

Energy Upgrades for the San Pasqual Community

EPA Grant Money for Energy Resiliency

7/16/2025

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Center for
Sustainable
Energy®

What is the CPRG Program?

- Climate Pollution Reduction Grant (CPRG) hosted by US Environmental Protection Agency
- **\$5 Billion** in grants to states, local governments, tribes and territories
- Creates plans for **reducing greenhouse gas (GHG) emissions** and other pollutants
- San Pasqual & La Jolla Tribes partnered with **Center for Sustainable Energy (CSE)** in 2023
- Working with **John Flores** (San Pasqual) and **Rob Roy** (La Jolla) from the Tribal Environmental Departments



Three Main Efforts for EPA CPRG

PCAP – Priority Climate Action Plan

Established inventory of major GHG emission sources to create a suite of prioritized measures to reduce onsite pollutants.

CPRG Implementation Grant Application

Evaluated costs and feasibility of PCAP measures and identified potential energy and GHG savings for the Tribe to secure funds.

CCAP - Comprehensive Climate Action Plan

Builds on the PCAP and analysis completed for the Implementation Grant to identify additional GHG mitigation measures and provide a path forward for future projects.

Community Engagement

- Set out to learn what are the community's **clean and resilient energy needs** for both Tribal operations and in your homes
- Spoke with Tribal Council and key members of the community
- Hosted **community outreach events** at both Tribes in 2023 / 2024



Community Concerns

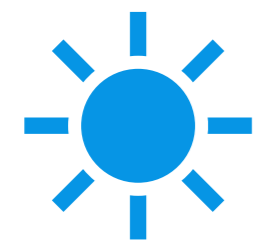


Power Outages

Need to keep lights, refrigerators (prevent spoiled food) and internet on

Medical Equipment Needs

Power for respiratory assistance equipment and other medical machines

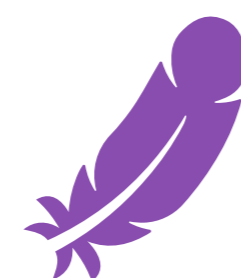
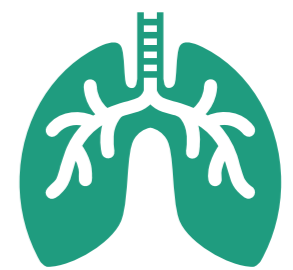


Extreme Weather

Choosing between comfort and paying high electric rates

Indoor Air Quality (IAQ)

Burning propane/fossil fuels inside of home for heating



Climate Change

Preserving natural beauty of land by fighting climate change



Addressing These Concerns

- Inventoried **GHG emissions** from vehicles, buildings, homes, wastewater treatment and miscellaneous sources
- Developed potential **reduction measures** based on data and **Tribal member input** on priorities
- Calculated projected GHG emissions **savings** based on implementation of:
 - Electric vehicles and charging stations
 - Solar + storage on buildings and homes
 - Heat pump hot water heaters
 - Heat pump mini-split heating/cooling systems
 - Energy Star certified building codes



Implementation Grant Funding Awarded!

Congratulations San Pasqual Tribe!!!

EPA awarded the full requested \$14.4M

- Special thanks to **John Flores** and his team, **community members** for providing recommendations, **Tribal Council** for supporting efforts and the team at **CSE**
- Grant money awarded in **September 2024**
- Home retrofits to start in **late 2025**



