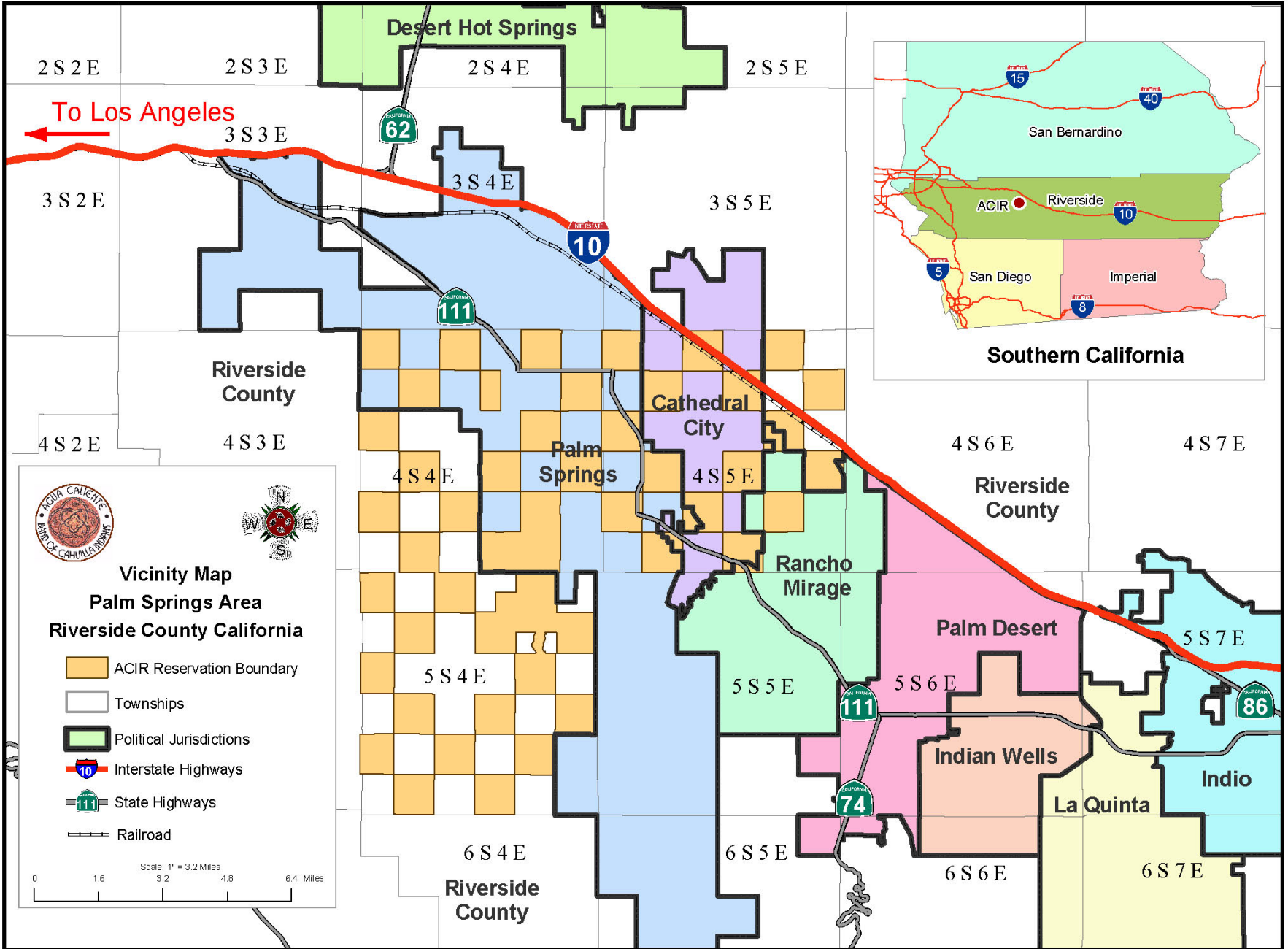




# AGUA CALIENTE BAND OF CAHUILLA INDIANS



TRADING POST OFF GRID SOLAR SYSTEM



To Los Angeles

2 S 2 E

2 S 3 E

2 S 4 E

2 S 5 E

3 S 3 E

3 S 4 E

3 S 5 E

3 S 2 E

Riverside  
County

4 S 2 E

4 S 3 E

Palm  
Springs

Cathedral  
City

4 S 6 E

4 S 7 E

Riverside  
County

4 S 4 E

4 S 5 E

Rancho  
Mirage

Palm Desert

5 S 7 E

5 S 4 E

5 S 5 E

5 S 6 E

Indian Wells

Indio

6 S 4 E

6 S 5 E

6 S 6 E

6 S 7 E

Riverside  
County

La Quinta



# Indian Canyons Trading Post

- ❑ 700sq. ft. building located 2 miles from the electrical grid
- ❑ Open 7 days a week (weekends only during summer)
