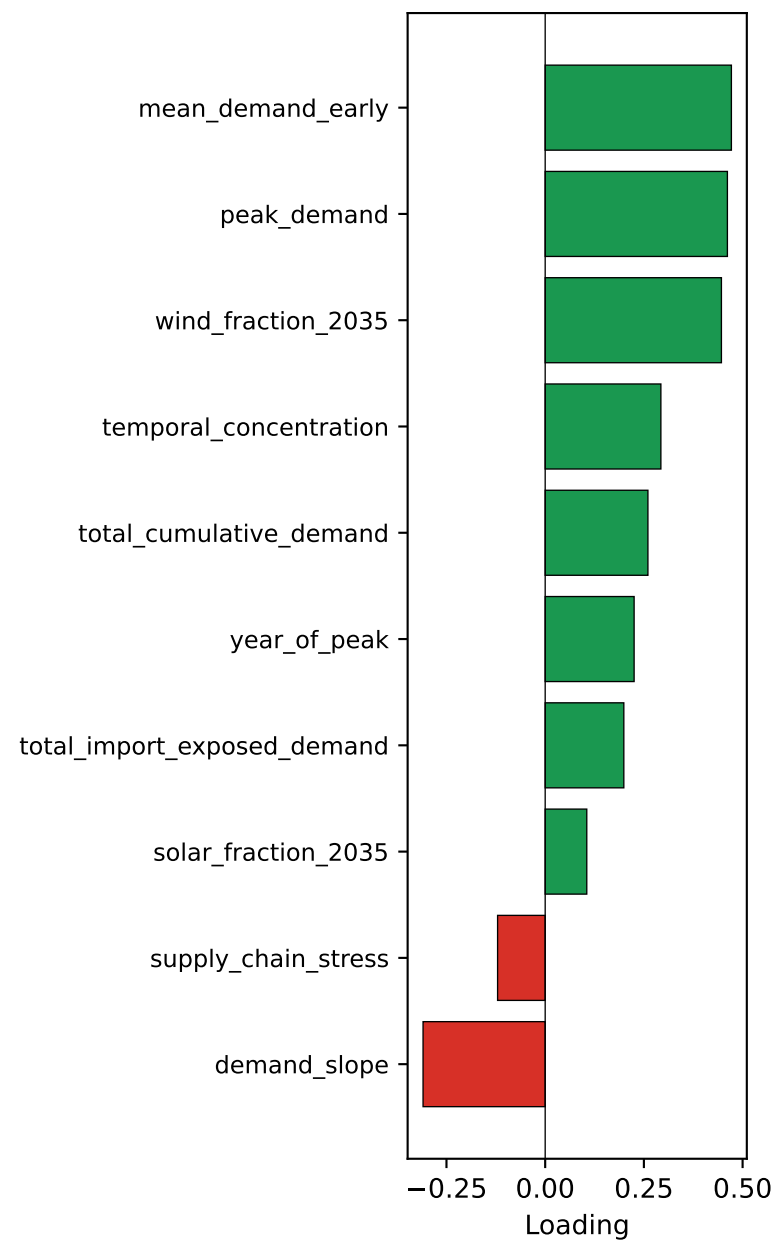


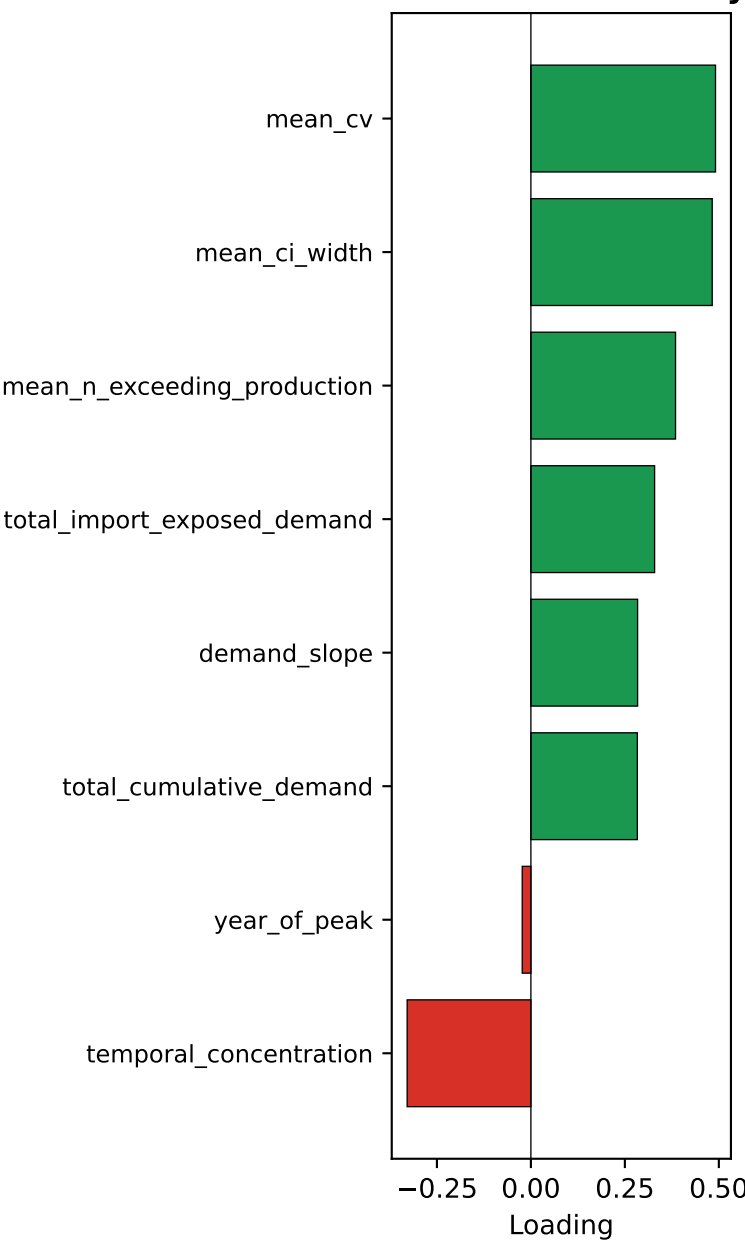
# Sparse PCA Component Interpretation — Scenarios

