**TOWN OF SMITHFIELD**

**NORTH CAROLINA**



**REQUEST FOR PROPOSALS**

**LOAD MANAGEMENT SWITCH INSTALLATION**

**FOR TOWN OF SMITHFIELD**

**RFP NO. 21-004**

**Proposals Due Date:**

**July 22, 2021**

**11:00 A.M.**



**LOAD MANAGEMENT SWITCH INSTALLATION**

**FOR TOWN OF SMITHFIELD**

# SCOPE OF SERVICES

This Scope of Services will become an integral part of the contract between the Town of Smithfield and the Contractor. The Contractor hereby agrees to provide services and/or materials to the Town pursuant to the provisions set forth below.

1. **PURPOSE:** The purpose and intent of the Request for Proposals (RFP) is to solicit proposals from qualified firms to provide Load management Switch Installation services. The selected contractor is to perform the work on a daily basis around the electrical utility service area for the Town of Smithfield. This work will include the transportation around Town and the installation of Load Management Switches in customer homes/businesses, to replace the existing switch with the “new” switch.

2.0 **BACKGROUND:** The Town desires a private contractor to perform these services to maintain an accurate accounting of electric load management throughout the Town’s service area.

3.0 **TOWN DESIGNATED REPRESENTATIVE:**

Mr. Ted Credle, PE

Public Utilities Director

Town of Smithfield

230 Hospital Road

Smithfield, NC 27577

(919) 934-2116 x-1162

Ted.credle@smithfield-nc.com

4.0 **WORK REQUIREMENTS:** Smithfield is looking to hire an Installer to install 400 Nexgrid two-way load management switches (LM switch). These switches will communicate with existing Nexgrid smart grid infrastructure via Zigbee communication protocol. The Installer will be responsible for communicating with the customer when arriving to the customer premise and throughout the duration of the installation process which includes removing the existing LM switch, installing and wiring the new LM switch, entering data into the Nexgrid handheld device, and commissioning the LM switch. Of the 400 LM switches, most will be direct switch replacements. Some installations will be new customers that do not have existing LM switches. In addition, some properties may go from 2 LM switches controlling 2 devices (WH and AC) to 1 LM switch controlling 2 devices. This could require additional wire to be supplied by the Installer to connect both devices to 1 LM switch.

# Customer Communications

Smithfield would like the Installer to call all customers to schedule the LM switch installs. Smithfield will provide a list of customers with dates/times and devices connected to a LM switch so that the Installer can visit each address and install a LM switch. Upon arrival at each address, the Installer will make contact with the resident to install the LM switch. If the resident is not home, the Installer will make note and tell Smithfield so that another appointment can be scheduled. If Smithfield chooses, the Installer will leave a Smithfield supplied brochure explaining the LM switch with each customer.

# Training

Smithfield, or Smithfield’s agents, will provide necessary training to the Installer so that they are able to install the LM switches. Training will be performed on all of the items included in this document, including how to determine which devices to connect to a LM switch, where to install the LM switch, how to install the LM switch, and how to use the Nexgrid handheld.

# Installation of LM Switch

The following process is meant to give an overview of the steps needed to install the LM switches, and it may not include all detailed steps. The purpose of this section is for the Installer to understand what is involved in the installation of a LM switch so that they can provide an accurate quote to Smithfield

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## Devices Connected to LM Switch

In Smithfield there are different ways LM switches are installed. Some residents may have 1 switch controlling 2 Air Conditioning (AC) units, or 1 switch controlling 1 AC unit and 1 switch controlling 1 Water Heater (WH). Heat Strips (HS) are also controlled in some circumstances. Smithfield will be ordering three-relay LM switches from Nexgrid that will have one high amp relay (Relay 1) and two low amp relays (Relay 2)(Relay 3). Therefore, this switch can control up to 3 devices. Smithfield would like to use one LM switch per resident and connect as many devices as possible, but understands if multiple switches may be needed due to the location of the WH. The methodology, which will further be discussed upon awarding the project to the selected Installer, will be to connect Relay 1 to the WH, Relay 2 to the AC, and Relay 3 to the Heat Strips (HS). If a home just has 2 AC units, Relay 2 and Relay 3 will be used.

