company 1) publish up to date DER queue data by feeder directly accessible from its hosting capacity maps and 2) investigate ways to automate hosting capacity analysis processes to reduce the burden of more frequent updates. He suggests that the Commission direct the Company to work with stakeholders to develop a hosting capacity analysis roadmap to evolve its hosting capacity capabilities to meet P.A. 102-0662's goals. AIC Ex. 52.0 at 19.

Consistent with JNGO's recommendation, Ameren is currently working to identify a solution to providing queue data in the hosting capacity maps and feels that this addresses the concerns identified that would prompt the request for select circuits to be updated more regularly than the system as a whole. While Ameren deliberately considered updating hosting capacity values for select circuits more regularly, as Staff recommends, updating select circuits monthly instead of quarterly would be time consuming and burdensome given criteria selection, model preparation, calculations, data validation and publishing updated maps. Moreover, the Company has provided a hosting capacity roadmap, discussed below in Section V.C.7.c.iv. The Company is willing to continue the conversation regarding more frequent updates as the Company's hosting capacity strategy evolves before the next Grid Plan filing in a manner consistent with this roadmap, and more resources are on boarded to support the effort at the rate of customer interest. But the Company does not recommend adopting Staff's recommendation to do so now. Instead, AIC recommends that the Commission direct the Company to work with stakeholders to continue to develop a hosting capacity analysis to evolve its hosting capacity capabilities to meet P.A. 102-0662's goals. AIC Ex. 54.0 at 15.

(b) Staff's Position

The Commission should approve Ameren's commitment to update hosting capacity maps on a quarterly basis; however, Staff recommends that the Commission further direct the Company to update its hosting capacity maps monthly for individual feeders on which the penetration of DERs is high and still accelerating. Staff Ex. 32.0 at 9.

Staff notes that Ameren stated that "updating select circuits monthly instead of quarterly would be time-consuming and burdensome given criteria selection, model

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preparation, calculations, data validation and publishing updated maps.” AIC Ex. 54.0 at 15. However, the Company did not provide incremental cost estimates for updating hosting capacity of select circuits monthly, as opposed to quarterly. Staff avers that updating Ameren’s hosting capacity maps monthly would provide greater transparency and would result in the communication of more up-to-date information about Ameren’s hosting capacity. Staff Ex. 14.0 at 6. The greater transparency from the more frequent monthly updating would help customers make more informed decisions to effectively and efficiently guide projects to locations on the grid where interconnection costs are likely to be the lowest, prior to submitting an interconnection application. *Id.*

The Company argues that Staff’s concerns regarding the need for more frequent hosting capacity updates would be alleviated if Ameren starts including queue data in the hosting capacity maps. AIC Ex. 54.0 at 15. Staff asserts, however, that queue data is insufficient, as it does not provide DER developers with adequate information for deciding if it would be more or less costly to connect their DER at a particular point. Moreover, queue data only provides information about potential DER (not actual DER connections) and thus fails to consider current infrastructure capabilities, whereas hosting capacity analysis provides information about both demand and existing grid capabilities.

(c) JNGO’s Position

JNGO agree with the steps that the Company is taking to enhance its hosting capacity capabilities, including commitments to: (1) update hosting capacity maps on at least a quarterly basis and potentially more frequently if necessary; and (2) publish interconnection queue data for each feeder with a targeted implementation date in 2024.

(d) Commission Analysis and Conclusion

The Commission agrees with Ameren’s position as a starting point, but the Company should provide monthly updates for certain feeders (those experiencing or expected to experience high and accelerating DER volume). The Company should work with stakeholders to develop a hosting capacity analysis to evolve its hosting capacity capabilities to meet P.A. 102-0662’s goals as discussed more below in Section V.C.7.c.iv and consistent with Section V.B.9 workshop processes.

The Commission views the proposal to update hosting capacity maps more frequently as a minimum investment. The objective of the applicable CEJA provisions is that DER providers be able “to seamlessly and easily connect to the grid” using “open standards and interfaces,” which the Commission reads to require more than an information service. 220 ILCS 5/16-105.17(d)(10) and (f)(2)(L). The centrality of current and future DER interaction with the grid requires a Plan that is more specific, and intentional in expeditiously advancing this goal.

The Commission appreciates Ameren’s commitments to work with stakeholders to update and continuously improve its hosting capacity maps and methodologies. Ameren should provide a plan to complete monthly updates and report progress through the Commission’s Interconnection Working Group when the Company refiles its Grid Plan.

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iii. Quantifying the Value of Increased Hosting Capacity Investment

(a) Ameren's Position

Ameren has committed to collaborate with Staff and other stakeholders to develop a mutually agreed upon approach to quantifying the value of increased hosting capacity for specific investments. Once agreement is reached, the information can be included in the Company's next grid plan filing as well as in the Annual MYIGP Report. The Company recommends doing so as part of a post-docket collaborative process with interested stakeholders that could, but need not, be part of the broader workshop process being proposed by the Company. AIC Ex. 54.0 at 15.

(b) Staff's Position

Staff explains that Ameren has justified several investments on the basis that they provide increased hosting capacity benefits without providing evidence of how much such investments will increase hosting capacity. The lack of information precludes an evaluation of the effectiveness of any such investment to improve hosting capacity. Staff Ex. 14.0 at 9. Collaboration between Ameren, Staff, and stakeholders will be required to reach agreement on this issue; once agreement is reached, the information can be included in Ameren's next grid plan filing as well as in the Annual MYIGP Report.

(c) Commission Analysis and Conclusion

The Commission agrees with Staff that additional information is needed regarding quantification of the benefits of investment in increased hosting capacity. The Commission directs Ameren to detail its method for tying investment to benefits along with a plan to provide Staff's requested level of information when the Company refiles its Grid Plan, but recognizes that more complete information will be filed with the next grid plan filing and in the annual MYIGP report going forward.

iv. Developing a Hosting Capacity Category

(a) Ameren's Position

Ameren explains that it is exploring methods to add an identifier within Copperleaf C55 to account for hosting capacity types of investments. AIC Ex. 54.0 at 16.

(b) Staff's Position

Staff recommends that the Commission approve Ameren's plan to develop a specific category of investments to be included in the MYIGP that are designed, in whole or in part, to improve the hosting capacity of its electric distribution system. Staff Ex. 32.0 at 9-10. Staff and Ameren agree that having a specific investment category related to hosting capacity would provide greater transparency for investments meant to increase hosting capacity.

(c) Commission Analysis and Conclusion

The Commission agrees with Staff's proposal, agreed to by Ameren, to develop a specific category of investments related to hosting capacity will provide greater transparency into the Company's investments. This agreement should be the starting point when Ameren refiles its Grid Plan.

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v. Dynamic Hosting Capacity

(a) Ameren's Position

Ameren notes that Staff witness Dhanker and JNGO witness Balakumar recommended that the Company investigate a dynamic hosting capacity ("DHC") analysis methodology to calculate the hosting capacity of the Company's distribution system. Staff Ex. 32.0 at 3; JNGO Ex. 9.0 at 2. As feedback is received from third parties and value is identified, the Company will continue to work through and implement enhancements to the hosting capacity map solutions where prudent. AIC Ex. 54.0 at 19.

Ameren explains that the timing of critical software and data may push considerations and investigation of DHC into 2026. *Id.* at 21. The Company is committed to working collaboratively with stakeholders, to both further enhance hosting capacity maps, and to keep them up to date as to the progress that is made. In order to accomplish this, Ameren created a Hosting Capacity Roadmap which will help to set anticipated timelines associated with the maturation of Ameren's hosting capacity strategy. *Id.*

Ameren explains that DHC will require new software solutions like advanced forecasting tools, 8760 load profiles, and potentially DERMS. The Company understands that initial understanding and framework on DHC may begin prior to the implementation of such solutions, but to implement and leverage DHC, those tools will be needed. The Company will also require additional internal resources to support and execute the implementation of DHC. *Id.* at 21-22.

The Company appreciates Staff's recommendation of investigating DHC analysis and agrees that over time the hosting capacity strategy may evolve and mature. The Company is committed to working collaboratively with stakeholders to both further enhance hosting capacity maps and to keep them up to date as that progress is made. *Id.* at 19. This has been made clear by the Company's participation in the Illinois Interconnection Working Group, as well as the actions taken on implementing tangible enhancements to the hosting capacity maps since they went live in late summer 2022 which include the wetlands layer, limiting factor, and refinement to the legend. *Id.*

Accordingly, the Company agrees with Staff's recommendation, and the Commission should direct Ameren to investigate using DHC to calculate the hosting capacity of its distribution system. The Commission should also direct the Company to report its findings related to its investigation into using dynamic hosting capacity analysis in its Annual MYIGP Report.

(b) Staff's Position

Staff states that Ameren's proposed 2026 timeframe is inconsistent with P.A. 102-0662's objectives to increase the capacity of the distribution grid to host increasing levels of DERs. 220 ILCS 5/16-105.17(d)(5). DHC can provide seasonal or hourly results to allow developers to design DERs that benefit the grid and avoid temporary capacity constraints. JNGO Ex. 3.0 at 22. In addition, Illinois aims to have 1 million registered EVs in the State by 2030, and the Company estimates that it will need to support 200,000 EVs in its service territory. JNGO Ex. 9.0 at 9.

Staff notes that pursuant to the Hosting Capacity Roadmap provided by Ameren, it appears the Company will not be in a position to implement DHC process by the end of

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this plan period. AIC Ex. 54.0 at 21. Staff acknowledges the challenges associated with implementing DHC and recommends that, in lieu of full DHC implementation, Ameren undertake an investigation into using DHC. The Commission should also direct the Company to report its findings related to its investigation into using dynamic hosting capacity analysis in its Annual MYIGP Report.

(c) JNGO's Position

P.A. 102-0662 states that Ameren must design its Grid Plan "to increase the capacity of the distribution grid to host increasing levels of [DERs]." 220 ILCS 5/16-105.17(d)(5). Section 16-105.17(f)(2)(E) of the Act contains specific hosting capacity requirements, including required mapping capabilities.

Mr. Balakumar explains that most utilities (including Ameren) evaluate hosting capacity using a static method that uses conservative assumptions to produce a single hosting capacity value regardless of time or other conditions. In contrast, DHC can provide seasonal or hourly results to allow developers to design DERs that benefit the grid and avoid temporary capacity constraints. DHC analysis therefore allows more DERs to connect to the system and can also be used as a helpful tool for system operations. JNGO Ex. 3.0 at 17-19.

JNGO appreciate Ameren's commitments to continually improve the Company's hosting capacity analysis and mapping capabilities. JNGO recommend that the Commission's Order memorialize Ameren's commitments and direct Ameren to report on its progress through the Commission's Interconnection Working Group. JNGO note P.A. 102-0662 directed the Commission to establish an Interconnection Working Group with representatives from various stakeholder sectors to address, among many other issues, the "transparency, accuracy and use of the distribution interconnection queue and hosting capacity maps." 220 ILCS 5/16-107.5(h-5). The Interconnection Working Group must report to the Commission at least every six months. *Id.*

(d) Commission Analysis and Conclusion

The Commission notes the benefits of implementing DHC but also accepts that there are challenges to implementation. Accordingly, the Company's Hosting Capacity Roadmap timeline in this respect appears reasonable. As agreed to by the parties, the Commission directs Ameren to include in its refiled Grid Plan commitments 1) to work with stakeholders to investigate using DHC to calculate the hosting capacity of its distribution system and to report on its progress through the Commission's Interconnection Working Group and 2) to report its findings related to its investigation into using DHC analysis in its Annual MYIGP Report, as proposed by Staff.

vi. EV and Hosting Capacity Maps

(e) Ameren's Position

In testimony, JNGO witness Balakumar recommended that the Company commit to developing and publishing EV and storage hosting capacity maps across its service territory as soon as possible and provide timelines for when this functionality will be made available. JNGO Ex. 9.0 at 8. Staff recommends that the Commission direct Ameren to publish its hosting capacity maps with load and generation hosting capacity values by DER type for solar, storage and EVs.

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The Company states it is committed to enhancing its hosting capacity strategy at the rate of customer interest, which can include the further buildout of the EV hosting map. However, the Company is concerned about potential risks with customer and grid security. To support the new programs in its approved BE Plan, the Company already planned to expand the publicly available EV Corridor Program map to show available capacity throughout its service territory. AIC Ex. 54.0 at 20. The Company plans to investigate implementing a territory wide EV capacity map sometime in 2024. As for storage hosting capacity, the user will need to consider both the load and generation hosting capacity maps given that storage will need to charge and discharge. *Id.*

Accordingly, the Company disagrees with Staff's recommendation that the Company should be directed to publish its hosting capacity maps with load and generation hosting capacity values by DER type for solar, storage and EVs as premature. The Company will continue discussing these issues with stakeholders as its hosting capacity map capabilities and strategy evolve, as reflected in the Company's Hosting Capacity Roadmap.

(f) Staff's Position

Staff asserts that Ameren's proposal is insufficient; DER developers require transparency into hosting capacity, not just for distributed generation but for all types of DERs. JNGO Ex. 3.0 at 15. In addition, hosting capacity analysis by DER type can provide important insights for regulators and enable the Company to plan long-term for DER integration. *Id.* Furthermore, with the passage of P.A. 102-0662 and federal policies such as the Inflation Reduction Act, the Company will likely see a significant increase in DER activity in its service territory such that the Commission will need more accurate data to forecast locational needs and costs of EV chargers' deployment. *Id.*

The problem with Ameren's delay in providing the additional hosting capacity data, Staff explains, is that it may slow the penetration of DERs in the state because residential customers and EV owners cannot access hosting capacity values to interconnect their DERs to the distribution system. DER developers require a great deal of transparency into hosting capacity, not just for distributed generation but all types of DERs. For all these reasons, the Commission should direct Ameren to publish its hosting capacity maps with load and generation hosting capacity values by DER type for solar, storage and electric vehicles.

(g) JNGO's Position

Ameren witness Parker explains the steps Ameren is taking to enhance and improve its hosting capacity capabilities. These include a commitment to investigate the implementation of "a territory wide EV capacity map" sometime in 2024. AIC Ex. 54.0 at 2. JNGO appreciate Ameren's commitments to work with stakeholders to update and continuously improve its hosting capacity maps and methodologies.

(h) Commission Analysis and Conclusion

The Commission finds Ameren's proposal lacks transparency and should be updated to better inform the Commission and stakeholders. Hosting capacity analysis by DER type can provide important insights for the Commission and enable the Company to plan long-term for DER integration. JNGO Ex. 3.0 at 15. DER activity within Ameren's

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service territory will likely increase significantly due to the implementation of P.A. 102-0662 and federal policies including the Inflation Reduction Act. See *id.* According to Staff, Ameren's delay in providing capacity data may slow the penetration of DERs in the State because residential customers and EV owners cannot access hosting capacity values to interconnect their DERs to the distribution system. The Commission agrees with Staff that more accurate data to forecast locational needs and costs of EV charger deployment, especially in the face of significantly increased DER activity, is available and needed to inform the Commission. See *id.* The Company is directed to publish its hosting capacity maps with load and generation hosting capacity values by DER type for solar, storage, and electric vehicle as soon as possible.

The Commission is concerned with the vague timeline provided by Ameren. For example, Ameren stated it will investigate "the implementation of a territory wide EV capacity map sometime in 2024." AIC Ex.54.0 at 2. The Commission does not believe this is sufficiently prescriptive, especially in light of the significant concerns raised by Staff and JNGO. The Commission understands Ameren's contention that there may be security risks associated with publishing information too soon. The Commission also understands the concern that sharing premature information is not informative. The Commission directs Ameren to develop a more prescriptive and aggressive timeline, while taking those concerns into consideration, within its refiled Grid Plan. The Commission urges the parties to confer prior to refiling the Grid Plan.

d. Interconnection (Section 16-105.17(f)(2)(E)(ii))

i. Ameren's Position

Section 16-105.17(f)(2)(E)(ii) of the Act requires that a utility's Grid Plan include a "[d]iscussion of the utility's interconnection requirements and how they comply with the Commission's applicable regulations." 220 ILCS 5/16-105.17(f)(2)(E)(ii). Section 11.2.1 of the Grid Plan provides an overview of the Company's interconnection process, and how the Company's requirements are based on Part 466 and Part 467.

Ameren notes that Staff witness Sanders' testimony explains that Staff believes the Company's Grid Plan meets the requirements regarding discussion of interconnection requirements and regulatory compliance set forth in Section 16-105.17 (f)(2)(E)(ii). Staff Ex. 19.01 at 5.

JNGO witness Balakumar recommended that the Commission direct the Company to work with stakeholders to develop a flexible interconnection plan that addresses, at a minimum, volt-watt, active network management, and DHC with the goal of scaling these programs and incorporating them into the Company's planning and operational practices. JNGO Ex. 9.0 at 17-19. Ameren is open to providing a Flexible Interconnection Report in June 2025, including examples from other utilities including technical solutions used to enable the programs and the planning processes and interconnection processes needed to facilitate such programs. AIC Ex. 54.0 at 34. However, there are potential concerns with burden associated with compiling such a report and attempting to quantify costs and benefits from other utility implementations of flexible interconnection including, but not limited to, limited access to other utilities' cost and system data. *Id.*

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Mr. Balakumar also stated that it would be reasonable for the Company to coordinate the development of a DERMS framework with his proposed Flexible Interconnection Report, with a goal to produce both documents by no later than June 30, 2025 to allow stakeholders to use these resources to inform their participation in the workshop process preceding Ameren Illinois' second grid plan. JNGO Ex. 9.0 at 24. In response, Company witness Parker explained that while Ameren is not opposed to a collaboration with key stakeholders that will result in the recommended DERMS framework, it is unclear how Mr. Balakumar's proposal may impact the implementation timing and selection of a DERMS system. AIC Ex. 54.0 at 36-37. Before proceeding with the collaboration necessary to create the framework, the parties should come to some type of consensus on respective timeline impacts to a DERMS implementation. At this time, Ameren believes that an initial stage DERMS deployment should be initiated within the next 6-12 months to ensure that the necessary functionality is operational in time to effectively address the most urgent, emerging use cases. *Id.* at 37. In addition, prior to any stakeholder collaboration, clear boundaries should be established to define the level of influence that any outcomes will have on the Company's selection of a DERMS, which could include a process by which a party can work with Staff or seek Commission clarification on appropriate issues. *Id.*

For the volt-watt implementation plan, Mr. Balakumar recommended an identification of key volt-watt use cases and a prioritization of which use cases will be demonstrated; an identification of any preferred installers and/or installer requirements for participation in the demonstration; and timelines for when volt-watt will be demonstrated, evaluated, and scaled into the Company's day-to-day planning and operational practices including the interconnection process. JNGO Ex. 9.0 at 14-15. JSP witness Rymsha also addressed the implementation of a volt-watt program in testimony, and recommended that the Company implement volt-watt settings now for Level 1 systems receiving a smart inverter rebate, but explained that if Ameren agrees to discuss in good faith through a workshop process design of a volt-watt and certified Ameren DER installer pilot approach and takes the steps necessary to initiate those pilots, JSP would support that alternative approach. JSP Ex. 5.0 at 4.

In response, Ameren states that it believes that the most effective approach involves a pilot effort whose parameters will be influenced by a collaborative effort between the Company and key stakeholders, such as JNGO and JSP. AIC Ex. 54.0 at 10. The pilot should focus on customers exceeding the following Level 1 Expedited Review criteria and that they be given the option to interconnect without delay with the activation of volt-watt and other required functions/settings under Rider CGR: "When a proposed DER facility is to be interconnected on a single-phase shared secondary line, the aggregate export capacity on the shared secondary line, including the proposed DER facility, shall not exceed 20 kVA." *Id.* at 10-11.

Ameren notes that JNGO state that they recommend that the Commission acknowledge the Company's commitment to work collaboratively on a Flexible Interconnection Plan with a goal to deliver a Flexible Interconnection Report by no later than June 30, 2025. JNGO further ask that the Commission direct Ameren to report on its progress through the Commission's Interconnection Working Group. The Company

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agrees with this recommendation and appreciates the opportunity to work collaboratively with JNGO and other stakeholders on this important issue.

ii. JNGO's Position

JNGO note that P.A. 102-0662 requires Ameren to improve the interconnection and hosting capacity of its grid. 220 ILCS 5/16-105.17(d)(5). In order to achieve P.A. 102-0662's statutory purpose, JNGO witness Balakumar recommended that Ameren develop a Flexible Interconnection Plan to investigate and deploy controlled implementations of volt-watt, active network management, and DHC with the goal of scaling these programs and incorporating them into the Company's planning and operational practices." JNGO Ex. 9.0 at 17. Ameren witness Parker expressed willingness to collaborate with JNGO and other interested stakeholders on this Flexible Interconnection Plan.

In order to achieve this statutory purpose, JNGO witness Balakumar recommended that Ameren consider adopting "Flexible Interconnection" strategies, which he defines as "a DER integration strategy used to defer or avoid system upgrades and/or increase distribution system utilization generally by limiting (i.e., curtailing) active power exports from DER units when they have the potential to create grid congestion." JNGO Ex. 3.0 at 27-29. These strategies are varied and can include both autonomous grid response (such as "volt-watt" inverter control) or active network management where the utility can monitor and directly curtail the output of participating DERs when necessary to protect the grid. *Id.* at 29-30. Mr. Balakumar noted that multiple utilities have piloted flexible interconnection strategies, including ComEd's current project near ComEd's Mendota substation. *Id.* at 31-32.

JNGO appreciate Ameren's commitment to work collaboratively on a Flexible Interconnection Plan with a goal to deliver a Flexible Interconnection Report by no later than June 30, 2025. The Commission should acknowledge and memorialize this commitment in its Order and direct Ameren to report on its progress through the Commission's Interconnection Working Group.

iii. Staff's Position

Staff reviewed the Company's MYIGP with respect to this statutory requirement and did not have concerns; therefore, Staff did not offer specific testimony on it. Staff Ex. 19.01; Staff Ex. 1.0 at 3-4.

iv. Commission Analysis and Conclusion

The Commission acknowledges the Company's commitment to work collaboratively on a Flexible Interconnection Plan with a goal to deliver a Flexible Interconnection Report by no later than June 30, 2025. JNGO further ask that the Commission direct Ameren to report on its progress through the Commission's Interconnection Working Group. The Commission agrees with this recommendation and agrees that Ameren should work collaboratively with JNGO and other stakeholders on this important issue.

The Commission notes that parties have agreed to address volt-watt and DERMS proposals. As discussed in Section V.A., this Grid Plan is rejected. The Commission shall determine the appropriate budget for all proposed projects upon the Commission's

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approval of a refiled Grid Plan. The Commission further recognizes that parties agreed to discuss this issue in the Value of DER proceeding discussed under Post Final Order Events in Section VIII.D.

e. Evaluation of Benefits and Costs of DERs (Section 16-105.17(f)(2)(G))

Section 16-105.17(f)(2)(G) requires a utility's Grid Plan to include the following:

An evaluation of the short-term and long-run benefits and costs of distributed energy resources located on the distribution system, including, but not limited to, the locational, temporal, and performance-based benefits and costs of distributed energy resources. The utility shall use the results of this evaluation to inform its analysis of Solution Sourcing Opportunities, including nonwires alternatives, under subparagraph (K) of paragraph (2) subsection (f) of this Section. The Commission may use the data produced through this evaluation to, among other use-cases, inform the Commission's investigation and establishment of tariffs and compensation for distributed energy resources interconnecting to the utility's distribution system, including rebates provided by the electric utility pursuant to Section 16-107.6 of this Act.

220 ILCS 5/16-105.17(f)(2)(G).

i. Ameren's Position

The Company opines that its Grid Plan addresses many instances which highlight the value of DER and its important role in the clean energy transition called for by P.A. 102-0662. For example, Section 10.2 Distributed Energy Resource System Impacts and Considerations highlights some of the factors to consider regarding DER deployment including load masking, power quality, emergency power, and system constraints.

Ameren states that the Grid Plan does not perform a separate analysis to evaluate the short- and long-term benefits and costs of DER in the aggregate, particularly given the statutory directives to expedite its expansion and penetration on the grid. The Company evaluates short-term and long-term benefits and costs of DERs on a project basis. AIC Ex. 2.1GP at 166.

