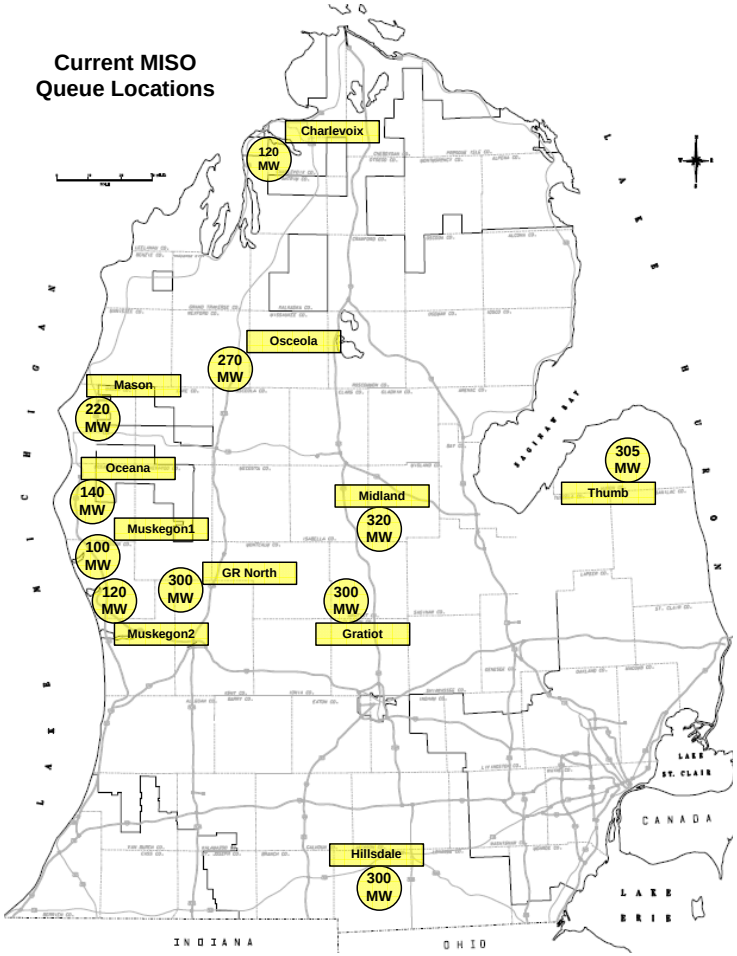
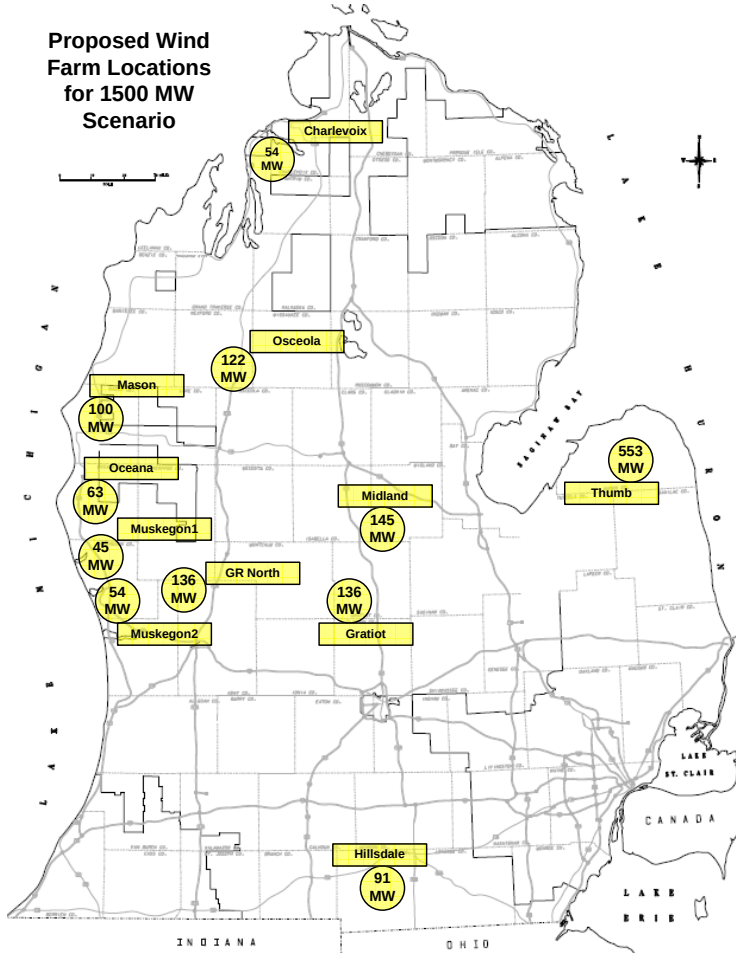