## Switch Location

Most LM switches will be located outside near the Air Conditioning (AC) unit. Some may be located inside near the Water Heater (WH). Smithfield would prefer for each new LM switch to be installed outside, if possible, and for additional wire to be ran from the WH to the LM switch located near the AC unit.

## Mounting Switch

If the old LM switch is located outside, the new LM switch will be mounted in the same location. The old LM switch will be removed and taken back to the Smithfield Electric Department.

There may be cases where the installer must install the new LM switch inside. For these cases, the Installer will first consult with Smithfield before proceeding.

## Wiring Switch

The Installer will follow all wiring diagrams as provided by Smithfield or Smithfield’s agents to install the LM switch. Additional wire may be needed to connect the LM switch to each device. This will be provided by the Installer and included in the quote. Installer will follow all applicable electrical codes to install the switches.

## Nexgrid Handheld Data Input

After wiring the switch, the Installer will use the Nexgrid handheld device to scan the switch barcode and input various data such as the customer address, as well as take a picture of the LM switch. The Installer will receive training on this from Smithfield, or Smithfield’s agents.

## Installer Data Input for Smithfield

Next the Installer will have a list of customers from Smithfield in which they can confirm/record data. The data needed on this sheet is which devices are being controlled by which relay. For example, the Installer will record the following data:

**124 Anyroad St. Device Serial # Relay 1 – WH Relay 2 – AC Relay 3 – None**

This data will be recorded on a separate sheet and turned in to Smithfield periodically. This will allow Smithfield to input any potential missing data in the Nexgrid system. **The relay assignments are very important, as this is how Smithfield will control the LM switches!**

## Commissioning of Switch

The Installer will ensure the LM switch has power before leaving the site. Installer will verify the amber LED is solid too, which means the switch has communication. **Installer will confirm the customers’ WH, AC, HS operate as normal before leaving the site**. Smithfield will utilize Nexgrid’s system to make the final determination that each LM switch is operating correctly.

# Installed LM Switch Not Working

Smithfield is responsible to ensure that a LM switch is operating correctly after installation. If a switch has been determined to be incorrectly operating, Smithfield will work with Nexgrid to determine the cause of failure. If it is a hardware issue, a new switch will be installed and the Installer will be compensated for another installation. If it is an installation issue, the Installer will fix the issue at no additional cost.

5.0 **PRE-PROPOSAL CONFERENCE:** The Town will host a pre-proposal meeting on Tuesday June 29, 2021 @ 10:00 AM. The meeting will be held at the Smithfield Operations Center, located at 230 Hospital Road in Smithfield. The purpose of this meeting is to conduct a question and answer session regarding the RFP package. Please limit the number of people representing each firm to two (2). Following this meeting the Town will issue an addendum summarizing the question and answers given.

6.0 **SCHEDULES/TIMELINES:** The initial term of the contract is from August 23, 2021 through June 30, 2022. It is presumed the work will be performed Monday through Friday, 8 hours a day - 8:00 am through 5:00 pm, with a one (1) hour lunch break. The Contractor will observe Town Holidays, and other closings, and will not work after hours, unless prior permission & coordination is provided by the Town.

It is understood that the installation of the “new” switches will likely take less time than allotted; however, coordination for the Contractor to enter the customer’s premises, may delay installation.



**PROPOSAL FORM**

The Town of Smithfield invites your proposal to provide Load Management Switch Installation Services for the Town of Smithfield to be received until 1100 a.m., on July 22, 2021 in the Utilities Department, Town of Smithfield Operations Center, 230 Hospital Road, Smithfield, North Carolina 27577.

In accordance with the attached instructions, terms, conditions, and Scope of Services we submit the following proposal to the Town of Smithfield.

**ITEM NO. 1**

This item shall include labor, materials, supervision, equipment, transportation, appliances, and materials to perform all operations required for meter reading services as specified.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Item No.** | **Description** | **Units** | **Unit Cost** | **Quantity** | **Total Cost** |
| 1 | Switch Installation | per | $\_\_\_\_\_\_\_\_\_\_\_\_ | 400 | $\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

I certify that the contents of this proposal are known to no one outside the firm, and to the best of my knowledge all requirements have been complied with.

Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Authorized Signature:

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Title \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Firm Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_