



Light Up Navajo IV & Mutual Aid Training

Unique Mutual Aid without Storms



Presentation by:
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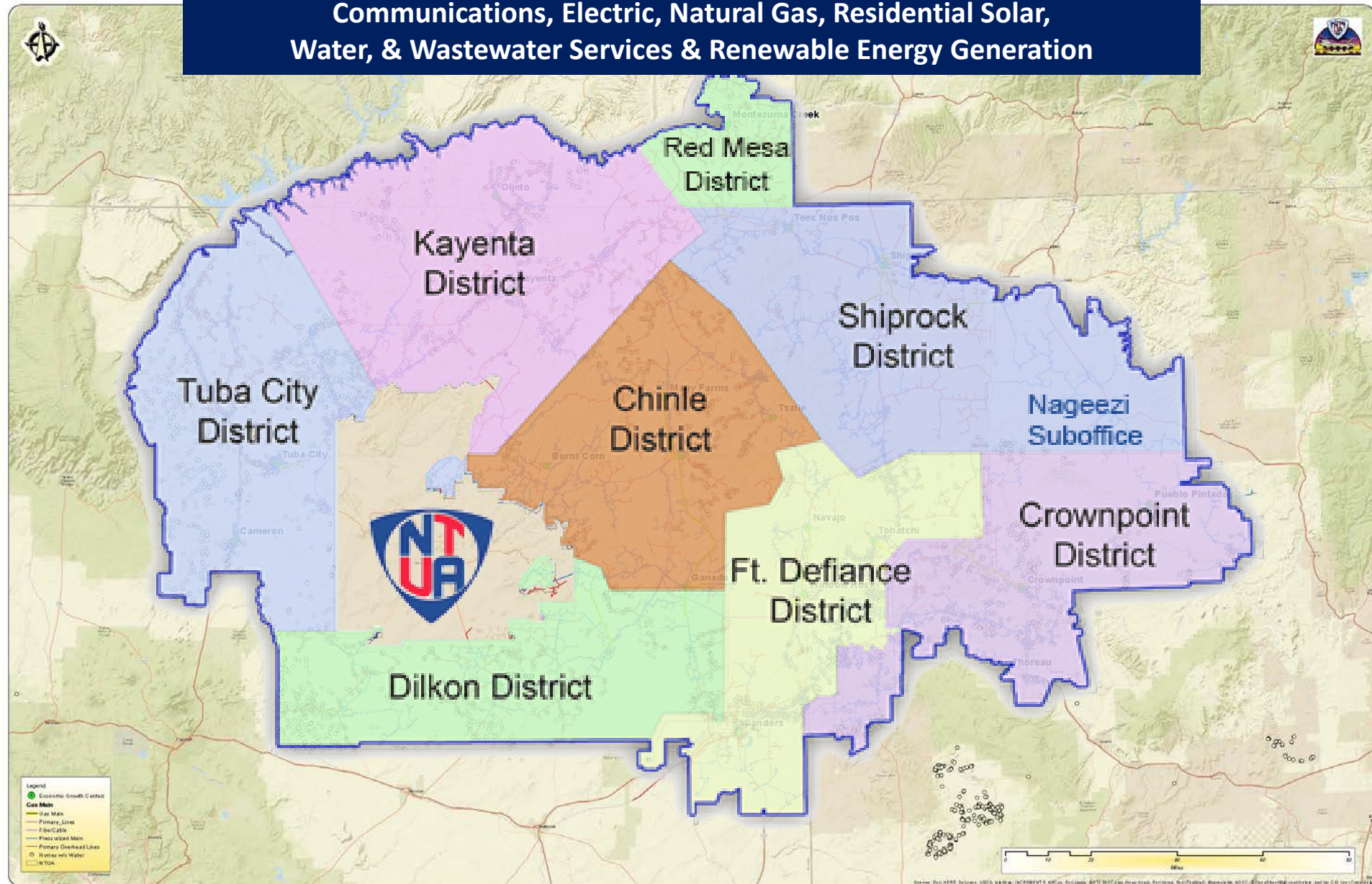
Navajo Tribal Utility Authority

