UniSource Energy SERVICES

Santa Cruz Reliability Project South

Welcome

Bienvenidos, hablamos español

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For More Information

Para Más Información

Our Energy Grid
How we deliver electric service to you

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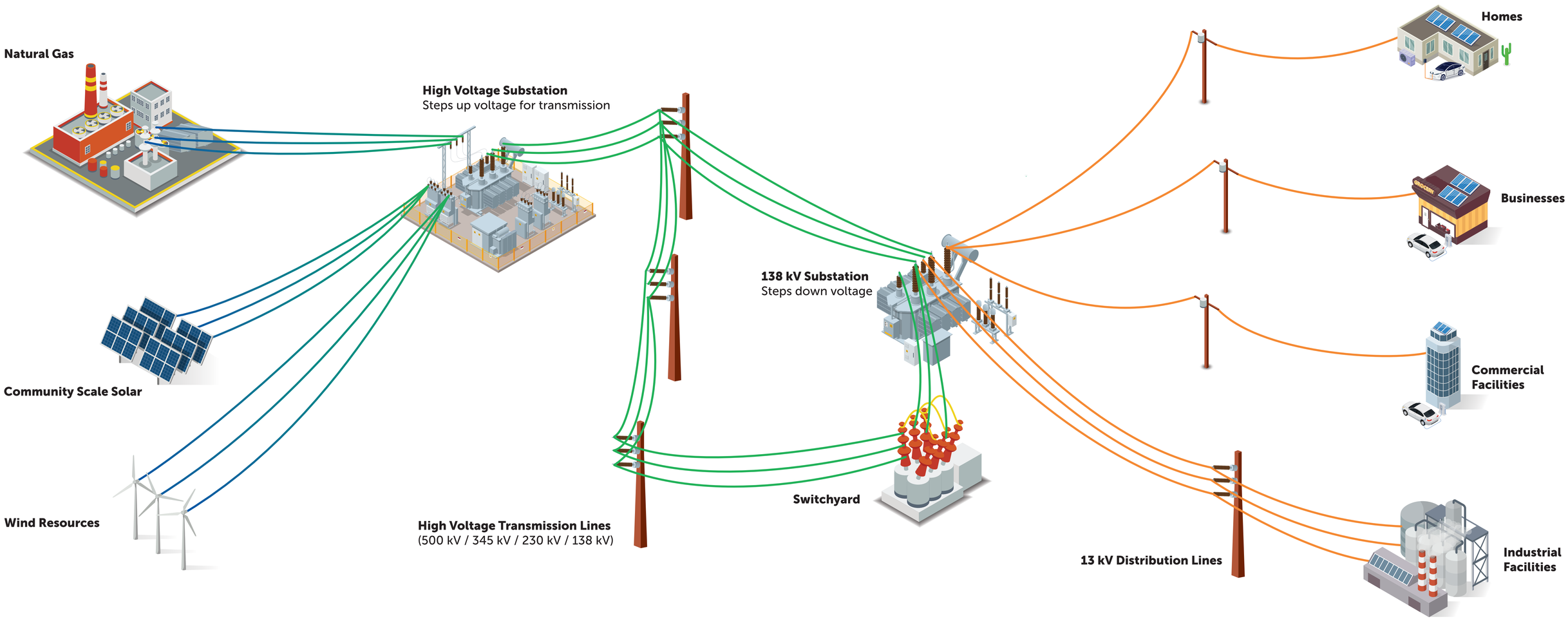

Generation

Transmission and Sub-Transmission

Distribution

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Purpose & Need

Purpose

Improve the reliability and resiliency of the electrical transmission system servicing Santa Cruz County

Need

Maintain and strengthen reliability for Santa Cruz County and its residents, businesses, and industries including hospitals, schools, ports of entry, and federal facilities

Meet current and future energy needs without impacting service to existing customers

Convert the current radial line configuration servicing Santa Cruz County to a looped transmission system

Reduce and eliminate the potential for a major and sustained outage in Santa Cruz County

Support maintenance and other upgrades, allowing work to be performed without interrupting system operations

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Legend

- In-Service 138 kV Transmission Line
- Undetermined 138 kV Transmission Line
- Upgraded 138 kV Transmission Line
- In-Service 138 kV Substation
- Proposed 138 kV Substation

0 5 10 Miles

N

Phase 1 - SCR North

Regional Grid (TEP)

UNDETERMINED ROUTE

Kantor (UNSE)

2024-2025: Planning and Siting
2027-2028: Construction

Phase 2 - Nogales Tap-Kantor

Vail (TEP)

Nogales Tap (WAPA)

Kantor (UNSE)

CEC Issued in 2017 under Decision 76468
2028-2029: Construction

Phase 3 - SCR South

THIS PROJECT

Kantor (UNSE)

UNDETERMINED ROUTE

Valencia (UNSE)

Gateway (UNSE)

