

FOR BOARD ACTION

Agenda Item #

6

Meeting Date:

12/20/11

SUBJECT:

CapX2020 Hampton Joint Effort Agreement

PREPARED BY:

Randy Anderton, Manager of Engineering

ITEM DESCRIPTION:

CAPX2020 currently consists of four different large scale transmission projects (Fargo project, Bemidji project, Brookings project, and Lacrosse project) within the state of Minnesota, and RPU is a partner in the Lacrosse project. As part of the Brookings and Lacrosse projects, a substation will be built just north of Hampton, MN that will be a common point between these two CAPX projects and will be allocated equally between the two projects. The partners for both the Brookings and Lacrosse projects are shown below:

Brookings Project – (Xcel, GRE, CMMPA, MRES, Ottertail)

Lacrosse Project – (Xcel, SMMPA, Dairyland, RPU, WPPI)

The Hampton Joint Effort Agreement describes the terms and conditions that all signing parties from both projects are agreeing to for the development of the substation. Xcel Energy will fund the construction and retain discrete ownership of the Hampton Substation. The Hampton Substation is an integral part of the Lacrosse project, and Xcel Energy will receive recognition of 50% (the other 50% going to Brookings) of the construction cost as a Lacrosse Project cost.

FOR CAPITAL PURCHASES/BIDS/MAJOR PROJECTS:

The approval of the Hampton Joint Effort Agreement obligates RPU to terms and conditions when and if RPU/City signs the Project Participation Agreement (PPA) in 2012. RPU will not be under additional funding obligation by signing the Hampton Joint Effort Agreement until RPU/City authorizes an amendment to the PDA (Project Development Agreement), and/or RPU/City signs and authorizes the PPA. Signing of the PPA is currently scheduled to happen mid to late 2012.

Funding for the PPA expenditures will be accomplished through bonding.

UTILITY BOARD ACTION REQUESTED:

Management recommends that the Board request Council to approve the Hampton Joint Effort Agreement with Xcel, GRE, CMMPA, MRES, Ottertail, SMMPA, Dairyland, and WPPI, which describes the terms and conditions that RPU will be obligating itself to, if the Project Participation is approved and signed in the future, and that the Council authorize the Mayor and City Clerk to execute the Agreement.


General Manager


Date

ROCHESTER PUBLIC UTILITIES

HAMPTON JOINT EFFORT AGREEMENT

THIS HAMPTON JOINT EFFORT AGREEMENT (this “**Agreement**”) is entered into and effective at 12:01 a.m. Central Time as of _____, 2012 (the “**Effective Time**”), by and among: (i) Great River Energy, a cooperative corporation incorporated under the laws of Minnesota (“**GRE**”); Central Minnesota Municipal Power Agency, a municipal corporation and political subdivision of the State of Minnesota; Western Minnesota Municipal Power Agency, a municipal corporation and political subdivision of the State of Minnesota; Otter Tail Power Company, a corporation organized and existing under the laws of the State of Minnesota; and Northern States Power Company, a Minnesota corporation (“**NSP, MN**”) (together with its successors and permitted assigns, each individually a “**Brookings Owner**” and, collectively, the “**Brookings Owners**”) and (ii) Dairyland Power Cooperative, a cooperative association incorporated under the laws of the State of Wisconsin; the City of Rochester, a Minnesota municipal corporation acting through its Public Utility Board; Southern Minnesota Municipal Power Agency, a municipal corporation and political subdivision of the State of Minnesota; WPPI Energy, a municipal electric company, political subdivision, and body public and corporate of the State of Wisconsin; NSP, MN; and Northern States Power Company, a Wisconsin corporation, (together with its successors and permitted assigns, each individually a “**La Crosse Participant**” and, collectively, the “**La Crosse Participants**”). The Brookings Owners and (a) to and until the La Crosse Project Participation Agreement is executed, the La Crosse Participants or (b) from and after execution of the La Crosse Project Participation Agreement, the La Crosse Owners are sometimes hereinafter referred to individually as a “**Contracting Owner**” and collectively as the “**Contracting Owners.**”

RECITALS

- A. The Hampton Substation will be constructed and placed in service for the benefit of the Brookings Project and, upon execution of a project participation agreement for the La Crosse Project by the La Crosse Owners (the “**La Crosse Project Participation Agreement**”), for the benefit of the La Crosse Project;
- B. The Brookings Owners, as of the Effective Time, will have entered into a self-performance agreement for the design, procurement and construction of the Hampton Base with NSP, MN, in its capacity as the Hampton Brookings Contractor (the “**Hampton Brookings Self-Performance Agreement**”);
- C. The La Crosse Owners, simultaneously with their execution and delivery of the La Crosse Project Participation Agreement, will enter into a self-performance agreement for the design, procurement and construction of the Hampton Expansion with NSP, MN, in its capacity as the Hampton La Crosse Contractor (the “**Hampton La Crosse Self-Performance Agreement**”); and
- D. Each Contracting Owner desires to enter into this Agreement to establish protocols and procedures to coordinate the Hampton Substation design, procurement, and construction efforts and establish, among other things, the rights and obligations of each Owner Group to inspect the construction work in progress and to share relevant project status and financial information.

AGREEMENT

In consideration of the foregoing Recitals, the mutual covenants set forth in this Agreement, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Contracting Owners hereby agree as follows.

ARTICLE 1 DEFINITIONS; GENERALLY APPLICABLE PROVISIONS

1.1 Definitions. In addition to the other terms defined herein, the terms set forth in **Schedule 1**, the other schedules or the exhibits attached hereto or in notices given under this Agreement and initially capitalized, have the meanings specified in **Schedule 1**.

1.2 Generally Applicable Provisions. **Schedule 2** contains dispute resolution, confidentiality and other general provisions, all of which are hereby incorporated by reference as if set forth herein in their entirety.

1.3 Public Disclosure Laws. The Contracting Owners intend that nothing in this Agreement and no action taken pursuant to this Agreement shall (i) cause confidential or proprietary information, including Confidential Information, that would otherwise have been exempt from public access or inspection to become subject to public access or inspection under any Applicable Law regarding public access to information or (ii) make unavailable or waive any exception to or protection under public disclosure Applicable Laws that would otherwise enable the Contracting Owners to preserve the confidentiality of confidential or proprietary information, including Confidential Information.

ARTICLE 2 CONSTRUCTION OF THE HAMPTON SUBSTATION; HAMPTON SUBSTATION COSTS; CREDIT

2.1 Construction of the Hampton Substation. Unless otherwise provided herein, the Brookings Owners shall construct (or cause the construction of) the Hampton Base. If the La Crosse Owners have entered into the La Crosse Project Participation Agreement, the La Crosse Owners shall construct (or cause the construction of) the Hampton Expansion.

2.2 Hampton Substation Costs. Except as otherwise set forth herein, Hampton Substation Costs incurred by the Brookings Contractor, the La Crosse Contractor or paid by the Discretely Owned Substation Owner will not be reimbursed and consequently NSP, MN, as a Brookings Owner and a La Crosse Owner, will receive credit for such Hampton Substation Costs under the applicable Project Participation Agreement as follows:

- (i) one half of such Hampton Substation Costs will be credited to NSP, MN (in its capacity as a Brookings Owner) pursuant to **Sections 3.1.1.2.1, 3.1.3.1.1, 3.1.3.2.1 and 3.1.6.2** of the **Brookings Project Participation Agreement** and

- (ii) one half of the Hampton Substation Costs will be credited to NSP, MN (in its capacity as a La Crosse Owner), pursuant to the La Crosse Project Participation Agreement, which agreement will contain provisions that are substantially equivalent thereto. Notwithstanding the foregoing, if the La Crosse Project Participation Agreement is not executed, then NSP, MN will be credited (in its capacity as a Brookings Owner) for one hundred percent (100%) of such Hampton Substation Costs incurred or paid by it in connection with the Hampton Base pursuant to **Sections 3.1.1.2.1, 3.1.3.1.1, 3.1.3.2.1 and 3.1.6.2** of the **Brookings Project Participation Agreement**.

ARTICLE 3 APPROVED DESIGN; HAMPTON SUBSTATION BUDGET

The Brookings Owners and the La Crosse Participants agree to the design of the Hampton Substation (the “**Approved Design**”), a copy of which is attached hereto as **Exhibit A**, and the budget for the Hampton Substation Costs (the “**Hampton Substation Budget**”), a copy of which is attached hereto as **Exhibit B**. Except as provided in **Article 4**, the Approved Design and the Hampton Substation Budget may be modified only upon an affirmative vote of the Management Committee of each Owner Group. The Approved Design must at all times be consistent with applicable CapX 2020 Substation Design Criteria. Each Owner Group shall provide prompt written notice and reasonable supporting documentation to the Chair and the Vice Chair of the other Management Committee of any changes relating to such Owner Group’s Project that may affect the Approved Design or the Hampton Substation Budget.

ARTICLE 4 OBLIGATORY AND DISCRETIONARY PROJECT CHANGES

4.1 Brookings Changes.

4.1.1 Obligatory Hampton Brookings Changes. If a change to the Hampton Base is required as a result of an event of Force Majeure, as determined by the Brookings Management Committee (an “**Obligatory Hampton Brookings Change**”), the Brookings Owners shall exercise Good Utility Practice and use commercially reasonable efforts to mitigate any adverse impact of such Obligatory Hampton Brookings Change on the technical or engineering aspects of the Hampton Substation, including the Hampton Expansion. The Brookings Owners will be entitled to implement such Obligatory Hampton Brookings Change; **provided**, that (i) the Brookings Owners shall provide the Chair and Vice Chair of the La Crosse Management Committee with information as and when reasonably available to the Brookings Owners regarding the cause of such Obligatory Hampton Brookings Change and their plans to implement such change, including the engineering details thereof and (ii) (a) such Obligatory Hampton Brookings Change will not have a material adverse effect on the technical or engineering aspects of the Hampton Expansion; (b) the La Crosse Owners have agreed to the implementation of such Obligatory Hampton Brookings Change; or (c) the Brookings Owners proceed pursuant to the provisions of **Section 4.3.2**. Except as provided in **Section 4.3.2**, as applicable, NSP, MN will be entitled to credit for the Hampton Substation Costs incurred in connection with any Obligatory Hampton Brookings Change (including any associated impact on the Hampton Expansion) as provided in **Section 2.2**.

4.1.2 Discretionary Hampton Brookings Changes. Changes to the Hampton Base that are not required as a result of an event of Force Majeure, as described in **Section 4.1.1** (“**Discretionary Hampton Brookings Changes**”), may be implemented by the Brookings Owners on notice to the Chair and Vice Chair of the La Crosse Management Committee (with reasonable supporting documentation); **provided, however,** if a Discretionary Hampton Brookings Change could have a material adverse effect on the technical or engineering aspects of the Hampton Expansion, the Brookings Owners shall not implement such Discretionary Hampton Brookings Change without the prior written consent of the La Crosse Management Committee. Notwithstanding **Section 2.2** and unless the Contracting Owners otherwise agree, the Hampton Substation Costs incurred by each Contractor in connection with any Discretionary Hampton Brookings Change will be borne exclusively by NSP, MN, in its capacities as the Hampton Brookings Contractor and the Hampton La Crosse Contractor and NSP, MN (in its capacity as a Brookings Owner) will be entitled to receive one hundred percent (100%) credit for such costs pursuant to **Sections 3.1.1.2.1, 3.1.3.1.1, 3.1.3.2.1 and 3.1.6.2** of the **Brookings Project Participation Agreement**.

4.2 La Crosse Changes.

4.2.1 Obligatory Hampton La Crosse Changes. If a change to the Hampton Expansion is required as a result of an event of Force Majeure, as determined by the La Crosse Management Committee (an “**Obligatory Hampton La Crosse Change**”), the La Crosse Owners shall exercise Good Utility Practice and use commercially reasonable efforts to mitigate any adverse impact of such Obligatory Hampton La Crosse Change on the technical or engineering aspects of the Hampton Substation, including the Hampton Base. The La Crosse Owners will be entitled to implement such Obligatory Hampton La Crosse Change; **provided,** that (i) the La Crosse Owners shall provide the Chair and Vice Chair of the Brookings Management Committee with information as and when reasonably available to the La Crosse Owners regarding the cause of such Obligatory Hampton La Crosse Change and their plans to implement such change, including the engineering details thereof and (ii) (a) such Obligatory Hampton La Crosse Change will not have a material adverse effect on the technical or engineering aspects of the Hampton Base; (b) the Brookings Owners have agreed to the implementation of such Obligatory Hampton La Crosse Change; or (c) the La Crosse Owners proceed pursuant to the provisions of **Section 4.3.2**. Except as provided in **Section 4.3.2**, as applicable, NSP, MN will be entitled to credit for the Hampton Substation Costs incurred in connection with any Obligatory Hampton La Crosse Change (including any associated impact on the Hampton Base) as provided in **Section 2.2**.

4.2.2 Discretionary Hampton La Crosse Changes. Changes to the Hampton Expansion that are not required as a result of an event of Force Majeure, as described in **Section 4.2.1** (“**Discretionary Hampton La Crosse Changes**”), may be implemented by the La Crosse Owners on notice to the Chair and Vice Chair of the Brookings Management Committee (with reasonable supporting documentation); **provided, however,** if a Discretionary Hampton La Crosse Change could have a material adverse effect on the technical or engineering aspects of the Hampton Base, the La Crosse Owners shall not implement such Discretionary Hampton La Crosse Change without the prior written consent of the Brookings Management Committee. Notwithstanding **Section 2.2** and unless the Contracting Owners otherwise agree, the Hampton Substation Costs incurred by each Contractor in connection with any Discretionary Hampton La Crosse Change will be borne exclusively by NSP, MN, in its capacities as the Hampton La

Crosse Contractor and the Hampton Brookings Contractor and NSP, MN (in its capacity as a La Crosse Owner) will be entitled to receive one hundred percent (100%) credit for such costs pursuant to the La Crosse Project Participation Agreement, which shall contain provisions that are substantially equivalent to **Sections 3.1.1.2.1, 3.1.3.1.1, 3.1.3.2.1 and 3.1.6.2** of the **Brookings Project Participation Agreement**.

4.3 Implementation of Changes.

4.3.1 Implementation; Failure to Agree. All Contracting Owners hereby agree to use their respective commercially reasonable efforts to implement, or to allow the implementation of, Obligatory Hampton Changes. If any changes to the Hampton Substation that are permitted hereunder require changes to the design or technical or engineering requirements of the Project of the other Owner Group, such other Owner Group agrees to implement such changes to the design or technical or engineering requirements of such Owner Group's Project. If the Owner Groups do not agree with each other (i) as to whether a change to all or a portion of the Hampton Requirements is an Obligatory Hampton Change or a Discretionary Hampton Change; (ii) as to whether an Obligatory Hampton Change or a Discretionary Hampton Change will have a material adverse effect on the technical or engineering aspects of the Hampton Requirements of the other Owner Group; or (iii) on the manner in which an Obligatory Hampton Change is to be implemented, then the Contracting Owners will resolve such dispute in accordance with **Section 1.0 of Schedule 2**.

4.3.2 Implementation Subject to Decision. If a Specified Technical Dispute exists to a Hampton Obligatory Change and the Management Committee of the Owners Group seeking such change advises the other Owner Group in writing, that it has mitigated any material adverse effect on the Hampton Substation to the maximum extent reasonably possible after exercising Good Utility Practice, the Owner Group proposing such change may proceed to implement such change, subject to the decision of the Technical Expert pursuant to **Section 1.5 of Schedule 2**. If the Technical Expert issues a decision adverse to the Owner Group that proceeded to implement such Hampton Obligatory Change, such Owner Group shall (i) promptly take such corrective action as determined by the Technical Expert and (ii) give credit to the Discretely Owned Substation Owner under the applicable Project Participation Agreement for one hundred percent (100%) of the cost of such corrective action.

ARTICLE 5 PERIODIC SUBMITTALS AND INSPECTION

5.1 Information Relating to the Hampton Substation. Each Owner Group hereby agrees that such Owner Group's Management Committee shall promptly submit to the Chair and the Vice Chair of the other Owner Group's Management Committee the information set forth in **Section 1.0 of Schedule 4** to the extent that it relates to the Hampton Substation.

5.2 Monthly Submittals Relating to the Hampton Substation. Each Owner Group hereby agrees that such Owner Group's Management Committee shall submit to the Chair and the Vice Chair of the other Owner Group's Management Committee that portion of the information set forth in **Section 2.0 of Schedule 4** to the extent it relates to the Hampton Substation promptly after such Owner Group receives such information from the applicable Construction Manager.

5.3 Final Completion Report. Each Owner Group hereby agrees that such Owner Group's Management Committee shall deliver to the Chair and the Vice Chair of the other Owner Group's Management Committee promptly after such Owner Group receives the final completion report following termination of the applicable Construction Management Agreement, such portion of such final completion report that directly addresses the Hampton Substation.

5.4 Records. Each Owner Group shall provide copies (by hard copy or in electronic format) of all Records to the extent relating to the Hampton Substation to the Chair and the Vice Chair of the other Owner Group's Management Committee upon request and at the requesting Owner Group's expense. Each Owner Group shall make all Records to the extent relating to the Hampton Substation available to the Contracting Owners of the other Owner Group for inspection (and copying) and audit at an agreed location and upon at least five (5) Business Days' notice. Each Contracting Owner shall endeavor to coordinate its requests for records inspection or audit with the other Contracting Owners seeking to exercise such rights. Notwithstanding anything to the contrary herein, each Contracting Owner covenants that Records which are subject to restricted availability under **Section 7.19.3 of the Brookings Participation Agreement** or the comparable provisions of the La Crosse Participation Agreement will be accessed only in accordance with such protocols as adopted by the applicable Management Committee.

5.5 Inspection Rights. During the course of construction of the Hampton Substation (i) each Owner Group shall grant and (ii) NSP, MN shall cause NSP, MN, in its capacity as the Discretely Owned Substation Owner, the Hampton Brookings Contractor, the La Crosse Construction Manager, and the Hampton La Crosse Contractor to grant the Contracting Owners the right to inspect the Hampton Substation construction work in progress at reasonable times and on reasonable notice and without unduly hindering ongoing construction work; **provided**, that each Contracting Owner shall endeavor to coordinate its requests for inspection with the other Contracting Owners seeking to exercise such rights.

ARTICLE 6 GENERAL

6.1 Matters Pertaining to the Other Project. Except when direct communications have been specifically authorized in writing, the Contracting Owners of each Owner Group shall, with respect to all matters pertaining to that portion of the Hampton Substation to be constructed for the benefit of the other Project, communicate to the Construction Manager, contractors and subcontractors of the other Project only through the Management Committee of the other Project.

6.2 La Crosse Participation Agreement. The La Crosse Participants hereby covenant and agree that by executing this Agreement each La Crosse Participant is binding itself as a La Crosse Participant, as well as in its capacity as a La Crosse Owner in the event that such La Crosse Participant enters into the La Crosse Project Participation Agreement. The La Crosse Participants further agree that no Person other than a La Crosse Participant executing this Agreement may become a La Crosse Owner, unless, contemporaneously with the execution of the La Crosse Participation Agreement or a joinder thereto, it executes a joinder to this Agreement (in form and substance reasonably satisfactory to the other Contracting Owners). The La Crosse Owners may enter into the Hampton La Crosse Self-Performance Agreement with

the Hampton La Crosse Contractor from and after the date of the execution of the La Crosse Project Participation Agreement by the La Crosse Owners and shall provide prompt written notice of the execution of the La Crosse Project Participation Agreement and the Hampton La Crosse Self-Performance Agreement to the Chair and the Vice-Chair of the Brookings Management Committee.