- Created in 1959
- A not-for-profit enterprise of the Navajo Nation
- Service Territory – 27,000 square miles across the Navajo Nation
- Extends – Electricity, Water, Wastewater Treatment, Natural Gas, Off-grid Residential Solar
- Recent years: Communications – Broadband/Internet & Mobile Phones Data Storage Services, and Solar Energy Generation



NTUA Utilities Service Area

Communications, Electric, Natural Gas, Residential Solar,
Water, & Wastewater Services & Renewable Energy Generation



Navajo Nation – Southwest USA

- Territory larger than State of West Virginia
- Out of approximately 400,000 Navajo citizens, about 186,500 live on the Navajo Nation
- Unemployment rate over 50%
(9 times current U.S. average)
- 34% of Navajo people live below poverty line
- Average per capita income - \$10,695
(U.S. Average - \$48,377)



32% lack electricity

40% lack water

86% lack natural gas

31% of all Navajo homes lack plumbing

60% lack landline phone services





There are still approximately 13,500 families that still do not have basic access to electricity

Refrigeration of fresh food is a constant challenge



Thousands of families haul water at least three times a week – often driving more than 20 miles one way

Without water connections - outhouses are very common throughout the region



Thousands more rely on chopped wood and coal for heating and cooking

Heavy winters from November - April

Elevation on Navajo is 6,000 to 7,000 feet

Real Cost of NTUA Electric Service

Per Residential Customers	
Average Yearly Revenue - 2021	\$ 837.98
Average Monthly Revenue - 2021	69.83
Average Yearly kWh - 2021	6,101
Average Monthly kWh - 2021	508
Cost per Kwh	0.137



NTUA net margin on this sale is 5% or \$41.90

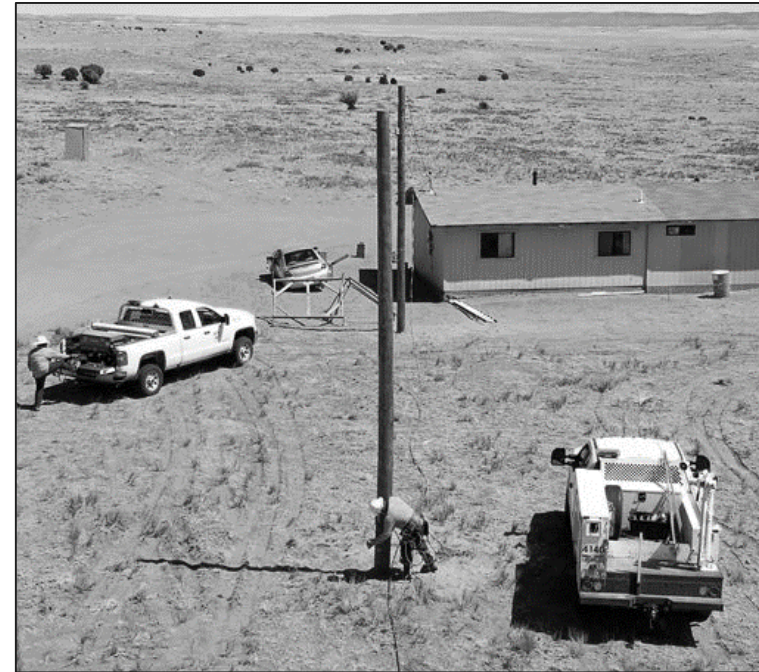
Each family receives a \$1,500 credit on the cost of connecting their home to the electric grid

Cost to pay off the \$1,500 is over 40 years which is longer than depreciated life of equipment

In the last several years - the average cost to connect one family - \$40,000

- Approximately 13,500 families are without electricity @ \$40k per home = \$540 million
- \$350 million for transmission lines and electric substations
- \$108 million for House wiring

\$998 million to \$1.0 Billion to connect all 13,500 families



To connect all families in 10 years with borrowed money from USDA over 40 years - @ zero interest rate - the average annual NTUA residential bill - will go from **\$837.98 per year to over \$6,000 per year**



