1. Logistic details:

Meeting: Allensworth Community Energy Option Assessment Workshop

Meeting date: May 15, 2018

Location: Allensworth Elementary School, 3320 Young Road, Earlimart, CA 93219

2. Attendance: Approximately 45

Community members: Approximately 160

3. Presenters and presentation topics, listed in order

- Commissioner Martha Guzman-Aceves, CPUC Overview and Introduction
- Abigail Solis, Self Help Enterprises (on behalf of Pilot Team) Listening session #1: Gather community feedback on current energy conditions and needs
- Maira Salazar, Pacific Gas and Electric Company Affordable Energy Options for Allensworth, CA (Electrification Energy Options)
- Alicia Bohigian, GRID Alternatives and Hector Urlarte, Proteus Home Energy Upgrades, Battery Storage, and Community Solar: A Clean Energy Program Proposal for Allensworth
- Raul Gordillo, Southern California Gas Company Affordable Energy Options for Allensworth, CA Natural Gas Pipeline Extension Proposal
- Abigail Solis, Self-Help Enterprises (on behalf of Pilot Team) *Listening Session #2: Questions on energy options and next steps*
- Commissioner Martha Guzman Aceves, CPUC Wrap up, Q&A and next steps

Summary of Discussion Topics & Community Input in Allensworth

Accessibility of Programs and Discussion

- The Allensworth presentation was conducted in Spanish, with realtime translation services provided via headset and translator. Some discussions were in English with Spanish translation.
- Statement by long-time resident and community member:
 - Provided the historical background of how the community of Allensworth was established by Colonel Allensworth in 1908. World War II, the Great Depression, drought, and deaths ended up diminishing Allensworth. Explained the community expressed interest in natural gas many years ago, but community leaders at the time decided against natural gas because of the perceived high cost and higher taxes.

1. Overview and Introduction [CPUC]

- Statements by Commissioner Guzman-Aceves:
 - o Introduced the CPUC and the CPUC staff working on this proceeding. The CPUC's function is focused on several parts of the economy to protect California consumers and their health focusing on electricity, natural gas, telecommunications, water, rail and transportation.

 Commissioner Guzman-Aceves will propose potential projects for investments, but is going to need the support of the other Commissioners. Several steps will be required to obtain their support. She is one of five commissioners, she needs support from the other commissioners to approve one of today's proposals.
 - Purpose of the workshop is to discuss energy options so that the Allensworth community members can offer their opinion

- on which energy option is preferred.
- There are a variety of current programs that the CPUC offers

 such as CARE, which provides electricity discounts. The
 discussion at this workshop is important because the

 Commission can offer different types of programs.
- The Commissioner also discussed pollution resulting from emissions of fine particulates on a scale of very dirty to very clean.
- O Why are we here? 2014 Assembly Bill 2672 passed by Assemblyman Perea directed the CPUC to seek solutions for communities lacking access to natural gas and affordable energy options. After Assembly Bill 2672 passed in the California legislature, the Commission began the San Joaquin Valley proceeding. From the 170 disadvantaged communities identified in Phase 1, 12 pilot communities were chosen to potentially host pilot projects. Phase 2, the current phase of the proceedings, is to explore the pilot projects. The Commissioner's goal is to facilitate investment in all 12 communities, but this goal and the selected pilots must be voted on and approved by all five CPUC Commissioners.
- The Commissioner presented a map of all 170 communities.
 Some communities have partial natural gas service, others
 have none. She also presented a map of the 12 proposed
 pilot communities including Allensworth. PG&E provides

- electricity service and natural gas service is provided by Southern California Gas Company.
- o Residential natural gas and electric alternatives will be presented as ideas for potential pilots. The CPUC is here to listen to your input. Commission will make a recommendation and return to the valley with what they can do. She will not be able to come back to every community. Commission needs you to go to Fresno and Visalia to attend the public hearing meetings. Sarah Sharpe is here in Fresno if you have questions, visit web or send your letter to the CPUC. Please subscribe so you can know when the September meetings will be held. We are going to present 3 options: two electricity and one natural gas.
- Next steps after community energy option assessment workshops in May-June 2018 include the following:
 - CPUC releases staff recommendation for pilot phase (August 2018),
 - Workshops on staff proposal with parties (August 2018),
 - Public participation hearings (2-3) in larger cities in San Joaquin Valley (September 2018),
 - Judge and Commissioner release their Proposed
 Decision (Fall 2018), and
 - Commissioners vote on Proposed Decision (Fall 2018).