**Demand Scale & Wind**



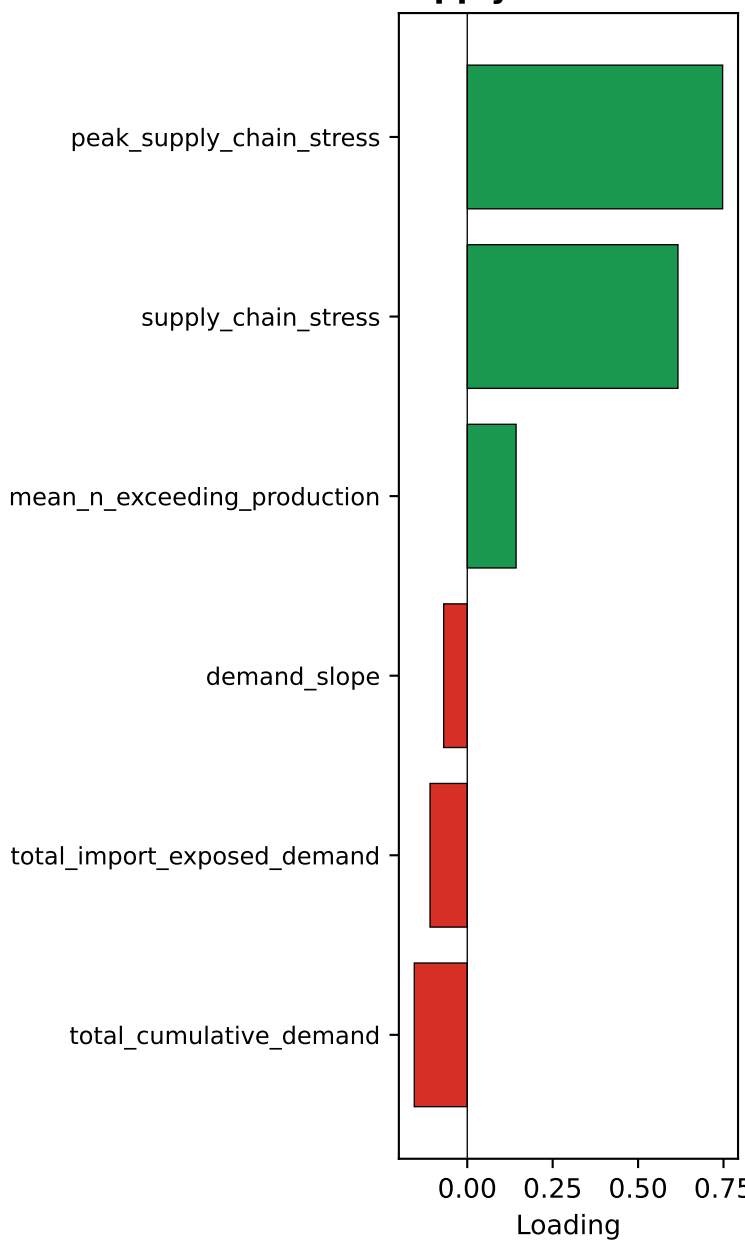
*Peak demand, early build-out,  
wind deployment fraction*

