**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Cooperative: \_\_\_\_\_\_\_\_\_\_\_\_\_**

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| **SESSION 1** |

1. **Reliability in Distribution Design**

In order to better understand how you view reliability, please consider sharing your planning information:

# of members \_\_\_\_\_k # of substations \_\_\_\_\_ Miles of transmission \_\_\_\_\_\_

System peak (MW): Summer \_\_\_\_\_\_\_\_, Winter \_\_\_\_\_\_\_\_\_

Percentage of load served by 12.5 kV = \_\_\_\_\_\_%, 25 kV= \_\_\_\_\_\_%, # feeders \_\_\_\_\_\_\_\_

Design program \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Do you have an optimization package for pole sizing, guying, transformer loading, etc.? Yes/No (circle one)

What are your largest reliability challenges? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Please share your key reliability initiatives that you feel may benefit the rest of us:

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How do you monitor reliability? (feeder performance, sort outages by duration, review the number of outages, equipment failures, etc.)

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Do you limit the number of fuse stages? Y / N. How many? \_\_\_\_\_\_\_ staged max.fusing

Do you allow rear lot line URD? Y / N

What is your sectionalization philosophy? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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What is your Right-of-way strategy? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Do you cut ground to sky? Y / N

1. **Automated Meter Reading (AMR)/Advanced Metering Infrastructure (AMI)**

Do you have AMR or AMI as your present standard system? Y / N

System \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or none, AMI/AMR (circle one), mtrs. in svc.\_\_\_\_\_\_\_k

**3. Automated Meter Reading (AMR)/Advanced Metering Infrastructure (AMI) (continued)**

Are you using bill prepay? Y / N Are you receiving daily meter alarms? Y / N

Please provide an overview of your experience (e.g. issues you have encountered, how best to communicate the AMI capabilities with the members, how you are using the data, what you still want to accomplish with the data)

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**4. Distribution Automation**

What are the components of your present distribution automation program?

Switches/reclosers:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Controls: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Communications: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Other components:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How did you deploy the system?

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Please share your D.A. experience \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**5. Material Standardization**

Have you made any advances in material standardization? Y / N If so, what equipment have you standardized upon and do you have any recommendations?

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What are your OH primary wire sizes? #2, 1/0, 336, 477, 795 ACSR (circle & add others) \_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What are your OH standard size transformers 5, 10, 15, 25, 37, 50, 75, 100, 167 kVA, \_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Do you purchase stainless steel padmount transformers? Y / N

What % of your new purchases is stainless steel? \_\_\_\_\_\_\_\_\_%

**SESSION 2**

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| 1. **High Speed Communication Plans**   Do you have a high speed communication system connected to one or more of your substations?  Y / N  If so, circle one: Radio, Fiber optics  Do you have plans to install or expand your high speed communications system? Y / N  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   1. **Inspection Programs** | | |
| What components of a PSC inspection program do you have and what is the frequency?   |  |  | | --- | --- | | Type equipment | Cycle years | | Distribution poles |  | | Transmission poles |  | | Distribution Underground |  | | (Other) |  |   Please list items included in your inspection program that may be beneficial to others  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   1. **Process improvements/Best Practices & Distr. Pole Alternatives** | | |
| Please list your major efforts in process improvements not previously listed:  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | |
| Are you using an alternative to wood distribution poles (e.g. ductile iron or fibercrete)? If so,  provide pro’s/con’s.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  **SESSION 3** | | |
| 1. **Remote Engineering/Substation Automation**   What efforts have you made in substation automation – processor, integrated controls, RTU, numeric and logic functions?  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Do you have the following?  SCADA? Y / N  Outage management system? Y / N  Desktop view of substation equipment? Y / N  Circle the following items available from your SCADA system: event recording, oscillography,  fault magnitude, overcurrent protection, tools to gather analysis, analytics, reliability,  voltage quality |

1. **Metrics for Designer Productivity**

How do you measure designer productivity (circle one)? Construction manhours, # of work orders, # of phone calls, # of service orders, # construction units designed, other (please explain)

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Do you have a work order database? Y / N

Do you have a database for scheduling crews? Y / N

1. **Transmission looping**

Do you loop your transmission lines through your substations? Y / N

If yes, how many looped substations do you have?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Do you have criteria for looping substations? Y / N

If yes, please describe: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Additional topics**

Easements - Number of existing? \_\_\_\_\_\_\_\_\_ How do you store them? \_\_\_\_\_\_\_\_\_ Do you have plans to link to your design system? Y / N Comments:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Are you developing or do you have an Engineering/Operations procedures manual? Y / N

Please list comments: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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