- If Proposed Decision is approved, pilot work could potentially begin Winter 2018-2019.
- The Commissioner informed the audience that this will be a quick turnaround so the Commission needs communities to say what they prefer today. Followed by saying they are here to listen today.

Listening session #1: Gather community feedback on current energy conditions and needs [Pilot Team moderated discussion with community]

- Resident: prefers natural gas to cook. Argued that she does not want to cook tortillas on an electric stove, but would like half electricity and half natural gas.
- Resident: When propane runs out and not able to purchase more, they have to burn wood or whatever can burn to keep warm in the winter.
- Resident: Complained about unreliable propane deliveries and how most companies will not deliver unless a purchase of at least \$200 is made. Residents are not always able to pay that much so they have to do without in that case.
- Resident: Some residents opt to purchase smaller propane tanks so they can fill them at gas stations or supermarkets.
- Resident: Has to buy propane every week or two.
- Resident: Wants to cut electric bill as it is very expensive;
 also, propane is very expensive.
- o Resident: Had to switch to all electric as the propane people

- would not come out when she had problems.
- General discussion: Propane only delivered one time per week on Tuesdays and they will not fill anything less than 50 gallons or minimum of \$200. Propane costs \$450 during the winter.
- Resident: Used to have propane but there was a leak in the system and now has to buy 1 five- gallon container per week.
 Wants natural gas.
- Resident: There are leaks in the house propane system; has to buy wood when they don't have money for propane.
- Commission Staff: Asked who has to use wood when they do not have money for propane and 4 people raised their hands.
- Lead community member: Noted there is a rental fee for each propane tank and if one doesn't have credit, propane companies only accept cash on delivery.

3. Overview of community energy options [Utilities/Third Parties]

- Maira Salazar, Pacific Gas and Electric Company Presentation
 - Presented PG&E's Gas and Electric Service Territories.
 - Presented Electrification Energy Options: 3 main concepts –
 range from simple to more complicated (Option 1 is the
 simplest. Option 3 is the most complicated). Option 1: single
 savings 10% discount on your bill paired with PG&E solar
 energy from solar panels and discount on bill, the panels

are installed in Option 2: change your house so no longer using propane and using electric appliances, Option 3: beyond just changing appliances – PG&E would install insulation in attic, more efficient lights, and more efficient refrigerators. More detail on each option provided on the slides.

- Resident: Asked about natural gas and presenter clarified her presentation was only for electricity.
- Alicia Bohigian, GRID Alternatives and Hector Urlarte, Proteus
 - GRID Alternatives, Proteus and Tesla is the Clean Energy Program Team. This team is going through the San Joaquin Valley counties and bringing home upgrades to these communities, increasing comfort in each home, air quality, reducing GHG emissions, and water conservation measures. GRID and Proteus have been working as a team for years. GRID and Proteus have construction certification to conduct these minor home upgrades. Tesla provides energy storage battery to store your own energy in event there was a grid outage. Explained home energy upgrades included and how community solar looks: new solar panels in one central area to be determined. Each community member will receive a credit for what those solar panels produces. Eligible individuals include those who rent, own, in a mobile home, whichever home – you would get savings (about 45% of annual usage) as long as you have an electric bill. The large solar array is a cleaner, more reliable, and less expensive

source of energy. The financial benefits from this energy option will be at a cost savings of more than 45%, or \$1700-\$2400 annually). All residents would be eligible, regardless of home. If home upgrades are not desired, community solar credits would still be available to lower your energy bills. Residents in nearby communities may also receive benefits. There is no cost to program participants. Costs would be recovered through utility sources and incentives at a cost of approximately \$34,000 per home. The timeline and process was shared with the goal to minimize number of visits as much as possible. The Clean Energy Program Team wants to provide the community the best services they can provide and works well as a team. Different contractors can do work at the same time to minimize visits. We will be providing training in this trade. We will eliminate all propane costs.