**Demand Uncertainty**



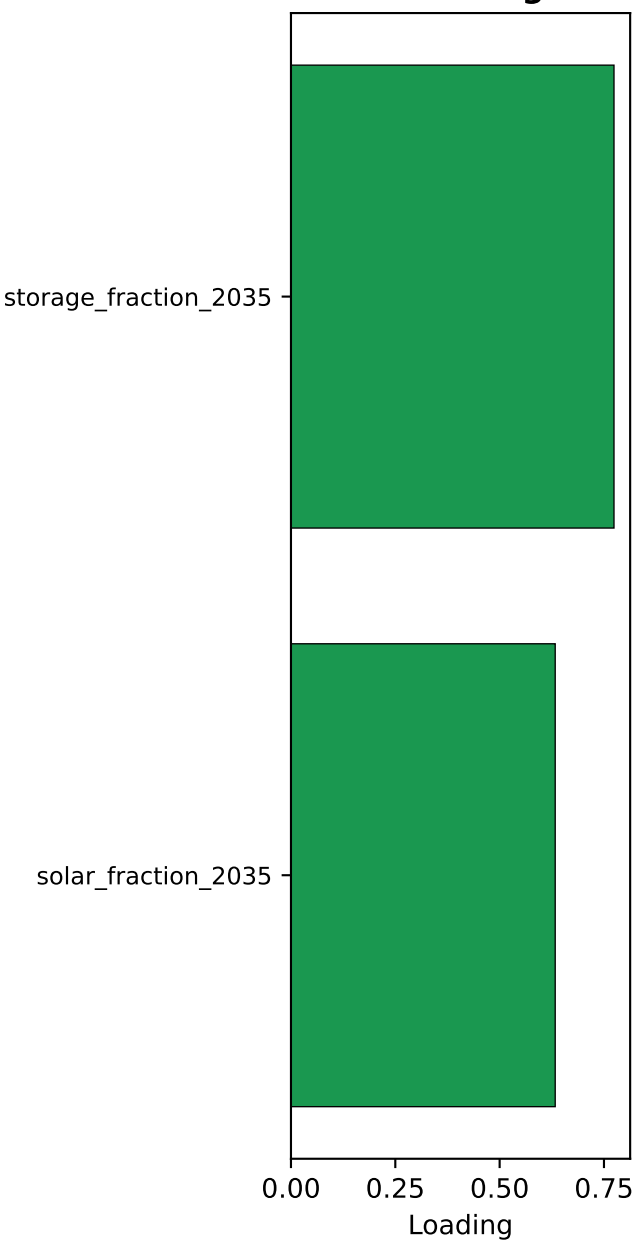
*High variability  
across simulations*

**Supply Chain Stress**



*Production capacity  
exceedance risk*

**Solar & Storage Mix**



*Solar + storage  
deployment share*