



ATC Customer Update & Project Briefing

**September 19, 2006
Marquette, Michigan**



Overview

- **Asset Delivery Structure & Processes**
- **Zone 2 Capital Project**
- **Northern Umbrella Plan**
- **Procurement of Consultant & Contractor Services**
- **ATC Safety Initiative**
- **Customer Relations Update**



Asset Delivery Structure & Process

Dale Landgren
Vice President & Chief Strategic Officer



Capital Project Update Northern Umbrella Plan Update

**Jane Petras
General Manager - North Portfolio**



Overview

- **Network Projects (8)**
- **Asset Renewal Transmission Line Projects (6)**
- **Asset Renewal Substation Projects (19)**
- **Distribution Interconnections (3)**
- **Northern Umbrella Plan (9)**



Network Projects

Project Name/System Location	Project Description/Key Need Drivers	Projected ISD	Projected Cost	Status
A. Lincoln SS	Install cap bank to address potential low voltages	11/1/2006	\$0.8 million	Construction underway
B. Ontonagon SS	Install cap banks, rtu, replace OCB to address potential low voltages	6/1/2007	\$1.9 million	Design started, below grade construction planned to start mid-September, long lead equipment has been ordered.
C. Munising SS	Install cap bank to address potential low voltages	TBD	TBD	Work not yet started by Construction Department
D. L'Anse SS	Install cap bank to address potential low voltages	TBD	TBD	Work not yet started by Construction Department
E. Roberts SS	Install cap bank to address potential low voltages	TBD	TBD	Work not yet started by Construction Department
F. White Pine Gen.	Various line and substation upgrades to meet TSR request	6/1/2008	Under Development	Activities underway are to develop project scope, cost, schedule and execution plans.
G. Laurium #2	Line uprate to address potential overloads	Under Development	Under Development	Activities underway are to develop project scope, cost, schedule and execution plans.
H. North Lake SS	New substation to replace Cedar Substation to address reliability concerns, equipment obsolescence and condition issues	Under Development	Under Development	Activities underway are to develop project scope, cost, schedule and execution plan. Phase 1 challenge is planned for late '06. Design will commence in the first half of 2007.

