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## ENGINEERING SERVICE CONTRACT ELECTRIC SYSTEM DESIGN AND CONSTRUCTION

**AGREEMENT** , made \_\_\_\_\_ , \_\_\_\_\_ , between \_\_\_\_\_

\_\_\_\_\_ (hereinafter called the "Owner") and \_\_\_\_\_

of \_\_\_\_\_ hereinafter called the "Engineer").

**WHEREAS,** the Owner has obtained loans made or guaranteed by the United States of America, acting through the Administrator of the Rural Utilities Service (hereinafter called the "Administrator"), to finance in whole or in part a rural electric system pursuant to the Rural Electrification Act of 1936, as amended, and plans the construction of a project designated \_\_\_\_\_ , being hereinafter called the "Project," consisting of approximately the following facilities:

*Distribution and Transmission Lines:*

\_\_\_\_\_ miles ( \_\_\_\_\_ km) of \_\_\_\_\_ kV line,

\_\_\_\_\_ miles ( \_\_\_\_\_ km) of \_\_\_\_\_ kV line,

*Substations:*

Name \_\_\_\_\_ MVA \_\_\_\_\_ kV to \_\_\_\_\_ kV

\_\_\_\_\_ MVA \_\_\_\_\_ kV to \_\_\_\_\_ kV

*Switching Stations:*

Name \_\_\_\_\_ kV

\_\_\_\_\_ kV

*Other:*

\_\_\_\_\_ miles ( \_\_\_\_\_ km) of line conversion, \_\_\_\_\_ miles ( \_\_\_\_\_ km) of line

removal, and the following: \_\_\_\_\_

**NOW, THEREFORE,** in consideration of the mutual undertakings herein contained, the parties hereto agree as follows:

### ARTICLE I

#### General Obligations

In accordance with the normal standards and practices used in the profession, the Engineer shall render diligently and competently all engineering services which shall be necessary or advisable for the expeditious, economical, and sound design and construction of the Project, with due consideration given to applicable ecological and environmental requirements. The enumeration of specific duties and obligations to be performed by the Engineer hereunder shall not be construed to limit the general undertakings of the Engineer.

## ARTICLE II

### Preconstruction Period

**Section 1.** *The Engineer shall give thorough consideration to aesthetics and the protection of the environment in all phases of construction of the Project, including line routing and station locations. Where RUS or the Owner has prepared an environmental document or the Owner must comply with the conditions of a Special Use Permit imposed by a Federal land management agency, the Engineer shall incorporate all environmental commitments of the applicable documents that specifically relate to the facilities to be constructed.*

**Section 2.** *The Engineer shall, within thirty (30) days after the date of execution of this Agreement, make a complete field inspection and investigation for the purpose of determining the most economical and practicable location of the proposed lines.*

*The Engineer shall cooperate with the Owner's right-of-way agent and attorney in developing a schedule of right-of-way procurement and assist the Owner in developing suitable property maps for use by the Owner's easement solicitors.*

**Section 3.** *Prior to the preparation of Plans and Specifications by the Engineer, the Owner shall furnish to the Engineer the following as may be applicable:*

*(a) Copies of pertinent Engineering Studies, including Construction Work Plans when available, on which to base the design of the electrical facilities to be built; key maps of the Owner's present and proposed facilities and detail or vicinity maps showing location of existing lines, consumers served, and easements obtained..*

*(b) Detailed lists of materials, if any, on hand or on order which are to be furnished by the Owner in the construction of the Project, together with the quantity and the value of each item of such material.*

*(c) With respect to materials contained in the assembly units indicated for removal, a list showing values of individual material items for which the Contractor will be credited with respect to salvaged materials returned to the Owner if not included in item (b) above.*

**Section 4.** *Sufficient soil test data to ensure adequate foundation designs shall be provided by the \_\_\_\_\_ Owner \_\_\_\_\_ the Engineer [check one].*

**Section 5.** *If requested by the Owner, the Engineer shall prepare and submit to the Owner estimates of quantities of materials to be furnished by the Owner for use in connection with the construction of the Project. The Engineer shall procure and submit to the Owner forms of contracts and other documents for such materials and for such other services as may be necessary or desirable in connection with the construction of the Project.*

