CLEAN LINE ENERGY PARTNERS

March 18, 2015

RESTORATION PLAN

GRAIN BELT EXPRESS PROJECT

POWER ENGINEERS

RESTORATION PLAN

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REVISION HISTORY		
REVISION	**REVISION DATE**	**DESCRIPTION**
0	03/16/2015	Original Draft

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RESTORATION PLAN

Introduction

As a part of the ongoing development of the Grain Belt Express Clean Line 600 kV HVDC project, Grain Belt Express Clean Line LLC ("Clean Line") has initiated development of the core components of the operations and maintenance plans that will ultimately become a portion of the operating procedures for the project. One of these copmponents is a Restoration Plan, or the procedure to be implemented in response to an outage or other emergency conditions that will be encountered over the life of the project resulting in damages requiring structure or component replacement. This plan addresses the transmission line portion of the project. Other plans will be developed to address the stations that are associated with the project.

This manual documents the materials, equipment, special techniques and general procedures for restoring the 600 kV line owned and operated by Clean Line in the states of Kansas, Missouri, Illinois, and Indiana. The line length will ultimately be over 750 miles across these states, originating in western Kansas and crossing Kansas, Missouri, and Illinois. It will terminate in western Indiana. There will be three HVDC converter stations associated with the line; in western Kansas, eastern Missouri, and eastern Illinois. These station locations are noted in this manual as likely operations bases since they will be facilities owned and operated by Clean Line and have office and operations functions present. As plans are developed, the locations may be off site or at nearby locations.

The manual has four primary purposes:

1. Document potential materials, equipment, techniques and resources available for use in restoring the line after an outage has occurred, assuming failure of a facility component required for energized operations or safety, such as wire or a structure. For simplicity in this document, such components may be referred to as a structure or component;
2. Provide process outlines and critical decision making information for use in the event of structure failure;
3. Provide the initial conceptual plan to be enhanced as project design details and operations strategies are developed;
4. Once completed in detail, serve as a training manual for engineering, management and field personnel who were not involved in the initial development of this program; and

5. Provide decision makers with a single source reference for critical design, engineering, construction, and access information for use in the event of a structure or component failure.

The manual is divided up into several sections, each with a distinct purpose. The first section is a general overview of the restoration plan, followed by a more detailed description of restoration options.

The second section is a detailed decision making outline of what to do in the event of a failure. This is intended to help a manager or other decision maker rapidly make the right choices when reacting to a failure.

Subsequent sections and appendices describe in more detail individual aspects of the restoration plan and may be used for reference as needed. In certain sections, additional content or detail will be added or integrated at a later date.

Future Detailed Development of the Plan

The manual will be revised and additional detail will be added as the project continues to develop through receipt of regulatory approvals, final routing, detailed engineering and design, and construction.