2025-2026: Planning and Siting
2029-2030: Construction

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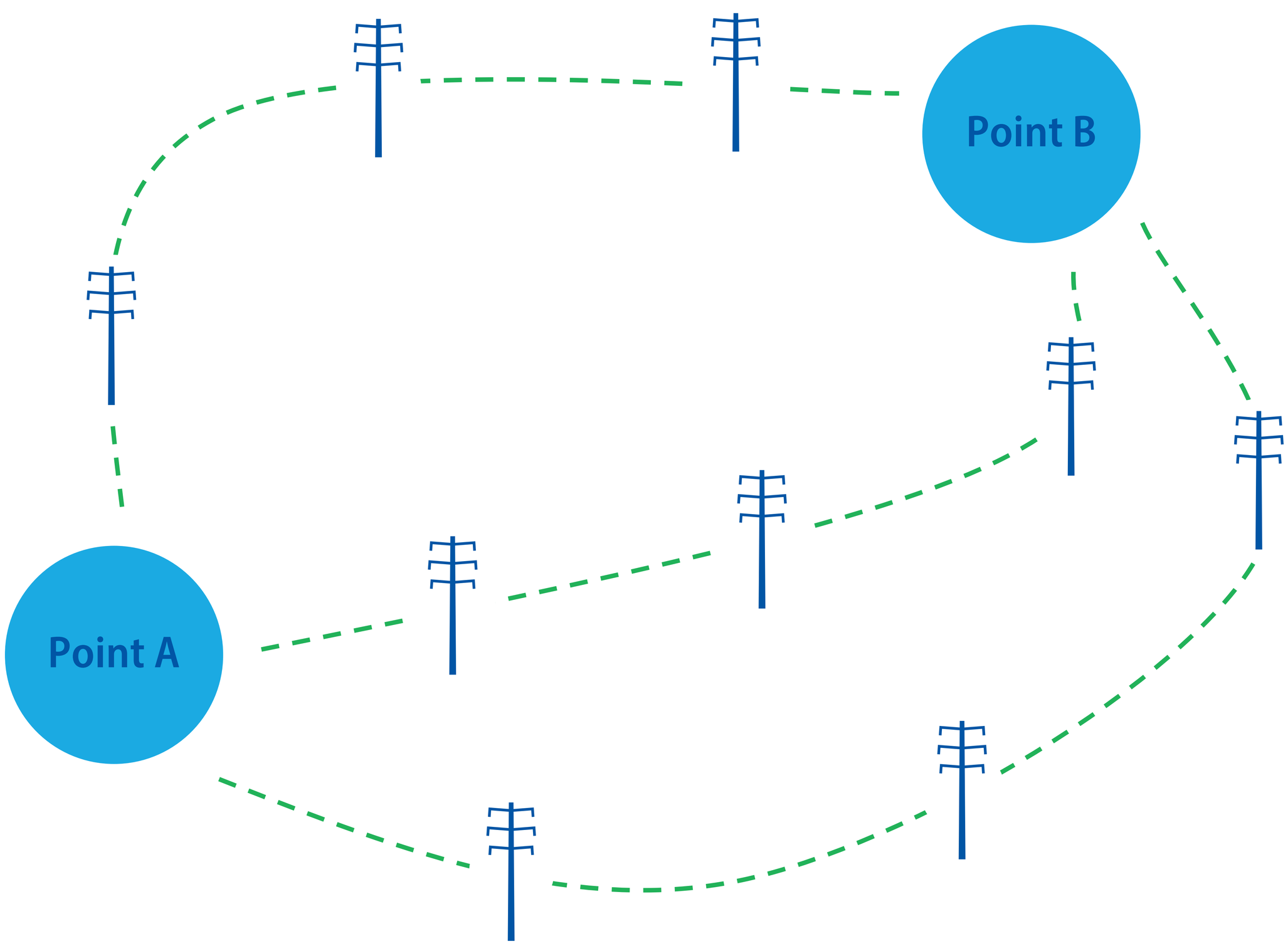
What is Siting?

The process of determining the exact route or location where a high-voltage transmission line will be built between two or more points. These points could be new or existing substations, switchyards or energy resources.



A component of siting is permitting. Under Arizona law (A.R.S. § 40-360 et seq.), certain transmission line configurations require a Certificate of Environmental Compatibility (CEC) before construction and operation along an approved route.

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Example Pole Structure

Tubular, Weathering Steel Monopoles

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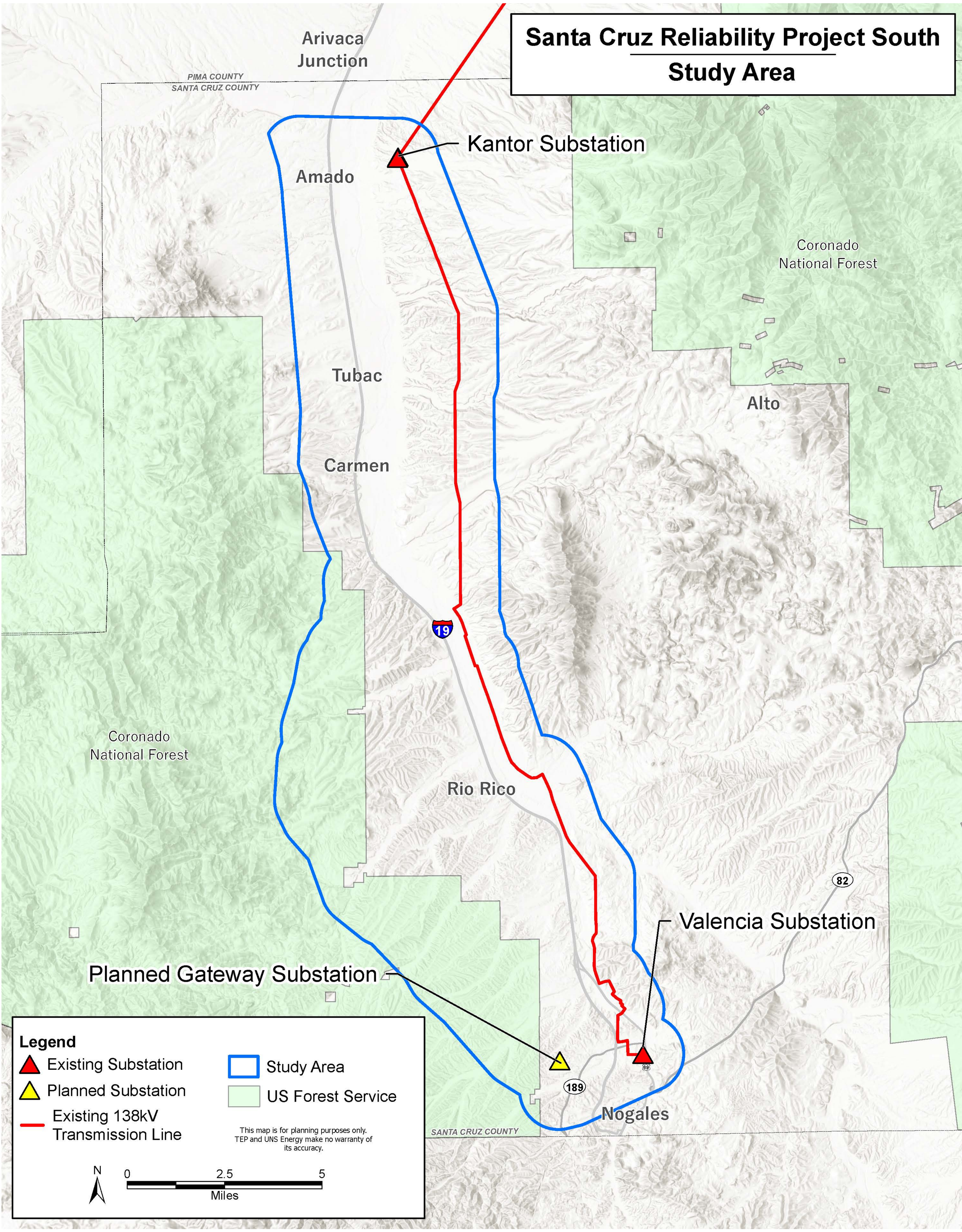

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Opportunities and Constraints

Arivaca Junction

PIMA COUNTY

SANTA CRUZ COUNTY

Amado

Kantor Substation

Coronado National Forest

Tubac

Carmen

Alto

Rio Rico

Valencia Substation

Coronado National Forest

Nogales

SANTA CRUZ COUNTY

Planned Gateway Substation

Legend

- Existing Substation
- Planned Substation
- Existing 138kV Transmission Line
- Existing El Paso Natural Gas Line
- Approved Gateway to Valencia Connection
- Study Area
- US Forest Service

Opportunities & Constraints

- Opportunity
- Constraint

This map is for planning purposes only.
TEP and UNS Energy make no warranty of its accuracy.