- We will provide a Community Solar it won't be at your house it will be at another location. Not on your roof. All residents can participate, no matter what type of home. Everyone can receive this type of energy in your home in your community.
- We will maintain and we will fix the solar panels if they breakdown.
- We will repair your house and provide a battery in case of a power outage.
- Timeline: presented in deck and described.
 - Resident: Asked who would pay for these pilots.

Commissioner: explained she has to come up with a proposal and bring to the other Commissioners to vote and figure out how to make it work.

- Raul Gordillo (SoCalGas) Natural Gas Presentation
 - Welcomed community members to the workshop and provided the proposal to bring natural gas service to the community of Allensworth as part of the SJV OIR proceeding.
 - Explained the benefits of natural gas including cleaner, safer and more reliable energy than propane. Explained that renewable gas is even cleaner, and can be produced from a variety of sustainable sources, like animal waste, landfills, crop residuals and food waste.
 - If the proposal is approved, bringing natural gas service to the community of Allensworth has the potential for job creation (short term – local contractors handling the pipeline installations) and community development options (long term – opportunities for new businesses, restaurants utilizing our natural gas system).
 - Residents who are income qualified would be able to sign up for our customer assistance programs such as CARE where SoCalGas provides a 20 percent discount and Energy Assistance Program, for weatherization/home improvement work around the house at no-cost to the resident. Additionally, residents who have a medical condition could qualify for SoCalGas' Medical Baseline Allowance program where they offer natural gas at the lowest baseline rate.
 - o Provided a map of the of proposed construction area.
 - SoCalGas' natural gas proposal is broken down into three phases. The first phase
 is the current phase the planning and assessment phase where SoCalGas is
 gathering input and participation from the community. The second phase is the

construction of their natural gas pipelines in the street and to the meter of each home. This activity could take approximately four months per community. Prior to any construction work they plan to notify each resident of the work hours and dates in addition to any traffic impacts. The third phase is where they convert each household. Here they plan to replace your propane heater, water heater, cooking stove and clothes dryer (if a resident has one). This could take approximately 2 days for the conversion. Also within this phase, they plan to convert existing propane lines or install new house lines, install and connect new appliances, install proper venting, install meter in front of house and inspect and test appliances.

- Provided the audience with a view of sample natural gas appliances which they would replace if they are propane-based or wood fired.
- Estimated the current cost of \$3.50 per gallon of propane (including delivery fees) and came up with current monthly propane cost \$125+ per month. Asked the audience what they currently pay per month on propane. Residents stated that they pay more than \$3.50 per gallon of propane including delivery fees.
 Some paying more than \$200 per month.
- Further showed how much residents would pay each month on natural gas if the proposal is approved. Future monthly costs would be between \$27 \$45.
 Monthly savings: \$80-\$98. If residents qualify for CARE, monthly savings would be approximately \$90 \$103.
- Explained how the cost for construction would be approximately \$68,100 per HH and total project \$7,219,500 for the Allensworth community. Overall, if SoCalGas' proposal is approved, SoCalGas' residential customer monthly bills would cost 1 cent additionally.
 - Resident and Commissioner: Clarified to the audience that

the total impact monthly for all of SoCalGas' customers would be \$0.01 additionally for extending natural gas into the community.

4. Listening session #2: Questions on energy options and next steps [Pilot Team Moderated discussion with public]

- Abigail Solis (Self Help Enterprises)
 - Requested that the Energy Options Questionnaire to be filled out by everyone at the workshop.
- Abigail Solis: Which option do you support the most?
 - Resident: Expressed concern over the ability of their home to hold solar panels.
 - Resident: Appreciate the CPUC's help for their community and asked to let them know what they needed to convince the other commissioners. Commissioner: Said it's easier if cost is lower.
 - Resident: Asked to clarify if costs are only \$0.01/year. If they
 have to choose only one pilot. What is county role in project?
 Abigail Solis: Said yes, they have to choose only one of the
 three pilot proposals. SoCalGas responded that they have to
 ask authority for an encroachment permit.
 - Resident: Wants natural gas because they already have electric.
 - Abigail Solis: Asked who wants natural gas? About 80% of

audience raised their hands.