6.3 Acting Through Their Management Committee. Each Owner Group may delegate its authority to act under this Agreement to its Management Committee, which in turn may delegate its authority to act to other Persons pursuant to the applicable Project Agreement.

6.4 Commissioning. Each Owner Group hereby agrees that its Self-Performance Agreement will provide that its Contracting Owners and its Contractor will cooperate with the other Owner Group and the other Owner Group's Contractor to safely and efficiently provide for Commissioning of the Hampton Base and the Hampton Expansion as may be appropriate to minimize any interference with any construction work and portions of the Hampton Substation that may then be in service.

6.5 Performance. Each Owner Group shall cause its Self-Performance Agreement to provide that the Contractor will not be relieved from the performance of its obligations under the its Self-Performance Agreement because of the failure of the other Contractor to perform its obligations under, and in accordance with, the other Self-Performance Agreement, except where such failure was caused by an event of Force Majeure or the failure of another Contracting Owner. The provisions relating to an event of Force Majeure set forth in each of the Self-Performance Agreements (including the definition of "Force Majeure" in **Schedule 1**) shall be substantially similar to the provisions relating to an event of Force Majeure set forth herein.

6.6 Designation of Specified Technical Dispute. In addition to the provisions of **Section 4.3**, upon an affirmative vote of both Management Committees, any Dispute or Controversy that arises between the Owner Groups may be designated as a Specified Technical Dispute and thereupon will be resolved in accordance with the provisions of **Section 1.0 of Schedule 2**.

ARTICLE 7 REPRESENTATIONS AND WARRANTIES

As of the Effective Time (i) each Brookings Owner, severally and not jointly, makes the following representations and warranties to the La Crosse Participants and (ii) each La Crosse Participant, severally and not jointly, makes the following representations and warranties to the Brookings Owners, which representations and warranties in each case survive the execution and delivery of this Agreement:

- (a) **Organization and Good Standing.** Such Contracting Owner is, as set forth in the preamble to this Agreement, an agency, non-profit corporation, cooperative, association, municipal corporation, political subdivision, limited liability company, corporation or a similar Person organized, existing and in good standing under the laws of the state of its formation and authorized to conduct business in each state in which authorization may be required to perform its obligations under this Agreement.

- (b) **Power and Authority.** Such Contracting Owner has the power and authority to enter into and perform this Agreement and is not prohibited from entering into this Agreement or discharging and performing all covenants and obligations on its part to be performed under and pursuant to this Agreement.
- (c) **Authorization.** Such Contracting Owner has taken all action required by Applicable Law and its governing documents in order to approve, execute and deliver this Agreement.
- (d) **No Violation.** The execution and delivery of this Agreement by such Contracting Owner, the performance by such Contracting Owner of its obligations hereunder and the consummation by such Contracting Owner of the transactions contemplated herein do not and will not (1) contravene any Applicable Law in effect at the Effective Time or any Order in effect at the Effective Time of any Governmental Body or Arbitrator having jurisdiction over such Contracting Owner or its Property or (2) result in a breach or violation of any of the terms and provisions of, or constitute a default under, any indenture, mortgage, deed of trust or other agreement in effect at the Effective Time and to which such Contracting Owner is a party or by which it or its Property is bound.
- (e) **Approvals and Consents.** No approval, consent or authorization of any Governmental Body or other Person is required for the execution and delivery by such Contracting Owner of this Agreement or the performance by such Contracting Owner of its obligations hereunder, except such approvals, consents or authorizations that have been given or obtained by such Contracting Owner and are in full force and effect.
- (f) **Binding Effect.** This Agreement has been executed and delivered by such Contracting Owner. Assuming that the other Contracting Owners have all the requisite power and authority, and have taken all necessary action to execute and deliver this Agreement, this Agreement is the legal, valid and binding obligation of such Contracting Owner enforceable in accordance with its terms, except as limited by laws of general applicability limiting the enforcement of creditor's rights (e.g., bankruptcy, insolvency, moratorium) or by the exercise of judicial discretion in accordance with general principles of equity.

ARTICLE 8 ABANDONMENT OR DELAY OF THE HAMPTON BASE

If at any time following execution of the La Crosse Project Participation Agreement, (i) the Brookings Project is abandoned by the Brookings Owners; (ii) the Brookings Owners abandon the construction of the Hampton Base; or (iii) construction of the Hampton Base is delayed (for reasons other than the failure of the Contractor to properly perform its obligations under the Self-Performance Agreement), which delay would adversely affect the projected in-service date of the La Crosse Project, the Brookings Owners, upon the written request of the La Crosse Owners, shall assign the Hampton Brookings Self-Performance Agreement to the La Crosse Owners. Following such assignment, the La Crosse Owners will continue to construct the

Hampton Base pursuant to the provisions of the Hampton Brookings Self-Performance Agreement. NSP, MN, as the Discretely Owned Substation Owner of the Hampton Substation will receive credit for one hundred percent (100%) of the Hampton Substation Costs of the Hampton Base pursuant to the La Crosse Project Participation Agreement, which will contain provisions substantially equivalent to **Sections 3.1.1.2.1, 3.1.3.1.1, 3.1.3.2.1 and 3.1.6.2** of the **Brookings Project Participation Agreement**, except as provided below. If, at the time of such assignment, the Hampton La Crosse Self-Performance Agreement has been executed, the La Crosse Owners shall terminate such agreement and the Brookings Owners shall reimburse the Hampton La Crosse Contractor for the Hampton Substation Costs incurred by it solely in respect of the Hampton Expansion in connection with the performance and termination of such agreement, less the value the Hampton La Crosse Contractor, exercising reasonable mitigation efforts, is able to achieve through the sale, salvage or reuse of equipment and materials obtained for the Hampton Expansion. Notwithstanding the foregoing, the Brookings Owners at any time thereafter may enter into a self-performance agreement with the Discretely Owned Substation Owner for the completion of the Hampton Expansion, in which case, upon its completion (a) NSP, MN will refund to the Brookings Owners the reimbursement payment received in connection with the termination of the Hampton La Crosse Self-Performance Agreement and (b) NSP, MN, in its capacities as a Brookings Owner and a La Crosse Owner, upon completion of the Hampton Expansion, will be entitled to credit for the Hampton Substation Costs, including amounts refunded, as provided in **Section 2.2**. The Owner Groups, from time to time, shall make such adjustments as are necessary to adjust the applicable Percentages, Project Plans and budgets in light of any change of responsibilities for constructing the Hampton Base or Hampton Expansion as contemplated by this **Article 8**.

[Signatures on following pages]

IN WITNESS WHEREOF, the Contracting Owners have caused this Agreement to be executed as of the date above recited.

BROOKINGS OWNERS:

GREAT RIVER ENERGY

BY _____
ITS _____

**CENTRAL MINNESOTA MUNICIPAL
POWER AGENCY**

BY _____
ITS _____

**WESTERN MINNESOTA MUNICIPAL
POWER AGENCY**

BY _____
ITS _____

OTTER TAIL POWER COMPANY

BY _____
ITS _____

**NORTHERN STATES POWER
COMPANY, A MINNESOTA
CORPORATION**

BY _____
ITS _____

[SIGNATURE PAGE TO HAMPTON JOINT EFFORT AGREEMENT]

LA CROSSE PARTICIPANTS:

DAIRYLAND POWER COOPERATIVE

BY _____
ITS _____

**CITY OF ROCHESTER, ACTING THROUGH
ITS PUBLIC UTILITY BOARD**

BY _____
ITS _____

**SOUTHERN MINNESOTA MUNICIPAL
POWER AGENCY**

BY _____
ITS _____

WPPI ENERGY

BY _____
ITS _____

**NORTHERN STATES POWER COMPANY, A
MINNESOTA CORPORATION**

BY _____
ITS _____

**NORTHERN STATES POWER COMPANY, A
WISCONSIN CORPORATION**

BY _____
ITS _____

[SIGNATURE PAGE TO HAMPTON JOINT EFFORT AGREEMENT]

SCHEDULE 1

DEFINITIONS

"Affiliate" means any Person that, directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, a party hereto. For purposes of this Agreement, Missouri Basin Municipal Power Agency, an intergovernmental entity organized under Chapter 28E of the Code of Iowa and existing under the intergovernmental corporation statutes of the States of Iowa, Minnesota, North Dakota and South Dakota, d/b/a Missouri River Energy Services, is deemed to be an "Affiliate" of Western Minnesota Municipal Power Agency. For purposes of this Agreement, Aerial Contractors will not be considered an Affiliate of Otter Tail Power Company.

"Agreement" has the meaning given in the preamble to this Agreement.

"Applicable Energy Regulations" means the rules, Orders, regulations, practices, procedures and protocols established in compliance with Applicable Law by applicable Transmission Providers (such as the Midwest Independent Transmission System Operator, Inc.), electric reliability organizations (such as the North American Electric Reliability Corporation and the Midwest Reliability Organization) and comparable Persons that are applicable to the Hampton Substation or the performance of the obligations of the parties (each in its respective capacities) hereunder.

"Applicable Law" or "Applicable Laws" means (i) any and all laws (including all statutory enactments and common law), ordinances, constitutions, regulations, treaties, rules, codes, standards, Governmental Approvals, requirements and Orders that (a) have been adopted, enacted, implemented, promulgated, ordered, issued, entered or deemed applicable by or under the authority of any Governmental Body having jurisdiction over a specified Person (or the properties or assets of such Person) and (b) are applicable to the Hampton Substation or the performance of the obligations of the parties hereunder and (ii) Applicable Energy Regulations.

"Approved Design" has the meaning given in Article 3.

"Brookings Construction Management Agreement" means that certain Construction Management Agreement, by and among the Brookings Owners and GRE, as the "Construction Manager," entered into as of the Effective Time.

"Brookings Construction Manager" means GRE, or any successor, in accordance with the terms of the Brookings Construction Management Agreement.

"Brookings Management Committee" means the Management Committee under the Brookings Project Participation Agreement.

"Brookings Owner(s)" has the meaning given in the preamble to this Agreement.

“Brookings Project” means the project generally described in the Brookings Project Participation Agreement, which includes the Hampton Substation.

“Brookings Project Participation Agreement” means that certain Project Participation Agreement, by and among the Brookings Owners, entered into as of the Effective Time.

“CapX 2020 Substation Design Criteria” means the criteria established in (i) Control and Protective Design Criteria for Substations, Revision 0, dated December 12, 2006; (ii) Physical Design Criteria for Substations, Revision 0, dated December 12, 2006; and (iii) Civil Performance Criteria for Substations, Revision 0, dated December 12, 2006, as amended.

“CapX 2020 Transmission Capacity Expansion Initiative” means the cooperative efforts of the Contracting Owners and other Persons to engage in electric transmission projects designed to reliably serve load and meet the projected growth of electricity requirements in the Transmission Grid in Minnesota and the immediately surrounding region, which efforts are anticipated to include, in the aggregate over a long-term period, the study, planning, coordination, development, construction and ownership of electric transmission facilities.

“Change in Law” means any change in, or enactment of, any Applicable Law or official published policy regarding the interpretation or enforcement of any Applicable Law by a Governmental Body that takes place after the Effective Time and affects or relates to the Hampton Substation or the performance of the obligations of the parties under this Agreement, including the imposition of any new Governmental Approval requirements; **provided, however**, a change in Applicable Law affecting only a tax payable or any other cost of performance hereunder will not constitute a Change in Law.

“Commission” (or any derivation thereof) means the process of verifying the safety, reliability and performance (including testing) of the Hampton Substation, in accordance with the applicable Self-Performance Agreement and Good Utility Practice.

“Confidential Information” has the meaning given in **Section 3.0 of Schedule 2**.

“Construction Agreements” means all contracts, agreements or arrangements establishing the terms of performance of any part of the construction on the Projects, but specifically excluding this Agreement.

“Construction Management Agreement” means the Brookings Construction Management Agreement or the La Crosse Construction Management Agreement, as applicable.

“Construction Manager” means the Brookings Construction Manager or the La Crosse Construction Manager, as applicable.

“Contracting Owner(s)” has the meaning given in the preamble to this Agreement.

“Contractor” means the Hampton Brookings Contractor or the Hampton La Crosse Contractor, as applicable.

“Discretely Owned Substation Costs” means costs (i) incurred by the Contractor under the applicable Self-Performance Agreement and approved by the applicable Construction Manager or the independent engineer pursuant to the applicable Construction Management Agreement or (ii) paid by the Discretely Owned Substation Owner at the direction of the applicable Construction Manager for Hampton Substation Real Property and associated costs necessary for the Hampton Substation.

“Discretely Owned Substation Owner” means NSP, MN or any other Person, as applicable, that owns all or a portion of the Hampton Substation. Reference to the Discretely Owned Substation Owner excludes any reference to the Discretely Owned Substation Owner in any other capacity.

“Discretionary Hampton Brookings Change” has the meaning given in Section 4.1.2.

“Discretionary Hampton La Crosse Change” has the meaning given in Section 4.2.2.

“Discretionary Hampton Change” means a Discretionary Hampton Brookings Change or a Discretionary Hampton La Crosse Change, as applicable.

“Dispute or Controversy” has the meaning given in Section 2.1 of Schedule 2.

“Effective Time” has the meaning given in the preamble to this Agreement.

“Final Completion” has the meaning given in the Construction Management Agreement.

“Final Order” means an Order as to which (i) no request for stay is pending before the issuing Governmental Body, no such stay is in effect, and, if any deadline for filing any such request is designated by Applicable Law, such deadline has passed; (ii) no petition for rehearing or reconsideration of such action is pending before the issuing Governmental Body, and if any deadline for filing any such petition is designated by Applicable Law, such deadline has passed; (iii) the issuing Governmental Body does not have the action under reconsideration on its own motion; and (iv) no appeal to a court, or request for stay by a court, of the issuing Governmental Body’s action is pending or in effect, and, if any deadline for filing any such appeal or request is designated by Applicable Law, such deadline has passed.

“Force Majeure” means the occurrence of an event or series of events that is beyond the reasonable control of the Person affected that hinders the performance under contract of such Person and does not result from the fault, negligence, intentional misconduct or willful misconduct of the affected Person or such Person’s failure to comply with Applicable Law or Good Utility Practice; and such event or series of events could not have been avoided by the affected Person through the exercise of reasonable diligence, including the expenditure of reasonable monies and/or taking reasonable precautionary measures, including (to the extent that such events satisfy the foregoing criteria), the following:

- (i) acts of God or the public enemy;
- (ii) expropriation or confiscation of all or a portion of the Hampton Substation, including Hampton Substation Real Property;

- (iii) war, terrorism, rebellion, sabotage, civil unrest or riot;
- (iv) fires, explosions, hurricanes, floods, tornadoes, microbursts, other abnormally severe weather events or other natural catastrophes;
- (v) actions or inaction of a Governmental Body affecting performance required in connection with the construction work or the obligations of the parties hereunder;
- (vi) a Change in Law;
- (vii) conditions at, on or affecting the Hampton Substation Real Property that could not have been reasonably anticipated, including the existence of Hazardous Substances or archeological materials (except as provided below);
- (viii) operating conditions on the Transmission Grid that restrict outages, testing, Commissioning or access; and
- (ix) strikes and other labor disturbances (except as provided below);

provided, however, delays caused by unfavorable weather (that is not abnormal for the season and geographic area), unsuitable ground conditions, inadequate construction force, strikes or labor disturbances involving the personnel of the Contractor, market conditions, or the failure of the Contractor to place orders for equipment or materials sufficiently in advance to ensure delivery when needed will not be considered an event of Force Majeure.

“Good Utility Practice” means any of the practices, methods or acts engaged in or approved by a significant portion of the electric utility industry in the region during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition in a manner that (i) is consistent with Applicable Law; (ii) makes due consideration for reliability, safety and protection of equipment, the Hampton Substation and its interconnection with the Transmission Grid; and (iii) is consistent with manufacturers’ recommendations and warranties. Good Utility Practice is not intended to be limited to the optimum practice, method or act to the exclusion of all others, but rather to be a range of acceptable practices, methods or acts generally accepted in the region.

“Governmental Approval” means all waivers, franchises, variances, permits, authorizations, certificates, licenses and Orders of or from any Governmental Body having jurisdiction over any Contracting Owner or any portion of the Hampton Substation, as may be in effect from time to time.

“Governmental Body” means any:

- (i) nation, state, county, city, town, village, district or other jurisdiction of any nature;
- (ii) federal, state, local, municipal, foreign or other government; or
- (iii) governmental or quasi governmental authority of any nature (including any governmental agency, branch, board, commission, department, instrumentality, office or other entity, and any court), in any such case exercising, or entitled to exercise, administrative, executive, judicial, legislative, police, regulatory or taxing authority or power of any nature over this Agreement, the construction of the Hampton Substation or the parties hereto; **provided, however**, an Owner will never be deemed to be a Governmental Body except when an Owner is a Transmission Provider establishing Applicable Energy Regulations in its capacity as a Person entitled to exercise functional control over a portion of the Transmission Grid in accordance with Applicable Law established by other Governmental Bodies that have jurisdiction over such Owner.

“GRE” has the meaning given in the preamble to this Agreement.

“Hampton Base” means that portion of the Approved Design of the Hampton Substation that is solely required to be designed, procured and constructed to allow the Brookings Project to be placed in service, as shown in **Exhibit A**. The Hampton Base does not include the Hampton Expansion.

“Hampton Brookings Contractor” means NSP, MN, in its capacity as the “Contractor” under the Hampton Brookings Self-Performance Agreement. Reference to the Hampton Brookings Contractor excludes any reference to NSP, MN in any other capacity.

“Hampton Brookings Self-Performance Agreement” has the meaning given in **Recital B** of this Agreement.

“Hampton Expansion” means that portion of the Approved Design of the Hampton Substation that will expand the Hampton Base to allow the Hampton Substation to provide service to the La Crosse Project, as shown in **Exhibit A**.

“Hampton La Crosse Contractor” means NSP, MN, in its capacity as the “Contractor” under the Hampton La Crosse Self-Performance Agreement. Reference to the Hampton La Crosse Contractor excludes any reference to NSP, MN in any other capacity.

“Hampton La Crosse Self-Performance Agreement” has the meaning given in **Recital C** of this Agreement.

“Hampton Requirements” means (i) the Hampton Base or (ii) the Hampton Expansion, as applicable.

“Hampton Substation” means the new substation to be constructed in Dakota County, Minnesota in accordance with the Approved Design therefor, as more particularly described in **Exhibit A**, as it may be modified in accordance with this Agreement.

“Hampton Substation Budget” has the meaning given in **Article 3**.