**Section 6.** *For transmission lines, the Engineer shall prepare and submit to the Owner for approval and to the Administrator for approval, if approval of the Administrator is required, a summary of transmission line and substation design data with supporting calculations. The Plans and Specifications and the Plan and Profile, if any, shall be based on the design data approved by the Owner and by the Administrator, if approval of the Administrator is required.*

**Section 7.** *The Engineer shall prepare and submit to the Owner for approval and to the Administrator for approval, if approval of the Administrator is required, plan and profile sheets for all transmission lines.*

**Section 8.** *In specifying right-of-way clearing for transmission lines where "feathering" and/or undulating boundaries are required, the Engineer shall mark all brush and trees to be removed unless such marking is the responsibility of another authority. The Engineer shall also compute all clearing units, and show all clearing units on the plan and profile drawings or on separate drawings prepared for this purpose.*

**Section 9.** *The Engineer shall prepare, and within \_\_\_\_\_ days after the date of execution of this Agreement, submit to the Owner for approval and to the Administrator for approval, if approval of the Administrator is required, two copies of complete and detailed plans and specifications, drawings, maps, and other documents required for the construction of the Project (all of the foregoing being hereinafter collectively called the "Plans and Specifications"). In the preparation of the Plans and Specifications, the Engineer shall consult with the Owner to the end that the Project shall serve the purpose intended by the Owner. Unless otherwise directed by the Owner, the Engineer shall use Construction Work Plans and Engineering Studies, as furnished by the Owner, as a basis for the preparation of the Plans and Specifications. The Engineer shall diligently make such changes in the Plans and Specifications as may be required by the Owner or the Administrator as a condition of approval thereof.*

**Section 10.** *The Engineer shall, for each substation, prepare and furnish for the Owner's approval and for the Administrator's approval, if approval of the Administrator is required, the following drawings and such others as may be necessary or desirable for the construction of the Project:*

*One line diagram (relays, breakers, transformers, switches, etc.)*

*Three line diagram (PT, CT, phasing, etc.)*

*Plot plan (excluding land surveys and plots necessary in acquisition of property)*

*Grading plan, fence layout and details*

*Structure plan and details*

*Structure elevations (with section views)*

*Footing plan and details*

*Grounding plan and details*

*Cable trench and layout plan*

*Lighting plan and details*

*Control house plan and details*

*Control house elevations and details*

*Material lists*

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**Section 11.** *All maps, drawings, plan and profile sheets, plans and specifications, contract forms, addenda, estimates, studies, and other documents required to be prepared or submitted by the Engineer under this Article II or other articles of this Agreement shall conform to the applicable standard specifications and other forms prescribed by the Administrator, unless deviation therefrom shall have been approved by the Administrator.*

**Section 12.** *The Engineer shall furnish to the Owner all engineering information, data, and drawings required for procuring all necessary or desirable permits, licenses, franchises, and authorizations from public bodies, and all necessary or desirable permits, licenses, or agreements with respect to the crossing of navigable streams, railroads, and power lines, and with respect to the paralleling or crossing of communications lines and signal circuits, and shall assist the Owner to the extent necessary to obtain such permits, licenses, franchises, authorizations, and agreements. The Engineer shall also furnish to the Owner all engineering information, data, and drawings required for procuring transmission line right-of-way through condemnation proceedings. If*

*requested by the Owner, the Engineer shall attend, or appear as a witness in, hearings or other proceedings before public service commissions or other regulatory bodies in connection with procuring of the foregoing.*

**Section 13.** *When notified by the Administrator (if approval of the Administrator is required) and by the Owner of their approval of the form of Construction Contract, the Engineer shall immediately take all appropriate and necessary action to procure full, free, and competitive bidding for the award of such contract or contracts, and when requested assist the Owner with the purchase of material and equipment. The term "Construction Contract" as used herein shall also include right-of-way clearing contracts, equipment contracts, or materials contracts if such contracts are utilized in the construction of the project. In fulfilling this responsibility, the Engineer shall prepare and submit to the Owner for approval a recommended list of qualified bidders to construct the project. Upon approval of such list by the Owner, the Engineer, in collaboration with the Owner, shall fix a date for the opening of bids for such contracts. The Engineer shall prepare and furnish to the qualified bidders the Plans and Specifications and Construction Drawings together with all necessary forms and other documents.*