- Commission Staff: Are you ok with them working on your streets and within your homes? Resident: yes, they are ok with everything and to let them know when they'll be here and they will fix them food!
- Residents: Two customers said they were all electric and they preferred solar, but will back natural gas if that's what the community wants.
- Multiple residents: Indicated they wanted natural gas.

5. Wrap up and next steps [CPUC]

- Commissioner shared the timeline and process. One of the challenges is the cost. The Commission needs to hear what you really want. The Commissioner would need to fight for whatever you want. It is helpful to hear what you want tonight.
- You need to talk to your community and spread the word so you know what is best for you. There are approximately 160 residents
- No decision will be made tonight, but she is only one of five Commissioners. The Commission will need to decide the best solution. The Commission has to analyze the costs as each community has different prices for different proposals.



Exploring Affordable Energy Options for San Joaquin Valley residents



California Public Utilities Commission

Community Energy Option Assessment Workshop
Allensworth, CA
May 15, 2018





What is the California Public Utilities Commission?





Telecommunications



Natural Gas





Rail and Transportation







CPUC Decisionmakers











- > 5 Commissioners
 - President Picker
 - Commissioner Peterman
 - Commissioner Randolph
 - Commissioner Guzman Aceves
 - Commissioner Rechtschaffen
- Appointed by the Governor; confirmed by the Senate
- Serve staggered, six-year terms
- ➤ Each Commissioner leads development of proceeding, then needs majority vote of all Commissioners for approval
- Today we are gathering input for Commissioner Guzman Aceves' PROPOSAL to present to all Commissioners





CPUC Offers Many Programs for Consumer Assistance and Education

California Alternate Rates for Energy (CARE) Program











CASF-Internet for All





The Big Picture

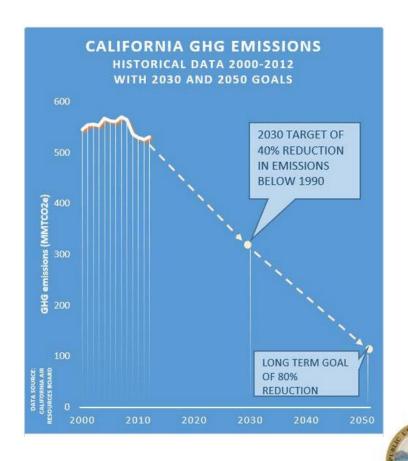






California's Path Forward

- Goal: Dramatically reduce greenhouse gas pollution -80% reduction by 2050
- Goal: Focus on communities with high pollution and poverty
- Goal: Phase out fossil fuels from all sectors to meet 50% renewable energy by 2030
- CPUC focused on energy and transportation sectors





CA Renewable Energy Transition





CPUC strategies:

- Use Less Energy-Energy Efficiency programs
- Cleaner Energy-Increasing Renewable Energy sources





Residential Natural Gas

- Propane and natural gas = fossil fuels (not renewable source of energy)
- Primarily used for heating, hot water, clothes drying and cooking
- California is reducing its reliance on natural gas to meet climate & air quality goals





Relative **Emissions** of Fine **Particles**



Woodburning **Fireplace**



Uncertified Woodstove



EPA Certified Woodstove



Pellet Stove



Oil **Furnace**



Gas **Furnace** or Stove



Electric Heat

VERY DIRTY

Highest annual pollution 244 lbs. of annual pollution

97 lbs. of annual pollution

27 lbs. of annual pollution

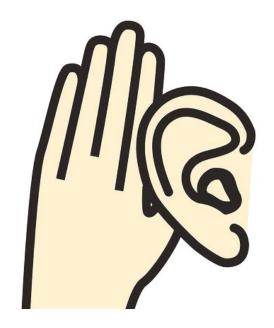
<1/4 lb of annual pollution

VERY CLEAN

<1/6 lb of annual pollution

ZERO annual pollution

Why are we here?