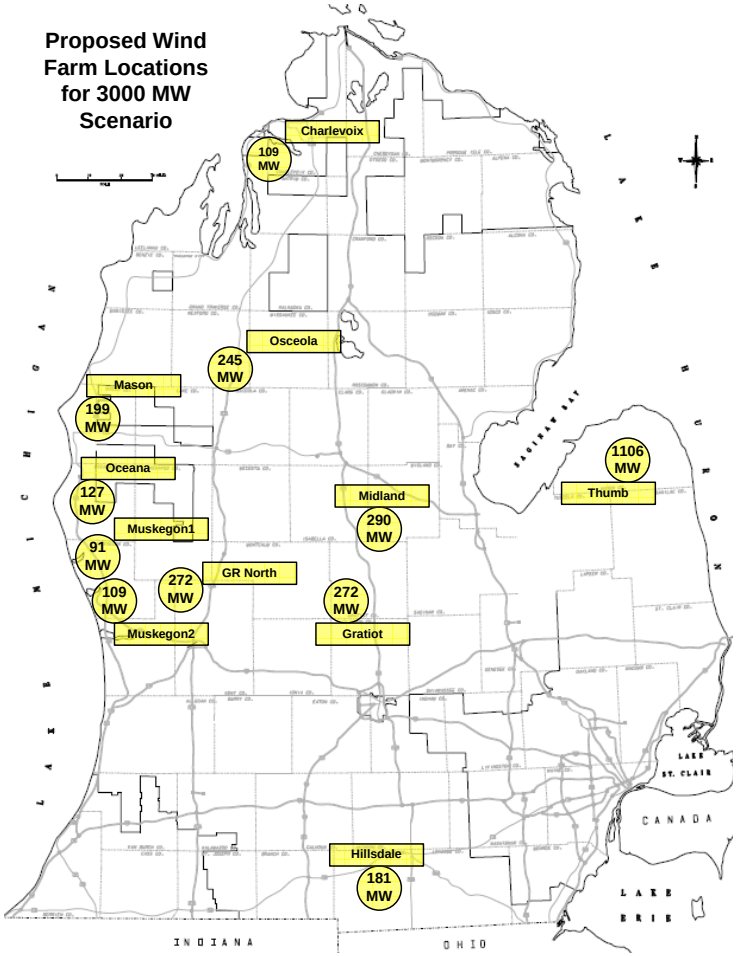
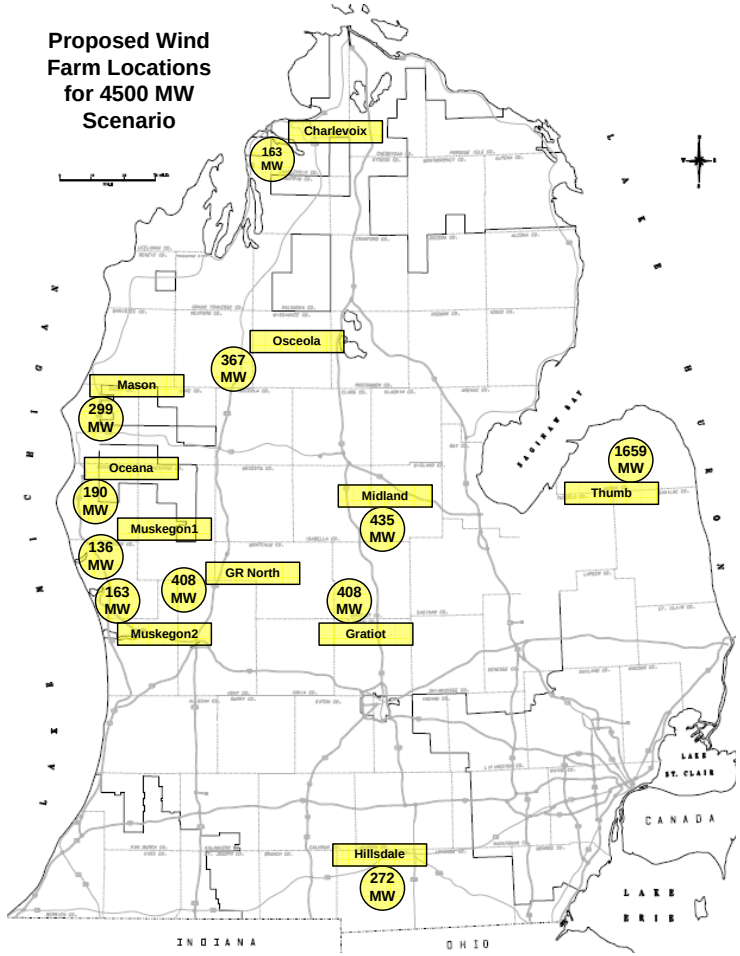
Wind Farm Location Assumptions



