

Grain Belt Express Exhibit 11.5 Correlation Analysis

Correlation of wind generation output in Kansas, Missouri, Illinois, and Indiana

Grain Belt Express' analysis compared six Kansas sites identified in NREL's Eastern Wind Integration and Transmission Study ("EWITS") near the Kansas converter station, with six Missouri EWITS sites in Northwest Missouri, six Indiana EWITS sites, and six Illinois EWITS sites in the PJM region. Missouri, Illinois, and Indiana sites selected for this analysis were sites with the highest capacity factors in their state and region, where 3 years of 10-minute interval generation were compared. The figure below represents the average correlation between individual sites.

	KS	MO	IL	IN
KS	0.892	0.359	0.067	-0.005
MO	0.359	0.873	0.379	0.205
IL	0.067	0.379	0.843	0.694
IN	-0.005	0.205	0.694	0.916

	Low correlation
	Medium correlation
	High correlation

"Low correlation": between 0.0 and 0.25; "Medium correlation": between 0.25 and 0.5;
 "High correlation": between 0.5 and 1.0

Source: Eastern Wind Integration and Transmission Study (EWITS), National Renewable Energy Laboratory, 2012.