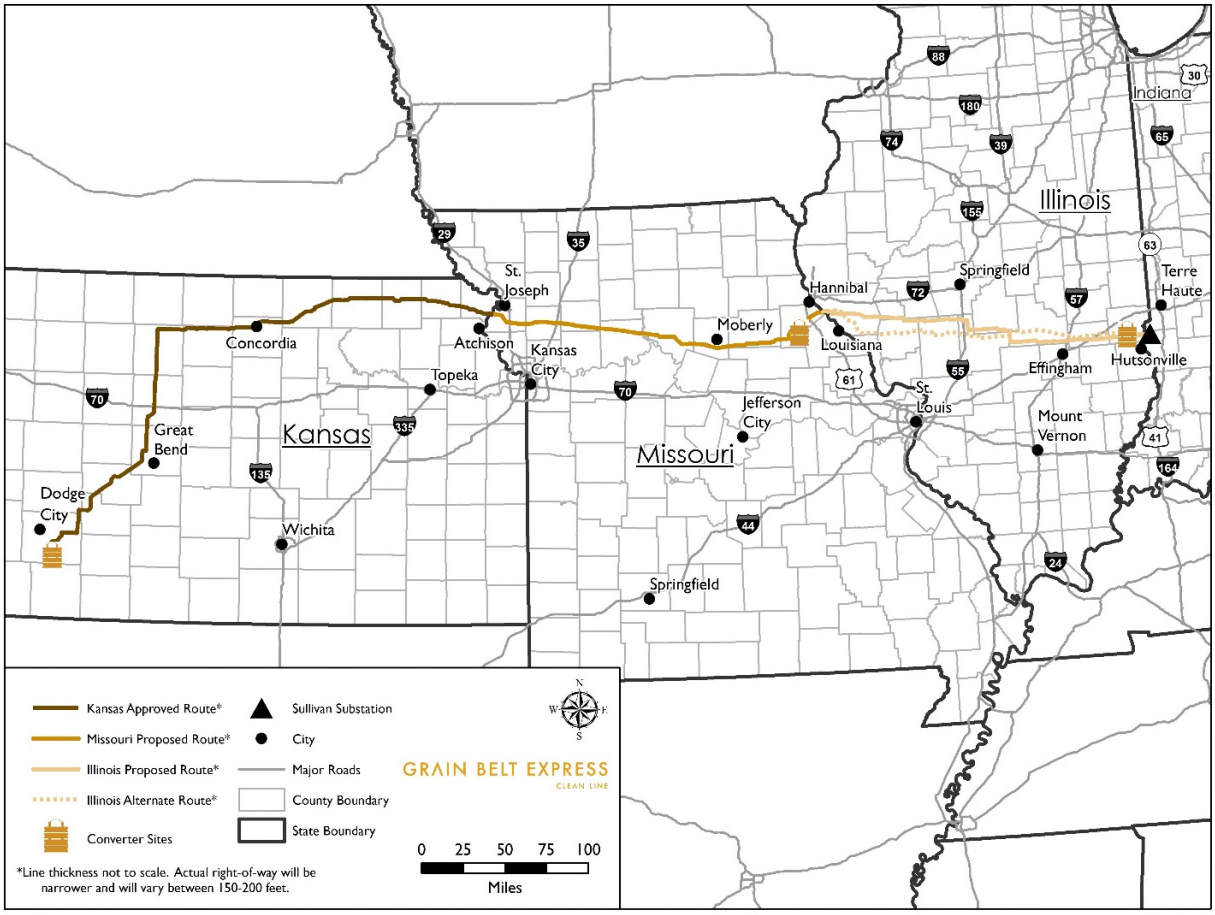
Executive Summary

Clean Line is developing the Grain Belt Express Clean Line, a 600 kV HVDC transmission project that will traverse approximately 750 miles across Kansas, Missouri, Illinois, and into Indiana. The project includes three HVDC converter stations that will provide the ability to transfer energy from wind farms in Western Kansas to Missouri, Illinois, Indiana and surrounding areas. See Figure 1-1 for an overall Project Vicinity Map.

Electrically, the line is continuous, but from an asset operations and maintenance perspective, it will ultimately be divided into multiple sections for identification, monitoring, and maintenance purposes. As the response plan is developed in detail, it will likely correlate to these more detailed section identifications.

For the purposes of this initial development, the major project sections are by state, with adjustments on the eastern end of the project in Indiana and Illinois. Terrain, accessibility, and primary challenges associated with restoration activities will be expanded during detail design and construction.

FIGURE 1-1 GRAIN BELT EXPRESS PROJECT MAP



The detailed plans that are ultimately developed and outlined in this manual will address the known challenges to restoring any segment of the 600 kV HVDC line as rapidly and safely as possible.

The restoration concepts which have been initially identified and developed are as follows:

1. Ground Based Access – Solutions with access using existing or easily constructible ground access for structure sites which are within reasonable proximity to a road with established access rights for Clean Line. This will include access via roads or trails to be developed during detailed design and construction of the line.
2. Air Based Access – Solutions will be developed as necessary for locations that will need to be accessed entirely by air. Locally available helicopters would be used initially for mobilization and preparation work followed by a heavy lift helicopter for setting structures. These aerial access requirements will be defined and developed during detailed design and construction of the line. Initial assessment of outages may also include helicopter inspections.
3. Hybrid Access – Solutions will also be developed as necessary for locations that may need to be accessed using a combination of ground based access for crews and equipment followed by tower setting by heavy lift helicopter.

The restoration plan will include new restoration structures, replacement conductor, and other special equipment. The structures and most of the other special equipment will be in lay-down yards and warehouse facilities along the project route. Placement of these locations and the materials to be stored in each will be determined by final design of the line, since it will determine the actual placement of different structure types and associated hardware. It is assumed that there will be at least three substantial warehouse facilities, one at or near each converter station. The major items are listed below.

1. Structures – Structures to be kept on-hand for restoration activities may include the following types, depending on location and utilization in the final design.
    a. A variety of tangent, dead end and angle structures (lattice towers or steel poles) of the original design may be kept in inventory.
    b. A specialty structure may be designed and inventoried that could serve as a replacement for several of the standard structure types in emergency situations. This could be a unique guyed tower, lattice mast, or other specialty design for use where the conductors are intact and lifting intact conductor bundles is preferred.
    c. A single mast tower for use where the conductor will be re-strung.
2. Mats – For portions of the project with terrain requiring matting, a quantity of mats may be stored at the yards for emergency use. The size and quantity will be determined based on the location and terrain during detailed design and construction.
3. Equipment – Equipment requirements will be determined during detailed design and construction, but will include pieces such as small cranes, large cranes, excavators, and other equipment required for handling materials and performing the ground work required in an emergency. Some equipment may also be available locally for rental and contracted as an alternative to being owned and stored when not in use.
4. Special equipment – Winches, hydraulic cutters, tracked loaders, anchor installation tooling and numerous other items will be purchased or contracted to complete the restoration plan equipment requirements.
5. Miscellaneous Materials – The inventory of line restoration materials will be defined during detailed design and construction. The material requirements will match the materials installed on the line for the response region supported by each facility.

The special equipment and materials which will be purchased are not intended to be all-inclusive. Materials and equipment which are likely be readily available from commercial rental fleets, contracted inventories or ordinary tool inventories will not be purchased as part of this program.