- ❑ Power previously provided by an aging 15kW propane generator
- ❑ Soaring maintenance and operation costs/reliability issues
- ❑ Noisy backup trailer diesel generator put into fulltime use
- ❑ Multiple options considered in 2008
  - 2005 BIA Mineral Assessment grant
  - 2007 DOE First Steps grant





# Trading Post Solar Project

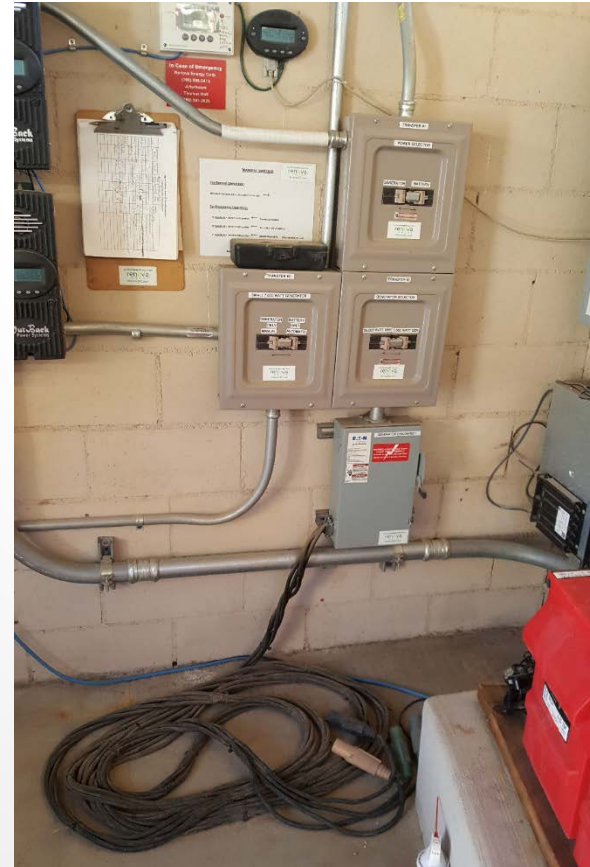
- ❑ Completed in Two Phases 2008-09
- ❑ 7.5kW backup diesel generator
- ❑ 1-2 Day Battery Backup (48V)
- ❑ 8.25kW Solar System
- ❑ 30 PV Panels
- ❑ Fully Automated





# Project Challenges/Lessons Learned

- ❑ 24/7 – 365 days/year operational requirement
- ❑ Site restrictions
- ❑ System sizing
- ❑ Limited options
- ❑ “Hands free”