**Section 14.** *The Engineer shall be available to each prospective bidder for consultation with respect to the details of the Plans and Specifications and all other matters pertaining to the preparation of the proposals for the construction of the Project or the supply of materials or services therefor. The Engineer, or a competent representative of the Engineer, shall attend and supervise all openings of bids for the construction of the Project or for the furnishing of materials or services therefor. In case fewer than three (3) bids are received for the construction of the Project or component parts of the Project, the Owner shall be notified immediately and such bids shall remain unopened unless permission is obtained from the Owner for the opening of such bids. If bids are opened, the Engineer shall carefully check and prepare detailed assembly unit price tabulations of all bids received, and shall render to the Owner all such assistance as shall be required in connection with consideration of the bids received so that contracts may be prudently and properly awarded in accordance with the policy and procedure prescribed by the Owner and the Administrator.*

**Section 15.** *If any change is to be made in the Plans and Specifications after the Construction Contract has been approved by the Owner and by the Administrator, if approval of the Administrator is required, the Engineer shall prepare and submit the necessary details for a contract amendment in accordance with the procedure prescribed by the Owner and the Administrator.*

### **ARTICLE III**

#### *Staking*

**Section 1.** *The Engineer, with the approval of the Owner, shall determine when staking of the Project shall begin; provided, however, that the Engineer shall not commence staking until the Owner shall have certified that all right-of-way authorizations and easements reasonably required for the construction of the Project have been procured. The Owner shall furnish qualified persons to negotiate with landowners or tenants with respect to such right-of-way authorizations and easements and the locations of meter poles or service entrances. The Engineer shall proceed diligently with such staking and continue therewith in such manner as not to retard the progress of construction of the Project.*

*The staking shall be done in a thorough and workmanlike manner and in accordance with the latest revision of the National Electrical Safety Code, applicable State codes, plans and specifications, and approved transmission line plan and profile sheets. The Engineer shall in no case stake lines other than those authorized by the Owner. The Engineer shall replace all stakes lost or removed prior to or during construction of the Project. All costs, including costs of stakes, equipment, and other material used in connection with the staking, shall be borne by the Engineer. All stakes shall be marked to show the pole number. Where practicable, all stakes shall be driven in such manner that the pole number shall be visible from the pole hauling truck when poles are being distributed. Each transmission structure stake shall be marked with the station number and the height and class of pole. Where it is probable that the Contractor will have difficulty in locating stakes, the Engineer shall drive a four-foot (1.2 m) building lath or equivalent in addition and adjacent to the stake. The Engineer shall give due consideration to the location of the consumer's load center and service termination in staking pole locations on or near the consumer's premises so that the service entrance cable or low voltage conductors to buildings will be as short as possible.*

**Section 2.** *The Engineer shall cause staking sheets or structure lists to be maintained in such form as the Owner shall require, on which shall be accurately entered all pertinent and useful information and directions concerning the construction of the Project. Five counterparts of the staking sheets or structure lists shall be supplied by the engineer to the Contractor and two copies shall be supplied to the Owner. When revisions in staking sheets or structure lists are necessary, the Engineer shall cause all copies of the staking sheets or structure lists to be corrected to reflect such revisions in the information or directions previously incorporated thereon.*

**Section 3.** *The Engineer shall prepare and submit to the Owner a report showing the quantity, kind, price, and extended total of all units of construction for each portion of the Project at the time such portion is released to the Contractor for construction.*

**Section 4.** *A competent resident engineer, with full authority to act for the Engineer, shall be maintained by the Engineer at the site of the Project at all times when staking is being performed..*