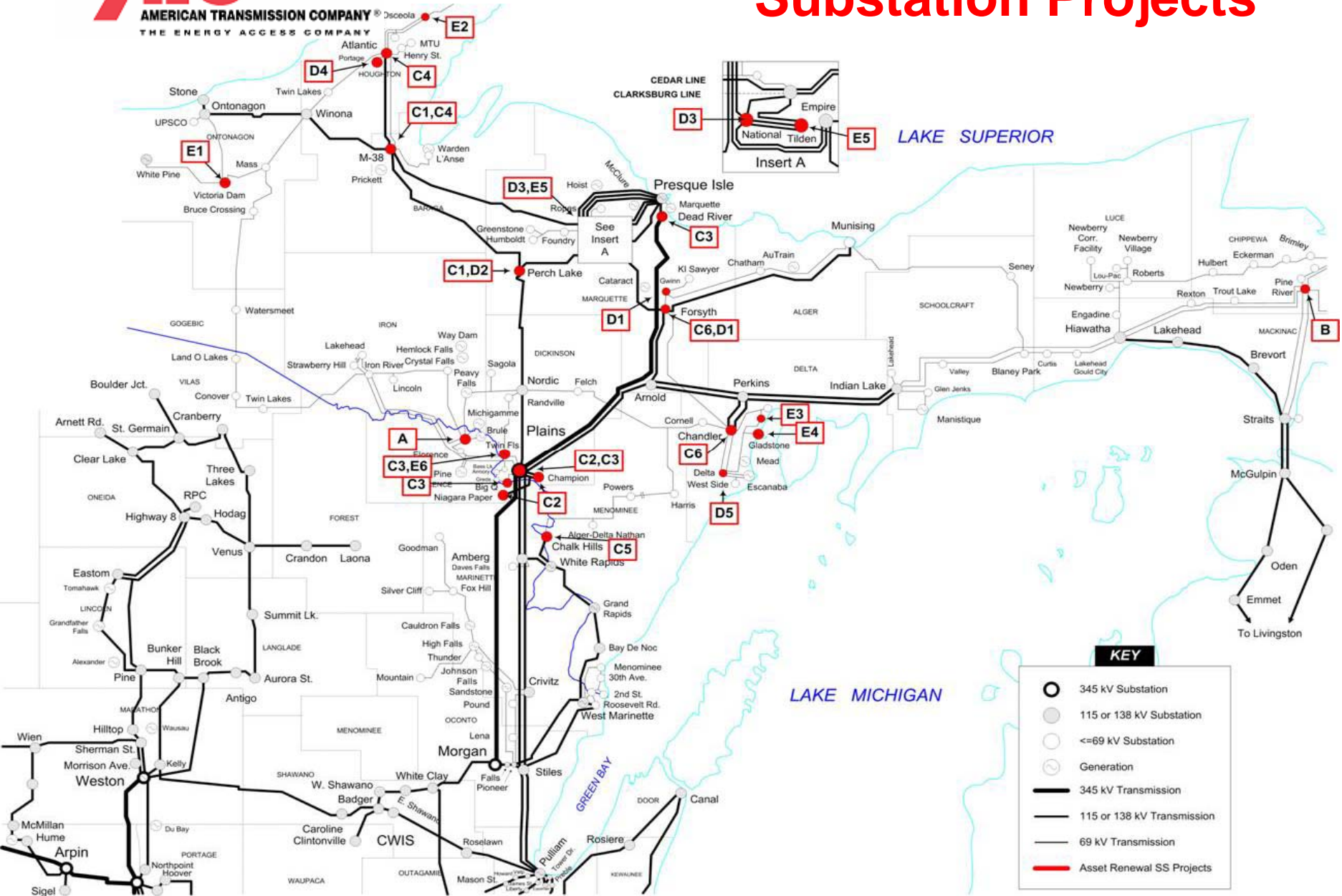


Asset Renewal Transmission Line Projects

Project Name/ System Protection	Project Description/ Key Need Drivers	Projected ISD	Projected Cost	Status
A. L9901 Riser Stations Pt. LaBarbe & McGulpin	Upgrade riser stations to improve pipeline monitoring and communication to the station	11/16/2006	\$0.5 million	Design is essentially complete. Pre-construction meeting scheduled for 9/13/06.
B. White Pine - Victoria SS	Replace insulators on some structures due to recent failures	12/1/2006	Under Development	Activities underway are to develop project scope, cost, schedule and execution plans.
C. L6913	Replace line switches on the tap into Lakehead-Gould City substation due to condition and performance	TBD	TBD	Work not yet started by Construction Department
D. L6952	Install lightning arrestors and grounding at each structure to address lack of protection	Under Development	Under Development	Pre-approval work will start in early '07 to develop project scope, cost, schedule and execution plans.
E. Laurium #1	Line rebuild to current 69kV standards and with a shield wire to address insufficient lightning protection	Under Development	Under Development	Activities underway are to develop project scope, cost, schedule and execution plan. Phase 1 challenge is planned for late '06. Design will commence in the first half of 2007.
F. L6908	Rebuild line from Hiawatha to Indian Lake due to condition and age of wood poles	Under Development	Under Development	Pre-approval work will start late '07 or early '08 to develop this project scope, cost, schedule and execution plans.



Asset Renewal Substation Projects





Asset Renewal Major Substation Projects

Project Name/ System Location	Project Description/ Key Need Drivers	Projected ISD	Projected Cost	Status
A. New Aspen SS	Build new 69kV ring bus substation to replace existing Brule Substation due to age & condition, access, maintenance challenges and environmental risk	12/31/2007	\$7.8 million	Below grade construction in Fall '06, above grade construction in Summer of '07, line cutovers in Fall of '07, Brule retirement in early Winter '07.
B. Pine River SS	Rebuild existing substation to current ATC standards due to condition and risk of existing equipment	Under Development	Under Development	Activities underway are to develop project scope, cost, schedule and execution plan. Phase 1 challenge is planned for early '07. Design will commence in the first half of 2007.