Resource and material assumptions – As with any storm or emergency situation in the power business, successful execution of this plan requires that Clean Line divert all available field, engineering, administrative and executive resources toward restoring the line in event of an incident. These resources may include contracted or partner entities as well as Clean Line resources.

A restoration manager will be responsible for the restoration effort and will be the primary decision maker during the restoration event. This manager may respond to the site, a location near the site, or control the operations from another location with direct coordination and communication with his/her representatives onsite.

The key to making the restoration effort successful will be the authority to very rapidly execute large purchase and rental contracts – for helicopter service, heavy equipment, cranes, mat rental etc.

1.0 Overview of the Plan

1.1 Line Description & Maps

The Grain Belt Express 600 kV HVDC transmission line begins in southwestern Kansas in Ford County. The line traverses generally to the northeast to Osborn County before turning generally in an eastward direction. It then traverses in a generally eastward direction to Doniphan County where it crosses into Missouri. In the western portion of the state the line is realatively accessible due to its proximity to US and state highways. The northern section of the line in Kansas has localized access from Interstate, US, and state highways, with a significant portion of the access by Farm to Market and County roads, making access for inspection and response a little more challenging. Access to the Missouri River Crossing into Kansas will require crossing using bridges in Achison to the south or St. Joseph to the north. See Figure 2-1 for the Kansas line segment.

In Missouri the line traverses generally west to east from Buchanan County to Ralls County where it crosses the Mississippi River into Illinois. There are limited locations where the line parallels east-west US or state highways, which will result in more difficult accessibility for rapid inspection and restoration activities. Access to the Mississippi River Crossing will require crossing using bridges in Hannibal to the north or Louisiana to the south. See Figure 2-2 for the Missouri line segment.

In Illinois the line enters into Pike County and traverses generally eastward to Clark County where it crosses into Indiana to its destination near the state line. There are limited locations where the line parallels east-west US or state highways, which will result in more difficult accessibility for rapid inspection and restoration activities. Access to the Wabash River Crossing will require crossing using the bridge in Hutsonville to the south. See Figure 2-3 for the Illinois line segment.

