FINANCIAL DATA	Current Capability?			Priority Level?		
	Readily Available	Requires Longer Tunraround Time	Not available (Please	High	Medium	Low
1. Historical distribution system spending for the past 5-years, in each category: a. Age-Related Replacements and Asset Renewal b. System Expansion or Upgrades for Capacity c. System Expansion or Upgrades for Reliability and Power Quality d. New Customer Projects and New Revenue e. Grid Modernization and Pilot Projects f. Government Mandates g. Metering h. Other						
2. Projected distribution system spending for 5-years into the future for the categories listed above, itemizing any non-traditional distribution projects						
3. Planned distribution capital projects, including drivers for the project (e.g. see list above), timeline for improvement, summary of anticipated changes in historic spending						
4. Provide any available cost benefit analysis in which the company evaluated a non-traditional distribution system solution to either a capital or operating upgrade or replacement						

DER DEPLOYMENT DATA	Current Capability?			Priority Level?		
	Readily Available	Requires Longer Tunraround Time	Not available (Please	High	Medium	Low
1. Current DER deployment by type, size, and geographic dispersion (as useful for planning purposes; such as, by planning areas, service/work center areas, cities, etc.)						
2. Information on areas of existing or forecasted high DER penetration. Include definition and rationale for what the Company considers "high" DER penetration.						
3. Information on areas with existing or forecasted abnormal voltage or frequency issues that may benefit from the utilization of advanced inverter technology; provide information describing experiences where DER installations have caused operational challenges: such as, power quality, voltage or system overload issues, **and associated customer**						
4. Total number of applications and cost spent on DER generation installation in the prior year (including application review, responding to inquiries, metering, testing, make ready, etc)						
5. Total charges to customers/member installers for DER generation installations, in the prior year (including application, fees, metering, make ready, etc.)						
6. Total nameplate kW of DER generation system which completed interconnection to the system in the prior year						
7. Total number of DER generation systems which completed interconnection to the system in the prior year						
8. Does the Utilty plan to require all new DER installations to comply with IEEE 1547-2018? Please provide a rollout plan for implementation of this new standard.						
9. Does the utility plan to allow for intentional islanding or microgrids? If so please provide any business cases or roll out plans and identify the circuits on which this will be allowed.						
9. There are several reactive power functions defined within IEEE Std 1547TM-2018, Constant power factor mode, Voltage-reactive power mode (a.k.a. volt-var), Active power-reactive power mode (a.k.a. watt-var), Constant reactive power mode, and or the voltage-active power mode (a.k.a. volt-watt) Please identify the utilities plans for implementation of these modes.						

