

Zhe Yin, Xiyin Wang and Ruijin Zhu, 2024, Low carbon scheduling optimization of integrated energy system in high altitude area based on information gap decision theory, 2024 3rd International Conference on Energy, Power and Electrical Technology (ICEPET), pp.434–438.

**Abstract** A low-carbon scheduling model for Tibetan region addresses high-altitude oxygen demand, heat-energy contradiction, wind power curtailment, and pollution. It integrates CSP, GSHP, P2G-CCS to optimize electricity, heat, and oxygen production. Employing IGDT (info-gap decision theory) mitigates uncertainties, ensuring a robust solution. Using CPLEX for optimization, the model validates its effectiveness through simulation, offering a comprehensive approach to sustainable energy management.

**Keywords** Heat-energy contradiction; IGDT (info-gap decision theory); Wind power curtailment; High-altitude oxygen demand