Figure 2-1 - Kansas Route Map

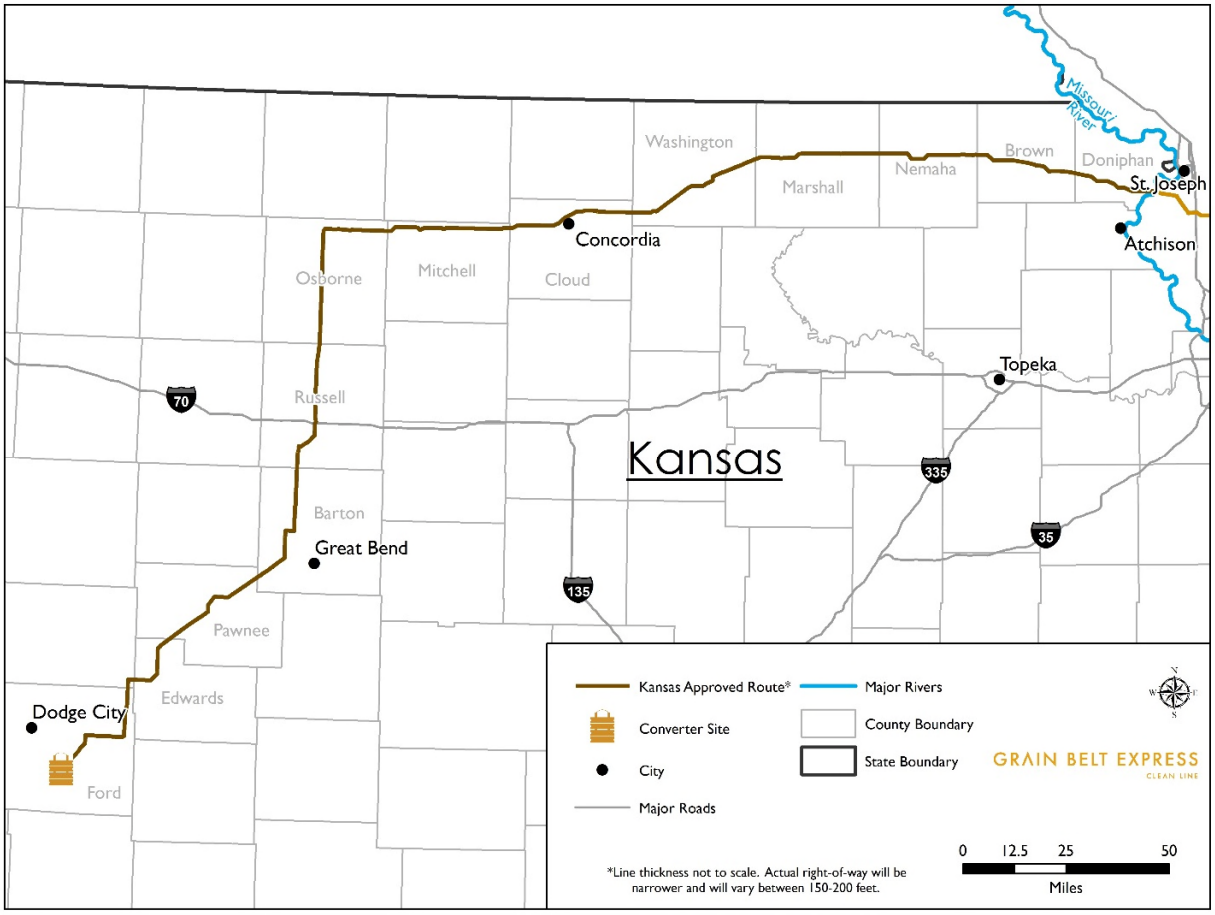


Figure 2-2 - Missouri Route Map

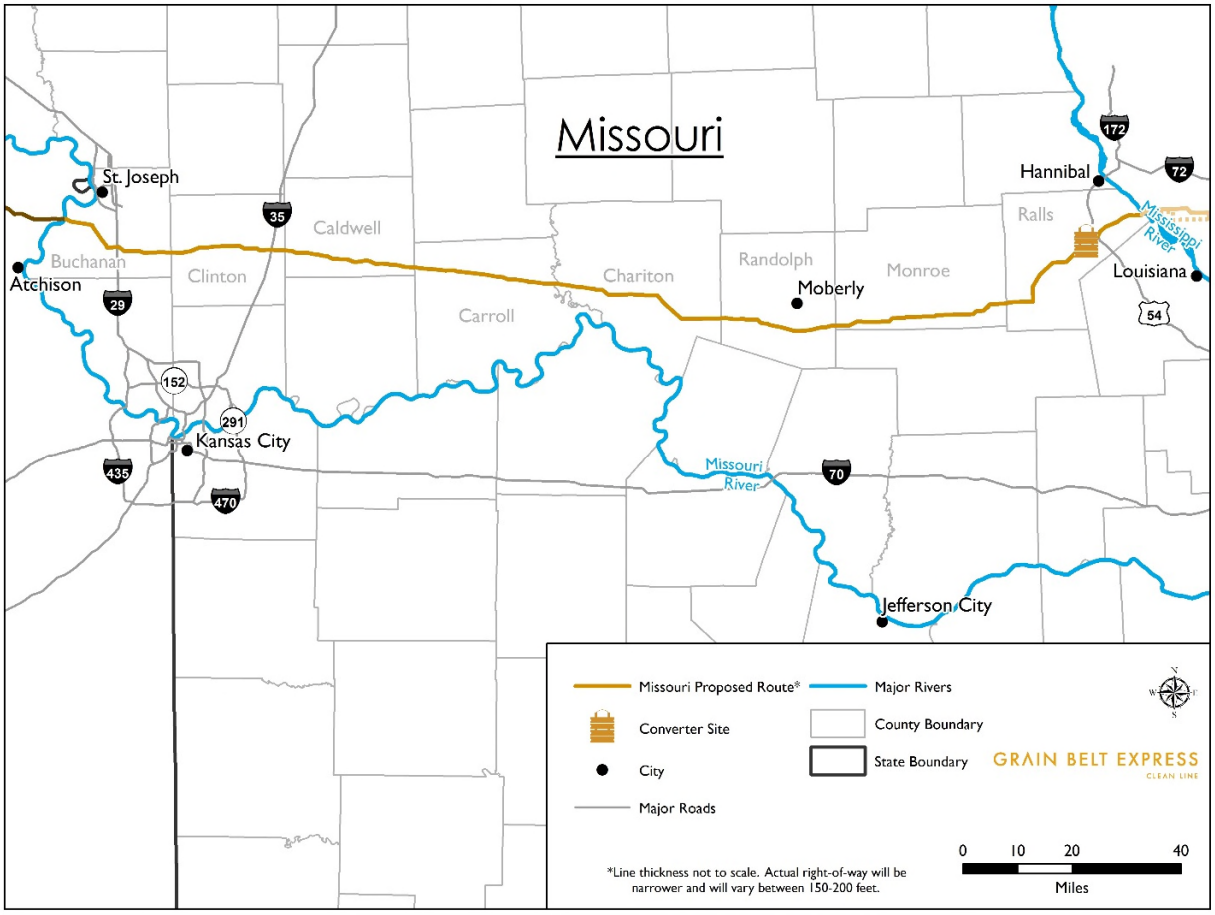
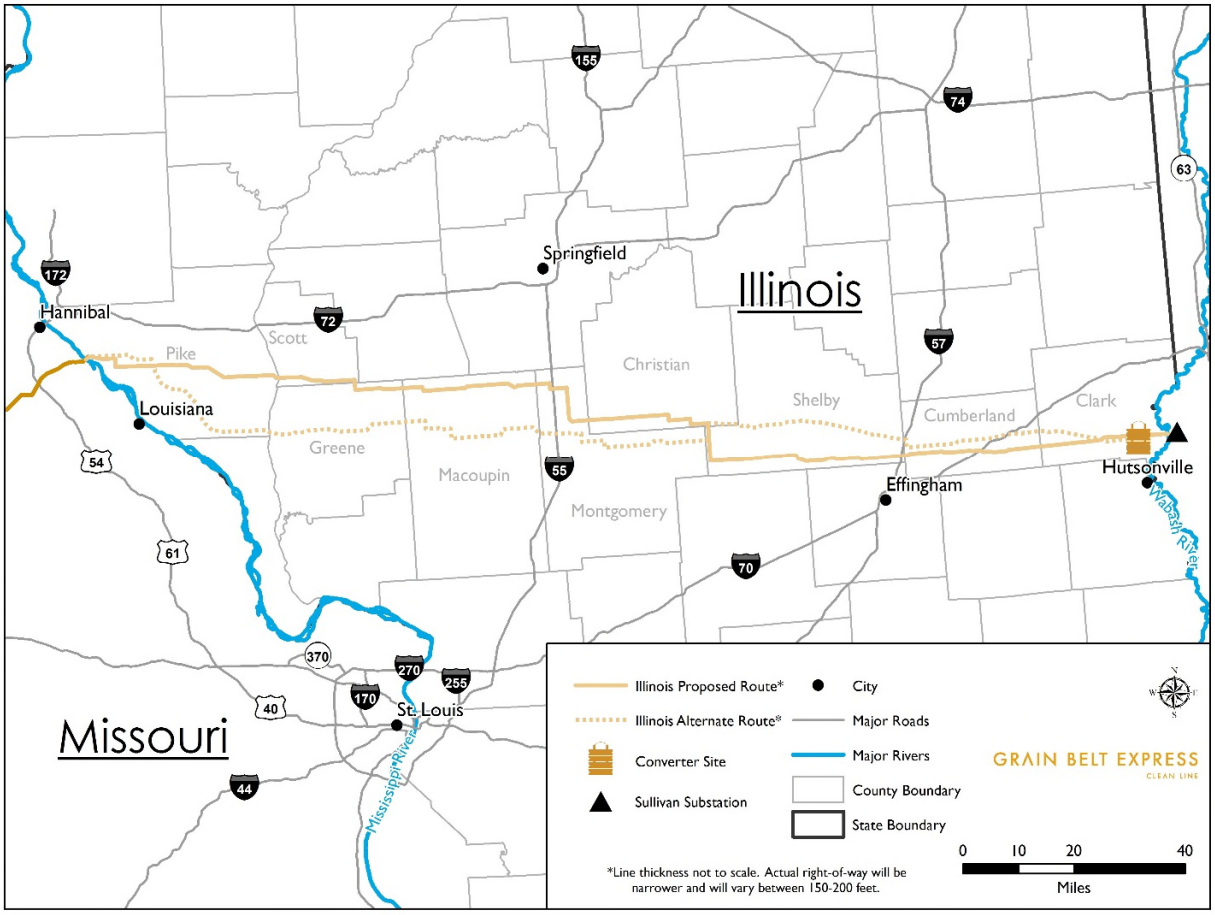