Asset Renewal Substation Projects (Relay Upgrade Work)

Project Name/ System Location	Project Description and Key Need Drivers	Projected ISD	Projected Cost	Status
C1. Perch Lake & M38 SS	Perch Lake - replace relays, VTs, arrestors, switches M38 – replace relays due to condition and risk of existing equipment and relay obsolescence	11/1/2006	\$0.4 million	Currently scheduling construction outages
C2. Plains, Niagara, and Champion SS	138kV relay upgrades due to relay obsolescence	TBD	TBD	Work not yet started by Construction Department
C3. Plains, Twin Falls, Big Q, Dead River SS	69kV and 345 kV relay upgrades due to relay obsolescence	TBD	TBD	Work not yet started by Construction Department
C4. Atlantic - M38 SS	Upgrade line relaying	TBD	TBD	Work not yet started by Construction Department
C5. Chalk Hill SS	Replace 138kV relaying, add RTU, replace OCB due to equipment and relay obsolescence	2/1/2007	\$0.8 million	In design and procurement phase
C6. Chandler-Forsyth SS	Replace obsolete relays	TBD	TBD	Work not yet started by Construction Department



Asset Renewal Substation Projects (Equipment Upgrades)

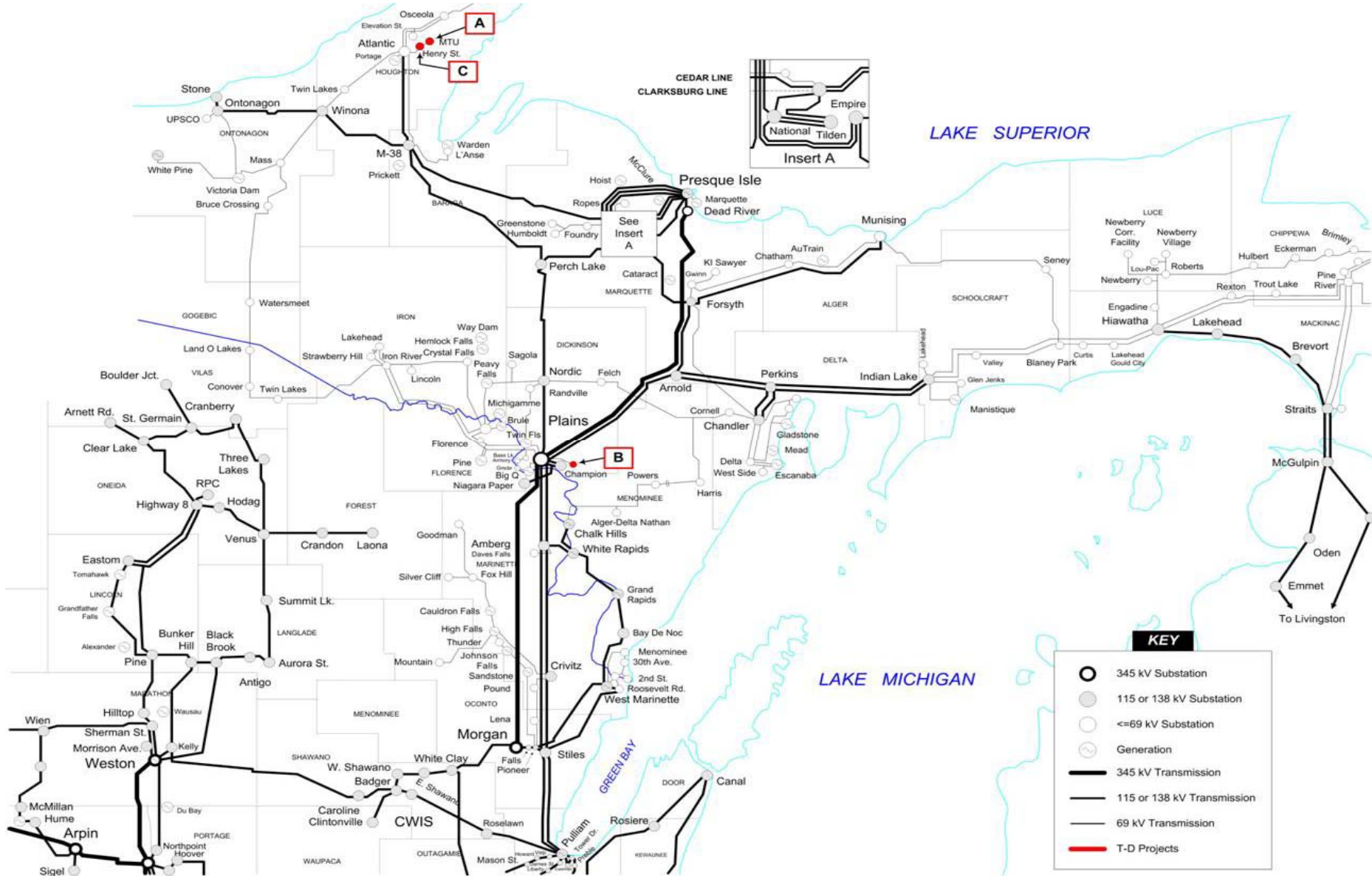
Project Name/ System Location	Project Description/ Key Need Drivers	Projected ISD	Projected Cost	Status
D1. Gwinn – Forsyth SS	Replace various OCB's, upgrade various relaying, disconnect switches, etc.	Under Development	Under Development	Activities underway to develop project scope, cost, schedule and execution plans.
