

Appendix A: Report Questions

For the reasons discussed in this final rule we direct transmission providers to file a one-time informational report related to their extreme weather vulnerability assessment policies and processes, if any. The report must respond to the following questions.

Q1) As a threshold matter, state whether the transmission provider conducts extreme weather vulnerability assessments, and if so, how frequently it conducts those assessments.

Scope

Q2) A description of the types of extreme weather events for which the transmission provider conducts, or plans to conduct, extreme weather vulnerability assessments, if any. For transmission providers that conduct, or plan to conduct, such assessments, a description of how the transmission provider determined which extreme weather hazards to include in the assessment (e.g., extreme storms such as hurricanes and the associated flooding and high winds, wildfires, extreme prolonged heat or cold, or drought conditions);

Q3) A description of how the transmission provider defines an extreme weather event for the purposes of its extreme weather vulnerability assessment, including what thresholds it uses relative to historical measurements or probabilities of occurrence, if applicable;

Q4) A description of how the transmission provider selects, or plans to select, the set of assets and operations that will be examined;

Q5) A description of how the transmission provider determines, or plans to determine,

the geographic or regional scope of the analysis;

- Q6) A description of whether and to what extent the transmission provider considers, or plans to consider, external interdependencies, such as interconnected utilities, other critical infrastructure sectors (e.g., water, telecommunications) and supply chain-related vulnerabilities, in the assessment;
- Q7) A description of whether and to what extent the transmission provider coordinates, or plans to coordinate, with neighboring utilities and/or entities in other sectors that could potentially be relevant to the assessment;
- Q8) A description of whether and to what extent the transmission provider engages, or plans to engage, with stakeholders in the scoping phase of the assessment, including the processes used to identify and engage relevant stakeholder groups and incorporate stakeholder feedback into the extreme weather vulnerability assessment, including all affected communities.

Inputs

- Q9) A description of methods and processes the transmission provider uses, or plans to use, to determine the meteorological data needed for its assessment. In particular, how the transmission provider determines whether it can rely on existing extreme weather projections, and if so, whether such projections are adequately robust;
- Q10) A description of how the transmission provider determines whether to use scenario analysis, and if so, whether to do so with multiple scenarios;
- Q11) The extent to which it reviews neighboring transmission providers' extreme

weather vulnerability assessments, if available, to evaluate the consistency of extreme weather projections between transmission providers. Further, for RTOs/ISOs, a description of how it accounts for differences between transmission owner members' extreme weather vulnerability assessment assumptions and results;

- Q12) The timeframe(s) and discount rate(s) selected for the extreme weather vulnerability assessment;
- Q13) A description of the methods and processes the transmission provider uses, or plans to use, to create an inventory of potentially vulnerable assets and operations.

Vulnerabilities and Exposure to Extreme Weather Hazards

- Q14) A description of how the transmission provider identifies the transmission assets or operations vulnerable to the extreme weather events for which it conducts assessments;
- Q15) A description of how the transmission provider uses, or plans to use, screening analyses to test for potential vulnerabilities, as well as how the transmission provider examines, or plans to examine, the sensitivities of the transmission assets and operations being studied to types and magnitudes of extreme weather events.

Costs of Impacts

- Q16) A description of the methodology or process, if any, the transmission provider uses, or plans to use, to estimate the potential costs of extreme weather impacts on identified vulnerable assets and operations;

Q17) If the transmission provider estimates such potential costs, a description of the types of: (a) direct costs, such as replacements or repair costs, restoration costs, associated labor costs, or opportunity costs of lost sales, and (b) indirect costs, such as costs associated with loss of service to electric customers and other utilities that purchase power from the transmission provider, including equipment damage, spoilage, and health and safety effects, in calculating the costs of extreme weather impacts.

Risk Mitigation

- Q18) A description of how the transmission provider uses, or plans to use, the results of its assessment to develop measures to mitigate extreme weather risks, including:
- i. How the transmission provider determines which risks should be mitigated and the appropriate time horizon for mitigation;
 - ii. How the transmission provider determines appropriate extreme weather risk mitigation measures, including any analyses used to determine the lowest-cost or most impactful portfolio of measures;
- Q19) A description of how the transmission provider informs, or plans to inform, relevant stakeholders—such as neighboring transmission providers, RTOs/ISOs of which the transmission provider is a member, electric customers, all affected communities, emergency management agencies, local and state administrations, and state utility regulators—of identified extreme weather risks and selected mitigation measures;

- Q20) A description of the extent to which the transmission provider incorporates, or plans to incorporate, identified extreme weather risks and mitigation measures into local and regional transmission planning processes;
- Q21) A description of how the transmission provider measures, or plans to measure, the progress and success of extreme weather risk mitigation measures (e.g., through reduced outages) and how it incorporates these observations into ongoing and future extreme weather risk mitigation actions.

Appendix B: Edits Demonstrating Modifications to Report Questions Proposed in the NOPR

The following compares the reporting requirement proposed in the NOPR with the reporting requirement adopted in this final rule. Deletions from the NOPR proposal appear in brackets and additions appear in italics. Please note that this convention does not apply to question numbers, which appear as they do in the final rule:

For the reasons discussed in this final rule we direct transmission providers to file a one-time informational report related to their extreme weather vulnerability assessment policies and processes, if any. The report must respond to the following questions.

