

Cover Conductor Examples

Southern California Edison

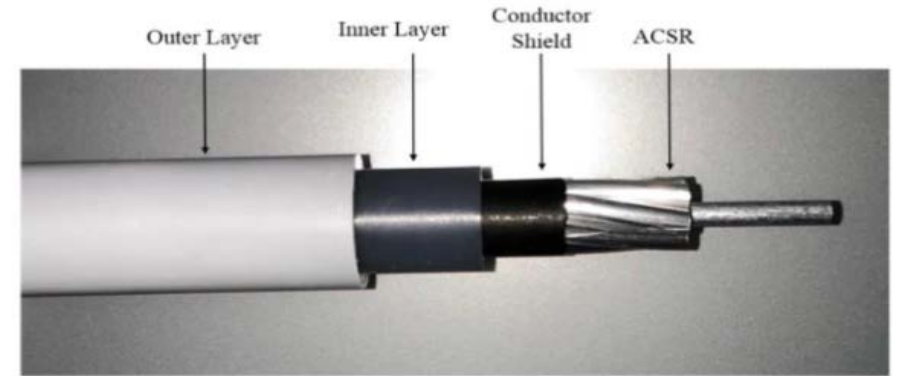
SH-1a: Covered Conductor

Description

- Conductor with a covering made out of insulating material.
- Purpose is to prevent faults due to contact from objects

Drivers Mitigated

- Contact from Object (Vegetation, Animal, Balloon, Vehicle)
- Equipment/Facility Failure (Conductor, Connector, Insulator, Crossarm)
- Wire-to-Wire Contact



SCE Design

- Three Layer Covered Conductor

- Conductor

- Aluminum Conductor Steel-Reinforced (ACSR)
 - Hard Drawn Copper (HDCU)

