

Nez Perce Solar and Energy Initiative



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OUR MISSION

Climate Change and
Energy developments

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RevoluSUN and
Pre-construction
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Department of Energy
Development (Future)

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PROJECT GOALS and OUTCOME

Resilience through Energy
Independence
Energy cost reduction
Provide renewable energy

06

INDUSTRY

Women of Solar
Workforce Development

OUR MISSION

Climate Change and Energy
Subcommittee formulation Spring
2019

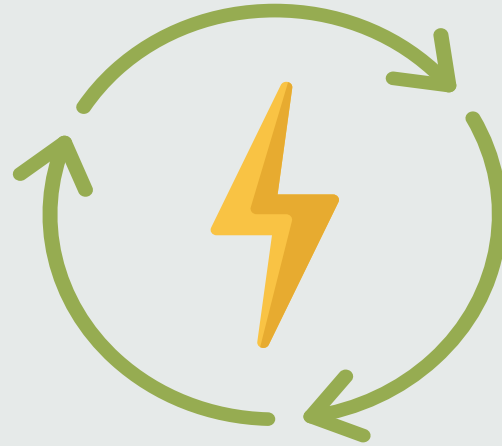
Serves to address climate change and natural resource issues, promote eco-justice, mitigation strategies, energy consumption, energy developments, environmental health, workforce development, and all efforts to take the Tribe to being greener, utilizing sustainable methodology and having sustainable solutions for and on behalf of the Nez Perce Tribe.



HISTORY

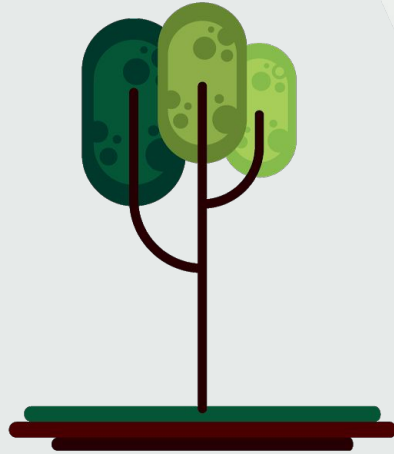
Council decision to invest into Renewable Energy and Workforce Development ...

- ★ Resolution passed out of Climate Change and Energy Subcommittee to full (NPTEC)Nez Perce Tribe Executive Committee ratifying meeting.
- ★ Beginning of our Solar Journey to Energy Independence.



Purpose

Seeking true sustainability and resiliency by becoming energy independent through the deployment of solar power and storage through manufacture of light commercial and residential scale systems:



- ★ Create Workforce Training and Development for Tribal members in all facets of renewable energy education to include: Service Learning Model
 - design
 - engineering
 - installations of solar panels and energy storage
- ★ Promote Renewable Energy
- ★ Partnership and Collaboration effort to offset the usage of hydropower



ABOUT THE PROJECT

STEPS TAKEN

NPT Energy Initiative (Passed and approved Solar Resolution to enter into a Power Purchase Agreement with RevoluSUN LLC, Cleaner, Smarter Energy to develop Solar Energy Systems)

1. Mini Micro-grid creation
2. Budget based on design and cost (Matches Purpose)
3. Identify funding source, go over utility billing
4. Begin to Pre-construction, requirements and start date

Mini Micro-grid, Solar System Creation


Three sites selected for initial deployment of photovoltaic solar (PV) arrays have easily accessible rooftops allowing for rapid solar arrays and totally 307kW and 778 panels of installed PV

★ Sites

- Administration Building and
- Community Center
- Waste-Water Treatment Plant
- Boys and Girls Club Building



BUDGET

 **1,437,384.00**



Power Purchase Agreement (PPA) Total

\$1,437,384.00



PERMITS

\$



MATERIALS

\$



EMPLOYEES

\$267,459.00

Funding Sources

- ★ Cares funding was utilized for this project
- ★ Grants are available through state, federal, and organizations like grid alternatives and other
- ★ Investors and loan options