D2. Perch Lake SS	Replace 138kV line disconnect switch due to potential for failure	TBD	TBD	Work not yet started by Construction Department
D3. National SS	Replace line and bus switches on OCB 16344, 16343, and 16342 to address potential failure and damage to equipment	TBD	TBD	Work not yet started by Construction Department
D4. Portage SS	Replace 762 69kv disconnect switch due to overall poor condition	Under Development	Under Development	Activities underway to develop project scope, cost, schedule and execution plans.
D5. Delta SS	Replace 580 69kV disconnect switches due to unreliable switch operation and add RTU to improve communications	Under Development	Under Development	Activities underway to develop project scope, cost, schedule and execution plans.



Asset Renewal Substation Projects (RTU's)

Project Name/ System Location	Project Description/ Key Need Drivers	Projected ISD	Projected Cost	Status
E1. Victoria SS	Install RTU, replace line switch to improve communications	3/1/2007	\$0.3 million	In design and procurement phase
E2. Oseola SS	Install RTU to improve communications	3/1/2007	\$0.3 million	In design and procurement phase
E3. Masonville SS	Install RTU to improve communications	5/1/2007	\$0.3 million	In design and procurement phase
E4. Gladstone SS	Install RTU to improve communications	6/12/2007	\$0.3 million	In design and procurement phase
E5. Tilden SS	Install RTU to improve communications	TBD	TBD	Work not yet started by Construction Department
E6. Twin Falls SS	Install RTU to improve communications	TBD	TBD	Work not yet started by Construction Department