- Conductor Shield

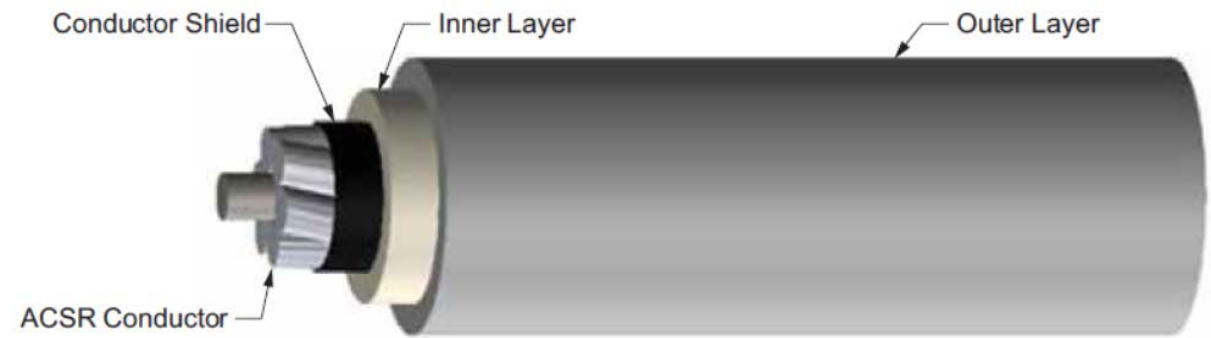
- Semiconducting Thermoset Polymer

- Inner Layer

- Crosslinked Low Density Polyethylene

- Outer Layer

- Crosslinked High Density Polyethylene

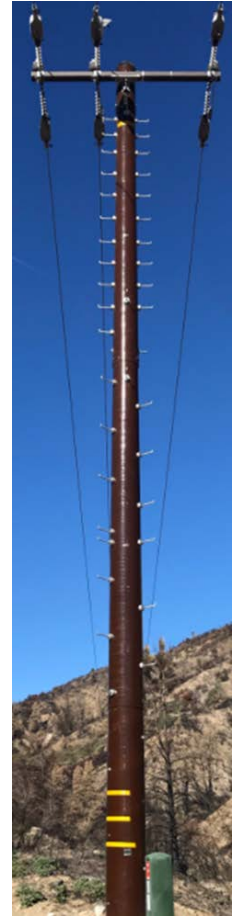
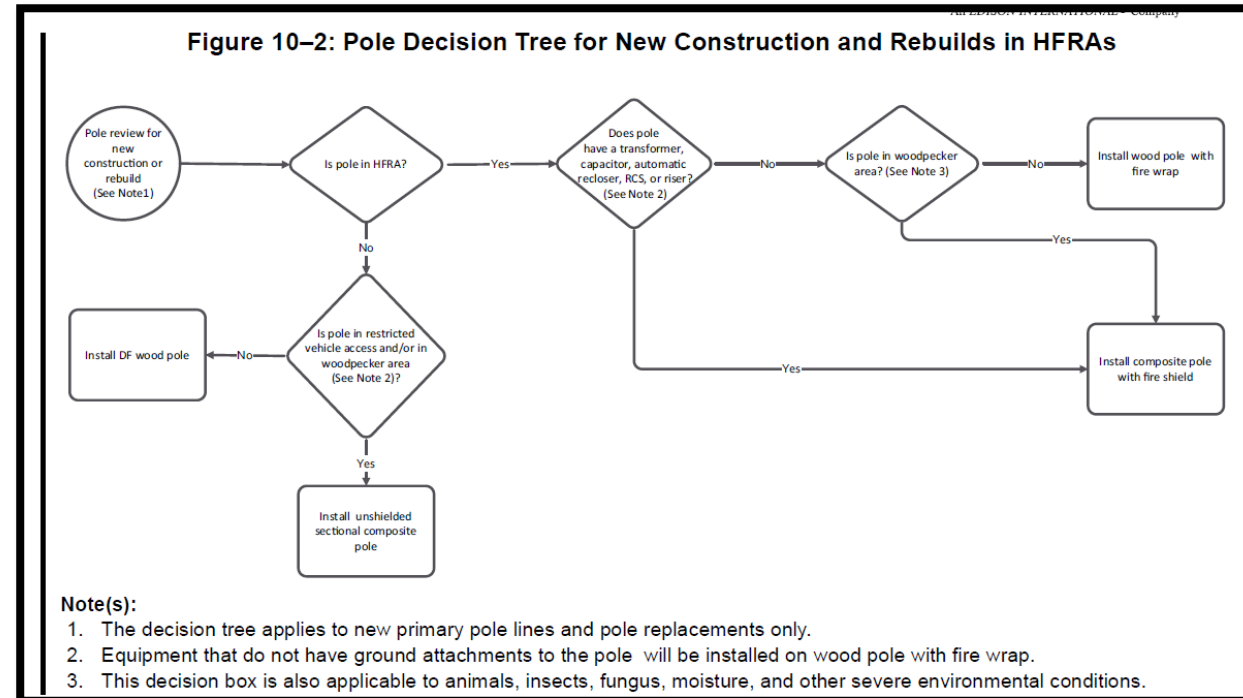


FR Poles (Wood w/ Fire Shield or Composite)



