Introduction to Clean Line Energy
Connecting Renewable Energy to Demand

- Clean Line is an independent developer solely focused on building transmission lines.
- Clean Line is backed by investors with a long-term outlook and patient capital.
- Clean Line’s management team brings a track record of success in energy project development.

Strong wind and solar resources

Integrating large clean energy sources with demand centers

Large demand centers
Centennial West Clean Line will transmit 3500 MW of New Mexico renewable power to California

Project Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmission Capacity</td>
<td>3,500 MW</td>
</tr>
<tr>
<td>Technical Configuration</td>
<td>±600 kV DC bipole transmission line</td>
</tr>
<tr>
<td>Approximate Length</td>
<td>900 miles</td>
</tr>
<tr>
<td>Target Utilization Rate</td>
<td>50+%</td>
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<tr>
<td>Approximate Capital Cost</td>
<td>$2.5 billion</td>
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1. **What are the current regulatory processes governing transmission siting?**
SWAT Projects Under Development
Federal Government Rapid Response Team

- Created August 31, 2001 Executive Order

- Within 120 have at least 15 projects named and posted on a website with all relevant information to expedite the projects.

- The CEQ will then work to deploy various technology tools to help the effectiveness and efficiency of the agencies to coordinate the environmental reviews.
Additional Thoughts on Permitting

- State and Federal balance
  - CEQA and NEPA requirements
  - National corridors
  - Upfront consulting
  - Long term perspectives - 50 years

- Costs/Priorities
  - Diversity
  - Adaptation

- Process Improvements
  - Long-term capital planning tools
  - Scenario-driven planning
  - Inclusion of water & environmental factors

- CAISO and CPUC/CEC/CARB
  - Quantification of impacts on specific ratepayers
  - Cost allocation
  - Permitting/siting coordination

Key is to create cooperative, comprehensive processes
The Scenario Planning Steering Group (SPSG) formed the Environmental Data Task Force (EDTF) to develop recommendations on the type, quality, and sources of data on land, wildlife, cultural, historical, archaeological, water resources,

- Transform data into a form usable in WECC’s study cases and planning models.
- Stakeholders recommending improvements to an environmental and cultural resource risk classification system to guide planning and evaluation of potential transmission alternatives.
- Recommending amendments to TEPPC to incorporate environmental and cultural considerations into WECC’s transmission planning process.
- Working with technical contractors to explore existing data on the public economic values of environmental and cultural resources and services for use in the long-term planning tool.

2. How can environmental impacts be appropriately taken into account without causing delays in planning and construction?
Environmental components incorporated into Planning

1. Environmental and Cultural Data Sets
   - List of Preferred Environmental/Cultural Data

2. Land Classification System
   - Risk Categories

3. Guidance and Process
   - Comparison of Future Transmission Alternatives

4. Economic Valuation
   - Total Economic Value

5. Future 10-year Transmission Plans
6. 20-year Transmission Plans
7. LTPT placeholder for initial new cost
8. More reliable data for LTPT runs
9. 10 & 20-year transmission plans

Constant Stakeholder Outreach
3. What are the most effective ways to limit the environmental impacts of transmission expansions: building in existing corridors, using underground transmission lines, building “local-to-load” rather than “distant-to-load”?

- EDTF created scorecard and provided analysis to help guide the selection of the most appropriate valuation methodology for use in the long-term planning tools. Three levels of criteria.

- Participate in case studies and data sharing

- Up front coordination and analysis (build outreach forums)

- Cross education of critical factors for development (balancing various mission’s)
4. What are the major factors that currently determine the length of time from project conception to project operation?

- Increasing avenues for cooperation with all industry parties and agencies
  - Energy Policy Act of 2005 (energy corridors...)
  - American Reinvestment and Recovery Act – coordinated process (DRECP...)
  - FERC Order No. 1000 (open markets...)

- Independently developed projects have been able to secure significant project financing
  - Path 15 (California and Oregon)
  - Neptune Project (New York and New Jersey)
  - CREZ projects (Texas)
Summary - Hopeful attributes to permit, site and build transmission in a responsible and timely manner

- CAISO reworking its queue process - give input
- EDTF new kid on block - helpful models
- Rapid Response Team implementation
- NARUC/FERC partnerships needed
- Avoid duplication of resources - collaborate on mitigation measures
- Do outreach on all levels
- Build transparency and trust

A new grid requires new partnerships between developers, utilities and government and non-governmental organizations
CENTENNIAL WEST
CLEAN LINE

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