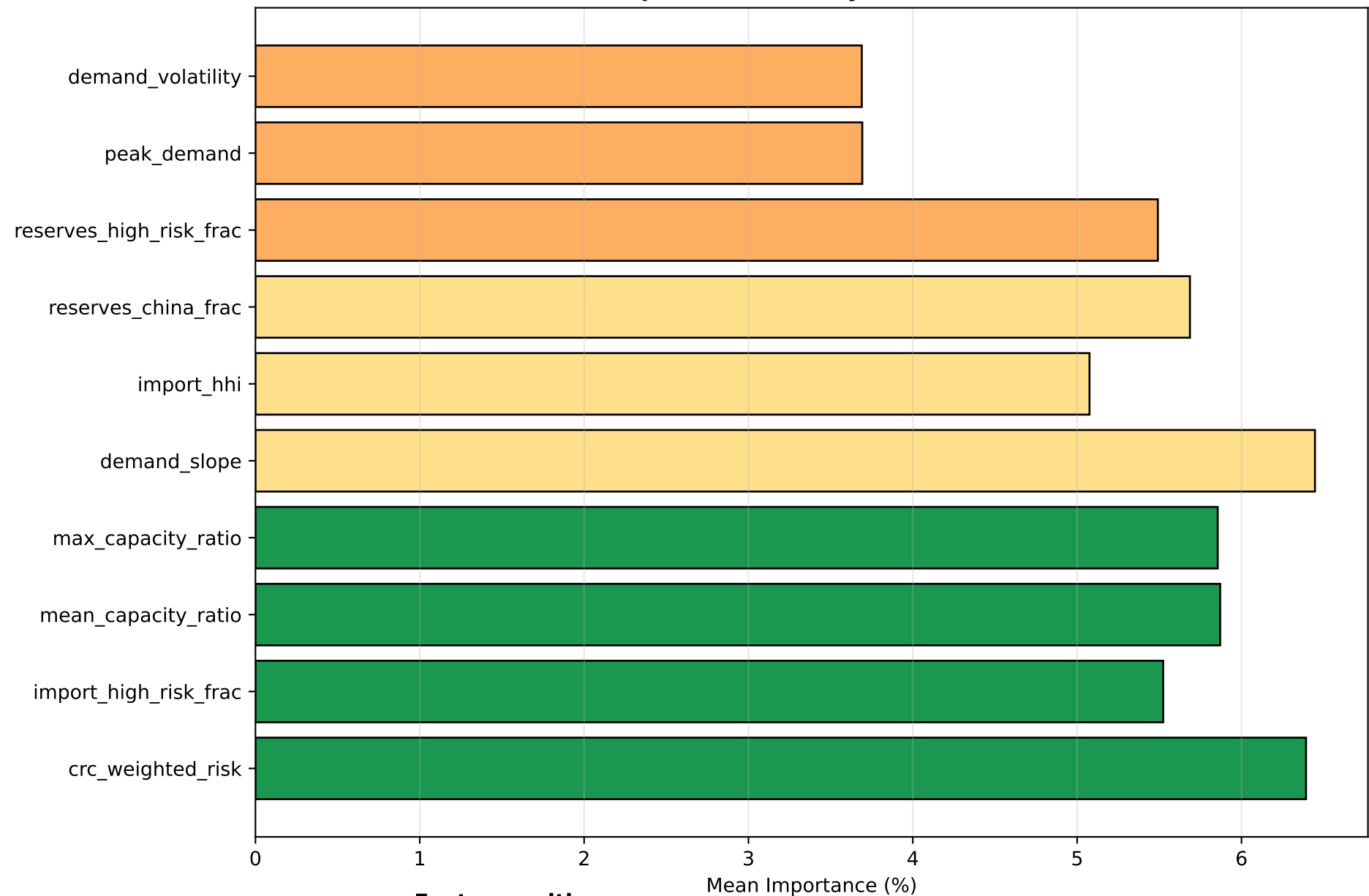
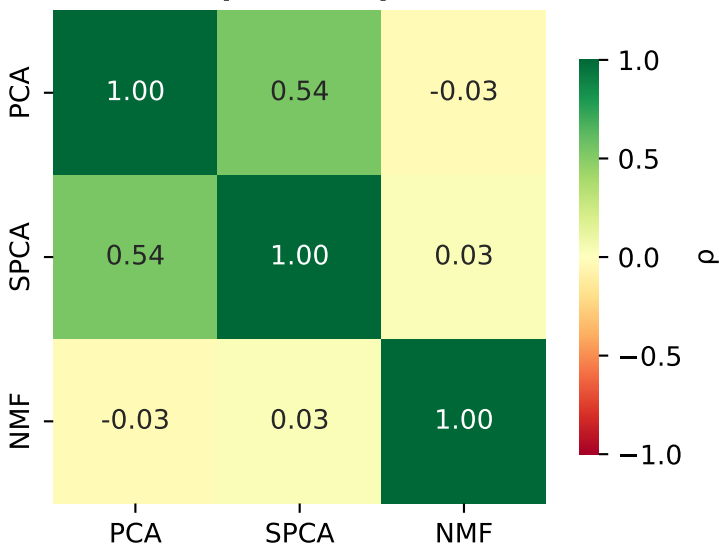


Dimensionality Reduction Summary — Materials

Top 10 Features by Consensus



Method Agreement (Spearman ρ)



Summary Statistics

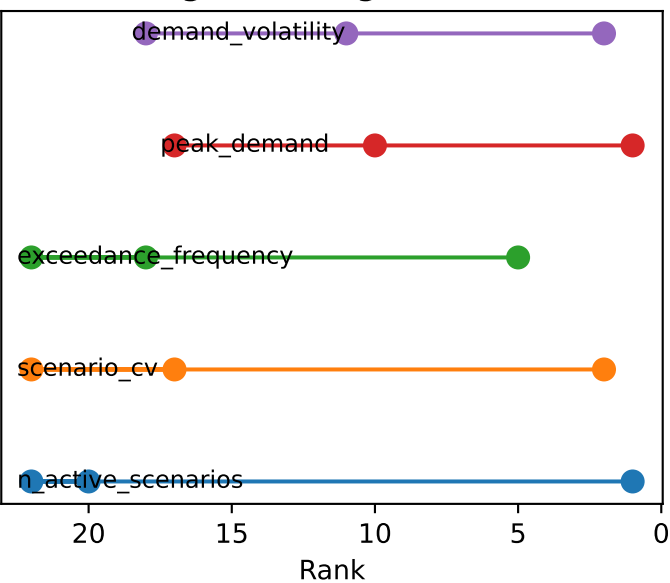
Total features: 24

Strong agreement: 3
(rank spread ≤ 3)

Top tier features: 4
(avg rank ≤ 8)

Mean correlation: 0.18

Features with Highest Disagreement



Method-Specific Top Features

PCA emphasizes: peak_demand, demand_volatility, mean_demand

Sparse PCA selects: max_capacity_ratio, mean_capacity_ratio, import_high_risk_frac

NMF identifies: n_active_scenarios, scenario_cv, demand_slope

Interpretation Guide:

- PCA: Features driving overall variance
- Sparse PCA: Essential features (others can be dropped)
- NMF: Features that co-occur in additive "parts"