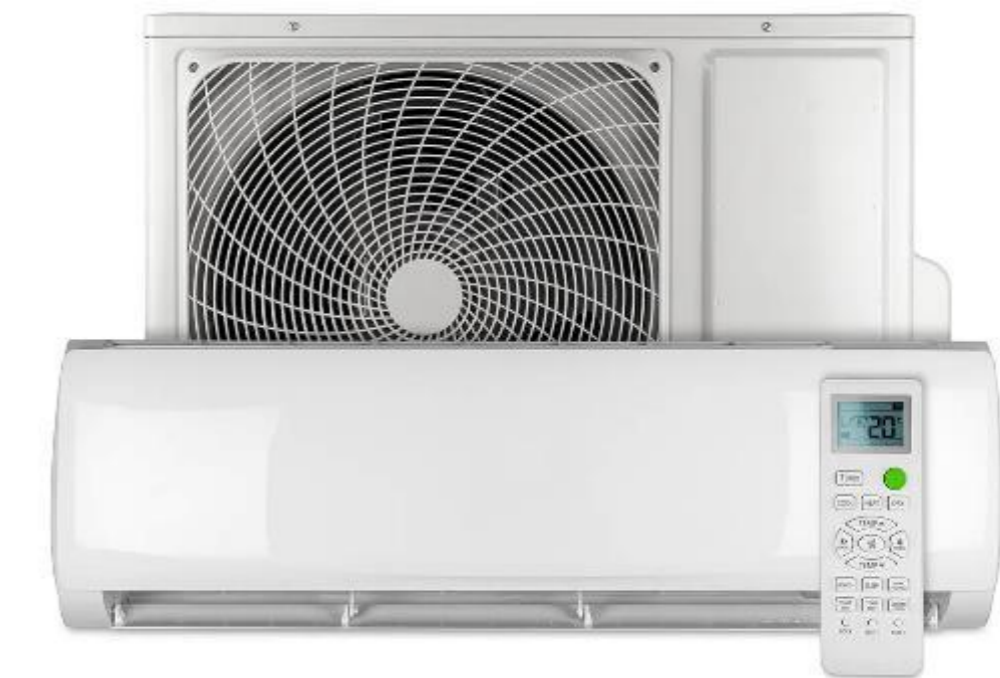
Fully Funded Technologies

Tribal Operations Measures

- 6 Electric Vehicle Charging Ports (2 DC Fast Chargers and 4 Level-2 Chargers)
- 16 New Electric Vehicles for Tribal operations

Community Measures

- ~320 Homes retrofitted with both Solar Photovoltaic (PV) + Battery Storage
- ~415 Homes retrofitted with air-source heat pump hot water heaters and mini-split heating/cooling system
- All new homes will be built to Energy Star performance standards



Residential Solar Photovoltaic (PV) + Storage

How It Works

- Electric generated during daylight hours w/ PV
- Energy is used by home or stored in battery
- Stored energy in battery is used during outages

How It Helps

- Use free and renewable energy in your home
- Power necessary appliances in your home during planned/unplanned outage
 - Essential medical equipment
 - Keep fridge on (no spoiled food)
 - Use heating/cooling during extreme temps