MAIN REQUIREMENTS



TERO Compliance and
Pre-construction meeting, Tribal
recruitment

REQUIREMENT 1



Revolusun req, utility agreements,
ordering, final assessments

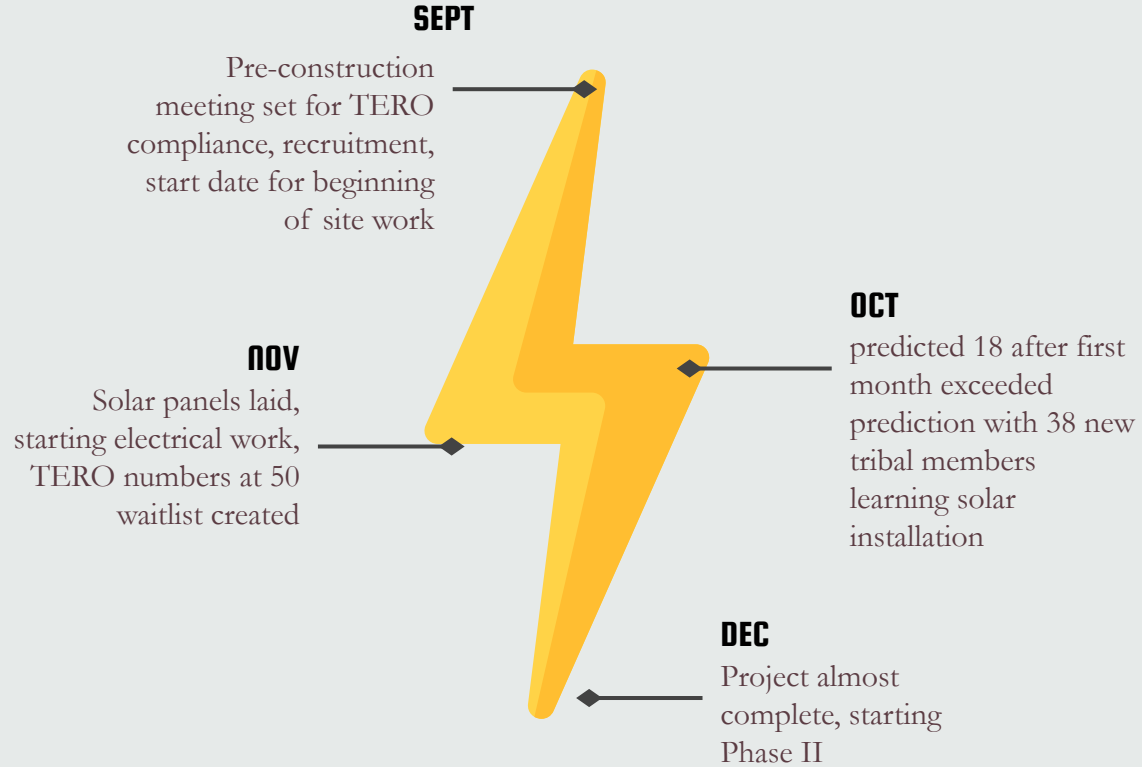
REQUIREMENT 2



sub-contract for electrical work

REQUIREMENT 3

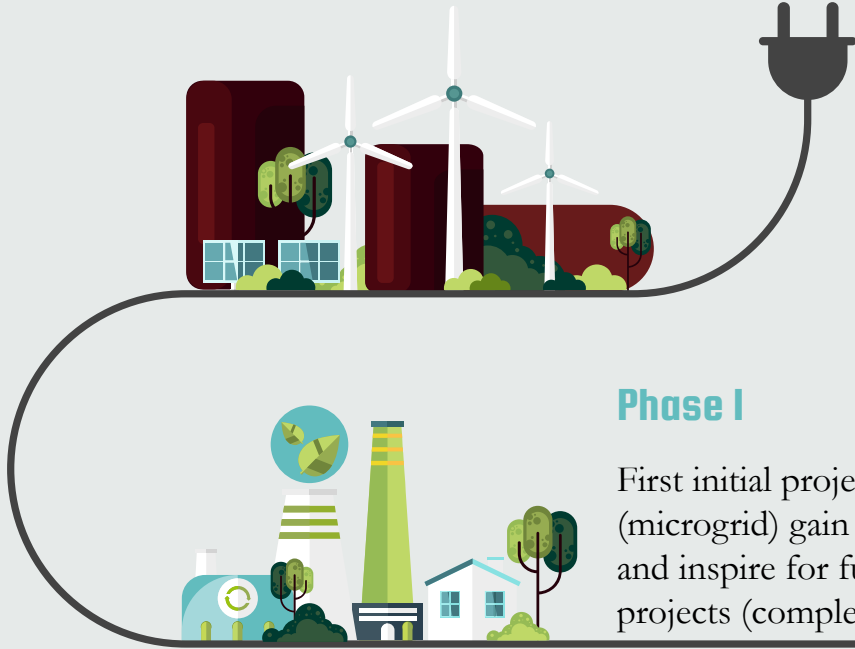
TIMELINE



PROJECT STAGES

Phase 2

Develop Net Zero Comprehensive document to help the tribe with mitigation strategies and action steps



Future Development


Develop (Nez Perce Eenergy) Dept of Energy to maintain future projects, continue workforce, training and development

Phase I

First initial project (microgrid) gain support and inspire for future projects (complete)


PROJECT GOALS and OUTCOME


lmtribune.com



Tribe steps into solar age

