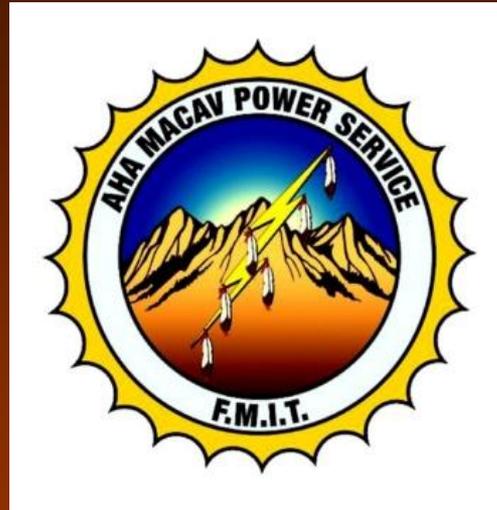


Aha Macav Power Service

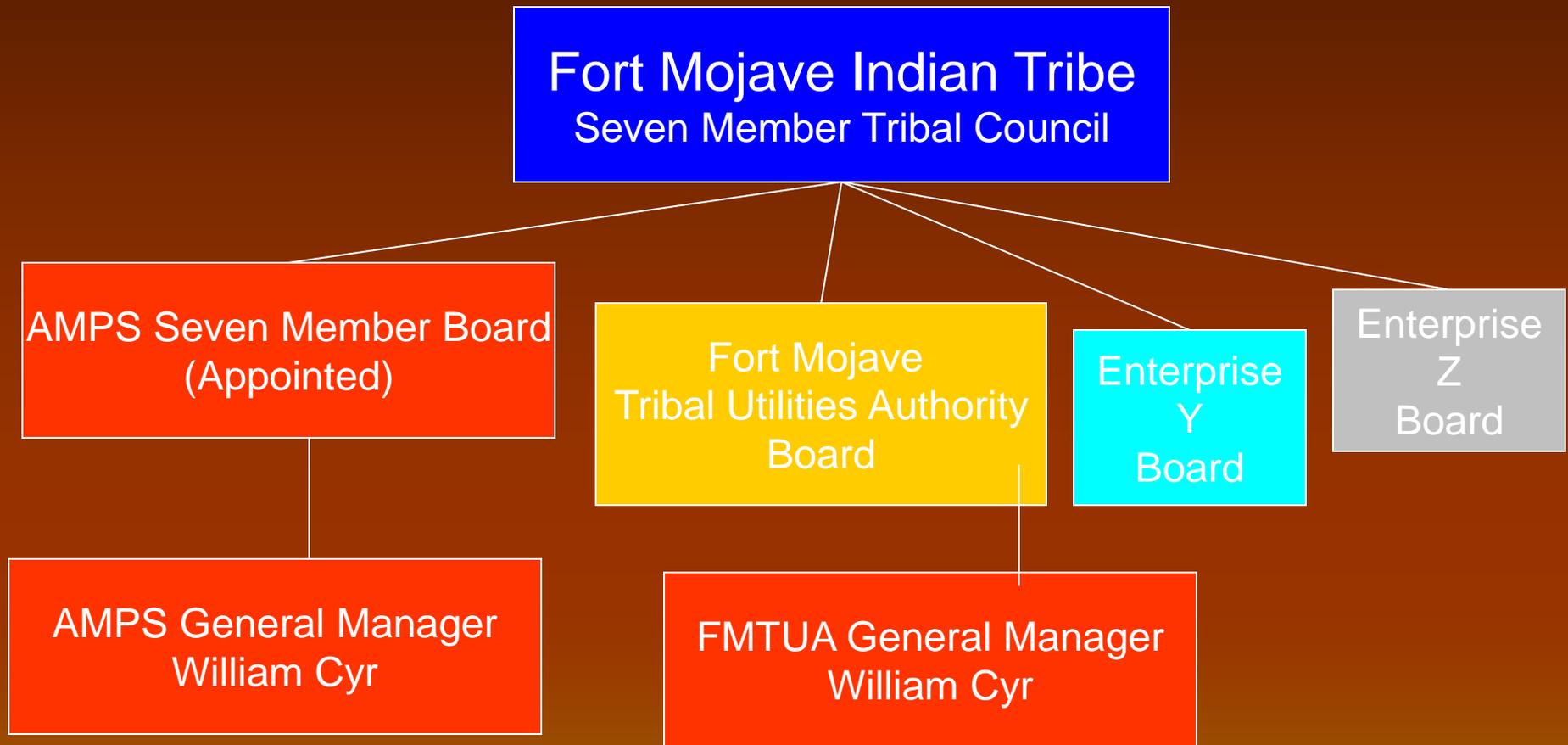


Electric Utility Enterprise Owned and Operated By
Fort Mojave Indian Tribe

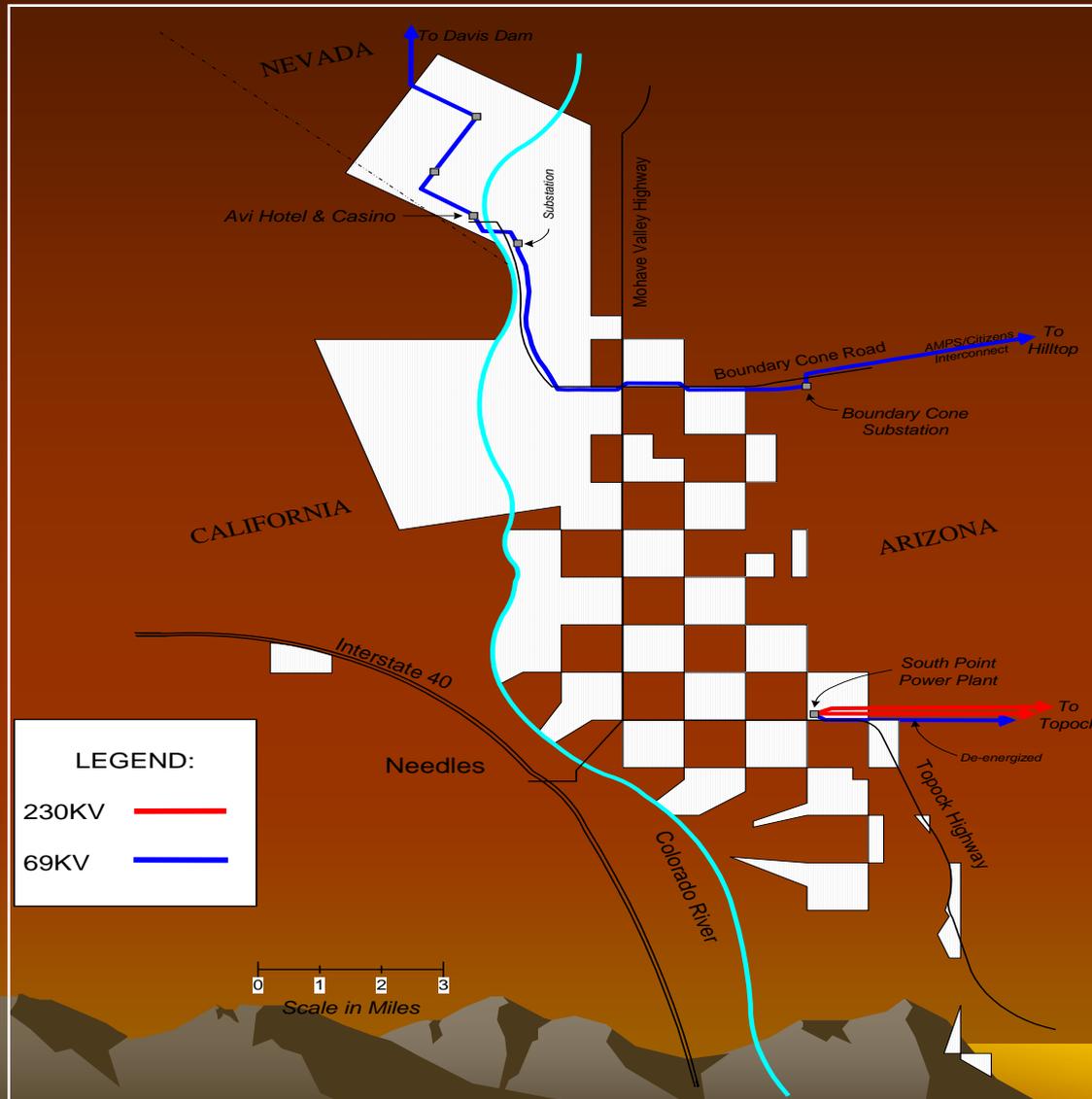
Renewable Energy and Efficiency for Tribal Community Development
Forest County Potaw7omi bingo Casino
August 7, 2012
Milwaukee Workshop
Tribal Energy Program
National Renewable Energy Laboratory