N

0 2.5 5

Miles

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Project Route Development and Evaluation

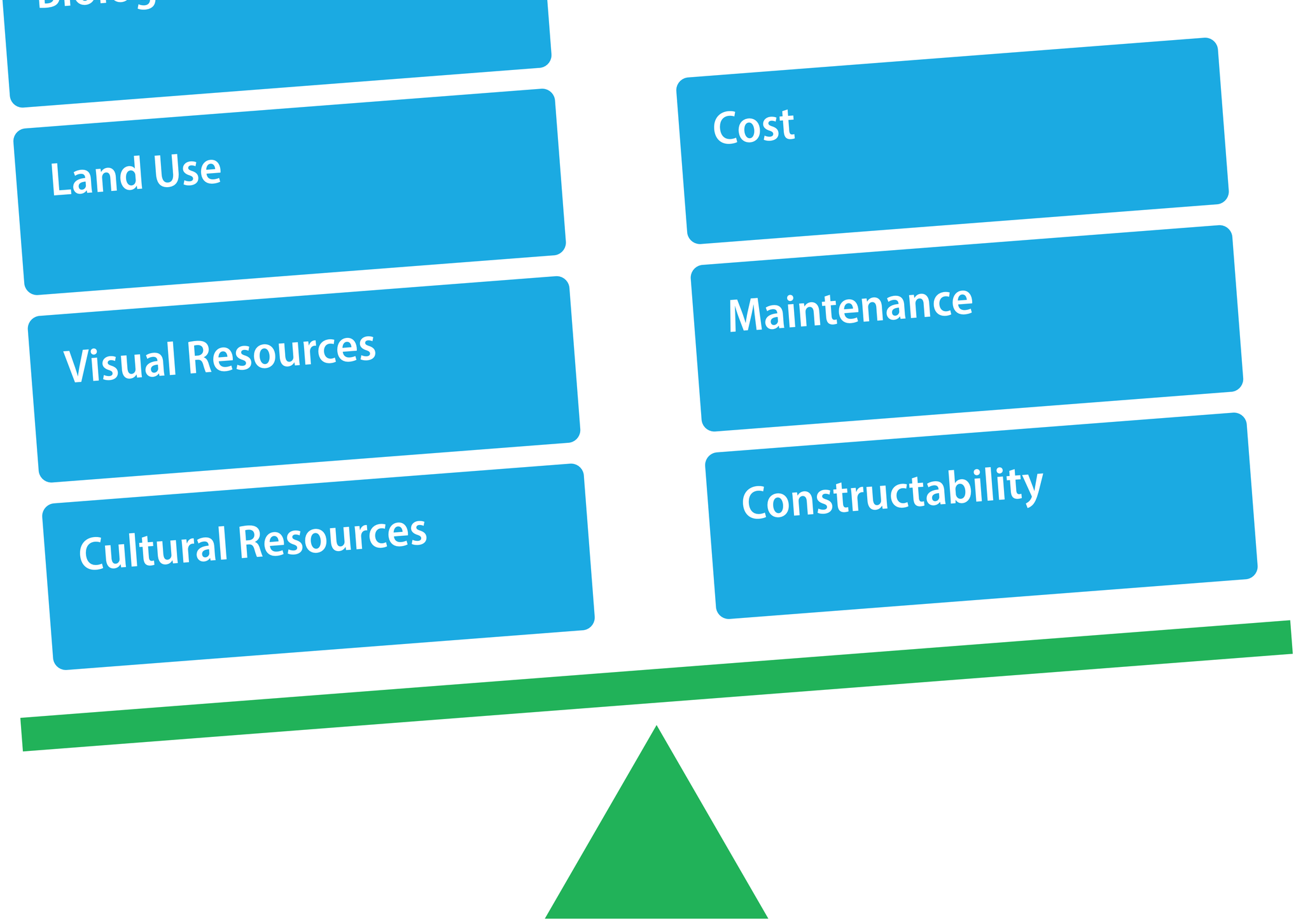
UniSource considers factors important to the community and environment, and balances them with constructability, maintenance, and cost to find the most suitable path for the transmission line that satisfies the need for the project.

Suitability Factors

- Community Input
- Biological Resources
- Land Use
- Visual Resources
- Cultural Resources

Practicability

- Cost
- Maintenance
- Constructability



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Siting Process Flowchart

Phase 1: **Pre-Analysis**

Conduct Field Visits
Develop Study Area
Identify Opportunities and Constraints
Conduct Public and Stakeholder Outreach
Develop Preliminary Segments

Phase 2: **Data Inventory**

Conduct Research and Collect Data

Phase 3: **Suitability Assessment**

Develop Suitability Models
Conduct Suitability Assessment
Field Review
Refine Segments

★ We Are Here

Phase 4: **Compatibility Analysis**

Conduct Compatibility Analysis
Develop Route Alternatives
Conduct Public and Stakeholder Outreach
Identify Preferred Route

Phase 5: **Concept Evaluation**

Field Review
Submit CEC Application
Public Notification and Hearing

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Suitability Assessment

Criteria Models

- Existing Plans
- Biological Resources
- Noise and Communication
- Cultural and Historic Resources
- Visual Resources
- Total Environment
- Existing and Future Residential
- Engineer, Construction and Maintenance

Composite Models

- Balanced Compatibility Model
- Environmentally Preferred Model
- Construction & Maintenance Preferred Model
- Public Stakeholder & Agency Preferred Model
- Residential and Visual Resource Preferred Model