Distribution Interconnections





Distribution Interconnections

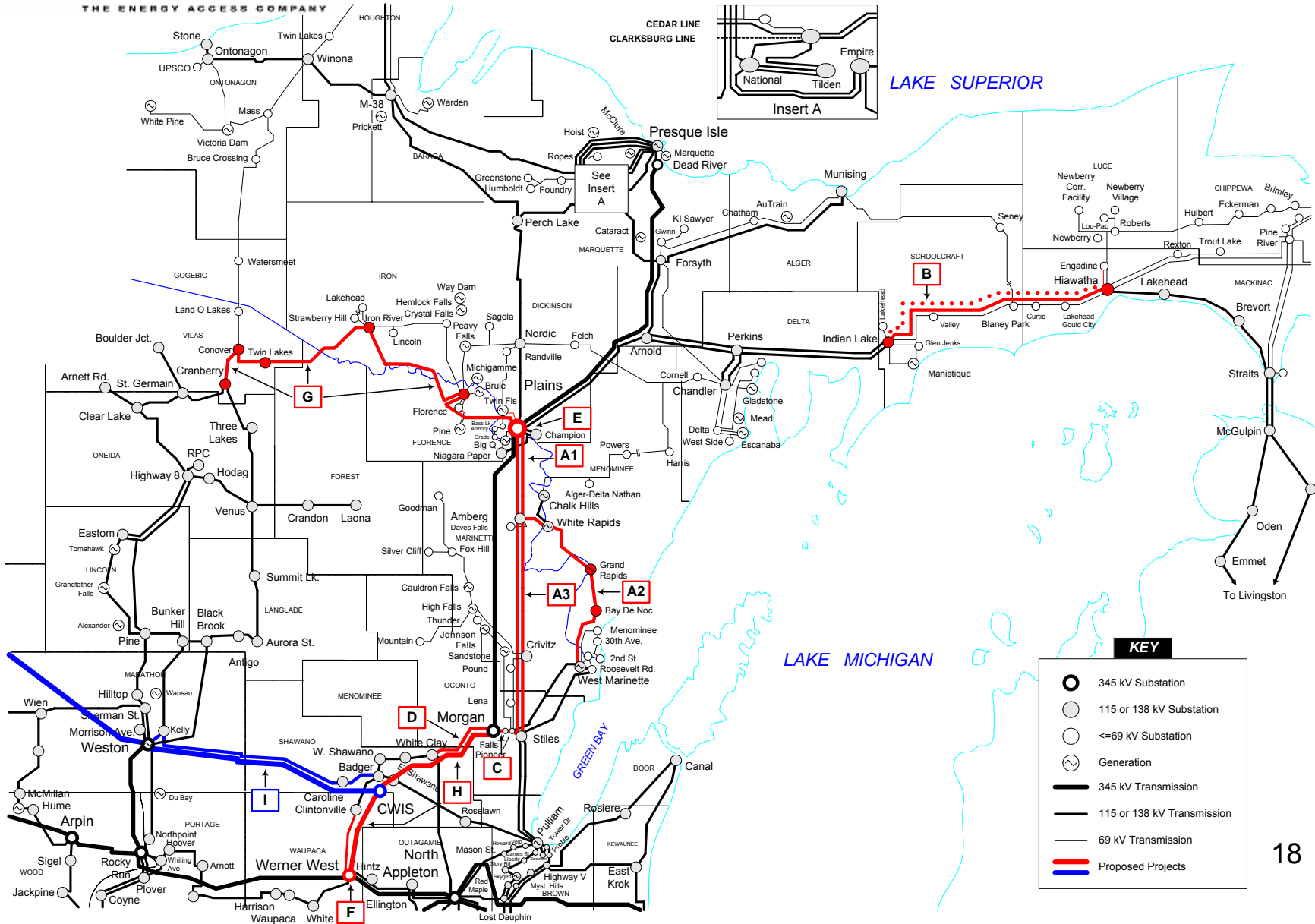
Project Name/ System Location	Project Description/ Key Need Drivers	Projected ISD	Projected Cost	Status
A. MTU SS	69kV line relocation to accommodate yard expansion at MTU SS	Under Development	Under Development	Some construction completed using pre-authorized capital (i.e. pole relocation). Project scope discussions are continuing.
B. Norway DIC	L6160 Tap to new Norway SS	7/1/2007	Under Development	Activities underway are to develop project scope, cost, schedule and execution plans.
C. Henry Street DIC	UPPCO request for interconnection	TBD	TBD	ATC Planning waiting for LIRF change form from customer