“Hampton Substation Costs” means costs in respect of the Hampton Substation that qualify as Discretely Owned Substation Costs under the Self-Performance Agreement, including:

- (i) incurred by (a) the Hampton Brookings Contractor and approved by the Brookings Owners (or their representatives) for the design, procurement, construction and Commissioning of the Hampton Base pursuant to the Hampton Brookings Self-Performance Agreement and (b) the Hampton La Crosse Contractor and approved by the La Crosse Owners (or their representatives) for the design, procurement, construction and Commissioning of the Hampton Expansion pursuant to the Hampton La Crosse Self-Performance Agreement; and
- (ii) paid by the Discretely Owned Substation Owner related to the acquisition of Hampton Substation Real Property (including costs incurred in connection with condemnation proceedings undertaken to obtain such Hampton Substation Real Property) and associated costs necessary for the Hampton Substation;

provided, however, the following do not constitute Hampton Substation Costs:

- (a) costs of studies conducted to determine the usefulness, economics, legality and/or feasibility of participating in a Project;
- (b) costs associated with the preparation or negotiation of (1) this Agreement, a Project Participation Agreement, a Self-Performance Agreement or any other agreement, instrument or arrangement designated as a “Project Agreement” pursuant to the applicable Project Participation Agreement (a “**Project Agreement**”), or amendments thereto or (2) contracts with Affiliates and amendments or change orders thereto, in either case including changes pursuant to **Article 4**, as applicable;
- (c) costs incurred in performing functions of a Management Committee or any other committees established pursuant to any Project Agreement and expenses of its personnel while performing such functions;
- (d) costs of insurance (including premiums, deductibles and self-insured retentions) purchased or incurred by Persons other than the Contractor or its subcontractors as required by a Self-Performance Agreement;
- (e) costs incurred by the Contractor in connection with its indemnification obligations under a Self-Performance Agreement;

- (f) costs of complying with conditions specified in any Governmental Approval granted or issued by Final Order that are not generally applicable to the Contracting Owners of an Owner Group collectively, but are imposed on a Contracting Owner individually;
- (g) without duplication of the costs described in **clause (ii)(e)** above, costs that arise from the Contractor's failure to perform its obligations in accordance with a Self-Performance Agreement, which failure is the result of such Contractor's (1) gross negligence (in an aggregate amount equal to or less than the limit of liability set forth in the applicable Self-Performance Agreement) or (2) willful misconduct or intentional misconduct; and
- (h) costs that are excluded as Hampton Substation Costs (or as "Discretely Owned Substation Costs" or "CM Costs", as applicable) by the express terms of this Agreement, a Self-Performance Agreement, a Project Participation Agreement or a Construction Management Agreement.

To the extent that proceeds of insurance are recovered in respect of Hampton Substation Costs, such proceeds will be deducted or offset against the Hampton Substation Costs incurred therefor. Costs incurred by the Contractor shall be calculated and qualify as Hampton Substation Costs on substantially the same basis as applies to the costs which the Contractor incurs under the applicable Self-Performance Agreement.

"Hampton Substation Real Property" means the fee interests, licenses, rights-of-way, easements and other real property interests on which the Hampton Substation is located, including any licenses, rights-of-way, easements and other real property interests necessary for access to the Hampton Substation.

"Hazardous Substance" means petroleum hydrocarbons, including crude oil or any fraction thereof, asbestos, radon, polychlorinated biphenyls (PCBs), methane and all other substances which now are or in the future may be defined by Applicable Law as "hazardous substances," "hazardous wastes," "extremely hazardous wastes," "toxic substances," "infectious wastes," "biohazardous wastes," "medical wastes," "radioactive wastes" or which are otherwise listed, defined or regulated in any manner pursuant to any Applicable Law that pertains to the protection of human health and safety or the environment.

"La Crosse Construction Management Agreement" means that certain construction management agreement to be entered into by and among the La Crosse Owners and NSP, MN, as the "Construction Manager."

"La Crosse Construction Manager" means NSP, MN, or any successor, in accordance with the terms of the La Crosse Construction Management Agreement.

"La Crosse Management Committee" means the Management Committee under the La Crosse Project Development Agreement to and until such time as La Crosse Project Participation Agreement is executed for the La Crosse Project and thereafter, the Management Committee under the La Crosse Project Participation Agreement.

“La Crosse Owners” means those La Crosse Participants and any other Persons that execute the La Crosse Project Participation Agreement for the La Crosse Project as “Owners,” as such owners may change from time to time.

“La Crosse Participant(s)” has the meaning given in the preamble to this Agreement.

“La Crosse Project” means the project generally described in the Project Development Agreement, by and among the La Crosse Participants, dated as of March 7, 2007 (**“La Crosse Project Development Agreement”**), which includes the Hampton Substation, as it may be more particularly described in the La Crosse Project Participation Agreement.

“La Crosse Project Development Agreement” has the meaning given in the definition of La Crosse Project.

“La Crosse Project Participation Agreement” has the meaning given in **Recital A** of this Agreement.

“Management Committee” means the Brookings Management Committee or the La Crosse Management Committee, as applicable.

“Month” means a calendar month.

“NSP, MN” has the meaning given in the preamble to this Agreement.

“Obligatory Hampton Brookings Change” has the meaning given in **Section 4.1.1**.

“Obligatory Hampton La Crosse Change” has the meaning given in **Section 4.2.1**.

“Obligatory Hampton Change” means an Obligatory Hampton Brookings Change or an Obligatory Hampton La Crosse Change, as applicable.

“Order” means any judgment, award, decision, directive, consent decree, injunction (whether temporary, preliminary or permanent), ruling, writ or order adopted, enacted, implemented, promulgated, issued, entered or deemed applicable by or under the authority of any Governmental Body or arbitrator (but as to an arbitrator, with respect to injunctive and other equitable relief, only to the extent permitted by this Agreement) that is binding on any Person or its Property under Applicable Law.

“Owner Group” means, as applicable, the (i) La Crosse Participants or La Crosse Owners, as applicable, or (ii) the Brookings Owners.

“Percentages” has the meaning given in the Project Participation Agreement.

“Person” means any individual, corporation, partnership, limited liability company, association, joint stock company, trust, unincorporated organization, joint venture, Governmental Body or other entity with legal constitution under Applicable Law.

“Prior Month” means the Month prior to the current Month.

“Proceeding” means any suit, litigation, arbitration, hearing, audit, investigation or other action (whether civil, criminal, administrative or investigative) commenced, brought, conducted, heard by or before, or otherwise involving, any Governmental Body or arbitrator.

“Project” means the Brookings Project or the La Crosse Project, as applicable.

“Project Agreement” has the meaning given in **clause (ii)(b)** of the definition of Hampton Substation Costs.

“Project Participation Agreement” means the Brookings Project Participation Agreement or the La Crosse Project Participation Agreement, as applicable.

“Project Plan” means the initial schedule for the execution of the construction work and the scope of work approved by the respective Management Committee under the applicable Construction Management Agreement.

“Property” means any kind of property or asset, whether real, personal, mixed, tangible or intangible.

“Proposed Technical Expert” has the meaning given in **Section 1.3 of Schedule 2**.

“Real Property Agreements” means contracts, agreements, instruments or arrangements providing for the acquisition of Hampton Substation Real Property.

“Records” means all Project-related records (or relevant portions thereof) generated or received by or otherwise available to a Contracting Owner in connection with the performance of the construction work on the Hampton Substation, including:

- (i) drawings, plans, specifications, other design documentation, other construction documentation, including schedules, correspondence, minutes of meetings, daily logs, progress reports, currently marked and as-built documentation, and similar construction or technical data;
- (ii) the Self-Performance Agreements and amendments thereto, subcontracts and change orders and amendments thereto, including all records relating to the procurement of equipment and materials;
- (iii) Real Property Agreements and amendments thereto, closing documentation pursuant to which Hampton Substation Real Property is acquired, surveys, title insurance policies and other documents related to the acquisition, use, title, or restrictions upon Hampton Substation Real Property;
- (iv) financial records pursuant to which NSP, MN will seek credit under a Project Participation Agreement for Hampton Substation Costs, (including construction work performed by its subcontractors), including payroll records, daily time sheets, other personnel records, books of account, records of monies expended or received, financial obligations incurred, credits accrued, as well as other

documentation used by the Contractor or Discretely Owned Substation Owner to accumulate financial and statistical data in connection with the construction work;

- (v) financial records in support of amounts the Contractor is required to pay to its subcontractors or other Persons in connection with the Hampton Substation, together with all documentation provided by such Persons to justify either the payment of amounts owed to them or the amounts incurred by them for which they are entitled to credit;
- (vi) all Governmental Approvals relevant to the design or construction of the Hampton Substation, together with related applications, notices of violation, and related correspondence with Governmental Bodies;
- (vii) all sales and use tax records, including documents relating to payments, refunds, exemptions, or other communications with Governmental Bodies relating to such taxes;
- (viii) all records relating to third party claims and third party environmental claims by or against the Contractor or a Contracting Owner arising out of the performance of such Contractor's obligations under a Self-Performance Agreement;
- (ix) all records relating to insurance policies related to the Hampton Substation or the construction work or claims related thereto;
- (x) all records of incidents requiring medical attention in connection with the performance of the construction work on the Hampton Substation; and
- (xi) all other documents relating to the Hampton Substation or any portion thereof, generated or received by (a) a Contracting Owner in connection with the performance of its obligations under this Agreement or (b) the Contractor in connection with the performance of its obligations under the applicable Self-Performance Agreement.

"Self-Performance Agreement(s)" means the Hampton Brookings Self-Performance Agreement and/or the Hampton La Crosse Self-Performance Agreement, as applicable.

"Specified Technical Dispute" means any dispute, controversy or claim of a substantially technical or engineering nature under this Agreement that is either specified in **Section 4.3.1** or is designated a Specified Technical Dispute by the Management Committees pursuant to **Section 6.6**.

"Technical Expert" has the meaning given in **Section 1.3** of **Schedule 2**.

"Transmission Grid" means the electric transmission system to which the Hampton Substation will be directly interconnected and of which it will become a part.

"Transmission Provider" means any Person, including a Contracting Owner, that exercises functional control over the operation of a portion of the Transmission Grid as necessary

to effectuate transmission transactions that it administers and provides transmission service under a tariff, rate schedule or other agreement.

SCHEDULE 2

GENERALLY APPLICABLE PROVISIONS

1.0 Specified Technical Disputes.

1.1 **Specified Technical Dispute.** If a Specified Technical Dispute between Owner Groups arises under this Agreement, both Owner Groups shall first attempt in good faith to settle and resolve such Specified Technical Dispute by agreement.

1.2 **Notice of Dispute.** By notice to the Chair and Vice Chair of the Management Committee of the other Owner Group, any Owner Group may refer the Specified Technical Dispute for resolution. Within fifteen (15) days after delivery of any such notice by an Owner Group, both Management Committees shall meet at a mutually acceptable time and place to attempt, with diligence and good faith, to resolve and settle such Specified Technical Dispute.

1.3 **Specified Technical Dispute Process.**

1.3.1 **Submission of Dispute for Arbitration.** Should (i) mutual resolution and settlement not be obtained at the meeting of both Management Committees called to resolve and settle such Specified Technical Dispute or (ii) no such meeting take place within such fifteen (15) day period (unless extended by mutual agreement of both Owner Groups); and (iii) the dispute or controversy be a Specified Technical Dispute, the Specified Technical Dispute may be submitted by any Owner Group (upon notice to the Chair and Vice Chair of the Management Committee of the other Owner Group) for arbitration by a technical expert.

1.3.2 **Selection of Technical Experts.** The Owner Group that submits the Specified Technical Dispute for arbitration hereunder shall give notice to the Chair and Vice Chair of the Management Committee of the other Owner Group proposing the name of a qualified technical expert knowledgeable or experienced in similar matters but who has no financial interest in any Contracting Owner or any Affiliate of any Contracting Owner of such Owner Group (a "**Proposed Technical Expert**") and who is available to arbitrate the Specified Technical Dispute in accordance with the schedule set forth below. Such notice shall also describe the relevant experience of the Proposed Technical Expert and any relationship that the Contracting Owners (or their Affiliates) of such Owner Group have ever had with the Proposed Technical Expert or the firm by which he or she is employed. The other Owner Group shall, collectively, accept or reject the selection of such Proposed Technical Expert within five (5) Business Days after receipt of notice of the identification of such Proposed Technical Expert. If such Owner Group rejects the selection of such Proposed Technical Expert, such Owner Group shall designate a qualified alternative Proposed Technical Expert for the other approval of the first

Owner Group in its rejection notice. The first Owner Group shall accept or reject such alternative within five (5) Business Days. If the alternative Proposed Technical Expert is not acceptable, both Owner Groups shall attempt in good faith to agree on an alternative selection. If a single Technical Expert has not been selected within thirty (30) days after rejection of the alternative, each Owner Group shall designate a Proposed Technical Expert, each of whom (a) has agreed to decide the Specified Technical Dispute; (b) is unaffiliated with any Contracting Owner or any of its Affiliates; (c) is generally qualified by training or experience to address the issue in controversy; and (d) is available to fulfill the responsibilities of resolving the Specified Technical Dispute in a timely manner. The two Technical Experts selected shall then, within five (5) Business Days, select a third Technical Expert meeting the above qualifications and the panel of three shall serve as the Technical Experts to resolve the Specified Technical Dispute.

1.3.3 Costs of Technical Experts. The fees and expenses of the Technical Experts shall be paid one half by the one Owner Group and one half by the other Owner Group. “**Technical Expert**” means any one or more technical experts that are finally selected to decide the Specified Technical Dispute pursuant to this **Section 1.3** of this **Schedule 2**.

1.4 Venue. The Technical Expert(s) shall (i) promptly fix a time and a place in Minneapolis, Minnesota, or another location acceptable to both Owner Groups, for receiving oral and/or written testimony from the Contracting Owners, (ii) make his/her/their sole decision only in relation to matters expressly referred to such Technical Expert(s) in accordance with this **Section 1.0** of this **Schedule 2**, and (iii) issue a draft decision stating the Technical Expert(s)’s findings of fact, together with all necessary supporting information and documentation, to each Owner Group within forty-five (45) days after the appointment of the Technical Expert(s). The Technical Expert(s) shall be entitled to question the sponsor of any oral or written testimony submitted for his/her/their consideration. The decision of the Technical Expert may not vary the terms of this Agreement.

1.5 Decision. Each Owner Group, collectively, shall have five (5) Business Days to submit to the Technical Expert(s) comments on the draft decision after its receipt thereof, and the Technical Expert(s) shall issue a final and binding determination in writing as soon as practicable, and in any case within sixty (60) days after the appointment of the Technical Expert(s). Such final determination must be consistent with (i) Applicable Law; (ii) CapX 2020 Substation Design Criteria, as applicable; and (iii) with the technical and engineering requirements of the Discretely Owned Substation Owner’s electric system. Such final determination will further be final and binding on the Contracting Owners and may be enforced in any court having jurisdiction pursuant to **Section 7.0** of this **Schedule 2**.

2.0 Other Disputes or Controversies.

- 2.1 **Other Disputes or Controversies.** If any dispute, controversy or claim, other than a Specified Technical Dispute, between the Owner Groups arises under this Agreement (a “**Dispute or Controversy**”), both Owner Groups shall first attempt in good faith to settle and resolve such Dispute or Controversy by mutual agreement.
- 2.2 **Commencement.** Any Owner Group may by notice to the Chair and Vice Chair of the Management Committee of the other Owner Group refer the Dispute or Controversy for resolution. Within fifteen (15) days after delivery of any such notice by an Owner Group, representatives of both Management Committees shall meet at a mutually acceptable time and place to attempt, with diligence and in good faith, to resolve and settle such Dispute or Controversy.
- 2.3 **Legal Action.** Should (i) mutual resolution and settlement not be obtained at the meeting of both Management Committees called to resolve and settle such Dispute or Controversy; (ii) no such meeting take place within such fifteen (15) day period (unless extended by mutual agreement of both Owner Groups); and (iii) the Dispute or Controversy not be a Specified Technical Dispute (except as provided in **Section 1.5** of this **Schedule 2**), then any Contracting Owner may commence an action in, and each of the Contracting Owners hereby submits to the jurisdiction of, any court having jurisdiction pursuant to **Section 7.0** of this **Schedule 2**.

3.0 Confidentiality.

- 3.1 **Confidential Information.** Each Contracting Owner, in all of its applicable capacities, agrees that (i) notwithstanding the provisions of **Article 14** of the applicable **Construction Management Agreement**, the information required to be exchanged or inspected hereunder may be exchanged or inspected by any Contracting Owner as contemplated hereunder and (ii) it has a proprietary interest in information that will be furnished or exchanged under this Agreement. Each Contracting Owner shall keep in confidence and shall not (a) disclose any such information which in good faith is proprietary and which if written (including electronic information) is specifically marked as “confidential,” or if oral, is identified by the declarant as “confidential,” which declaration is followed by written notice confirming such declaration (“**Confidential Information**”), without the prior written permission of the disclosing party or (b) use Confidential Information for a purpose unrelated to the Hampton Substation or the CapX 2020 Transmission Capacity Expansion Initiative, except as provided herein. Each Contracting Owner agrees to the disclosure by the other parties to this Agreement of Confidential Information to the consultants or representatives of the Contracting Owners and to such other Persons as may be necessary for each Contracting Owner to perform its respective obligations under this Agreement or to finance or sell or otherwise transfer any of the Percentages it is entitled to finance, sell or otherwise transfer under the applicable Project Participation Agreement. Each Contracting Owner shall be responsible for requiring any third party (excluding its

officers, directors, employees, and counsel of each Contracting Owner (and those of its Affiliates) who, in each case, will be informed of the requirement to comply with the terms of this **Section 3.0** of this **Schedule 2**) to whom it wishes to disclose Confidential Information to enter into a confidentiality agreement prior to any disclosure of Confidential Information on reasonable terms and conditions that are similar to the terms of this **Section 3.0** of this **Schedule 2** or are otherwise customary for confidentiality agreements for similarly situated parties receiving confidential information comparable to the Confidential Information. Each Contracting Owner agrees with respect to Confidential Information to hold the same confidential for three (3) years from the earlier to occur of termination of the Construction Management Agreement or Final Completion. The provisions of this **Section 3.0** of this **Schedule 2** will not apply to information which the receiving party can substantiate is information that:

- (1) at the time of disclosure by the disclosing party, is publicly available, or information that later becomes publicly available through no act or omission of the receiving party or its representative in violation of the terms hereof;
- (2) the receiving party can demonstrate was in its possession prior to disclosure by the disclosing party and is information that is not otherwise subject to a confidentiality requirement;
- (3) the receiving party from a third party received that, to the best of the receiving party's knowledge, was not under an obligation to maintain such information on a confidential basis and is information that is not otherwise subject to a confidentiality requirement;
- (4) the receiving party either independently developed or had independently developed for it and was not obtained, in whole or in part, from the disclosing party; or
- (5) the disclosing party authorizes the receiving party to disclose.

3.2 Disclosure. If a Contracting Owner (or any of its Affiliates): (i) is required by Applicable Law or an arbitrator to disclose Confidential Information or (ii) discloses any Confidential Information in connection with any proceeding before any Governmental Body with jurisdiction over a Contracting Owner's rates, operations or other aspects of its business, it shall provide reasonable prior notice of such impending disclosure to the other parties (without regard to the capacities of such parties) to this Agreement, as appropriate, and shall cooperate with the original disclosing party in its efforts (if any) to obtain an appropriate protective Order or other similar remedy. If, in the absence of a protective Order or other similar remedy, the receiving party nonetheless (a) in the opinion of its counsel, is required by Applicable Law or (b) determines that it is necessary, in order to get the action or relief it seeks before a Governmental Body, to disclose such Confidential Information, then it may so disclose such Confidential Information without liability hereunder; **provided, however,** the receiving party shall furnish

only that portion of material which is legally necessary to be disclosed and, upon the original disclosing party's request, cooperate, to the extent permitted by Applicable Law at the disclosing party's expense, to obtain assurances that confidential treatment, if possible, will be accorded to such information. Confidential Information subject to this **Section 3.0** of this **Schedule 2** may be used in any arbitration or other Proceeding relating to this Agreement.