Figure 2-3 - Illinois Route Map



2.0 Detailed Summary

2.1 Options

2.1.1 Ground Based – The ground based option has been developed for restoration activities within close proximity to a permanent road and assumes little, if any, helicopter assistance in restoration. Small helicopters or fixed wing aircraft may be used initially to identify the area of restoration and initial steps in the restoration effort. A small helicopter will remain at Clean Line's disposal throughout the restoration effort. The further use of helicopters in a land based approach will be described in paragraph 2.1.3, Hybrid Restoration.

An assessment team, described in paragraph 3.1.3, will be mobilized to the site quickly. The purpose of the assessment team is to determine the access and ground conditions, mat requirements, equipment requirements, material requirements, and personnel needed for the restoration effort. The assessment team will guide the layout of the access roads and work area requirements near the structure(s).

Upon confirmation of restoration requirements, ground access preparations will begin immediately, including mobilizing mats and other equipment necessary to establish safe access and and work areas.

Also upon confirmation of a restoration, the dedicated storage containers (conex boxes) and other tools stored at the nearest response facility will be transported to the work site so the damaged structure demolition could begin.

The ground based approach is very dependent on the timely arrival of the necessary heavy equiment. Accordingly, activities to transport these large pieces of equipment should commence as soon as possible.

Upon securing an appropriate work area near the base of the structure, activities to remove the existing structure and install its replacement would commence. For specialty temporary replacement structures this may include the installation of temporary bases, helical piers or anchors if the replacement structure requires guying. If the replacement structure is capable of placement on the original foundation then the replacement structure would not require alternative construction appertunances.

If the replacement structure requires a new foundation appropriate equipment will be mobilized to be installing the new foundation in close proximity to the existing structure while the damaged structure is removed.

Additionally, any anchors, whether temporary or permanent, would be installed before structure erection would begin, using appropriate equipment for the site and conditions.

An important intermediate step at this point is to position the conductor bundles in the correct positions to allow for installation of the replacemenet structure.

Generally the configuration will require one group of wires positioned on either side of the replacement structure body. However, alternative structure types may require adjustments to the spacing and location of the wires during structure installation. After structure installation the wires will be positioned for lifting directly upward into their final positions.