15-year Residential Electric Connections – 7,405 families

Year	Families
2022	475
2021	446
2020	811
2019	460
2018	335
2017	409
2016	322
2015	256
2014	308
2013	407
2012	509
2011	782
2010	748
2009	677
2008	460



Reduced need of unserved families to approximately 13,500 homes w/o power

While keeping electric rates affordable with no rate increase in 15 years

Mutual Aid People Helping People



Overall Summation – Light Up Navajo Initiative & Mutual Aid Training Program

Campaign	Power Line Extensions	No. of Families Connected	# of Volunteers	# of Visiting Utilities # of States	Miles of Power Line
LUN I – Pilot Project	Spring/Summer 2019	233	138	28 from 13 states	58.35
LADWP Mutual Aid Training	Fall of 2021	80	65	1 from CA	16.03
LUN III	Spring/Summer 2022	137	69	14 from 10 states	25.02
LADWP Mutual Aid Training	Fall of 2022	53	103	1 from CA	18.05
	Subtotal	503	375	44 from 15 states	117.45
Campaign	Power Line Extensions	No. of Families Connected	# of Volunteers		
LUN IV	Spring/Summer 2023	159	176	26 from 16 states	51.68
	Overall Total	662	551	70 from 19 states	169.13
Campaign	House wiring and/or Meter loops	No. of Installations Completed	# of Volunteers		
LADWP Mutual Aid	Fall of 2022	62	30	1 from CA	

**Total Number of Navajo Families benefitting - 662
Homes connected & 62 had House wiring and/or Meter loops installed**



2019 LUN Volunteers Represented 13 States



138 Volunteers traveled from 28 communities across the United States of America and connect the homes of 233 Navajo families to the Electric Grid