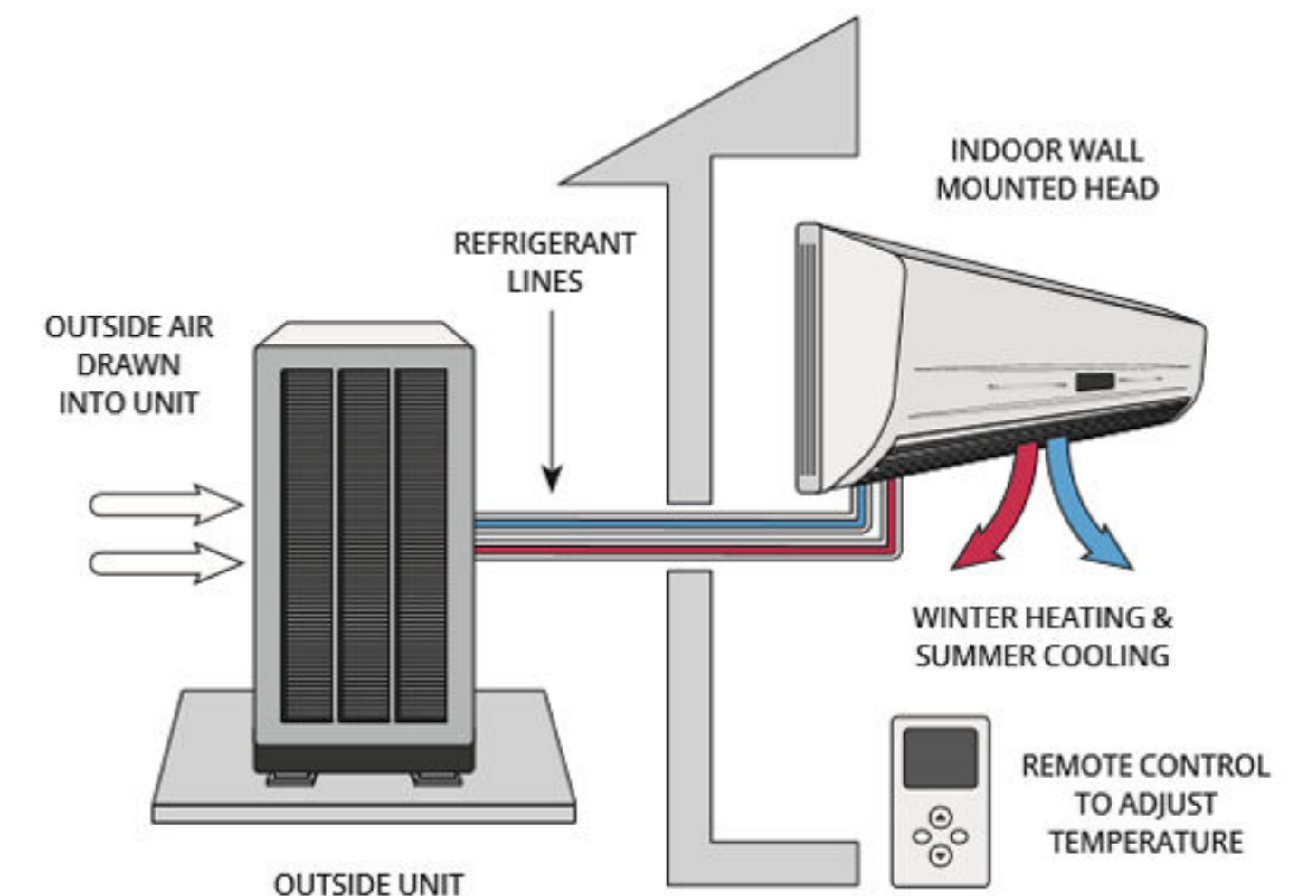
Heat Pump Heating & Cooling

How It Works

- Efficient heating/cooling system using a heat pump to move thermal energy in or out of your home
- Mini-split uses an outdoor compressor unit and indoor fan unit w/ thermostat

How It Helps

- Uses free solar power during the day (if paired w/ Solar)
- Heating/cooling during power outages
- Stay comfortable, guilt-free and cheap
- People w/ respiratory or cardio health conditions can stay comfortable during extreme temperatures