- OG ES
- Assemblyman Perea passed legislation in 2014
- Solutions for communities lacking access to natural gas and affordable energy options in SJV
- Determine whether any of the options would increase access in a cost effective manner and take appropriate action and determine appropriate funding sources



San Joaquin Valley Proceeding

Bill passed in legislature

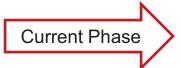
(AB 2672)

Commission Begins Proceeding

(15-03-010)

Phase 1

- Identify "disadvantaged communities"
- Hold first round of community meetings

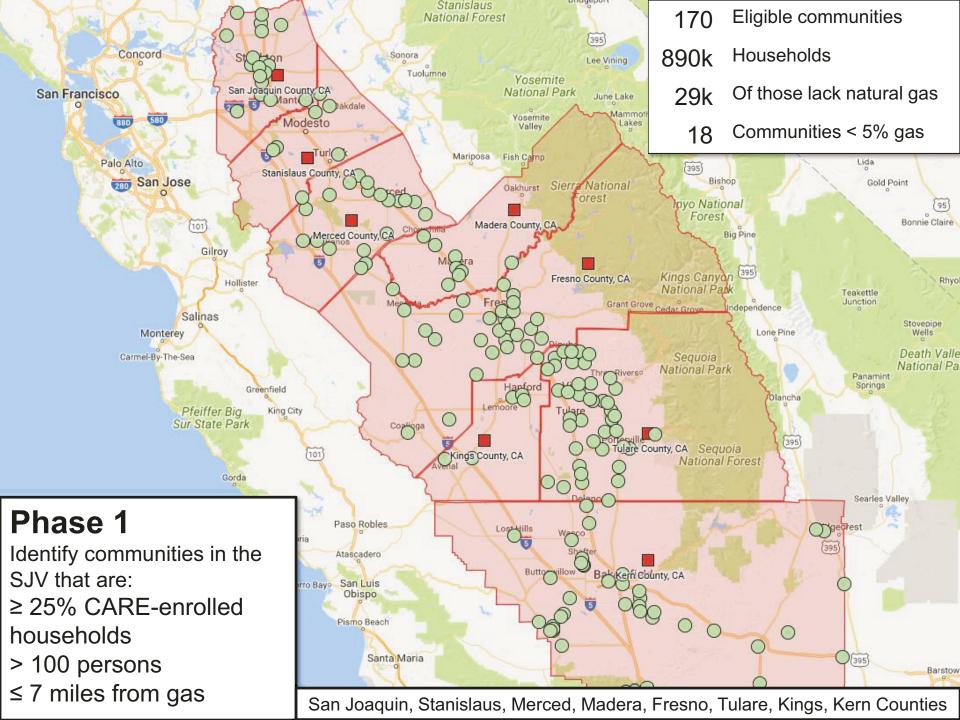


Phase 2

- Explore pilot projects
- Hold meetings on pilot projects in 12 communities
- Develop plan to gather data across the SJV

Phase 3

 CPUC Commissioners, with input from the public, choose a cost-effective option (if available) to bring affordable energy to all of SJV

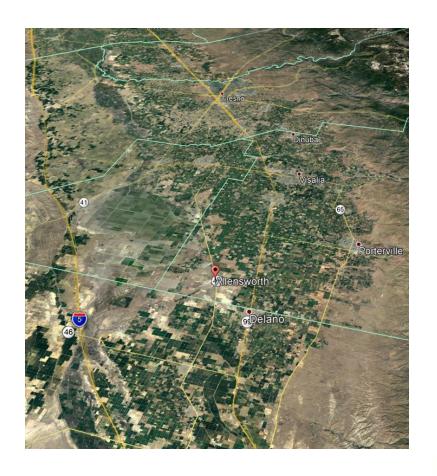






Allensworth, CA

- 125 households (estimated)
- PG&E electricity service territory
- SoCalGas gas service territory (no gas service)







General Pilot Project Concepts

Utilities and other parties will share more details of proposals.

Communities are eligible for pilots but pilots are not guaranteed/are subject to change.