AMPS Formed July 1991

Structure



The Fort Mojave Lands



Impetus For Developing AMPS

1. Tribal Vision for Self Sufficiency --- Self Determination
2. Key Component to Attain Vision -- Nevada Casino
3. Location Proved Costly to Establish Electric Service
4. Existing Experience With Other Utilities



Impetus For Developing AMPS

Needed Infrastructure to Develop Nevada

- Electric (AMPS)
- Gas (AMPS)
- Phone Internet (FMTI)
- Roads (FMIT Roads Dept.)
- Water (FMTUA)
- Sewer (FMTUA)
- Bridge
- Fire Protection
- Police Protection

AMPS Was Formed to Establish Electric Service in Nevada

Options Considered

- Self Generation (reliability cost)
- Nevada Power --- too Costly
- Needles Electric ----- Not in Service Territory
- Mohave Electric Cooperative --- Both
- Charter for AMPS Formation 1992



AMPS / FMTUA Services

- Transmission (Gas, Water, Wastewater, Electric)
- Distribution (Water, Wastewater, Electric)
- Tax Collection (Gas, Water, Wastewater, Electric)
- Consulting ((Gas, Water, Wastewater, Electric, Renewable)
- Engineering Procurement Construction (Electric)
Have completed 3 EPC transmission contracts to date



AMPS Statistical Data

Distribution/Transmission

- Approximately 1000 Customers
- Peak Load 12 MW
- Largest Loads
 - Casino
 - Tribal Farm-Irrigation
 - Tribal Business
 - Area Grocery Store

AMPS Statistical Data

Distribution/Transmission/ Customer Services

- 1 -28 MVA Substation & 1-20 MVA Substation
- 30 + Miles 69 KV Transmission
- 30+ Miles 12 KV Distribution
- 45 + Miles 24 KV Distribution
- 1,000 Customers – Both Tribal and Non-Tribal



AMPS Statistical Data

Distribution/Transmission/ Customer Service

- Wheel Power to City of Needles
- Automatic meter reading system
- Serve only FMIR
- FMIR has Tribal and non-tribal residents



Difficulties Encountered

- Acquiring Assets From Incumbent
- Legal Issues -- Precedents
- Technical Expertise / Safety
- Building New Assets / Other Assets - Expensive
- Power Supply
- Financing – How Do We Pay for All This?



Financing

- Initially from Tribal General Fund
- BIA Loan
- Casino Loan
- Developer Fees for new Infrastructure
- Today costs paid through operating revenue



Legal Issues

- Internal and External Legal Expertise
- Issues related to asset acquisition
- Defined service territory (on/off reservation)
- Transmission Access
- ROW – Environmental



Assets

AMPS Experience

- Incumbent was not very helpful.
- Final resolution by court order.
- Exclusive rights to all customers on Tribal Lands