Additionally, AIC notes that the value of DER is the subject of a recently begun Commission-ordered investigation, pursuant to Section 16-107.6(e) of the Act. Accordingly, the Company has not provided an express calculation of the short-term and long-run benefits from and costs of DERs in the Grid Plan because there is no formal Commission-approved methodology for such quantification of the benefits. AIC Ex. 28.0 at 15. The value of DER proceeding will provide an appropriate venue for investigation into DER benefits and costs. In the Grid Plan, the Company noted that "any quantification of a similar [to Ameren Illinois' previous calculation efforts] value based on current system design and operating protocols, and which would incorporate the as-yet unapproved distribution system investments resulting from the MYIGP, prior to the [Commission]

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proceeding would be premature.” AIC Ex. 2.1GP at 181. Accordingly, the Commission should find that the Company’s Grid Plan complies with Sections 16-105.17(f)(2)(G).

JNGO witness Kenworthy recommended that the Company choose between three alternative approaches for marginal cost analysis to inform the value of DER investigation and formula described in Section 16-107.6(e)(2). JNGO Ex. 7.0 at 5-6. He also recommended the Commission expressly require Ameren to file the results of its marginal cost analysis as a compliance filing in this docket or clarify its intention to update the Grid Plan when the marginal cost analysis is complete. *Id.* at 6. Mr. Kenworthy also noted that “Section 16-107.6(e)(2) is very clear that the formula used to update DER values on an annual basis must be calculated with ‘inputs derived from [the utilities’] integrated grid plans.” *Id.* at 5.

In response, Company witness Parker explained that it should be noted that the Grid Plan is a source of data and not the only source of data for the DER Value proceeding, as Mr. Kenworthy contends. Also, AIC’s Grid Plan includes a myriad of data from which inputs could be derived, including cost data, both historical and proposed, information on NWA, and a discussion of DER value. For purposes of enabling the Commission to determine compensation levels to be made available as the result of the DER Value proceeding, Ameren believes, at this time, that the process needs to include a more detailed calculation of the value stack currently provided to DER owners for services their facilities provide to the distribution system. Calculating additive services for DER value is complex and will take time and input from stakeholders not necessarily involved in the current proceeding.

Accordingly, AIC recommends that the Commission reject Mr. Kenworthy’s proposal to “expressly require Ameren to file the results of its marginal cost analysis as a compliance filing in this docket or clarify its intention to update the Grid Plan when the marginal cost analysis is complete.” JNGO Ex. 7.0 at 6. This effort is premature and, if required, is more suitable for the DER Value proceeding as discussed above.

ii. JNGO’s Position

Section 16-107.6(e) directs the Commission to open an investigation “into the value of, and compensation for, distributed energy resources.” 220 ILCS 5/16-107.6(e). The Commission opened this investigation and initiated a workshop series on June 29, 2023. JNGO opine that the General Assembly intended utility Grid Plans to contain the baseline data needed for this DER Value investigation and all subsequent DG rebate tariffs. Thus, the Act requires Grid Plans to include an “evaluation” of DER benefits that the Commission may use “to inform the Commission’s investigation and establishment of tariffs and compensation for distributed energy resources.” 220 ILCS 5/16-105.17(f)(2)(G). Following the DER Investigation, utilities are to update their DG compensation tariffs on an annual basis “with inputs derived from their integrated grid plans.” 220 ILCS 5/16-107.6(e)(2).

JNGO witness Kenworthy concludes that Ameren’s Grid Plan does not contain sufficient data to inform the Commission’s DER Value investigation. He states that “[t]he Company’s Grid Plan does not appear to include any specific discussion or evaluation of the places where DERs could provide value on its distribution system, nor does it discuss or adopt what I believe to be important approaches and best practices that are needed

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for the Section 16-107.6(e) investigation. JNGO Ex. 1.0 at 22-23. Mr. Kenworthy recommends that the Commission direct Ameren to produce this data using a “marginal cost analysis” to calculate the long-run system-wide capacity value of adding incremental DERs to its distribution system. *Id.* at 23-26. There are a variety of ways to conduct a marginal cost analysis, and Mr. Kenworthy defers to Ameren to select an approach that works best for the Company. JNGO Ex. 1.0 at 26; JNGO Ex. 7.0 at 6.

In rebuttal, Ameren indicated that it is not opposed in principle to Mr. Kenworthy’s recommendations, but that it would prefer to work on this issue in the DER Value investigation rather than this Grid Plan docket. JNGO Ex. 7.0 at 3, citing AIC Ex. 28 at 29. JNGO are sympathetic to Ameren’s position, but P.A. 102-0662 does not give us that option. The statute states that Ameren’s Grid Plan “must include” an evaluation of the “locational, temporal, and performance-based benefits and costs of distributed energy resources” to inform the Commission’s DER Value investigation. 220 ILCS 5/16-105.17(f)(2)(G). Importantly, Mr. Kenworthy is not recommending that Ameren propose a specific methodology for valuing DERs in this grid Plan. The Commission will approve a methodology as part of the upcoming DER Investigation. However, the Grid Plan must include “granular, locationally differentiated” data that can serve as inputs to the DER value methodology that the Commission eventually adopts. JNGO Ex. 1.0 at 21-22.

JNGO will continue discussing and working with Ameren, Staff, and other Stakeholders in the DER Value docket that is proceeding in parallel with this Grid Plan docket. However, because P.A. 102-0662 states that Ameren’s Grid Plan “must include” this information, JNGO request that the Commission: direct Ameren to (1) conduct a marginal cost analysis, using a methodology of its choice, that can be used to inform the Commission’s Section 16-107.6(e) investigation, and (2) file the results in this docket within one year of the Commission’s Final Order.

iii. Staff’s Position

Staff recommends the Commission defer decisions about DER evaluations in light of the Commission’s initiation of an investigation into the value of, and compensation for, DER, which will consider those issues in depth. See 220 ILCS 5/16-107.6(e). The proceeding will constitute a lengthy and in-depth investigation that will develop sufficient information to establish rebates. Staff Ex. 28.0 at 4. Engaging these topics in that venue will provide the Commission with more flexibility to make important decisions. *Id.* at 2.

In response to JNGO, Staff states that it agrees with Ameren that deferring the process of assessing DERs’ value to the DER valuation investigation is the best option to prudently proceed and develop DER values and compensation, and it complies with P.A. 102-0662.

iv. Commission Analysis and Conclusion

Ameren states that the Grid Plan does not perform a separate analysis to evaluate the short- and long-term benefits and costs of DER in the aggregate but has done so on a per-project basis. See 2.1GP at 181-182. The Commission agrees with JNGO that Ameren should have provided more information with its Grid Plan and that Section 16-105.17 of the Act is clear that the Grid Plan is to include “[a]n evaluation of the short-term and long-run benefits and costs of distributed energy resources located on the distribution

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system, including, but not limited to, the locational, temporal, and performance-based benefits and costs of distributed energy resources.” 220 ILCS 5/16-105.17. Section 16-105.17(f)(2)(G) states the Commission may use the data produced through the Grid Plan evaluation to “inform the Commission’s investigation...pursuant to Section 16-107.6 of this Act.” The Value of DER investigation statutory sections 16-107.6(e)(2), (e)(5) and (e)(6) connect calculation of DER rebates directly to the Grid Plan’s DER evaluation.

Without any DER benefits and costs analysis, the Commission finds Ameren’s Grid Plan does not comply with 220 ILCS 5/16-105.17(f)(2)(G). The Commission directs Ameren to include an evaluation of short-term and long-run benefits and costs of DER as described in Section 16-105.17(f)(2)(G) in its refiled Grid Plan. The Commission recognizes the difficulty in providing such an analysis under this timeline and understands that even preliminary results could take several months to develop. Nevertheless, this information is essential to the Commission’s determination that Ameren’s Grid Plan complies with the statute and that Ameren is evaluating methods to reduce costs and harness the grid benefits associated with DERs.

The Commission directs Ameren to include in its refiled Grid Plan a marginal cost analysis calculating the long-run system-wide capacity value of adding incremental DERs to its distribution system. The Commission notes that there are a variety of ways to conduct a marginal cost analysis; thus, the Commission directs Ameren to select an approach that works best for the Company. Finally, the Commission expects Ameren to provide this information to parties and Staff through discovery as part of the DER Value Proceeding.

DER infrastructure is a core element of the transition CEJA envisions. Yet, Ameren fails to provide a clearly defined plan for easing system interconnection, even for existing DER applicants. The required Plan elements for “implementing open standards and interfaces,” or otherwise enabling third parties to connect DER resources “seamlessly and easily” are absent from Ameren’s Plan. 220 ILCS 5/16-105.17(f)(2)(L); 220 ILCS 5/16-105.17(d)(10).

f. Analysis of Flexible Resources (Section 16-105.17(f)(2)(J)(ii))

Section 16-105.17(f)(2)(J)(ii) requires a utility’s Grid Plan to include:

A detailed analysis of current and projected flexible resources, including resource type, size (in MW and MWh), location and environmental impact, as well as anticipated needs that can be met using flexible resources, to meet the goals described in subsection (d) of this Section, to meet the applicable metrics that were approved by the Commission for the utility pursuant to subsection (e) of Section 16-108.18 of this Act, and any other Commission order affecting the goals described in subsection (d) of this Section.

i. Ameren’s Position

AIC states that it has complied with this requirement in Section 10 of the Company’s Grid Plan. AIC Ex. 53.0 at 10; AIC Ex. 2.1GP at 171-90. The Company laid

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out paths to identifying flexible resources and proposed discussing the environmental impacts calculations/methodology in the post order workshops, which would be followed by a report on the decided methodology for the annual report. AIC Ex. 54.0 at 25-26. Ameren opines that there are limits to providing information on the environmental impacts and forecast or type and size, or anticipated needs, and explains that there is no industry standard. *Id.* at 26. Because of the uncertainty, the Company proposed discussing the calculations and methodology in the post-filing workshops the Company recommended.

AIC points out that Staff witness Antonuk argued that the Company's Grid Plan "did not provide information on the environmental impacts of a forecast of, or the type and size, or anticipated needs that can be met with flexible resources." Staff Ex. 35.0 at 36. Mr. Antonuk recommended the Commission direct AIC as part of its first annual report "to provide a schedule for producing reasonably comprehensive treatments of the missing data and thereafter to provide reports encompassing that data." *Id.* at 4.

AIC explains that Staff argues that "although some yet-to-be identified and scheduled post-order process may assist AIC in becoming ready to do what the Act requires" if the Company does not demonstrate that it satisfied the requirement the Commission should direct the Company to "identify what it plans to do to become able to provide the information required, including a schedule showing when that capacity will exist as part of its first Annual MYIGP Report." Staff IB at 24.

AIC states that Staff's argument that the Company must have some capability that it does not yet have and cannot rely on "some yet-to-be identified and scheduled post order process" is unfair, contradicts Staff's recommendations regarding other portions of the Company's Grid Plan, and should be rejected. AIC explains that there are limitations in providing information on the environmental impacts of a forecast of, or the size and type or anticipated needs that can be met with, flexible resources because there is no industry standard. AIC Ex. 54.0 at 26. The Company laid out several paths to determining an applicable standard, and the Company also proposed to discuss the environmental impact calculations and methodology in a post-filing workshop process that encourages stakeholder involvement. The Company further proposed that the workshop process would be followed by a report on decided methodology for the annual report. *Id.* AIC states that Staff cannot argue that it is acceptable to discuss calculations/methodology for one requirement, but not for another.

The Company further explains that the Company initiated a request for proposals ("RFP") for an advanced forecast planning tool in early 2023 and plans to have the tool implemented in 2024. AIC Ex. 53.0 at 15. The Company proposes to engage with stakeholders in a transparent process as follows: 1) by December 31, 2024, the Company plans to gain feedback on the composition of forecasts; 2) by April 1, 2025, the Company will file its first annual report that provides a schedule for producing reasonably comprehensive treatments of the missing data and thereafter provide reports encompassing data, and provide progress updates on scenario planning; 3) by May 31, 2025, the Company plans to hold the first semi-annual meeting to provide updates on progress for scenario planning; and 4) by December 31, 2025, the Company will apply the forecasts and share results with stakeholders. During workshops to support the next MYIGP, AIC will share the Company's scenario planning. AIC Ex. 26.0 at 9-10; AIC Ex. 53.0 at 15. The Company explains that the timeline it provided is impacted by the

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Company's ability to implement the advanced forecasting planning tool. AIC Ex. 53.0 at 15. Thus, AIC states that the Company provided the information Staff requested in testimony, and the Commission should confirm that the Company should engage in the stakeholder engagement process as described.

ii. Staff's Position

Staff concludes Ameren's MYIGP does not comply with the Section 16-105.17(f)(2)(J)(ii) requirement for a "detailed analysis of current and projected flexible resources, including resource type, size (in MW and MWh), location and environmental impact, as well as anticipated need that can be met using flexible resources." Staff Ex. 17.0 at 7-8. Staff found that Ameren's MYIGP did not contain information on the environmental impacts or a forecast of flexible resources, their resource type and size, or anticipated needs that can be met by those resources.

Staff notes that AIC disagrees and cites the lack of an industry standard as limiting information of the types that Staff found missing. AIC Ex. 54 at 25-26. The Act requires more than exploration of paths to providing information; it specifies the information to be provided, which AIC failed to provide and which it appears AIC is not prepared to do. AIC has not complied with this provision of the Act, although some yet-to-be identified and scheduled post-order process may assist AIC in becoming ready to do what the Act requires. Staff recommends that AIC be directed to identify what it plans to do to become able to provide the information required, including a schedule showing when that capability will exist as part of its first Annual MYIGP Report. Staff Ex. 35.0 at 36. Staff further recommends AIC be directed to address in reasonable detail each element Staff has identified as missing from those required by the Act in its first Annual MYIGP Report. Staff Ex. 17.0 at 7-9.

Specifically, Staff recommends the Commission direct AIC to provide, in its first Annual MYIGP Report, a detailed analysis of each missing element including: "(1) a forecast of flexible resources by type and size (in MW and MWh); (2) their location and environmental impacts; and (3) the anticipated needs that those resources can meet using flexible resources, to meet the goals described in subsection (d) of this section." 220 ILCS 5/16-105.17(f)(2)(J)(ii). Staff Ex. 17.0 at 7-9.

iii. JNGO's Position

JNGO agree with Staff's position that Ameren's MYIGP does not comply with P.A. 102-0662's requirement for a detailed analysis of current and projected flexible resources, including resource type, size (in MW and MWh), location and environmental impact, as well as anticipated need that can be met using flexible resources. JNGO agree that the Commission should direct Ameren to identify what it plans to do to become able to provide the information required, including a schedule showing when that capability will exist as part of its first Annual MYIGP Report.

iv. Commission Analysis and Conclusion

Ameren provided analysis of current DERs on its system, including existing flexible resources. Staff found that Ameren's MYIGP did not contain information on the environmental impacts or a forecast of flexible resources, their resource type and size, or anticipated needs that can be met by those resources. The Commission agrees with Staff

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that, despite a lack of industry standard and uncertainty in providing information on the resources' environmental impacts and forecasted scenarios of adoption, Ameren must provide this analysis. See 220 ILCS 16-105.17(f)(2)(J)(ii). Therefore, the Commission finds Ameren does not comply with Section 16-105.17(f)(2)(J)(ii).

The Commission directs the Company to provide forecast analysis on flexible resources and environmental impact considerations in the Company's refiled Grid Plan. This analysis is intended to aid the Company in identifying and achieving Section 16-108.18 performance metrics pathways as part of Grid Plan. Ameren is also directed to include within its refiled Grid Plan a detailed proposal for how it will: (1) develop a forecast of flexible resources by type and size (in MW and MWh); (2) identify their location and environmental impacts; and (3) describe the anticipated needs that those resources can meet using flexible resources as contemplated by Section 16-105.17(f)(2)(J)(ii).

g. Evaluation of Non-Traditional Grid Sources (Section 16-105.17(f)(2)(k))

Section 16-105.17(f)(2)(K) requires a utility's Grid Plan to include:

Identification of potential cost-effective solutions from nontraditional and third-party owned investments that could meet anticipated grid needs, including, but not limited to, distributed energy resources procurements, tariffs or contracts, programmatic solutions, rate design options, technologies or programs that facilitate load flexibility, nonwires alternatives, and other solutions that are intended to meet the objectives described at subsection (d). It is the policy of this State that cost-effective third-party or customer-owned distributed energy resources create robust competition and customer choice and shall be considered as appropriate. The Commission shall establish rules determining data or methods for Solution Sourcing Opportunities.

220 ILCS 5/16-105.17(f)(2)(K).

i. Ameren's Position

The Company's Grid Plan notes that it supports non-traditional investments in line with emerging industry practices and developed learnings that comport with Illinois policy and customer demand. AIC Ex. 2.1 GP at 21. Section 9 of the Grid Plan discusses the Company's plan to follow an industry accepted process to identify and evaluate potential NWA projects as part of the annual planning process. Once the system needs are established, the process will evaluate whether the NWA is suitable to meet that need by evaluating it against the Company's suitability criteria. If it is suitable, the Company will issue an RFP, and the RFP responses will be evaluated according to the solution's technical ability to meet the specific grid need followed by a benefit cost analysis. If that solution or a combination of solutions prove cost-effective, beneficial to customers and the grid and meet or exceed Company and industry standards, the NWA solution will proceed.

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Staff witness Sanders' testimony explains that Staff believes the Company's Grid Plan satisfies the requirements set forth in Section 16-105.17(f)(2)(K). Staff Ex. 19.01 at 5. Accordingly, AIC recommends that the Commission find that the Company's Grid Plan complies with Section 16-105.17(f)(2)(K). Staff witness Rearden recommended that the Commission defer decisions on DER evaluation and ownership, as well as decisions about NWA cost recovery, to the DER investigation and NWA Solution Sourcing Opportunities ("SSO") rulemaking. Staff Ex. 28.0 at 6. For purposes of narrowing issues in these consolidated dockets, the Company agrees with Dr. Rearden that these issues can be addressed in the SSO rulemaking docket, which, in the Company's view, resolves these issues for purposes of this docket. AIC Ex. 54.0 at 5, 8

It is the Company's understanding that JNGO witness Balakumar recommended the Commission approve the Company's NWA framework as an initial starting point but also agreed with the Company's recommendation to expeditiously begin the rulemaking process to establish formal rules for how the NWA procurement process should work. He also recommended that the Commission establish uniform statewide rules, where possible, to promote consistency and certainty for the clean energy market. JNGO Ex. 9.0 at 2; AIC Ex. 54.0 at 9. The Company appreciates Mr. Balakumar's support of the Company's proposed NWA framework and agrees that it is important to establish uniform statewide rules, where possible, to promote consistency and certainty for the clean energy market. AIC Ex. 54.0 at 10.

Accordingly, AIC asserts that the Commission should decline to make any ruling on those issues in this proceeding, in favor of resolving them in the SSO rulemaking docket.

ii. Staff's Position

The Commission should defer decisions about NWAs in light of its recent decision to initiate an investigation into the value of, and compensation for, DER, which will consider those issues in depth. Nonetheless, further discussion on these topics in that venue, as well as any subsequent docketed proceeding, will provide the Commission with more flexibility to make important decisions. Staff Ex. 10.0 at 2. Indeed, the Commission will establish rules to govern SSOs for NWAs in a future rulemaking docket, which is likely to prove the optimal method to develop an NWA process. 220 ILCS 5/16-105.17(f)(2)(K). For purposes of narrowing issues in these consolidated dockets, Ameren agrees that NWA ownership can be covered within the SSOs rulemaking docket. AIC Ex. 54.0 at 5. Staff recommends that Ameren continue to report on and pursue SSOs so that those opportunities are not ignored in the interim. Staff Ex. 10.0 at 5.

The Commission should also decline at this time to authorize the recovery of costs, if any, of NWAs through either a regulatory asset or some other form of cost sharing, because the issue is likely to be considered in the SSO rulemaking docket. Staff Ex. 10.0 at 7. Ameren argues that "utility ownership of an NWA may facilitate the development of NWA projects that would otherwise fail a benefit-cost analysis." AIC Ex. 28.0. at 11. Staff opposes blanket treatment of NWAs as regulatory assets. Staff Ex. 10.0 at 3; Staff Ex. 28.0 at 3. Ameren disagrees with Staff's position and opines that regulatory asset treatment is appropriate, but nonetheless agreed that NWA cost recovery can be addressed in the SSO rulemaking docket. AIC Ex. 54.0 at 8. Accordingly, the testimony

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in this proceeding should inform the future rulemaking, but Staff recommends the Commission decline to make any ruling on this issue.

iii. JNGO's Position

JNGO note that the Act encourages the use of nontraditional and NWA solutions to utility, customer, and grid needs that may be more efficient and cost-effective than traditional utility investments. Nontraditional solutions include DERs owned or implemented by customers and independent third parties, controllable load, BE, or rate design that encourages efficient energy use. 220 ILCS 5/16-105.17(a)(6). Grid Plans must (1) provide sufficient public information to enable these solutions, 220 ILCS 5/16-105.17(d)(10), and (2) "identify" cost-effective solutions that could meet anticipated grid needs, 220 ILCS 5/16-106.17(f)(2)(K). The Act directs the Commission to "establish rules determining data or methods for [SSOs]" from NWAs and other nontraditional sources. *Id.*

Ameren produced an NWA framework at Section 9 of its Grid Plan. JNGO witness Balakumar reviewed Ameren's NWA framework and concluded that it is generally consistent with industry standards. JNGO Ex. 3.0 at 24. He therefore recommended that the Commission "approve the Company's NWA framework as an initial starting point for further iterative development. JNGO Ex. 9.0 at 12. However, both Mr. Balakumar and Ameren witness Parker agreed that it is important for the Commission to expeditiously begin the rulemaking process to establish formal rules for how the NWA procurement process should work. JNGO Ex. 9.0 at 12; AIC Ex. 54.0 at 10.

iv. Commission Analysis and Conclusion

It appears that parties are in agreement that the Commission need not reach a conclusion on this issue in this proceeding. The Commission agrees with JNGO that the Company's NWA framework is an appropriate starting point for further iterative development. This issue will be explored both in the DER Value proceeding and the SSO rulemaking discussed further below.

As discussed in Section V.A., this Grid Plan is rejected. The Commission shall determine the appropriate budget for all proposed projects upon the Commission's approval of a refiled Grid Plan.

D. Performance Metrics (Sections 16-105.17(f)(1)(B), (f)(2)(J), and (f)(2)(H)(iii))

1. Resilience and Reliability

a. Ameren Proposals

Ameren states that Appendix H of the Company's Grid Plan sets forth the Company's plan to achieve each of the Commission approved Performance Metrics. Metric 1, Reliability and Resiliency, requires a 1% increase of reliability and resiliency as measured by the five reliability indices: 1) System Wide SAIDI; 2) SAIDI in EJ/R3 areas; 3) SAIFI in EJ/R3 areas; 4) CEMI in EJ/R3 areas; and 5) CELID in EJ/R3 communities for each year of the MYRP period, excluding up to 5 MEDs. Docket No. 22-0063, 2024-2027 Performance and Tracking Metrics Manual at 4-8 (Apr. 5, 2023).

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To achieve the Commission approved targets, the Company will sustain current levels of system reliability and resiliency and continue to implement reliability improvement projects like the Smart Grid Expansion Plan and the Sub Transmission Grid Hardening Plan. The investments will include increased installation of smart switches and SCADA devices, accelerating replacements of substation transformers, circuit breakers, overhead conductors, and underground cables. These cost-effective investments will be consistent with Staff's recommendation that utilities consider whether using utility systems and practices are adequate to track localized performance and take cost effective and timely steps to implement changes as needed. The Company will also make unspecified "targeted changes in operational practices" and invest in reliability projects in EIECs with a high number of customers such as East St. Louis, Peoria, Champaign, and Decatur. AIC Ex. 2.1GP, App. H at 2.

b. Staff/Intervenors Modifications and Additions

i. Staff's Position

Staff notes that IFCUP state:

AIC can meet the systemwide SAIDI without MED performance by maintaining a similar level of reliability performance relative to what it achieved over the last several years. Needed distribution investments should be continued to be made so long as they are prudent, just and reasonable; however, AIC has not demonstrated that accelerated levels of distribution investments are needed to achieve [reliability indices metric].