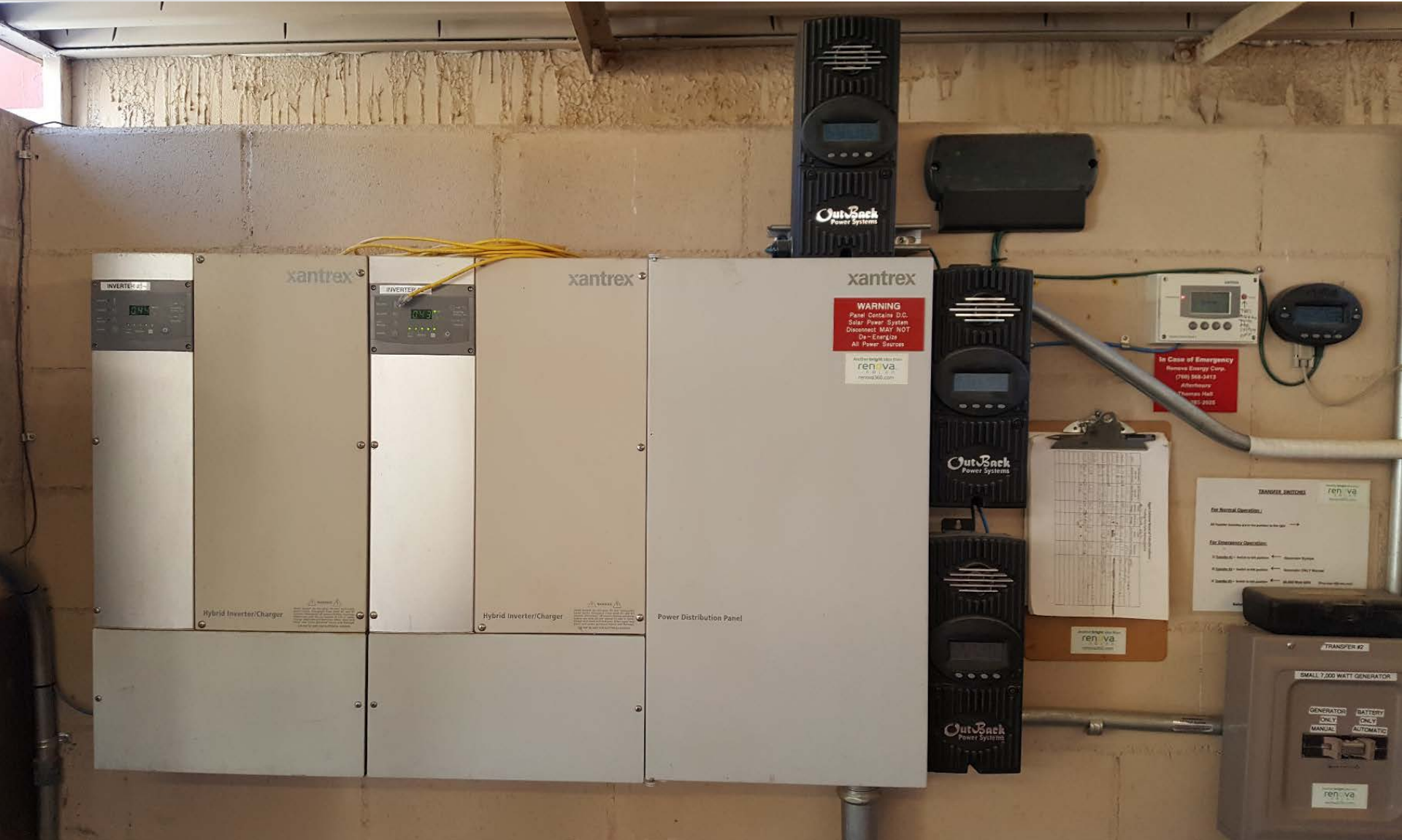


- ❑ Built-in redundancy
- ❑ Troubleshooting difficulties
- ❑ Compatibility issues

