

## **Changes in Project Approach**







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## **Project Alternatives and Options Analysis**



### **Alternatives Analysis - Then**

- In the past, project options and alternatives analyses were somewhat cursory and were largely focused on economics
  - Utilities still integrated
  - Less environmental regulation
  - Backbone network still being built out
  - Performance and reliability standards still developing



### **Alternatives Analysis - Now**

- Today, options analyses are much more rigorous and consider many factors beyond economics
  - Network Performance and Flexibility
  - Natural Environment
  - Human Environment
  - Worker Safety
  - Delivery Timeframe



#### **Alternatives Analysis - Now**

- Today, more varieties of alternatives are considered
  - Electrical Alternatives
  - Routing Alternatives
  - Structure and Corridor Configurations
  - OH vs. UG Alternatives
  - Non-Transmission Alternatives (EE, DR, DG, G and Combinations)
  - Hybrid Alternatives



# Stakeholder Engagement



## Stakeholder Engagement - Then

- In the past, stakeholder engagement on projects was minimal
  - An afterthought
  - Not considered a necessity
  - Reactive
  - Typically done during construction phase
  - Focused on direct abutters



### Stakeholder Engagement - Now

- Today, stakeholder engagement is considered critical
  - Proactive
  - Early and often
  - Becoming campaign-oriented
  - Requires dedicated resources
  - Reaches across many classes of stakeholders
  - During all project phases from concept through construction



## **Stakeholder Engagement - Now**

- Tools and Tactics for Stakeholder Engagement
  - Printed Materials
  - Web-Based
  - Media
  - Outreach Tools



## **Tribal Consultation and Participation**



#### **Tribal Consultation - Then**

- In the past, consultation with Native American Tribes was
  - Less common
  - Confined to areas on or near tribal lands
  - Dealt with "traditional" archaeology



#### **Tribal Consultation - Now**

- Today, consultation with Native American Tribes is much more common and robust:
  - Required under § 106 of the National Historic Preservation Act
  - Increase in Federally-recognized Tribes
  - Consideration given to ancestral lands
  - Expanded beyond "traditional" archaeology



#### **Tribal Consultation - Now**

- It is critical to engage with Native American tribes
  - Early in the process of project development
  - Cultivate and maintain relationships
  - Incorporate tribal input as a planning element of projects
  - Utilize tribal support much like a professional consultant
  - Recognize and respect differences in ideology and business



## **Visual Analysis**



## Visual Analysis - Then

- In the past, visual analysis was rudimentary
  - Engineering-based "renderings"
  - Considered only basic elements
    - Structure Heights
    - Immediate Topography
    - Sight Lines



## Visual Analysis - Now

- Visual Analysis and Modeling has become an area of expertise and is a refined discipline
  - Viewshed Analysis
  - Visual Simulations
  - Simulated Drive-throughs and Fly-overs
  - Tools for analyzing visual impacts, but also tools for communicating project details and proposals



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