IFCUP Ex. 3.0 at 14.

Staff does not agree with IFCUP's interpretation regarding meeting the requirements of Section 16-105.17(H)(iii) and (J)(iii) of the Act. IFCUP states that Ameren can meet the systemwide SAIDI without MED performance by maintaining a similar level of reliability performance relative to what it achieved over the last several years. IFCUP Ex 3.0 at 14. IFCUP also states Ameren should continue needed distribution investments so long as they are prudent, just, and reasonable; however, Ameren has not demonstrated that accelerated levels of distribution investments are needed to achieve the Metric #1 targets. *Id.*

Ameren responded by stating that IFCUP's belief that the Company is already achieving the performance needed to meet the Metric #1 fails to acknowledge the difference between the metric calculation and IEEE Standard 1366. AIC Ex. 26.0 at 28. The exclusion of only five MEDs when calculating the Company's performance under this metric significantly increases the volatility of the metric, making it much more difficult to achieve the set targets. *Id.* Further, as the Company stated, systemwide SAIDI is the only one index presented when a total of 5 metrics must be met under the Company's plan to meet Metric #1. AIC Ex. 2.1GP at 131; AIC Ex. 26.0 at 28. Finally, given that the targets will not be known until 2024, the Company, Staff, and Intervenors will not know how successful the Company will be in achieving Metric #1 until after this proceeding. AIC Ex. 26.0 at 28.

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Staff does not dispute the data IFCUP uses to reach its conclusion; however, the data does not include or consider the effect of MEDs on SAIDI and therefore, does not correlate directly to the achievement of Metric #1 targets. Staff Ex 31.0 at 10. Staff also notes that Ameren is neither financially penalized nor incentivized on SAIDI without MEDs. Ameren's reward or penalty for future actions for Metric #1 is based on SAIDI with up to five MEDs excluded as ordered in Docket No. 22-0063. Additionally, it is not just the modified IEEE 1366 SAIDI that Ameren must maintain with gradual improvement. *Id.*

Staff and Ameren agree that IFCUP's analysis fails to acknowledge the difference between how the systemwide SAIDI metric under Metric #1 will be calculated and compared to the IEEE Standard 1366. It is not necessarily the case that when accounting for MEDs, which can include storms, Ameren can meet Metric #1 every year using the same data sources upon which IFCUP relies. This problem is solved by using Staff's calculation method to address the lack of a target for SAIDI with MEDs demonstrates Ameren's claims on data volatility with MEDs are valid. Moreover, whether Ameren can achieve Metric #1 should not rely on a data set that completely removes MEDs.

IFCUP state that the difference between the actual 2022 SAIDI without MED value of 115 minutes and the target value in the last year of the MYRP, 2027, of 111.3 minutes, is a difference of only 4.8 minutes. IFCUP Ex 3.0 at 14. Comparing the actual SAIDI without MED values provided in AIC Exhibit 2.1GP, Table 5, to the forecasted values over the MYRP period, the 2020 SAIDI without MED value of 101 minutes would have been well below the forecasted target value. In addition, the 2018 SAIDI without MED value of 111 minutes would have been below all of the target years, with the exception of 2027. *Id.*

Staff supports the Company's use of a target value for the year 2023, which Staff understands to be a goal rather than a forecast of actual performance. Staff Ex. 31.0 at 12. Additionally, Staff found no reason to disagree with the values selected by Ameren for 2023 targets as the 2024-2027 targeted value will be based on the actual performance of the Company in 2021-2023. *Id.* at 13. Ameren is in a unique situation in that it needs to establish a baseline target for 2023 to be utilized for the following four years. *Id.* However, since 2023 is not over, Ameren is dependent on projections. *Id.* Consequently, the future reliability goals will be set for Ameren in this proceeding before the Company knows what the actual values it must attain for the Metric #1. *Id.*

Staff disagrees with the analysis IFCUP used to reach certain conclusions regarding its recommendation to limit reliability spending. IFCUP recommend a reduction in spending totaling \$354 million for certain reliability-related projects to historic levels, adjusted for inflation. IFCUP state that the proposed increase in Grid Plan investment, which is aggressive even compared to the already elevated rate of Ameren's historical grid investment, is not justified by the expected benefits in service quality and reliability, as measured by objective performance metrics. *Id.* at 22. IFCUP also state that Ameren's improved and lowered SAIDI score without MED demonstrates the soundness and reliability of its distribution system. *Id.* at 23. Finally, IFCUP state that the marginal 1% improvements in system reliability that are prescribed by the Commission's reliability performance metrics do not require the massive increases in reliability-related project spending that Ameren has proposed in this proceeding. *Id.*

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Staff disagrees with IFCUP's conclusion because it is premised on an improper comparison. Mr. Fitzhenry's analysis does not include or consider the effect of MEDs on SAIDI and therefore, does not directly correlate to the achievement of Reliability Indices Metric targets. Notably, Ameren agrees with Staff stating that IFCUP's analysis fails to account for differences in calculation between the SAIDI calculation in IEEE 1366 and in Performance Metric #1. Staff determined through calculations that Ameren's claims on data volatility with MEDs are valid. Moreover, whether Ameren can meet the Reliability Indices Metric should not rely on a data set that completely removes MEDs and only focuses on Systemwide SAIDI. By completely removing MEDs in the analysis of Ameren's SAIDI reliability index, IFCUP fail to acknowledge the real impact of storm outages faced in Illinois by an electric distribution utility and its customers. For these reasons, the Commission should reject IFCUP's incomplete analysis.

ii. AG's Position

The AG asserts that the Commission should reject the portion of the Company's plan to achieve Performance Metric #1 that involves substantially "increasing investment" and "accelerating replacements of substation transformers, circuit breakers, overhead conductors, and underground cables." AIC Ex. 2.1GP, Att. H at 2. As a preliminary matter, the AG contends that the purpose of performance incentive mechanisms is to incentivize non-investment performance because utilities already have all the incentive they need to spend more capital. Rather, the AG explains, performance metrics are about allocating capital budgets and managing operations to prioritize programs that align utility, ratepayer, and State goals.

Additionally, the AG notes that accelerating replacement of subtransmission equipment is not cost-effective, and the Company has not demonstrated that it would provide "net benefits" to customers, as it must for purposes of the performance metric. In fact, they explain that it is likely that accelerating such investments for the purpose of improving reliability will result in diminishing returns given that, according to the Grid Assessment, the Company has SCADA monitoring at all its sub-transmission substations and "reports high levels of redundancy and automation on 99 percent of sub-transmission circuits." Grid Assessment at 18-19.

Finally, the AG argues that accelerating investment is not necessary to achieve the improvements required by Performance Metric #1. See IFCUP Ex. 3.0 at 18-19. The AG notes that the Grid Assessment showed that Ameren's total annual CapEx spending increased steadily from 2012 to 2020, which was the Grid Assessment's last year, with the largest expenditures focused on distribution reliability, distribution line work, and distribution substation work. As a result of these reliability-related expenditures, non-storm SAIFI improved by 18% and CAIDI improved by 11%, due in part to projects such as additional distribution automation devices, communications, and schemes; improved substation relaying and communications systems; system hardening and resiliency programs; reinforced and replaced poles; and replaced poorly performing underground cables. And even with these gains, the Company continued to invest capital at elevated levels from 2019 to 2022. Thus, the AG asserts that there is no reason to believe that the Company will not continue to see reliability improvements commensurate with what it achieved under EIMA if it continues to spend at 2019-2022 levels, as recommended by the AG.

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iii. IFCUP's Position

IFCUP witness Fitzhenry testified that the Company has “not demonstrated that accelerated levels of distribution investments are needed to achieve [Performance Metric #1] targets.” IFCUP Ex. 3.0 at 15. Mr. Fitzhenry recommends that spending for certain reliability-related projects be reduced to historic levels, adjusted for inflation. *Id.*

IFCUP believes this recommendation allows the Company to sustain its already-elevated level of capital spending in 2023 over the course of the MYRP to support P.A. 102-0662's objectives. As shown in IFCUP Exhibit 3.1, the recommendation reduces the plant-in-service by \$38 million in 2024, \$82 million in 2025, \$94 million in 2026, and \$138 million in 2027, for a total of \$354 million.

iv. JNGO/EDF's Position

EDF states that the policy goals enumerated at Section 16-105.17(d) are separate and in addition to the performance metrics required under Section 16-108.18, even though the goals and metrics are intended to work in concert to achieve P.A. 102-0662's policy goals. Section 16-105.17(f)(1)(B) requires a grid plan to both “optimize achievement of the objectives set forth in” Section 16-105.17(d) and to achieve the metrics approved by the Commission pursuant to Section 16-108.18. 220 ILCS 5/16-105.17(f)(1)(B). Sections 16-105.17(f)(2)(J) and 16-105.17(f)(2)(H)(iii) require a “detailed plan” to achieve the performance metrics approved under Section 16-108.18(e).

Statutes must be construed to give every word, clause, and sentence a reasonable meaning and not rendered superfluous, avoiding any interpretation that would render any portion of the statute meaningless or void.” *Commonwealth Edison Co. v. Ill. Commerce Comm'n*, 398 Ill. App. 3d 510, 525, 924 N.E.2d 1065, 1083 (2nd Dist. 2009).

Therefore, the performance metric requirements under subsection (f)(2) must not be read as or implemented as coterminous with or otherwise limiting the authority of the Commission to require a Grid Plan that implements the eleven policy goals of Section 105.17(d).

JNGO/EDF, together with Staff, have developed an Equity Reporting Framework Strawman Proposal. JNGO/EDF Ex. 10.1; JNGO/EDF Ex. 10.0 at 8. The Equity Reporting Framework was developed after JNGO/EDF witness Pereira reviewed similar Justice40 Initiative reporting frameworks in other jurisdictions, including the United States Department of Justice, California, New York, Oregon, and Washington. EDF Ex. 4.0 at 12.

The Equity reporting Framework was developed after more than a year of facilitated discussions, reports, and feedback in the workshop and Grid Plan process. See JNGO/EDF Ex. 10.0 at 6-7 (reporting in relevant part Ameren's acknowledgment of stakeholder requests for such a framework). Through this framework, Dr. Pereira recommends Ameren report on the items listed in Tables 1 through 5 of Exhibit 10.01. JNGO/EDF Ex. 10.0 at 8-9. Those elements were selected given: (1) their ability to describe Ameren's efforts to advance grid modernization and clean energy through projects, programs, and other activities; and (2) their ability to measure how EIECs interact with, are affected by, and have access to a modern grid and clean energy.

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JNGO/EDF Ex. 10.0 at 9. JNGO/EDF argue that Ameren is in the best position to report on these elements. *Id.* at 9.

As filed, Ameren's plan would be the only Justice40 Initiative effort without a rigorous reporting framework. JNGO/EDF Ex. 4.0 at 6-28. Ameren posits that the performance and tracking metrics approved in Docket No. 22-0063 will play a role here, but it does not detail which performance metrics are relevant to meeting this requirement or how the Commission should assess AIC's performance against those metrics. JNGO/EDF Ex. 4.0 at 10. Ameren's alternative proposal, in Tables 1 and 2 of Ameren Exhibit 44.0 (Revised), includes objective calculations of impacts, but not an identification of specific benefits by project or project category. Where AIC's plan generally identifies initiatives and programs that may benefit EIECs, the California reporting framework would connect those initiatives and programs to a specific set of benefits with a metric for how much of that benefit is being delivered to EIECs, which better aligns with P.A. 102-0662's requirements. JNGO/EDF Ex. 4.0 at 19. Compared to California reporting metrics, Ameren's proposals "lack[] a framework to outline and track details on the specific benefits being provided and how the benefits created are distributed." JNGO/EDF Ex. 4.0 at 21.

v. Ameren's Position

(a) Response to Staff

Ameren notes that Staff witness Kierbach recommended the Company provide the following for any reliability investments impacting Performance Metric #1: 1) a description of the projected quantitative benefits in terms of the reliability indices improvement as applicable to the investment; 2) its comparison to its real reliability index performance for that investment; and 3) its contribution to the total yearly goal of each component of Performance Metric #1. Staff Ex. 13.0 at 11. Ameren also notes that Mr. Kierbach argued that providing this data would allow "more insightful analysis into which reliability investments prove to be most effective per metric, quantify, categorize, and sort the individual investments to the greater index goal, and demonstrate the individual investments to the greater index goal, and demonstrate the individual investment's reliability index benefits to EIEC areas." *Id.*

Ameren accepted Mr. Kierbach's recommendation with modifications and noted that it would be overly burdensome and imprudent to report on every investment in the electric grid contributing to Performance Metric #1. AIC Ex. 26.0 at 6. As an alternative the Company suggested narrowing the scope to investments in the Smart Grid Plan. *Id.* Ameren states that Staff agreed that narrowing the scope to significant contributors as seen in the Smart Grid Plan may assist in future proposed projects to the Company's modified proposal to limit Smart Grid analysis and information to investments that will impact Performance Metric #1 to the Smart Grid Plan. Staff Ex. 31.0 at 8-9. Accordingly, the Commission should direct the Company to provide the additional information proposed by Staff as modified by the Company.

(b) Response to IFCUP's Modifications

Ameren points out that the Company responded that Mr. Fitzhenry failed to consider the difference between the metric calculation and IEEE Standard 1366. The

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Company further noted that excluding only five MEDs when calculating performance significantly increases the volatility of the metric and makes it much harder to achieve. AIC Ex 28.0 at 28. Second, Mr. Fitzhenry's analysis compares the Company to other utilities in the Midwest, which does not account for the differences between the service territories. AIC Ex. 26.0 at 27-28.

Ameren argues that Staff did not dispute the data Mr. Fitzhenry used but noted that this data does "not include or consider the effect of MEDs on SAIDI, therefore it does not provide enough of an explanation about achieving Performance Metric # 1 targets..." and "it is not just the modified IEEE 1366 SAIDI that Ameren must maintain with gradual improvement under Performance Metric #1. Ameren is evaluated on the same SAIDI metric in EJ/R3 Areas, SAIFI (EJ/R3 Areas), CEMI (EJ/R3 Areas), and CELID (EJ/R3 Areas)." IFCUP Ex. 3.0 at 15. Ameren points out that Staff agreed that Fitzhenry's analysis failed to acknowledge the difference between how the systemwide SAIDI metric under Performance Metric #1 will be calculated and the IEEE Standard 1366. Staff Ex. 31.0 at 10. Further, Staff notes that using SAIDI data from Ameren's Grid Plan Appendix F to compare SAIDI without MEDs tells a different story. *Id.*

Ameren points out that IFCUP's recommendations are based on flawed analysis and does not accurately reflect what is required to maintain and improve reliability, and to plan for future grid needs as P.A. 102-0662 requires. Thus, the Commission should reject IFCUP's recommendations in their entirety.

(c) Response to JNGO/EDF Modifications

Ameren notes that JNGO/EDF witness Pereira recommends the Company develop a tracking framework and describe how it intends to ensure transparency and accountability in meeting the requirement that the Company's Grid Plan reflects its support in bringing 40% of benefits to EIECs. JNGO/EDF Ex. 4.0 at 10.

Ameren recommends the Commission direct a workshop process after the conclusion of this docket to foster discussion and potentially consensus on this issue, among others. AIC Ex. 17.0 at 6. Ameren points out that JNGO witness Pereira supports the Company's proposed workshop process, but argued that the Company should still: 1) provide a reporting framework on benefits to EIECs; 2) lead in identifying benefits it will deliver and its proposal to measure and report those benefits; 3) discuss and adapt the Equity Reporting Framework Strawman Proposal jointly developed by JNGO/EDF and Staff; and 4) provide details on what EIEC benefits or outcomes the Company reports on. JNGO/EDF Ex. 10.0 at 5. The Company committed to including Dr. Pereira's strawman proposal as part of the workshop process the Company proposed. AIC Ex. 44.0 at 13. The Company further notes that while it already provides robust reporting to the Commission on various topics, it is open to continuing the discussion of how to aggregate the reports to make it easier for stakeholders to access during the Company's proposed post-filing workshop process.

Accordingly, the Company commits to discussing with stakeholders during the post-filing workshop processes the concerns raised by JNGO/EDF witness Pereira, including the strawman proposal, and benefits to EIECs.

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(d) Response to AG

Ameren states that the AG argues the Commission should reject the part of the Company's plan to achieve Performance Metric #1 that "involves substantially 'increasing investment' and 'accelerating replacements of substation transformers, circuit breakers, overhead conductors, and underground cables.'" AG IB at 68. Ameren states the AG argues that the "purpose of performance incentive mechanisms is to incentivize *non-investment* performance because utilities already have all the incentive they need to spend more capital." *Id.* (emphasis in original). Ameren argues this argument is unsupported by a plain reading of P.A. 102-0662 and false. Section 16-108.18 clearly contemplates that utilities will make investments in order to achieve performance metrics. Section 16-108.18(c) provides that:

through coordinated, comprehensive system planning, ratemaking, and performance incentives, the performance-based ratemaking framework should be designed to accomplish the following objectives:...(3) direct utilities to make cost-effective investments that support achievement of Illinois' clean energy policies, including, at a minimum, investments designed to integrate distributed energy resources, comply with critical infrastructure protection standards, plans, and industry best practices, and support and take advantage of potential benefits from the electric vehicle charging and other electrification while mitigating the impacts.

220 ILCS 5/16-108.18(c). Section 16-108.18(e)(1) further provides:

the General Assembly finds that electric utilities should make cost-effective investments that support moving forward on Illinois' clean energy policies. It is therefore in the State's interest for the Commission to establish performance incentive mechanisms in order to better tie the utility revenues to performance...

220 ILCS 5/16-108.18(e)(1). Ameren states that "[a]chievement of performance metrics are based on assumptions that the utility will adopt or implement the technology and equipment, and make the investment to the extent reasonably necessary to achieve the goal." 220 ILCS 5/16-108.18(e)(2)(G).

vi. Commission Analysis and Conclusion

Sections 16-105.17(H)(iii) and (J)(iii) of the Act require:

(H)(iii) A plan for achieving the applicable metrics that were approved by the Commission for the utility pursuant to subsection (e) of Section 16-108.18 of this Act.

...

(J)(iii) Any additional information requested by the Commission or determined through Commission rules.

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220 ILCS 5/16-105.17(H)(iii) and (J)(iii).

As discussed above, Staff and the Company agree that the Company should be directed to provide the following analysis and information related to the Company's investments in the Smart Grid Plan: 1) a description of the projected quantitative benefits in terms of the reliability indices improvement as applicable to the investment; 2) its comparison to its real reliability index performance for that investment; and 3) its contribution to the total yearly goal of each component of Performance Metric #1. Accordingly, the Commission agrees that the Company should provide the analysis and information related to investments in the Smart Grid Plan as agreed by Staff and the Company.

The Company suggests a utility-led post-docket workshop process should occur to foster discussion and consensus related to the Equity Reporting Framework developed and supported by JNGO/EDF and Staff and described in JNGO/EDF Ex. 10. However, as discussed in Section V.A., the Commission declines to direct stakeholders to engage in a post-docket workshop process until it finds the Company has submitted a Grid Plan that is compliant with the Act. The Commission encourages parties to confer and collaborate on these issues prior to the Company refiling its revised Grid Plan in three months. Parties may address any unresolved issues within the proceeding initiated by refiling the Grid Plan.

The AG and IFCUP both assert that accelerating investment is not necessary to achieve the improvements required by Performance Metric #1. The Commission notes that specific project budgets and proposals to impose caps on certain categories of Company spend are addressed elsewhere in this Order.

2. Peak Load Reduction

a. Ameren's Proposals

Ameren points out that the Commission-approved Performance Metric #2 – Peak Load Reduction requires the utility to work to reduce peak loads through two components: Component 1 is to increase the level of Rider EVCP participation, and Component 2 is to obtain peak load reduction attributable to demand response programs that result in offsetting resource adequacy needs. AIC Ex. 2.1GP, App. H at 3. Ameren asserts that the Company proposes to achieve the first component by implementing the Company's BE Plan, specifically continued and targeted customer education and outreach to EV owners on the benefits of Ameren's Residential Charging Program. *Id.* The Company proposes to achieve the second component by assessing potential programs intended to meet or exceed this goal, as outlined. AIC Ex. 2.1GP at 3.

b. Staff/Intervenors Modifications and Additions

i. Virtual Power Plant

(a) JSP's Position

The Joint Solar Parties argue that the Commission has clear authority to order the Virtual Power Plant ("VPP") program recommended by the Joint Solar Parties that compensates customers for deployment of their combined solar and storage systems—

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both to offset customer usage and to export to the grid. The Joint Solar Parties note that the Commission found:

To achieve the peak load reduction targets established under Performance Metric 2, Ameren may implement demand response programs which both result in measurable peak load reductions and offset Ameren's resource adequacy needs. This includes both existing demand response programs and future programs which may incorporate new technologies, including but not limited to battery energy storage and solar plus storage.

Docket No. 22-0063, Amendatory Order at 2. The Joint Solar Parties argue that their VPP proposal meets both prongs of the standard set out in the Amendatory Order; it results in a measurable peak load reduction and offsets Ameren's resource adequacy needs. According to the Joint Solar Parties, the impact is measurable because Ameren can measure deployment of the solar+storage systems during "events" called by Ameren. See, e.g., JSP Ex. 4.0 at 6. The Joint Solar Parties further argue that the deployment also offsets Ameren's resource adequacy needs by reducing future year's peak load contribution ("PLC") and network service peak load ("NSPL") allocation to the extent that the events are called (and the solar+storage) during the hours used to set PLC and NSPL, as well as reducing energy that must be procured from wholesale markets. *Id.* at 5.

In addition, the Joint Solar Parties argue it is clear that Ameren must propose demand response programs in the MYIGP. See 220 ILCS 5/16-105.17(c)(9). According to the Joint Solar Parties, the Act (and specifically the MYIGP enabling statutory section) defined "demand response" as "measures that decrease peak electricity demand or shift demand from peak to off-peak periods." 220 ILCS 5/16-105.17(b). While the Joint Solar Parties concede that VPP does not technically shift demand—even as customer-sited storage might—the Joint Solar Parties emphasize that their VPP proposal does decrease peak electricity demand by either offsetting customer load or reducing MISO's perception of system-wide demand with distribution-level export. JSP Ex. 1.0 at 12. The Joint Solar Parties allow that their VPP proposal is perhaps not the stereotypical demand response program; however, the Joint Solar Parties state that VPP does nevertheless meet the definition in the Act. JSP Ex. 4.0 at 6.

The Joint Solar Parties contend that the Commission should clarify its order in Docket No. 22-0063. Currently, the Joint Solar Parties argue, VPP is not eligible to participate in the MISO demand response program and FERC Order 2222 implementation—which will allow DER including solar+storage to participate more directly in wholesale markets—is delayed until at least 2030. JSP Ex. 1.0 at 15. The Joint Solar Parties note that the Amendatory Order in Docket No. 22-0063 can be read as having some ambiguity as to whether solar+storage-based demand response must participate in the MISO demand response program.

The JSP note that Ameren also supports clarification that that reductions under a VPP program where participation in MISO capacity markets is not required would still count toward Ameren's Performance Metric #2. The Joint Solar Parties agree with Ameren.

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Similarly, the Joint Solar Parties highlight that the Joint NGOs explained in detail why the Commission's Order on Rehearing in Docket No. 22-0063 authorizes reductions from a VPP such as the program proposed by the Joint Solar Parties to count toward Ameren's Performance Metric #2. Specifically, the Joint Solar Parties point out that the Joint NGO state:

Moreover, the Commission's Order on Rehearing explicitly does not require Ameren to bid capacity into MISO. Instead, the new paragraph creates two requirements: any new demand response program must (1) 'result in measurable peak load reductions,' that (2) 'offset Ameren's resource adequacy needs.' Both requirements can be met without actually bidding capacity into MISO. Ameren could simply incorporate the VPP's capacity into its planning process and ultimately procure less from MISO.

JNGO IB at 48.

The Joint Solar Parties request that the Commission clarify that—consistent with the Amendatory Order—participation in the MISO demand response program is not required for solar+storage programs like VPP so long as the impact on resource adequacy and impact on PLC and NSPL is measurable.