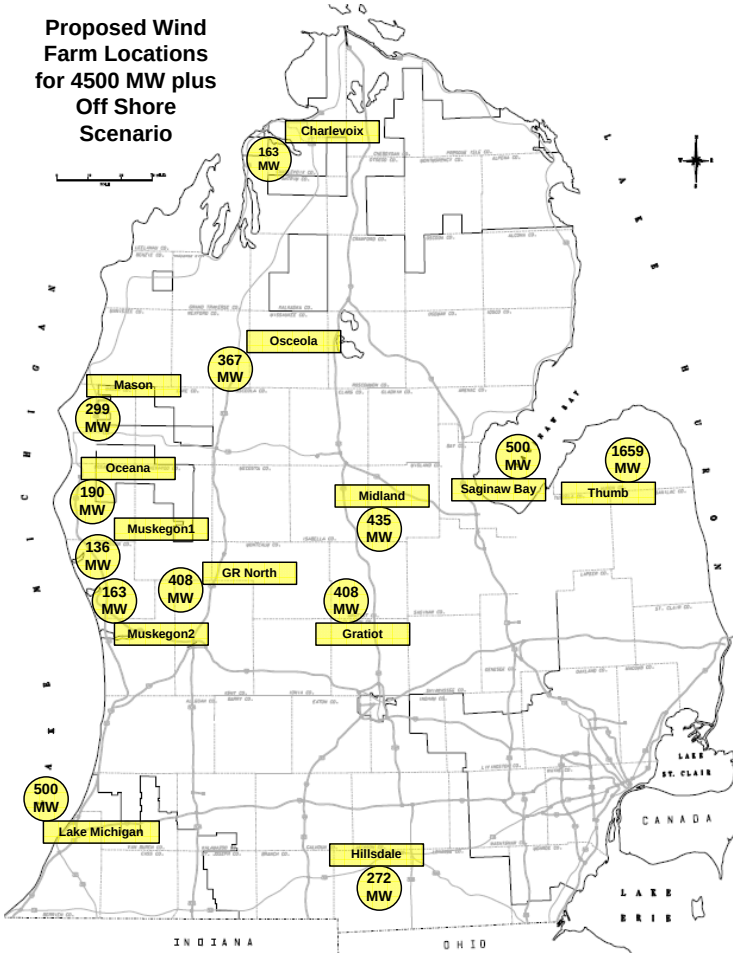


Wind Farm Location Assumptions





Wind Farm Location Assumptions



Scaling Factor Assumptions

Attachment 1 - Proposed Locations and Amounts of Wind Generation to Study in Michigan's Lower Peninsula (LP)