Light Up Navajo III – April to June 2022



14 - Utilities

10 - States

69 - Volunteer
Line workers

137 - Navajo
homes connected
to the electric
grid for the very
1st time





2021 Mutual Aid Training – Navajo Nation November – December 2021

65 LADWP volunteers
80 homes connected to the electric grid
28 Navajo communities



2022 MUTUAL AID TRAINING PARTNERSHIP

Started – Tuesday, Sept 27th Ended – Saturday, December 17th

Overall Total

House wiring 15 homes

Meter Loops installed 47 homes

Homes connected to the Grid 53 homes

Miles of Power Line built 19.13 miles

Number of Volunteers 103 individuals



Light Up Navajo IV - 2023

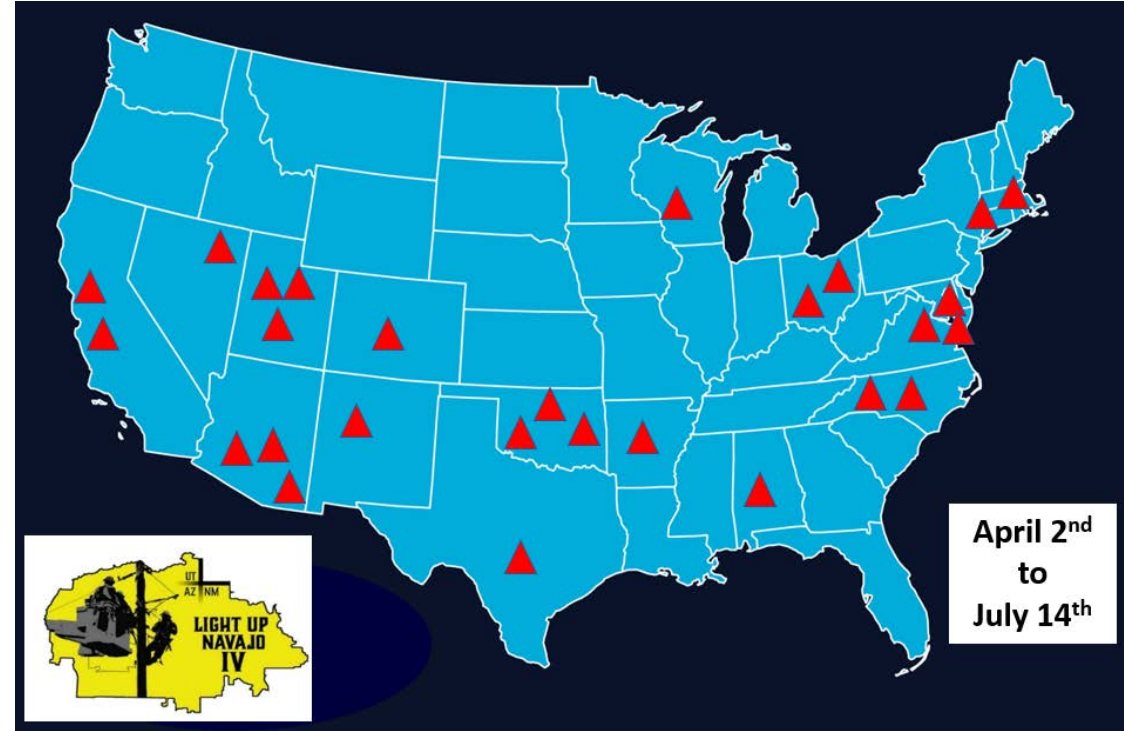
26 - Utilities

- Arizona Public Service - AZ
- Austin Energy - TX
- Central Wisconsin Electric Co-Op - WI
- City of Newark - DE
- City of Troy - AL
- City of Westerville - OH
- Conway Corporation - AR
- Delta-Montrose Electric Association - CO
- Edmond Electric - OK
- Fayetteville Public Utilities - NC
- Grand River Dam Authority - OK
- Greenville Utilities - NC
- Hamilton Utilities - OH
- Lehi City - UT
- Littleton Electric Light & Water - MA
- Murray City Power - UT
- North Central Tech - WI
- Norwich Public Utilities - CT
- Public Service Company of NM
- Roseville Electric Utility - CA
- Sacramento Municipal Utilities District - CA
- Salt River Project - AZ
- Spanish Fork Power & Light - UT
- Town of Smyrna - DE
- Trico Electric Cooperative, Inc. - AZ
- Wells Rural Electric Co-op - NV

16 - States

- Alabama
- Arizona
- Arkansas
- California
- Colorado
- Connecticut
- Delaware
- Massachusetts
- Nevada
- New Mexico
- North Carolina
- Ohio
- Oklahoma
- Utah
- Texas
- Wisconsin

159 Homes Connected
176 Volunteers
51.68 miles of Powerline



Updated
07/28/2023

*Subject to change

2024 Light Up Navajo V - Utility Crew Schedule

Dates	Crew 1	Crew 2	Crew 3	Crew 4
Week 01 Sunday, April 7, 2024	Open	Open	Open	Open
Week 02 Sunday, April 14, 2024	Open	Open	Open	Open
Week 03 Sunday, April 21, 2024	Open	Open	Open	Open
Week 04 Sunday, April 28, 2024	Open	Open	Open	Open
Week 05 Sunday, May 5, 2024	Open	Open	Open	Open
Week 06 Sunday, May 12, 2024	Open	Open	Open	Open
Week 07 Sunday, May 19, 2024	Open	Open	Open	Open
Memorial Week Sunday, May 26, 2024				

Dates	Crew 1	Crew 2	Crew 3	Crew 4
Week 08 Sunday, June 2, 2024	Fayetteville Public Works Commission (North Carolina)	Fayetteville Public Works Commission (North Carolina)	Open	Open
Week 09 Sunday, June 9, 2024	Fayetteville Public Works Commission (North Carolina)	Fayetteville Public Works Commission (North Carolina)	Open	Open
Week 10 Sunday, June 16, 2024	Open	Open	Open	Open
Week 11 Sunday, June 23, 2024	Open	Open	Open	Open
4th of July Sunday, June 30, 2024				
Week 12 Sunday, July 7, 2024	Open	Open	Open	Open

Starting
April 7, 2024

Ending
July 13, 2024

- DEMEC (Delaware) Confirmed – pending confirmation of dates/week.



Questions?



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