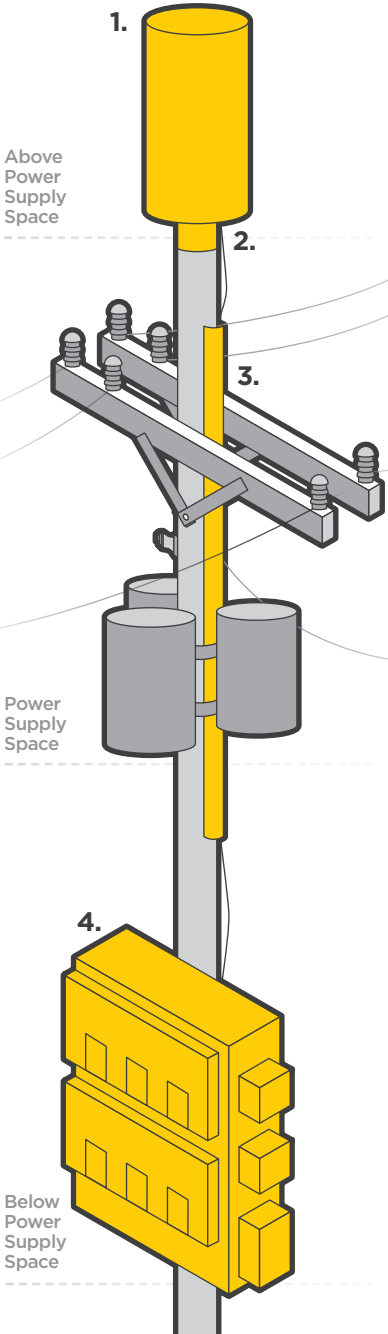
5G and Power Poles

5G, which will radically increase wireless mobile speeds and capacity, relies on a dense network of small, connected antennae. On some parts of the system however, there will be a need for a block-matrix array, and hundreds of antennae could be housed in a pole-top assembly. These devices and the equipment they need to operate add obstructions and weight, which can create structural problems for utility poles and operational issues for crews.



Above Power Supply Space

1. **Pole-Top Array:** Antennae protected by a cylindrical sheath. Total assembly up to 5 feet tall, 30-inch diameter, and weighing up to 300 pounds.
2. **Bracket:** Attaches antenna to pole; up to 33 inches in length.

CO-OP CONCERNS: The size and weight of new equipment could reduce structural load capacity, especially in bad weather. Pole-top placement means communications workers will be operating above energized lines.

Within Power Supply Space

3. **Antenna Cables:** Cables connecting the antenna array to control equipment below run in sheathing through the power supply zone.

CO-OP CONCERNS: Communications workers would require specialized training to work near energized lines.

Below Power Supply Space

4. **Stacked Cabinets:** Equipment cabinets house gear including power supply, meter, and switches and can weigh up to 300 pounds.

CO-OP CONCERNS: Additional pole equipment impedes workspace for maintenance and makes pole replacement more complex. Attachments could also reduce load capacity of the pole.

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