For structure assembly, the assessment team would determine whether the structure components would be pre-assembled or assembled at the work site. If pre-assembled, lifting equipment would be needed to off-load the components and position them for final field assembly. For a tower being assembled at the worksite, smaller equipment could off-load the bundles and the structure could be bolted up without the benefit of a large crane.

The lifting of the structure will require a larger land based crane. Access roads and bearing pads will need to be sufficiently strong for a large land based crane. Less may be needed if a swamp buggy style crane is used with wider and longer tracks to reduce to concentration of ground loads.

Upon lifting the structure to the approximate final position, temporary guys may need to be installed from the ends of the cross arms to the ground for temporary support.

Upon positioning the structure, the rigging diagrams are used as guidance to lift the conductor bundles in place, add permanent guying for guyed structures, and remove temporary guying. Skid mounted winches are necessary to carry out some of these rigging activities.

Upon installing the conductor bundles and any permanent guying, the shield wires are installed.

Upon notification from the restoration manager, demobilization commences.

2.1.2 Helicopter Lift

For a work site away from a permanent road or with restricted access, a fly-in option will be developed. Various stages of the restoration effort will require different capacity helicopters. This option will require consideration in the detail design phase of the project so that structure design specifications are used that provide the design requirements applicable to helicopter work limitations.

Small helicopters will be used initially for reconnaissance for three or four passengers with limited cargo capacity. One small helicopter will remain at Clean Line's disposal throughout the restoration effort.

With the exception of structure erection, a helicopter with a minimum lift capacity of 3,000 pounds will transport the materials from the nearest marshalling yard to the work site.

Structure erection will require a helicopter with larger lift capacity, at least 10,000 pounds based on regional availability. The erection of a typical structure would require multiple picks with this type of helicopter, which may increase safety risk concerns. A 20,000 pound capacity helicopter is required for erecting the structure in fewer picks. The mobilization time of large helicopters is often several days, therefore, it is of immediate importance to arrange for a large helicopter to fly to the restoration area.

The assessment team will identify the location of a marshalling area. Most of the materials, tools, and small equipment would be trucked to the marshalling area and off-loaded. Personnel would be assigned there to rig the lifts for the helicopters.

Initially a few small mats are flown in to start building some working areas. A few small mats for the initial space would be manually assembled. After building a small working area, a skid steer such as an ASV60, the largest piece of ground based equipment in the fly-in option, would be flown in. A modified skid ster loaders that can be broken down into pieces will likely be required. This allows the skid steer loader to be flown in multiple lifts, all of which are less than 3,000 pounds. The modified skid steer loaders is then reassembled on site with hand tools.

The restoration procedure for the fly-in option is similar to the ground based approach until the structure is lifted in position. As explained above, the structure will be lifted in multiple lifts depending on the availability of helicopters.

Upon notification by the restoration manager, demobilization commences.

2.1.3 Hybrid Restoration

Two aspects of the restoration effort may make a blending of approaches desirable. The ground based approach relies on a narrow access road to import materials, equipment, tools, and personnel to the worksite. Helicopters could be added to speed up the delivery of resources to the worksite. Secondly, the use of the large heavy cranes for structure erection may be slow, difficult, or possibly unsafe. Using a helicopter to erect the structures may therefore complete restoration faster.

2.2 Structure Types

Information on the structure types, where each is used, demolition guidelines, assembly procedures, and other applicable structural information will be available in both hard copy in a designated office location and electronically.

The structure inventory and location(s) will be maintained and available in both hard copy in a designated office location and electronically.

Erection procedures for each structure type will be intended to restore the line without cutting the conductors.

Any consideration for helicopter construction must be included in the structure designs and specifications.

2.2.1 Tubular Steel Poles

Tubular steel pole structures will be used on some portions of the Grain Belt Express project and will be maintained in inventory. Anchor bolt cages that match the designs of the inventoried structures will also be kept in smaller quantities in the event that a new foundation and pole structure are needed. The installation of a new foundation will also require rapid foundation design for the location and the use of rapid construction techniques and concrete to reduce potential delays.

2.2.2 Lattice Towers

Lattice tower structures will be used on the Grain Belt Express project, and will be maintained in inventory. Stub angles or other foundation adaptions that match the designs of the inventoried structures will also be kept in smaller quantities in the event that new foundations are needed. The installation of a new foundation will also require rapid foundation design verification for the location and the use of rapid construction techniques and concrete to reduce potential delays. Lattice tower designs with modular components that can bolt together for any desired structure height are also a potential special restoration structure. The structures to be designated for helicopter construction will be designed so they can be erected using a medium lift helicopter (10,000 lb capacity) or a large capacity helicopter (20,000 lb capacity), with the difference being the number of lifts required. Alternatively the lattice structures can be erected with a crane.

2.2.3 Guyed Structures

In certain circumstances, there may be application for guyed structures on the Grain Belt Express project. Should they be used, an appropriate emergency restoration quantity would be included in inventory at the appropriate location(s). Guying and anchorage hardware and installation equipment would be required for their installation.