The Joint Solar Parties propose a VPP program modeled on the ConnectedSolutions program in several east-coast states. The Joint Solar Parties point to JSP witness Lucas' proposed VPP program with the following characteristics:

- Performance-based program. Maintaining a direct linkage between customer performance and payments is appropriate. The payment should be set at \$275/kW times the average battery discharge per event over the course of the year to start followed by a Commission-directed value.
- Allow and encourage batteries to export to grid. One of the most critical design elements of the VPP program is the ability for batteries to discharge in excess of a customer's premises load. Customers should be compensated based on how much energy their battery discharges during events, whether that energy is used to serve load or exported to the grid.
- No opt-out fee or limit. Customers are fully compensated for participating in every event to the maximum extent possible. There is no reason to introduce artificial performance limits, and programs have been able to rely on customer performance requirements or nonperformance penalties.
- Two-hour maximum event. The Company can call for events that utilize aggregated customer DERs to optimize daily load reductions.
- Performance payment is "stackable". Participating in the VPP program should not impact eligibility from any other program or policy, including any up-front incentives, participation on the tariff of the customer's choice, or qualification for any net metering or DG rebate rider.

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- Allow third-party aggregators. Ameren should work with DER and storage developers who have experience aggregating many DER resources and responding to utility control signals to bundle their customers. There is no economic or policy reason or justification for Ameren to claim it must directly control the distributed assets for the program to be effective.
- Focus on summer events but allow winter events when useful. Ameren is a summer peaking utility that should focus on summer peak demand reductions. However, conditions do occur during core winter months when dispatching the VPPs could save money for customers.
- Target 30-60 events per year. This figure should be sufficient to capture days most likely to contribute to Ameren's MISO-determined peak loads, but without the rigidity of direct participation in MISO demand response programs.
- Minimize metering costs. Ameren should be required to utilize the inverter readings of a battery or solar plus storage system that meets performance accuracy requirements. This will prevent the extra cost and complexity of installing another meter to measure battery discharges.

JSP Ex. 1.0 at 5-6. The Joint Solar Parties emphasize that Mr. Lucas later indicated that he views \$275/kW as an "interim value" and that he is open to an alternative as long as the calculation of future value is built up from at minimum "a forward-looking value for, avoided energy costs, avoided capacity costs, avoided transmission costs, avoided line losses, and avoided emissions (due to reduced or eliminated fossil-fueled peaker plant deployment)." JSP Ex. 4.0 at 6-7.

The Joint Solar Parties underline that Mr. Lucas testified with only the current net metering and Smart Inverter Rebate (including for storage) structures currently in place, there is not sufficient incentive to deploy behind-the-meter solar+storage in a way that reduces Ameren-wide capacity and transmission allocation (as well as wholesale energy purchase). See JSP Ex. 1.0 at 10. According to the Joint Solar Parties, the VPP program is designed to compensate individual customers to deploy their solar+storage in a way that benefits all ratepayers in the Ameren service territory but that current structures do not adequately compensate. *Id.* at 11-12.

According to the Joint Solar Parties, the proposed VPP program would help Ameren meet its Peak Load Reduction performance metric, specifically Performance Metric #2. *Id.* at 13-14.

The Joint Solar Parties appreciate Ameren's engagement and identification of specific concerns. JSP emphasize that the gap between Ameren and the Joint Solar Parties on VPP "appears to be navigable." JSP Ex. 4.0 at 2. As a result, the Joint Solar Parties note that Mr. Lucas proposed the following compromise:

[W]hile Commission clarification of VPP and CS+S qualification for Ameren's PLR Metric 2 is of the utmost importance in this docket, if Ameren commits to good-faith discussion of operational details we alternatively support a Commission directive for Ameren to engage in a time-limited

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stakeholder process to address details of a VPP and CS+S program consistent with the structure I proposed in my direct testimony (as modified and clarified below) followed by Ameren filing a tariff for each for approval by the Commission.

JSP Ex. 4.0 at 2. According to the Joint Solar Parties, Ameren witness Parker accepted Mr. Lucas' invitation, and provided the following additional clarifications:

I recommend pursuing a VPP as a program, but after a collaborative process with interested stakeholders to resolve details surrounding such program. I recommend such a collaborative process that would start no sooner than 4 months following the Final Order or any order on rehearing and would conclude within 120 days of starting, unless otherwise agreed to by the participants. I would expect such a process would result in a consensus program, but, if not, the Company commits to submitting within 60 days of conclusion of the workshops for approval of a resulting program and having the Commission decide on the best path towards implementation.

AIC Ex. 54.0 at 38. The Joint Solar Parties accept Ameren's proposed timing.

According to the Joint Solar Parties, Ameren states that JSP's proposal "is a good starting point to explore and better understand certain operational and financial aspects of operating a VPP within MISO." AIC IB at 232. According to the Joint Solar Parties, the Joint NGO also agree with the Ameren-led stakeholder process to reach consensus on a VPP tariff, followed by Ameren proposing a VPP tariff.

The Joint Solar parties disagree with Staff's criticism that the VPP program is not intended to reduce resource adequacy requirements in MISO and not actually reducing peak load. The Joint Solar Parties argue that neither statement is supported by the record. The Joint Solar Parties counter that Mr. Lucas testified: "Ameren (or a third party on its behalf) can measure the deployment of the VPP system during events that coincide with the hours used to set resource adequacy requirements. Because actual deployment of the VPP resources will be measured, their impact can be quantified." JSP Ex. 4.0 at 6. The Joint Solar Parties contend that Staff's evidentiary basis for its criticism is speculation by Staff witness Brightwell, typified by his statement that "It seems to me that this is a shifting of supply from traditional generation to battery storage rather than an actual reduction in peak load." Staff Ex. 37.0 at 3. The Joint Solar Parties dispute this statement because it incorrectly assumes that behind-the-meter solar (without storage or commitment to deploy during defined peak hours) is accounted for in Ameren's resource adequacy planning. According to JSP, Dr. Brightwell provides no evidence that Ameren does this currently, or that commitments to deploy storage when the solar is not generating (or fully generating) would not further reduce Ameren's resource adequacy needs.

The Joint Solar Parties note that clarifications to the types of issues raised by Staff can be accomplished in a non-litigation stakeholder process. According to the Joint Solar Parties, Staff's criticisms are thus unsupported and inconsistent with the evidence

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provided by the Joint Solar Parties, Ameren, and the Joint NGOs. Given that Ameren, the Joint Solar Parties, and JNGO agree that program design should be worked out in an Ameren-led stakeholder process, Staff's criticisms should be rejected.

According to the Joint Solar Parties, due to significant agreement on approval of the VPP program subject to an agreed collaboration implementation process, the Commission should: (1) clarify that the measured reductions from the VPP would count toward Ameren's Performance Metric #2; and (2) direct Ameren to pursue a VPP subject to resolution of implementation details in the collaborative process proposed by Ameren witness Parker and inclusion in a tariff to be filed by Ameren.

(b) Staff's Position

Staff argues that the Commission should either: 1) reject the JSP's VPP proposal as it does not meet the resource adequacy requirements set forth in the Docket No. 22-0063 Amendatory Order; or 2) clarify the resource adequacy requirements and approve the VPP as a pilot program as proposed by Ameren. If the Commission clarifies the resource adequacy requirements, it should approve an incentive much lower than the \$275/kW proposed by JSP. Staff Ex. 37.0 at 2.

Staff understands that Docket No. 22-0063 approved peak load reduction programs that can count toward Ameren's resource requirements in MISO. The VPP does not seem to be intended to count towards these resource requirements. Ameren seems to have a similar understanding, as the Company also sought clarification regarding counting VPP towards peak load reductions without it meeting MISO resource adequacy requirements. *Id.* at 3.

JSP argue that the Commission's Amendatory Order provides "clear authority" to order a VPP program. Docket No. 22-0063, Amendatory Order at 2. While JSP argue that the Commission's Amendatory Order says that battery energy storage and solar plus storage systems are predetermined to qualify as programs eligible towards peak load reduction performance metric goals, the Commission's language is subject to interpretation. Unlike JSP, Ameren seems to interpret this passage to say that battery energy storage and solar+storage systems can count towards peak load reduction performance metric goals but only if the programs are part of the MISO capacity markets. Staff, on the other hand, interprets this passage to say that, if it can be shown that battery energy storage or solar+storage systems or other unnamed new technologies result in both measurable peak load reductions and offset Ameren's resource adequacy needs, then peak load reductions from these technologies can be counted towards Ameren's Metric #2 goal.

Staff states that the fact that there are three different interpretations of this passage is strong evidence that JSP assertion of "clear authority" is incorrect. Staff believes that its interpretation that new technologies need to both result in measurable peak load reductions and offset Ameren's resource adequacy needs is the correct interpretation and the only interpretation that comports to the peak load reduction statutory requirements. Section 16-108.18(e)(2)(A)(ii) states the performance metric should address "Peak load reductions attributable to demand response programs." 220 ILCS 5/16-108.18(e)(2)(A)(ii). Section 16-108.18(b) defines "demand response" as "measures that decrease peak electricity demand or shift demand from peak to off-peak periods." 220

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ILCS 5/16-108.18(b). VPP does not reduce or shift demand but rather provides a new way of meeting demand, substitutes energy storage systems for traditional supply. Energy storage systems are an alternative form of peak supply, they change nothing from a consumer demand perspective.

Staff states that it is questionable whether VPP reduces peak load at all. The program is intended to allow energy storage systems to discharge regularly during predefined peak hours. It seems that this is a shifting of supply from traditional generation to battery storage, rather than an actual reduction in peak load. If no load is being reduced and no resource adequacy needs are being met, it does not seem that the program is beneficial in reducing capacity payments or load reductions. If the programs can do neither, it is unreasonable to count it as a peak load reduction program and allow Ameren to achieve a performance incentive based partially on so-called reductions from the VPP program. *Id.* at 3.

If the Commission decides to approve a VPP program, Staff recommends approving VPP as a pilot program, with an incentive far less than the \$275/MW that JSP proposes. The highest capacity payment in MISO history is only about 31% of Mr. Lucas' proposed incentive level. The JSP's recommended amount is equivalent to \$275,000 per MW. The MISO capacity market auction cleared for \$236.66 per MW-day in 2022, which amounts to an annual capacity payment of \$86,380.90 per MW. The 2021 Planning Resource Auction result was \$5/MW-day or about 2.1% of the 2022 price and 0.66% of the incentive proposed for VPP. In 2023, MISO reformatted to seasonal auctions. The summer clearing price is \$15/MW-day – about 6.3% of the 2022 result and less than 2% of the proposed VPP incentive. It is difficult to imagine VPP being cost-effective in the Ameren territory with a \$275/kW incentive. *Id.* at 4.

The Company supports this proposal. Ameren testified "the Company would be open to exploring a VPP as a pilot" so that analysis "into the cost effectiveness of this program factoring in Illinois-specific costs for capacity and transmission service" could be conducted. AIC Ex. 28.0 at 39.

(c) JNGO's Position

JNGO agree that a well-designed VPP program using a pay-for-performance model has a great deal of potential to help Ameren reduce peak load, and therefore JNGO recommend that the Commission: (1) endorse Ameren's plan to pursue a VPP program in its Final Order; and (2) clarify that resulting peak load reductions from such a program can be counted towards Ameren's Performance Metric #2.

(d) Ameren's Position

The Company is open to exploring new programs that benefit customers and improve grid performance, and Mr. Lucas' VPP proposal is a good starting point to explore and better understand certain operational and financial aspects of operating a VPP within MISO. AIC Ex. 38.0 at 37.

Ameren also notes that Mr. Lucas stated that the Company does not need a pilot program, and the Commission should approve his VPP program as proposed. JSP state that if the Commission believes more questions must be addressed it should order a tariff proceeding. JSP Ex. 4.0 at 3-4. The Company recommends the Commission clarify that

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peak load reduction achieved through a VPP program would count toward the Company's Performance Metric #2 without participating in the MISO capacity markets.

The Company appreciates the work and collaboration with JSP on this important issue and continues to recommend pursuing a VPP program following a collaborative process no later than 4 months following the Final Order or Order on Rehearing, to conclude within 120 days unless otherwise agreed by the participants. AIC Ex. 54.0 at 38. The Company hopes to reach consensus with stakeholders through this process, and if it cannot, it commits to submitting within 60 days of the workshop for Commission approval of a resulting program to allow the Commission to decide the best path forward. *Id.*

Ameren notes that Staff opposes the VPP proposal. While the Company has agreed to work with JSP to develop and implement the VPP program, subject to the Commission's clarification on the resource adequacy requirements, the Company does not necessarily believe that \$.75/W is appropriate. AIC Ex. 54.0 at 39. That said, the Company is committed to addressing such details with JSP and interested stakeholders following the close of this docket. *Id.* at 38. Ameren states that JNGO recommend the Commission endorse the Company's commitment to pursue VPP through a collaborative process with stakeholders. Ameren states the Commission should direct the Company to address implementation details with Staff, JSP, and other interested stakeholders following the close of this docket, but the VPP program should be pursued only if the Commission also clarifies that the program is eligible to contribute to achieving the Company's Metric #2 goals.

The Company, JSP, and JNGO request the Commission issue a ruling that VPP meets the resource adequacy requirements set forth in Docket No. 22-0063, and the Commission should provide such clarification on this issue in its Final Order. Otherwise, Ameren asserts that the program, like the Community Solar+Storage ("CS+S") program, would unfairly impede and impact the achievement of the Company's peak load reduction Performance Metric #2 goals.

(e) Commission Analysis and Conclusion

The Commission agrees that a VPP program like the one proposed by JSP meets the resource adequacy requirements set forth in Docket No. 22-0063 and therefore could contribute to Ameren's achievement of the peak load reduction goals of Performance Metric #2. The Commission further confirms that this is true even if the VPP does not participate in the MISO capacity markets.

Staff asserts that a VPP program seems to merely shift supply from tradition generation to battery storage and questions whether it results in any actual peak load reduction. The Commission finds that this is precisely how such a program will achieve peak load reduction; during peak hours, supply that would otherwise come from traditional generation—and possibly more expensive, peaking generation—comes in part from battery storage, thereby reducing the supply required from traditional generation during those hours.

The Commission agrees with the Company's recommendation that a VPP program should be pursued upon Commission approval of a compliant Grid Plan. However, as

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discussed in Section V. A., the Commission declines to establish such a program until it finds the Company has submitted a Grid Plan that is compliant with the Act.

ii. Community Solar with Storage (“CS+S”) Program

(a) JSP’s Position

According to the Joint Solar Parties, the Commission has clear authority to order the CS+S program recommended by JSP that compensates customers for deployment of their solar and storage systems—both to offset customer usage and to export to the grid. See Docket No. 22-0063, Amendatory Order at 2. JSP argue that their CS+S proposal meets both prongs of the standard set out in the Amendatory Order; it results in a measurable peak load reduction and offsets Ameren’s resource adequacy needs. First, JSP contend, the impact is measurable because Ameren can measure deployment of the solar and storage systems during “events” called by Ameren. See, e.g., JSP Ex. 4.0 at 11. Second, JSP continue, the deployment also offsets Ameren’s resource adequacy needs by reducing future year’s PLC and NSPL allocation to the extent that the events are called (and the solar and storage) during the hours used to set PLC and NSPL, as well as reducing energy that must be procured from wholesale markets. See AIC Ex. 54.0 at 39-40 (“Ameren does understand the point that Mr. Lucas is making around shifting output to later afternoon hours where load is higher, energy is more expensive, and there is a higher likelihood of triggering a “resource adequacy” hour in the MISO capacity construct”).

In addition, JSP argue, it is clear that Ameren must propose demand response programs in the MYIGP. See 220 ILCS 5/16-105.17(c)(9). According to the Joint Solar Parties, the Act (and specifically the MYIGP enabling statutory section) defined “demand response” as “measures that decrease peak electricity demand or shift demand from peak to off-peak periods.” 220 ILCS 5/16-105.17(b). JSP posit that while CS+S does not shift demand because most community solar is not co-located with load, it certainly does decrease peak electricity demand by deploying resources during the 4PM to 8PM (or otherwise defined) window during which stand-alone solar typically does not deploy to the same extent. See, e.g., JSP Ex. 4.0 at 9-10; JSP Ex. 1.0 at 31-33. The Joint Solar Parties concede that CS+S is perhaps not the stereotypical demand response program; however, CS+S does meet the definition in the Act. See *also* JSP Ex. 4.0 at 11.

According to JSP, the Commission should provide an important clarification of its Order in Docket No. 22-0063. The Joint Solar Parties contend that front-of-meter resources cannot participate in MISO demand response program and FERC Order 2222 implementation—which will allow DER including CS+S to participate more directly in wholesale markets—is delayed until at least 2030. See JSP Ex. 4.0 at 11-12. JSP contend, however, that the findings in Docket No. 22-0063 can be read as having some ambiguity as to whether CS+S-based demand response must participate in the MISO demand response program. According to JSP, the Commission should clarify that—consistent with the Amendatory Order—participation in the MISO demand response program is not required for solar and storage programs like CS+S so long as (like JSP’s proposal) the impact on resource adequacy and impact on PLC and NSPL is measurable.

The Joint Solar Parties’ proposed a new CS+S program:

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I propose that a new tariffed program under which front-of-the-meter CS+S projects receive additional compensation for grid injections from 4 PM to 8 PM daily during summer months (June to September) or another window of up to four consecutive hours as determined by the Commission. This window should reflect the anticipated net peak load time frame after accounting for significant projected solar penetration resulting from P.A. 102-0662 goals. I recommend this compensation be paid for a minimum of 15 years with a regular review of the four-hour deployment window to ensure it continues to reflect the net peak demand as solar is added.

Compensation should be sufficient to generate robust adoption of storage attached to community solar projects after accounting for any changes to the value of base storage rebates outlined in P.A. 102-0662 that may result from the Commission's investigation into the value of distributed energy resources beginning this summer. The compensation paid for the storage grid injections should be separate from the value of any bill credits that CS project subscribers are already eligible to receive. The value paid during these hours provides a market signal for community solar developers to install storage and use that storage to produce a higher-value product for Ameren and its customers. Developers can work with Ameren to provide more consistent and longer output during the year.

JSP Ex. 1.0 at 33-34.

According to JSP, Mr. Lucas explained at length why the current compensation for CS+S—including net metering and the Smart Inverter Rebate (both for the solar and storage)—do not adequately compensate the value provided by CS+S deploying during “events” as defined above. See JSP Ex. 4.0 at 9-10; JSP Ex. 1.0 at 10-11. JSP highlight that Mr. Lucas explained that the upcoming value of solar proceeding pursuant to Section 16-107.6 of the Act—which primarily addresses distribution costs—is also not adequate to address the measurable wholesale reductions from JSP's proposed VPP. See JSP Ex. 4.0 at 11.

The Joint Solar Parties appreciate Ameren's engagement and identification of specific concerns. JSP further highlight that Mr. Lucas testified that the gap between Ameren and JSP on CS+S “appears to be navigable.” JSP Ex. 4.0 at 2. As a result, JSP emphasize, Mr. Lucas proposed the following compromise:

[W]hile Commission clarification of VPP and CS+S qualification for Ameren's PLR Metric 2 is of the utmost importance in this docket, if Ameren commits to good-faith discussion of operational details we alternatively support a Commission directive for Ameren to engage in a time-limited stakeholder process to address details of a VPP and CS+S

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program consistent with the structure I proposed in my direct testimony (as modified and clarified below) followed by Ameren filing a tariff for each for approval by the Commission.

JSP Ex. 4.0 at 2. According to the Joint Solar Parties, Ameren witness Parker appears to have accepted Mr. Lucas' proposed approach for both VPP and CS+S. JSP claim that there is agreement as between Ameren and JSP on the path forward. JSP accept Ameren witness Parker's proposed timing.

The Joint Solar Parties disagree with Staff's arguments that the Commission should defer action on CS+S until the DER valuation proceeding takes place. See Staff IB at 95-96. JSP point out that Ameren and JSP have both agreed that a stakeholder process that would allow Ameren, JSP, and other interested stakeholders to work out their differences and achieve consensus to the extent possible, followed by Ameren filing a tariff. JSP further argue that it is unclear that the DER valuation proceeding is the appropriate venue because of its differing scope. See, e.g., JSP Ex. 4.0 at 11. JSP note that the value of DER docket will also address many issues and is far inferior to the Ameren-led stakeholder process as a way to create a consensus tariff (or at least a tariff with maximum consensus possible) for the Commission to approve in a separate docket. The Joint Solar Parties argue that Staff's proposal to address this issue in the DER valuation proceeding adds nothing to the quality of proposal received by the Commission and only adds delay and complexity. Staff's proposal should thus be rejected.

Because JSP and Ameren agree on approval of the CS+S program subject to an agreed collaboration implementation process, the Joint Solar Parties argue that the Commission should: (1) clarify as requested by JSP above that the measured reductions from the CS+S would count toward Ameren's Performance Metric #2; and (2) direct Ameren to pursue a CS+S as outlined in Mr. Lucas' direct testimony subject to resolution of implementation details in the collaborative process proposed by Ameren witness Parker and inclusion in a tariff to be filed by Ameren.

(b) Staff's Position

Staff argues that the Commission should defer decisions on the CS+S program until the parties can work to resolve these issues through the investigation into the tariffed compensation for these types of proposals in the Section 16-107.6(e) investigation.

Ameren concedes that CS+S can provide additional value, but states the issue is complicated by several factors, such as the different ways that CS+S can create value, any additional costs resulting from metering the storage facilities separately, and whether the demand reduction from the program can be counted towards Metric #2. AIC Ex. 28.0 at 40-42. Staff agrees that this issue should be considered further in the DER evaluation proceeding. Balancing compensation for CS+S services with their benefits is complicated by the various revenue streams that P.A. 102-0662 provides, and it is not clear how this incremental benefit would affect the relationship between total benefits of the facilities versus their compensation. Staff Ex. 28.0 at 9.

Staff and Ameren agree that the task of balancing compensation for CS+S services with their benefits is complex because the relationship between total benefits of the facilities and the various ways they are compensated is a complicated question. Staff IB

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at 96; AIC IB at 234. Thus, Staff and Ameren agree that the Commission should defer consideration of this issue to the value of DER investigation.

(c) Ameren's Position

Again, the Company appreciates the work that JSP undertook or will undertake with the Company before, during, and soon-to-be after the docket. While the Company supports CS+S project interconnections, there remain many issues that need to be better understood before a program is developed and implemented to provide additional compensation for CS+S including any impact on IPA compensation, required physical changes to facilities serving the sites and process changes to account for energy injected into the MISO market, and clarity on counting CS+S demand reduction toward the Company's peak load reduction metric. The Company further recommends the Commission clarify that peak load reduction achieved through a CS+S program would count toward the Company's Performance Metric #2 without participating in the MISO capacity markets. AIC Ex. 54.0 at 39-40.

Ameren notes that regarding Mr. Lucas' proposed CS+S recommendation, Staff witness Rearden agrees with the Company the parties should investigate and discuss the value of and compensation for services from CS+S in the Commission's value of DER docket. Further, the Company recommends the Commission adopt the same workshop process discussed above for the VPP program proposal. *Id.* at 40.

Ameren notes that Staff urges the Commission to defer decisions on the CS+S program until the parties resolve issues, such as whether the program can count toward Metric #2, through the value of DER investigation. The Company does not agree with Staff's timing and would further clarify that it agrees with JSP that consensus achieved in the workshop process and Ameren's subsequent tariff should direct the terms of the CS+S tariff, although the Company notes that the value of compensation under such tariff—which JSP propose to be determined at a later date—could be partly informed by the value of DER docket. AIC urges that, subject to issuing the clarification ruling sought by JSP, the Company, and JNGO, the Commission should allow the parties the process and time to work out the technical details and, thus, the Commission should approve the Company and JSP's CS+S proposals, along with the requested clarification that achievement of peak load reduction will count towards the Company's Performance Metric #2 goals even if the programs do not participate in the MISO markets.

(d) Commission Analysis and Conclusion

As in Section V.D.2.b.i.(e) above, the Commission agrees that a CS+S program like the one proposed by JSP meets the resource adequacy requirements set forth in Docket No. 22-0063 and therefore could contribute to Ameren's achievement of the peak load reduction goals of Performance Metric #2. The Commission further agrees that this is true even though such a program does not or cannot participate in the MISO demand response program.