Suitability Assessment

- Highest Suitability Path
- Apply Constraints
- Visual Comparison

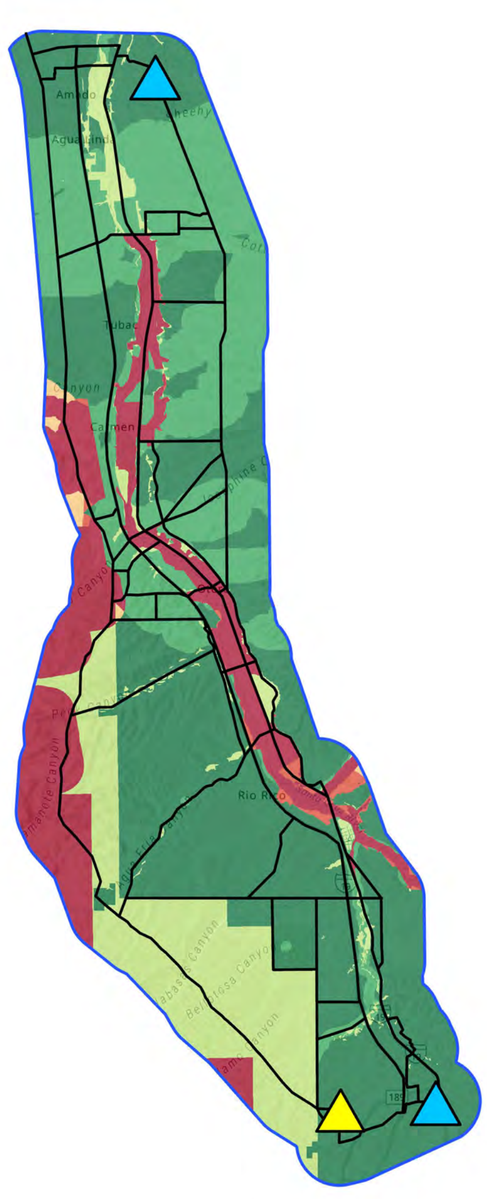
Field Verification

- Ground Truthing

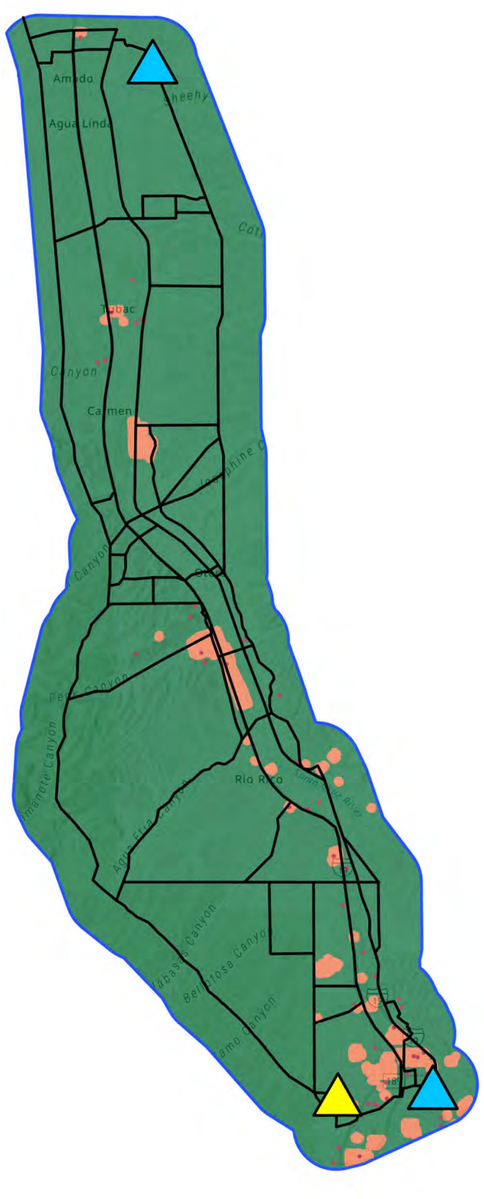
Refined Segments

- Eliminate Less Suitable Segments
- Carried Forward for Further Evaluation

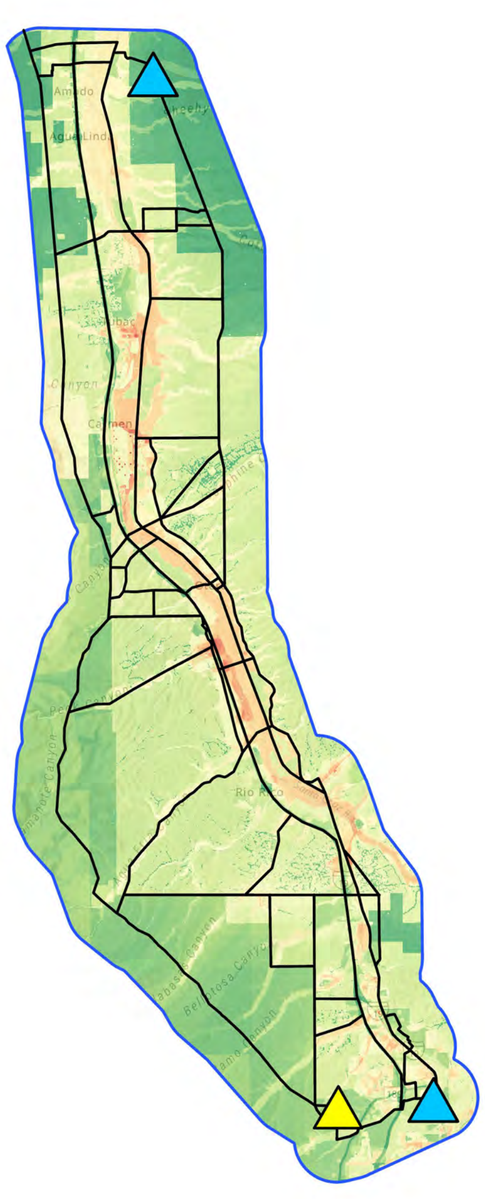
