Wind Direction Analysis Comparison: East vs West (A) Power Distribution Comparison (B) Wind Direction Distribution East Wind (45°-135°) 0.012 East Wind West Wind (225°-315°) West Wind 0.025 0.010 0.020 0.008 **Density** 0.015 Density 900.0 0.010 0.004 0.005 0.002 0.000 0.000 100 Power (kW) 25 50 75 125 150 175 200 0 50 100 150 200 250 300 350 Wind Direction (°) (C) Statistical Comparison (D) Model Performance Comparison 22408.0 East Wind East Wind West Wind West Wind 20 20000 15 15000 Value Value 10 10000 5408.0 5 5000 47.3 R² Score **RMSE Metrics Statistics**