Wood Pole w/ Fire Shield

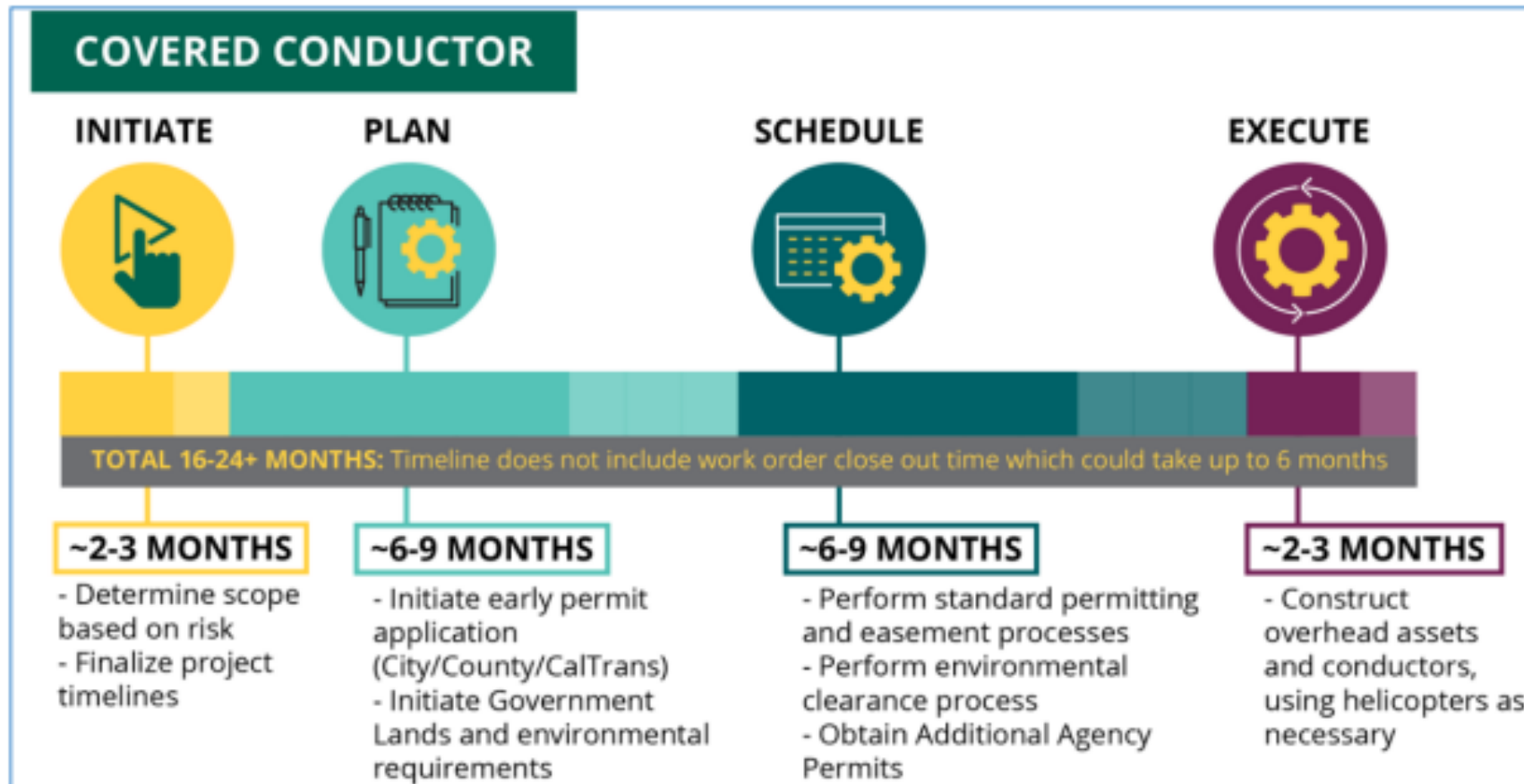
- On average, there are about 29 poles per miles
- For WCCP, SCE replaces nearly 12 poles per mile
 - Not meeting pole loading requirement
 - Not meeting conductor height clearance requirement
- Poles needing to be replaced will be changed to either wood w/ fire shield or composite



Composite Pole

Covered Conductor Work Timeline

Timeline of Covered Conductor Work



SH-10: Tree Attachment Remediation

Description

- Eliminate instances where existing electrical equipment, including overhead conductor, are attached to trees
- Tree attachments are an older construction method used in SCE's forested areas
- Drought conditions and bark beetle problems make trees more at risk for failure

Drivers Mitigated

- Vegetation Contact
- Equipment/Facility Failure

