500kV/220kV Mixed Pressure Quad-Loop Transmission Tower

This tower is designed for high-voltage power transmission, supporting both 500kV and 220kV circuits. Its mixed-pressure, quad-loop configuration optimizes space and infrastructure use.

Overview

High-Capacity Mixed Pressure Transmission Solution

This 500kV/220kV mixed pressure quad-loop transmission tower is a pioneering infrastructure solution designed for high-density power corridors. Successfully operational since 2004, the design optimizes tower structures and insulation coordination to support four circuits on a single tower. It represents a leading technical achievement in power engineering, specifically engineered to maximize land use and infrastructure efficiency in complex transmission networks.

Technical Specifications

Circuit Arrangement

4 Loops
Total Circuits

Voltage Configuration	500kV, 220kV
Tower Type	Mixed Pressure Quad-Loop (Four-Circuit) Same Tower

Design & Engineering

Design Optimizations

- Insulation coordination optimization
- Tower structure design optimization
- Foundation type selection and planning
- Mixed pressure circuit integration

Awards & Recognition

Technical Achievements

Science and Technology Award First Prize (2006) • China Electric Power Science and Technology Award Second Prize

Performance History

Operational Track Record	In continuous good operation since 2004
Technical Standing	Domestic leading level in technology and design