Nez Perce Tribe flips switch on 770 solar panels, the first step in its effort to fight climate change, move toward energy independence

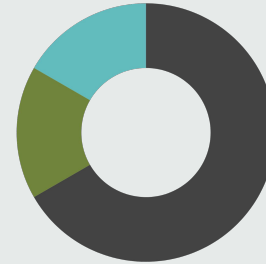
By Eric Barker Of the Tribune 7 hrs ago  1 of 4



Casey Mitchell, the vice chairman of the Nez Perce Tribal Executive Committee and the chairman of the climate change and energy subcommittee, officially flips the switch to turn on the solar panels atop the Pi-Nee-Waus Community Center during a ceremony Wednesday afternoon in Lapwai.

Pete Caster/Tribune

2020 energy cost

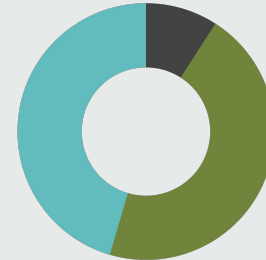


Admin/PNW
\$5,020.63

WWTP
\$4,185

BGC
\$1,550

2021 Reduced energy cost



Adm/PNW

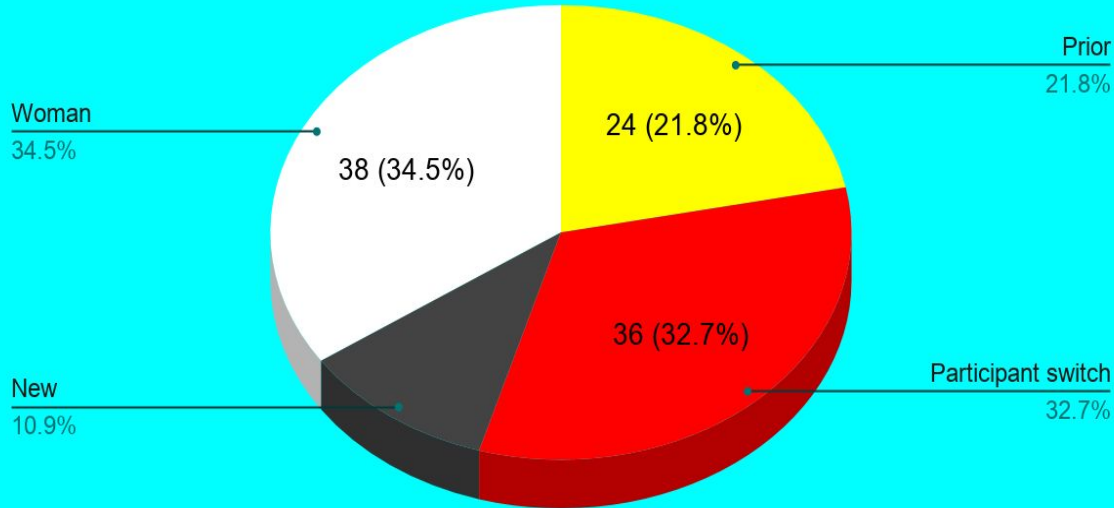
WWTP

BGC

Continue collection of data to get a true accounting of reduction and storage amounts