Suitability Criteria



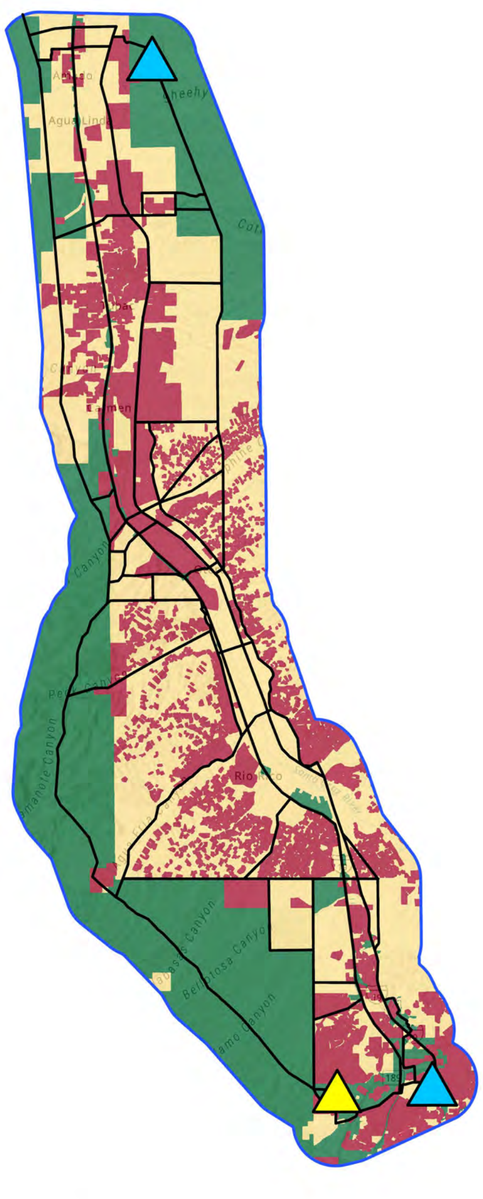
Criteria 1. Biological Resources



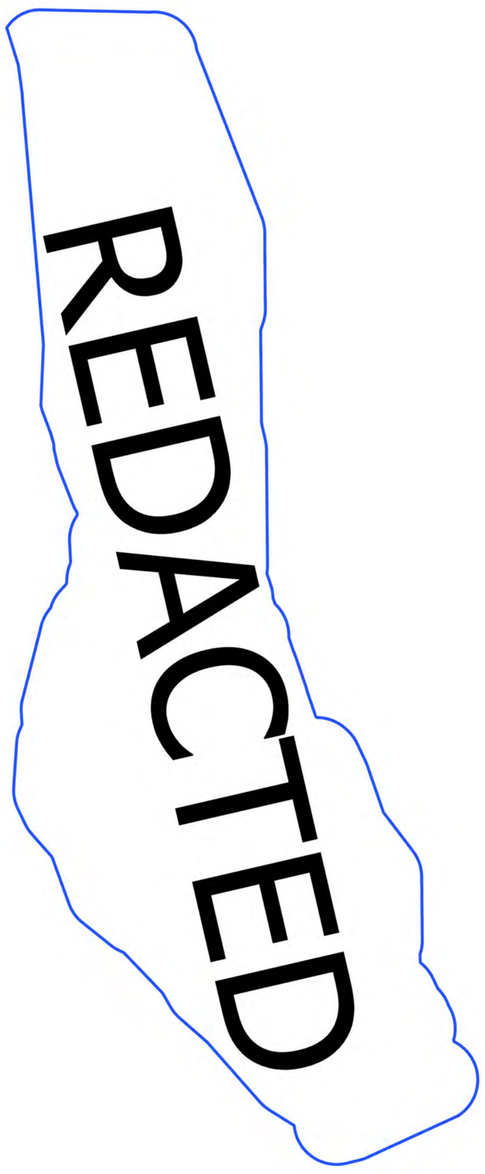
Criteria 2. Noise and Communication



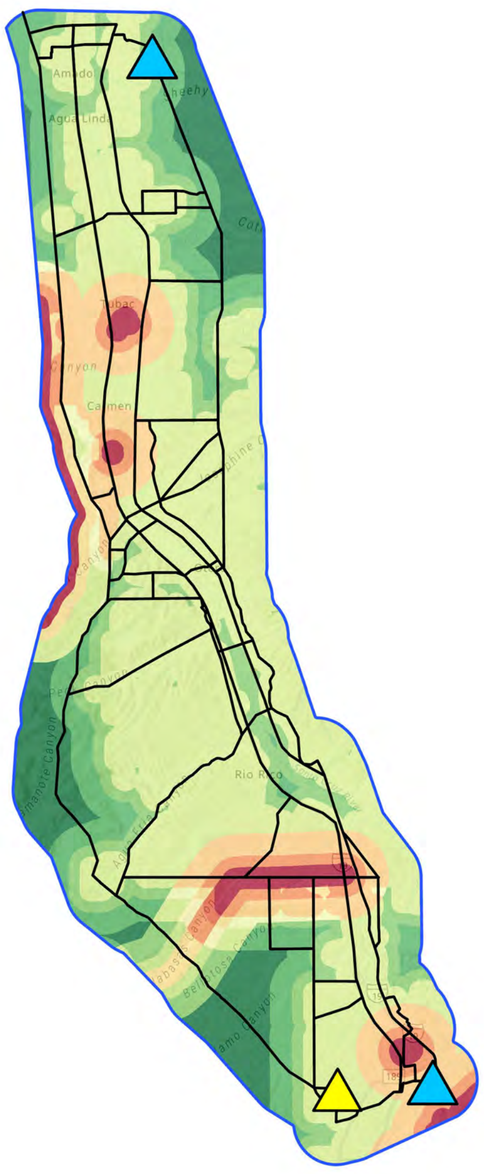
Criteria 3. Total Environment



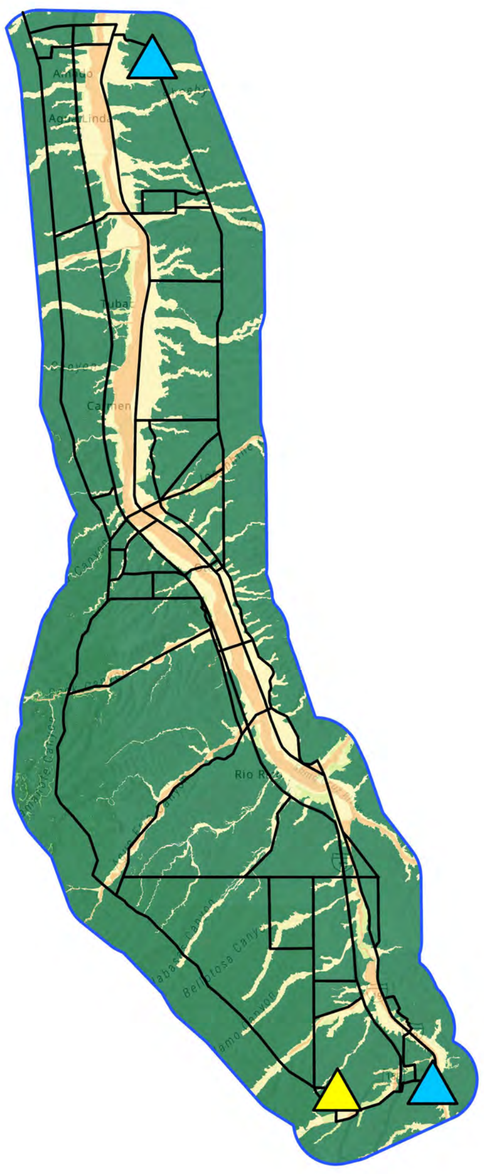
Criteria 4. Existing and Future Residential Properties