2.3 Resources

Restoration of the line will be completed by Clean Line or contract personnel. As the operations and maintenance procedures for the transmission line are established, an integral part of that effort will be determining appropriate internal versus contract staffing along with their location. A list of supplemental suppliers and contractors is discussed in Section 4. In addition, assistance may be available from other utilities through Mutual Assistance Groups.

2.4 Materials

Inventory requirements and storage locations will be determined during detailed design and construction to reflect the appropriate quantities as well as appropriate locations for the various materials. Materials needed beyond the designated emergency inventory and storage locations will need to be verified to be available from regional Mutual Assistance Groups or from the suppliers discussed in Section 4.

2.5 Equipment

During the detailed design and construction phase of the project, the equipment required for operations, maintenance, and emergency restoration activities will be identified. The equipment will either be purchased and strategically placed along the line at Clean Line facilities, or it will be identified as available regionally and confirmed to be available to respond to restoration events.

Detailed specifications will be included as Appendix 2 to this plan with the listing noting the size, weight, capacity, and other useful information.

Some samples of the types of equipment are listed below as examples.

Aerial Response Equipment:

- Patrol Helicopter
- Medium Lift Helicopter
- Heavy Lift Helicopter

Heavy Equipment:

- Rubber Tire Crane
- Tracked Crane
- Excavators
- Skid Steer Units

Tools:

- Portable Storage Units
- Winches
- Hoists
- Cutting Equipment

Access Equipment:

- Matting
- Matting Placement Equipment & Tools
- Erosion Control Measures

3.0 What to do first when 'THE CALL' comes in

3.1 Assess and Plan

Notification – Emergency response phone number will be posted prominentnly on project web site and on file with state regulatory bodies and any other appropriate agencies or organizations, including local police and fire.

3.1.1 Initial indication of failure location

Notification will be made to the restoration manager who will in turn make notification to the assessment team and the aerial patrol company as indicated in paragraph 3.1.2.

3.1.2 Contact and mobilize assessment helicopter or fixed wing, if available, to make initial report regarding location and extent (number of structures).

The restoration manager will notify the patrol helicopter company and line maintenance staff to initiate an aerial patrol. An alternate company with a fixed wing aircraft may also be engaged.

3.1.3 The assessment team (Transmission Engineer, Construction Manager, Lineman) fly and document extent of failure and make primary decisions on restoration effort.

The assessment team will report to a predetermined meeting site and fly with the small helicopter to the appropriate response yard, pick up the assessment tools, and then fly on to the worksite.

3.1.4 Mobilize medium-duty helicopter with 3,000 lb lift capacity for response operation.

It is suggested that one helicopter of this capacity be mobilized even if a ground based approach has been decided.

Helicopters of this capacity are available from: [To be completed]

Brand	Model	Capacity	Company	Phone
Bell (Huey)	UH1-B	3,000		
Bell	205	3,600		
Bell	212	4,500		
Bell	214B1	6,000		
Sikorsky	S61-R	6,500		

3.1.5 Determine type of restoration effort, i.e., ground-based, air lift or hybrid.

3.1.5.1 Ground-based efforts for heavy crane operations in poor gound conditions can be much more time consuming and have inherently higher

risk with access roads, potentially requiring mat road building for crane loads.

3.1.5.2 The maximum for mat road construction will be determined by the amount of matting and other road stabilization materials available and may be less if heavy-section mat road is required for heavy crane operation. Otherwise, heavy lift air operation is necessary.

3.1.5.3 If airlift restoration, contact and mobilize heavy-lift helicopter.

Heavy lift helicopters are available from:

Brand	Model	Capacity	Company	Phone
Boeing-Vertol	107-II	10,000	Columbia Helicopters	
Sikorsky	Chinook 234-LR	20,000	Columbia Helicopters	
Sikorsky	SkyCrane S64E	20,000	Erickson	
Sikorsky	SkyCrane S64F	25,000	Erickson	
Sikorsky	Chinook 234-U	26,000	Columbia Helicopters	
			Siller Helicopters	

The listing above is preliminary and will require validation and completion.

3.1.5.4 Notify all available resources of needed support.

3.2 Mobilize To Staging Location

3.2.1 Dispatch trucks with equipment
3.2.2 Dispatch restoration “tool boxes” from storage yards
3.2.3 Dispatch crew(s) to storage yards with crane to prepare new structure(s)
3.2.4 Dispatch civil crew to load and haul mats and equipment
3.2.5 Dispatch fleet mechanics and tool trucks
3.2.6 Deploy access mat layers if road accessible – run 24 hour shifts
3.2.7 Order large cranes to load and help assemble any heavy equipment broken down for transport
3.2.8 Mobilize to site from staging location, likely on right of way from nearest road

4.0 Contacts and Organization Charts

4.1 Emergency Contact List (to be completed)

Area	Contacts(s)	Office Phone	Home Phone	Pager	Cell Phone
Transmission Construction & Maintenance					
Transmission Engineering Support					
Converter Station Engineering Support					
Converter Station Construction and Maintenance					
Siting & Land Rights – Permits					
Line Clearance					

4.2 Vendor List

During the detailed design and construction phase of the project, the equipment and resources required for operations, maintenance, and emergency restoration activities will be identified. The contractors or vendors for resources and equipment will be listed in an Appendix.