Employment

Tribal Rights Employment Office (TERO) Totals



1. How many were new participants? 35, only one had solar experience
2. How many were women? 8
3. How many are on the TERO waitlist? 16

Still collecting data from program...

Women of Solar

Justice, Equality, Diversity, Inclusion

★ We added 8 Women to the Solar industry with this first project...



Public Law 102-477 and Certification

INDIAN EMPLOYMENT, TRAINING, AND RELATED SERVICES DEMONSTRATION ACT

What are some advantages a Tribe obtains by implementing a 477 program? Tribes participating in Public Law 102-477 have reported several advantages, including:

- ★ Improved client services:

Increasing the number of clients they serve, and improved outcomes for clients.

- ★ Better utilization of program staff:

Counseling staff can serve clients based on client needs, not based on where the money for their salaries originates. Line staff can focus on providing services to all clients who need them.

How our 477 Program helped our Solar Installers and increased participant numbers to our program.

- ★ Education, Employment, Training and Supportive Services activities are used to reduce barriers and enable eligible participants to work towards achieving self sufficiency. It also supports job creation and provides opportunities

- ★ 26 new participants

Solar Training & Certification

Course Progress

Solar Business and Technical Sales Certificate - SEI

Total Tuition (Excludes Exam Fees): \$4,854.00

CLASS:	DURATION:	TUITION:
OSHA 10-HR: GENERAL CONSTRUCTION OSHA EDUCATION CENTER*	10 HRS	\$79.00
PVOL101: SOLAR TRAINING –SOLAR ELECTRIC DESIGN AND INSTALLATION (GRID-DIRECT) – ONLINE	6 WKS	\$845.00
PVOL202: SOLAR TRAINING - ADVANCED PV SYSTEM DESIGN AND THE NEC (GRID-DIRECT) – ONLINE	6 WKS	\$845.00
PV201L: SOLAR TRAINING - SOLAR ELECTRIC LAB WEEK (GRID-DIRECT)	5 DAYS	\$1,595.00
PVOL206: SOLAR TRAINING - SOLAR BUSINESS AND TECHNICAL SALES – ONLINE	6 WKS/60 HRS	\$845.00
PVOL203: SOLAR TRAINING – PV SYSTEM FUNDAMENTALS (BATTERY-BASED) – ONLINE	6 WKS/40 HRS	\$645.00
EXAM:		FEES:
NABCEP* PV TECHNICAL SALES (PVTS): REQUIRES SALES PROPOSALS & OSHA 10.		
-APPLICATION		\$125.00
-EXAM		\$375.00
-DOCUMENT PLACEMENT		\$25.00

OSHA 10 and RE 100 are completed for all current indigenous solar employees. On the job training is continuing for installation, sales, service, and maintenance.

- ★ We are creating a training program for National Board of Certified Energy Practitioner (NABCEP) Solar Certification for continuing education. Working with Lewis Clark State College Workforce Training and Development and creating a specialized curriculum, career pathway.
- ★ Also working with the Bonneville Environmental Foundation for K-12 renewables education that will also utilize the career pathway into solar and energy coaching curriculum.

Green Economy



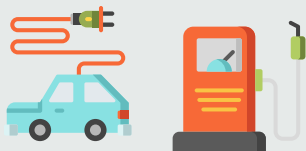
70%

New Wind/Solar to make up 70 % US generating capacity in 2021.