Zone 2 Capital Projects Activity Summary Late 2006-2008

- **36 distinct projects are forecasted to be worked on in this time frame in addition to those projects identified as part of the Northern Umbrella Plan**
- **Individual project cost estimates range from \$0.3 million to \$7.8 million excluding 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

- 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
- F:** New Werner West 345/138 kV Substation
- G:** Cranberry – Conover – Plains Project
- H:** Morgan – Werner West 345 kV Line (including Clintonville – Werner West 138 kV)
- I:** New Weston – Central Wisconsin 345 kV Line (for generator interconnection)



Project Overview and Status

Plains-Stiles 138kV Rebuild

- Re-conductor Amberg to White Rapids complete
- Rebuild White Rapids to West Marinette complete
- Rebuild Plains to Stiles
 - Plains-Amberg rebuild complete
 - Amberg–Crivitz rebuild completed April 2006
 - Crivitz-Stiles rebuild is on schedule for completion by October 2006



Project Overview and Status

Indian Lake to Hiawatha Rebuild

- Line rebuild was started in November 2004
- Line rebuild was re-energized at 69kV on March 31, 2006. Conversion to 138 kV under review.
- All work has been completed.



Project Overview and Status

Morgan to Stiles Rebuild

- Rebuild of the existing 11 mile H-frame single circuit with double circuit mono-pole steel structures is complete
- Modifications at Stiles substation to upgrade equipment to match the new line rating is complete
- Line and major substation work is complete



Project Overview and Status

Second Transformer at Plains

- Scope
 - Add a second 345/138 kV, 250MVA transformer
- Schedule/Status
 - Will obtain authorization in early 2007
 - Start design late 2007
 - Install in 2008
 - In service date may be pushed to 2009
 - Under review by ATC Planning



Project Overview and Status

New Werner West Substation

- Certificate of Authority from PSCW in June 2005
- Construction started in April 2006 with an expected December 2006 completion
- All equipment on order
- Engineering complete



Cranberry – Conover – Plains

Pre-certification activities	June 2004 – Sept 2006
ATC Executive approval	July 2005
ATC Board approval	July 2005
File CPCN application	November 2005
CPCN Order issued (expected)	October 2006*
Construction activities	April 2007-Dec. 2009
Project completion and in-service	December 2009

*Late order receipt may jeopardize project completion date



New Morgan-Werner West 345kV Line

ATC Executive approval	February 2005
ATC Board approval	February 2005
File CPCN application	March 2005
CPCN anticipated issue	July 2006
Pre-construction activities <i>(Surveying, engineering, real estate, material procurement)</i>	January 2006 – June 2007
Construction period	October 2006 – December 2009
Project in-service	December 2009



New Gardner Park-Central WI 345kV line

ATC Executive approval	February 2005
ATC Board approval	February 2005
File CPCN application	March 2005
CPCN anticipated issue	July 2006
Pre-construction activities <i>(Surveying, engineering, real estate, material procurement)</i>	January 2006 – June 2007
Construction period	October 2006 – December 2009
Project in-service	December 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	Project approved and under construction
•A1: Plains – Amberg		October 2005	-	Complete
•A2: Amberg – West Marinette		November 2005	-	Complete
•A3: Amberg – Stiles		October 2006	-	Amberg-Crivitz in-service Crivitz-Stiles underway
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			Phase I complete; Phase II in progress
•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		2009	Under Review	Scheduled for 2009, but need and scope is being reviewed
C: Morgan – Stiles 138 kV Rebuild as double circuit	Transfer capability	May 2006	\$8.0M	In-service



