Distance between primary electrical distribution box and house

Overview

In this article, we will look at how far a power pole must be from a house and the laws regulating this distance.

Key Takeaways

The primary electrical distribution box should be installed at a safe, accessible location, typically mounted on or near the exterior of the house, with the service conductors running the shortest practical distance from the utility connection.Typical Installation Distance

The distance between the primary electrical distribution box and the house depends on whether the service is overhead or underground:

• Overhead service: The service drop from the utility pole usually requires a minimum clearance of 10 feet above ground for residential areas and must be positioned so that the wires do not touch the house or any structures. The panel is typically mounted on the exterior wall of the house, often near the meter, minimizing the distance for wiring and reducing voltage drop.

• Underground service: The service lateral runs from the utility transformer to the house, buried in conduit. The distance is generally determined by the shortest practical route from the utility connection to the panel, often 10–50 feet, depending on property layout. Local codes may require a minimum burial depth of 24 inches for conduit or direct-buried cable.
Clearance and Accessibility

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Regardless of distance, the National Electrical Code (NEC) mandates proper clearance around the panel for safety and maintenance:

• Front clearance: At least 36 inches (3 feet) of unobstructed space in front of the panel .

• Width clearance: Minimum 30 inches wide working space .

• Height: The top of the panel should not exceed 6 feet 7 inches from the floor or ground .

• Door operation: The panel door must open 90 degrees without obstruction .
Safety Considerations
• Keep the panel away from moisture, flammable materials, and obstructions .

• Ensure the service conductors are properly supported and protected along the route from the utility to the panel.

• For underground service, use conduit or approved cable to prevent damage and comply with local codes.
Summary

While there is no fixed NEC-specified distance between the primary distribution box and the house, the goal is to minimize the length of service conductors while maintaining safety, accessibility, and code compliance. Typically, the panel is mounted on the exterior wall near the meter, with overhead or underground service routed along the shortest practical path, ensuring proper clearance and protection for both the panel and the wiring .

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A primary substation located near residential buildings, demonstrating how modern electrical infrastructure safely integrates into

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The above mentioned electrical wiring accessories and protective devices are used to control and distribute electric supply (safely to

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General Information A minimum of 24 inches of cover for secondary (0 − 750 V) electric service, or 30 inches minimum cover for

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Understand distribution boxes (DB boxes) in 5 minutes. Learn about types, components, functions, and uses. Find

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