## ARTICLE IV

### Construction Management

**Section 1.** *The Engineer shall supervise the construction of the Project and shall make a diligent effort to ensure the expeditious and economical construction thereof in accordance with the Plans and Specifications and the terms of the Construction Contract or contracts and ensure that all specified environmental criteria are followed. The Engineer shall carefully inspect all materials and equipment prior to their incorporation in the Project and shall promptly reject those not in compliance with the Specifications. The Engineer shall also supervise and inspect the incorporation of the materials in the Project and the workmanship with which such materials are incorporated.. Such inspection shall be deemed to be adequate if a reasonable percentage of all construction units are inspected at the time of installation. The Engineer, as representative of the Owner, shall have sole responsibility for requiring the Contractor to perform the Construction Contract in accordance with its terms and the Plans and Specifications; and, in performing the duties incident to such responsibility, the Engineer shall issue to the Contractor such directives and impose such restrictions as may be required to obtain reasonable and proper compliance by the Contractor with the terms of the Construction Contract and the Plans and Specifications, in construction of the Project; provided that the Engineer shall not be required to exercise any actual control over employees of the Contractor. The term "supervise" when used herein shall not confer upon the Engineer responsibility for the Contractor's construction means, methods, or techniques. The obligations of the Engineer hereunder run to and are for the benefit of only the Administrator and the Owner.*

**Section 2.** *The Engineer shall measure ground resistance at all substation ground fields prior to bonding the ground field to the substation structure. In addition, upon recommendation by the Engineer and authorization by the Owner, the Engineer shall measure the ground resistance at the following locations:*

(a) *At all transmission structures with overhead ground wire prior to the installation of the overhead ground wire.*

(b) *At all transmission structures with pole grounds prior to the installation of power conductor. The Engineer shall prepare a report of the ground resistance measurements mentioned above and submit such report to the Owner together with recommendations for changes, if any, required to ensure satisfactory operation. To the extent such changes are approved, the Engineer shall make appropriate changes in the Plans and Specifications in accordance with the provisions of Section 15 of Article II.*

**Section 3.** *The Engineer shall maintain at the site of the Project during the entire period of construction a competent resident engineer with full authority to act for the Engineer, unless specifically directed otherwise by the Owner in writing. When necessary to assure adequate inspection, one or more competent inspectors shall also be maintained when construction units are being installed or corrective work is being performed, the number of inspectors being subject to approval by the Owner. The Engineer shall report, in writing, defects in workmanship or materials to the Contractor and the Owner and shall instruct the Contractor to correct such defects immediately, in accordance with the terms of the Construction Contract. A resident engineer shall be present during the final inspection of completed construction.*

**Section 4.** *The Engineer shall test along lines, immediately after they have been energized, for objectionable radio interference. All cases of radio interference due to faulty construction of or defective equipment in the Project shall be reported to the Contractor for correction.*

**ARTICLE V**

*Final Documents*

**Section 1.** *The Engineer shall prepare and, within twenty (20) days after the completion of construction of the Project by the Contractor, submit complete and detailed final documents to the Owner for approval and to the Administrator for approval, if approval of the Administrator is required.*

**ARTICLE VI**

*Compensation*

**Section 1.** *The Owner shall pay the Engineer for the services performed hereunder as indicated in the attached Schedule A.*

**Section 2.** *The total compensation to be paid in connection with this Agreement shall not exceed*  
\$ \_\_\_\_\_ ( \_\_\_\_\_ Dollars)

**Section 3.** *Compensation payable to the Engineer under this Agreement shall be in addition to taxes or levies (excluding Federal, State and local income taxes) which may be assessed against the Engineer by any State or political subdivision directly on services performed or payments for services performed by the Engineer pursuant to this Agreement. Such taxes or levies, which the Engineer may be required to collect or pay, shall, in turn, be added by the Engineer to invoices submitted to the Owner pursuant to this Agreement.*

**Section 4.** *Interest at the rate of \_\_\_\_\_ percent ( \_\_\_\_\_ %) per annum [percentage is not to exceed any applicable State usury laws] shall be paid by the Owner to the Engineer on all unpaid balances due the Engineer commencing thirty (30) days after the due date; provided that the delay in payment beyond the due date is not caused by any condition within the control of the Engineer. Such compensation shall be paid ten (10) days after the amount of interest has been determined by the Engineer and the Owner.*