- 4.0 Binding Effect.** This Agreement is binding upon and inures to the benefit of the permitted successors and assigns, if any, of the Contracting Owners. Each Contracting Owner may assign its rights and obligations under this Agreement only in connection with a transfer of its ownership interest, which only can be done in strict accordance with the terms of the La Crosse Project Development Agreement or the Project Participation Agreement, as applicable, and such assigning Contracting Owner shall ensure that its assignee executes a joinder to this Agreement, in form and substance reasonably satisfactory to the other Contracting Owners. The Owner Group to which the transferring Contracting Owner belongs shall provide written notice to the other Owner Group of any such transfer, a copy of the joinder, together with a notice address for the new Contracting Owner.
- 5.0 Counterparts.** This Agreement may be executed in one or more counterparts, each of which shall for all purposes be deemed an original, but all such counterparts shall together constitute but one and the same instrument. Signatures of the parties transmitted by facsimile shall be deemed to be their original signatures for all purposes. The executed counterparts of this Agreement and any ancillary documents hereto, such as amendments, may be delivered by electronic means, such as e-mail and/or facsimile, and the receiving party may rely on the receipt of such executed counterpart as if the original has been received.
- 6.0 Performance of Obligations.** Each Contracting Owner covenants, warrants, and represents to each of the other Contracting Owners, good faith, complete cooperation, due diligence, and honesty in fact in the performance of all obligations of such Contracting Owner pursuant to this Agreement.
- 7.0 Governing Law; Venue; Waiver of Jury Trial.** This Agreement shall be construed, enforced, and administered in accordance with the laws of the State of Minnesota (exclusive of conflicts of laws provisions of any jurisdiction and principles of comity). Except as set forth in **Section 1.0** of this **Schedule 2**, the Contracting Owners agree and consent that any Proceeding seeking to enforce any provision of this Agreement will be instituted and adjudicated solely and exclusively in any state or federal court of competent jurisdiction located in Hennepin or Ramsey County in the State of Minnesota. Each Contracting Owner agrees that each such court will have personal jurisdiction over it with respect to such Proceeding, and waives any objections it may have, and expressly consents, to such personal jurisdiction. EACH CONTRACTING OWNER WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY LITIGATION

DIRECTLY OR INDIRECTLY ARISING OUT OF, UNDER, OR IN CONNECTION WITH THIS AGREEMENT.

8.0 Headings. The headings of the articles, sections and subsections of this Agreement are intended for the convenience of the Contracting Owners only and will in no way be held to explain, modify, construe, limit, amplify, or aid in the interpretation of the provisions hereof. The terms "this Agreement," "hereof," "herein," "hereunder," "hereto," "hereby," and similar expressions refer to this Agreement as a whole and not to any particular article, section, subsection, or other portion hereof and include the appendices, schedules, and exhibits hereto and any document, instrument, or agreement executed and/or delivered pursuant hereto unless expressly so limited, and the terms "this Section" or "this Article" refer to the section or article in which such words occur.

9.0 Interpretation. The Contracting Owners have participated jointly in the negotiation and drafting of this Agreement. If an ambiguity or question of intent or interpretation arises, this Agreement is to be construed as if drafted jointly by the Contracting Owners and no presumption or burden of proof will arise favoring or disfavoring any Contracting Owner by virtue of the authorship of any of the provisions of this Agreement. The terms and phrases used in this Agreement, unless the context otherwise requires, are to be interpreted as follows: (i) the words "including," "include," or "includes" mean including without limitation; (ii) reference to any agreement (including this Agreement), appendix, schedule, exhibit, or instrument means as such is amended, modified, or supplemented, including by waiver or consent; (iii) reference to any Contracting Owner includes such Contracting Owner's successors and assigns, to the extent that such successors and assigns are permitted by this Agreement; (iv) pronouns in masculine, feminine, and neuter genders are to be construed to state and include any other gender; (v) the words "will" and "shall" have the same meaning; and (vi) unless the context otherwise requires, all defined terms in this Agreement include the singular and the plural.

10.0 Relationship of Contracting Owners. Nothing contained in this Agreement will ever be construed to create an association, joint venture, trust, partnership, or other legal relationship, or to impose a trust or partnership covenant, obligation, or liability on or with regard to any of the Contracting Owners or any Owner Group. No member or customer of a Contracting Owner or customer of a member of a Contracting Owner will be deemed a Contracting Owner or party under this Agreement, unless such Person has signed a transfer agreement or call option assignment agreement pursuant to the respective project development agreement or project participation agreement, as applicable. Each Contracting Owner will be individually responsible for its own covenants, obligations, and liabilities in this Agreement. No Contracting Owner will be under the control of, or will be deemed to control, any other Contracting Owner, Owner Group, or the Contracting Owners as a group. No Contracting Owner acting in any capacity is the agent of, or has a right or power to bind, any other Contracting Owner without its express written consent.

11.0 No Rights or Benefits to Third Parties. The Contracting Owners do not intend to create rights in, or to grant remedies to, any third party as a beneficiary hereof or to create

any duty to, or standard of care on behalf of, any third party by any covenant, obligation, or undertaking established herein. There are no incidental third party beneficiaries to this Agreement and, by way of clarification and not of limitation, no Governmental Body, customer, or member of a Contracting Owner or customer of a Contracting Owner's member is an intended or incidental third party beneficiary thereof.

12.0 Severability. If any term, covenant, or condition of this Agreement or the application of such term, covenant, or condition is held invalid or unenforceable as to any Contracting Owner or circumstance by any Governmental Body having jurisdiction, all other terms, covenants or conditions of this Agreement and their application will not be affected thereby, but will remain in force and effect unless such a Governmental Body holds that the provisions are not separable from all other provisions of this Agreement. The Contracting Owners specifically consent to the "blue-penciling" of this Agreement by any Governmental Body having jurisdiction to construe as valid and enforceable the terms and conditions of this Agreement, consistent with the intent of the Contracting Owners. Such Governmental Body will have the authority to reform and interpret the terms and conditions of this Agreement to find a valid and enforceable construction of this Agreement that is consistent with the intent of the Contracting Owners and hold all invalid and unenforceable provisions, if any, as separable from all other remaining provisions.

13.0 Amendment and Waiver. No purported amendment of this Agreement will be effective unless in a writing, which is executed and delivered by all of the Contracting Owners. The terms, conditions, warranties, representations, and covenants contained in this Agreement, including the documents, instruments, and agreements executed and delivered by any of the Contracting Owners pursuant to this Agreement, may be waived only by a written instrument executed by all of the Contracting Owners waiving compliance. Any such waiver will be effective only in the specific instance and for the specific purpose for which it was given and will not be deemed a waiver of any other provision thereof or of the same breach or default upon any recurrence thereof. No failure on the part of any Contracting Owner, as applicable in the circumstances, to exercise, and no delay in exercising, any right hereunder will operate as a waiver thereof nor will any single or partial exercise of any right hereunder preclude any other or further exercise thereof or the exercise of any other right.

14.0 Management Committee Notices. Each Owner Group hereby authorizes the Chair and Vice Chair of its Management Committee to deliver notices, directions, and instructions pursuant to this Agreement on behalf of such Management Committee and the Contracting Owners. Any notice, direction, or instruction provided by a Management Committee pursuant hereto must be in writing and signed by the Chair or Vice Chair of such Management Committee.

15.0 Notice Generally.

15.1 Giving Notice. All notices, requests or other communications required or permitted under this Agreement will be in writing and will be deemed "given" (i) if delivered in person or by courier, upon receipt by the intended recipient or upon the date

of delivery (as confirmed by, if delivered by courier, the records of such courier); (ii) if sent by facsimile transmission, when the sender receives confirmation from the sending facsimile machine that such facsimile transmission was transmitted to the facsimile number of the addressee; (iii) if mailed, upon the date of delivery as shown by the return receipt therefor; or (iv) if delivered by a nationally recognized mail delivery service, upon the date of delivery. Notices must be sent to the addresses of the Persons set forth on **Schedule 3**.

15.2 Information Communications. Informal communications of a routine nature may be given in such manner as the parties deem appropriate.

15.3 Designation of Different Addresses and Persons. A party may, at any time, by written notice to each other party, designate different or additional Persons or different addresses for giving of notices, demands or requests to it under a Project Agreement.

16.0 Limitation on Consequential Damages. No party will be liable to any other party under this Agreement for any special, incidental, consequential, indirect, exemplary, treble, or punitive damages (including loss of revenue, loss of profits, diminution in value, cost of capital, loss of goodwill or increased operating costs) or any other penalty; provided, however, the foregoing exclusion will not apply to liability to indemnify for damages arising from any third party claim.

SCHEDULE 3

ADDRESSES FOR NOTICES

ADDRESSES OF BROOKINGS OWNERS

If to Great River Energy:

Great River Energy
12300 Elm Creek Boulevard
Maple Grove, MN 55369-4718
Attention: Will Kaul
Fax: 763-445-6701
E-mail: wkaul@greenergy.com

With a Mandatory Copy to:

Michael R. Nixt
Moss & Barnett
4800 Wells Fargo Center
90 South 7th Street
Minneapolis, MN 55402
Fax: 612-877-5999
E-mail: nixtm@moss-barnett.com

If to Western Minnesota Municipal Power Agency:

Western Minnesota Municipal Power Agency
25 NW 2nd St., Suite 102
Ortonville, MN 56278
Attention: Curt Punt
Fax: 320-839-2540
E-mail: dlpublic@lakesnet.net

With a Mandatory Copy to:

Missouri River Energy Services
3724 West Avera Drive
P.O. Box 88920
Sioux Falls, SD 57109-8920
Attention: Raymond J. Wahle
Fax: 605-978-9365
E-mail: rwahle@mrenergy.com

If to Central Minnesota Municipal Power Agency:

Steve Thompson CEO
Central Minnesota Municipal Power Agency
450 South Grove Street
Blue Earth, MN 56013
Phone: 507-526-2193
Fax: 507-526-2527
E-mail: stevet@cmmpa.org

With a Mandatory Copy to:

Andrew Lucero
Lucero Consulting LLC
7235 Island Lake Falls Road
Duluth, MN 55803
Phone: 218-721-4034
Fax: 218-721-3764
E-mail: alucero@northlc.com

If to Otter Tail Power Company:

Otter Tail Power Company
215 S. Cascade St.
P.O. Box 496
Fergus Falls, MN 56538-0496
Attention: Rodney C. H. Scheel
Fax: 218-739-8218
E-mail: rscheel@otpc.com

With a Mandatory Copy to:

Jennifer O. Smestad
Otter Tail Power Company
215 S. Cascade St.
P.O. Box 496
Fergus Falls, MN 56538-0496
Fax: 218-998-3165
E-mail: jsmestad@ottertail.com

If to Northern States Power Company:

Northern States Power Company, a
Minnesota corporation
414 Nicollet Mall, MP-8
Minneapolis, MN 55401
Attention: Teresa Mogensen, VP of
Transmission
Fax: 612-573-1815
E-mail:
Teresa.M.Mogensen@xcelenergy.com

With a Mandatory Copy to:

Northern States Power Company, a
Minnesota corporation
414 Nicollet Mall, 5th Floor
Minneapolis, MN 55401
Attention: General Counsel
Fax: 612-573-9025
E-mail: Scott.Wilensky@xcelenergy.com

ADDRESSES OF LA CROSSE PARTICIPANTS

If to Dairyland Power Cooperative:

Dairyland Power Cooperative
3200 E. Avenue S.
P.O. Box 817
La Crosse, WI 54602-0817
Representative: Chuck Callies
Alternate: Benjamin L. Porath
Telephone: 608-788-4000
Fax: 608-787-1475

If to City of Rochester:

City of Rochester
4000 East River Rd. NE
Rochester, MN 55906-2813
Representative: Randy Anderton
Alternate: Larry Koshire
Telephone: 507-280-1607
Fax: 507-280-1542

If to Southern Minnesota Municipal Power Agency:

Southern Minnesota Municipal Power Agency
500 First Avenue Southwest
Rochester, MN 55902-3303
Representative: Richard Hettwer
Alternate: Mark Mitchell
Telephone: 507-285-0478
Fax: 507-292-6414

If to WPPI Energy:

WPPI Energy
1425 Corporate Center Drive
Sun Prairie, WI 53590-9109
Representative: Tim Noeldner
Alternate: Pat Connors
Telephone: 608-834-4500
Fax: 608-837-0274

If to Northern States Power Company:

Northern States Power Company,
a Minnesota corporation, and Northern
States Power Company, a Wisconsin
corporation, jointly d/b/a Xcel Energy
414 Nicollet Mall, 5th Floor
Minneapolis, MN 55401
Representative: Greg Chamberlain
Alternate: Priti R. Patel
Telephone: 612-337-2158
Fax: 612-573-9430

SCHEDULE 4

INFORMATION AND MONTHLY SUBMITTALS

Section 1.0 Information.

- (i) Revisions to the Project Plan;
- (ii) Copies of Governmental Approvals received after the Effective Time; and
- (iii) Prompt written notice that the Owner Group reasonably believes that (a) Hampton Substation Costs exceed, or are projected to exceed, the Hampton Substation Budget or (b) an event that has had, or will have, a material adverse effect on the performance of the construction work has occurred, which notice must provide available detail adequate to reasonably inform the other Owner Group.

Section 2.0 Monthly Submittals.

- (i) The monthly progress report for the Prior Month;
- (ii) A summary of payroll information for the services rendered by the applicable Construction Manager, identifying, at a minimum, total costs for all labor, identified by billing category and specifying hours and employee classification;
- (iii) A summary of the sales, consumer, excess, use or similar taxes that have been paid;
- (iv) A statement describing any undischarged contractor liens that have been filed or threatened in writing of which the applicable Construction Manager is aware;
- (v) A statement of (a) the Discretely Owned Substation Costs approved by the applicable Construction Manager in respect of the construction work on the Hampton Substation being performed by or for the Discretely Owned Substation Owner for the Prior Month and in the aggregate and (b) amounts paid directly by the Discretely Owned Substation Owner at the request of the applicable Construction Manager in the Prior Month and in the aggregate in respect of Hampton Substation Real Property exclusively and directly associated with the Hampton Substation; and
- (vi) The financial summary report to be delivered to such Owner Group's Management Committee pursuant to the applicable Construction Management Agreement.

Exhibit A
Hampton Substation Design



Appropriation Estimate (Internal)

An "Appropriation Estimate" is provided by Xcel Energy at the specific request of a requesting entity (Requester). There is a cost associated with preparing an Appropriation Estimate. It is based on actual costs, including appropriate overheads, for the Xcel Energy resources and other related expenses required to produce the estimate.

Requester Name Kevin Lennon, Great River Energy Phone 763-445-5000
Address 12300 Elm Creek Blvd N, Maple Grove, MN

Project Information

Xcel Energy has relied on the Scope shown below to produce the estimate. Consequential changes in the Project Scope (before, during or after actual construction) will necessitate a new Engineering Estimate.

Substation: Hampton Substation (HMP)
Location: Hampton, MN
Project WO: 11495885
In-Service Date: May 14, 2014
Title: Build a new 345kV Substation

Project Scope

This project provides for the installation of the new 345kV Hampton Substation (HMP), located near Hampton, MN. The project scope includes grading and fencing an area for the installation of an initial four-breaker, ring bus arrangement

Project Assumptions

Xcel Energy has relied on assumptions as indicated in the attached design guide document to produce the estimate. Consequential changes in the Project Assumptions (before, during or after actual construction) will necessitate a new Appropriation Estimate.

Permitting Requirements

This project will be permitted under the entire CAPX2020 project. Easements and local permits will be acquired at the time of construction.

Authorization Lead-time

Xcel Energy has reviewed the construction requirements for this project, and estimates the following:

<u>Key Activity</u>	<u>Remaining Duration</u>
Permitting	3 months
Engineering (includes material lead-time)	15 months
Civil Construction	3 months
Electrical Construction	<u>7 months</u>
Total Lead-time from AE Transmittal to Project completion	25 months

See Attached Schedule for details.

This Appropriation Estimate is Xcel Energy's best evaluation of the costs and schedule to complete the project as described above. However, there will be many factors that influence actual costs, such as: construction requirements of permitting authorities to secure approvals; inclement weather and other acts of god; unexpected increases in material costs; unexpected increases or changes in labor charges; scheduling, availability, and/or mobilization; ability to schedule outages on the existing electric facilities of Xcel Energy or other electric companies; emergencies occurring on the electric systems of Xcel Energy or electric companies; and other factors not specifically identified herein.

Xcel Energy will promptly notify Requester of any conditions of which it becomes aware that could:

- Change of the Appropriation Cost Estimate for the project by more than 20%,
- Any change that would seriously impact the planned in-service date, such as the factors identified above.

Appropriation Estimate of Costs: \$9,590,000

Prepared By: Sam Burns
 Substation Engineer

 Scott Elling
 Engineer II (Control Engineer)

 Chad Nelson
 Design Engineer (Civil Engineer)

Approved By: _____

 Susan McNelly
 Consulting Engineer - Physical Sponsor

Approved By: _____

 Andrew Beckel
 Principal Specialty Engineer - Control Sponsor



PROJECT DESIGN GUIDE

Location: Hampton Substation (HMP)

Project Title: Build New 345kV Substation

	TAM
Project (W.O.) Number:	11495885
In-Service Date:	5/14/2014
Parent Number:	11495709
Program Manager:	Mythili Chaganti
Project Manager:	Kevin Lennon, Great River Energy
Prepared By:	Sam Burns Chad Nelson Scott Elling
HD Job Number	HMP-AEr0-xxxxxxx-New Substation CAPX2020
Estimate Type and Amount:	Appropriations Estimate, \$9,590,000

I. Project Purpose & Scope

This project provides for a new 345kV substation near Hampton, MN. A new 345kV substation with an initial four-breaker, ring bus arrangement will be installed. The scope includes four new 345kV line terminations.

Background

The CapX2020 transmission line projects (Capacity Expansion 2020) are a joint initiative of eleven transmission-owning utilities in Minnesota. In May of 2005, a transmission planning study examined what was necessary to meet Minnesota customer's power requirements by the year 2020. This study is called *CapX2020 Technical Update: Identifying Minnesota's Electric Transmission Infrastructure Needs* ("Vision Plan"). The CapX2020 series of projects is divided into three major 345kV transmission line projects, Twin Cities to Fargo, Twin Cities to Brookings County, and Twin Cities to La Crosse. The projects are based on the need to address the regional reliability issues, customer service support, and support for the installation of renewable energy based generation. For more details on the need, and a detailed description of each of the transmission line projects refer to www.capx2020.com.

This substation project is part of the Twin Cities to Brookings County series of transmission line and substation projects, and is proposed to increase transmission available for generation support in the Buffalo Ridge area.

Future Considerations

Transmission Planning identified the need for additional 115kV and 345kV installations. The ultimate design and layout of this substation will accommodate these needs. See the attached circuit diagram and location plan for details.

II. FERC and/or NERC Compliance Requirements

Critical Infrastructure Protection (CIP) Asset

Hampton is a new substation, and it is defined as a CIP Critical Asset location.

Facility Ratings

This is a new substation, and it will meet the new facility rating requirements.

Other Applicable Compliance Issues

None

III. Right of Way

The Minnesota Public Utilities of Commission (MPUC) requires a utility to obtain two major approvals to construct a transmission line: a Certificate of Need (CON) justifying the need for the proposed transmission project and a Route Permit (RP) specifying where the transmission line will be routed.

A CON application for the two 345kV transmission line projects was filed with MPUC (Docket No. ET02, E-002/CN-06-1115) on August 16th 2007. The written order was issued on May 22nd, 2009.

A RP application (ET2/TL-08-1474) was filed on December 29th, 2008 and the final order was granted on January 26th, 2010.

A new site, approximately 40 acres, will be bought on which to build the substation. The site is on the northwest corner of US Highway 52 and 215th Street East, near Hampton, MN. Easement rights will have to be acquired along the approved route for the four 345kV transmission lines into HMP. Some local permits may be required for construction of the new driveway and for substation fences.

IV. Electrical Features

Transmission Lines: Current Carrying Capacity of New & Affected

There will be two new 345kV lines to HMP. One line (0961), approximately 19 miles, will be from the GRE Chub Lake Substation (CHA). The last line (later) will come from North Rochester Substation (NRR). All of the new 345kV transmission lines to HMP will use two 954MCM, Type 13 ACSS/TW conductors per phase with a summer normal rating of 3938A (4 ft per sec). The circuit breakers and disconnect switches are rated for 3000A and will be the equipment limiting flow on these lines.

