

Preliminary Phase I Upper Peninsula and Northeast Wisconsin LOLE Analysis Results

BASE CASE RESULTS

Year	Import Capability- Existing and Projected ¹ (MW)	Equivalent Forced Outage Rate on the Import Capability	LOLE (Days/Year)	Minimum Import Capability Needed to Meet the 0.1 Days/Yr (MW)
2004	215	0%	0.20	237
2007	267	0%	0.107	268
2010	521	0%	0.00002	295
2012	521	0%	0.00006	319
2004	215	0.4%	0.24	253
2007	267	0.4%	0.17	295
2010	521 ²	0.4%	0.0005	300
2012	521 ²	0.4%	0.0010	325

¹ The projected import capability is based on the Northern Umbrella Plan.

² Modeled as two equal capacity blocks.

Preliminary Phase II Upper Peninsula and Northeast Wisconsin LOLE Analysis Results

PRESQUE ISLE UNITS 1&2 RETIRED IN 2004

Year	Import Capability- Existing and Projected ¹ (MW)	Equivalent Forced Outage Rate on the Import Capability	LOLE (Days/Year)	Minimum Import Capability Needed to Meet the 0.1 Days/Yr (MW)
2004	215	0%	1.1	295
2007	267	0%	0.64	326
2010	521	0%	0.0002	353
2012	521	0%	0.0006	377
2004	215	0.4%	1.3	340
2007	267	0.4%	0.78	410
2010	521 ²	0.4%	0.003	362
2012	521 ²	0.4%	0.050	388

PRESQUE ISLE UNITS 1&2 RETIRED IN 2004 & UNITS 3&4 RETIRED IN 2012

Year	Import Capability- Existing and Projected ¹ (MW)	Equivalent Forced Outage Rate on the Import Capability	LOLE (Days/Year)	Minimum Import Capability Needed to Meet the 0.1 Days/Yr (MW)
2004	215	0%	1.1	295
2007	267	0%	0.64	326
2010	521	0%	0.0002	353
2012	521	0%	0.0257	482
2004	215	0.4%	1.3	340
2007	267	0.4%	Key	410
2010	521 ²	0.4%	0.003	362
2012	521 ²	0.4%	0.075	508

PRESQUE ISLE UNITS 7, 8 & 9 COMMON MODE FAILURE

Year	Import Capability- Existing and Projected ¹ (MW)	Equivalent Forced Outage Rate on the Import Capability	LOLE (Days/Year)	Minimum Import Capability Needed to Meet the 0.1 Days/Yr (MW)
2004	215	0%	0.30	261
2007	267	0%	0.19	292
2010	521 ²	0%	0.00021	322
2012	521 ²	0%	0.00050	344
2004	215	0.4%	0.33	274
2007	267	0.4%	0.23	314
2010	521 ²	0.4%	0.00097	326
2012	521 ²	0.4%	0.0017	349

¹ The projected import capability is based on the Northern Umbrella Plan analyses.

² Modeled as two equal capacity blocks.

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ALL HOURS LOLE SENSITIVITY

Year	Import Capability- Existing and Projected ¹ (MW)	Equivalent Forced Outage Rate on the Import Capability	LOLE (Hrs/Year)	Minimum Import Capability Needed to Meet the 0.481 Hrs/Yr (MW)
2004	215	0%	1.60	251
2007	267	0%	0.829	282
2010	521	0%	0.708E -5	309
2012	521	0%	0.00026	331
2004	215	0.4%	2.17	296
2007	267	0.4%	1.58	*
2010	521 ²	0.4%	0.0045	318
2012	521 ²	0.4%	0.0083	341

¹ The projected import capability is based on the Northern Umbrella Plan.

² Modeled as two equal capacity blocks.

* Cannot meet the LOLE criterion with a single block regardless of size.