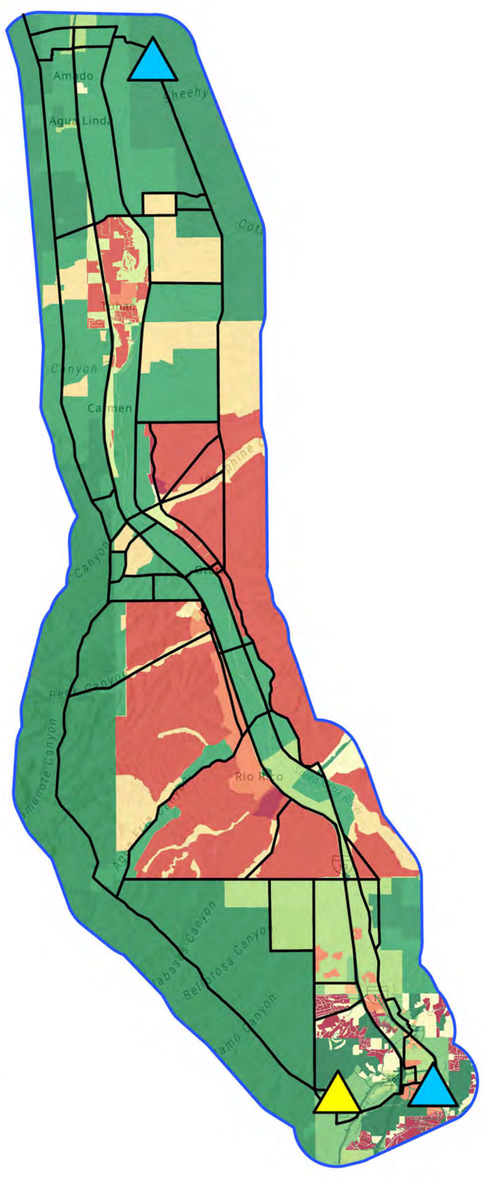
Criteria 5. Historic Properties and Districts



Criteria 6. Scenic & Visual Resources



Criteria 7. Construction and Maintenance



Criteria 8. Existing Plans

Legend

- Planned Substation
- Existing Substation
- Draft Segments
- Study Area

Most Suitable — Least Suitable

N W E S

0 5 10 Miles

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Composite Suitability Methodology

Criteria 1: Biological Resources
Criteria 2: Noise & Communications
Criteria 3: Total Environment
Criteria 4: Existing & Future Residential Properties Adjacent to Transmission Lines
Criteria 5: Historic Properties & Districts
Criteria 6: Scenic & Visual Resources
Criteria 7: Construction & Maintenance
Criteria 8: Existing Plans

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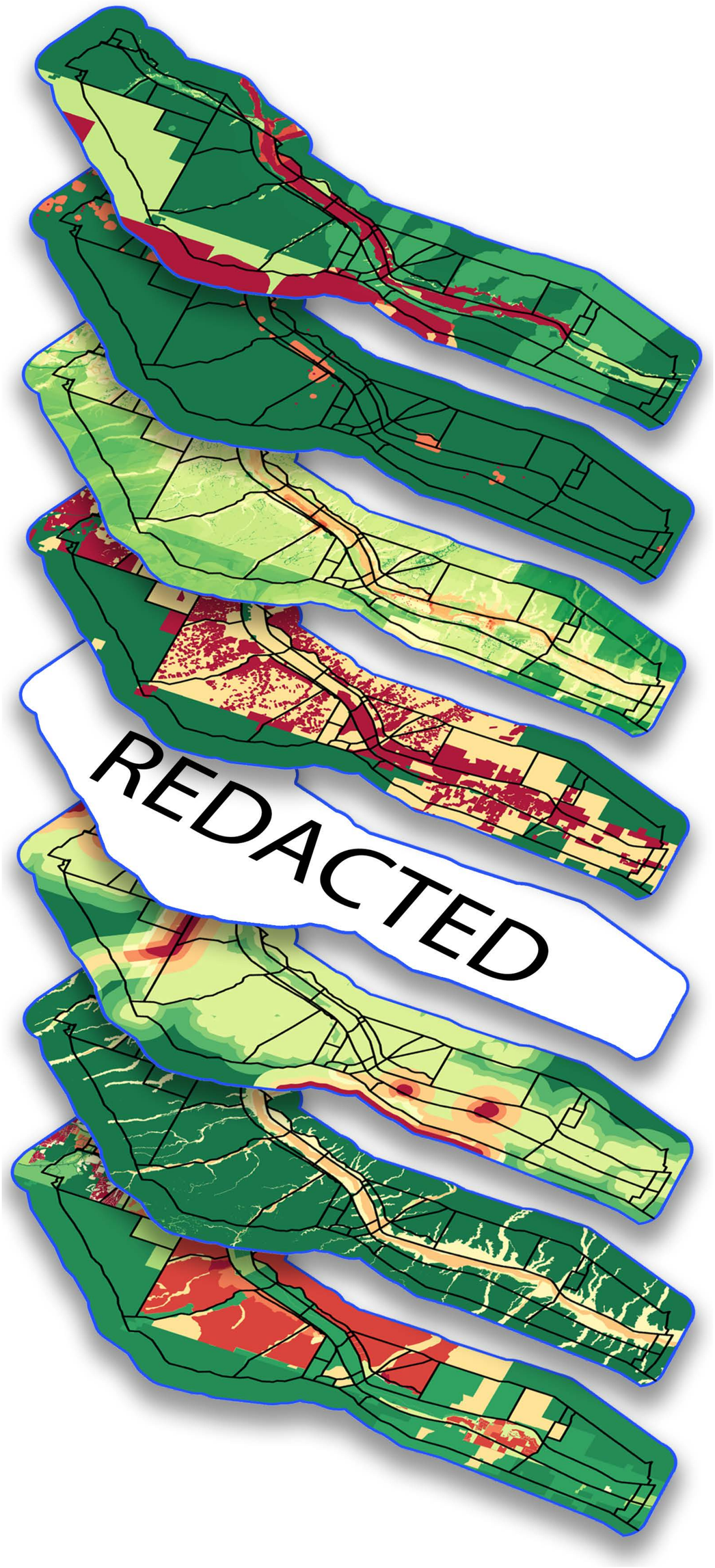
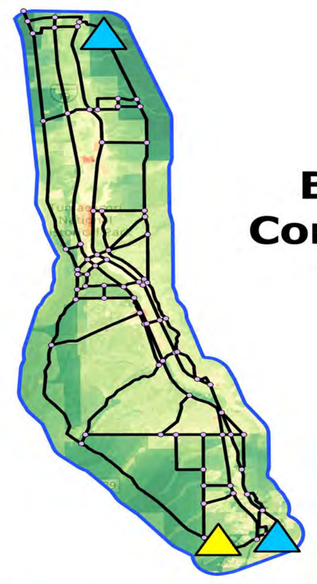
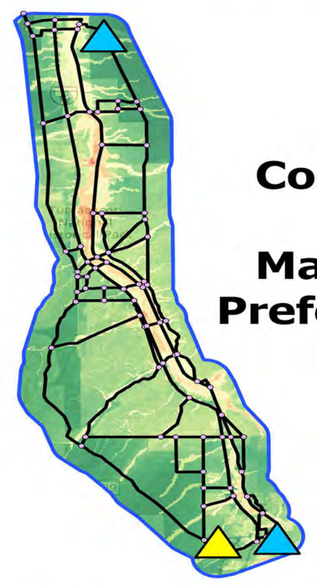