SYSTEM DATA	Current Capability?			Priority Level?		
	Readily Available	Requires Longer Tunraround Time (Please Explain)	Not available (Please Explain)	High	Medium	Low
1. Update values for Appendix B to the Grid Modernization Working						
2. Modeling and power flow software currently used.						
a. Is software capable of probabilistic or Monte Carlo method forecasting						
b. Is there system interoperability or links between modeling software and other existing data platforms i.e. MDMS, SCADA, PI (Historian type database), GIS, ESRI, etc.						
c. Are there planned software deployments that will impact 2(a) and (b)						
d. Annual peak load growth at the most granular level available i.e. the circuit, substation, town, operating area, or system level for each of the past five years and forecasted load growth for each of the next five years						
3. Number of distribution substations (transmission to distribution or subtransmission to distribution) which directly feed distribution customers **(Note: Only primary metered customers are directly fed by Distribution Substations, the rest have Distribution level trarnsformers feeding them. Maybe this should say "feed distribution level systems, or voltage levels. Unless you really want to know only the Substations that directly serve customers.)**						
a. Percentage that have no remote monitoring at the feeder level						
b. Percentage that have more detailed remote monitoring but no control						
c. Percentage that have detailed remote monitoring and control						
d. Are there planned additions to enhance 3 (a) and (b)						
4. Number of bulk distribution substations (transmission to subtransmission supply) which do not feed distribution customers						
a. Percentage that have no remote monitoring at the subtransmission feeder level						
b. Percentage that have more detailed and complex monitoring but no control						
c. Percentage that have detailed monitoring and control						
d. Are there planned additions to enhance 4 (a) and (b)						
5. Number of hybrid distribution substations (transmission to subtransmission and distribution circuits) which may feed both distribution customers and provide subtransmission to other distribution substations						
a. Percentage that have no monitoring at the feeder/subtransmission level						
b. Percentage that have more detailed and complex monitoring but no control						
c. Percentage that have detailed monitoring and control						
d. Are there planned additions to enhance 4 (a) and (b)						
6. Sub-Feeder level visibility and measurement						
a. Distribution Feeder Level : Percentage that have 2 or more remote sensor monitoring on three phase mainline. Indicate type of measurement (voltage, current, etc.) and interval timeframe of data capture						
b. Subtransmission Feeder Level: Percentage that have 2 or more remote sensor monitoring on three phase mainline. Indicate type of measurement and interval timeframe of data capture						
c. Summary of past (last 3 years) and future (next 3 years) annual installments of sensor devices at the sub-feeder level						
7. Number of customer meters with AMI/AMR/Bridge AMR and those without, planned AMI/AMR/Bridge AMR or collector investments, and overview of existing functionality available						
8. Discussion of how the distribution system planning is coordinated with the integrated resource plan (including how it informs and is informed by the IRP), and planned modifications or planned changes to the existing process to improve coordination and integration between the two plans						

9. Discussion of how DER and at what level is considered in load forecasting (distribution feeder , subtransmission level, distribution substation, bulk distribution substation level, or system-wide) and any expected changes in load forecasting methodology

10. Discussion if and how IEEE Std. 1547-20183 impacts distribution system planning considerations (e.g. opportunities and constraints related to interoperability)

11. Distribution system annual loss percentage for the prior year (average of 12 monthly loss percentages)

12. The maximum hourly coincident monthly load (kW) for the distribution system, in the past 12 months, as measured at the interface between the transmission and distribution system. This may be calculated using SCADA data or interval metered data or other non-billing metering / monitoring systems.

13. Total distribution substation capacity in kVA
14. Total distribution transformer capacity in kVA (do not include capacity

14. Total distribution/subtransmission line transformer capacity in kVA (do not include capacity stated in Item 13) **(Note: not sure what this is)**

15. Percentage of Distrbution Substation Transformers that are:
    a. 90-100% within their normal rating
    b. 80-90% within their normal rating
    c. Less than 80% of their normal rating
16. Percentage of Subtransmission Substation Transformers that are:
    a. 90-100% within their normal rating
    b. 80-90% within their normal rating
    c. Less than 80% of their normal rating
17. Percentage of Distrbution Feeders that are:
    a. 90-100% within their normal rating
    b. 80-90% within their normal rating
    c. Less than 80% of their normal rating
18. Percentage of Subtransmission Feeders that are:
    a. 90-100% within their normal rating
    b. 80-90% within their normal rating
    c. Less than 80% of their normal rating
19. Total miles of overhead distribution wire
    a. Three phase, single phase, and/or two phase
    b. Single phase or two phase
20. Total miles of underground distribution wire
    a. Three phase, single phase, and/or two phase
    b. Single phase or two phase
21. Total number of distribution customers
    a. Distribution Feeder customers
    b. Subtransmission customers

22. Distribution system load forecast for all circuits, including circuit capacity, Including historic loading, both maximum and minimums, for the past three years, including projected new loading, and projected DER impacts.

23. The utiltiy wide SAIDI, SAIFI, CAIDI, MAIFI, for the past three years.

23. SAIDI, SAIFI, CAIDI, MAIFI, per circuit for the past three years.

24. Please describe any use of Conservation Voltage applications. Is CVVR used to limit only peak loading or for continious management of voltage levels across the application area?

25. How many Electric Vehicle charging systems have been added to the utlities distribution system over each of the past three years?

25. How many Electric Vehicle charging systems are forecasted to be installed in the next three to five years?