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	No PSCW approval required. Project Complete.
E: Add 2 nd Plains transformer (250 MVA 345/138 kV)	Transfer capability	2008	\$5.4M	No PSCW approval required. Scheduled for 2008.
F: New Werner West Substation with 345/138 kV transformer	TLR mitigation, system security	December 2006	\$15.3M	Below grade construction is complete. Above-grade construction is 85% complete. Test & Commissioning underway.
G: Cranberry – Conover – Plains Project	Transfer capability; Transmission service; Reliability, physical condition	December 2009	\$118.7M	CPCN submitted to PSCW in Nov 2005
• Rebuild 69 kV Conover – Plains to 138 kV		2009	-	Work scheduled to begin in 2008
• New 115 kV Cranberry – Conover		2007	-	Work scheduled to begin in 2007
H: New Morgan – Werner West 345 kV line & Clintonville – Werner West 138 kV line	Transfer capability, reliability	2009	\$132.3M	Survey work being completed – easements, material on order. Working with Regulatory (PSC) for approval of CMPs.
I: New Gardner Park – Central Wisconsin 345 kV line & Central Wisconsin 345 kV switching station	Required for new Weston 4 generation	2009	\$131.5M	Survey work being completed – easements, material on order. Working with Regulatory (PSC) for approval of CMPs.



Northern Umbrella Plan Summary

- Current estimated cost for all projects is \$558 million
- Total project spending to date is approximately \$178 million (through July 2006)
- Of the 9 projects –
 - 3 are complete and in-service
 - 1 is greater than 50% constructed
 - 1 is less than 50% constructed
 - 4 are in various stages of regulatory approval/permitting and design
- Construction and completion of all projects is expected in late 2009 per current plan with the possible exception of the Cranberry-Conover-Plains Project



Update on Outside Services

- Engineering consultant services (Black & Veatch Consultants)
- Strategic sourcing of construction management and contracting services



ATC Safety Initiatives

- ATC Procedure “Pre-Job Brief & Safety Audits”
- “ATC/Contractor Safety Council”
- Contractor performance safety data
- Contractor work practices
- Dupont Consulting Services developing practices
- Customer/Contractor Safety Reliability Message



Customer Relations Update

Tony Tewelis

Director - Customer Relations



Customer Relations Update

Customer Relations Department

- Interconnections Services
- Customer Relations
- Customer Communications



ATC Customer Relations

Interconnections Services

- Load Interconnections
 - Interconnection Agreements (T-T, T-D, T-R)
 - T-D Queue – LIRFs
 - Best Value / Least Cost Planning
 - Load Interconnection Design Guide
 - Load Interconnection Process
 - Project Commitment Agreements (PCAs – LIPCAs)



Customer Relations Update

Interconnection Services

- Business Practices
 - Balancing Authority Metering
 - Distribution Bridging for Transmission Work
 - Elective Interconnection Facilities
 - Distribution Underbuild
 - Joint-Use Substations Common Facilities
 - Line Relocation Costs
 - Load Interconnection
 - Make Ready Costs
 - Voltage Conversion Cost Allocation



Customer Relations Update

Interconnection Services

- Generator Interconnections
 - FERC
 - MISO OATT
 - Generation Queue
 - Coordination of Planning Studies
 - Interconnection Agreements
- Asset Transfers and Contributions
- House Moves



Customer Relations Update

Customer Relations

- Overall Account & Relationship Management
- Issue Resolution & Internal Functional Support
- Process Improvement and Business Practice Development
- Comparable and Consistent Treatment of Specific Customer Needs
- Current Initiatives
 - Customer Satisfaction – Timeliness of Service, Solicitation of Input, and Quality of Communication
 - Common Facilities Agreements
 - Project Services Agreements
 - O&M Agreements
 - Customer Communications & Network Customer Meetings – 11/16
 - 2007 Budget Presentation – 10/3



Customer Relations Update

Customer Relations

- Brett French Senior Regional Manager
(906) 779-7092
- Greg Levesque Manager - Customer Relations
(608) 877-3649
- Jeff Schraufnagel Manager - Interconnection Services
(262) 506-6782
- Tony Tewelis Director - Customer Relations
(262) 506-6797



Questions & Feedback