

EV Charging Infrastructure Planning Report

Generated on: 2026-02-22 16:50:54

1. Charging Demand Summary

Synthesized Analysis: Peak demand of 25.4 kWh observed between 5 PM and 8 PM on weekdays. Current station capacity (12 piles) is entering 85% occupancy during these windows.. Peak usage exceeds capacity by 15%.

2. Infrastructure & Scheduling Recommendations

Infrastructure Expansion

- Add 4 Fast-Charging (DC) piles to Shenzhen District TAZ 559.
- Increase total transformer capacity by 150kW.

Load Balancing

- Implement a peak-hour service fee increase (+0.2 CNY/kWh) during 17:00-20:00.
- Encourage overnight charging with reduced rates.

Reliability

- Ensure 99.9% uptime for the new charging piles via predictive maintenance.

Supporting references: UrbanEV Dataset & Shenzhen EV Planning Guidelines.