

Chelan County PUD Substation Site Selection Criteria

Statutory Requirements

- National Electric Safety Code compliant
- Conditional Use Permit
- Property purchase price and gifting laws
- Historical and cultural significance
- Shoreline
- Flood zones
- Wetlands
- Critical areas (i.e. wildlife corridors)

Note about Statutory Requirements: *PUD has a culture of compliance and will not deviate from its legal obligations.*

PUD Standards

- Up to 28 MVA substation transformer
- 115kV transmission voltage
- 12.47kV distribution voltage
- Mobile substation capable
- General 1 acre parcel
- Overhead transmission
- American National Standards Institute
- Institute of Electrical and Electronics Engineers
- Awareness of most current technology (National standard)

Note about PUD Standards: *Any deviation from PUD standards would require an operational and economic impact study and is outside the scope.*

Site Variables

System Considerations

- Proximity to existing transmission lines
- Proximity to service area
- Positioned to alleviate electrical load on existing substations serving the area

Aesthetics and Neighborhood Values

- General aesthetics
- Underground and overhead distribution lines
- General health concerns
- General property value concerns
- Proximity to existing density
- View
- Outreach to impacted customers/property owners

Land Considerations

- Land availability
- Land purchase price
- Land parcel size
- Site access – mobile substation
- Land slopes and contours

Environmental Considerations

- Groundwater
- Easements and permitting
- Security of location
- Threats from natural disasters
- Disturbance of land
- Wildlife areas

Note about Site Variables: *Generally these variables will be a balance between costs, aesthetics, reliability and operations. Helps to answer the question, "Why does the group value one site location over another?"*

Design Variables

- Noise mitigation
- Landscaping
- Lighting
- Fencing
- Profile including heights and set backs
- Architectural improvements
- Distribution overhead and underground construction
- Orientation
- Timing and impact of construction

Note about Design Variables: *These are items that can be considered when mitigating potential impacts of specific sites. Site Variables will be applied to the identified site(s).*