The existing Prairie Island to Blue Lake 345kV line (0976) will be cut and looped into the new Hampton Substation. The existing Prairie Island to Blue Lake 345kV line is twin bundled 795kcmil, 26/7, ACSR conductor per phase with a summer nominal rating of 2306A (4 ft per sec). The transmission line conductor is the limiting condition for flow on line 0976.

Fault Current

A system model for the Brookings series of projects is currently being developed by Power Engineers. The final model will be available the last week in April 2011. The fault currents shown below are from a preliminary CAPE model developed in 2006. This initial CAPE modeling study found that the fault currents for the 345kV at HMP and the adjacent substations would not go beyond 40kA. Therefore, the new 345kV bus will be designed for an ultimate fault current of 40kA. This preliminary data will be verified with the more accurate CAPE model being developed.

Location	Type of Fault	Three Phase (A)	Single-Line-to-Ground (A)
	345kV Bus		18,963

Electrical Removals & Relocations

N/A.

Electrical Installations (Major Equipment)

The new 345kV substation will initially be built as a 4-position ring bus using a low profile design. The layout is designed to be ultimately expanded to five breaker-and-a-half rows. The new substation will be classified as enclosed and a wind speed of 2 ft/s will be used for bus conductor ratings.

Four 345kV, 3000A, 40kA, gas circuit breakers with four sets of 3000:5A, multi-ratio BCTs will be installed (one breaker for each position in the ring bus). The breakers will be installed in positions, 8S46, 8S49, 8S50 & 8S51.

Eight 345kV, 3000A, group-operated, double-end-break, disconnect switches (8S46A, 8S46B, 8S49A, 8S49B, 8S50B1, 8S50B2, 8S51A & 8S51B) will be installed. These switches are needed for isolation of the four breakers listed above.

Twelve 345kV, 0.3% revenue accuracy CCVTs will be installed. Six CCVTs with carrier accessories and six without carrier accessories will be installed on the dead-end termination structure for each of the line terminations. These CCVTs provide voltage source for synchronization of the breakers, metering and relaying potential for the 345kV transmission lines and the higher accuracy is needed for the high speed operation of the breakers per the CAPX2020 design criteria.

Six 345kV, 3000A, single-frequency, 90-300 kHz blocking bandwidth line traps and narrow-band tuners will be installed on A and B phases for the 345kV North Rochester and Chub Lake lines and on A phase for the 345kV Blue Lake and Prairie Island lines. The line traps are required to achieve phase-to-phase coupling or phase-to-ground coupling of the carrier systems and a reliable performance of the piloted protection scheme. These line traps will be installed on top of the CCVTs.

Twelve 230kV MCOV, station-class, polymer surge arresters will be installed (three for each line termination). The arrester will be mounted upright on the dead-end termination structure and will be used to protect substation equipment for lightning and switching surges.

The 345kV Main Bus 1 & 2 will be construction with 6", schedule 40 aluminum tube rated for 4095A at 2 ft/s wind speed and will be installed in the North-South direction at a height of 37'-2". The 345kV breaker rows will be constructed with 5", schedule 40 aluminum tube rated for 3404A at 2 ft/s wind speed and will be installed in the East-West direction at a height of 21'-2". The connections between the lines, bus and line traps will be with 4-1590 MCM AAC per phase rated at 3669A at 2 ft/s wind speed. The tap connections to the CCVT's and surge arresters will be with 2-1590 MCM AAC per phase to maintain an even surface gradient to the equipment for corona protection.

Mobile Substation or Transformer

There is no need for a mobile substation or transformer on this project.

Electrical Equipment Enclosure (EEE)

A new 24'x40' electrical equipment enclosure will be installed in the southern section of the fenced property area. The EEE will be designed to accommodate the equipment for future expansion of the 345kV yard to the ultimate design. The EEE will have the following;

- Metering and Relaying equipment for the 345kV lines
- Human Machine Interface (HMI), Programmable Automation Controllers (PACs) and communication, telephone equipment for local and remote annunciation. Details explained under the control section.
- AC and DC system equipment. Details explained under the AC and DC sections.
- Standard drafting table, supply cabinet, termination cabinets, heaters and lights.

AC System

The AC auxiliary station power system will have a preferred and emergency source.

The preferred source will be provided by local distribution and the emergency source will be a diesel generator. The following equipment will be installed in the EEE:

- A three-phase, 600A auto transfer switch (ATS)
- One three-phase, 600A, AC panel board with two 200A/3P breakers and four 200A/2P breakers
- Two three-phase, 42 position, 225A power AC cabinet
- One three-phase, 42 position, 225A lighting AC cabinet

The following equipment will be installed in the switchyard:

- One three-phase, 120/240V, 100kW (125kVA), enclosed, electric start, auto start, diesel generator

DC System

A 125VDC battery and charger will be installed in the EEE. The size of the DC system will be verified during detailed project design. The estimate assumes a 300AH battery and a 50A charger will be required. Two 52 position DC cabinets will also be installed in the EEE.

Grounding

A new ground grid will be installed throughout the substation yard in accordance with Xcel Energy standards. The grid will consist primarily of buried #4/0 copper conductor and 3/4" ground rods driven to a minimum depth of 20'. The fence will be grounded and counterpoised and will be part of the substation ground grid.

Lightning Protection

The two new CAPX lines will have 7/16" EHS steel and OPGW shield wires. The Prairie Island to Blue Lake line has 3/8" EHS steel shield wires. The shield wire will terminate at the substation dead-end structures. To further protect against lightning, shield spikes will be installed on the dead-end structures and surge arrester will be installed on each line.

A study has determined that in addition to the shielding discussed in the previous paragraph, a 100 foot shield pole will also be needed

Trenching & Cable

Approximately 300 feet of new 40" wide non-drivable precast concrete cable trench, 20 feet of 40" wide drivable precast concrete cable trench, 450 feet of 20" wide non-drivable concrete cable trench, and 20 feet of 20" wide drivable concrete cable trench will be installed. The control cable from the breakers, diesel generator, and CCVTs will be direct buried to the nearest precast concrete trench.

Single-mode, fiber optic cable will also be terminated in a splice box mounted on each transmission line dead-end structure for the 345kV lines and will be installed in 2" PVC to the nearest precast concrete trench.

V. **Civil Features**

Grading & Fencing

The graded substation pad will be approximately 380 feet north-to-south by 570 feet east-to-west. The total disturbed area, including driveway, ditching, and storm water retention pond will encompass approximately 6 acres of the site.

Approximately 1850 feet of new fence will be installed. A standard 20-foot wide drive access gate will be installed on the West side of the substation fence.

Approximately 1 - 2 feet of topsoil will need to be removed across the graded pad. For this AE estimate, it is assumed that approximately three feet of fill material will be placed and compacted in the substation area and surfaced with 12 inches of base material and four inches of crushed rock to bring the substation pad to the proposed finished grade elevation. Once available, new soil boring information will be utilized to determine if additional topsoil and soil correction will be required. The estimate will be revised at this time.



Storm water from the site will drain into a sedimentation pond to comply with permitting requirements. The pond outlet will drain to the existing road ditch to the south of the substation.

Landscaping is not expected to be required and was not estimated.

Site grading and fencing will be designed according to Xcel Energy Civil/Structural Standards and Specifications.

Crushed rock will be spread in areas disturbed by trenching and the installation of the new foundations.

At the present time permission has not been granted to access the property selected for new substation. The grading estimate is based on preliminary data without soil borings. The plan and estimate will be updated as necessary once surveys and soil borings have been completed.

Storm Water Permit

Storm Water Permitting is required as more than one acre of area will be disturbed. A storm water basin will be installed as more than one acre of impervious surface will be installed. Engineering will provide the permit documentation to Environmental Services for submittal. The permit will be maintained by construction and closed when the site meets all requirements for the Notice of Termination.

Foundations & Structural

An SPCC oil spill prevention study will be coordinated with Environmental Services. The storm water basin will provide secondary oil containment for the site.

Civil Removals & Relocations

This is a new substation therefore there are no removals or relocations.

Civil Installations

The estimated foundation sizes are based on a minimum allowable bearing of 2000 psf. Actual design will be based on the new soil boring report that will be completed on this project. The estimate includes the costs of surveying, staking, and concrete testing and inspection.

The following concrete slab foundations will be installed:

Quantity	Description	Approx. Size
4	345kV Breaker	10'x16'x1'
1	EEE (24'x40')	24'x40'x1'
1	Engine Generator Facility	12'x30'x1'

Install the following galvanized steel structures with drilled pier foundations:

Structure Quantity	Steel Description	Steel Wt./ Structure	Drilled Piers		
			Pier Qty	Approx. Size	
				Dia.	Depth
1	100' Shield Pole	3,300	1	4'-0"	16'-0"
1	345kV Deadend – single bay	58,000	2	7'-0"	24'-0"

Structure Quantity	Steel Description	Steel Wt./ Structure	Drilled Piers		
			Pier Qty	Approx. Size	
				Dia.	Depth
1	345kV Deadend – three bay	140,000	4	7'-0	24'-0
7	345kV Switch Stand, low	4,300	28	2'-6	10'-0
7	345kV Switch Stand w/ bus support, low	7,200	28	2'-6	10'-0
15	345kV Bus Support – single phase double insulator, low	1,200	15	3'-0	12'-0
2	345 kV Bus Support – three phase, low	2,400	4	3'-0	10'-0
9	345kV Bus Support – single phase, double insulator A frame, high	1,500	9	4'-0	12'-0
6	345kV Line Trap Stand	800	6	2'-6	10'-0

It is assumed that all structures will be master or previously designed structures.

Electrical Equipment Enclosure (EEE)

A new 24' x 40' foot EEE will be installed in the south end of the substation. It will be a metal fabricated structural panel building on a slab on grade foundation. The EEE will be installed by in-house Xcel construction personnel.

VI. Protection Features

Transmission Line Protection (345kV)

Primary and secondary line relaying will be installed to protect the new 345 kV HMP-CHA and HMP-NRR transmission lines. The primary relaying will consist of a GE-D90+ distance relay configured in a directional comparison unblocking (DCUB) scheme. The primary pilot scheme will utilize a Pulsar TCF-10B transceiver configured for narrow band/narrow shift, FSK modulation, and will use phase-to-phase coupling for both the primary relaying as well as the primary transfer-trip. The secondary relaying will consist of an SEL-421-5 distance relay configured in a permissive overreaching transfer-trip (POTT) scheme. Single mode, fiber-optic cable (OPGW) will be installed on each 345 kV transmission line to provide the secondary pilot channel. An SEL-2505 relay will be used for secondary transfer-trip functions.

Primary and secondary line relaying will be installed to protect the 345 kV HMP-BLL and HMP-PRI transmission lines. This relaying will be designed to match the existing relaying at the BLL and PRI substations. The primary relaying will consist of a GE-D90+ distance relay configured in a directional comparison unblocking (DCUB) scheme. The primary pilot scheme will utilize a Pulsar TCF-10B transceiver configured for narrow band/narrow shift, FSK modulation, and will use ground coupling for both the primary relaying as well as the primary transfer-trip. The secondary relaying will consist of an SEL-421-5 distance relay configured in a permissive overreaching transfer-trip (POTT) scheme. The secondary pilot scheme will utilize an RFL-9745 four-channel tone transceiver, and will use a leased tone circuit to provide the pilot channel for both secondary relaying and secondary transfer-trip.

Transmission Breaker Protection (345kV)

An SEL-451 relay will be installed for each new 345 kV breaker to provide breaker failure protection and reclosing control. A lockout (LOR) relay will be installed with each breaker failure relay.

VII. Control FeaturesGeneral

The control schemes for the new 345kV equipment will utilize the new "Hybrid II" design, which uses an Ethernet/DNP network with SEL-2440/2411 programmable automation controllers (PACs) to collect alarms. An HMI computer is used for local alarm annunciation only. This design uses traditional hard-wired control panels including lockout relays, control switches, pilot lights, etc.

RTU

An Orion LX RTU will be installed to accommodate the new 345kV equipment. The RTU communication circuit to the EMS will utilize the DNP protocol.

Local Annunciation

An SEL-3354 HMI computer running Citect software will be installed to accommodate the new 345kV equipment. The HMI will be used for local alarm annunciation only, and will not include any local operator functionality.

Transmission Breaker Reclosing Controls (345kV)

The SEL-451 relay associated with each new 345kV circuit breaker will provide the reclosing control for that breaker. Reclosing will be as follows:

1. Breaker 8S51 will reclose for HMP-CHA line events.
2. Breaker 8S49 will reclose for HMP-PRI and HMP-NRR line events.
3. Breaker 8S46 will reclose for HMP-BLL line events.
4. Breaker 8S50 will reclose on sync conditions only.

Two shot reclosing will be attempted following line events; the first will be high speed, followed by a second time delayed reclose. Failure to reclose will drive the recloser to lockout. EMS Reclose On/Off control will be provided for all the new 345kV breakers.

Auto-Sectionalizing/Auto-Transfer.

The new 345kV yard will initially be configured as a ring bus. Therefore, no auto-sectionalizing is required for transmission line events.

No breaker-failure sectionalizing will be installed.

Digital Fault Recorder

A stand alone, Tesla 3000, digital fault recorder will be installed in the EEE; it will be panel mounted. The fault recorder will obtain analog values via transducers with 0-1mA outputs distributed among the relay panels. The analog transducers will be installed in the secondary CT circuits. The fault recorder will have one analog input shelf totaling 36 channels, and one event input shelf totaling 64 points. The fault recorder will initially be monitoring the following analog values and digital points:

1. Three-phase line current
2. Three-phase line potential
3. Breaker status
4. Pilot channel transmit
5. Pilot channel receive
6. Transfer Trip transmit
7. Transfer Trip receive
8. Relay trip outputs

Telephone Protection

An eight-card Positron telephone protection package will be installed. Two new protected circuits will be required; a 2-wire for voice and a 4-wire for the Orion RTU. A frame relay telephone circuit will be installed to accommodate the new RTU. The frame relay circuit will require a frame relay access device (FRAD). The Positron package comes as a pre-wired enclosure, which will be mounted on the wall of the EEE. A surge arrester for the Telco cable entrance will be installed in a separate enclosure mounted on the control house wall.

Relay Remote Access

A DG-108 line sharing switch and modem will be installed to accommodate relay remote access. The modem will be connected to a port on the SEL-2032 communications processor. Ethernet connected relays will be accessed directly over the network via the SEL-2032. Non-Ethernet connected relays will be access directly from their respective SEL-2032 ports.

PAC (programmable automation controller)

The new EEE will employ the DNP protocol on an Ethernet network for gathering alarm, status, and metering points. Protective relays that have Ethernet ports available will be directly connected to this network. Protective relays that do not have Ethernet ports available will be connected to the network via an SEL-2032 communications processor, which will include a 2701 Ethernet card. Two SEL-2440 PAC relays will be installed in the HMI Annunciator/RTU panel to accommodate wired alarms that cannot be gathered directly from protective relays on the network. A PAC terminal cabinet including three SEL-2440 and two SEL-2411 PAC relays will also be installed to collect alarm and status points from the yard equipment. Primary and secondary Ethernet switches will also be installed to accommodate connection of device Ethernet ports. The devices within the EEE will be connected to the Ethernet switches using CAT5e STP.

Fiber Optic Cable

The new 345kV HMP-CHA and HMP-NRR transmission lines will each utilize 48 fiber, single-mode, optical ground wire (OPGW). An outdoor fiber splice panel will be installed at each transmission line dead-end structure to accommodate fusion splicing of the OPGW fibers. Single-mode fiber optic cable (48 fiber) will be installed between the EEE and each dead-end splice panel. A patch panel will

be installed in the EEE for terminating all the single-mode fiber. Individual fiber patch cables will be installed between the patch panel and each end device relay.

Removals

No removals are required since this is a new substation.

Control Panel Locations

Location	Control Panel Description	Size
345EEE	345kV BLL Pri Line Rlyg, Carrier Rlyg, Bkr 8S46 BF Rlyg	28"
345EEE	345kV BLL Sec Line Rlyg, Tone Rlyg	28"
345EEE	345kV PRI Pri Line Rlyg, Carrier Rlyg, Bkr 8S49 BF Rlyg	28"
345EEE	345kV PRI Sec Line Rlyg, Tone Rlyg	28"
345EEE	Bkr 8S50 BF Rlyg	28"
345EEE	345kV CHA Pri Line Rlyg, Carrier Rlyg, Bkr 8S51 BF Rlyg	28"
345EEE	345kV CHA Sec Line Rlyg, Fiber Rlyg	28"
345EEE	345kV NRR Pri Line Rlyg, Carrier Rlyg, Future Bkr 8S52 BF Rlyg	28"
345EEE	345kV NRR Sec Line Rlyg, Fiber Rlyg	28"
345EEE	HMI Annunciator/RTU/PAC Panel	28"
345EEE	PAC Terminal Cabinet	
345EEE	Fault Recorder	

VIII. Project and Operating Concerns

Coordination will be needed with GRE, and Sargent & Lundy to complete the remote end work at Cedar Mountain Substation and for the termination of the new transmission lines.

There are several concurrent substation and transmission line projects as described in the Summary of Parts. It is extremely important to coordinate work between these projects to meet the ISD for HMP.

Outages

The new 345kV substation can be built without any major outages. An outage will need to occur on the 345kV Prairie Island to Blue Lake transmission line to accommodate the cut and loop into the new substation.

A detailed outage and commissioning sequence will be developed by Engineering, Operations and Real Time Planning and verified to see how it would affect the existing system. This will also aid substation, transmission line construction and testing to coordinate work among all the projects.

IX. Material Staging Plan

All of the major materials will be procured using the existing Xcel Energy firm pricing agreements. Major equipment will be delivered to either the job site or staged at the Maple Grove Material

Complex. If direction is given to accelerate capitol spend in 2011, the materials will have to be staged at the Maple Grove Material Complex. The site will need to be graded and fenced before receipt of equipment at the job site, so it is not in the way for civil and electric construction.

Stock materials will be ordered as a package from Border States Electric.

X. Related Projects

See Summary of Project Parts document.

XI. Risk Check List

Risk factors identified at the time the Design Guide Package was prepared are indicated below. Explanations, where applicable indicate the action, if any, taken in the estimate as a result, such as additional contingencies or multipliers that were applied.