Propane — Electric:

Transition from Propane to All-Electric
Incentives for switching to electric appliances
Reduce electricity usage with energy efficiency
Discounts on electricity from solar sources



Propane Natural Gas:

Transition from Propane to Natural gas Incentives for switching to natural gas appliances Extend gas lines to community, connect homes



Something in between \longrightarrow Less propane:

Switch some appliances to electric, focus on energy efficiency, keep propane



Next Steps

Event	Estimated Time
Community energy option assessment workshops	May – June 2018
CPUC release staff recommendation for pilot phase ("staff proposal" draws from pilot proposals, community workshops, and comments)	August 2018
Workshops on staff proposal with parties (parties [e.g., utilities, community groups, environmental organizations, ratepayer advocates, etc.] meet to discuss technical implementation and economic issues)	August 2018
Public Participation Hearings (2-3) in SJV (CPUC presents staff proposal to members of the public, collects their feedback)	September 2018
Judge / Commissioner release their Proposed Decision (PD takes into account all prior input, including staff proposal, and is the official document that may become policy; parties have final opportunity to comment)	Fall 2018
Commissioners vote on PD (at least 3 of 5 Commissioners must vote to approve in order to move forward)	Fall 2018
If PD approved, begin pilot work	Winter 2018-2019



CPUC Team

Who is working on this proceeding?

- Commissioner: Martha Guzman Aceves
 - Advisors: Sarah Sharpe, Maria Sotero,
 Adenike Adeyeye
- Administrative Law Judge: Darcie Houck
- Industry Divisions (Energy): Director Ed Randolph, Analyst Joshua Huneycutt
- Public Advisors Office: Claudia Sanchez/ Steven Klaiber





Stay involved!

You can send your written comments to:

Public Advisor's Office California Public Utilities Commission 505 Van Ness Ave. San Francisco, CA 94102

or

by email to: public.advisor@cpuc.ca.gov

Please reference Proceeding Number: R.15-03-010

Please stop by the Public Advisor's table if you are interested in subscribing to information regarding this proceeding. Or you can subscribe online at: http://subscribecpuc.ca.gov/

Thank you!

¡Gracias!





Explorando Opciones Económicos de Energía por los residentes del Valle San Joaquín



Comisión de Servicios Públicos de California

Taller para Evaluar Opciones de Energía por la Comunidad
Allensworth, CA
15 de mayo, 2018





¿Qué es la Comisión de servicios públicos de California?



Electricity



Telecommunications



Natural Gas





Rail and Transportation





CPUC Responsables











- > 5 comisionados
 - Presidente Picker
 - Comisionada Peterman
 - Comisionada Randolph
 - Comisionada Guzmán Aceves
 - Comisionado Rechtschaffen
- Nombrado por el gobernador; confirmado por el Senado
- > Sirven términos escalonados, términos de seis años
- Cada Comisionado conduce el desarrollo del procedimiento, luego necesita el voto mayoritario de todos los comisionados para su aprobación
- Hoy estamos recogiendo opiniones para la propuesta de la Comisionada Guzmán Aceves de presentar a todos los Comisionados



CPUC ofrece muchos programas para la asistencia al consumidor y la educación

California Alternate Rates for Energy (CARE) Program

















La gran imagen

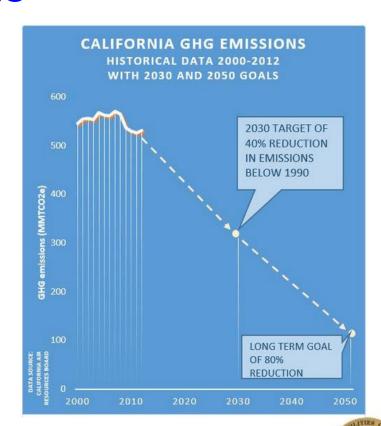






El camino de California hacia adelante

- Meta: reduzca dramáticamente la contaminación de los gases de invernadero-80% reducción por 2050
- Objetivo: centrarse en las comunidades con alta contaminación y pobreza
- Objetivo: eliminar gradualmente los combustibles fósiles de todos los sectores para satisfacer 50% de energía renovable por 2030
- CPUC se centró en los sectores de energía y transporte









Estrategias de CPUC:

- Usar menos energíacon programas de eficiencia energética
- Energía más limpiaaumentando las fuentes de energía renovables