Detailed contact information and specific information about the service or product from each vendor, including contractual information will be included with the listing to assist in making communications as efficient as possible during a restoration event.

Some samples of the types of vendors are listed below as examples.

Primary Construction Contractors:

- Transmission Line Contractors
- Substation Contractors
- HVDC Station Contractors
- Foundation and Anchorage Contractors

Primary Material & Hardware Suppliers:

- Transmission Line Hardware
- Substation Hardware
- HVDC Station Hardware
- Civil Construction Materials
- Concrete

Structure Vendors:

- Lattice Towers
- Steel Poles
- Foundation and Anchorage

Aerial Response Contractors:

- Patrol Helicopter
- Medium Lift Helicopter
- Heavy Lift Helicopter

Heavy Equipment:

- Cranes
- Excavators
- Skid Steer Units
- Foundation Drilling Contractors

Tool:

- Portable Storage Units
- Winches
- Hoists
- Cutting Equipment

Access Equipment:

- Matting
- Matting Placement Equipment & Tools
- Erosion Control Measures
- Soils Testing
- Right of Way Clearing
- Right of Way Restoration
- Grading Contractors

Miscellaneous Vendors and Resources:

- Emergency Response Support (Medical Air Services)
- Emergency Transportation (Charter Air Freight)
- Mutual Utility Assistance Group Contacts

5.0 Restoration Execution

The execution guide below highlights potential steps in the restoration of a lattice tower. Steps for a steel pole structure would be similar. Detailed procedures will be prepared for each structure type used on the line based on the final line design and knowledge learned during construction of the line.

5.1 Access Work Site

5.1.1 Using Mats

5.1.1.1 Soil strength assessment – prior to construction of mat road

Soil strength testing using vane shear testing and probing with hand tool may be required to assess soil cabablilities. Based on soil cabability, matting requirements will be determined.

5.1.1.2 Mat Crew Resources –

Mat crew should have more support personnel and equipment than the 'front-line' installation crew for transporting and shuttling mats to stay ahead of installation crew(s). This becomes more important as the access road gets longer. Mat configuration alternatives will be reviewed for the most appropriate installation to distribute load.

5.1.2 Using Helicopters

5.1.2.1 When ground access is not available or efficient, detailed job site planning will be conducted to determine the mobilization and execution stragegy and step by step procedures.

5.2 Prep for Tower Work

5.2.1 Bring in small mats and light ASV with equipment to begin site prep
5.2.2 Bring in tools and anchoring materials for securing conductors
5.2.3 Possibly lower conductors on adjacent towers to relieve tension stresses
5.2.4 Likely install anchors to restrain downed conductors so they can be detached from hardware assemblies
5.2.5 Cut tower parts to free conductors from tower debris
5.2.6 Move and protect conductors and shield wires. Do not cut conductors.
5.2.7 Demolition of downed structures to clear work area
5.2.8 Assess existing foundation conditions
5.2.9 Preliminary staking of new foundation area and possible anchor locations for staging of mat and work areas

5.3 Install New Foundations (if necessary)

5.3.1 Use same pier/pile material used on existing foundations (from inventory)
5.3.2 Installation details will vary based on foundation required

5.4 Structure Setting and Conductor Work

5.4.1 Tower Assembly

5.4.2 Rigging and Setting - Detail procedures will vary based on actual tower being installed, including construction loads, max lifting weights, sling lengths, attachment/rigging points, etc.
5.4.3 Conductor assemblies, MRC assemblies, and shield wires will be staged prior to setting structure using supporting assemblies and equipment as required
5.4.4 Tower Base, adaptions, and top cage will be installed
5.4.5 Temporary guying will be installed to support the conductor attachement if necessary
5.4.6 Conductor lifting using support equipment or air winches
5.4.7 Conductor and shield wire assemblies will be reattached
5.4.8 Permanent guying will be installed if applicable
5.4.9 Structure grounding will be reinstalled or reconnected

5.5 Demobilize

5.5.1 Remove equipment
5.5.2 Dispose of waste material/debris
5.5.3 Remove matting and other temporary access measures
5.5.4 Perform any other necessary site restoration activities

6.0 Supporting Sections

As the operations and restoration plans are developed in detail additional content may be added for clarity and information. Some potential additions include:

- Operations and maintenance facility location maps
- Predetermined staging area maps, particularly for helicopter operations
- Equipment yard layout drawings
- Equipment yard inventory
- Equipment mobilization detailed plans for the various pieces of equipment
- Material yard layout drawings
- Material yard inventory
- Material loadout and mobilization plans for truck mobilization
- Minimum inventory lists for each storage facility
- Office layout drawings indication locations of critical information, drawings, etc.
- Local rental typical items lists, such as light plants, that are reasonably anticipated

Appendix 1 – Emergency Response Flow Chart

Appendix 2 – Examples of Emergency Response Equipment

(Future Development)

Appendix 3 – Vendor Lists

(Future Development)

Grain Belt Express 600 kV HVDC Transmission Line
EMERGENCY RESPONSE FLOW CHART
(Preliminary & Conceptual)