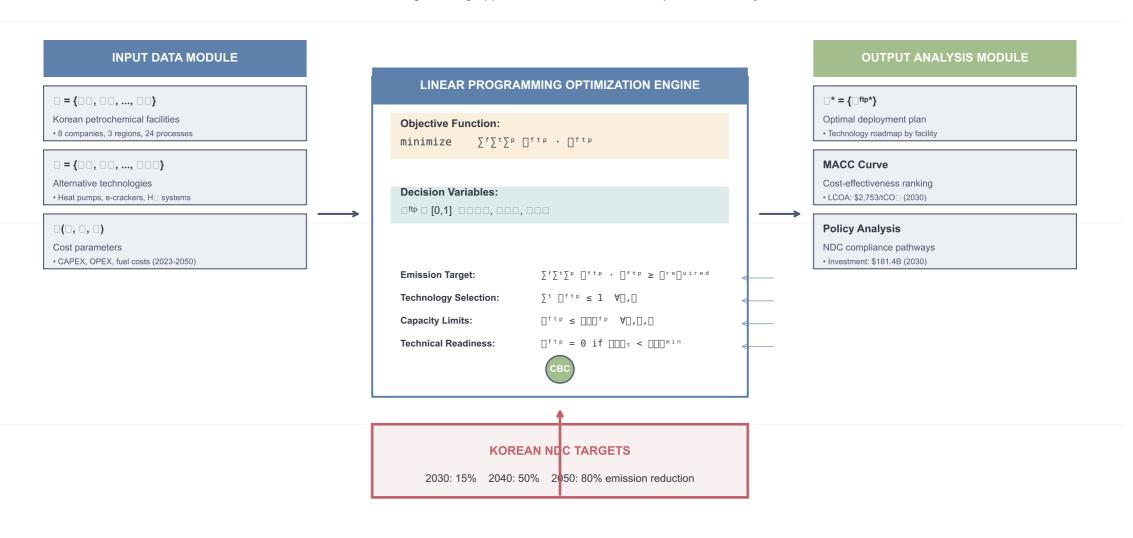
Optimization Framework for Facility-Level Petrochemical Decarbonization Analysis

Linear Programming Approach for Korean NDC Compliance Pathways



KEY FINDINGS

2030 Target: Achievable via heat pump deployment (6.1 MtCO reduction) • 2040/2050: Requires technology portfolio expansion • Total viable options: 39 technology-facility combinations