- Survey information is not available. Explain: Site access has not been granted so surveys and soil borings are not complete.
- Soil boring results are not available. Explain: Soil borings will be required to accurately estimate and design the foundations.
- Unusual soils or environmental conditions exist. Explain: The diesel generator maintenance plan may need state approval.
- Key materials or items need decisions or approvals. Explain: A CAPE or ASPEN model will be required to determine the system impedance and fault current at the substation for adequate bus & ground grid design. A system reactive compensation study will be required to confirm the reactive needs.
- Potential permitting delays or unusual requirements exist. Explain:
- There are difficult or seasonal outage requirements. Explain: An outage sequence plan will need to be discussed with Operations and Real Time Planning to see how it will affect the existing system
- There are conflicting outage requirements. Explain:
- There are risks due to who will construct the project and their availability.
Explain: There are several concurrent substation and transmission line projects that will need construction and testing resources. The estimate assumes that in house construction will be utilized. There will be significant construction cost increase if contract construction is utilized.
- Unusual construction techniques will be required. Explain:
- There are risks associated with plans to reuse existing material. Explain:
- There are potential alternatives still under consideration. Explain:
- Material prices are likely to change or volatile. Explain:
- Material lead times are likely to be longer than estimated. Explain:
- Labor prices are likely to change. Explain:
- There are existing erosion problems. Explain:



- The existing oil containment may not be adequate. Explain:
- The existing lightning protection may not be adequate. Explain:
- The existing bus and equipment ampacity may not be adequate. Explain:
- The existing drawings are incomplete and inaccurate. Explain:

Notes and Comments:

**Xcel Energy
Project Estimate Summary**

Project Information	
Job Folder Name	HMP-AEr0-xxxxxxx-New Substation CAPX2020
Sub./Line Name:	Hampton
WO #:	
Group Name:	
City:	Hampton
County:	Dakota
State:	MN
WO Type:	
Op Co:	NSPM
In-service Date:	5/14/2014
Basic Scope:	Install new 345kV Substation

Estimate Information	
Est. Type	AE
Est Status:	Working
Est. Published	4/7/2011
Rev. Number:	0
Prepared By:	Samuel P Burns
Company:	NSPM

Overheads & Factors (%)	
E&S (% of TNE)	7.00%
Material P&W	2.00%
A&G	0.15%
AFUDC-Total % Applied	9.50%
State Tax Rate:	7.20%
Contingency Composite %	10.00%
Escalation (Total %)	6.40%

Estimate Summary					
WBS Costs	Labor	Equipment	Material	Other	Total
CBS1 - Permitting/Project Management	\$8,363	\$0	\$0	\$0	\$8,363
CBS2 - Engineering/Design	\$447,479	\$0	\$0	\$0	\$447,479
CBS3 - Civil Construction	\$799,093	\$8,340	\$591,112	\$43,161	\$1,441,706
CBS4 - Electrical Construction	\$1,244,412	\$111,820	\$3,415,618	\$251,446	\$5,023,296
CBS5 - Construction Remove	\$0	\$0	\$0	\$0	\$0
CBS6 - Commissioning	\$131,628	\$0	\$0	\$0	\$131,628
CBS7 - CIAC and Other	\$0	\$0	\$0	\$0	\$0
Direct Cost Subtotal	\$2,630,974	\$120,160	\$4,006,731	\$294,606	\$7,052,471
Indirect Costs					
Powerplant Overheads (E&S + A&G)	\$188,115	\$0	\$286,481	\$29,656	\$504,252
Material overheads	\$0	\$0	\$80,135	\$0	\$80,135
AFUDC	\$249,943	\$0	\$380,639	\$39,403	\$669,985
Contingency	\$263,097	\$0	\$400,673	\$41,477	\$705,247
Escalation	\$213,256	\$0	\$329,898	\$33,619	\$576,774
Indirect Cost Subtotal	\$914,411	\$0	\$1,477,826	\$144,154	\$2,536,392
Project Total					\$9,588,863

Labor Hours		
Description	Hours	Cost
CIVIL CONST - INTERNAL	12,865	\$784,667
ELEC CONST - INTERNAL	17,010	\$1,174,367
ELEC TESTING -INTERNAL	1,934	\$131,628
ENG - INTERNAL Grade P	0	\$1
DES - INTERNAL Grade N	0	\$1
DES - INTERNAL Grade O	2,500	\$114,634
Drafter - INTERNAL Grade EE	0	\$1
Drafter - INTERNAL Grade FF	0	\$1
ENG - INTERNAL Grade Q	0	\$2
ENG - INTERNAL Grade R	2,500	\$189,090
General Foreman - Internal	739	\$56,871
S&LR - Internal (incl. travel exp.)	120	\$8,363
Total	37,668	\$2,459,624

HMP-AEr0-xxxxxxx-New Substation CAPX2020 O&M Estimate: \$ - See DG for details.

Hampton

Install new 345kV Substation

Job Folder Name:

Sub-Line Name:

Scope:

WO #:

Description	Qty	Unit of Measure	Inst/Rem	Work Group	Cost Item Group	Materials Total Cost	Hours (Total)	Labor Total Cost	Equipment Total Cost	Rented		Subcontract Total Cost
										Fees Cost	Total Cost	
JOB	1	Each				\$ -	0	\$ -	\$ -	\$ -	\$ -	\$ -
CONTINGENCY	1	Lump Sum	Inst	Indirect	Miscellaneous	\$ 400,673		\$ 263,097	\$ 12,016	\$ -	\$ -	\$ 705,247
AFUDC	1	Lump Sum	Inst	Indirect	Miscellaneous	\$ 380,639		\$ 249,943	\$ 11,415	\$ -	\$ -	\$ 669,985
ESCALATION	1	Lump Sum	Inst	Indirect	Miscellaneous	\$ 329,898		\$ 213,256	\$ 9,740	\$ -	\$ -	\$ 576,774
POWERPLANT AND MATL.OVERHEADS	1	Lump Sum	Inst	Indirect	Miscellaneous	\$ 366,616		\$ 188,115	\$ 8,591	\$ -	\$ -	\$ 584,386
Permitting/Proj Management	120	HR	Inst	Labor	(Depreciable)	\$ -	120	\$ 8,363	\$ -	\$ -	\$ -	\$ 8,363
Engineering & Design - Internal Labor (roll-up)	2,400	HR	Inst	Labor	Miscellaneous	\$ -	5,000	\$ 303,729	\$ -	\$ -	\$ -	\$ 303,729
Eng & Des - Contract - Labor Only	1,250	HR	Inst	Labor	Civil/Electrical	\$ -	1,250	\$ 143,750	\$ -	\$ -	\$ -	\$ 143,750
CONTROL BUILDING 24'X40' STD SIZE F&E	1	EA	Inst	Civil	EEE	\$ 58,000	480	\$ 29,276	\$ -	\$ -	\$ 4,176	\$ 91,452
FENCE GATE DRIVE 20 FT	1	EA	Inst	Civil	Fence & Walls	\$ 725	1	\$ 61	\$ -	\$ -	\$ 52	\$ 838
FENCE 8FT CHAIN LK W/BARB	1,900	FT	Inst	Civil	Fence & Walls	\$ 41,254	760	\$ 46,553	\$ -	\$ -	\$ 2,970	\$ 90,577
EGP Slab 12' x 30' x 1'	1	EA	Inst	Civil	Foundations	\$ 1,750	496	\$ 30,252	\$ -	\$ -	\$ 126	\$ 32,128
EEB Slab 24' x 40' x 1'	1	EA	Inst	Civil	Foundations	\$ 4,450	331	\$ 20,188	\$ -	\$ -	\$ 320	\$ 24,958
Breaker Slab 345kV (10'x16')	4	EA	Inst	Civil	Foundations	\$ 3,000	175	\$ 10,664	\$ -	\$ -	\$ 216	\$ 13,880
SITE - GRADING	1	EA	Inst	Civil	Landscaping	\$ 401,192	2,024	\$ 123,454	\$ -	\$ -	\$ 28,886	\$ 553,532
345kV Line Trap Stand	6	EA	Inst	Civil	Structure - Welded Tubular	\$ 14,700	230	\$ 14,215	\$ -	\$ -	\$ 1,058	\$ 29,974
345kV Bus Support - single phase, double insulator A-Frame, high	9	EA	Inst	Civil	Structure - Welded Tubular	\$ 43,425	391	\$ 24,535	\$ -	\$ -	\$ 3,127	\$ 71,087
345kV Bus Support - three phase, low insulator, low	2	EA	Inst	Civil	Structure - Welded Tubular	\$ 14,510	196	\$ 12,446	\$ -	\$ -	\$ 1,045	\$ 28,000
345kV Bus Support - single phase, double insulator, low	15	EA	Inst	Civil	Structure - Welded Tubular	\$ 55,406	810	\$ 50,941	\$ -	\$ -	\$ 3,989	\$ 110,337
345kV Deadend - three bay	1	EA	Inst	Civil	Structure - Welded Tubular	\$ 402,100	2,667	\$ 165,940	\$ -	\$ -	\$ 28,951	\$ 596,991
345kV Deadend - single bay	1	EA	Inst	Civil	Structure - Welded Tubular	\$ 168,050	1,537	\$ 97,020	\$ -	\$ -	\$ 12,100	\$ 277,169
345kV Switch Stand, low	8	EA	Inst	Civil	Structure - Welded Tubular	\$ 102,600	1,430	\$ 89,988	\$ -	\$ -	\$ 7,387	\$ 199,976
345kV Switch Stand w/ Bus Support, low	6	EA	Inst	Civil	Structure - Welded Tubular	\$ 124,800	1,073	\$ 67,491	\$ -	\$ -	\$ 8,986	\$ 201,277
100' Shield Pole	1	EA	Inst	Civil	Structure - Welded Tubular	\$ 10,150	133	\$ 8,362	\$ -	\$ -	\$ 731	\$ 19,242
SITE - SURVEY - CONST. STAKING	1	LOT	Inst	Civil	Survey and Test	\$ -	14	\$ 1,620	\$ -	\$ -	\$ -	\$ 1,620
CIVIL INSPECTION/TESTING (CONT	5	EA	Inst	Civil	Survey and Test	\$ -	45	\$ 5,400	\$ -	\$ -	\$ -	\$ 5,400
SITE - SOIL RESISTIVITY TESTING	1	LOT	Inst	Civil	Survey and Test	\$ -	1	\$ 960	\$ -	\$ -	\$ -	\$ 960
SITE - SURVEY (TOPO/BOUNDARY)	1	LOT	Inst	Civil	Survey and Test	\$ -	1	\$ 10,020	\$ -	\$ -	\$ -	\$ 10,020
SITE - TRENCHING FOR BORINGS	1	EA	Inst	Civil	Survey and Test	\$ -	1	\$ 960	\$ -	\$ -	\$ -	\$ 960

HMP-AL0-xxxxxxx-New Substation CAPX2020 O&M Estimate: \$ - See DG for details.

Hampton

Initial new 345kV Substation

Job Folder Name:

Sub-Line Name:

Scope:

WO #:

Description	Qty	Unit of Measure	Inst/Rem	Work Group	Cost Item Group	Materials Total Cost	Hours (Total)	Labor Total Cost	Equipment Total Cost	Fees Total Cost	Subcontract Total Cost	Total Cost
1 SITE - SOIL BORINGS (NEW SUB 12 BORING)	1	LOT	Inst	Civil	Survey and Test	\$ 9,000	1	\$ 8,640	\$ -	\$ -	\$ -	\$ 8,640
300 TRENCHING PRECAST 40" OPEN BOTTOM	300	FT	Inst	Civil	Trenching	\$ 9,000	417	\$ 25,433	\$ -	\$ 648	\$ -	\$ 35,081
450 TRENCHING PRECAST 20" OPEN BOTTOM	450	FT	Inst	Civil	Trenching	\$ 12,150	495	\$ 30,191	\$ -	\$ 875	\$ -	\$ 43,215
20 TRENCHING PRECAST 20" ROAD CROSSI	20	FT	Inst	Civil	Trenching	\$ 1,400	39	\$ 2,354	\$ -	\$ 101	\$ -	\$ 3,855
850 TRENCHING AND ACCESS-HAND-36"	850	FT	Inst	Civil	Trenching	\$ 850	706	\$ 43,029	\$ -	\$ 61	\$ -	\$ 43,940
20 TRENCHING PRECAST 40" ROAD CROSSI	20	FT	Inst	Civil	Trenching	\$ 1,600	50	\$ 3,025	\$ -	\$ 115	\$ -	\$ 4,740
1 CABLE-CONTROL - SUMMARY	1	EA	Inst	Cntrl	Cable - Control	\$ 65,869	3,516	\$ 242,768	\$ -	\$ 4,743	\$ -	\$ 313,380
2 FIBER "BULLET BOX" TERMINATION	2	EA	Inst	Cntrl	Fiber	\$ 1,400	20	\$ 1,381	\$ -	\$ 101	\$ -	\$ 2,882
800 FIBER OPTIC CABLE-SINGLE MODE	800	FT	Inst	Cntrl	Fiber	\$ 440	40	\$ 2,762	\$ -	\$ 32	\$ -	\$ 3,233
96 FIBER SPLICE (PER END)	96	EA	Inst	Cntrl	Fiber	\$ 960	96	\$ 6,628	\$ -	\$ 69	\$ -	\$ 7,657
1 FIBER PATCH PANEL	1	EA	Inst	Cntrl	Fiber	\$ 500	8	\$ 518	\$ -	\$ 36	\$ -	\$ 1,054
PANEL-GE-D90P PRIMARY AND TCF-10B												
CARRIER	4	EA	Inst	Cntrl	Panels - Conventional	\$ 180,000	160	\$ 11,047	\$ -	\$ 12,960	\$ -	\$ 204,007
PANEL-SEL-421-5 SECONDARY AND SEL-2505												
TT	2	EA	Inst	Cntrl	Panels - Conventional	\$ 70,000	80	\$ 5,523	\$ -	\$ 5,040	\$ -	\$ 80,563
PANEL-SEL-451 BKR CONTROL	1	EA	Inst	Cntrl	Panels - Conventional	\$ 12,000	40	\$ 2,762	\$ -	\$ 864	\$ -	\$ 15,626
MUX PANEL	1	EA	Inst	Cntrl	Panels - Conventional	\$ 30,000	40	\$ 2,762	\$ -	\$ 2,160	\$ -	\$ 34,922
PANEL-TESLA 3000 FAULT RECORDER	1	EA	Inst	Cntrl	Panels - Conventional	\$ 30,000	40	\$ 2,762	\$ -	\$ 2,160	\$ -	\$ 34,922
PANEL-SEL-421-5 SECONDARY AND RFL-9745	2	EA	Inst	Cntrl	Panels - Conventional	\$ 70,000	80	\$ 5,523	\$ -	\$ 5,040	\$ -	\$ 80,563
HMI PAC Term Cab	1	EA	Inst	Cntrl	Panels - Integrated	\$ 11,000	30	\$ 2,071	\$ -	\$ 792	\$ -	\$ 13,863
HMI COMPUTER CABINET	1	EA	Inst	Cntrl	Panels - Integrated	\$ 33,000	24	\$ 1,657	\$ -	\$ 2,376	\$ -	\$ 37,033
CARRIER HYBRID TYPE RESISTIVE	6	EA	Inst	Cntrl	Panels - Integrated	\$ 3,060	12	\$ 828	\$ -	\$ 220	\$ -	\$ 4,109
CARRIER HYBRID TYPE REACTIVE	4	EA	Inst	Cntrl	Pilot	\$ 6,000	8	\$ 552	\$ -	\$ 432	\$ -	\$ 6,984
CARRIER LINE TUNER	6	EA	Inst	Cntrl	Pilot	\$ 12,000	60	\$ 4,142	\$ -	\$ 864	\$ -	\$ 17,006
TEL POS 4W-56k DATA ISO	2	EA	Inst	Cntrl	Telephone	\$ 1,480	2	\$ 138	\$ -	\$ 107	\$ -	\$ 1,725
TEL POSITRON 8-CARD CABINET	1	EA	Inst	Cntrl	Telephone	\$ 8,660	8	\$ 552	\$ -	\$ 624	\$ -	\$ 9,836
TEL POSITRON TELEPHONE CARD	1	EA	Inst	Cntrl	Telephone	\$ 766	1	\$ 69	\$ -	\$ 55	\$ -	\$ 890
TEL POS RTU RELAYING CARD	1	EA	Inst	Cntrl	Telephone	\$ 740	1	\$ 69	\$ -	\$ 53	\$ -	\$ 862
TEL POS PLUGIN POW SUP	1	EA	Inst	Cntrl	Telephone	\$ 528	1	\$ 69	\$ -	\$ 38	\$ -	\$ 635
EQUIP - BOBCAT	26	WK	Inst	Equip. & Mobilization	Equip	\$ -	1,040	\$ -	\$ 19,500	\$ 1,404	\$ -	\$ 20,904
EQUIP - FORKLIFT (MTRL HANDLER)	26	WK	Inst	Equip. & Mobilization	Equip	\$ -	1,040	\$ -	\$ 22,880	\$ 1,647	\$ -	\$ 24,527
EQUIP - CONTRACT WELDING	10	WK	Inst	Equip. & Mobilization	Equip	\$ -	400	\$ -	\$ 35,000	\$ 2,520	\$ -	\$ 37,520
EQUIP - MISC (TRAILORS, TOILETS, DUMISTER, STORAGE)	7	MO	Inst	Equip. & Mobilization	Equip	\$ -	1,120	\$ -	\$ 9,310	\$ 670	\$ -	\$ 9,980
EQUIP - BACKHOE WITH CAB	8	WK	Inst	Equip. & Mobilization	Equip	\$ -	320	\$ -	\$ 6,240	\$ 449	\$ -	\$ 6,689
EQUIP - JLG - 60'	26	WK	Inst	Equip. & Mobilization	Equip	\$ -	1,040	\$ -	\$ 13,130	\$ 945	\$ -	\$ 14,075
EQUIP - MINI EXCAVATOR (GND WIRE INSTALL)	4	WK	Inst	Equip. & Mobilization	Equip	\$ -	160	\$ -	\$ 2,100	\$ 151	\$ -	\$ 2,251
EQUIP - CRANE (W/OPR) - 30 TON	10	DAY	Inst	Equip. & Mobilization	Equip	\$ -	80	\$ -	\$ 12,000	\$ 864	\$ -	\$ 12,864
Electric Construction - Site Setup	1	EA	Inst	Equip. & Mobilization	Mobilization	\$ -	80	\$ 5,523	\$ -	\$ -	\$ -	\$ 5,523
Electric Construction - Mobilize (In/Out)	1	EA	Inst	Equip. & Mobilization	Mobilization	\$ -	40	\$ 2,762	\$ -	\$ -	\$ -	\$ 2,762

Job Folder Name: HMP-AE10-xxxxxxx-New Substation CAPX2020 O&M Estimate: \$ - See DG for details.
 Sub-Line Name: Hampton
 Scope: Install new 345kV Substation
 WO #:

Description	Qty	Unit of Measure	Inst/Rem	Work Group	Mobilization	Cost Item Group	Materials Total Cost	Hours (Total)	Labor Total Cost	Equipment Total Cost	Fees Total Cost	Subcontract Total Cost	Total Cost	Rented	
														Inst	Rem
SITE - SURFACING-MOBILIZE (IN/OUT)	1	EA	Inst	Equip. & Mobilization			\$ -	25	\$ 1,525	\$ -	\$ -	\$ -	\$ 1,525		
General Foreman - Internal - Labor Only	739	HR	Inst	Labor	Civil/Electrical		\$ -	739	\$ 56,871	\$ -	\$ -	\$ -	\$ 56,871		
TESTING-CONTROL TESTING	1,574	HR	Inst	Labor	Test		\$ -	1,574	\$ 107,120	\$ -	\$ -	\$ -	\$ 107,120		
TESTING-PHYSICAL EPM	360	HR	Inst	Labor	Test		\$ -	360	\$ 24,508	\$ -	\$ -	\$ -	\$ 24,508		
Tracking - Shipping (# Trips x HR Rod Trip)	216	HR	Inst	Labor	Civil/Electrical		\$ -	216	\$ 13,174	\$ -	\$ -	\$ -	\$ 13,174		
AC PNLBRD INDOOR 3PH 4-200 2P, 2-200 3P	1	EA	Inst	Phys	AC System		\$ 1,936	20	\$ 1,381	\$ -	\$ -	\$ 139	\$ 3,456		
AUTO TRANSFER SW 600A 600V 1PH	1	EA	Inst	Phys	AC System		\$ 4,445	16	\$ 1,105	\$ -	\$ -	\$ 320	\$ 5,870		
AC CAB 42 POS.	2	EA	Inst	Phys	AC System		\$ 1,704	14	\$ 967	\$ -	\$ -	\$ 123	\$ 2,794		
LIGHTING-HIGH VOLTAGE BAY	1	LOT	Inst	Phys	AC System		\$ 400	40	\$ 2,762	\$ -	\$ -	\$ 29	\$ 3,190		
DIESEL GENERATOR, 100kW, 3-PHASE.															
ENCLOSED	1	EA	Inst	Phys	AC System		\$ 40,250	80	\$ 5,523	\$ -	\$ -	\$ 368	\$ 46,141		
AC OUTDOOR Fuse Disc 3P 600A w/meter	1	EA	Inst	Phys	AC System		\$ 4,000	20	\$ 1,381	\$ -	\$ -	\$ 288	\$ 5,669		
ARRESTER 230kV MCOV STA. POLYMER	12	EA	Inst	Phys	Arrestor		\$ 39,600	120	\$ 8,285	\$ -	\$ -	\$ 2,851	\$ 50,736		
					Bus Supports &										
BUS SUPPORT 345kV EHS	39	EA	Inst	Phys	Insulators		\$ 42,911	195	\$ 13,463	\$ -	\$ -	\$ 3,090	\$ 59,463		
CCVT/FT SEC FUSE CAB 3 PH	4	EA	Inst	Phys	Cabinets		\$ 1,171	52	\$ 3,590	\$ -	\$ -	\$ 84	\$ 4,846		
CABLE - POWER- 600V 1C-40	60	FT	Inst	Phys	Cable - Power		\$ 224	12	\$ 828	\$ -	\$ -	\$ 16	\$ 1,069		
CARRIER ACCESSORIES	6	EA	Inst	Phys	CCVTs & Traps		\$ 900	60	\$ 4,142	\$ -	\$ -	\$ 65	\$ 5,107		
LINE TRAP 3000A	6	EA	Inst	Phys	CCVTs & Traps		\$ 141,930	90	\$ 6,214	\$ -	\$ -	\$ 10,219	\$ 158,363		
CCVT 345KV 0.3% w/o Carrier	12	EA	Inst	Phys	CCVTs & Traps		\$ 117,600	540	\$ 37,282	\$ -	\$ -	\$ 8,467	\$ 163,349		
BREAKER GAS 345KV 3000A 40 kA, -40C	4	EA	Inst	Phys	Circuit Breaker		\$ 800,000	800	\$ 55,233	\$ -	\$ -	\$ 57,600	\$ 912,833		
CONDUCTOR ALUM 1590 61 STR AA	4,500	FT	Inst	Phys	Conductor & Fittings		\$ 11,997	1,440	\$ 99,419	\$ -	\$ -	\$ 864	\$ 112,280		
CONDUCTOR FITTING 345-500KV EHV	8,100	FT	Inst	Phys	Conductor & Fittings		\$ 64,800	0	\$ -	\$ -	\$ -	\$ 4,666	\$ 69,466		
Misc Field Material (10% of Matl - TR cost)	350	LOT	Inst	Phys	Misc Material		\$ 350,000	0	\$ -	\$ -	\$ -	\$ 25,200	\$ 375,200		
CONDUCTOR ALUM TUBING 5 IN SCHED 40	2,000	FT	Inst	Phys	Conductor & Fittings		\$ 40,700	800	\$ 55,233	\$ -	\$ -	\$ 2,930	\$ 98,863		
CONDUCTOR ALUM TUBING 6 IN SCHED 40	800	FT	Inst	Phys	Conductor & Fittings		\$ 758	136	\$ 9,390	\$ -	\$ -	\$ 55	\$ 10,202		
CONDUIT PVC 2 INCH DIA	100	FT	Inst	Phys	Conduit & Ducts		\$ 63	23	\$ 1,588	\$ -	\$ -	\$ 5	\$ 1,655		
CONDUIT GALV 2IN	100	FT	Inst	Phys	Conduit & Ducts		\$ 343	23	\$ 1,588	\$ -	\$ -	\$ 25	\$ 1,956		
CONDUIT GALV 1IN	100	FT	Inst	Phys	Conduit & Ducts		\$ 104	17	\$ 1,174	\$ -	\$ -	\$ 7	\$ 1,285		
BATT CHARGER 130VDC 50A	1	EA	Inst	Phys	DC System		\$ 3,340	20	\$ 1,381	\$ -	\$ -	\$ 240	\$ 4,961		
DC CAB 52 POSITION STL INDOOR	2	EA	Inst	Phys	DC System		\$ 8,334	48	\$ 3,314	\$ -	\$ -	\$ 600	\$ 12,248		
BATT 130VDC 300AH WITH RACK	1	EA	Inst	Phys	DC System		\$ 27,060	85	\$ 5,868	\$ -	\$ -	\$ 1,948	\$ 34,877		
BATT MAIN FUSE CABINET ASSM.	2	EA	Inst	Phys	DC System		\$ 690	8	\$ 552	\$ -	\$ -	\$ 50	\$ 1,292		
EEE LIGHTING 20X32	1	EA	Inst	Phys	EEE		\$ 844	120	\$ 8,285	\$ -	\$ -	\$ 61	\$ 9,190		
EEE FURNITURE-EQUIPMENT (NL-200904)	1	LOT	Inst	Phys	EEE		\$ 1,100	20	\$ 1,381	\$ -	\$ -	\$ 79	\$ 2,560		
EEE ELECT HTR 5KW & THERMOSTAT	2	EA	Inst	Phys	EEE		\$ 1,514	30	\$ 2,071	\$ -	\$ -	\$ 109	\$ 3,694		
EEE GROUNDING 24' X 40'	1	EA	Inst	Phys	EEE		\$ 155	80	\$ 5,523	\$ -	\$ -	\$ 11	\$ 5,689		
EEE TROUGH 12" W, 12' LENGTH	2	EA	Inst	Phys	EEE		\$ 620	1	\$ 83	\$ -	\$ -	\$ 45	\$ 748		
EEE TROUGH 24" W, 12' LENGTH	7	EA	Inst	Phys	EEE		\$ 4,099	4	\$ 290	\$ -	\$ -	\$ 295	\$ 4,684		

Job Folder Name: HMP-AE0-xxxxxxx-New Substation CAPX2020 O&M Estimate: \$ - See DG for details.

Sub-Line Name: Hampton

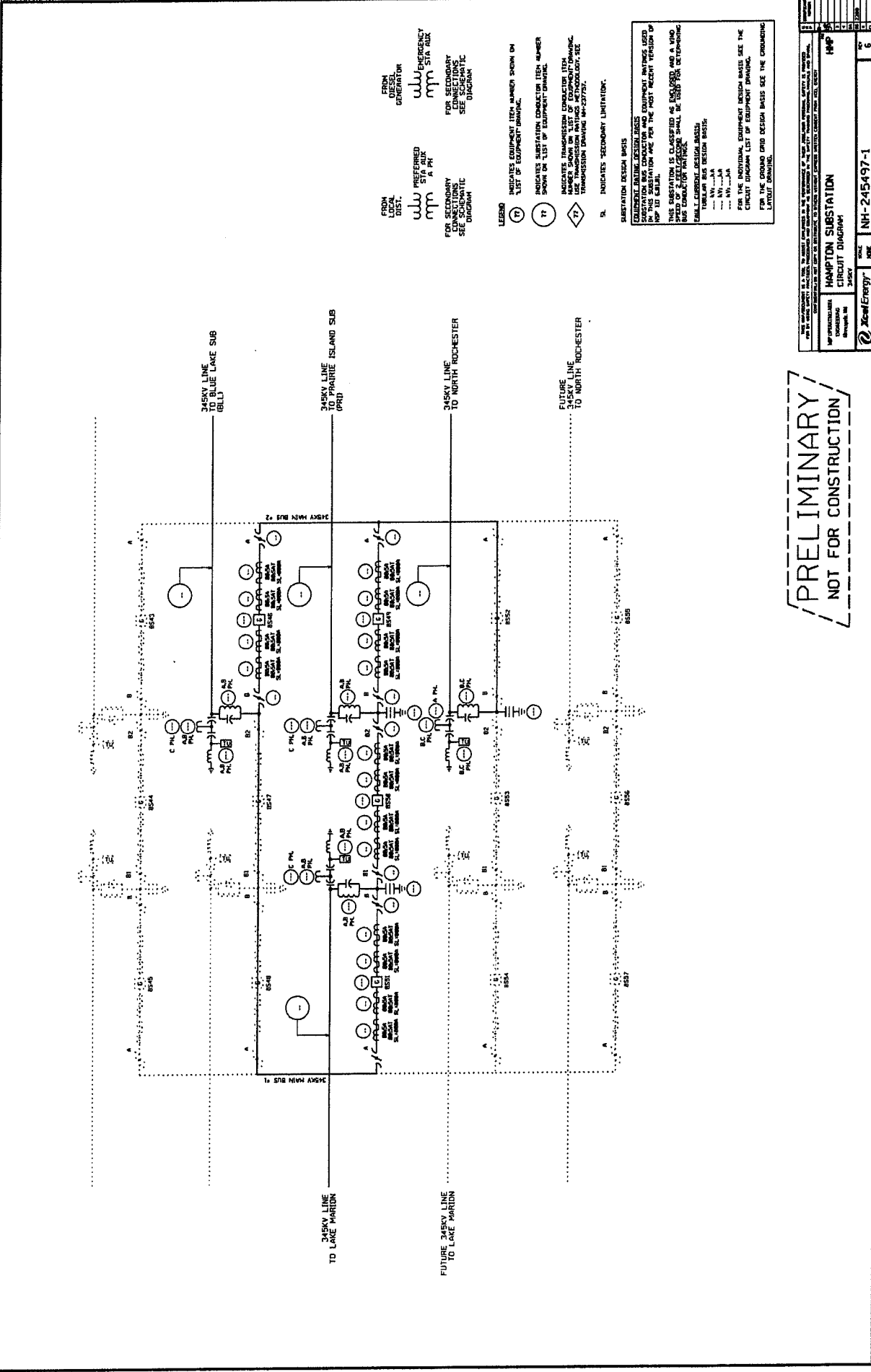
Scope: Install new 345kV Substation

WO #:

Description	Qty	Unit of Measure	Inst/Rem	Work Group	Cost Item Group	Materials Total Cost	Hours (Total)	Labor Total Cost	Equipment Total Cost	Fees Total Cost	Subcontract Total Cost	Total Cost
GROUNDING WELL (3") CASING	100	FT	Inst	Phys	Grounding	\$ 3,500	200	\$ 13,808	\$ -	\$ -	\$ 252	\$ 17,560
GROUNDING STUD - WELDED	8	SET	Inst	Phys	Grounding	\$ 4,063	2	\$ 138	\$ -	\$ -	\$ 293	\$ 4,494
GROUND CADWELD CONNECTIONS	207,200	SFT	Inst	Phys	Grounding	\$ 26,936	829	\$ 57,221	\$ -	\$ -	\$ 1,939	\$ 86,096
GROUNDING STRIP	8	SET	Inst	Phys	Grounding	\$ 1,801	20	\$ 1,381	\$ -	\$ -	\$ 130	\$ 3,312
GROUND WIRE 4/0 CU	13,500	FT	Inst	Phys	Grounding	\$ 38,070	3,375	\$ 233,013	\$ -	\$ -	\$ 2,741	\$ 273,824
GROUND RODS (per grounding point)	110	EA	Inst	Phys	Grounding	\$ 6,772	183	\$ 12,607	\$ -	\$ -	\$ 488	\$ 19,866
NAMEPLATES FENCE ADDRESS	1	EA	Inst	Phys	Nameplates	\$ 144	1	\$ 35	\$ -	\$ -	\$ 10	\$ 189
NAMEPLATES FENCE WARNING	1	EA	Inst	Phys	Nameplates	\$ 38	1	\$ 35	\$ -	\$ -	\$ 3	\$ 75
NAMEPLATES EQUIPMENT	20	EA	Inst	Phys	Nameplates	\$ 500	5	\$ 345	\$ -	\$ -	\$ 36	\$ 881
SWITCH 345KV 3000A TPST DBL EB W INS	8	EA	Inst	Phys	Switch Gang	\$ 182,200	960	\$ 66,279	\$ -	\$ -	\$ 13,118	\$ 261,598
						\$ 5,484,557	44,180	\$ 3,545,385	\$ 161,922	\$ 396,998	\$ -	\$ 9,588,863

Job Folder Name: HMP-AERO-xxxxxxx-New Substation CAPX2020 **O&M Estimate:** \$ _____ **Sec DG for details.**
Sub-Line Name: Hampton
Scope: Install new 345kV Substation
WO #: _____

Description	Qty	Unit of Measure	Inst/Rem	Work Group	Cost Item Group	Materials Total Cost	Hours (Total)	Labor Total Cost	Rented Equipment Total Cost	Fees Total Cost	Subcontract Total Cost	Total Cost



FROM LOCAL DIST.

W W PREFERRED STA AUX A PH

FOR SECONDARY SEE SCHEMATIC DIAGRAM

FROM DIESEL GENERATOR

W W PREFERRED STA AUX A PH

FOR SECONDARY SEE SCHEMATIC DIAGRAM

LEGEND

(C) INDICATES EQUIPMENT ITEM NUMBER SHOWN ON LIST OF EQUIPMENT DRAWING.

(T) INDICATES SUBSTATION CONDUCTOR ITEM NUMBER SHOWN ON LIST OF EQUIPMENT DRAWING.

(D) INDICATES TRANSMISSION CONDUCTOR ITEM NUMBER SHOWN ON LIST OF EQUIPMENT DRAWING. USE TRANSMISSION DRAWING M-237752.

5. INDICATES SECONDARY LIMITATION.

STATION DESIGN BASIS

EQUIPMENT RATING DESIGN BASIS

STATION BUS CONDUCTOR AND EQUIPMENT RATING USED FOR THIS DESIGN ARE FOR THE MOST RECENT VERSION OF IEEE 1547.

THIS STATION IS CLASSIFIED AS ENCLOSED AND A WHO SPEED OF 2.5 MILES PER HOUR SHALL BE MAINTAINED DURING CONSTRUCTION.

CONSTRUCTION DESIGN BASIS

TABLET BUS DESIGN BASIS

--- NW --- LA

--- W --- LA

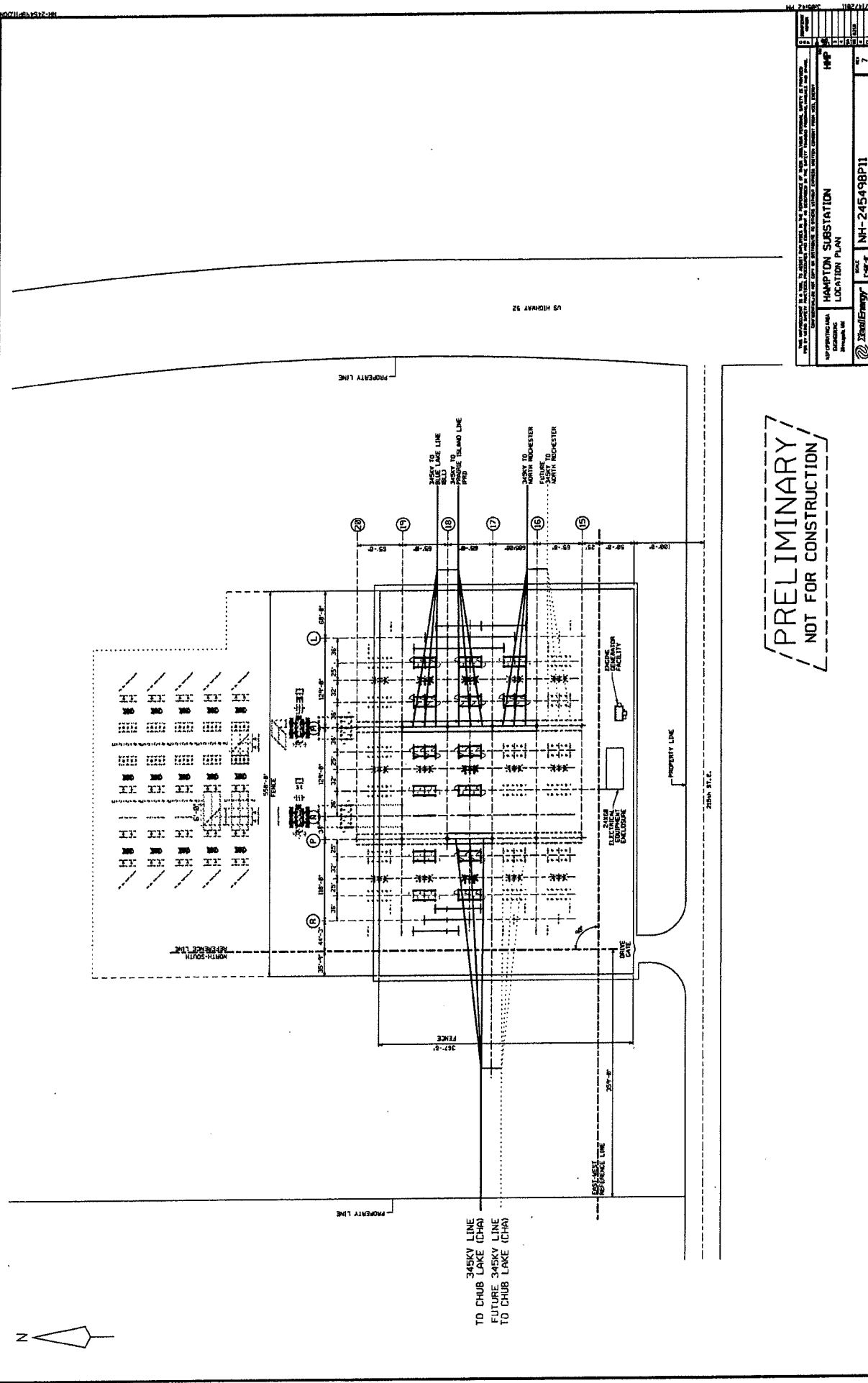
--- SW --- LA

FOR THE INDIVIDUAL EQUIPMENT DESIGN BASIS SEE THE EQUIPMENT LIST OF EQUIPMENT DRAWING.

FOR THE CONDUIT DESIGN BASIS SEE THE CONDUIT LAYOUT DRAWING.

PRELIMINARY
NOT FOR CONSTRUCTION

PROJECT NO.	10000000000000000000
DATE	10/12/2011
PROJECT NAME	345KV HAMPTON SUBSTATION
PROJECT LOCATION	345KV
PROJECT DESCRIPTION	CIRCUIT DIAGRAM
PROJECT NUMBER	NH-245497-1
PROJECT SHEET	6
PROJECT TOTAL SHEETS	6
PROJECT STATUS	PRELIMINARY
PROJECT OWNER	Xcel Energy
PROJECT ENGINEER	
PROJECT CHECKER	
PROJECT APPROVER	



PRELIMINARY
NOT FOR CONSTRUCTION

PROJECT NUMBER		1122711	
DRAWING NUMBER		1122711-1	
DATE		11/15/11	
SCALE		AS SHOWN	
PROJECT NAME		HAMPTON SUBSTATION	
LOCATION		NH-245498P11	
DRAWING TITLE		LOCATION PLAN	
DESIGNED BY		HPP	
CHECKED BY		HPP	
APPROVED BY		HPP	
PROJECT NUMBER		1122711	
DRAWING NUMBER		1122711-1	
DATE		11/15/11	
SCALE		AS SHOWN	
PROJECT NAME		HAMPTON SUBSTATION	
LOCATION		NH-245498P11	
DRAWING TITLE		LOCATION PLAN	
DESIGNED BY		HPP	
CHECKED BY		HPP	
APPROVED BY		HPP	

Hampton Substation
NH-245498P11

US HIGHWAY 32
PROPERTY LINE

345KV LINE
TO CHUB LAKE (CHA)
FUTURE 345KV LINE
TO CHUB LAKE (CHA)

DRIVE GATE
PROPERTY LINE
25th ST. E.

