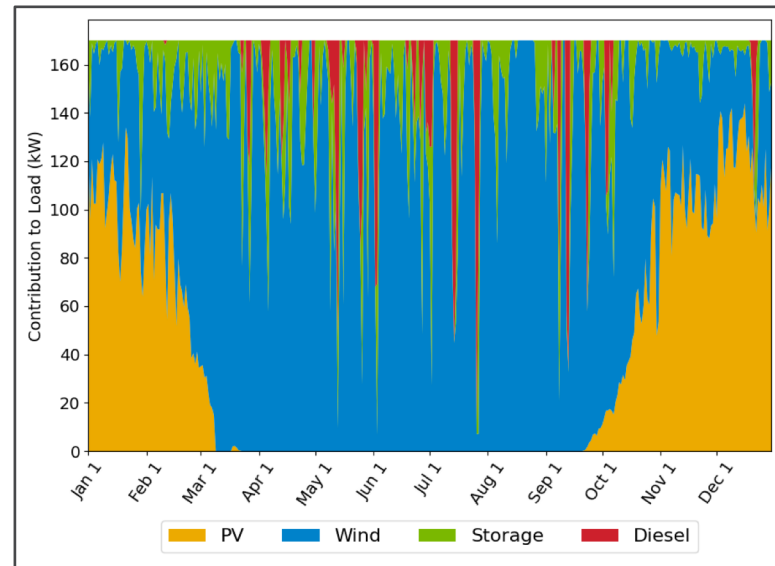


# RENEWABLE ENERGY IS VIABLE FOR HEP INFRASTRUCTURE

- Renewable energy (RE) technology is reliable and affordable. RE should be a normal part of HEP infrastructure to mitigate our environmental impact.
- Argonne & NREL have collaborated on a feasibility study for RE at the South Pole (cosmic frontier experimental site)
  - Expert multidisciplinary team evaluated both technical challenges and economic viability given unique site constraints
  - Results indicate RE is good opportunity at the South Pole!



Renewable System at South Pole



Optimization result for example load using solar, wind, lithium-ion energy storage, & diesel. Solar and wind modeled from South Pole NOAA weather data. **Diesel consumption and associated carbon footprint reduced by 95.5%!**