Gas natural en residencias

- Propano y gas natural = combustibles fósiles (fuente no renovable de energía)
- Utilizado sobre todo para la calefacción, la agua caliente, para secar la ropa y cocinar
- California está reduciendo su dependencia del gas natural para cumplir con los objetivos de calidad del clima y del aire





Relative Emissions of Fine Particles



Uncertified Woodstove

EPA Certified Woodstove

Pellet Stove



Oil Furnace



Gas Furnace or Stove



Electric Heat

VERY DIRTY

Highest annual pollution

244 lbs. of annual pollution

97 lbs. of annual pollution

27 lbs. of annual pollution

<1/4 lb of annual pollution

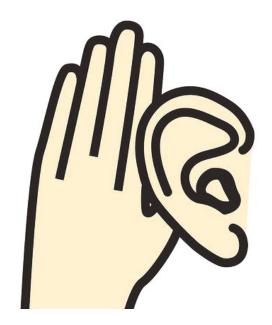
44/0 lb - 6

VERY CLEAN

<1/6 lb of annual pollution

ZERO annual pollution

¿Por qué estamos aquí?









- El asambleísta Perea aprobó legislación en 2014
- Se solicitó soluciones para las comunidades que carecen de acceso a gas natural y opciones de energía asequibles
- Determinar si alguna de las opciones aumentaría el acceso de manera económica y tomaría las medidas apropiadas y determinaría las fuentes de financiación apropiadas





Procedimiento del Valle de San Joaquín

Proyecto de ley aprobado en la legislatura (AB 2672)

La Comisión comienza a proceder (15-03-010)

Fase 1

- Identificar "comunidades desfavorecidas"
- Reunir la primera ronda de reuniones comunitarias

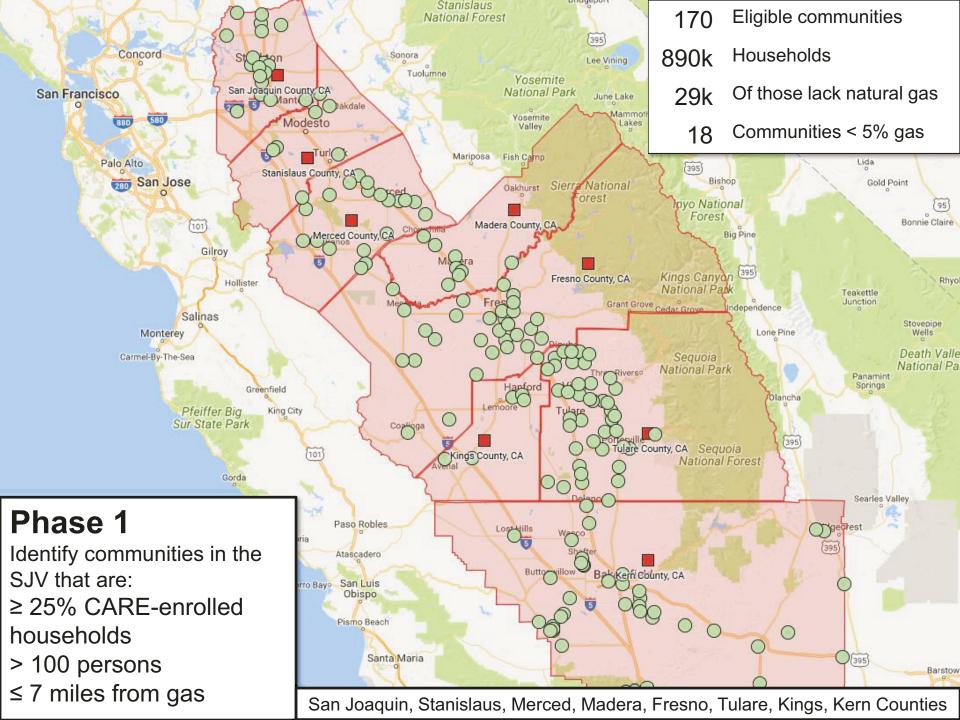
Fase actual

Fase 2

- Explorar proyectos pilotos
- Reunir reuniones sobre proyectos piloto en 12 comunidades
- Desarrollar un plan para recoger información a través de la SJV

