



2021 PROJECTS UPDATE #4

NTUA Continues Building, Extending, and Connecting Utilities

With Navajo Nation CARES Act funds, the Navajo Tribal Utility Authority (NTUA) completed an unprecedented number of electric connections, water extensions, off-grid residential solar unit placements, and broadband/internet installations work in a mere 4.5 months. In anticipation of the Navajo Nation allocating funds from its American Rescue Plan Act allocation to NTUA, NTUA continues to identify utility projects to serve the Navajo people. This high-level report provides an update in eight utility categories on the number of identified projects and the current status of those identified projects.

These projects are included within NTUA's 36-month American Rescue Plan Act 2021 (ARPA) project listing, which has been provided to the Navajo Nation. To ensure the Navajo Nation's ARPA program is a success, NTUA is advancing projects to shovel ready status, identifying, and completing feasibility studies on Navajo family homes, and even constructing certain projects. NTUA is self-funding this work in anticipation of receiving ARPA funding from the Navajo Nation.

On page of 8 and 9 of this report, there is information for Chapter Officials, Chapter Staff and Council Delegates to share with chapter and community residents. It is information about applying for new utilities, a broadband assistance program, and assistance with energy and heating bills.

NTUA Residential Electric Connections

The Project Stage 1 titled Completed Applications are applications for Light Up Navajo III. When NTUA receives ARPA funds these projects will be automatically converted to ARPA projects. ARPA projects include funding to complete the following as necessary: house wiring, meter loops and service poles. These numbers do not include the projects identified by neighboring utilities - JMEC, CDEC, SEC, or APS. NTUA's 36-month ARPA request does include funding for projects to be built by JMEC, CDEC, SEC, and APS. The ARPA projects will include costs for interior house wiring (if applicable), pole mounted meter loops (if applicable), certification & recertification of wiring (if applicable), and inspection.



| Project Stages | | Total No. of Projects |
|----------------|--|-----------------------|
| 1 | Completed Applications | 286 |
| 2 | Projects that are in the Engineering Stage | 122 |
| 3 | Projects that are at the ROW Stage | 193 |
| 4 | Projects with Approved ROW | 82 |
| 5 | Projects that are in Construction | 30 |
| 6 | Projects that are Constructed and In Service | 70 |
| Total | | 783 |

Proposed NTUA Off-Grid Residential ARPA Solar Projects

300 off-grid residential solar units were installed and commissioned using CARES Act funding. These solar units were offered to homes when connecting to the electric grid was not feasible because of location, cost, or other determinations. There is a carryover of 700 completed solar applications from NTUA's CARES Act projects. NTUA field teams have visited 505 of the 700 carryover applications sites to determine if the projects are feasible: 180 homes of the 505 sites were found to be feasible; 325 of the 505 sites were determined to be not feasible; 42 of the sites found to be infeasible had no structure on-site or the home was under construction; and 283 of the homes were located near a power line and had home site lease, so they were referred to Light Up Navajo III program to be considered for connection to the electric grid.

NTUA began taking new solar unit applications on July 19, 2021. NTUA launched a media campaign on July 19th to encourage people to submit applications at their local NTUA District Office. If applicants already applied for a solar unit under CARES Act funding, it is not necessary for them to reapply. NTUA is in the process of contacting those 700 applicants as stated above.

In addition, ARPA approved projects will fund the interior house wiring (if applicable), certification & re-certification of wiring (if applicable), inspection, generators (if applicable), ATS switch (if applicable), and an energy efficient refrigerator.

| Project Stages | | Total No. of Projects |
|----------------|--|-----------------------|
| 1 | Completed Applications | 6 |
| 2 | Projects that are in the Engineering Stage | 5 |
| 3 | Projects that are found to be Feasible | 350 |
| 4 | Projects that are in Construction | 1 |
| 5 | Projects that are Constructed and In Service | 0 |
| Total | | 362 |



NTUA Residential Water / Wastewater Services

This section describes the two types of residential water/wastewater services that NTUA provides. Section A describes water lines/wastewater systems. The wastewater systems can either be a sewer line extension or a septic system. Section B describes cistern/septic system projects.

Please note that NTUA began taking on this work when CARES Act funding became available, and the Indian Health Service said it could not construct water projects before December 30, 2020. NTUA understood that families needed this service and assigned crews to construct and extend these services to homes. NTUA and NECA constructed 30 waterlines/septic systems with CARES Act Funding in 2020.