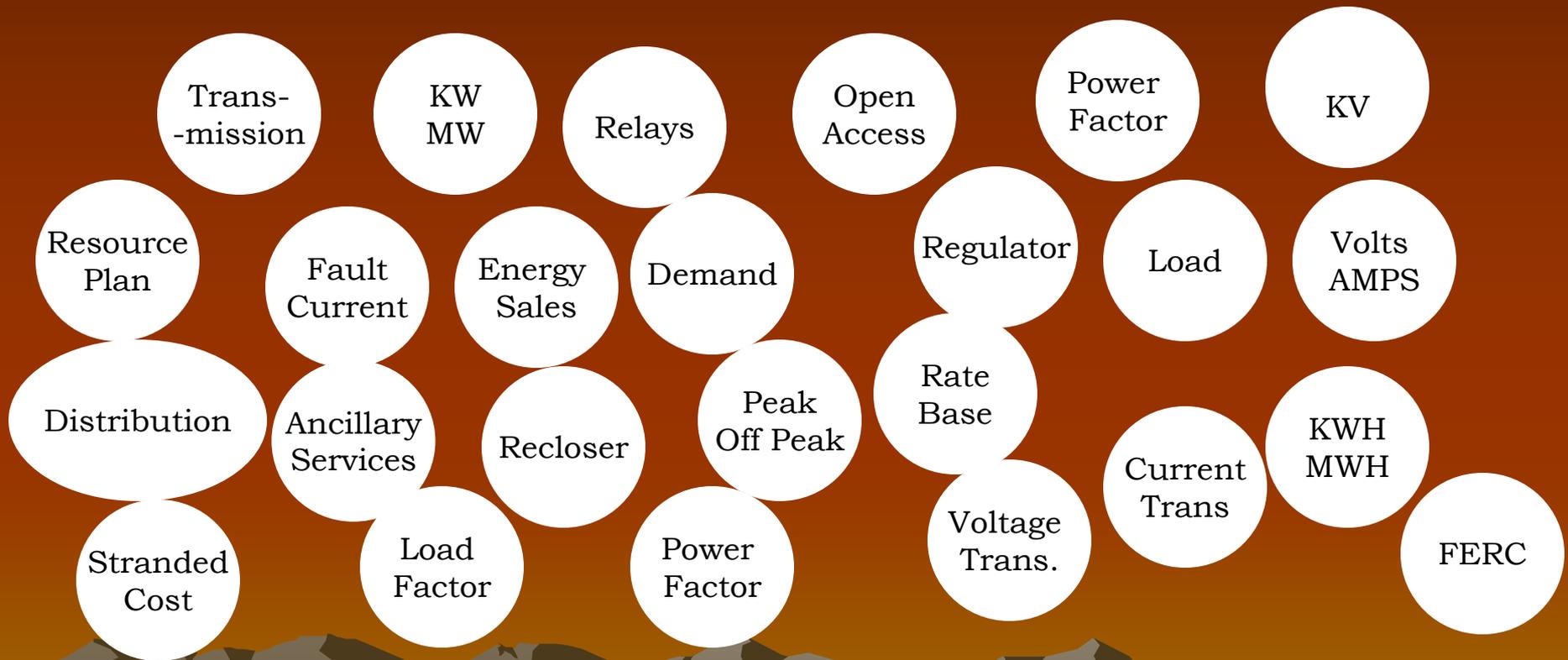


Education

Electric Industry Has Been Around for many many years

Based on Complicated Concepts – Mostly Based on Technical Issues

Success is Dependent Upon Understanding These Terms



Power Supply Related

- Hydro Allocations
- Purchased Power Contract
- Market Purchases
- Resource Scheduling Service



Other Required Assets

- Warehouse
- Customer Service
- Information Technology – Billing/Accounting
- Rolling Stock
- General Stock



Customer Service

- Billing System
- 24 Hour – outage/problem response
- Disconnect Policy
- Store Front
- Professional Courteous Service



Safety Is Number One Priority

- OSHA Requirements
- Commercial Drivers License (CDL)
- Monthly Safety Meeting
- Daily Tail Boarding
- Daily Equipment Checks



Safety Is Number One Priority

- Hard Hats
- Safety Glasses
- Fall Protection
- Boom Electrical Testing
- Rubber Gloves

• **ATTITUDE**



Personnel

- Total employee count (11)
 - 4 Linemen
 - 1 Accountant
 - 1 Cust. Service
 - 1 Engineer
 - 3 General support
 - 1 Gen. Manger



Tribal Lineman





18/01/2006



18/01/2006

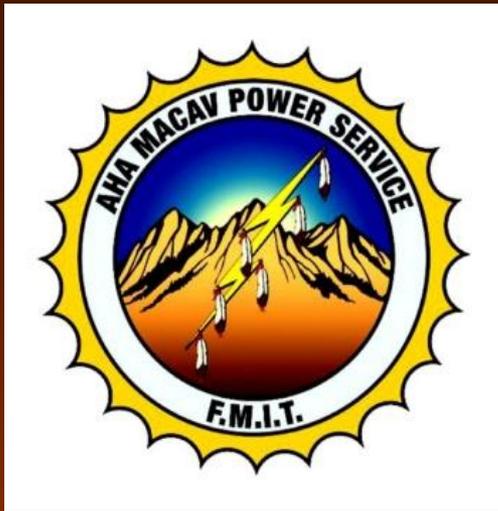


18/01/2006



18/01/2006





Questions?

William L. Cyr
General Manager
Aha Macav Power Service
(AMPS)

Bcyr@ahamacav.com

(928-607-5571)