

# Undergrounding Transmission Lines - A Comparison

## OVERHEAD

### Costs

- \$4 million to \$6 million per mile to construct
- Costs covered by all PSE ratepayers

### Aesthetics

- Visible poles and wires
- Some vegetation can remain near lines

### Outage impacts

- More susceptible to storm-related outages
- Repairs typically made within hours

### Construction impacts

- Includes setting poles and stringing wire
- Requires removing dirt and trees for pole foundations



Examples of 230 kV poles



230 kV poles under construction

## UNDERGROUND

### Costs

- \$17 million to \$26 million per mile to construct
- Costs greater than the overhead option must be paid locally

### Aesthetics

- No transmission poles, no visible wires
- Steel termination poles are visible
- No deep-rooted vegetation permitted along route
- 20- by 30- by 8-foot access vaults required every quarter to half mile



Steel termination pole

### Outage impacts

- Outages less frequent
- Repairs may take months

### Construction impacts

- Potential relocation of major underground utilities
- Substantial dirt and tree removal required for trenches and vaults

