

**From:** Mark Blosser [REDACTED]  
**Sent:** Friday, January 31, 2025 6:42 PM  
**To:** FS-objections-southwestern-regional-office  
**Subject:** Objection to Segment A-B of 69 kv APS line project

The segment located in VOC from the substation south to the "edge of town" (at least) should be undergrounded. There are simply too many high-value homes located adjacent to the line, for that line to remain above-ground. Our residential power lines are all underground, so why should we accept the risk of a high voltage regional line?

Here is an AI analysis of the situation. Please reconsider undergrounding at least the A-B segment due to the high voltage/extreme fire risk, should winds bring down the lines.

The wildfire risk from a **69 kV transmission line** compared to a **normal residential power line** in a residential area with mixed **piñon, juniper, willow, and scrub/ornamental plants** can be influenced by several factors. Here's a detailed comparison:

### 1. Voltage Level and Fire Risk

- **69 kV Transmission Line:**
  - Operates at a higher voltage, which can lead to more significant electrical arcs if the line fails or comes into contact with vegetation.
  - While transmission lines are generally designed to be more resilient, their potential to cause ignition during failure (e.g., due to wind or fallen branches) can be substantial.
  - Fires sparked by transmission lines can spread rapidly, especially in areas with dry vegetation like **juniper** and **piñon**.
- **Normal Residential Power Line:**
  - Operates at lower voltages (usually between **120V to 240V**).
  - More likely to be located closer to residential structures and vegetation, which increases the risk of sparks igniting nearby plants.
  - Residential lines are often involved in more ignition incidents, particularly in areas with dense foliage.

### 2. Vegetation Type and Fire Behavior

- **Mixed Vegetation:**
  - The presence of **piñon** and **juniper** trees, which are highly flammable, increases the wildfire risk in the area.
  - **Willow** and **ornamental plants** may have varying moisture content, but in dry conditions, they can also contribute to fire spread.
  - This mixed vegetation creates a complex fire environment, where both transmission and residential lines can pose risks if not properly managed.

### 3. Environmental Conditions

- **Drought Conditions:** Prolonged dry spells can increase the flammability of vegetation, heightening the wildfire risk associated with both types of power lines.
- **Wind Events:** High winds can exacerbate the risk by causing branches to come into contact with power lines or by spreading fires quickly.

### 4. Preventive Measures

- **Utilities** often employ several strategies to mitigate wildfire risks:
  - **Vegetation Management:** Regular trimming and clearing around both transmission and residential lines.
  - **Inspections:** Routine checks for wear and tear on power lines, especially in high-risk areas.

- **Technology:** Some utilities use advanced technology for real-time monitoring and quick response to potential electrical faults.

## Conclusion

In summary, while both **69 kV transmission lines** and **normal residential power lines** can pose wildfire risks in a residential area with mixed vegetation, the **69 kV line** has a higher potential for severe consequences if it fails. However, **residential power lines** are more frequently involved in ignition incidents due to their proximity to flammable vegetation.

Given the specific vegetation and environmental conditions, active management and preventive measures are crucial for minimizing wildfire risks in your area. If you have more questions or need further information, feel free to ask! ☀️



Would the 69 kv line risk be significantly reduced by undergrounding? Is it cost effective?

Great question! Undergrounding **69 kV power lines** can indeed significantly reduce wildfire risks, but it comes with its own set of considerations regarding cost-effectiveness. Here's a breakdown of the key points:

### 1. Risk Reduction

- **Ignition Risk:** Moving power lines underground can reduce ignition risk by up to **98%**. This is particularly important in areas with flammable vegetation, as underground lines are less likely to come into contact with trees or brush.
- **Protection from Elements:** Underground lines are protected from weather-related incidents, such as high winds or falling branches, which can cause overhead lines to fail and spark fires.

### 2. Cost Considerations

- **Initial Investment:** The cost of undergrounding power lines is significantly higher than maintaining overhead lines. Estimates suggest that undergrounding can cost **5 to 10 times** more per mile than overhead installations.
- **Long-Term Savings:** While the upfront costs are steep, underground lines can lead to long-term savings by reducing the frequency of outages and maintenance costs associated with overhead lines. Additionally, they can lower insurance premiums in high-risk areas.
- **Cost-Effectiveness:** Some studies indicate that undergrounding may be cost-effective in specific scenarios, especially when considering the broader suite of wildfire risk mitigation strategies. However, this varies based on local conditions and the extent of the undergrounding project.

### 3. Conclusion

In summary, undergrounding **69 kV lines** can significantly reduce wildfire risks, but the decision to do so should weigh the high initial costs against potential long-term benefits. It's essential to consider local conditions, the specific risks involved, and available funding or incentives for such projects.

--  
**Mark and Virginia Blosser**