Base (No Scaling Factors)					
			Low (MW)	Medium (MW)	High (MW)
County/Area*	#MW in MISO Queue by County/Area	% of MW Wind Interconnection Requests in MISO Queue by County/Area (LP Only)	1,500	3,000	4,500
Charlevoix	120	4.8%	72	144	216
Mason	220	8.8%	132	265	397
Osceola	270	10.8%	162	325	487
Oceana	140	5.6%	84	168	253
Muskegon1	100	4.0%	60	120	180
Muskegon2	120	4.8%	72	144	216
GR North	300	12.0%	180	361	541
Gratiot	300	12.0%	180	361	541
Midland	320	12.8%	192	385	577
Hillsdale	300	12.0%	180	361	541
Thumb	305	12.2%	183	367	550
Totals	**2,495**	**100%**	**1,500**	**3,000**	**4,500**

Alternative: Adjusted MW Amounts Using Proposed Scaling Factors					
			Low (MW)	Medium (MW)	High (MW)
County/Area*	MW by County/Area w/ Proposed Scaling Factors	% of MW by County/Area w/ Proposed Scaling Factors	1,500	3,000	4,500
Charlevoix	90	3.6%	54	109	163
Mason	165	6.6%	100	199	299
Osceola	202.5	8.2%	122	245	367
Oceana	105	4.2%	63	127	190
Muskegon1	75	3.0%	45	91	136
Muskegon2	90	3.6%	54	109	163
GR North	225	9.1%	136	272	408
Gratiot	225	9.1%	136	272	408
Midland	240	9.7%	145	290	435
Hillsdale	150	6.0%	91	181	272
Thumb	915	36.9%	553	1106	1659
Totals	**2,483**	**100%**	**1,500**	**3,000**	**4,500**

	Proposed Scaling Factors for MI-WETS	Queued MW
Charlevoix	0.75	120
Mason	0.75	220
Osceola	0.75	270
Oceana	0.75	140
Muskegon1	0.75	100
Muskegon2	0.75	120
GR North	0.75	300
Gratiot	0.75	300
Midland	0.75	320
Hillsdale	0.5	300
Thumb	3	305

* As of March 2008. Information on interconnection requests in the MISO queue is available at www.midwestmarket.org (select "Planning" | "Generation Interconnection" | "Midwest ISO Generator Interconnection Queue - Without Withdrawn Projects"). For purposes of the MI-WETS, some interconnection requests in the MISO queue were aggregated or grouped based points of interconnection rather than the county listing on MISO's website. For example, the same interconnection point (a 120 kV substation in the area) is used for modeling several interconnection requests in the Cadillac area (Missaukee, Wexford County, and Osceola Counties).

Other Key Assumptions

- Total Combined ITCT and METC load (plus losses) of approximately 24,400 MW
  - METC ~11,950
  - ITCT ~ 12,450
  - Approximately 2018 timeframe (corresponds with 2010-2011 from 21st Century Plan base forecast for combined ITCT and METC load)
- Wind will be dispatched:
  - 15% @ peak
  - 100% @ 80% peak

Other Key Assumptions

- Non-Wind possible future generation that will be modeled:
  - Saginaw Area - 800 MW Coal
  - Flint Area - 500 MW Combined Cycle
  - Rogers City Area - 600 MW Coal
- Other

Proposed Timeline

• Models Developed	May 2
• Base Analysis Complete	May 16
• Possible Upgrades Identified	May 23
• Upgrade Models Developed	May 30
• Upgrade Analysis Complete	June 13