The Commission agrees with the Company that a CS+S program should be pursued through a collaborative process. The Commission agrees with the Company that there remain many issues that need to be better understood before a CS+S program is developed and implemented. The Commission finds that a workshop process could be

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beneficial to address existing issues and additional issues that may arise. However, the Commission declines to order a workshop until a compliant Grid Plan is approved. Further, the Commission agrees with the Company and JSP that the consensus achieved in a workshop process should direct the terms of the CS+S tariff even though the value of compensation under such tariff could be partly informed by the DER value proceeding at a later date.

3. Interconnection

a. Ameren's Proposals

Ameren points out that the Commission-approved Performance Metric #5 – DER Interconnections provides incentives or penalties based on the timeliness of interconnection for Level 1-4 applications screens or reviews. AIC Ex. 2.1GP, App. H at 4. The goal is to decrease review time for interconnection request applications and sustain that level of service. The metric tracks seven different tasks related to application review timeliness, each measuring the number of days saved less twice the number of days exceeding regulatory timeliness. *Id.* at 5. The Company plans to achieve the metric goals for Level 1 by adjusting staffing levels to meet the increased volume of applications and reviewing internal processes to identify opportunities to automate and streamline aspects of the project. Ameren states that for Level 2 applications, the Company will also adjust staffing levels, and to increase focus on these applications, processing, planning, and estimating may be consolidated into a single organization. Investments in resources and technology to enhance reporting and dashboards will enhance visibility and streamline the application and project tracking. *Id.*

b. Staff/Intervenors Modifications and Additions

i. Staff's Position

Staff states that the Commission should defer decisions about Level 1 DERs at this time and instead direct parties to address these issues in the ongoing Value of DER proceeding.

The effect that JSP's proposal might have on the distribution grid at this time is not known, and the Commission should not order this change. Such a change should only be implemented after extensive discussion and investigation. Staff Ex. 28.0 at 11. Indeed, it may require a change to existing Commission rules.

Ameren urges rejection of JSP's proposal regarding smart-inverter installations because of a concern with installers' workmanship and the lack of electrical inspectors for areas in Ameren's service territory, and notes that, though the Company intends to pilot a certification process for installers, it has obviously not yet done so. AIC Ex. 28.0 at 46-47. Staff lacks independent information regarding the general quality of interconnection workmanship in Ameren territory and is unable to comment on that aspect of Ameren's objections to the proposal. It is prudent for Ameren to insist that interconnections comply with the relevant codes, and Staff supports a pilot program to certify installers to avoid potentially unnecessary inspections. The Commission should order Ameren to include such a pilot in its MYIGP. Staff Ex. 28.0 at 12.

JNGO also offer two flexible interconnection strategies. "The first use case is using smart inverter functionality on smaller systems (e.g., below 2 MVA) as a substitute for

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direct utility control.” JNGO Ex. 3.0 at 28. “The volt-watt function allows smart inverters to monitor the voltage on their local area of the grid. If that voltage increases beyond a threshold under specified conditions, the inverter can reduce the amount of power the DER sends to the grid, helping to prevent poor power quality and violation of grid constraints.” *Id.* at 29.

As a result, JNGO recommend that Ameren begin to take volt-watt into account in its planning criteria, similar to what occurs in California. California’s Rule 21, which describes the interconnection, operating, and metering requirements for generation facilities to be connected to a California utility’s distribution system, uses volt-watt, and is meant to “curtail systems in rare circumstances – acting as a backstop for avoiding power quality and reliability issues in high DER penetration areas.” *Id.* at 29-30.

Staff notes that it is in the public interest to accommodate DER facilities without expensive infrastructure upgrades and so, to the extent that volt-watt can protect the grid from over-voltage, Staff agrees. As noted above, however, that setting has to result from mutual agreement. Ameren’s caveats to the usefulness of volt-watt are well-taken, as is the potential for curtailment to erode the benefits from DERs. Furthermore, there should not be compensation for such events. Thus, it is important to establish how rare such curtailments are before implementing this policy. Staff Ex. 28.0 at 15.

Staff opines it is vital to establish that the changes are operationally appropriate and based on sound engineering principles. Staff is optimistic that the collaborative processes that are embedded in P.A. 102-0662 can provide forums for exploring and establishing such improvements in interconnection policy. *Id.* at 16.

JNGO suggest that Ameren implement an ANM solution. The proposal is a software solution usually called DERMS, which lets Ameren curtail the export from participating DERs when conditions dictate the need, which may increase hosting capacity where the software is deployed. JNGO Ex. 3.0 at 30. JNGO further comment that “direct utility control” does not apply to facilities under 2 MVA, and request Ameren confirm this. *Id.* at 32.

JNGO request stakeholder input on the RFP that Ameren will issue for DERMS. JNGO advise that the Commission initiate a stakeholder process, because there are several unknowns about the software and how it would be used. *Id.* at 32-33. Ameren is open to a stakeholder process after it implements ‘near-term’ DERMS. That process would then develop use cases in a longer-term process. AIC Ex. 28.0 at 36. As discussed in Section V.C.6.a.1.i., Staff supports Ameren’s proposal to include five DERMS projects in the MYIGP, with minor disallowances. Staff Ex. 25.0 at 4. Staff’s opinion is that DERMS is an obvious next step in the development of DER interconnections and management system, but there should be consultation with stakeholders about the parameters of an RFP to increase the likelihood that the software provides the maximum benefits to customers. Staff Ex. 28.0 at 17.

As noted above, most of Staff’s recommendations with respect to DER interconnection and management amount to deferring important decisions to proceedings that will investigate the issues in depth and provide the Commission flexibility to make decisions. Staff, Ameren, and JSP agree that the issues of volt-watt implementation, as

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well as establishing a certification program for DER installers be resolved through a collaborative workshop process to effectively and efficiently investigate these issues.

ii. JSP's Position

According to the Joint Solar Parties, Level 1 interconnections—smaller systems typically of the scale that one might find on a residential rooftop—are designed to be expedited and standardized but bottlenecks still exist in the interconnection process. The Joint Solar Parties highlight that JSP witness Rymsha proposed a two-pronged approach to improving the Level 1 interconnection experience in support of Performance Metric #5. First, Mr. Rymsha proposed utilization of the “volt-watt” setting on the smart inverter to allow more systems to interconnect to the same distribution assets without causing an impact on the grid. JSP Ex. 2.0 at 4-5. Second, the Joint Solar Parties note that Mr. Rymsha recommends creation of a new status called a “certified Ameren DER Installer” that could install Level 1 systems utilizing the volt-watt setting and inform Ameren of operations afterwards rather than requiring an Ameren inspection beforehand. JSP Ex. 2.0 at 7, 12. In support of these proposals, the Joint Solar Parties highlight Mr. Rymsha’s explanation that both would contribute to Performance Metric #5.

While the Joint Solar Parties believe the record evidence supports immediate adoption of the Joint Solar Parties’ two-pronged Level 1 approach, in the spirit of compromise Mr. Rymsha accepted a proposal of Ameren witness Parker to address these issues in a stakeholder process but noted “[t]hat workshop discussion would have to address program and pilot design (including consumer protections).” JSP Ex. 5.0 at 4. The Joint Solar Parties highlight that Mr. Rymsha further noted that while Ameren raised concerns that the certified Ameren DER installer would potentially violate Section 466.90, if stakeholders reach consensus the parties can also seek a waiver under Section 466.30. The Joint Solar Parties emphasize that Mr. Parker responded in support with additional clarifications, and the Joint Solar Parties accept this proposal for a pilot program for volt-watt and a stakeholder process to further address the certified Ameren DER installer. See AIC Ex. 54.0 at 10-11.

In an area such as volt-watt and the certified Ameren DER installer, the Joint Solar Parties are particularly cognizant of the challenges of creating a fully-formed program that addresses all of the technical and practical implementation issues within the context of a litigated proceeding. The Joint Solar Parties urge the Commission to approve Ameren’s proposed collaborative stakeholder process for the volt-watt pilot and development of the certified Ameren DER installer approach.

The Joint Solar Parties understand Staff’s concerns and note Staff’s position provides further justification for the Joint Solar Parties’ and Ameren’s proposed collaborative approach. Similarly, Staff indicated willingness to address the Joint Solar Parties’ proposals regarding volt-watt and certified Ameren DER installers.

iii. JNGO's Position

See Section V.C.7.d.ii.

iv. Ameren's Position

The Company is open to exploring JSP’s recommendation of activating volt-watt, customer charges and maximizing hosting capacity and agreed to engage with JSP on

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this topic through a workshop process to determine how it could fit into serving customers. AIC Ex. 28.0 at 44. The Company believes that implementing a volt-watt program would be most effective through a pilot with parameters that are influenced by collaboration with the Company and key stakeholders, including JSP. Ameren states that the pilot should focus on customers exceeding the following Level 1 Expedited Review criteria and they should be given an option to interconnect without delay with the activation of volt-watt and other required function settings under Rider CGR. AIC Ex. 54.0 at 10. This collaborative effort should also include recommendations related to a certified Ameren DER installer program in which certain installers that established consistent practices and show quality workmanship and collaborative communication could potentially self-witness test more simplified Level 1 installs. *Id.* at 11.

The Company notes that Staff recommends the Commission defer decisions about Level 1 DERs at this time and direct parties to address these issues in the DER Value proceeding. Ameren states Staff notes the Company's initial concerns with JSP's proposals regarding volt-var and volt-watt, and the Ameren certified DER installer program; however, it appears that Staff is in agreement that the parties should discuss outstanding issues through a collaborative post-docket process and the parties agree that the Company will explore the proposed volt-watt and certified installers pilot, including JNGO's proposals.

Accordingly, Ameren asserts that the Commission should direct the Company to work with JSP and key stakeholders to explore the Company's proposed pilot regarding using volt-watt settings and Certified installers.

v. Commission Analysis and Conclusion

As discussed above, the parties agree to a workshop process that addresses DERMs implementation.

The Commission declines to order a volt-watt pilot program as requested by JSP in the MYIGP because the Commission rejects the Grid Plan, as explained in Section V.A. Therefore, the Commission declines to direct further post-docket activities on this program until a compliant Grid Plan is approved.

4. Supplier Diversity

a. Ameren's Proposals

AIC points out that the Commission-approved Performance Metric #3 – Supplier Diversity requires the Company to increase diverse supplier participation in professional services, subcontracting, and prime contracting while reducing barriers to access. Diverse suppliers will be invited to participate in Ameren-led outreach designed to strengthen business processes and increase the likelihood for participation on AIC projects. The programs will address specific barriers related to RFPs and contract access, access to capital, information technology and cyber security access and costs, administrative burdens, and quality control with specific metrics, outcomes, and demographic data reported. AIC Ex. 2.1GP, App. H. AIC also points out that at or near the completion of the pilot, the Company and key stakeholders can meet to discuss data collection and any associated analysis to determine the value of the program. *Id.*

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b. Staff/Intervenors Modifications and Additions

i. Staff's Position

Staff agrees with Ameren's proposal to address issues related to cost-effectiveness of supplier diversity, affordability, and customer service metrics in a collaborative workshop process. Staff recommends, however, that the Commission reject Ameren's proposal to conduct separate workshops for Ameren and ComEd. AIC Ex. 63.0 at 12-13; AIC IB at 265; Staff IB at 115, 122. Rather, the Commission should direct Ameren to work with ComEd to develop a manual for how benefit-cost analyses should be conducted for the performance metrics and solicit stakeholder and Staff feedback through utility-run stakeholder meetings on benefit cost analyses.

ii. Ameren's Position

AIC notes that Staff witness Bista recommended the Company provide details regarding how it plans to track and measure quantitative benefits associated with its Supplier Diversity Performance Metric. Staff witness Bista also recommended the Company quantify expected benefits and include a quantitative analysis in its next Grid Plan. Staff Ex. 11.0 at 4-5

While the Company agrees that a purely quantitative analysis of the Supplier Diversity metric was not completed, qualitative and quantitative costs and benefits caused the metric to have a positive net benefit and was subsequently approved by the Commission. See Docket No. 22-0063, Order. The Company proposed that once benefit methodologies are agreed to the Company can track benefits through implementation of the supplier diversity metric and can discuss technical issues among a diverse group of stakeholders and experts in a collaborative workshop process. Staff and the Company-agreed stakeholder meetings dedicated to cost-effectiveness analysis are necessary to work through technical details and potential adjustments to methodologies. AIC Ex. 63.0 at 12. The Company clarified that the workshop should address cost-effectiveness as a concept and methodology, and that the workshops should be customer-focused. *Id.* at 12-13.

Accordingly, the Commission should direct the Company to address issues related to cost-effectiveness in a collaborative workshop process following the Commission's Final Order in this proceeding.

iii. Commission Analysis and Conclusion

Staff and the Company agree to a utility-led post-docket workshop process to address the cost-effectiveness of Supplier Diversity, Affordability, and Customer Service performance metrics. No other party objects to these Company-led stakeholder workshops. However, the Commission declines to direct any post-docket stakeholder workshops at this time.

The Commission agrees with Staff's proposal directing Ameren to conduct the post-docket workshop process related to the cost-effectiveness of system investments with ComEd may produce efficiencies that will aid the Commission in its review of future MYIGPs. The Commission declines to rule at this time on Staff's proposal that a manual be adopted or that both utilities must utilize the same benefit-cost analysis.

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5. Customer Service

a. Ameren's Proposals

Ameren states that the Commission-approved Performance Metric #6 – Customer Service, requires the Company to answer customer calls as quickly as possible while balancing prudent and reasonable customer service representative staffing and customer service tool investment levels. The metric measures the Company's performance in reaching call center related objectives in the face of increasing call center related demands on an incremental basis. To achieve this goal, customer service calls were forecasted, and the staffing levels have been budgeted for each of the performance years. AIC Ex. 2.1GP, App. H at 6. AIC also states that the forecast is based on historic performance data which includes assumptions about long-term factors such as improved self-service rates. Call forecasts are reviewed regularly and adjusted as necessary. The Staffing budget is based on the call forecast and Service Level goal for each year. AIC Ex. 2.1GP at 6. Annual hiring plans are developed based on the budget, and staffing levels will be reviewed monthly to ensure they are aligned with the budget.

b. Staff/Intervenors Modifications and Additions

i. Staff's Position

See Section V.D.4.b.i. above.

ii. Ameren's Position

Ameren states that Staff made the same arguments regarding the Company's Customer Service Performance Metric, as it did regarding the Supplier Diversity Performance Metric. Staff witness Bista recommended the Company provide details regarding how it plans to track and measure quantitative benefits associated with its Customer Service Performance Metric. Staff witness Bista also recommended the Company quantify expected benefits and include a quantitative analysis in its next Grid Plan. Staff Ex. 11.0 at 3. The Company's response and recommendations regarding this metric are discussed in Section D.4. above.

iii. Commission Analysis and Conclusion

See Section V.D.4.b.iii. above.

6. Affordability

a. Ameren's Proposals

Ameren points out that the Commission-approved Performance Metric #4 – Affordability requires the Company to reduce residential disconnections in the 20 zip codes with the highest disconnection rate by 10% annually from 2024-2027. AIC Ex. 2.1GP at 51. Section 2 of the Company's Grid Plan reflects that to achieve this goal, the Company plans to increase outreach efforts, to communicate earlier and more often, and proposes using varied means of communication with residential customers at risk of disconnection in those areas. These efforts will be over and above what is required by 83 Ill. Adm. Code. 280. The Company also proposes to explore creative solutions in addition to communications. Ameren agrees that all of these efforts will be monitored and

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measured for effectiveness and for consideration in expanding them to other areas across the Company's service territory.

b. Staff/Intervenors Modifications and Additions

i. Staff's Position

See Section V.D.4.b.i. above.

ii. Ameren's Position

Ameren states that Staff made the same arguments regarding the Company's Affordability Performance Metric as it did regarding the Supplier Diversity Performance Metric and the Customer Service Performance Metric. Staff witness Bista recommended the Company provide details regarding how it plans to track and measure quantitative benefits associated with its Affordability Performance Metric. Staff witness Bista also recommended the Company quantify expected benefits and include a quantitative analysis in its next Grid Plan. The Company's response and recommendations regarding this metric are discussed in Section V.D.4. above.

iii. Commission Analysis and Conclusion

See Section V.D.4.b.iii. above.

VI. UTILITY INTEROPERABILITY PLAN (SECTION 16-105.17(F)(2)(L))

Section 16-105.17(f)(2)(L) of the Act requires:

A detailed description of the utility's interoperability plan, which must describe the manner in which the electric utility's current and planned distribution system investments will work together and exchange information and data, the extent to which the utility is implementing open standards and interfaces with third-party distributed energy resource owners and aggregators, and the utility's plan for interoperability testing and certification.

220 ILCS 5/16-105.17(f)(2)(L). The Company notes that Staff found that the Company satisfied these requirements. Staff Ex. 19.01 at 7. The Commission finds that this Grid Plan requirement has been satisfied.

A. PLTE and Private Fiber

1. Uncontested

a. Step-by-Step Narrative Description

Staff requested that the Company provide an additional detailed narrative discussion on a step-by-step process for how a device on the distribution system communicates through wired and wireless mediums to the final receiving end of communications. Staff explains that it was concerned that there was a lack of detail provided in Ameren's Interoperability Plan regarding how the PLTE network and Private Fiber communicates from a distribution device to the endpoint. Staff Ex. 13.0 at 3, 11.

Ameren provided the step-by-step process, describing the communication process, with data flow. AIC Ex. 21.1. The Company stated that it would provide the

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step-by-step process of the PLTE and Private Fiber data flow, as reflected in AIC Exhibit 21.0 (Conf.) at 25-26 and AIC Exhibit 21.1, in a future Grid Plan, subject to appropriate security measures. The Company notes that, as recommended by Staff witness Sanders, this type of information would not be updated in the Company's current Grid Plan through a compliance filing, but rather in the next Grid Plan.

The Commission finds Ameren's agreement to provide the step-by-step process of the PLTE and Private Fiber data flow, as reflected in AIC Exhibit 21.0 (Conf.) at 25-26 and AIC Exhibit 21.1, in a future Grid Plan, subject to appropriate security measures, to be a reasonable resolution of this issue. However, the Commission declines to approve the proposed PLTE network until a compliant Grid Plan is approved (See Section V.C.6.b.).

2. Contested

a. Detailed Description of Devices that Benefit from a Private Fiber and PLTE System

i. Ameren's Position

Ameren notes that Staff witness Kierbach also requested that Ameren provide a detailed narrative description regarding the devices capable of receiving the benefits of a private fiber and PLTE system, the devices' wired or wireless method of communication, and what those benefits include by device type. Staff Ex. 13.0 at 4.

Ameren asserts that as originally framed, this request was overly broad. The Company explains that the recommendation could implicate and cover devices and capabilities not even on the market as of today, and that Ameren currently has thousands of devices on a variety of wireless communications platforms. For example, distribution substations, distribution automation reclosers, capacitor controls, voltage regulators, smart meter takeout points, and a variety of other line sensor and asset monitoring devices require communication devices connected to a communications platform. Ameren points out that these devices, as well as other Internet of Things innovative devices that will be developed to accommodate DER and other grid evolutions, will be connected via the PLTE network. AIC Ex. 21.0 at 26.

Ameren points out that Mr. Kierbach acknowledged this concern and narrowed his request, stating the Company could satisfy his concerns about the use of a private or public LTE solution by describing only device obsolescence with direct wireless communication to a cell tower under continued use of a public LTE solution. This could be in the form of rating how likely a device is to become obsolete under conditions of a public LTE contract as well as a description for the rating. Staff Ex. 31.0 at 15-16.

The Company asserts that such a table would not be representative of the transfer of devices to a private LTE solution since transfers will be driven by multiple requirements including device lifecycle (obsolescence), potential device upgrades, adjacent work, grid requirements, project scheduling and budget requirements. Also, Ameren notes that it is not privy to carrier network lifespan plans, and thus this process will not be able to predict the obsolescence of the public LTE network; a given device may still have lifespan yet may not be supported by the network. For these reasons, Ameren opposes this recommendation.

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ii. Staff's Position

Staff recognizes Ameren's concern about potentially describing thousands of devices on a variety of wireless communications platforms, and Staff asserts that it significantly tailored the original recommendation described above. Staff Ex. 31.0 at 16. Staff notes that Ameren can satisfy Staff's concerns about the use of a private or public LTE solution by describing only device obsolescence with direct wireless communication to a cell tower using a public LTE solution. This could be in the form of rating how likely a device is to become obsolete under conditions of a public LTE contract as well as a description for the rating. *Id.* Ameren states that a PLTE network allows the Company to control and plan in a manner that is fiscally responsible for a time when the Company will no longer support devices or technology. AIC Ex. 21.0 at 8. Staff understands Ameren's explanation to mean that Ameren can perform this specific rating and provide details on obsolescence. Staff Ex. 31.0 at 16. Staff asserts that this alternative recommendation is not meant to replace a benefit-cost analysis, but rather to provide an additional form of analysis to exist alongside a benefit-cost analysis. *Id.*

Staff asserts that the Company does not acknowledge the fact that fiber and PLTE are becoming more prevalent in Ameren's communications network. Staff argues that with the clear shift toward fiber and PLTE, it is imperative that device obsolescence is clearly explained to properly identify how the private fiber and PLTE system benefits the individual devices currently on Ameren's electric grid and planned investments. Staff asserts that this permits greater transparency and accountability. Therefore, Staff recommends the Commission direct Ameren to include an additional form of analysis on device obsolescence under a public LTE solution to exist alongside a benefit-cost analysis.

iii. AG's Position

The AG highlights that Ameren refused to provide the information requested by Staff. The AG reiterates that transparency and accountability require this information before, not after, the PLTE project has been approved. The AG asserts that it is not appropriate to have this information presented alongside a benefit-cost analysis solely to inform key inputs to such analysis. As discussed above, the AG explains that lifecycle concerns, and the cost and frequency of required upgrades, for both a private network and public carrier network are critical inputs into whether the project would be cost-effective. The AG asserts that the information requested by Staff is urgently needed before the PLTE project can be approved. AG RB at 45.

iv. Commission Analysis and Conclusion

The Commission disagrees with the Company that Staff's information request would not be representative of the transfer of devices to a private LTE solution since transfers will be driven by multiple requirements including device lifecycle (obsolescence), potential device upgrades, adjacent work, grid requirements, project scheduling, and budget requirements. As AIC notes, it can identify lifecycle (obsolescence) on transfers. Moreover, AIC states, "it is not privy to carrier network lifespan plans"; however, the Commission submits that, with its own private network, it should become privy to such information. Further, the AG explains that lifecycle concerns, and the cost and frequency of required upgrades, for both a private network and public carrier network are critical

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inputs into whether the project would be cost-effective. However, pursuant to the Commission's decision in Section V.A. and Section V.C.6.b., the Commission declines to rule on Staff's information request until a compliant Grid Plan is approved. The Commission directs the Company, Staff, and parties to examine this above-discussed shortcoming in greater detail with the refiled Grid Plan.

VII. OTHER ISSUES

A. Contingency

1. Ameren's Position

AIC notes that in testimony, Staff witness Antonuk recommended adjustments to remove amounts for contingency or "estimate uncertainty" from project budgets. Staff Ex. 35.0 SUPP at 29-30. These amounts consisted of both contingency specifically allocated by the Company in the forecast used to develop the Grid Plan and Rate Plan, and amounts that Mr. Antonuk assumed. AIC Ex. 65.0S at 4-5. The Company fundamentally disagrees with the positions expressed in Staff's testimony and briefs regarding the use and recoverability of contingency adjustments. The Company believes the amounts at issue are necessary and appropriate such that their removal would jeopardize AIC's ability to complete the associated projects, with negative consequences for the Company's ability to achieve its performance metrics and the State's clean energy goals. *Id.* at 5; see also AIC Ex. 55.0.