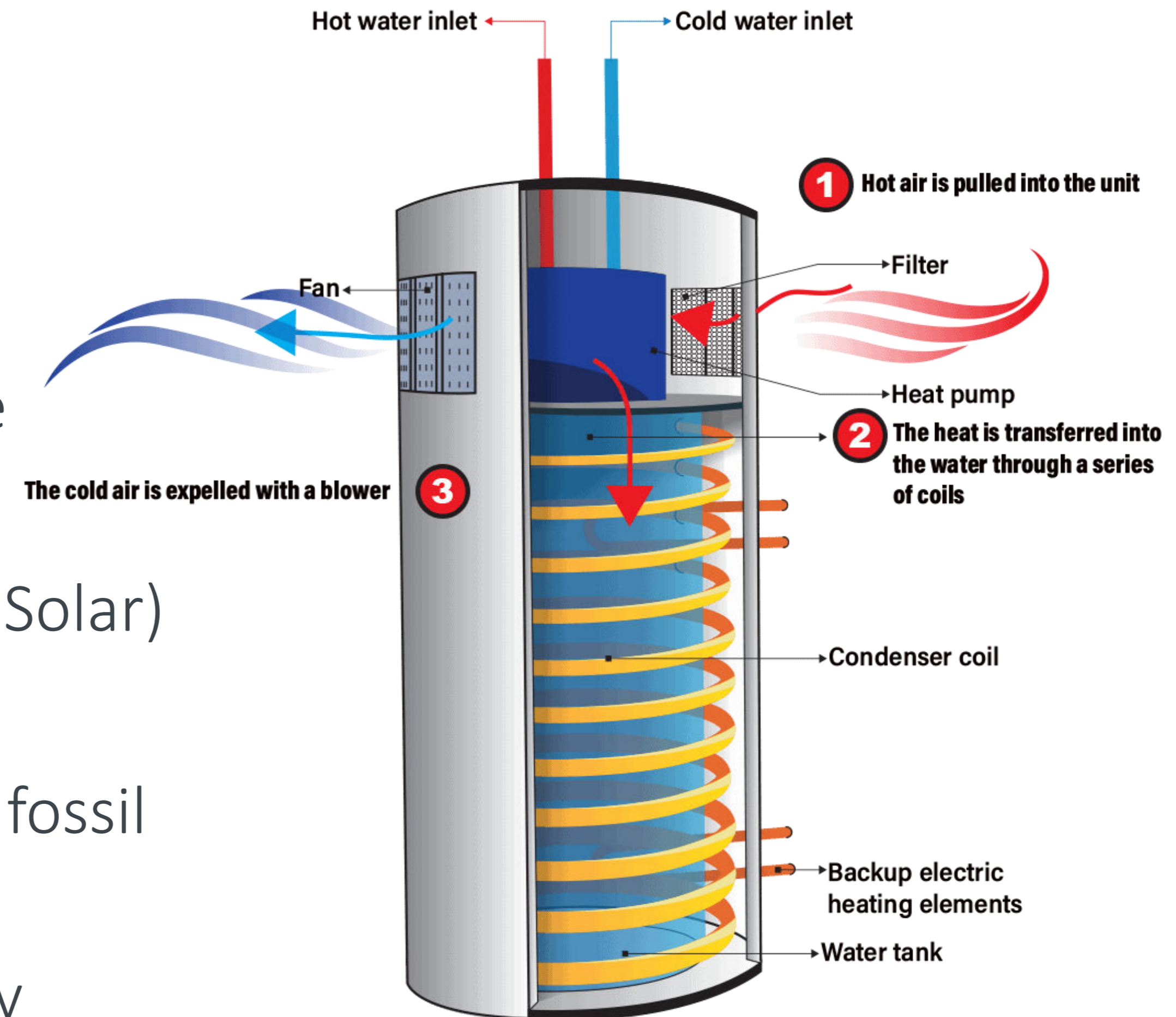
Heat Pump Water Heater

How It Works

- Heats water using ambient air w/ electric backup
- Replaces existing gas-fired water heater
- 30-50% more efficient than a gas boiler or furnace

How It Helps

- Uses free solar power during the day (if paired w/ Solar)
- Hot water during power outages
- Improve Indoor Air Quality (IAQ) with out burning fossil fuels in home
- Spend less on your hot showers, baths and laundry



Next Steps

- Joint community education/outreach events are being planned throughout 2025, details to come
- Contact **John Flores** with any questions or if you're interested in receiving a technology
- Put your name on the **sign-up list** if you're interested in participating
- The Environmental Department will partner with **trusted** contractors to conduct all installation activities
- Installation of technologies to start in **late 2025**



Questions?

Thank You!



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SanPasqualBandofMissionIndians.org

EnergyCenter.org

Implementation Grant Application Summary

- Utilized findings and measures from PCAP
- Created a ‘**Workplan**’ with installation costs, funding sources, required personnel and risks
- Calculated resulting reduction of **19,917 Metric Tons CO₂ equivalent** (MTCO₂e) from 2025 through 2050, equal to:
 - 50.9M miles driven by a gas car, *or*
 - 2,597 homes’ energy for 1 year, *or*
 - 23,254 acres of forest
- Requested **\$14,370,210** to cover all costs associated with installing measures

