



# NTUA's Off-Grid Residential Solar Program Operation and Maintenance Plan Agreement

The Navajo Nation Council and the Navajo Nation Office of the President and Vice President authorized funding for the NTUA to install Off-Grid residential solar units for underserved communities and households throughout the Navajo Nation. This is part of the CARES Act legislation (CJY-67-20) to protect against the spread of the devastating COVID-19 virus.

NTUA has gained tremendous amount of knowledge and experience on what it takes to install, operate and maintain these types of solar units since starting the residential solar unit program in the early 1990s. It is with this knowledge and experience that NTUA decided to seek funding under the CARES Act to expand the program.

Once the applicant is approved, the new customer will be required to sign an Operation and Maintenance Agreement. The CARES Act only pays for the solar unit, energy-efficient refrigerator, and limited house-wiring but does not provide funding for any troubleshooting, maintenance or repair of the unit. These units are subject to equipment failure just like all mechanical equipment. That's why it is important to have an operation and maintenance agreement.

## NTUA Operation and Maintenance plan covers the following and the warranty on the non-solar components are:

- ◆ The homeowner shall pay \$84.00 per month plus Navajo Nation Tax, in accordance with the tariff rate for the operation, maintenance and repair of the solar unit system for its useful life, which is 15 years.
- ◆ In the event the customer is current on their monthly bill and the solar unit is in service beyond its useful life, NTUA may continue to provide operation, maintenance and repair of the solar unit system, depending on the availability and accessibility of parts, batteries and components and the condition of the solar unit.
- ◆ NTUA will operate, maintain, repair, and service the solar unit system on a regular schedule over the useful life.

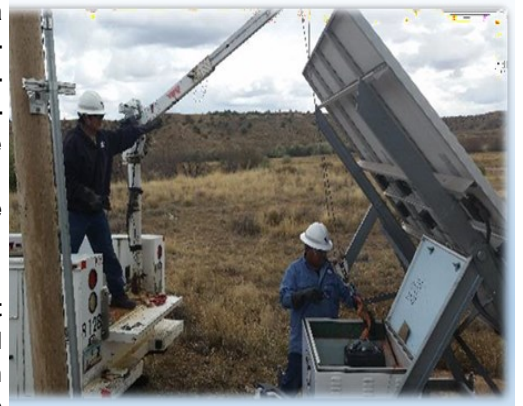
### The warranty for the components of the solar unit system is as follows:

- ◆ 5-year warranty on the house wiring that is installed by electricians contracted by the NTUA (if applicable).
- ◆ 2-year warranty on the refrigerator provided with the system.
- ◆ Warranty does not apply to use of unapproved parts, unapproved alterations, repair defects caused by non-NTUA personnel, abuse, neglect, or improper use.

### Operation and Maintenance Agreement Plan also includes regular visits from certified electricians to NTUA stand-alone solar units. During the regularly scheduled visits, NTUA will check:

- ◆ Operation: Verify all solar panels are performing within specification; verify residential load center is receiving all electrical load from the solar unit.
- ◆ Inspection: Visual Inspection; Verify no damage to the solar array or any of the balance of system.
- ◆ Troubleshooting: Seek cause of the malfunction and determine best appropriate action of repair.
- ◆ Repair: (labor, equipment and materials are included). Safely change all components that are not operating with-in specifications.
- ◆ Maintenance: Batteries-load test for proper battery responses; Adjust solar array for Summer and Winter Sun ray angles.

Without an on-going maintenance program, the solar units will be a bigger problem when families need assistance in the future. For example, there have been other entities that have installed solar units on the Navajo



Nation over the last 30 years. When these entities do not provide on-going maintenance, the result has been a broken unit and frustrated home owners who did not have anyone to repair and fix the units.



### A water pump will only be provided to a Customer who already has a cistern tank at the Customer's home premises

NTUA is only responsible for the electrical outlet and switch related to the water pump and cistern system. NTUA is not responsible for any other components related to the water pump and the cistern system. Customer is responsible for hiring an electrician and/or plumber for any additional work.

### ACCOUNT SET-UP & SECURITY DEPOSITS

- ◆ Per NTUA's tariff, \$10.60 is the one-time charge to set up an account in our billing system.
- ◆ Per NTUA's tariff, new customers are required to pay a one-time security deposit of \$25.00. Deposits are returned or credited to the customer's account after the customer makes timely payments for 1 year.

### EVERY CUSTOMER IS RESPONSIBLE FOR THEIR OWN ACCOUNT

- ◆ NTUA cannot pay for the one-time fees or the \$84 per/month, plus NN tax. NTUA is a not-for-profit utility and generates funding from customer revenues; therefore, current customers should not have to pay for new customers.

### SOLAR UNIT OWNERSHIP

NTUA retains ownership of these units and it will be responsibility of NTUA to properly dispose of these units at the end of their useful life. This is extremely important because due to the size and weight of these units, the removal and correct disposal of these units is costly. It's also important to note that components of these units are not good for the environment, so proper disposal is even more necessary.