A. NTUA Residential Water/Wastewater System Projects

As of June 24, 2021, 1,330 water applications were received. From January to March of 2021, NTUA invited Navajo Nation residents living ½ mile away from the nearest NTUA waterline to apply for a waterline extension. Field teams are currently visiting home and conducting assessments to determine feasibility. Homes that are over ½ mile away will be referred to the water cistern project for consideration.

ARPA waterline projects include the cost to construct the waterline to the homes, plumbing (if necessary), sink (if necessary), hot water heater system (if necessary), bathroom addition (if necessary), energy efficient refrigerator, house wiring (if necessary), inspections, septic system or connection to existing wastewater collection system, and any other necessary components to make a complete working system.

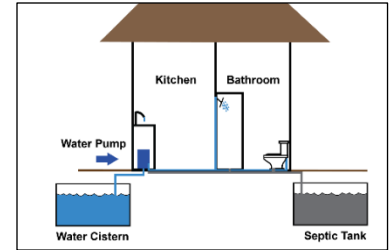
Please know that NTUA is constructing waterlines/septic systems to 6 homes with funding provided by the Centers for Disease Control (CDC). These services are normally provided by IHS, however because of the time restraint for the CARES Act projects, IHS reported it would not be constructing any projects.

| Project Stages | Total No. of Projects |
|--|-----------------------|
| Applications under Review | 1,105 |
| Projects that are in the Engineering Stage | 180 |
| Projects at the Right of Way Stage | 46 |
| Projects with Approved ROW* | 18 |
| Projects that are in Construction | 0 |
| Projects that are Constructed and in Service | 0 |
| Total | 1,349 |

* NTUA has secured grant funding from CDC to construct 6 projects.

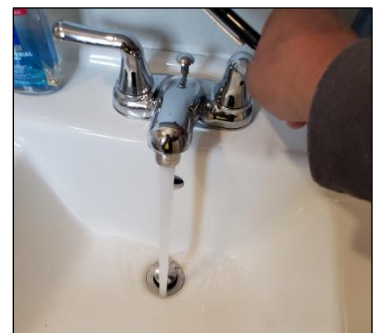
B. NTUA Residential Cistern/Septic System Projects

The CARES Act provided funding for cistern water systems where there is no water available for household water use and the home is located beyond feasible extension of the existing water distribution system. These services are normally provided by IHS, however because of the time restraint for the CARES Act projects, IHS reported it would not be constructing any projects. NTUA and NECA were able to complete 105 cistern/septic systems. The image shows how a cistern/septic system is designed.



These projects not only include the cistern/septic system, but also require a drain field and electric, solar, or generator service. The ARPA cistern/septic home projects include the cost to construct, plumbing (if necessary), sink (if necessary), hot water heater system (if necessary), bathroom addition (if necessary), an energy efficient refrigerator, house wiring (if necessary), inspection, installation of the septic system, and any other necessary components to make a complete working system. Funding is required in advance for these projects.

| Project Stages | | Total No. of Projects |
|----------------|--|-----------------------|
| 1 | IHS or NN Referrals | 278 |
| 2 | Projects that are in the Engineering Stage | 112 |
| 3 | Projects that were Found to be Infeasible | 65 |
| 4 | Projects pending a NN EPA Permit | 66 |
| 5 | Projects that are in Construction | 0 |
| 6 | Projects that are Constructed and In Service | 0 |
| Total | | 521 |



NTUAW Residential Broadband/Internet to Home Projects

Residential and Small Business Broadband services will be delivered through two primary technology approaches: Fixed Wireless Broadband and Fiber to the Home. Broad coverage will be delivered through a commercial grade fixed wireless broadband system for delivering broadband service to homes and businesses at download speeds of up to 25Mbps to 100Mbps. Customer connections to this fixed wireless broadband system are accomplished by installing an outdoor antenna as well as an indoor router for Wi-Fi connectivity. For denser housing areas, a Fiber to the Home (FTTH) system will be deployed, which will deliver a fiber connection to customers. Customers connected to this FTTH system will be capable of receiving download speeds of up to 100Mbps to 1Gbps. With the ARPA funding, we anticipate 11,000 new or upgraded fixed wireless broadband connections and 5,000 new fiber connections to homes. To date, NTUAW has installed approximately 1,300 new and 700 upgraded fixed wireless broadband services on the system funded by CARES.

| Project Stages | | Total No. of Projects |
|----------------|--|-----------------------|
| 1 | Awaiting Applications | 10,032 |
| 2 | Projects that are in the Engineering Stage | 4,948 |
| 3 | Projects that are at the ROW Stage | 22 |
| 4 | Projects with Approved ROW | 0 |
| 5 | Projects that are in Construction | 477 |
| 6 | Projects that are Constructed and In Service | 521 |
| Total | | 16,000 |