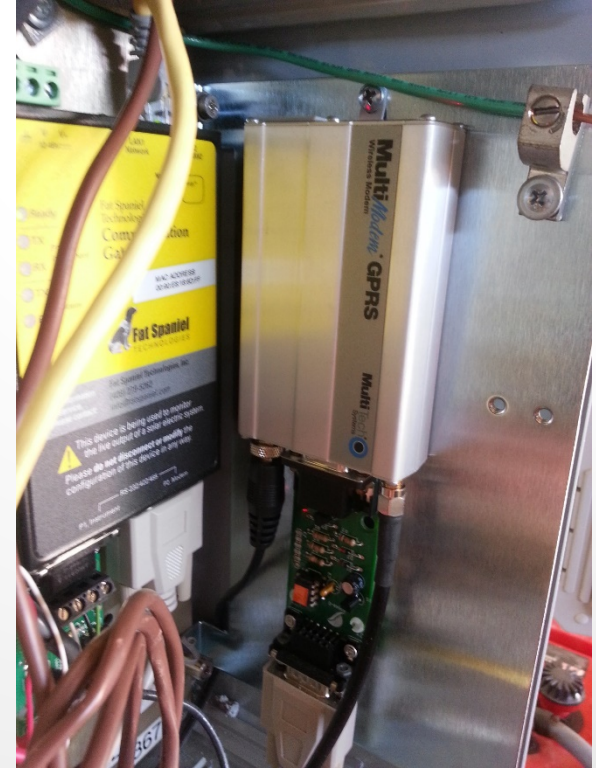
# Compatibility Issues



# Updated Charge Controllers



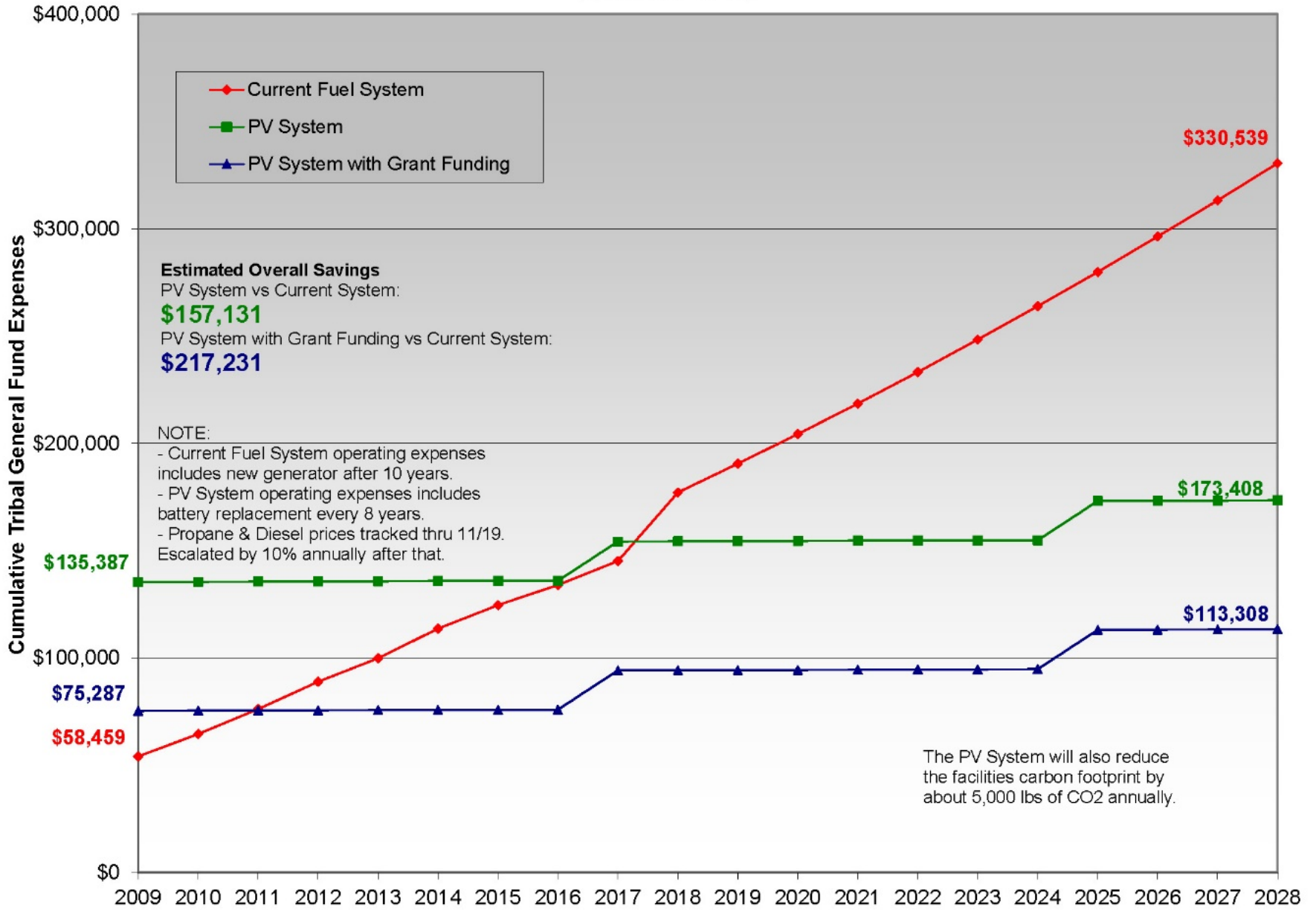
# Remote Monitoring/Cellular Internet Issues





# Trading Post Power System 20-Year Cost Comparison

(updated 11-25-19)





# Questions?

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