

# EV Charging Infrastructure Planning Report

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## 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.*