Outdoor Home Units - Customer Premises Equipment (CPE)

NTUA Electric Capacity Proposed ARPA Projects

Capacity projects are required to strengthen the electric system's reliability and increase the electric system's capacity to handle the increased number of electric connections. Capacity is the engine of the electric infrastructure, and it must be well-maintained and upgraded when necessary. Enhancing and expanding the electric capacity provides a multitude of benefits to the community members. In addition to serving hundreds of additional homes that have been connected and will be connected to the electric grid, strengthening the electric capacity is necessary for water, wastewater, and broadband connections. These will help further combat the pandemic. The numbers are projects that are ARPA prepared projects. Additionally, these numbers will change as JMEC, CDEC, SEC, and APS provide project information.

| Project Stages | | Total No. of Projects |
|--|--|-----------------------|
| 1 | Projects in Pre-Engineering Stage | 44 |
| 2 | Projects that are in the Engineering Stage | 20 |
| 3 | Projects that are at the ROW Stage | 20 |
| 4 | Projects with Approved ROW | 15 |
| 5 | Projects that are in Construction | 8 |
| 6 | Projects that are Constructed and In Service | 17 |
| Proposed ARPA Electric Capacity Projects (05/28/2021) | | 124 |
| Total | | 124 |

NTUA Water Capacity Proposed ARPA Projects

Just like electric capacity, it is necessary to strengthen the water system's capacity for reliability to make sure the water continues flowing to homes and businesses. As additional water services are extended to homes, the water distribution systems require more capacity. The numbers are for projects that are ARPA prepared projects. Park Estates phase III is a carry-over project from CARES Act projects that NTUA secured funding to complete from the Wend Foundation.

| Project Stages | | Total No. of Projects |
|--|--|-----------------------|
| 1 | Projects in Pre-Engineering Stage | 35 |
| 2 | Projects that are in the Engineering Stage | 155 |
| 3 | Projects that are at the ROW Stage | 2 |
| 4 | Projects with Approved ROW | 23 |
| 5 | Projects that are in Construction* | 2 |
| 6 | Projects that are Constructed and in Service | 27 |
| Proposed ARPA Water Capacity Projects (5/25/2021) | | 244 |
| Total | | 244 |

*Park Estates

NTUA Wastewater Capacity Proposed ARPA Projects

Wastewater capacity projects are necessary to strengthen and handle the increase in volume and to improve the reliability of the wastewater collection system and treatment plants. The wastewater systems need the ability handle the additional projects that have been and will be constructed and connected to the wastewater systems.

| Project Stages | | Total No. of Projects |
|---|--|-----------------------|
| 1 | Projects in Pre-Engineering Stage | 61 |
| 2 | Projects that are in the Engineering Stage | 285 |
| 3 | Projects that are at the ROW Stage | 3 |
| 4 | Projects with Approved ROW | 9 |
| 5 | Projects that are in Construction | 0 |
| 6 | Projects that are Constructed and In Service | 0 |
| Proposed ARPA Wastewater Projects (05/25/21) | | 358 |
| Total | | 358 |

NTUA Broadband Capacity Proposed ARPA Projects

Broadband capacity projects are necessary to provide service to unserved and underserved communities and to handle the increased usage of existing and new customers. This additional capacity will allow NTUAW to increase the speed of existing customers' broadband service. NTUAW's existing Broadband plans offer speeds of up to 6Mbps and of up to 9Mbps. Future plans will offer speeds of up to 25Mbps to 100Mbps. NTUAW will also be offering a new Fiber to the Home service where customers will be able to enjoy speeds of up to 100Mbps to 1Gbps. As internet usage continues to grow, additional capacity will be critical for a stable network and as discussed previously in the residential broadband section, NTUAW anticipates a dramatic increase in internet usage. NTUA has planned for 16,000 new or upgraded Broadband customers. NTUA must be prepared to handle the additional capacity needs for all the internet and mobile service providers including NTUAW, AT&T, Cellular One, Verizon, and others.

| Capacity Project Stage | | Total No. of Projects |
|--|--|-----------------------|
| 1 | Projects in Pre-Engineering Stage | 0 |
| 2 | Projects that are in the Engineering Stage | 168 |
| 3 | Projects that are at the ROW Stage | 26 |
| 4 | Projects with Approved ROW | 142 |
| 5 | Projects that are in Construction | 0 |
| 6 | Projects that are Constructed and In Service | 1 |
| Proposed ARPA Broadband Projects (05/27/21) | | 337 |
| Total | | 337 |