Connecting of projects and agriculture ie...wine, hemp, infrastructure

5311

Dam removal or breaching goal



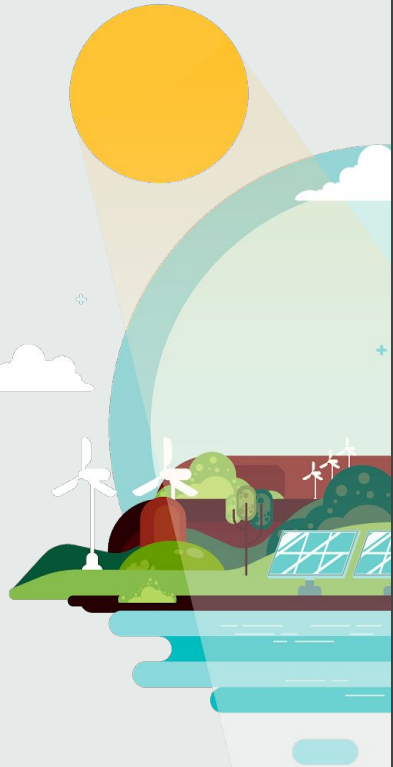
50%

Less fuel consumption transition to electrification

Dive Brief

- ★ Battery storage capacity is set to quadruple over the next year, according to the U.S. Energy Information Administration (EIA) expected to add 4.3 GW
- ★ 2/3 of new Solar projects are now built in tandem with energy storage like ours
- ★ At the current rate wind, solar and storage could overtake conventional technology as the leading source of generation by the early 2030's according to Wood Mackenzie principle analyst Robert Whaley

Solar Systems



What happens when Partnership
and Collaboration come
together.....

Solar System Success

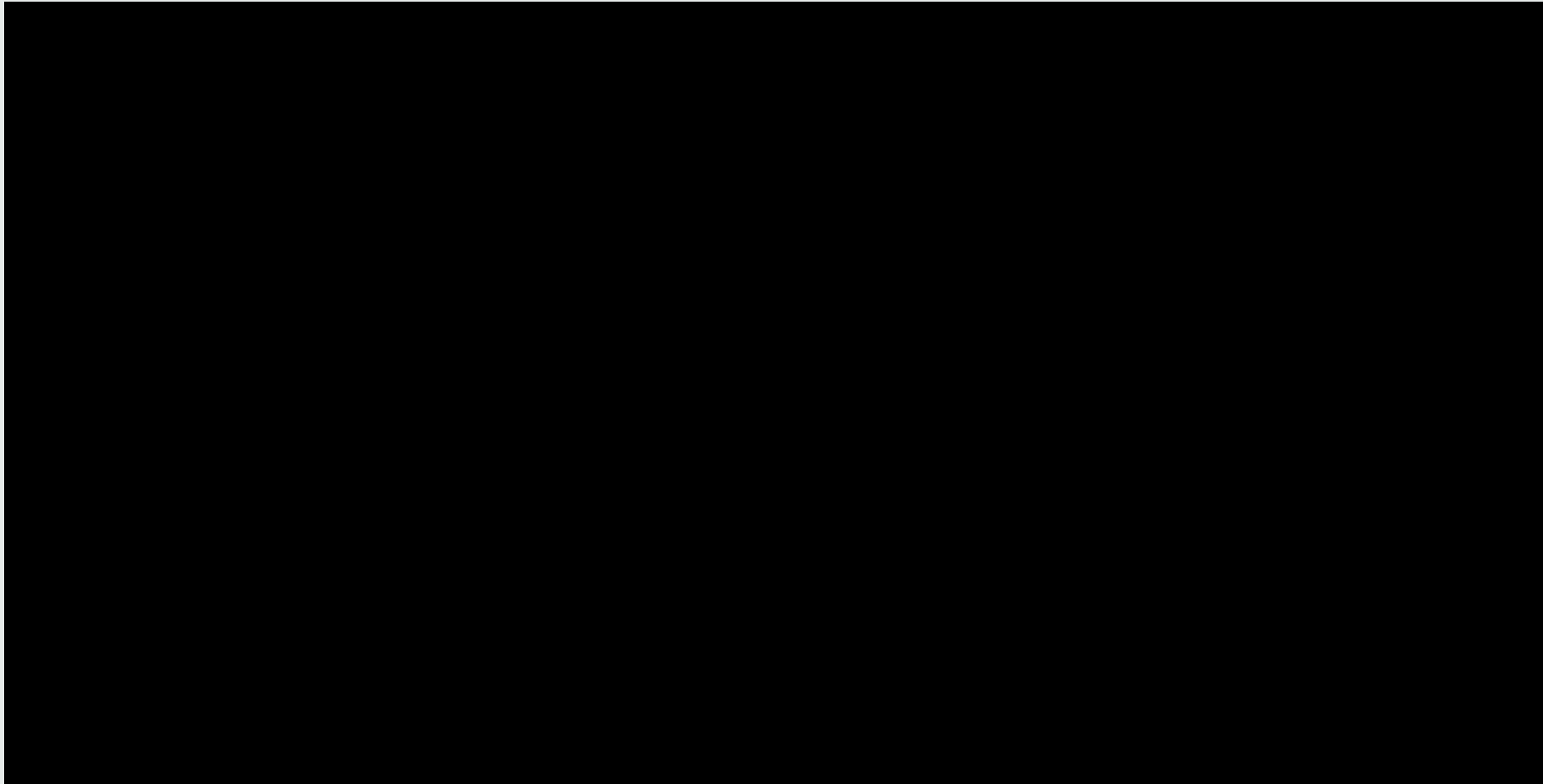
Our Solar Army created the Foundation:

- Service Learning (Utilized)
- Tribal Resilience (Created)
- Dam removal or breaching (Promoted)
- Salmon Recovery (Promoted)
- Eco-tourism (Promoted)
- Green Economy (Promoted)





A Mega finish...



WHAT WE ARE WORKING ON NOW



SOLAR PROJECTS

- ★ Enterprise - Casino, Golf Course
- ★ Fisheries - Cherrylane, Hatchery, Joseph, OR offices

STRAWBALE HOUSING PROJECT

Community Rebuilds Partnership
STEM education and building
workforce training and
development



REDUCED CO2 EMISSIONS

The 2016 dam removal or breaching number from BPA is 5311 MW of solar and constitutes to 2.14 Million Solar Panels installed.

DOING OUR PART

- ★ Net Zero Energy Efficiency plans currently being developed
- ★ Nez Perce Energy Dept creation (sustain future growth)
- ★ Build partnerships and Expand

CREDITS

Thank you to the ones who were apart of this project.

Nez Perce Tribe
Nez Perce Executive Committee
NPT Cares Committee
RevoluSUN LLC
Mezia Creative Media
Stefanie Krantz, Climate Change
Coordinator
Darren Williams, OLC
McCoy Oatman, Former NPTEC
Rich Ramsey, Maintenance
Jesse Leighton, Interim Executive
Director
Dr. Dave Burica and Ingrid Burica

Solar Indigenous Installers

Basil George
Dayne Goodheart
Naomi Holt
Scott Miller
Robin Black Eagle
Michelle Penney
Hali Bizbee
Kim Williams
Koyama Young
Nickles Two Moons
Vernon Holt
Alesandro Domebo
Pox Young
Win Laprairie
Louis Reuben
Maynard Wilson

Solar Indigenous Installers

Davis Bear
Henry Martin
Jesse Elwell
Cameron Shawl
Nathan Moose
Allen Pinkham
Jerri Johnson
Michael Fox
Jeremiah Bursch
Juan Contreras
Isaac Lawrence
Leland Allen
Davis Eneas
Robert Mitchell
Reuben Padilla
Titus Oatman
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Jalon Greene
Jordan Wheeler



Chantel L. Greene

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THANK YOU

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Follow the project updates



RESOURCES

- <http://www.indianaffairs.gov/WhoWeAre/BIA/OIS/DWD/index.htm>
- Guidance - Public Law 102-477 Financial Reporting Functional Cost Categories
- utilitydive.com
- <https://thebossmagazine.com/women-in-energy/>
- local8news.com
- kivitv.com