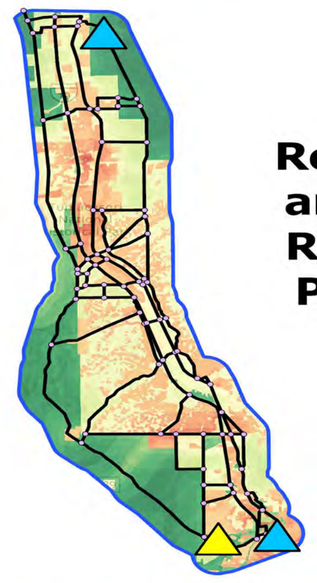


Balanced Compatibility Model

Environmentally Preferred Model



Construction and Maintenance Preferred Model



Residential and Visual Resources Preferred Model

Public, Stakeholder, and Agency Preferred Model

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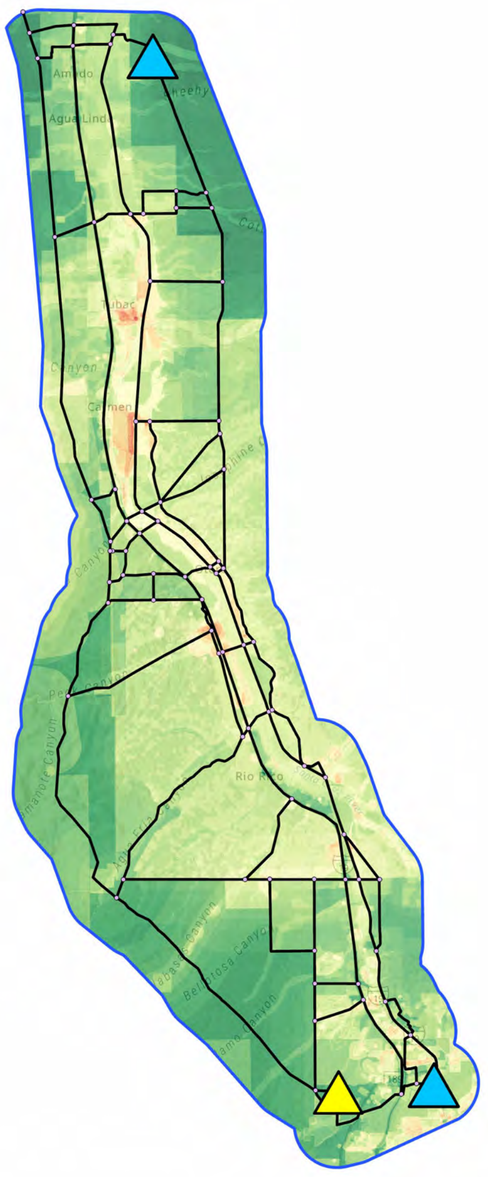
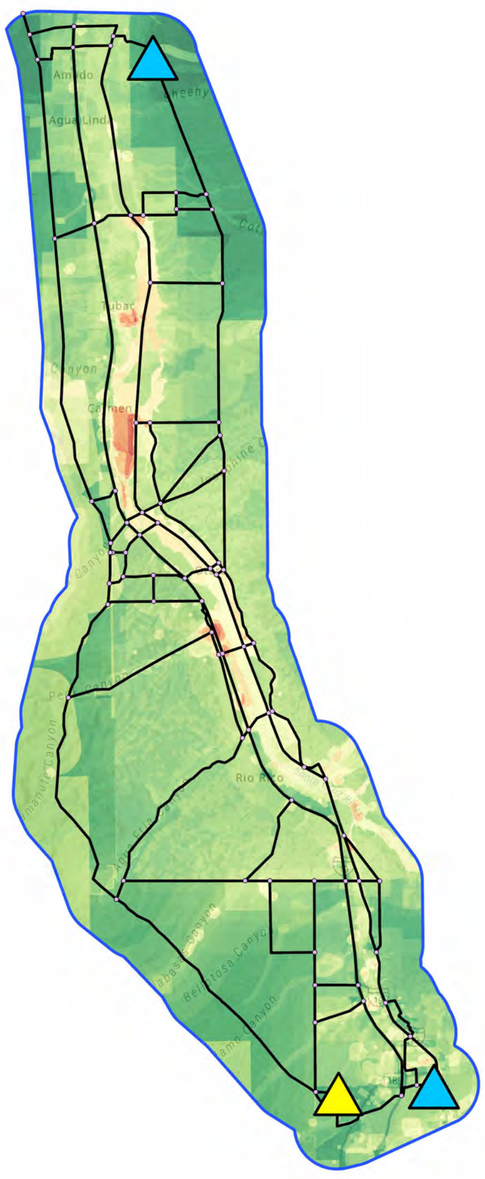
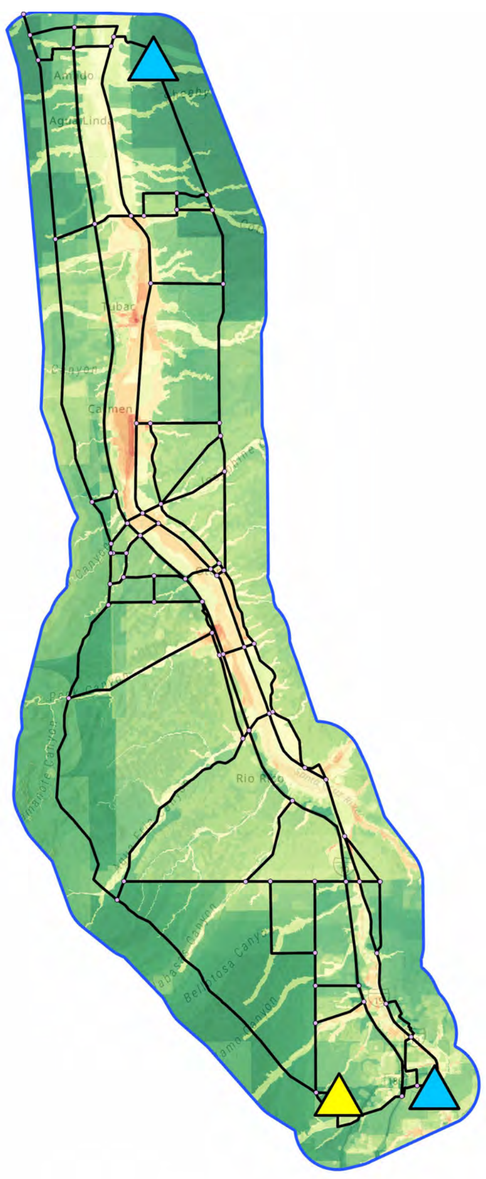
Composite Suitability Models