Information for Navajo Nation Leaders to Share with Chapters and Community Residents Seeking New Utility Services

1. **Chapter Powerline Projects**: If your Chapter is interested in seeking funding from the ARPA for a chapter powerline project, please refer to NTUA's website under "ARPA Projects" to see if the Chapter's powerline project is already on NTUA's ARPA list. If the proposed projects are not on the list or if your chapter needs further assistance, please contact Arash Moalemi at arashm@ntua.com.
2. **Seeking Residential Electric Connection**: If community members need residential electric service and believe they are within two miles of an NTUA Electric distribution line, please encourage community members to visit their local NTUA District Office and apply for Light Up Navajo III (LUN III). Please understand it is not guaranteed that the applicant will qualify or receive electric connection through LUN III. If and when NTUA receives ARPA funding, LUN III applications will automatically convert to ARPA funded projects.
3. **Seeking Off-Grid Residential Solar**: If community members need residential electric service and cannot be connected to a powerline, they may qualify for an off grid solar unit. Please encourage community members to visit a local NTUA District Office after July 19, 2021, to submit application for an off grid solar unit. The off grid solar program is available in all 110 chapters.
4. **Seeking Residential Waterline Extensions**: If Community members need water service to their homes and they believe they are within ½ mile from an NTUA water line, please encourage community members to visit their local NTUA District Office and apply for the ARPA Water Service Project. Please understand it is not guaranteed that the applicant will qualify or receive water service.
5. **Seeking Broadband Service**: If a Chapter is seeking additional or expanded Broadband service for their communities, please contact Monroe Keedo at monroek@ntua.com. Mr. Keedo will provide information on existing and proposed new service locations including new towers and fiber optic buildouts.

Community members and small businesses seeking broadband services can contact NTUA/NTUAW for information on new residential and small business services. NTUA/NTUAW also offers Wireless Hotspots free of charge in key locations to assist with combatting the pandemic. For more information, please visit www.choice-wireless.com

6. Seeking Information about the Emergency Broadband Benefit Program:

NTUA Wireless launched the Emergency Broadband Benefit (EBB) on May 17, 2021, for customers struggling to afford internet service during the COVID-19 pandemic. EBB is a Federal Communications Commission program that provides up to \$50 per month towards broadband services for eligible households and up to \$75 per month for households on qualifying tribal lands.

Households can utilize the EBB if they have an income that is at or below 135 percent of federal poverty guidelines or participate in certain assistance programs such as SNAP, Medicaid or Lifeline; if they are approved to receive benefits under the free and reduced-price school lunch program or the school breakfast program, including the USDA Community Eligibility Provision in the 2019-2020 or 2020-2021 school year.

Qualifying customers for the EBB benefit will receive true broadband service, as opposed to only EBB hotspot services offered by other wireless service providers on the Navajo Nation. NTUA Wireless has also waived the installation fee and qualifying customers will receive free service for a minimum of six months and longer if the federal funding allows.

Customers will have the opportunity to sign a contract with NTUA Wireless to continue service at the end of the six months free period or terminate the service without penalty. Please encourage other families to inquire about this program. The EBB benefit is temporary and will expire when funding is depleted or six months after the U.S. Department of Health and Human Services declares an end to the Covid-19 emergency. In the first month of the EBB program, 398 families are already receiving the benefits of this program.

Please let your constitutions know about this program. Interested parties may visit www.choice-wireless.com, call 928-730-2273 or visit your local Choice NTUA Wireless store to find out more about this program and apply for it.

7. Financial Assistance for Electric and Heating utility bills

NTUA provided assistance to the Navajo Nation Division of Social Services with radio advertising to share information about the Low Income Home Energy Assistance Program (LIHEAP). The LIHEAP program will help eligible individuals with financial assistance for energy assistance and heating bills. If people need energy assistance due to the impacts of COVID-19, those individuals can complete an online application for assistance to determine eligibility.

- Visit the DSS website at, www.nndss.navajo-nsn.gov, and click on the Application Portal button.
- To view the eligibility criteria: <https://www.nndss.org/.../2nd-Revision-CARES-Act-LIHEAP...>
- To view the income guidelines: <https://www.nndss.org/.../CARES-Act-LIHEAP-60-SMI-07-01...>

Please share the information with chapters and chapter/community residents.