AIC states that in the interest of narrowing the issues in this complex proceeding, the Company and Staff reached a compromise on the issue of contingency. AIC Cross Ex. 2. Specifically, Staff and the Company agreed to an adjustment that results in the removal of \$58.5 million of allocated contingency from the Company's Grid Plan/Rate Plan budget. AIC Cross Ex. 2, Att. at 7-8. Staff and the Company further agreed as follows:

- that no other adjustments for contingency or "estimate uncertainty" should be made, with Staff and the Company reserving all rights with respect to any other arguments regarding project budget and/or scope not related to contingency or estimate uncertainty (AIC Cross Ex. 2 at 1);
- that the adjustment does not limit the ability of either Staff or the Company to argue for or against the recovery of actual project-related costs in any future proceeding involving cost recovery (either as it relates to 2023 or the 2024-2027 Rate Plan years), and any agreement regarding the adjustment does not constitute admission or evidence either for or against such recoveries (see *id.*);
- that AIC Cross Exhibit 2 Attachment at 8, lines 1-4 accurately captures the adjustments to average rate base, depreciation expense, accumulated depreciation and Accumulated Deferred Income Tax ("ADIT") for purposes of calculating the revenue requirement for the 2024, 2025, 2026 and 2027 test years in the MYRP, pursuant to Section 16-108.18(d)(3)(A) of the Act, and should be used to calculate the revenue requirement impacts of the contingency adjustment reflected in AIC-STAFF 11.1 _ Attach 1, Contingency Summary Sheet, lines 1-4 (AIC Cross Ex. 2 at 2); and

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- that Staff and the Company agree to engage in further discussions, outside the scope of this proceeding, concerning how to account for and reflect risks and uncertainties associated with project costs in the context of multi-year ratemaking.

Id. at 3. AIC notes that no other party provided testimony regarding adjustments for contingency or estimate uncertainty and explains that the Commission should resolve this issue in a manner consistent with the above agreement between Staff and the Company, and order that the specified adjustment should be made subject to the conditions reflected in AIC Cross Exhibit 2.

2. Staff's Position

Staff states that after significant good faith discussions with the Company about contingency, it appears to Staff that no approach to estimating contingency identified in this docket will yield a result that ensures the Company retains the ability to achieve the objectives of P.A. 102-0662 while at the same time ensuring ratepayers do not pay for projects or services that do not come to fruition or provide any benefit. Accordingly, Staff recommends the Commission: 1) approve an adjustment of \$58.5 million for ratemaking purposes to resolve the issue of contingency in this proceeding; and 2) direct the Company to work with Staff and interested stakeholders to determine how Grid Plan project uncertainty should be quantified and addressed in future MYRPs. Staff understands Ameren agrees with both these recommendations.

"Contingency" is the term Staff used in this proceeding to describe how utilities account for uncertainty and risk in project estimates. The term can be used narrowly, "to refer[] to specific amounts assigned to individual projects, often through assessment of project risk, as Ameren does." Staff Ex. 35.0 at 21. The term can also be used more generally, to refer "to a band of uncertainty surrounding a project estimate, generally expressed as a single percentage value setting a range above and below estimate value." *Id.* Ameren "uses contingency to manage risk identified and quantified by a process that occurs relatively close in time to project implementation." AIC Ex. 67.0S at 4.

Staff points out that the MYRP approach adds new and nuanced complexities to the process of accounting for project uncertainty and it is unclear that the way the Company normally estimates the costs of its capital additions will be effective when employed in the very forward-looking, longer-term manner required for a four-year rate plan. In traditional ratemaking, a utility regularly updates its capital project estimates to reflect new information as a project proceeds through the Company's internal review process, both prior to project inception and during construction. The risk of project uncertainty is minimized because the utility can update a project's scope, budget, and timeline, and because the utility ultimately can petition for a rate increase if total projected expenses exceed the utility's authorized revenue requirement. Similarly, under the pre-P.A. 102-0662 formula rate paradigm, the risk of project uncertainty was minimized because cost estimates were reconciled every year against amounts actually spent, and next year's revenue requirement was updated accordingly.

In contrast to traditional ratemaking or formula rates, in this proceeding Ameren is proposing for the first time a five-year Grid Plan, and the costs of implementing that Grid Plan are reflected in a four-year Rate Plan. It is generally understood that short-term

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project cost estimates are more reliable than cost estimates for future year projects because uncertainties increase in proportion to the lapse of time between the initial estimate and project inception. While the utility can make a reliable estimate of costs for the initial Rate Plan years, those estimates become less reliable in the later years of the rate plan; estimates for 2024 projects are significantly more detailed and supported than those for 2027 projects. Despite this uncertainty, this proceeding will establish the revenue requirements for 2024 through 2027.

In addition to the important questions that must be addressed about how to account for project uncertainty before an informed approach to contingency can be adopted, Staff's recommendation that the Commission direct the Company to work with Staff and stakeholders to address this issue after the conclusion of this docket is driven by the fact that Staff and Ameren were the only two parties to address contingency in detail in this proceeding. It seems improbable that this is because other parties are uninterested in the issue or unwilling to engage on the subject, but rather because Ameren's MYIGP was voluminous, this docket is complex, and the issues are numerous, such that it was virtually impossible for any party to address every issue. Instead, with limited time and resources, intervenors focused on those issues of particular importance to their organizations. It appears likely that a number of intervenors who did not have the time or resources to address contingency in this docket would nonetheless be interested in participating in a discussion about how to account for project uncertainty in future multi-year rate plans, if that discussion takes place after the conclusion of this docket.

Additionally, while Staff and Ameren offered divergent views on contingency in testimony, ComEd approached it in yet another way in its MYIGP. Staff asserts that although it may not ultimately be possible to reach universal consensus on how to address contingency, there are three different approaches to addressing project uncertainty in an MYRP underscores the need for further discussion about what dollar amounts or percentages should be included in or added to a project budget, i.e., contingency, to account for project risks and how such amount or percentage should be calculated for an MYRP before a specific process is approved by the Commission.

3. Commission Analysis and Conclusion

The Commission recognizes the collaboration between Staff and the Company to resolve this issue and agrees with the proposed \$58.5 million adjustment agreed to by both parties. The Commission also agrees with Staff's second recommendation and finds that other parties may be interested in the topic. The Commission defers this recommendation until a Grid Plan compliant with the Act is approved.

B. Meter Collar Adapters

1. Ameren's Position

AIC explains that meter collars are code-compliant, Underwriters' Laboratories-approved devices that are located between the utility meter and the customer's electric panel and enable the direct interconnection of DERs such as solar, storage, or EV charging equipment without the need for potentially expensive main panel wiring or upgrades. AIC Ex. 28.0 at 42. JSP witness Lucas proposes the Commission enable the use of meter collars. Specifically, Mr. Lucas recommends the Commission require the

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Company to approve meter collar adapters ("MCA") for customer-owned and third-party systems, and to process manufacturer requests for approval within 60 days. *Id.*

Company witness Parker discussed various considerations about DER interconnection meter collars that would need to be addressed. *Id.* at 42-43. JSP acknowledged these concerns and provided additional information regarding timing, as well as noting JSP's position that AIC may not need to wait for the Commission to direct the Company to undertake the necessary actions to create and implement a review and approval process for particular meter collars. AIC Ex. 54.0 at 3. AIC also states that JSP recommended that the Company propose a framework in this docket for how it will address such question, including regarding compatibility with AIC's existing metering infrastructure. JSP Ex. 4.0 at 13.

AIC points out that the Company appreciates Mr. Lucas' testimony and the acknowledgement of the Company's concerns. In response to JSP's testimony, and other collaborative discussions on this topic, the Company proposes any implementation of MCAs be executed on a timeline that commences after the Commission's Final Order or a rehearing order on this topic, whichever is later. Specifically, within 60 days of such an order, AIC would reasonably meet and work collaboratively with JSP and other industry resources to work through implementation issues, which would include but not be limited to provisions for the safe, reliable implementation of these devices and other related review and approval protocols. AIC also points out that as part of this process, the Company proposes that manufacturers submit all requested data relating to MCAs for initial MCA approval requests within 60 days of the parties' first meeting date and for the Company to have a 150-day period to evaluate any submitted devices for approval. AIC Ex. 54.0 at 3-4.

AIC notes that Staff also recognizes the value MCAs bring to reduce the cost and time of installations and believe they could be beneficial to the future of a clean and reliable grid. Staff witness Sanders' recommendation that the Commission adopt JSP's proposal for MCAs as a pilot gives AIC an opportunity to work through its concerns prior to full implementation. *Id.* at 2.

AIC appreciates Mr. Sanders' approach in suggesting a pilot; however, based on collaborative and productive discussions with JSP, AIC is now proposing, as discussed above, that a timeline be implemented to allow the Company to work with manufacturers related to implementation of MCAs for use with DER interconnections. If this timeline is adopted, then a pilot period would not be needed. *Id.* at 2-3. Therefore, AIC recommends the Commission adopt the framework proposed in the surrebuttal testimony of Mr. Parker, and accepted by JSP, for adoption of meter collars.

2. Staff's Position

Staff urges the Commission to approve Ameren's proposed timeline for MCA implementation that commences no later than 60 days of the Commission's Final Order or an Order on Rehearing addressing this topic, whichever is later. AIC Ex. 54.0 at 3-4. Staff is of the opinion that MCAs could be beneficial to the future of clean energy, to which Ameren agrees. Staff recommends the Commission approve Ameren's proposed framework for an implementation timeline for adopting MCAs instead of a pilot program, which Staff originally proposed.

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3. JSP's Position

According to the Joint Solar Parties, the MYIGP must “be designed to . . . support efforts to bring the benefits of grid modernization and clean energy, including, but not limited to, deployment of distributed energy resources, to all retail customers . . .” 220 ILCS 5/16-105.17(d)(3). The Joint Solar Parties contend that MCAs move the “electrical connection away from the home’s main electric panel, [so] installers [of distributed energy resources] can at a minimum bypass complex wiring and in some cases entirely avoid the need for an electric panel upgrade.” JSP Ex. 1.0 at 35. The Joint Solar Parties posit that this shift can save thousands in DER installation fees and cut down installation time to as low as 30 minutes as well as support more sophisticated monitoring software. See *id.* at 35-36. In support of this goal and related to improving timelines for interconnection of DERs, the Joint Solar Parties originally proposed that the Commission direct Ameren to review MCA equipment to allow customer- or third party-owned and operated MCAs to connect to Ameren’s meters. JSP Ex. 1.0 at 37-38.

The Joint Solar Parties note that on rebuttal, Mr. Lucas invited Ameren to propose a framework for approving MCAs given Ameren opposition to the Joint Solar Parties’ initial proposal. The Joint Solar Parties accept the approach proposed by Mr. Parker and urge the Commission to approve it.

The Joint Solar Parties note that Staff recommended adopting a pilot program, but Ameren proposed instead a permanent, non-pilot program. While the Joint Solar Parties appreciate Staff witness Sanders’ engagement on the issue and support for much of the Joint Solar Parties’ proposal, JSP agree with Ameren that if Ameren’s proposal is adopted, a pilot period would not be needed.

4. Commission Analysis and Conclusion

The parties agree that MCAs support a clean energy future, consistent with the goals of P.A. 102-0662. The Commission acknowledges Ameren’s proposed implementation plan, as described above, which Staff and JSP support. However, the Commission declines to approve an implementation plan until it approves a Grid Plan that is compliant with the Act.

C. 2019 Underground Service Policy for Eligible Communities

1. Ameren’s Position

AIC states that as further detailed in the Company’s Grid Plan, in 2019, the Company established a policy that all new electric residential and non-residential services will be installed underground unless good engineering practices dictate that the Company install the service overhead. AIC Ex. 2.1GP at 126. The objectives of the program include increased reliability, improved customer satisfaction, and improved safety by reducing exposure, and increased operational efficiency during storm response. AIC Ex. 17.0 at 17.

AIC observes that Staff witness Jenkins raises concerns about “potential unintended negative economic impacts which the 2019 underground service policy” may have on some communities. Staff Ex. 9.0 at 13. He suggests that the increased cost of undergrounding may be a “tipping factor” against potential investment in an EIEC. He also notes that the Company has achieved above-average reliability performance and

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suggests the policy “does not seem to be driven by customer needs or any of the future challenges described in the Company’s [Grid Plan]” because “eligible communities have benefited from higher reliability levels compared to recent years in the past.” *Id.* at 14.

AIC notes Mr. Jenkins recommended that the Company “respond whether the 2019 underground service policy for new business customers poses any potentially negative economic growth impacts for eligible communities versus overhead service.” *Id.*

In response, AIC explains that implementation of the 2019 policy was driven by the Company’s experience with storm restoration and the findings of a 2017 survey that indicated that 20-30% of all the Company’s restoration costs and time were spent restoring services that had been damaged by falling trees. In these situations, where trees damage service to customers, meter bases and masts are often damaged as well. While the cost of restoring service is borne by the Company, customers own their meter base and mast, and they bear the cost of repairing them when damaged. AIC Ex. 17.0 at 18-19. AIC points out that the Company’s repair efforts do not cover the customer-side costs to repair damage to the residence from downed trees and limbs ripping the service attachment from the structure. This can leave hundreds or thousands of dollars of damage to be covered by the homeowner or resident to restore service. This time consuming, costly, and life-interrupting circumstance is alleviated by the Company’s undergrounding policy in areas with underground service lines. *Id.* at 19.

AIC explains that the effects of the 2019 Policy in reducing outages and costs to customers are striking. For example, undergrounding in the Belleville area nearly eliminated storm related outages, saving customers and the Company time and money restoring service, avoiding disruptive and costly service interruptions, and avoiding meter base and mast repair costs for customers. From a residential customer’s perspective, there is usually no difference in cost, as a modern meter box can accept underground service from the bottom just as easily as overhead service from the top. Additionally, the Company understands that most commercial customers want underground service from the outset. *Id.* at 20-21.

AIC also explains that the undergrounding program promotes residential conversions to underground service, regardless of location, and the program covers the cost of undergrounding the service cable for all residential customers regardless of whether they reside in EIECs or other areas. The Company’s program also excludes those requests for new service where undergrounding does not make sense from an engineering standpoint—for example, if it would require removing buildings or extensive concrete hardscapes—or if there is a strong customer preference to not underground that can be reasonably accommodated. AIC states that while there is a cost to the customer insofar as the customer must pay an electrician, typically approximately \$200-\$400 depending on the specific type of meter base that is converted to underground, AIC is undertaking measures to potentially alleviate that cost to customers in EIECs. *Id.*

AIC asserts that the Company offered to study the issue over the course of this Grid Plan to evaluate the impact of the policy on EIECs and to identify any necessary policy updates, improvements, or incentives to make the program even more beneficial for EIEC customers. *Id.* at 22.

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AIC points out that in rebuttal, Staff stated that AIC's discussion did not resolve Staff's concerns, which centers on potentially negative consequences if the underground service increases costs for new businesses looking to invest in EIECs. Staff Ex. 27.0 at 16. Staff recommended that the Company conduct a survey of residential and non-residential EIEC customers regarding their willingness to pay more for electric service to improve their ability to avoid a power outage, evaluate the potential holistic impact of the subject policy, and identify any necessary policy changes, improvements or incentives to make the program more beneficial for EIEC customers. *Id.*

AIC also points out that while the Company believes its explanation should resolve Staff's concerns, in an effort to minimize contested issues in the docket, the Company agrees to conduct a survey of some representative EIEC customers on their interest in undergrounding, including on the topics of cost, improvement of service, and other undergrounding related topics identified by the Company that could assist with assessing the policy and any improvements to make the policy more beneficial for them. AIC Ex. 44.0 (Rev.) at 9. The Company notes that Staff recommends the Commission accept the Company's commitments to conduct such a survey.

2. Staff's Position

Staff recommends the Commission accept Ameren's commitment to conduct a survey of representative EIEC customers on the Company's 2019 Underground Service policy on the topics of cost, improvement of service, and other related topics to assess the policy and how any improvements can make the policy more beneficial to EIEC customers. AIC Ex. 44.0 (Rev.) at 9.

Ameren proposed to study the issue over the course of the initial Grid Plan period to evaluate the impact of the subject policy on EIECs. AIC Ex. 17.0 at 17-23. While this approach will not immediately resolve Staff's concern, Staff supports Ameren's proposal. Staff Ex. 27.0 at 3.

3. Commission Analysis and Conclusion

The Commission agrees that the Company should conduct a survey on the impact of the 2019 Underground Service Policy on non-residential and residential customers in EIECs as described above and as agreed to by the Company and Staff. No other party presented testimony on this issue. However, the Commission declines to direct the Company to conduct such a survey until it approves a Grid Plan that is compliant with the Act.

D. Grid Plan Pilot Program Framework

1. Ameren's Position

AIC states that in the Grid Plan the Company proposed an evaluation framework for pilot programs that includes the following three-step process: design and scope the pilots, evaluate against established criteria, and finally, select pilots. AIC Ex. 2.1GP at 238. The Company also described the following "established criteria" that act as guiding principles for pilot evaluation, with pilots required to be aligned with at least one:

- Demonstrate Innovation
- Encourage Partnerships

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- Enable Customer/Community Engagement
- Prioritize Equity & Affordability
- Support Illinois Clean Energy Goals

Id. at 239. Pilots will be selected and approved by Company leadership based on the following factors:

- Alignment with established pilot criteria
- Ability to implement
- Cost of implementation
- Value of potential learnings

Id. at 238. AIC note that in direct testimony, Staff witness Sanders stated that he “believe[s] this is a good framework for the Company’s internal process” but proposed an alternative pilot review process framework intended to allow Staff and other stakeholders to review and provide feedback on pilots. Staff Ex. 1.0 at 12-13. Mr. Sanders also recommended that 50% of Grid Plan pilots proposed by Ameren align with its “Prioritize Equity & Affordability” guiding principles. *Id.* at 10.

In rebuttal testimony, Company witness Simms accepted Mr. Sanders’ proposed pilot review framework with modifications intended to lessen the administrative burden and facilitate a productive feedback process for Staff and interested stakeholders. AIC Ex. 17.0 at 7-8. Specifically, the Company proposed the following: after a Pilot has been evaluated using the criteria set forth in the Grid Plan, and after Pilot design has been completed, the Company will submit planning details on each proposed Pilot to the Director of the Commission’s Integrated Distribution Planning Division and make it available for review and feedback by other interested stakeholders at least 30 days before the Company plans to commence the Pilot. Staff and other interested stakeholders will provide feedback, if any, within 21 days of the Company’s submission. The Company would also commit to providing the following information as part of the pilot project submission:

- Expected outcome(s) and applicability to the Grid Plan and/or P.A. 102-0662 objectives;
- Identify which “Guiding Principle(s)” from Ameren’s Grid Plan each pilot aligns with;
- Projected timeline and duration of the project, which can be subject to change;
- Initial cost estimate for the project, which can be subject to change; and
- Leveraged resources (e.g., partnership with other organizations, past pilot projects to provide lessons learned information), which could result in reduced costs or project duration.

AIC points out that to address Mr. Sanders’ recommendation that 50% of Grid Plan pilots proposed by AIC align with its “Prioritize Equity & Affordability” guiding principles, the Company committed to focusing its evaluation of proposed clean energy transition pilots to align with those principles and will strive for 40% alignment. AIC explains that to do this, the Company will develop and add evaluation criteria that seeks to identify the

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proposed alignment and will add that criteria to the information that AIC will share with Staff and interested stakeholders, as indicated in the Company's acceptance of the collaboration framework set forth above. AIC Ex. 17.0 at 9. The Company proposes to strive for 40% alignment, consistent with P.A. 102-0662, and that the 40% alignment not be a requirement, but rather a stated goal that the Company can report and explain its efforts to successfully achieve as part of the information sharing process. AIC also explains that this will allow for alignment, but also provide the flexibility to identify, develop, evaluate, and deploy other pilot projects that may not, at least in their initial phase, be identified as having express equity or affordability attributes, but may nonetheless provide customers and/or the grid with significant benefits. *Id.*

AIC notes that Mr. Sanders accepted the Company's clarifications and stated that he considers the issue of pilots uncontested. He recommended that AIC report on pilot progress as part of the Annual MYIGP Report.

2. Staff's Position

Staff states that the Commission should approve Staff's proposed pilot review process, as modified by Ameren in its rebuttal testimony, and direct Ameren to report on progress of all ongoing pilots as part of the Annual MYIGP Report. Staff Ex. 1.0 at 12-13.

Additionally, the Company shall set a goal that 40% of MYIGP pilot funding align with its "Prioritize Equity & Affordability" guiding principle and will commit to providing Staff and other stakeholders sufficient details as to why, if this goal is not met. Staff Ex. 19.0 at 17.

3. Commission Analysis and Conclusion

The Commission agrees with Staff's proposed pilot review process, as modified by Ameren. Ameren and Staff have agreed on the terms of this framework, and the issue is uncontested. The Commission acknowledges the Company's goal that 40% of its pilots will align with Ameren's "Prioritize Equity & Affordability" guiding principle. However, the Commission declines to approve a pilot review process until it approves a Grid Plan that is compliant with the Act.

VIII. POST FINAL ORDER EVENTS

A. Clean and Equitable Market Development Initiative

1. Ameren's Position

The Company proposes to address several of the issues raised by Staff and intervenors through a new Clean and Equitable Market Development Initiative ("MDI") that leverages the successes of the Company's EE MDI to bring equity and affordability to customers through targeted Grid Plan investments. AIC Ex. 17.0 at 31.

Ameren's MDI is a concept that Ameren developed, proposed, and advocated for EE in Docket No. 17-0311, began implementing as part of its 2018-2021 EE Plan, and continues to implement, with the support of Staff and several intervenors, as part of the 2022-2025 EE Plan. The MDI includes an Ameren strategy called a Market Development Action Plan, which focuses on how EE business programs, strategies and offerings can

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also support the participation of local and diverse EE vendors by overcoming traditional obstacles of participation.

Ameren maintains that at the highest level, since 2018, the EE MDI has partnered with 121 community-based organizations, engaged over 350,000 customers, provided 119 scholarships at seven community colleges, funded 73 internships and spent over \$122,000,000 with local and diverse-owned businesses. The EE MDI has provided Ameren opportunities to develop new, innovative, and inclusive offerings that may not have met the traditional criteria of pilot programs or targeted spending on more traditional goals. By authorizing Ameren to focus on such innovative engagement, the MDI has allowed the Company to target investment in areas that may not have had traditional paths to participation, and to develop a pipeline for customer adoption of EE measures, job creation in the EE sectors, and investment in local and diverse-owned businesses so they can overcome obstacles to participating in the EE economy and marketplace.

The Company proposes to leverage its proven track record in EE to develop and implement a new Clean and Equitable MDI that provides transparent access to Grid Plan program and project information, leverages these programs and projects to target the creation of Clean and Equitable educational and job opportunities in the Ameren service territory through coordinated community engagement and expansion of Ameren's workforce development programs, and focuses on eliminating obstacles to diverse and local vendor participation for vendors that serve the customers and operate in the communities they live, including those who reside in EIECs. *Id.* Furthermore, Ameren states that there are varying degrees of understanding as to the level of investment, levels of service, and programs offered to communities in Central and Southern Illinois by Ameren, and this dedicated MDI effort can aim to develop and share fact-based information that is easily understood and communicated broadly throughout Ameren's communities.

The Company proposes to allocate \$3 million a year to these MDI activities. From this budget, the Company will fund targeted activities like those raised by the JNGO/EDF witnesses above that will address equity, affordability and access issues faced by EIECs or other communities, as appropriate, throughout Ameren's service territory. The MDI will use innovation, industry best practices, and community partnerships resulting in the equitable outcomes for communities in Ameren's service area, such as:

- Identify and implement strategies to target increased clean energy benefits to EIECs, incorporating focus not only on technological solutions, but also more holistic solutions that improve people's lives and improve equity more directly;
- Work with communities to identify the key issues that need to be addressed and to integrate community insights and voices into solutions developed and implemented throughout the Grid Plan; and
- Identify wealth building opportunities, and educate community members about wealth building opportunities, along with supporting the removal of barriers to these opportunities for communities.

Staff, Joint NGO, and EDF recommend that the Commission approve Ameren's proposal to initiate a Clean and Equitable MDI as part of the MYIGP. JSP recommend

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that the Commission approve Ameren's Clean and Equitable MDI as it relates to DER and DER products but direct Ameren to work with the Joint Solar Parties and other stakeholders as part of implementation of DER and DER product MDI using a time-limited stakeholder process. Ameren supports this approach and appreciates the collaboration with JSP on this important issue. Given the support of Staff, Joint NGO, EDF, and JSP, and that no other party opposes the Clean and Equitable MDI, Ameren requests the Commission approve this proposal as outlined by the Company in its rebuttal and surrebuttal positions.

