

Undergrounding Transmission Lines - A Comparison

OVERHEAD

Costs

- \$3 million to \$4 million per mile to construct*
- Costs covered by all PSE ratepayers

Aesthetics

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

Outage impacts

- Outages infrequent
- Repairs typically made within hours to days

Construction impacts

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

*Note: Costs per mile are noted for construction only and do not include other costs such as easement acquisitions, mitigation, and future operation and maintenance.



Examples of 230 kV poles



230 kV poles under construction

UNDERGROUND

Costs

- \$20 million to \$28 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
- Approximately 10- by 30- by 10-foot access vaults required every quarter to half mile



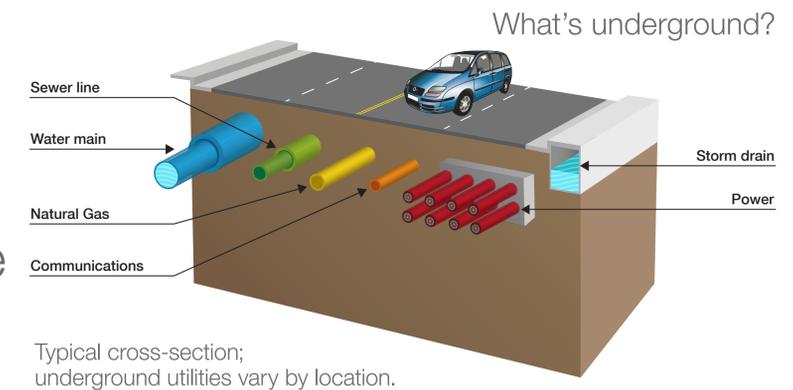
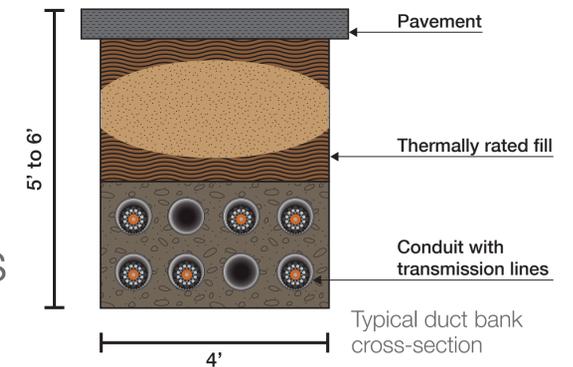
Steel termination pole

Outage impacts

- Outages very infrequent
- Repairs may take days to months

Construction impacts

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



Typical cross-section; underground utilities vary by location.