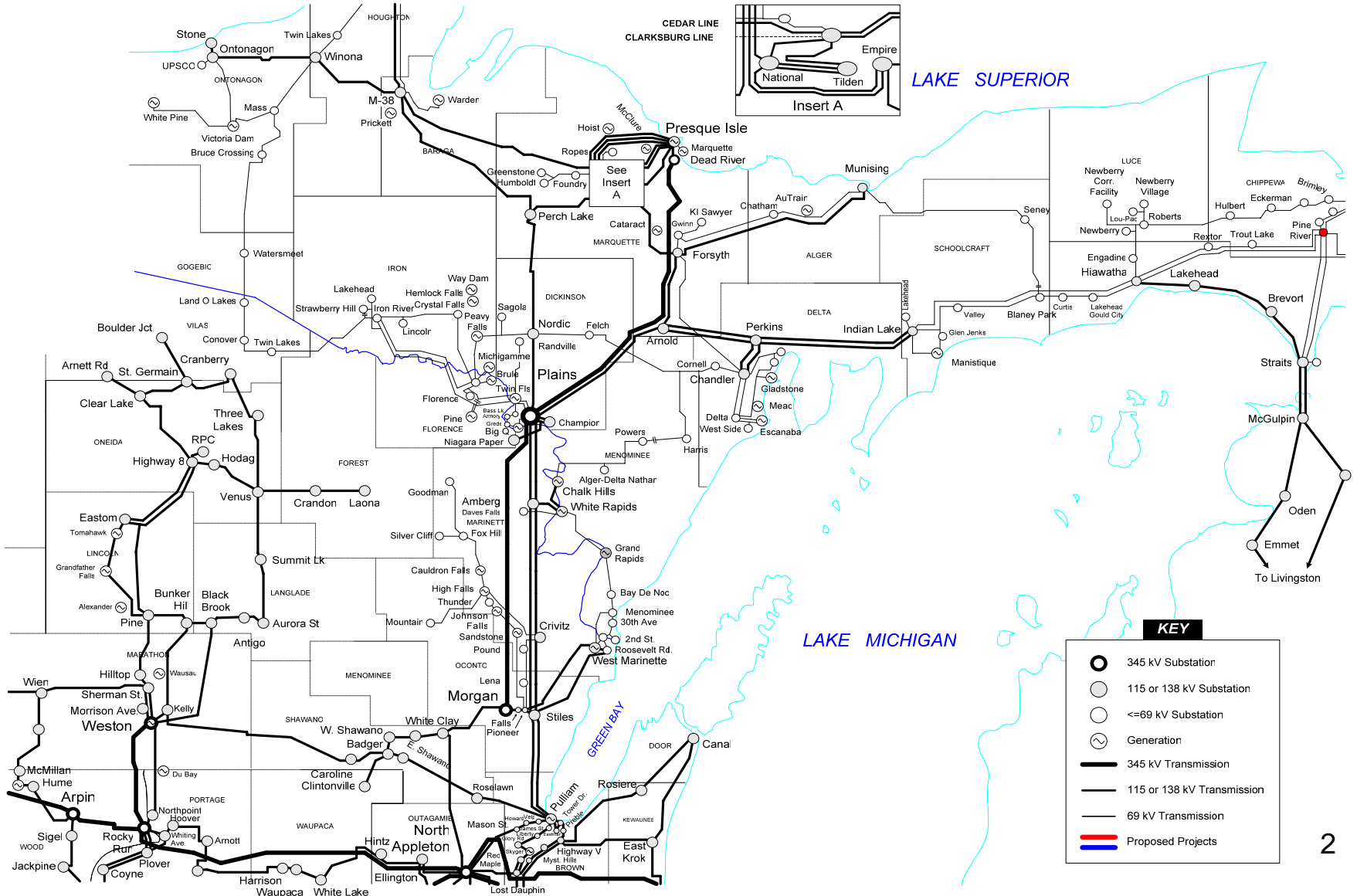




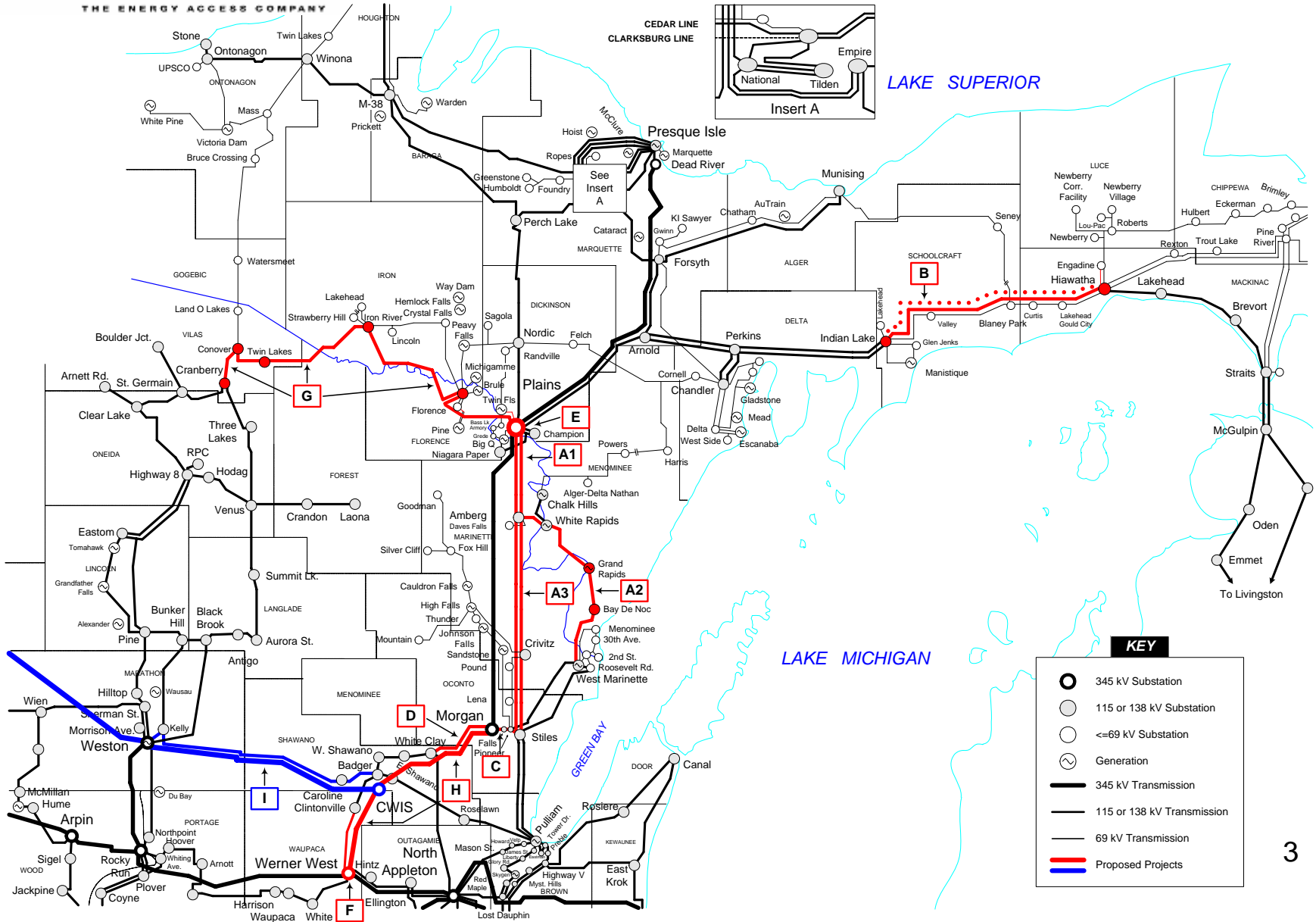
Northern Umbrella Plan Update

June 8, 2009









System Prior to NUP Projects



Northern Umbrella Plan



KEY

	345 kV Substation
	115 or 138 kV Substation
	<=69 kV Substation
	Generation
	345 kV Transmission
	115 or 138 kV Transmission
	69 kV Transmission
	Proposed Projects



NUP Projects

Completed Projects:

- A: Plains – Stiles 138 kV Rebuild
- B: Indian Lake – Hiawatha 69 kV to 138 kV Rebuild
- C: Morgan – Stiles 138 kV Rebuild
- D: Morgan – White Clay 138 kV Up-rate
- E: Add 2nd Plains Transformer (*Project cancelled in Feb. 2008*)
- F: New Werner West 345/138 kV Substation

In-progress Projects:

- G: Cranberry – Conover – Plains Project
- H: Morgan – Werner West 345 kV Line (including Clintonville – Werner West 138 kV)
- I: Gardner Park – Central Wisconsin 345 kV Line (for generator interconnection)



Project Overview and Status

G. Cranberry-Conover-Plains

- Scope
 - Phase 1: New 15 miles of 115kV line (overhead and underground) from Cranberry to new Lakota Road Substation with modifications at various substations including Conover SS
 - Phase 2: Rebuild 69kV line from Conover SS to Iron River SS to 138kV including new Iron Grove SS
 - Phases 3 and 4: Rebuild 69kV line from Iron River SS to Plains SS to 138kV (single, double and triple circuit configurations) with modifications at various substations including Aspen SS



