

# UM 2005: Distribution System Planning

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RENEWABLE  
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# ROADMAP

1. End Goals
  - a. Customer & System Benefits
  - b. Reduce Carbon Emissions
2. Barriers
  - a. Legacy Process
  - b. Embedded Incentives
3. Solutions
  - a. Inclusive & Innovative Process
  - b. Performance-Based Regulation



END GOALS:

CUSTOMER &  
SYSTEM  
BENEFITS

” Customer Benefits:

- Bill savings
- Choice
- Equity
- Resiliency

” System Benefits:

- Integrate renewables
- Facilitate system change
- Avoid system needs
- Resiliency

An aerial photograph of a dense evergreen forest, likely a coniferous forest, with a mix of green and brownish-green tones. The trees are packed closely together, creating a textured, repetitive pattern. The lighting is natural, suggesting a bright day.

## END GOALS:

# REDUCE CARBON EMISSIONS

- “Renewable Northwest will evaluate utilities’ plans against the policy objectives of **integrating variable generation from renewable sources ...** and achieving energy-sector decarbonization.”
- “... changes at the distribution-system level provide unique opportunities to **support decarbonization of vehicles and buildings** as well by facilitating beneficial electrification.”

# BARRIERS:

## LEGACY PROCESS

### Context



- ▶ Distribution planning has traditionally been focused on maintaining:
  - Safety
  - Reliability
  - At reasonable cost
- ▶ At the core distribution planning supports investment decisions
- ▶ As the grid and resource mix are changing, distribution systems are changing and distribution planning is changing
  - In many places, a lot of new gen is connected to the distribution system
  - Distribution system has least amount of utility visibility/control
- ▶ In some states, more detailed distribution plans are being required :
  - Hosting capacity
  - Locational benefits and non-wires alternatives
- ▶ New skill sets may be required as well as coordination across entities within the utility

BARRIERS:

LEGACY  
PROCESS

- “ Internal-facing
- “ Opaque
- “ Difficult to meaningfully incorporate DERs
- “ Equity concerns may be overlooked

## BARRIERS:

## EMBEDDED INCENTIVES

- “The long-standing economic incentives for utilities to **invest significant capital** in order to earn a return for investors and to realize earnings through **sustained load growth** have produced the highly reliable, low cost, centralized utility system that we enjoy today.”
- “Exploring discrete areas of utility service where the PUC can allow utilities to **earn a return on outcomes** rather than on capital expenditures will ... provide **incentives for innovation** while leading to the best results for utility customers.”