2. Staff's Position

It is Staff's position that the Commission should approve Ameren's proposal to initiate a Clean and Equitable MDI as part of the MYIGP. Staff Ex. 38.0 at 3, 10. Staff believes the Clean and Equitable MDI objectives can further the regulatory framework and requirements outlined in P.A. 102-0662. *Id.* at 10. According to Ameren, through the Clean and Equitable MDI, the Company seeks to identify and implement strategies to target increased clean energy benefits to EIECs, provide solutions to improve energy equity and affordability, and educate community members on wealth-building opportunities. AIC Ex. 17.0 at 36. Ameren agrees to work with JNGO and various stakeholders at the Ameren-led workshops to develop new and innovative programs and ways to alleviate energy poverty through the Clean and Equitable MDI. AIC Ex. 44.0 at 15.

Staff notes that while there is consensus among the Company, JNGO, and Staff in support of implementing the initiative, the parties have recommended alternative approaches as to how the workshops should be conducted. Ameren offered a tentative preliminary framework for the workshops, including their content, initiation process, timing, and the filing of reports from stakeholder discussions. AIC Ex. 44.0 at 19-22. Staff believes the tentative preliminary framework provided by Ameren is sufficient to give parties an overview of the proposed topics to be discussed during the workshops and the Company has provided adequate information on the timing of the workshops as requested by Staff.

Staff agrees with the Company that JNGO's requests related to the budget and other requests made by JNGO such as reporting mechanisms, expected outcomes, benefits, etc. can be adequately addressed during the workshop process. *Id.* at 15.

Staff recommends the Commission direct Ameren to include JNGO's suggested metrics and EDF's recommendation on the provision of new technologies and the consideration of valley filling demand response program as part of the initiative. Staff does not oppose the Commission directing Ameren to work closely with JSP in addressing its concerns during the workshop process.

3. JSP's Position

The Joint Solar Parties support Ameren's proposed application of its MDI to DER. JSP witnesses Symmonds and Pitchford expressed strong agreement with programs that make the clean energy transition more equitable. See JSP Ex. 7.0 at 4-5.

JSP express some concerns about MDI as it relates to DERs but recommend that the Commission approve the MDI and direct Ameren to work with the Joint Solar Parties

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on addressing the implementation issues raised by Ms. Symmonds and Mr. Pitchford. See JSP Ex. 7.0 at 8. The Joint Solar Parties illustrate that those implementation concerns involved ensuring that equity eligible contractors (as defined in Section 1-10 of the IPA Act) are purposefully included in vendor outreach and that any awareness campaigns to low-income communities regarding products are done in a competitively neutral manner. See *id.* at 5-8.

Given that Ameren witness Simms appears to agree with JSP's proposal, this issue appears to be uncontested. The Joint Solar Parties recommend that the Commission approve this approach.

4. EDF's Position

EDF supports Ameren's proposal to establish a Clean and Equitable MDI. JNGO/EDF Ex. 11.0 at 2. Any concerns EDF has with the MDI are sufficiently addressed if the Commission adopts objective metrics to measure customer outcomes in addition to customer contacts through the MDI program, and if the Commission exercises diligent oversight of the funding and outcomes of the MDI program.

In approving a Clean and Equitable MDI, the Commission should specifically direct Ameren to include an assessment of Dr. Nock's recommendations as part of that program and Mr. Norris' recommendation to measure customer outcomes in addition to customer contacts as part of the MDI program metrics. JNGO/EDF Ex. 11.0 at 2; EDF Ex. 12.0 at 5. EDF specifically recommends that Ameren:

- Incorporate the energy equity metrics discussed in JNGO/EDF Ex. 6.0 at 6-12. See *also*, JNGO/EDF Ex. 11.0 at 2.

- Focus on bringing new technologies to vulnerable and low-income communities and not just replacement of existing equipment, including Ameren Illinois' proposal to "[i]dentify and implement strategies to target increased clean energy benefits" to communities that would most benefit from them and focusing on technological and holistic solutions. JNGO/EDF Ex. 11.0 at 2 (*quoting* AIC Ex. 17.0 at 36).

- Consider valley-filling demand response programs to reduce energy poverty in low-income and vulnerable households that under-consume energy to meet minimum acceptable standards for safety, based on the appliances in the home and the indoor temperature needed to prevent heat-illness in the region. JNGO/EDF Ex. 11.0 at 2-3.

EDF further recommends that the tracking metrics used in the Clean and Equitable MDI be more focused on actual program output, customer quality of life, and participation. JNGO/EDF Ex. 11.0 at 3. Metrics such as money spent and the number of customers engaged can measure outreach efforts, but they are less useful to assess whether Ameren is achieving its goal of "improv[ing] the quality of life for residents by connecting underserved customers with energy efficiency resources." JNGO/EDF Ex. 11.0 at 3.

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With regard to Ameren's proposed budget, EDF believes \$3 million will be too low to allow for an effective program, because there needs to be more effort on evaluating the impact of the deployment. JNGO/EDF Ex. 11.0 at 8. To perform surveys, recruit participants, verify metrics (running pilot, surveying households, in-person check-ins), EDF opines the budget would most likely need to be doubled, depending on the number of customers Ameren intends to reach. *Id.* The Commission should direct Ameren to develop a detailed action plan specifying the action, benefits, expected outcomes, budget, and required reporting on each action under the Clean and Equitable MDI to provide the detail necessary to estimate spending needs. JNGO/EDF Ex. 11.0 at 8. Subject to further discussion in Ameren proposed workshop process, Ameren Illinois does plan to scale up to meet the goals of the MDI programs. AIC Ex. 44.0 at 15.

EDF also recommends diligent Commission oversight over the program. The primary danger with utility partnerships with community-based organizations arises when community-based organizations perceive those partnerships as having strings attached. EDF Ex. 3.0 at 6. Because partnerships can involve payments from a utility to the community-based organizations, those payments can have a chilling effect on legitimate constructive criticism of the utility or its programs. EDF Ex. 3.0 at 6. If community-based organizations and the communities they serve know and trust that those payments are associated with the objective outcomes identified above, and not any implicit agreements, and if they know and trust that they can provide valuable constructive criticism of utility policies and programs, then this concern will be addressed. This concern therefore underscores the importance of objective customer-outcome data associated with the MDI.

For all the above reasons, EDF asks the Commission to approve Ameren's proposed Clean and Equitable MDI, with the additional requirement that Ameren collect and periodically report to the Commission on EDF's proposed customer-outcome focused metrics.

5. JNGO's Position

For the reasons discussed in the testimony of JNGO/EDF witness Nock, JNGO support Ameren's proposed Clean and Equitable MDI and recommend that the Commission direct the Company to include an assessment of Dr. Nock's energy equity metrics as part of that program.

6. Commission Analysis and Conclusion

The Commission appreciates Ameren's proposed Clean and Equitable MDI and note that the parties agree it should be approved. The Commission commends Ameren's success with the EE MDI and is convinced that Ameren will be able to translate that experience into a successful Clean and Equitable MDI. The Commission declines to approve Clean and Equitable MDI, because as discussed in Section V.A., the Commission finds that the Grid Plan as filed does not comply with the requirements of the Act.

The Commission further agrees with the metrics proposed by EDF regarding equity, the provision of new technologies, and valley-filling demand response program. Ameren is directed to work with stakeholders to develop the specific metrics and reporting timelines. Similarly, the Commission directs Ameren to provide its commitment to work

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closely with JSP in addressing their concerns as agreed to by the parties in its refiled Grid Plan. It appears that the parties have also agreed to continue discussions around the budget at the utility-led post-docket workshop process and that this matter is uncontested.

B. Reporting

1. Metrics Reporting

Staff witness Sanders noted in his direct testimony that P.A. 102-0662 requires the Commission to "establish requirements for annual performance evaluation reports to be submitted annually for performance metrics. Such reports shall include, but not be limited to a description of the utility's performance under each metric and an identification of any extraordinary events that adversely affected the utility's performance." Staff Ex. 1.0 at 14. Accordingly, Mr. Sanders recommended the Commission order Ameren to submit annual reports. Ameren found Staff's proposal to be reasonable and did not oppose the proposed annual reporting requirements.

Accordingly, in response to the requirements of Section 16-108.18(d)(11) and (f)(1), the Commission orders the Company to file annual performance evaluation report(s) to be submitted by February 15th in Docket No. 22-0063. Such reports shall include, but need not be limited to:

- Description of the utility's performance under each performance metric;
- Identification of any extraordinary events, as identified by the utility, that adversely affected the utility's performance;
- A brief description of all data supporting how the utility performed under each performance metric;
- Staff and Ameren Illinois may agree to revise the categories of information provided in this performance evaluation report annually, no later than 120 days prior to the next February 15th report filing.

In addition, Staff states the Commission should direct the independent evaluator to include the quantitative benefits of the performance metrics in its report. Staff Ex. 29.0 at 5. Currently, Ameren has not provided the quantitative benefits for the Supplier Diversity, Affordability, and Customer Service Performance Metrics. The quantitative benefits play a crucial role in determining whether Ameren's MYRP is designed to achieve the metrics in a cost-effective manner. Staff Ex. 11.0 at 3. Ameren agrees to address quantifying the benefits from these metrics through the workshop process, as well as how to include benefits in the performance metric annual reporting. AIC Ex. 63.0 at 13. The Commission finds this proposal reasonable, and it is adopted. See *also* Sections V.D.4., 5, and 6.

2. Consolidated Grid Plan Reporting

Staff witness Jenkins noted that P.A. 102-0662 requires utilities to submit quarterly reports on activities undertaken as part of its MYRP to promote transparency of utility investments, and recommended the Company consider consolidated reporting. As part of this reporting, Staff recommended the Company propose a format for an Annual MYIGP Report to include information on outcomes associated with various activities in

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the Grid Plan. Staff further recommended the Company provide the MYIGP Report as part of the 4th Quarter Rate Plan Report each year to be filed on or before April 1st of every year beginning in 2025. After a Grid Plan is approved, such reports shall be submitted to the Directors of the Integrated Distribution Planning Division, Safety & Reliability Division, and Financial Analysis Division and filed in the Company MYIGP docket for which the reporting year approval pertains (e.g., the Annual MYIGP Report summarizing 2024 performance would be filed in docket of the approved Grid Plan.) The Company agreed that the MYIGP Report is an appropriate way for Ameren to demonstrate the Grid Plan objective to "ensure opportunities for robust public participation through open, transparent planning processes." See 220 ILCS 5/16-105.17(a)(6). The Company also agreed to include in the Grid Plan Report data points when reasonably available that were recommended by Staff witnesses Harmening, Rearden, Kierbach, Dhankher, and Antonuk, and further agreed to continue to explore ways to streamline the reporting process. Thus, Ameren points out that Staff witness Jenkins recommended the Commission approve the agreed to annual consolidated reporting subject to any information specific request proposed by other Staff witnesses. No other party presented testimony on this issue.

The Company does not agree to provide in the annual report certain information Staff requested because it is either extremely difficult to provide, not appropriate in scope or is unavailable. Accordingly, the Company proposed resolving these information-specific proposals with Staff after the Commission issues its Order, including the following: pilots; budget variances for IT projects; a summary of NWA's projects with an RFP; reliability reporting of the PLTE and private fiber network; hosting capacity increases linked to MYIGP investments; schedule of treatments of missing data, then report on decided methodology; and scenario planning progress updates. The Company is also already required to report on numerous data points including detailed information on its seven performance metrics, and forty-seven tracking metrics, many of which include multiple indices and data points, along with reporting obligations pursuant to 83 Ill. Adm. Code 411, and substantial BE Plan, EE Plan, and Rate Plan reporting. The Company recommended the Commission direct Ameren to work with Staff to resolve those issues following the Final Order in this proceeding on a timeline to allow the Company to file its first report by April 1, 2025. Staff agreed with this recommendation.

Accordingly, the Commission agrees with the reporting requirements agreed to between Staff and the Company. However, the Commission declines to direct Ameren to work with Staff to resolve information-specific requirements through discussions until the Commission approves a Grid Plan that is compliant with the Act.

3. Reliability and Resiliency

Staff witness Kierbach recommended the Company describe projected quantitative benefits "in terms of reliability indices improvement as applicable to the investment, its comparison to the real reliability index performance for that investment, and its contribution to the total measured reliability index." Staff Ex. 13.0 at 10-11. Mr. Kierbach asserted that the data should be measured quarterly and reported annually for reliability investments impacting Performance Metric #1 to allow a more insightful analysis into which investments prove most effective. The Company agreed with Mr. Kierbach's recommendations in principal but recommended some minor modifications. The

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Company noted that it would be overly burdensome and imprudent to report on every single investment made to the electric grid that contributes to Performance Metric #1 and instead recommended narrowing the scope to investments in the Smart Grid Expansion Plan which lend themselves to more straightforward analysis and are significant contributors to ensuring the Company achieves Performance Metric #1 targets. Staff accepted the Company's proposed modification, and recommended the Commission approve the proposal to limit the recommended analysis and information on investments that will impact Performance Metric #1 to the Smart Grid Expansion Plan. Ameren states that because this issue is uncontested as between Staff and the Company, and no other party presented testimony on this issue, the Commission should approve the reliability reporting requirements as agreed to between Staff and the Company.

The Commission agrees with the reliability and resiliency reporting requirements as agreed to between the Company and Staff. The Commission declines to approve reliability and resiliency reporting requirements until it approves a Grid Plan that is compliant with the Act.

4. PLTE Reliability Reporting

Staff originally recommended that Ameren provide an annual report to the Commission on communication systems interruption frequency and duration as SAIFI and SAIDI specifically for the communications network. Ameren stated that Staff's original request for information on communications systems interruption frequency, as SAIFI and SAIDI, is not practical. Monitoring of individual endpoints from any application that consumes data is subject to not only vendor reporting capabilities, but a multitude of interruptions from different problems not necessarily related to the PLTE network such as equipment maintenance, power outages, software configuration, etc. The Company proposes that once the PLTE network has been built, annual availability metrics will be provided for the core PLTE network components in the annual Grid Plan Report. According to the Company, these availability metrics would be similar to what Ameren has already developed for its other core network components like routers and switches.

Staff agreed that collecting SAIFI and SAIDI data may be overly burdensome and impractical given the explanation the Company provided on reporting capabilities of devices and outages unrelated to the PLTE network. Staff recommends, however, the Commission direct Ameren to provide Staff with an opportunity to review and comment on the draft report Ameren creates regarding the availability metrics. Staff stated that while it has had the opportunity to review the annual reliability report Ameren provides yearly on its distribution network for SAIFI, CAIFI, and CAIDI, Staff has not yet had the opportunity to review reliability data associated with a communications network from an Illinois company that provides electric service. Having the opportunity to review a draft report that Ameren shares with Staff can further reduce potential issues in the future. In particular, Staff states this collaborative process will be useful in assessing the dependence for availability metrics on the construction of the PLTE network and its core components and spending to be approved by the Commission for the PLTE network projects.

Ameren agrees with Staff's recommendation that the Commission direct the Company to provide Staff with an opportunity to review and comment on the draft report

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the Company creates regarding the availability of metrics for its core PLTE network components. The Company states, however, that it does not have a PLTE network deployed to develop a draft availability report at this time. As PLTE communications become operational, the Company will provide a draft report based on equipment reporting metrics and seek Staff's review and comment.

The Commission finds the agreement between Staff and the Company regarding PLTE reliability reporting to be reasonable. As discussed in Section V.A. and Section V.C.6.b., this Grid Plan is rejected. The Commission declines to determine whether to require PLTE reliability reporting requirements until it approves a Grid Plan that is compliant with the Act.

5. Budget Variances of IT Projects

Staff witness Harmening recommended that in addition to statutory reporting requirements, the Company provide annual feedback on IT budget variances to help determine whether and which projects with a budget over \$2 million exceeded their budgets and why. Staff Ex. 7.0 at 38. Mr. Harmening further recommended the Company should report whether the project is implemented, functioning, available, used and useful, and provide this information as part of the Annual MYIGP Report as incorporated with the 4th Quarter Report. In rebuttal testimony, Mr. Harmening recommended changing the budget threshold to \$500,000, rather than \$2 million, to allow stakeholders to receive information about more projects and proposed that the reports include non-plant in service items. Mr. Harmening also recommended the Company work with Staff to develop a reporting system that includes plant in service and non-plant budget items. Staff Ex. 25.0 at 14.

Ameren accepted Mr. Harmening's proposal to report budget variances in concept, including detailed project descriptions and cost breakdowns, but recommended a \$3 million reporting threshold, which is aligned with the MYIGP filing pursuant to Section 16-105.17(f)(2)(H)(i). 220 ILCS 5/16-105.17(f)(2)(H)(i). Ameren notes that the appropriate threshold is a topic that could benefit from further discussion with Staff following the close of this docket. The Company also noted that Staff's recommendation to include non-plant in service budget items is another topic that could benefit from additional discussion with Staff after the Commission issues the Final Order in this docket. Ameren therefore proposed that the specifics of the IT reporting be subject to further discussions with Staff. Staff agrees with Ameren's proposal to resolve this issue in discussion and states that this issue is uncontested.

The Commission notes that this issue is uncontested. Accordingly, the Commission agrees with directing Ameren to work with Staff to develop a reporting system for Annual Reports on Budget Variances for IT Projects in a timeframe that would allow the annual reporting on IT projects to be included in the Annual MYIGP Report recommended by Staff and includes plant in service and non-plant in service budget items. However, the Commission declines to direct the Company to work with Staff to develop a reporting system until a Grid Plan that is compliant with the Act is approved.

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C. Benefits Workshops

1. Ameren's Position

Ameren points out that, as explained by Ameren witnesses Simms (AIC Ex. 44.0), Cottrell (AIC Ex. 40.0), and Wolter (AIC Ex. 18.0), the Grid Plan reflects myriad benefits to customers, including EIECs, which render the Grid Plan cost-effective, as well as provides support for a finding that the Grid Plan includes how the Company will support efforts to bring 40% of benefits to EIECs. Staff witness Jenkins, however, raised various issues with the Company's approach to the 40% Benefits Goal, and proposes a multi-step process to define and quantify the benefits to EIECs of the Company's Grid Plan. Staff Ex. 25 at 16. Ameren also points out that he recommended that the Company explain how the benefits from the Company's Grid Plan can be "clearly and unambiguously determined" to meet statutory requirements by building on the approach he proposes, or by providing an alternative approach. Staff witness Struck recommended the Company include in the 2027 Grid Plan filing information that will "[i]dentify specific outcomes achieved under the 2024 Grid Plan that benefit [EIECs]; provide analyses, in Microsoft Excel format with working formulas intact, of these benefits; and explain specifically how each of these analyses informed the development of the Company's 2027 Grid Plan." *Id.* at 10.

Ameren commits to working with Staff and interested stakeholders to develop a plan to quantify and track Grid Plan benefits, including how Ameren is supporting efforts to bring 40% of those benefits to EIECs located in Ameren's service territory. However, because there is not a consensus on what, specifically, constitutes a benefit, or how to quantify such a benefit, Ameren recommends the Commission direct a separate workshop process for all interested stakeholders to participate in the development of such a process so that there is consensus and a path towards clear and unambiguous determination of benefits that can be applied to this Plan and serve as a foundation for future plans, if appropriate.

Ameren states that this process would allow the parties to continue the discussions about these various policy issues without the statutorily imposed time constraints and procedural limitations of this docket. A utility-driven workshop process fosters a less contentious, and often more effective, process that builds upon collaboration rather than resolving disputes through an adversarial process. The Company, Staff, and interested stakeholders who want to engage in productive discourse are largely aligned with the goal of establishing an agreed-upon approach to identifying qualitative benefits, the methodology used to quantify and allocate benefits, and tracking and reporting structure. However, given the complexity of these issues and the many voices that may want to participate, a facilitated workshop process that allows open dialogue through comments, presentations, and summation of the work product is the most transparent and efficient path to establishing a workable framework.

Ameren explains that the workshop framework and process would be as follows. First, the Company would hire a facilitator to facilitate the total workshop process. During that process, the Company commits to collecting and responding to interested parties' proposals to ensure a robust and collaborative dialog with the goal of finding consensus where possible. At the conclusion of the workshops, the facilitator would then facilitate

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preparing a report for comment, which would then be filed in this docket outlining the methodology to be used to track and report going forward during the Grid Plan.

The Company proposes the workshops should begin 6 months after this docket concludes, with the report due 90 days after workshops conclude. However, the Company commits to share a facilitation plan to interested stakeholders to provide insight on the workshop process with an opportunity to provide feedback. Finally, if no consensus is reached, parties should develop in good faith a process to resolve non-consensus items through a filing with the Commission. AIC IB at 266-67.

The Company notes that the benefits workshop concept has support from Staff, JSP, JNGO, EDF, the AG (in part). AIC notes that Staff recommends that the workshops address JNGO/EDF's recommendations to consider improving equity quality attributes (i.e., distribution, assessment granularity, and dimensions) and to incorporate equity in the Company's investment planning and spending processes. Staff also recommends that Ameren work with ComEd to refine a strawman proposal for addressing benefits from the Grid Plan and the extent to which those benefits accrue to EIEC, EJ, and low-income communities, in advance of utility-run stakeholder meetings on benefits and asserts that the workshops should begin no later than April 30, 2024.

Regarding Staff's proposal that the Company work with ComEd on a shared approach to benefits, as noted above in Section V.B.4, Ameren is open to a workshop that addresses statewide methodologies; however, the focus of the workshop process should be on Ameren customers. Ameren's service territory, customers, and operations are different from ComEd's, and the Company's approach to cost-effectiveness is very different from ComEd's. It would not be the best use of the Company, Staff, and stakeholders' time to shoehorn issues related to the two companies' differing methodologies into one workshop process. Additionally, any workshop process must allow for focus on Ameren customers to ensure their interests are being specifically considered and addressed.

Regarding Staff's proposal that the workshop process begin no later than April 30, 2024, this position was first raised in Staff's Initial Brief and appears to be a misstatement, as Staff agreed in testimony to the Company's proposed timeline of no earlier than 6 months from the resolution of this docket. Moreover, the Company believes the workshop process will be more productive and more likely to achieve the consensus that is the goal of the process if the Company, Staff, and stakeholders have adequate time to work through the Final Order in this docket, engage a facilitator and prepare for the productive process.

2. Staff's Position

As described and recommended in Section V.B.1., Staff recommends the Commission direct Ameren to conduct stakeholder meetings to identify the proportion of benefits from programs, policies and initiatives proposed in its MYIGP that will go to ratepayers in EIEC, EJ and low-income communities. The subject meetings should address JNGO/EDF's recommendations to consider improving equity quality attributes (i.e., distribution, assessment granularity, and dimensions) and to incorporate equity in its investment planning and spending processes. Staff Ex. 27.0 at 7-9.

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In addition, Ameren should work with ComEd to refine a strawman proposal for addressing benefits from the Grid Plan and the extent to which those benefits accrue to EIEC, EJ and low-income communities, in advance of utility-run stakeholder meetings on benefits. Staff Ex. 27.0 at 13.

In response, the Company in its surrebuttal agrees with Staff's recommendation to conduct benefits workshops meetings. AIC Ex. 44.0 (Rev.) at 5-9. An alignment between the Company's perspective and Staff's recommendation may result in a consensus on addressing the issues discussed in Section V.B.1. The Commission should direct the Company to refine the strawman proposal to address benefits or explain how benefits are or will be identified and the extent to which those benefits accrue to EIEC, Environmental Justice and low-income communities as part of the Ameren-led workshops that should begin no later than April 30, 2024.

Although Ameren agreed to conduct stakeholder meetings to identify the proportion of benefits from programs, policies and initiatives proposed in its MYIGP that will go to ratepayers in EIEC, Environmental Justice and low-income communities, the details provided in Ameren's IB diverge from the central objectives proposed in the Staff recommendation to the Commission. AIC IB at 264-68. The Company recommends that its Grid Plan be found compliant with applicable statutory requirements despite the conclusion to the contrary by the Staff, AG, EDF, and JNGO. In addition, Ameren proposes that the parties develop a process to resolve non-consensus items through a filing with the Commission if no consensus is reached at the end of the workshop process. Staff appreciates Ameren's commitment to create a path to resolve differences but disagrees that consensus is necessary. Staff recommends that the procedure for addressing non-consensus issues, if any, be developed in the workshops as it is not clear what "a filing with the [Commission]" might entail and Staff opposes opening a docket for the sole purpose of reaching consensus.