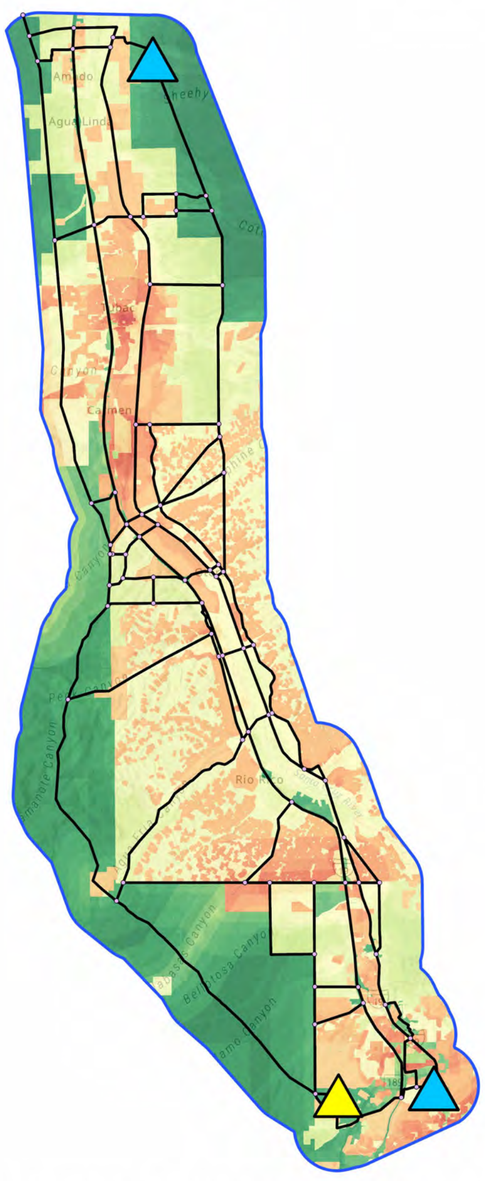
Balanced Compatibility Model



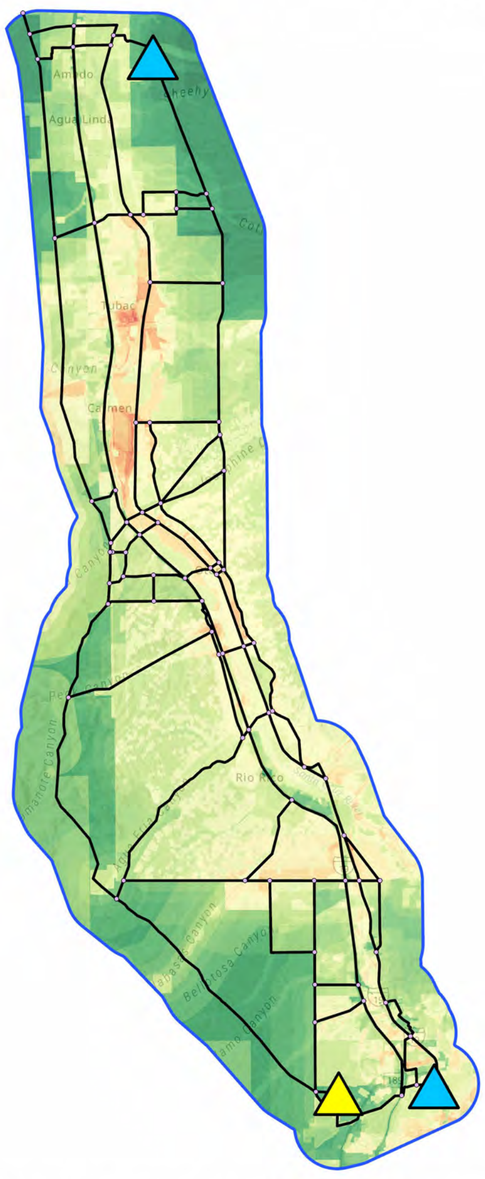
Environmentally Preferred Model



Construction and Maintenance Preferred Model



Residential and Visual Resources Preferred Model



Public, Stakeholder, and Agency Preferred Model

Legend

- Planned Substation
- Existing Substation
- Draft Segments
- Study Area

Most Suitable — Least Suitable

N W E S

0 5 10 Miles

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Siting Considerations

The Arizona Corporation Commission will consider several factors before approving a Certificate of Environmental Compatibility. These factors, used by UniSource to analyze potential line routes, include:

- Wildlife & plant life
- Scenic areas, historic sites & archaeological sites and structures
- Environment
- Noise emission levels & interference with communication signals
- Potential public recreational uses
- Existing development plans
- Engineering feasibility and challenges
- Project costs & potential impacts on customer rates
- Public input

Interested in shaping the evaluation of transmission line routes? Scan the QR code or complete a comment form to share your perspective on the values that matter most to you in this assessment.

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We Want To Hear From You

How to Provide Official Public Comment:

Fill out an online comment form at:
uesaz.com/santa-cruz-reliability-project-south

Email comment to:
scrsouth@uesaz.com

Call:
(520) 917-6637 and leave a voicemail message

Mail a letter with commentr to:
ATTN: Santa Cruz Reliability - South
P.O. Box 711
Mail Stop CB200
Tucson, AZ 85702

An interactive map is posted on our website.

More Information
uesaz.com/santa-cruz-reliability-project-south/

Cómo proporcionar un comentario público oficial:

Llenando un formulario de comentarior en línea:
uesaz.com/santa-cruz-reliability-project-south

Enviando comentarior por correo electrónico a:
scrsouth@uesaz.com

Llamando al:
(520) 917-6637 y dejando un mensaje de voz

Enviando una carta con comentarior a:
A/A: Confiabilidad de Santa Cruz Sur
P.O. Box 711
Mail Stop CB200
Tucson, AZ 85702

Para ver un mapa interactivo, visite la página web del proyecto.

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