

[Project Title]

[Presenter Name]

[Company]

ISO-NE Planning Advisory Committee Meeting

[Date]

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Instructions

- Adjust the template as needed to meet individual company branding and presentation guidelines. This may include modifying the slide masters, default colors, and default fonts.
- On the title slide, provide the name of the project, name of the presenter, company, and PAC presentation date

Project Summary

Project Drivers		
• [Describe]		

Alternatives Considered		
Alternative	Description	Cost Estimate
Alternative 1	(Base Alternative) [Summarize scope]	[\$X.X M]
Alternative 2	[Summarize scope]	[\$X.X M]
Alternative 3	[Summarize scope]	[\$X.X M]

Preferred Alternative		
Alternative	Reason for Recommendation	Cost Estimate
Alternative [X]	• [Describe]	[\$X.X M] -25%/+50%

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Instructions

- Modify the slide as needed to provide an overall summary of the project
- The Project Drivers should list the primary drivers of the project and any secondary drivers that are necessary to mention in a high-level summary
- The alternatives considered should be summarized with one or two lines of text and cost estimates. In most cases, the Base Alternative should be listed as Alternative 1
- The preferred alternative should be listed with a cost estimate at the Conceptual level (-25/+50%) and the reason(s) for the recommendation summarized with one or two bullets.

Outline

- Background Information
- Project Needs and Drivers
- Solution Alternatives
- Selection of Preferred Solution
- Schedule and Contact Information

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Instructions

- Modify the bullets as appropriate to provide an agenda for the remainder of the presentation

Background Information

[Line XXX]

Key Details	
Location	From: [Station], [Town], [State] To: [Station], [Town], [State]
Line length	___ miles
Operating Voltage	___ kV
Age and upgrade history	<ul style="list-style-type: none">Originally constructed in ___[No significant upgrades or rebuilds]
Prior PAC presentations	<ul style="list-style-type: none">[List]

Existing Structures			
Material	Configuration	Number	Avg. age
[Line Section 1]			
[Wood]	[H-frame & Angle Structures]	[count]	[X] years
[Steel]	[H-frame & angle structures]	[count]	[X] years
[Steel]	[Single-circuit lattice tower]	[count]	[X] years

Existing Conductor		
Type	Length	Avg. age
[Line Section 1]		
[Type]	[x.x] miles	[X] years
[Type]	[x.x] miles	[X] years

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Instructions

- Overall instructions:
 - Modify the slide as needed to provide an overview of the line unique features
 - Add additional tables or bullets if needed to describe any unique features, such as:
 - Double-circuit tower sections
 - Unique geographic features
 - Unique operational features (for example, is the design voltage different than the operating voltage)
 - Historical modifications to the line (for example, was the line bisected by the construction of a new substation sometime after the original construction date?)
- Specific data fields:
 - Title: Add the line number or designation
 - Key Details:
 - Provide the line endpoints including substation names, towns, and states
 - Provide the line length and operating voltage
 - Provide a brief overview of the history of the line, including the

- original year of construction and any significant upgrades or rebuilds
 - Provide links to prior PAC presentations concerning the same line, including prior asset condition projects
- Existing structures
 - Summarize the number of existing structures including the materials, configuration, number, and average age. The level of detail provided should be appropriate to the project. For example, it may be appropriate to summarize the number of wood H-frame and wood 3-pole guyed angle structures in a single row, as shown in the example.
 - The template table includes a sub-header which can be used if the line consists of multiple sections with different characteristics. This row should be removed if not relevant.
- Existing conductor
 - Summarize the primary conductor types
 - Short sections of different conductor types (e.g. river crossings, highway crossings, etc.) may be omitted if not relevant but such omission should be noted with a footnote
 - The template table includes a sub-header which can be used if the line consists of multiple sections with different characteristics. This row should be removed if not relevant.

Background Information

Maps and Diagrams

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Instructions

- Provide any relevant maps and diagrams
- At a minimum, a geographic map should be provided
- Other diagrams, such as one-line diagrams or ROW cross sections should be provided if relevant

Project Needs and Drivers

Structure Concerns

Structure Concerns	
Primary Concerns	
Wood structure rot and decay	<ul style="list-style-type: none"> Recent inspections performed in [years] have identified [X] wood structures with woodpecker damage, pole top rot, cracked crossarms, splitting poles, and other forms of decay These structures must be replaced to maintain reliability and ensure ongoing integrity of the line Affected structures average [X] years old and are reaching the end of the typical useful life for [XXX kV] natural wood structures ([XX] years)
Steel lattice structure deterioration	<ul style="list-style-type: none"> Elaborate similar to above
Secondary concerns	
None	

Summary of Current Structure Grades		
Category	Recommended Action	Number of structures
A	No replacement required due to deterioration	X
B	Consider replacement in conjunction with other structure replacements	X
C	Initiate planned structure replacement project	X
or		
	Replace as part of upcoming structure replacement project	X
D	Replace immediately (emergency replacement)	X
Total		X