The Commission should evaluate the recommendations made by Staff and Intervenor and direct Ameren to utilize the subject workshop process to clarify in a clear and unambiguous manner how benefits are or will be managed by Ameren for EIEC, EJ, and low-income communities.

Staff recommends, and Ameren agrees, that the Commission should approve the recommendation that Ameren should conduct workshops on quantifying benefits of the performance metrics and address the benefits of the metrics in the first annual report pursuant to Section 16-108.18(f)(1). Staff Ex. 29.0 at 5; AIC Ex. 63.0 at 13.

Staff recommends the Commission direct Ameren to work with ComEd to develop a manual for how benefit-cost analyses should be conducted for the Performance Metrics and solicit stakeholder and Staff feedback through utility-run stakeholder meetings on a benefit-cost analysis. Staff Ex. 29.0 at 5-6. While Ameren agrees that a cost-effectiveness manual could be an outcome of the workshop process, it argues that it would be most productive to have a separate workshop process focused on the unique characteristics and priorities of Ameren. Staff disagrees. The Commission should reject Ameren's proposal of conducting a separate workshop for Ameren and ComEd as this would be an inefficient use of the time and efforts of Staff and stakeholders in understanding and addressing similar types of issues.

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3. AG's Position

The AG notes that Ameren proposed a preliminary framework for a workshop process. The AG believes the goals and framework for the Benefits Workshop proposed by the Company mostly align with its proposal regarding workshops. The AG recommends that the Commission order the implementation of the Benefits Workshops that Ameren proposes with a few additional conditions. Specifically, the AG requests that:

- to guide the discussions in the workshop, the Commission issue an order in this proceeding finding that cost-effectiveness under the Act requires the utility to conduct a risk-informed benefit-cost analysis on all discretionary investments, as discussed in Section V.B.4. above.
- the Commission specify that all participants in the workshops have the ability to request information that is reasonable in scope and governed by the Commission's discovery rules set forth in 83 Ill. Adm. Code 200.335-350 to encourage transparency;
- the statutory workshop process preceding the next Grid Plan must commence no later than January 20, 2025;
- the capital investments proposal required to be provided as part of the workshop process under Section 220 ILCS 5/16-105.17(e)(5) be provided no later than January 20, 2025 and must contain detailed and specific plans for projects and investments the Company is considering for inclusion in the Grid Plan; and
- the utility must apply the benefits framework established in the Benefits Workshop to the investments in both its capital investments proposal and, ultimately, the investments proposed in its next Grid Plan and provide the supporting data to stakeholders to evaluate the Company's application of the benefits framework.

With these additions, the AG agrees to withdraw its separate request for a proposed post-docket proceeding discussed in Section VII.H.

4. EDF's Position

For the reasons stated in Section V.B.1, EDF supports the proposal to hold post-order workshops to discuss the best criteria for evaluating utility efforts to support delivery of 40% of the benefits of grid investments to EIECs and low-income customers. For the same reasons, EDF repeats its request here that the starting point for those workshops be the Equity Reporting Framework developed jointly by JNGO/EDF witness Pereira and Staff witness Jenkins. JNGO/EDF Ex. 10.01; see *a/so* JNGO/EDF Ex. 10.0 at 8.

5. JNGO's Position

JNGO support Ameren's proposed benefits workshop process on the condition that the Commission expressly adopts the Staff/JNGO strawman framework (JNGO/EDF Ex. 10.01) as a starting point for quantifying and tracking benefits to EIECs that can be improved and modified through stakeholder discussions over time.

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6. IFCUP's Position

IFCUP note that Staff proposes that Ameren work with ComEd to host benefit-cost analysis workshops, to include discussions regarding the inclusion of environmental costs and benefits for MYIGP system investments; characterization of discretionary smart grid expansion expenditures, and Staff and stakeholder feedback on joint benefit-cost analysis methodology from Ameren and ComEd. Staff also recommends the Commission approve the recommendation that Ameren conduct workshops on quantifying benefits of the performance metrics and address the benefits of the metrics in the first annual report pursuant to Section 16-108.18(f)(1).

IFCUP take the position that the Commission does not need to wait for the workshop outcomes to know whether or what benefit-cost analysis to apply. IFCUP argue that the P.A. 102-0662 requirements that the utility must meet to have system reliability investments approved, are unambiguous and known. IFCUP say in short, P.A. 102-0662 requires Ameren to meet the Grid Plan's clean energy goals through programs and investments that minimize costs, provide demonstrable benefits that exceed the Grid Plan costs, and maintain affordable rates for all customers. A later workshop will not change the law, and the Commission should not approve Ameren's proposed Grid Plan investments if Ameren cannot meet its burden of proof to demonstrate compliance with the law.

IFCUP explain that it is understandable why Ameren would want to defer this discussion as to the adequacy of its cost-effectiveness framework. According to IFCUP, by then the Commission will have decided the case and cost effectiveness refinements to the Grid Plan would be made. In the meantime, Ameren's customers will bear the brunt of excessive rates that wrongly include the massive cost of system reliability projects that Ameren has not shown to be cost-effective. IFCUP aver that the Act clearly requires Ameren to demonstrate the cost-effectiveness of its proposed investments before the proposed expenditures are included in customer delivery service rates. IFCUP say Ameren has failed to do so.

7. Commission Analysis and Conclusion

Pursuant to the Commission's decision in Section V.B.1., the Commission finds that the Company has not complied with Section 16-105.17(d)(3) and Section 16-105.17(f)(2)(J)(i) of the Act is reasonable. The Commission directs the Company to incorporate more information as it relates to delivering benefits to EIECs as discussed in Section V.B.1 in its refiled Grid Plan. Pursuant to the Commission's decision in Section V.A., the Commission directs the Company, Staff, and all other stakeholders to address issues as it relates to benefits once the Company refiles a new plan within 3 months. The Commission has carefully reviewed the record on the many adjustments proposed by the parties. The Commission is rejecting the MYIGP and approving a modified MYRP in this proceeding, based on proposals presented by the many intervenors. Once an MYIGP is approved by the Commission, the Commission expects improved plans based on enhanced and developed metrics and more informed analyses.

The Commission notes that the AG makes specific proposals regarding discovery during the workshop process. The Commission addresses this issue in Section V.B.9.

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The AG recommends that the workshops required by Section 16-105.18(g) before the next grid plan filing start no later than January 20, 2025 – a year before the next grid plan filing is due. Also, the AG asks that the capital investments proposal required to be provided as part of the workshop process be provided no later than January 20, 2025 and must contain detailed and specific plans for projects and investments the Company is considering for inclusion in the next Grid Plan. No party seems to dispute this. However, the Commission declines to direct a timeline for workshops until a Grid Plan that is compliant with the Act is approved.

The AG asks that a specific finding be made by the Commission regarding the level of detail required for capital investment proposals. The Commission declines to address this issue until a Grid Plan that is compliant with the Act is approved.

The Commission agrees that the Equity Reporting Framework proposed by EDF and Staff has merit and is discussed under Section V.B.1.

The performance metrics workshop is discussed above in Section V.D.

The benefit-cost analysis workshops and the AG's proposed risk-informed analysis are addressed above in Section V.B.4.

D. DER

See Section V.C.7.e for a discussion of the DER Value proceeding.

E. Solution Sourcing Opportunities Rulemaking

Ameren points out that Staff witness Rearden recommends the Commission defer decisions on DER evaluation and ownership, as well as decisions about NWAs, to the statutory DER investigation (220 ILCS 16-107.6(e)) and future NWA SSO rulemaking. While Ameren does not seek blanket approval to own and operate DER as part of an NWA, Ameren ownership could help facilitate a competitive market and provide an option going forward for an NWA solution where an NWA solution is not otherwise identified or cost effective. While a case-by-case review for Ameren-owned NWA solutions may result in a decision for ownership, it is not prudent or warranted to eliminate the option outright at this time, especially being that P.A. 102-0662 specifically makes mention of it. The Company believes that the most competitive DER market is one where the utility is allowed to own, operate, and maintain NWAs as regulatory assets where prudent. However, for purposes of narrowing issues in these consolidated dockets, Ameren agrees with Dr. Rearden in that NWA ownership and cost recovery can be topics covered within the SSO rulemaking docket.

JNGO agree with Ameren and Staff that the Commission should expeditiously begin the SSO rulemaking process to establish formal rules for the Company's NWA procurement process. EDF states that it would support considering efforts to build a jurisdiction-specific test to evaluate NWA.

Staff states that it anticipates filing a Staff report with the Commission asking it to direct Staff to initiate a rulemaking to establish rules for determining data and methods for SSO soon after this docket concludes. That rulemaking can provide a way to develop a comprehensive and transparent process to develop NWA that is open to all stakeholders. Staff Ex. 10.0 at 10.

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It appears to the Commission that all parties agree that utility ownership of NWAs is best addressed in the soon to be initiated SSO rulemaking docket. Accordingly, this matter is uncontested, and the Commission awaits Staff's report.

F. Locating Pilot Program

Staff witness Daniel proposed that Ameren establish a pilot program with a group of in-house employees to conduct 10% of locate requests submitted through Joint Utility Locating and Information for Excavators ("JULIE") in Ameren's service territory which require a physical locate. Staff further recommended the Company provide weekly reports to Staff which includes the JULIE number, address, city, date completed, locator name, and photos of each completed locate. In response, the Company accepted Staff's proposal to establish a pilot program and provided proposed implementation details. First, the Company proposed conducting the pilot in St. Clair and Monroe counties, which made up 9.75% and 8.82% of the Company's locate field visits in 2022. Second, the Company proposed modifying Staff's reporting requirements and recommended making photographs of each locate available to Staff upon request rather than including them in weekly reports, and holding a meeting with Staff after the first six months of implementation to discuss the results and whether the frequency of reporting should be adjusted. Staff did not oppose the Company's proposed implementation recommendations and agreed to the Company's proposed modifications to Staff's proposed reporting requirements.

This issue is resolved between Staff and the Company, and no other party presented testimony. The Commission recognizes that it takes time to negotiate collective bargaining agreements, hire and train employees, and properly implement new protocols, systems, and reporting requirements for the pilot. The Commission directs Ameren to quickly implement the pilot program before the 2025 deadline. The Commission finds the proposed in-house locate pilot program to be reasonable.

G. Information to Be Provided with Next MYIGP

1. Ameren's Position

Ameren will file its second MYIGP in 2026 (the "2026 Grid Plan"). Staff witness Struck recommended that the Commission direct Ameren to provide twelve additional categories of information as part of its initial filing in its 2026 Grid Plan. Staff Ex. 45.0 at 18. Staff states they are "merely identifying information the Company should provide" in future grid plan filings to "potentially eliminate some discovery." Staff Ex. 26.0 at 4.

Ameren's position is that, before agreeing to additional reporting and informational requirements for the next Grid Plan, Ameren should convene a collaborative stakeholder process no sooner than six months following the conclusion of this proceeding to review opportunities and lessons learned for improving future Grid Plans and to allow for all stakeholders to provide input regarding the requirements for future Grid Plans.

Ameren notes that Staff expresses appreciation for the Company's proposed workshop process but believes that the proposed workshop process is "not at odds" with what he is proposing and is not a reason for the Company to not be required to provide the information identified in his exhibit with the 2026 Grid Plan filing. Mr. Struck asserts

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that Staff Exhibit 26.01 provides the Company some flexibility and discretion in what is provided.

Ameren explains that in an effort to narrow the contested issues in this proceeding and participate in a collaborative process, the Company has agreed to Mr. Struck's twelfth request for information as reflected in Staff Exhibit 36.01. The Company also agrees to provide additional information consistent with Mr. Struck's first and tenth recommendations. Ameren is also willing to agree to Mr. Struck's seventh request for additional information, as revised in his rebuttal testimony.

Regarding the remaining recommendations, while much of the information identified by Mr. Struck may very well be valuable to inform the 2026 Grid Plan, the timing of the recommendations are, by and large, premature and should be considered holistically by all stakeholders through the collaborative stakeholder process. Ameren points out that this will allow the Company to identify whether the information sought by Mr. Struck in this proceeding continues to be necessary and informative, and also to determine whether or not that information is already covered through the multiple existing reporting requirements that the Company will participate in. Ameren asserts that this approach does not foreclose the identification or development of this information - it simply seeks to defer a firm commitment on what specific additional data should be aggregated, and in what form, to a more holistic process. This is especially important given the lack of industry consensus on how best to measure and/or quantify qualitative benefits associated with investment projects. The remaining requests should not be adopted at this time.

With respect to the proposal of JNGO witness Volkmann that the Company consider reflecting full revenue requirements for major capital expenditures in future Grid Plans (JNGO Ex. 8.0 at 9), the Company agrees to consider reflecting full revenue requirement analyses for major capital expenditures in future Grid Plans. Specifically, Ameren will consider reflecting the cumulative present worth of revenue requirements analysis, including financing costs and taxes over the life of assets, to reflect the actual cost to Ameren customers.

2. Staff's Position

Staff recommends that the Commission direct the Company to provide the information set forth in Staff Exhibit 26.01 as part of its initial filing in the Company's next MYIGP case. Staff Ex. 26.0 at 2-15. Staff Exhibit 26.01 lists the information requested and, for each item listed, explains why that information is sought. Staff explains that it seeks information about things such as how lessons learned from implementing the initial MYIGP inform the development of the next MYIGP; how increases in hosting capacity achieved under the initial MYIGP inform the development of the next MYIGP; how new DER penetration under the initial MYIGP impacts the Company's distribution grid and how the Company has applied this information in the development of its next MYIGP; and how the initial MYIGP impacted peak summer and winter electric demands.

Staff argues that the Commission should direct the Company to provide this information for at least two reasons: 1) doing so should enable the Commission to benefit from a more robust review of Ameren's next MYIGP because the parties will have this information from the beginning of the case and, thus, have more time to evaluate the

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information and perform related analyses and 2) the Commission should be proactive about capturing the benefits of the longer, four-year period the Company will have to develop its next MYIGP and the knowledge and experience the Company will have gained from implementing the initial MYIGP. Staff argues that there are potential benefits for the Company as well. Knowing that this information will be required will enable the Company to accumulate the information over the time of the initial MYIGP, review and analyze it, and use it to inform the development of its next MYIGP. Also, providing the information set forth in Staff Exhibit 26.01 with the initial filing may reduce some of the need for discovery because parties would have the information from the beginning of the case. Staff Ex. 8.0 at 3-4.

In response to AIC, Staff clarifies that it is not recommending changes to future MYIGPs. Staff is merely identifying information the Company should provide as part of its initial filing of its next MYIGP case. In identifying information to be provided, Staff does not intend to restrict or direct what the content of the next MYIGP should be. Rather, the intention is to potentially reduce the time and expense of discovery by requiring the Company to provide additional information with the filing. Staff Ex. 26.0 at 4.

Ameren primarily argues that it would be better to identify information needs for the next MYIGP through a collaborative process following this case, rather than addressing those needs in this case, where they have come to Staff's attention as lessons learned. Staff asserts, however, that its recommendation and Ameren's response are not at odds with one another. Staff Ex. 26.0 at 5. Staff's proposal identifies the information requested and explains why it is requested, but it also provides the Company discretion and flexibility in how it collects and provides the information. Staff Ex. 8.0 at 3. As for the collaborative process, the Company is free to consider and incorporate any appropriate decisions from the collaborative process when it files its next MYIGP, in addition to the information detailed in Staff Exhibit 26.01. While Staff appreciates Ameren's willingness to collaborate, Staff maintains its recommendation. Staff has explained in detail why the information is important and how it will facilitate the process. There is no guarantee that Ameren will agree to provide the information set forth on Staff Exhibit 26.01 in its proposed collaborative process, absent a Commission order.

For these reasons, the Commission should reject Ameren's arguments and accept Staff's recommendation to direct Ameren to provide the information set forth in Staff Exhibit 26.01 as part of its initial filing in its next MYIGP case.

3. Commission Analysis and Conclusion

Significant progress has been made in this record to clarify minimum information Ameren should provide in its 2026 Grid Plan filing. Regarding Staff's proposal for additional information, the Commission agrees that providing this information without having to request it through the discovery process will ease Staff's review of the MYIGP. See Staff Exhibit 26.01. Importantly, as noted by Staff, the information sought will not necessarily dictate the content of the next MYIGP. The Commission agrees that it is appropriate to allow discussions around how the information will be collected and reported.

The Commission notes that Ameren has agreed to JNGO's proposal regarding considering full revenue requirements. However, pursuant to the Commission's decision

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in Section V. A., the Commission finds that the Grid Plan does not comply with the requirements of the Act. Ameren is directed to include the Staff and JNGO proposals when it refiles this Grid Plan.

H. Commission Proceeding before the next MYIGP (AG Proposal)

The AG no longer appears to request an additional proceeding. See Section VIII.C for a further discussion of the workshop process. Staff made a related recommendation that Ameren meet with Staff and stakeholders quarterly to update them on the implementation progress of the initial MYIGP and to receive feedback during the first years of the initial MYIGP. Ameren agreed to meet with Staff and stakeholders semi-annually. The Commission agrees with Staff's recommendation, as amended by the Company. However, pursuant to the Commission's decision in Section V.A., the Commission finds that this Grid Plan does not comply with the requirements of the Act. The Commission directs the Company to include this agreement in its refiled Grid Plan.

I. Advanced Metering Infrastructure (AMI) data sharing workshops

JNGO witness Nock recommended that the Company use its smart meter data to identify various forms of energy poverty (inadequate energy services within the household or an inability to consume energy at a desired level - e.g., energy limiting behavior, energy burden, energy deficits, and distribution of outages and disconnections) and consider various potential activities and programs that could leverage that data to evaluate energy usage abnormalities and evaluate the success of energy poverty alleviation and investments based on a standard for how much energy households should be using to maintain safe indoor temperatures (such as avoiding heat illness in the summer, and avoiding pipes freezing in the winter), as opposed to solely the percent of income they are spending on their bills. Ameren points out that Dr. Nock recommends that the Company should analyze whether and how its smart meter data could detect abnormalities in energy usage, and track energy poverty through the region, and report these metrics at the census block level, which could then be used for better targeting of poverty alleviation efforts. JNGO Ex. 6.10 at 19-20; AIC Ex. 17.0 at 30.

As explained by Company witness Simms, the Company already has significant reporting obligations, some of which include information sought by Dr. Nock, and the Company also acknowledges Staff's concerns regarding customer privacy and related issues that should be balanced with making the requested information available. AIC Ex. 44.0 at 15. Accordingly, the Company plans to include the reporting request as part of the workshop process to determine whether additional reporting is necessary and appropriate, rather than analyzing the data for programmatic purposes. Further the Company understands Dr. Nock's concerns regarding the budget for such programming, and subject to resolution of issues during the workshop process, Ameren plans to scale up to meet the goals of the MDI programs. The Company appreciates Dr. Nock's innovative proposal and participation in this docket and looks forward to working with JNGO and other parties to develop new and innovate programs through the Clean and Equitable MDI discussed above in Section VIII.A. AIC Ex. 44.0 at 15.

The Commission notes that the parties have agreed to further discuss the issues raised by JNGO during the workshop process. The Commission agrees that this approach is reasonable. However, as discussed in Section V. A., the Commission finds

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that the Grid Plan does not comply with the requirements of the Act. The Commission directs the Company to explain the specific outcomes it will seek through the workshop in its refiled Grid Plan.

J. Equitable Energy Upgrade Program Workshops

JNGO witness Nock proposed in her direct testimony that the Company consider adopting a Pay as You Save model for EE rollout in low-income and vulnerable households. JNGO Ex. 6.0 at 32.

Staff witness Moradeyo opposed Dr. Nock's recommendation because the Commission was required to open an investigation into, and direct all electric public utilities to adopt, an Equitable Energy Upgrade Program modeled after the Pay as You Save system, and workshops are ongoing. Furthermore, Staff recommends that the JNGO pursue their Pay as You Save recommendations in that forum. The Company states the Pay as You Save proposal should be addressed in the collaborative post-docket workshop process.

JNGO do not oppose Staff's recommendation that discussions of the Pay as You Save model take place in the workshops on the Equitable Energy Upgrade Program. Accordingly, the JNGO proposal regarding Pay as You Save is not adopted at this time, and it should be addressed in the workshops on the Equitable Energy Upgrade Program.

PART II - MULTI-YEAR RATE PLAN

IX. LEGAL STANDARD

The legislative findings of the General Assembly in adopting performance-based ratemaking set goals that are broad and transformative, as part of the clean energy transition to position Illinois electric utilities to effectively and efficiently achieve current and anticipated future energy needs of the state. The General Assembly's findings include that "improving the alignment of utility customer and company interests is critical to ensuring equity, rapid growth of distributed energy resources, electric vehicles, and other new technologies that substantially change the makeup of the grid and protect Illinois residents and businesses from potential economic and environmental harm from the State's energy systems," 220 ILCS 5/16-108.18(a)(1), and that "there is urgency around addressing increasing threats from climate change and assisting communities that have borne disproportionate impacts from climate change, including air pollution, greenhouse gas emissions, and energy burdens," 220 ILCS 5/16-108.18(a)(2).

Under the Act, the Rate Plan must be consistent with the Grid Plan, which will also play a significant role in supporting the achievement of Illinois' clean energy goals as outlined in P.A. 102-0662. 220 ILCS 5/16-108.18(d). Under the Rate Plan investment plan and the Grid Plan, the Company must maintain its focus on providing safe and reliable power to its customers. The provision of safe, adequate, and reliable service, in addition to being a fundamental requirement of the Act, is a bedrock principle of utility service, and a foundation without which the goals of Illinois' clean energy transition cannot be achieved. See 220 ILCS 5/8-401.

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Consistent with P.A. 102-0662's broad goals and the investment needed to achieve them, the Act provides specific requirements for multi-year rate plans. The Rate Plan approved by the Commission must do the following:

- Provide for the recovery of the utility's forecasted rate base, based on the 4-year investment plan and the utility's Integrated Grid Plan. The forecasted rate base must include the utility's planned capital investments, with rates based on average annual plant investment, and investment-related costs, including income tax impacts, depreciation, and ratemaking adjustments and costs that are prudently incurred and reasonable in amount consistent with Commission practice and law. The process used to develop the forecasts must be iterative, rigorous, and lead to forecasts that reasonably represent the utility's investments during the forecasted period and ensure that the investments are projected to be used and useful during the annual investment period and least cost, consistent with the provisions of Articles VIII and IX of this Act. 220 ILCS 5/16-108.18(d)(3)(A).
- Approve a cost of equity consistent with Commission practice and law and reflect the utility's actual capital structure for the applicable calendar year. The Act states that a year-end capital structure that includes a common equity ratio of up to and including 50% of the total capital structure shall be deemed prudent and reasonable. A higher common equity ratio must be specifically approved by the Commission. 220 ILCS 5/6-108.18(d)(3)(B)-(C).
- Provide for recovery of prudent and reasonable projected operating expenses, giving effect to ratemaking adjustments, consistent with Commission practice and law under Article IX of this Act. Operating expenses for years after the first year of the Multi-Year Rate Plan may be estimated by the use of known and measurable changes, expense reductions associated with planned capital investments as appropriate, and reasonable and appropriate escalators, indices, or other metrics. 220 ILCS 5/16-108.18(d)(3)(E).
- Allow recovery of certain other expenses like incentive compensation. 220 ILCS 5/16-108.18(d)(3)(G).
- To the maximum extent practicable, align the 4-year investment plan and annual capital budgets with the electric utility's Multi-Year Integrated Grid Plan. 220 ILCS 5/16-108.18(d)(3)(H).

The Commission must establish annual rates for each year of the Multi-Year Rate Plan that accurately reflect and are based only upon the utility's reasonable and prudent costs of service over the term of the plan, including the effect of all ratemaking adjustments consistent with Commission practice and law as determined by the Commission, provided that the costs are not being recovered elsewhere in rates. 220 ILCS 5/16-108.18(d)(4). However, the "sole fact that a cost differs from that incurred in a prior period or that an investment is different from that described in the Multi-Year Integrated Grid Plan shall not imply the imprudence or unreasonableness of that cost or investment." *Id.* And "the sole fact that an investment is the same or similar to that