- Q1) As a threshold matter, state whether the transmission provider conducts extreme weather vulnerability assessments, and if so, how frequently it conducts those assessments.

Scope

~~As a threshold matter, we propose that each transmission provider state whether it conducts extreme weather vulnerability analyses. Further, we propose to require each transmission provider to provide the following information on the policies and processes they employ, or plan to employ, for determining the scope of extreme weather vulnerability assessments:-~~

- Q2) A description of the types of extreme weather events for which the transmission provider conducts, or plans to conduct, extreme weather vulnerability assessments, if any. For transmission providers that conduct, or plan to conduct, such assessments, a description of how the transmission provider determined which extreme weather hazards to include in the assessment (e.g., extreme storms such as hurricanes and the associated flooding and high winds, wildfires, extreme prolonged heat or cold, or drought conditions);
- Q3) A description of how the transmission provider defines an extreme weather event for the purposes of its extreme weather vulnerability assessment, including what thresholds it uses relative to historical measurements or probabilities of occurrence, if applicable;
- Q4) A description of how the transmission provider selects, or plans to select, the set of assets and operations that will be examined;
- Q5) A description of how the transmission provider determines, or plans to determine, the geographic or regional scope of the analysis;

- Q6) A description of whether and to what extent the transmission provider considers, or plans to consider, external interdependencies, such as interconnected utilities, other critical infrastructure sectors (e.g., water, telecommunications) and supply chain-related vulnerabilities, in the assessment;
- Q7) A description of whether and to what extent the transmission provider coordinates, or plans to coordinate, with neighboring utilities and/or entities in other sectors that could potentially be relevant to the assessment;
- Q8) A description of whether and to what extent the transmission provider engages, or plans to engage, with stakeholders in the scoping phase of the assessment, including the processes used to identify and engage relevant stakeholder groups and incorporate stakeholder feedback into the extreme weather vulnerability assessment, including all affected ~~especially with regard to disadvantaged or vulnerable communities.~~

Inputs

- Q9) A description of methods and processes the transmission provider uses, or plans to use, to determine the meteorological data needed for its assessment. In particular, how the transmission provider determines whether it can rely on existing extreme weather projections, and if so, whether such projections are adequately robust;
- Q10) A description of how the transmission provider determines whether to use scenario analysis, and if so, whether to do so with multiple scenarios;
- Q11) The extent to which it reviews neighboring transmission providers' extreme

weather vulnerability assessments, if available, to evaluate the consistency of extreme weather projections between transmission providers. Further, for RTOs/ISOs, a description of how it accounts for differences between transmission owner members' extreme weather vulnerability assessment assumptions and results;

- Q12) The timeframe(s) and discount rate(s) selected for the extreme weather vulnerability assessment;
- Q13) A description of the methods and processes the transmission provider uses, or plans to use, to create an inventory of potentially vulnerable assets and operations.

Vulnerabilities and Exposure to Extreme Weather Hazards

- Q14) A description of how the transmission provider identifies the transmission assets or operations vulnerable to the extreme weather events for which it conducts assessments;
- Q15) A description of how the transmission provider uses, or plans to use, screening analyses to test for potential vulnerabilities, as well as how the transmission provider examines, or plans to examine, the sensitivities of the transmission assets and operations being studied to types and magnitudes of extreme weather events.

Cost of Impacts

- Q16) A description of the methodology or process, if any, the transmission provider uses, or plans to use, to estimate the potential costs of extreme weather impacts on identified vulnerable assets and operations;

Q17) If the transmission provider estimates such potential costs, a description of the types of: (a) direct costs, such as replacements or repair costs, restoration costs, associated labor costs, or opportunity costs of lost sales, and (b) indirect costs, such as costs associated with loss of service to electric customers and other utilities that purchase power from the transmission provider, including equipment damage, spoilage, and health and safety effects, in calculating the costs of extreme weather impacts.

Risk Mitigation

Q18) A description of how the transmission provider uses, or plans to use, the results of its assessment to develop measures to mitigate extreme weather risks, including:

- i. How the transmission provider determines which risks should be mitigated and the appropriate time horizon for mitigation;
- ii. How the transmission provider determines appropriate extreme weather risk mitigation measures, including any analyses used to determine the lowest-cost or most impactful portfolio of measures;

Q19) A description of how the transmission provider informs, or plans to inform, relevant stakeholders—such as neighboring transmission providers, RTOs/ISOs of which the transmission provider is a member, electric customers, all affected ~~and~~ ~~frontline~~ communities, ~~shareholders and investors~~, emergency management agencies, local and state administrations, and state utility regulators—of identified extreme

weather risks and selected mitigation measures;

Q20) A description of the extent to which the transmission provider incorporates, or plans to incorporate, identified extreme weather risks and mitigation measures into local and regional transmission planning processes;

Q21) A description of how the transmission provider measures, or plans to measure, the progress and success of extreme weather risk mitigation measures (e.g., through reduced outages) and how it incorporates these observations into ongoing and future extreme risk mitigation actions.