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Instructions

- Remove this slide if structure concerns are not a driver for a particular project
- Use the “Structure Concerns” table to summarize the primary and secondary concerns driving the need for the project.
 - Primary concerns should be addressed by all solution alternatives considered
 - Secondary concerns may be addressed by some solution alternatives
 - Add additional rows and bullets as necessary to fully describe the concerns
 - Include the typical useful life of the equipment in question
 - Provide the timing of recent inspections
- Use the Summary of Current Structure Grades table to provide an overview of the condition of all structures on the line using the format described in Appendix C to the Asset Condition Process Guide
 - This table may be moved to another slide if the first table needs to be expanded to accommodate a complete description of the structure concerns

Project Needs and Drivers

[subtitle]

- [Insert inspection photos or other information]
- [Change slide subtitle for different needs/drivers]

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Instructions

- This slide should be used when additional information is needed to fully describe any need or concern, and can be duplicated or removed as needed
- For example, this slide would usually be used to provide representative photos of the asset condition concerns and could be duplicated if needed

Project Needs and Drivers

Conductors

Conductor Concerns	
Primary Concerns	
[Issue]	• [Description]
[Issue]	• [Description]
Secondary Concerns	
[Issue]	• [Description]

[Discussion and Additional Information]

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Instructions

- Remove this slide if structure concerns are not a driver for a particular project
- Use the “Conductor Concerns” table to summarize the primary and secondary concerns driving the need for the project.
 - Primary concerns should be addressed by all solution alternatives considered
 - Secondary concerns may be addressed by some solution alternatives
 - Add additional rows and bullets as necessary to fully describe the concerns
 - Include the typical useful life of the conductors
 - Provide the timing of recent inspections, if relevant

Project Needs and Drivers

Insulators

Insulator Concerns	
Primary Concerns	
[Issue]	• [Description]
[Issue]	• [Description]
Secondary Concerns	
[Issue]	• [Description]

Discussion and Additional Information

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Instructions

- Remove this slide if insulator concerns are not a driver for a particular project
- Use the “Insulator Concerns” table to summarize the primary and secondary concerns driving the need for the project.
 - Primary concerns should be addressed by all solution alternatives considered
 - Secondary concerns may be addressed by some solution alternatives
 - Add additional rows and bullets as necessary to fully describe the concerns
 - Include the typical useful life of the insulators
 - Provide the timing of recent inspections, if relevant

Project Needs and Drivers

Shield Wires

Shield Wire Concerns	
Primary Concerns	
[Issue]	• [Description]
[Issue]	• [Description]
Secondary Concerns	
[Issue]	• [Description]

Discussion and Additional Information

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Instructions

- Remove this slide if shield wire concerns are not a driver for a particular project
- Use the “Shield Wire Concerns” table to summarize the primary and secondary concerns driving the need for the project.
 - Primary concerns should be addressed by all solution alternatives considered
 - Secondary concerns may be addressed by some solution alternatives
 - Add additional rows and bullets as necessary to fully describe the concerns
 - Include the typical useful life of the shield wires
 - Provide the timing of recent inspections, if relevant

Project Needs and Drivers

Telecommunications

Telecommunication Needs	
Primary Concerns	
[Issue]	• [Description]
[Issue]	• [Description]
Secondary Concerns	
[Issue]	• [Description]

Discussion and Additional Information

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Instructions

- Remove this slide if telecommunication needs are not a driver for a particular project
- Use the “Telecommunication Needs” table to summarize the primary and secondary needs
 - Primary concerns should be addressed by all solution alternatives considered
 - Secondary concerns may be addressed by some solution alternatives
 - Add additional rows and bullets as necessary to fully describe the concerns
 - Include the typical useful life of affected equipment, if relevant
 - Include descriptions of any relevant standards or criteria

Project Needs and Drivers

System Planning

Planning Concerns	
Primary Concerns	
[Issue]	• [Description]
[Issue]	• [Description]
Secondary Concerns	
[Issue]	• [Description]

Discussion and Additional Information

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Instructions

- Remove this slide if system planning needs are not a driver for a particular project
- Use the “Planning Concerns” table to summarize any primary and secondary needs
 - Primary concerns should be addressed by all solution alternatives considered. However, it is unlikely that a planning need would be a primary driver for an asset condition project. Instead, a planning need would typically be addressed by a study performed under Attachment K to the Open Access Transmission Tariff (OATT)
 - Secondary concerns may be addressed by some solution alternatives
 - Add additional rows and bullets as necessary to fully describe the concerns
 - Include the typical useful life of affected equipment, if relevant
 - Include descriptions of any relevant standards or criteria

Project Needs and Drivers

Operations

Operational Concerns	
Primary Concerns	
[Issue]	• [Description]
[Issue]	• [Description]
Secondary Concerns	
[Issue]	• [Description]