**Section 5.** *Prior to the time when any payment shall be made to the Engineer pursuant to this Agreement, the Engineer, if requested by the Owner, shall furnish to the Owner, as a condition precedent to such payment, a certificate to the effect that all salaries or wages earned by the employees of the Engineer in connection with the Project, have been fully paid by the Engineer up to and including a date not more than fifteen (15) days prior to the date when such payment shall be made. Before the time when the final payment shall be made to the Engineer by the Owner, the Engineer shall also furnish to the Owner, as a condition precedent to such payment, a certificate that all the employees of the Engineer have been paid for services rendered by them in connection with the Project and that all other obligations which might become a lien upon the Project have been paid.*

**ARTICLE VII**

*Miscellaneous*

**Section 1.** *The Owner may at any time terminate this Agreement by giving notice to the Engineer in writing to that effect not less than ten (10) days prior to the effective date of termination specified in the notice. Such notice shall be deemed given if delivered or mailed to the last known address of the Engineer. From and after the effective date specified in such notice, this Agreement shall be terminated, except that the Engineer shall be entitled to receive compensation for services hereunder as provided in Section 2 of this Article VII.*

**Section 2.** *In the event that this Agreement at any time be terminated pursuant to Section 1 of this Article VII, the compensation which shall be payable to the Engineer by the Owner shall be computed so far as possible in accordance with the provisions of Article VI. To the extent that the provisions of Section 1 of Article VI cannot be applied because construction is incomplete at the effective date of such termination, the Engineer shall be paid for engineering services in respect of incomplete construction a sum which shall bear the same ratio of the compensation which would have been payable under the provisions of Section 1 of Article VI, if such construction had been completed, as the engineering services in respect of such incomplete construction bear to the engineering services which would have been rendered if construction had been completed.*

*If requested by the Owner, the Engineer shall submit to the Owner in duplicate a verified statement of actual expenses in respect of such incomplete construction. All compensation payable under this Section 2 shall be due and payable thirty (30) days after the approval by the Owner of the amount due hereunder.*

**Section 3.** *The Engineer shall have the right, by giving the Owner not less than thirty (30) days notice in writing, to terminate this Agreement if the Engineer shall have been prevented by conditions beyond the control and without the fault of the Engineer (a) from commencing performance of this Agreement for a period of twelve (12) months from the date of this Agreement, or (b) from proceeding with the completion of full performance of any remaining services required of the Engineer pursuant to this Agreement for a period of six (6) months from the date of last performance by the Engineer of other services required pursuant to this Agreement. From and after the effective date specified in such notice this Agreement shall be terminated, except that the Engineer shall be entitled to receive compensation for services performed hereunder, computed and payable in the same manner as set forth in Section 2 of this Article.*

**Section 4.** *Upon completion of the Project or termination of the Contract, the Engineer shall be obligated forthwith to deliver to the Owner all maps, tracings, and drawings of the Project and all letters, documents, and other material, including all records pertaining thereto.*

*The term "Completion of the Project" shall mean full performance of all obligations under this Contract and all amendments and revisions thereof as evidenced by the approval of the final documents by the Owner and by the Administrator, if approval of the Administrator is required*

**Section 5.** *The Engineer shall follow all applicable RUS rules and regulations.*

**Section 6.** *The Engineer shall prepare and execute in such form and detail as the Owner and the Administrator shall direct all estimates, certificates, reports, and other documents required to be executed by the Engineer pursuant to the terms of the Construction Contract or the Loan Contract, including progress reports of engineering services and reports of the progress of construction.*

**Section 7.** *The Engineer shall approve each monthly estimate of the Contractor prior to payment by the Owner. Such approval shall include a certification by the Engineer that all construction for which payment is requested has been completed in accordance with the terms of the Construction Contract and that all defective construction, of which the Contractor shall have received fifteen (15) or more days written notice, has been corrected. The Engineer shall also maintain at the site of the Project a cumulative inventory of all units of construction incorporated in the Project.*

**Section 8.** *The Engineer shall notify the Owner when the Project, or any section thereof, shall be ready to be energized. When requested by the Administrator, such notice shall also be given to the Administrator. The Engineer shall assist the Owner in causing the Project, or such section thereof to be energized.*