Project Overview and Status

G. Cranberry-Conover-Plains (cont'd)

- Phase 1: New line between Cranberry and Lakota Rd Substation placed in service 6/6/08 and all Work Orders closed 12/31/08
- Phase 2: Schedule/Status
 - Line rebuild to Iron Grove SS is complete and placed in service 2/20/09
 - ROW restoration completed 5/29/09
 - Iron River SS is 98% decommissioned (remaining work is to move the control house off the site, scheduled for 6/19/09)
- Phase 3: Schedule/Status (planned in service date is October '09)
 - Line rebuild from Iron Grove SS to Aspen SS is 15% complete (existing 69kV line is 90% removed).
 - Modifications at Aspen SS are complete (138/69kV transformer is installed)
- Phase 4: Schedule/Status (planned in service date is June '10)
 - Remaining line rebuild from Aspen SS to Plains SS with minor substation work
 - OH line and substation design/procurement activities 90% complete
 - Construction planned to start October '09



New Morgan-Werner West 345kV Line (52.8 Mi)

ATC Executive approval	2/05
ATC Board approval	2/05
File CPCN application	3/05
CPCN issued	6/06
Morgan – White Clay, 13.2 Mi Werner West – Clintonville, 17.5 Mi Clintonville – Highway 22, 7.7 Mi Highway 22 – White Clay, 15.4 Mi Werner West SS, 345/138 kV	Complete 10/7 Complete 12/08 Construction 12/08 - 5/09 Construction 4/09 - 10/09 Complete 12/06
Construction period, ~86% Complete	1/07-12/09
Project in-service	12/09



New Gardner Park-Central WI 345kV line (51 Mi)

ATC Executive approval	2/05
ATC Board approval	2/05
File CPCN application	3/05
CPCN issued	6/06
Belle Plain Tap – Highway 22, 1.1 Mi	Complete 6/07
Caroline – Belle Plain Tap, 6.9 Mi	Complete 7/07
Structure 773 – Whitcomb, 20.33 Mi	Complete 4/08
Gardner Park – Structure 773, 6.53 Mi	Complete 4/09
Whitcomb – Caroline, 16.1 Mi	Complete 3/09
Highway 22 Substation	Complete 12/09
Construction period; ~ 87% Complete	1/07 – 12/09
Project in-service	October 2009



Project Status Summary

Project Name	Key Need Drivers	Projected In-Service Date	Projected Cost	Status
A: Plains – Stiles 138 kV Rebuild	Physical condition; transfer capability; solution also results in a more robust parallel path for 2/3 of P-S corridor		\$94.3M	Complete
•A1: Plains – Amberg		October 2005	-	Complete
•A2: Amberg – West Marinette		November 2005	-	Complete
•A3: Amberg – Stiles		October 2006	-	Complete
B: Indian Lake – Hiawatha 69 kV to 138 kV Rebuild	TLR mitigation; voltage support; physical condition; local load-serving in Manistique area; required operating guide that splits the U.P. system			Complete
•Phase 1 – Rebuild Indian Lake – Glen Jenks		August 2004	\$6.1M	Complete
•Phase 2 – Rebuild as double circuit 138 kV, operate at 69 kV		March 2006	\$46.2M	Complete
•Phase 3 – Convert to 138 kV operation		N/A	N/A	Not part of the Northern Umbrella Plan
C: Morgan – Stiles 138 kV Rebuild as double circuit	Transfer capability	May 2006	\$8.0M	Complete



Project Status Summary

Project Name	Key Need Drivers	Projected In-Service Date	Projected Cost	Status
D: Morgan – White Clay 138 kV uprate (eventual rebuild as part of Element H)	Transfer capability	March 2005	\$0.4M	Project Complete.
E: Add 2 nd Plains transformer (250 MVA 345/138 kV)	Transfer capability	Cancelled		Cancelled
F: New Werner West Substation with 345/138 kV transformer	TLR mitigation, system security	December 2006	\$14.2M	Project Complete.
G: Cranberry – Conover – Plains Project	Transfer capability; Transmission service; Reliability, physical condition	See below	\$115.7M	
• Phase 1: New 115 kV Cranberry – Conover		June 2008	-	In-service. Energized 6/6/08.
• Phase 2, 3 & 4: Rebuild 69 kV Conover – Plains to 138 kV		June 2010	-	Construction started July '08. Line rebuilt & energized from Lakota Rd. SS to Twin Lakes SS.
H: New Morgan – Werner West 345 kV line & Clintonville – Werner West 138 kV line	Transfer capability, reliability, and network service.	2009	\$139.0M	15 miles remaining for the Hwy 22-White Clay Segment, expected to complete on Schedule October 2009
I: New Gardner Park – Central Wisconsin 345 kV line & Central Wisconsin 345 kV switching station	Required for new Weston 4 generation	2009	\$124.7M	Project Complete



Northern Umbrella Plan Summary

- Current estimated cost for all projects is \$548.6 million (decrease of \$ 6 million since last report of January '09)
- Total project spending to date is approximately \$512.3 million through April 2009
- Of the 9 projects –
 - 6 are complete and in-service
 - 3 are in various stages of design and construction
 - 1 has been cancelled
- Construction and completion of all projects expected in mid-2010