Discussion and Additional Information

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Instructions

- Remove this slide if operational needs are not a driver for a particular project
- Use the “Operational Concerns” table to summarize any primary and secondary needs
 - Primary concerns should be addressed by all solution alternatives considered.
 - Secondary concerns may be addressed by some solution alternatives
 - Add additional rows and bullets as necessary to fully describe the concerns
 - Include the typical useful life of affected equipment, if relevant
 - Include descriptions of any relevant standards or criteria

Project Needs and Drivers

Other Concerns

Other Concerns	
Primary Concerns	
[Issue]	• [Description]
[Issue]	• [Description]
Secondary concerns	
[Issue]	• [Description]

Discussion and Additional Information

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Instructions

- Use this slide to summarize any additional needs or concerns

Project Needs and Drivers

Items Not of Concern on this Line	
Issue	Status
Structures	[discuss why this is not a concern with this line]
Conductors	[discuss why this is not a concern with this line]
Insulators	[discuss why this is not a concern with this line]
Shield Wire	[discuss why this is not a concern with this line]
Telecommunication	[discuss why this is not a concern with this line]
Planning	[discuss why this is not a concern with this line]
Operational	[discuss why this is not a concern with this line]

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Instructions

- List any issues that are not identified as primary or secondary drivers, and remove the corresponding template slides

Review of Relevant Transmission Studies

Recent Transmission Studies
Was this line overloaded in recent Attachment K studies (Reliability Needs Assessments, Longer-Term Transmission Studies, etc.) or other recent studies?
[Yes or No. If yes, detail scenarios and resulting overloads]
Have modifications or upgrades to this line been identified as potential solutions in any of those studies?
[Yes or No. If yes, describe the potential modifications or upgrades such as reconductoring, rebuilding, increasing voltage level, etc.]

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Instructions

- Assess recent Attachment K studies and provide additional information if needed.
- Even if the answer to both questions is "No" this slide should be retained and not removed.

Evaluated Solution Alternatives

[Alternative Number]

[Alternative Name]	
Description	[Describe]
Primary Needs Addressed	[Structure, Conductor, Etc]
Secondary Needs Addressed	[Structure, Conductor, Etc]
Advanced transmission technologies to be considered	[Advanced Conductors, Dynamic Line Ratings, Power Flow Controllers, Other]
Cost Estimate and Accuracy	\$XM (+200% / -50%)
Impact on transmission needs or concerns from recent studies	[Describe if applicable]
Key standards or criteria affecting design if different than current design	[NESC, etc.] Or, "None – Alternative design is similar to existing design"

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Instructions

- Duplicate this slide as needed for each alternative
- Specific data fields:
 - Insert the alternative number (i.e. Alternative 1) in the slide title
 - Insert the name or short description of the alternative in the table title (i.e. Base Alternative)
 - Provide a detailed description of the scope of work for the alternative in the Description field
 - List the primary and secondary needs addressed in the appropriate fields
 - List any advanced transmission technologies to be considered, such as advanced conductors, power flow controllers, dynamic line rates, etc.
 - Provide cost estimate and accuracy band
 - Identify and longer term transmission needs addressed with reference to the "Review of Relevant Transmission Studies" slide
 - Identify and describe any key standards or criteria that have affected the design of the alternative, or indicate that the alternative uses equipment that is similar to the existing design

Comparative Analysis of Alternatives

Comparison			
Key Criteria	Alternative 1	Alternative 2	Alternative 3
Addresses Primary Need(s)	[Yes/No]		
Secondary Needs Addressed			
Cost	\$X.XM		
Constructability concerns or advantages			
Siting, Environmental and regulatory issues			
[Expand table as needed]			

Conclusions

- [Describe]
- Alternative [X] is the preferred alternative

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Instructions

- Adjust table as needed to accommodate all alternatives and relevant evaluation criteria
- Evaluation criteria that are not relevant to the analysis of the solution alternatives may be omitted
- Refer to Table 4-1 in Asset Condition Process Guide for evaluation criteria
- Clearly identify preferred alternative and provide rational

Schedule

Planned Schedule	
Comment Deadline	December YY 2024
Follow-up PAC Presentation	[Date]
Start of Major Construction	QX 202X
Project in Service	QX 202X

Please submit any comments to pacmatters@iso-ne.com and:

Transmission Owner Contact	
Contact Name	[Company Contact Name]
Contact Email Address	[Company Contact Email Address]

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Instructions

- Provide comment deadline and company email address
- If a follow-up PAC presentation is recommended or required, provide the anticipated PAC meeting date. If the specific meeting date is not known, provide the quarter in which the presentation is expected to take place
- Provide the expected start of Major Construction for the project to the nearest quarter. Refer to ISO-NE Planning Procedure No. 4 for the definition of Major Construction
- Provide the expected in-service date to the nearest quarter