**Section 9.** *Insurance. The Engineer shall take out and maintain throughout the period of this Agreement insurance of the following types and minimum amounts:*

*(a) Workers' compensation and employers' liability insurance, as required by law, covering all of the Engineer's employees who perform any of the obligations of the Engineer under the Agreement. If any employer or employee is not subject to the workers' compensation laws of the governing State, then insurance shall be obtained voluntarily to extend to the employer and employee coverage to the same extent as though the employer or employee were subject to the workers' compensation laws.*

*(b) Public liability insurance covering all operations under the Agreement shall have limits for bodily injury or death of not less than \$1 million each occurrence, limits for property damage of not less than \$1 million each occurrence, and \$1 million aggregate for accidents during the policy period. A single limit of \$1 million of bodily injury and property damage is acceptable. This required insurance may be in a policy or policies of insurance, primary and excess including the umbrella or catastrophe form.*

*(c) Automobile liability insurance on all motor vehicles used in connection with the Agreement, whether owned, nonowned, or hired, shall have limits for bodily injury or death of not less than \$1 million per person and \$1 million per occurrence, and property damage limits of \$1 million for each occurrence. This required insurance may be in a policy or policies of insurance, primary and excess including the umbrella or catastrophe form.*

*(d) Errors and Omissions (Professional Liability) Insurance in an amount at least as large as the maximum compensation specified in Article VI, Section 2, but not less than \$500,000.*

*The Owner shall have the right at any time to require public liability insurance and property damage liability insurance greater than those required in subsections "b" and "c" of this Section. In any such event, the additional premium or premiums payable solely as the result of such additional insurance shall be added to the total compensation to be paid under this Agreement.*

*The Owner shall be named as Additional Insured on all policies of insurance required in subsections "b" and "c" of this Section.*

*The policies of insurance shall be in such form and issued by such insurer as shall be satisfactory to the Owner. The Engineer shall furnish the Owner a certificate evidencing compliance with the foregoing requirements which shall provide not less than thirty (30) days prior written notice to the Owner of any cancellation or material change in the insurance.*

*The Engineer shall also follow the requirements of 7 CFR part 1788, RUS Fidelity and Insurance Requirements for Electric and Telephone Borrowers.*

**Section 10.** *The obligations and duties to be performed by the Engineer under this Agreement shall be performed by persons qualified to perform such duties efficiently. The Engineer, if the Owner shall so direct, shall replace any resident engineer or other persons employed by the Engineer in connection with the Project. The Engineer shall file with the Owner and the Administrator a statement, signed by the Engineer, of the qualifications, including specific experience of each engineer and inspector assigned to the Project and the duties assigned to each.*

**Section 11.** *Approvals, directions, and notices provided to be given hereunder by the Administrator to the Engineer or the Owner shall be deemed to be properly given if given by any person authorized by the Administrator to give approvals, directions, or notices.*

**Section 12.** *The Engineer shall establish and maintain an office at the site of the Project, with telephone service where available, when staking or construction is in progress. Any notice, instructions, or communications delivered to such office shall be deemed to have been delivered to the Engineer.*

**Section 13.** *This Agreement may simultaneously be executed and delivered in two or more counterparts each of which so executed and delivered shall be deemed to be an original, and all shall constitute but one and the same instrument.*

**Section 14.** *The obligations of the Engineer under this Agreement shall not be assigned without the approval in writing of the Owner.*



**Section 15.** *The Engineer shall comply with applicable statutes pertaining to engineering and warrants that \_\_\_\_\_ [Name of Engineer] who will be in responsible charge of the Project possesses license number \_\_\_\_\_ issued by the State of \_\_\_\_\_ on the \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_*

**IN WITNESS WHEREOF,** *the parties hereto have caused this Agreement to be duly executed.*

\_\_\_\_\_  
*Owner*

By \_\_\_\_\_  
*President*

ATTEST:

\_\_\_\_\_  
*Secretary*

\_\_\_\_\_  
*Engineer*

\_\_\_\_\_

*[Strike out inapplicable designation.]*

ATTEST:

\_\_\_\_\_  
*Secretary*

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