FENCE

DRIVING FACILITY

RAILROAD ELECTRICAL CONTROL BUILDING

PROPERTY LINE
PROPERTY LINE

50'-0" FENCE

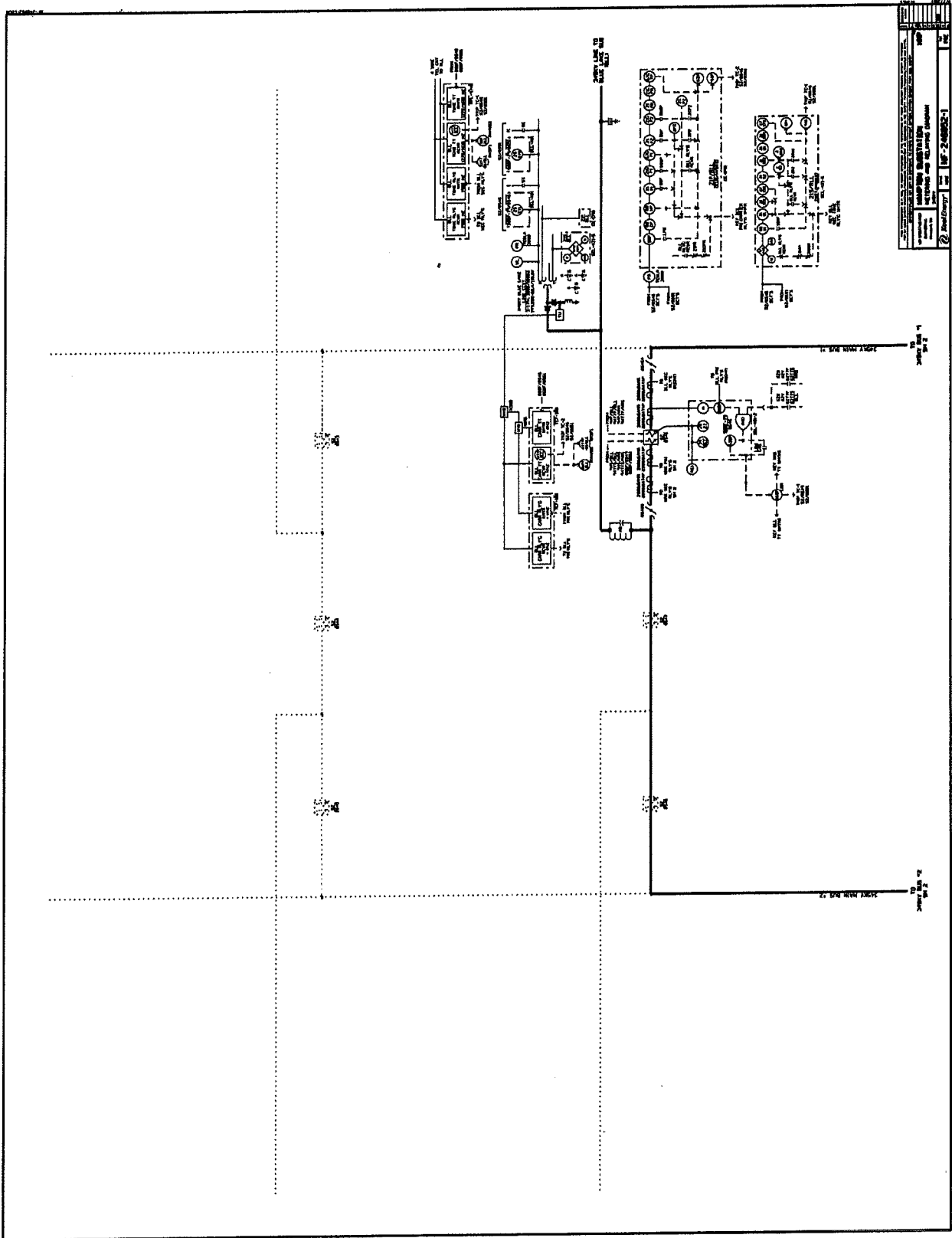
10'-0" FENCE

10'-0" FENCE

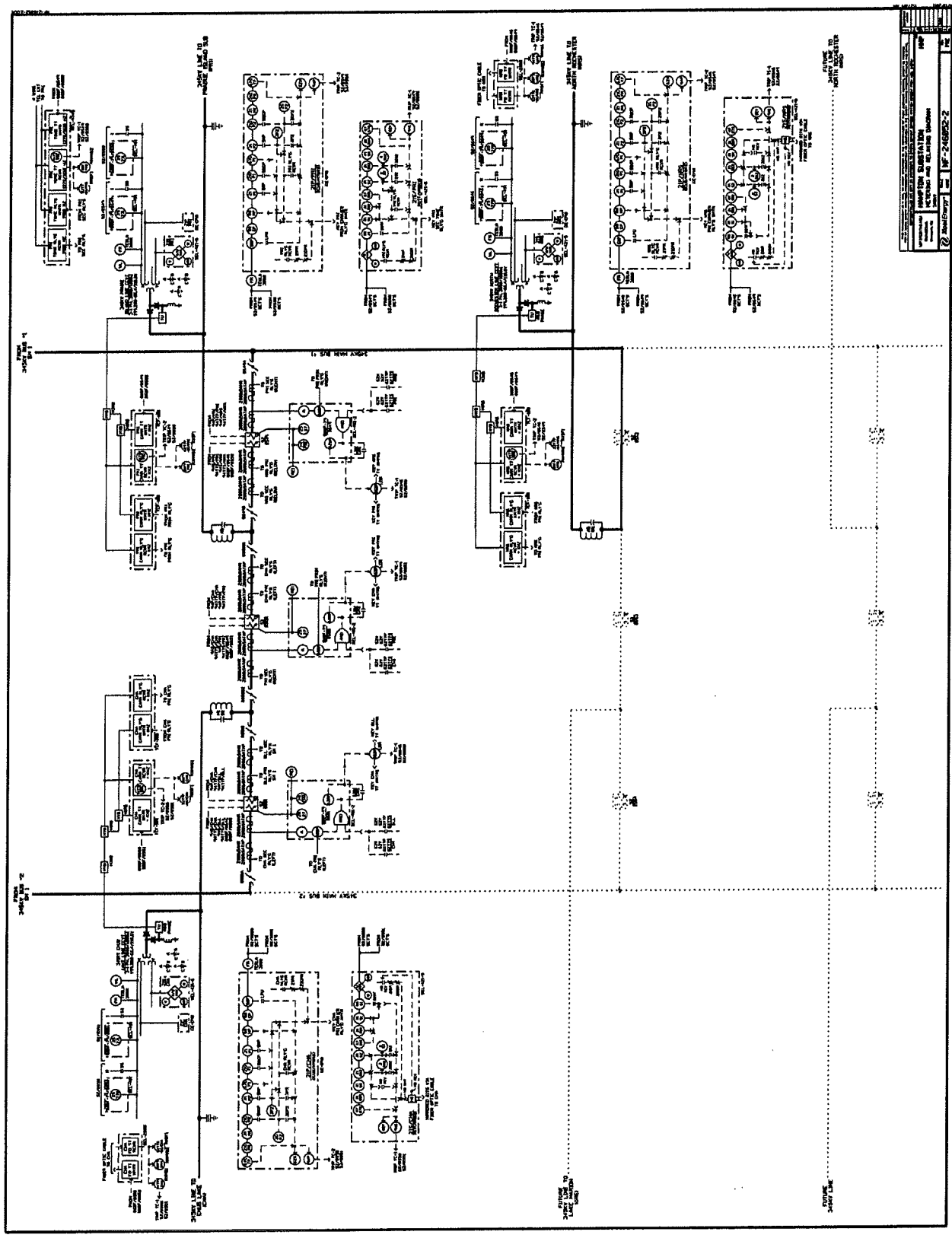
10'-0" FENCE

10'-0" FENCE

10'-0" FENCE



NO.	REV.	DATE	BY	CHKD.
PROJECT: INDUSTRIAL CONTROL SYSTEM DRAWING NO: 240V AC SHEET NO: 1 OF 2				



PROJECT INFORMATION PROJECT NO. 2-4652-2 SHEET NO. 10	
DRAWN BY CHECKED BY APPROVED BY	DATE SCALE REVISIONS

Activity ID	Activity Name	Start	Finish	Actual	Remaining	Estimate	Unit	Estimate	Unit	Estimate	Unit
C1150	Begin Construction	11/08/11	11/08/11	0.0%	2.0w	2.0w	0.0w			2.0w	0.0w
C1170	Field Engineering (LOE)	03/26/12	04/07/12	0.0%	2.0w	2.0w	0.0w			2.0w	0.0w
C1180	Field Engineering (LOE)	07/10/12	07/10/12	0.0%	4.0w	4.0w	0.0w			4.0w	0.0w
C1200	Begin Construction	07/10/12	10/16/12	0.0%	1.0w	1.0w	0.0w			1.0w	0.0w
C1250	State For Construction (LOE)	07/10/12	10/16/12	0.0%	3.0w	3.0w	0.0w			3.0w	0.0w
C2400	Perform Site Grading	08/28/12	09/18/12	0.0%	6.0w	6.0w	0.0w			6.0w	0.0w
C2500	Install Foundations/Walls/Piling/Oil Cont	08/28/12	10/16/12	0.0%	8.0w	8.0w	0.0w			8.0w	0.0w
C2700	Erect Control House	09/18/12	10/16/12	0.0%	4.0w	4.0w	0.0w			4.0w	0.0w
C3100	Inspector Support of Electrical Subst Const (LOE)	10/17/12	05/03/13	0.0%	26.0w	26.0w	0.0w			26.0w	0.0w
C3200	Electrical Construction Install	10/17/12	05/03/13	0.0%	26.0w	26.0w	0.0w			26.0w	0.0w
C3210	Hydr. Lable Marking - Norepoh 18.5mi Complete	10/17/12	05/03/13	0.0%	26.0w	26.0w	0.0w			26.0w	0.0w
C3300	Outage (Line/Vol./Sub-Sub. Etc)	05/06/13	05/06/13	0.0%	0.0w	0.0w	0.0w			0.0w	0.0w
C3400	Physical Equipment Testing	02/25/13	05/03/13	0.0%	3.0w	3.0w	0.0w			3.0w	0.0w
C3500	End Construction Milestone	02/25/13	05/03/13	0.0%	1.0w	1.0w	0.0w			1.0w	0.0w
C3550	Commissioning	02/25/13	05/03/13	0.0%	2.0w	2.0w	0.0w			2.0w	0.0w
C3600	Commissioning & Release Substation for Energization	02/25/13	05/03/13	0.0%	1.0w	1.0w	0.0w			1.0w	0.0w
C3700	Commissioning & Release Substation for Energization	02/25/13	05/03/13	0.0%	1.0w	1.0w	0.0w			1.0w	0.0w

1146585.6 CONSTRUCTION INSTALL

Bid / Eval / Award Grading Contractor

Field Engineering (LOE)

1146585.6.1 CIVIL CONST

Inspector Support of Civil Subst Const (LOE)

Begin Construction

State For Construction (LOE)

Perform Site Grading

Install Foundations/Walls/Piling/Oil Cont

Erect Control House

Inspector Support of Electrical Subst Const (LOE)

Electrical Construction Install

Hydr. Lable Mark

Outage (Line/Vol./Sub-Sub.Etc)

1146585.6.3 TESTING

Physical Equipment Testing

Electrical Testing of Relaying & Communications

End Construction Milestone

1146585.6 COMMISSIONING

Commissioning & Release Substation for Energization

1146585.7 IN SERVICE DATES & CLOSEOUT

Projected in Service Date

Required in Service Date

Follow Up Switch

As Built

Complete Work

Activity ID	Activity Name	Start	Finish	Actual	Remaining	Estimate	Unit	Estimate	Unit	Estimate	Unit
C1190	Begin Construction	11/08/11	11/08/11	0.0%	3.0w	3.0w	0.0w			3.0w	0.0w
C1170	Field Engineering (LOE)	03/26/12	04/07/12	0.0%	2.0w	2.0w	0.0w			2.0w	0.0w
C1180	Field Engineering (LOE)	07/10/12	07/10/12	0.0%	4.0w	4.0w	0.0w			4.0w	0.0w
C1200	Begin Construction	07/10/12	10/16/12	0.0%	1.0w	1.0w	0.0w			1.0w	0.0w
C1250	State For Construction (LOE)	07/10/12	10/16/12	0.0%	3.0w	3.0w	0.0w			3.0w	0.0w
C2400	Perform Site Grading	08/28/12	09/18/12	0.0%	6.0w	6.0w	0.0w			6.0w	0.0w
C2500	Install Foundations/Walls/Piling/Oil Cont	08/28/12	10/16/12	0.0%	8.0w	8.0w	0.0w			8.0w	0.0w
C2700	Erect Control House	09/18/12	10/16/12	0.0%	4.0w	4.0w	0.0w			4.0w	0.0w
C3100	Inspector Support of Electrical Subst Const (LOE)	10/17/12	05/03/13	0.0%	26.0w	26.0w	0.0w			26.0w	0.0w
C3200	Electrical Construction Install	10/17/12	05/03/13	0.0%	26.0w	26.0w	0.0w			26.0w	0.0w
C3210	Hydr. Lable Marking - Norepoh 18.5mi Complete	10/17/12	05/03/13	0.0%	26.0w	26.0w	0.0w			26.0w	0.0w
C3300	Outage (Line/Vol./Sub-Sub. Etc)	05/06/13	05/06/13	0.0%	0.0w	0.0w	0.0w			0.0w	0.0w
C3400	Physical Equipment Testing	02/25/13	05/03/13	0.0%	3.0w	3.0w	0.0w			3.0w	0.0w
C3500	End Construction Milestone	02/25/13	05/03/13	0.0%	1.0w	1.0w	0.0w			1.0w	0.0w
C3550	Commissioning	02/25/13	05/03/13	0.0%	2.0w	2.0w	0.0w			2.0w	0.0w
C3600	Commissioning & Release Substation for Energization	02/25/13	05/03/13	0.0%	1.0w	1.0w	0.0w			1.0w	0.0w
C3700	Commissioning & Release Substation for Energization	02/25/13	05/03/13	0.0%	1.0w	1.0w	0.0w			1.0w	0.0w
PI	1146585.7 IN SERVICE DATES & CLOSEOUT	02/25/13	05/03/13	0.0%	3.0w	3.0w	0.0w			3.0w	0.0w
ISDC20	Projected in Service Date	05/03/13	05/03/13	0.0%	0.0w	0.0w	0.0w			0.0w	0.0w
ISDC30	Required in Service Date	05/03/13	05/03/13	0.0%	0.0w	0.0w	0.0w			0.0w	0.0w
ISDC40	Follow Up Switching and/or Landscaping	07/10/13	08/17/13	0.0%	1.0w	1.0w	0.0w			1.0w	0.0w
ISDC50	As Built	08/17/13	08/17/13	0.0%	5.0w	5.0w	0.0w			5.0w	0.0w
ISDC50	Complete Work Order In Progress	07/17/13	08/17/13	0.0%	4.0w	4.0w	0.0w			4.0w	0.0w

Exhibit B
Brookings - Southeast Twin Cities Transmission Project
Hampton Substation Estimate

Grand Total		Less AFUDC				Grand Total	Less AFUDC
WBS Costs	Labor	Equipment	Material	Other	Total		
Permitting Project Management	\$ 8,363				\$ 8,363		
Engineering / Design	\$ 447,479				\$ 447,479		
Civil Construction	\$ 799,093	\$ 8,340	\$ 591,112	\$ 43,161	\$ 1,441,706		
Electrical Construction	\$ 1,244,412	\$ 111,820	\$ 3,415,618	\$ 251,446	\$ 5,023,296		
Comissioning	\$ 131,628				\$ 131,628		
					\$ 7,052,472		

Indirect Costs	Labor	Equipment	Material	Other	Total		
Powerplant Overheads	\$ 188,115		\$ 286,481	\$ 29,656	\$ 504,252		
Material Overheads			\$ 80,135		\$ 80,135		
AFUDC	\$ 249,943		\$ 380,639	\$ 39,403	\$ 669,985		
Contingency	\$ 263,097		\$ 400,673	\$ 41,477	\$ 705,247		
Escalation	\$ 213,256		\$ 329,898	\$ 33,619	\$ 576,773		
					\$ 2,536,392	\$ 9,588,864	\$ 8,918,879

Hampton Base - 3 Breaker Ring

WBS Costs	Labor	Equipment	Material	Other	Total
Permitting Project Management	\$ 6,272				\$ 6,272
Engineering / Design	\$ 335,609				\$ 335,609
Civil Construction	\$ 799,093	\$ 8,340	\$ 591,112	\$ 43,161	\$ 1,441,706
Electrical Construction	\$ 933,309	\$ 83,865	\$ 2,561,714	\$ 188,585	\$ 3,767,472
Comissioning	\$ 98,721				\$ 98,721
					\$ 5,649,781

Indirect Costs	Labor	Equipment	Material	Other	Total		
Powerplant Overheads	\$ 141,086		\$ 214,861	\$ 22,242	\$ 378,189		
Material Overheads	\$ -		\$ 60,101		\$ 60,101		
AFUDC	\$ 187,457		\$ 285,479	\$ 29,552	\$ 502,489		
Contingency	\$ 197,323		\$ 300,505	\$ 31,108	\$ 528,935		
Escalation	\$ 159,942		\$ 247,424	\$ 25,214	\$ 432,580		
					\$ 1,902,294	\$ 7,552,075	\$ 7,049,586

Hampton Expansion - 4th Breaker in the Ring

Grand Total		Less AFUDC				Grand Total	Less AFUDC
WBS Costs	Labor	Equipment	Material	Other	Total		
Permitting Project Management	\$ 2,091				\$ 2,091		
Engineering / Design	\$ 111,870				\$ 111,870		
Civil Construction							
Electrical Construction	\$ 311,103	\$ 27,955	\$ 853,905	\$ 62,862	\$ 1,255,824		
Comissioning	\$ 32,907				\$ 32,907		
					\$ 1,402,692		

Indirect Costs	Labor	Equipment	Material	Other	Total		
Powerplant Overheads	\$ 47,029		\$ 71,620	\$ 7,414	\$ 126,063		
Material Overheads			\$ 20,034		\$ 20,034		
AFUDC	\$ 62,486		\$ 95,160	\$ 9,851	\$ 167,496		
Contingency	\$ 65,774		\$ 100,168	\$ 10,369	\$ 176,312		
Escalation	\$ 53,314		\$ 82,475	\$ 8,405	\$ 144,193		
					\$ 634,098	\$ 2,036,790	\$ 1,869,293



RESOLUTION

BE IT RESOLVED by the Public Utility Board of the City of Rochester, Minnesota, that the Common Council of the said City is requested to approve a contract agreement with Xcel, Great River Energy, Central Minnesota Municipal Power Agency, Western Minnesota Municipal Power Agency, Ottertail Power Company, Northern States Power Company, Dairyland Power Cooperative, Southern Minnesota Municipal Power Agency, WPPI Energy and the City of Rochester acting through its Public Utility Board, and that the Common Council authorize the Mayor and the City Clerk to execute the agreement for

CapX2020 Hampton Joint Effort Agreement

The Hampton Joint Effort Agreement describes the terms and conditions that all signing parties from both projects are agreeing to for the development of the substation. The approval of the Hampton Joint Effort Agreement obligates RPU to terms and conditions when and if RPU/City signs the Project Participation Agreement (PPA) in 2012. RPU will not be under additional funding obligation by signing the Hampton Joint Effort Agreement until RPU/City authorizes an amendment to the PDA (Project Development Agreement), and/or RPU/City signs and authorizes the PPA.

Passed by the Public Utility Board of the City of Rochester, Minnesota, this 20th day of December, 2011.

President

Secretary