Fase 3

 Los comisionados de CPUC, con aportes del público, eligen una opción rentable (si está disponible) para traer energía asequible a todas las comunidades elegibles del SJV

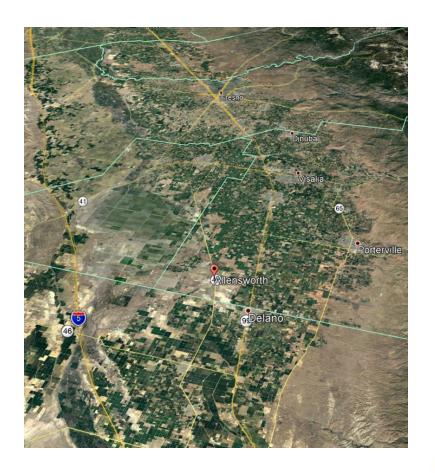






Allensworth, CA

- 125 hogares (estimados)
- Territorio del servicio de electricidad PG&E
- Territorio del servicio del gas de SoCalGas (ningún servicio de gas)







Conceptos generales de proyectos pilotos

Los servicios públicos y otras partes compartirán más detalles de las propuestas. Las comunidades son elegibles para los pilotos, pero los pilotos no están garantizados/están sujetos a cambios.

Propano — eléctrico:

Transición de propano a todo-eléctrico
Incentivos para el cambio a aparatos eléctricos
Reduzca el uso de electricidad con eficiencia energética
Descuentos en electricidad de fuentes solares

Propano — Gas Natural:

Transición del propano al gas natural Incentivos para el cambio a los aparatos de gas natural Extienda las líneas de gas a la comunidad, conecte los hogares



Algo entre los dos — menos propano:

Cambie algunos aparatos a eléctrico, enfoque en la eficiencia energética, mantenga el propano





T TOXIIIIOS PASOS	
Evento	Tiempo estimado
Talleres de evaluación de opciones comunitarias de energía	Mayo-junio 2018
CPUC lanzamiento de la recomendación del personal para la fase piloto ("propuesta de personal" se basa en propuestas piloto, talleres comunitarios y comentarios)	Agosto 2018
Talleres sobre la propuesta del personal con las partes (partidos [por ejemplo, servicios públicos, grupos comunitarios, organizaciones medioambientales, defensores de defensores, etc.] se reúnen para debatir sobre la implementación técnica y las cuestiones económicas)	Agosto 2018
Audiencias de participación pública (2-3) en SJV(CPUC presenta la propuesta de personal a los miembros del público, recoge sus comentarios)	Septiembre 2018
Juez/Comisionado lanzan su propuesta de decisión(PD toma en cuenta todas las aportaciones anteriores, incluyendo la propuesta del personal, y es el documento oficial que puede convertirse en política; las partidos tienen la oportunidad final de comentar)	Otoño 2018
Comisionados votan sobre propuesta de decision (por lo menos 3 de 5 comisionados deben votar para aprobar para avanzar)	Otoño 2018
Si propuesta de decisión aprueba, inicie el trabajo piloto	Invierno 2018-2019



Equipo de la CPUC

- ¿Quien esta trabajando en este procedimiento?
- Comisionada: Martha Guzman Aceves
 -Consultoras: Sarah Sharpe, Maria Sotero
- Juez Administrativa: Darcie Houck
- División de la industria (Energía): Director Ed Randolph, Analista Joshua Huneycutt
- Oficina de Consultores por el Publico: Claudia Sanchez/Steven Klaiber





i Mantense involucrado!

Puede enviar sus comentarios por escrito a:

Oficina del Asesor Público California Public Utilities Commission 505 Van Ness Ave. San Francisco, CA 94102

C

Por correo electrónico a: Public.Advisor@cpuc.ca.gov

Por favor número de procedimiento de referencia: R. 15-03-010

Por favor, pase por la mesa del Asesor Público si está interesado en suscribirse a información sobre este procedimiento. O puede suscribirse por internet en: http://subscribecpuc.ca.gov/

Thank you! ¡Gracias!



Thank you! Gracias!



Affordable Energy Options for Allensworth, CA

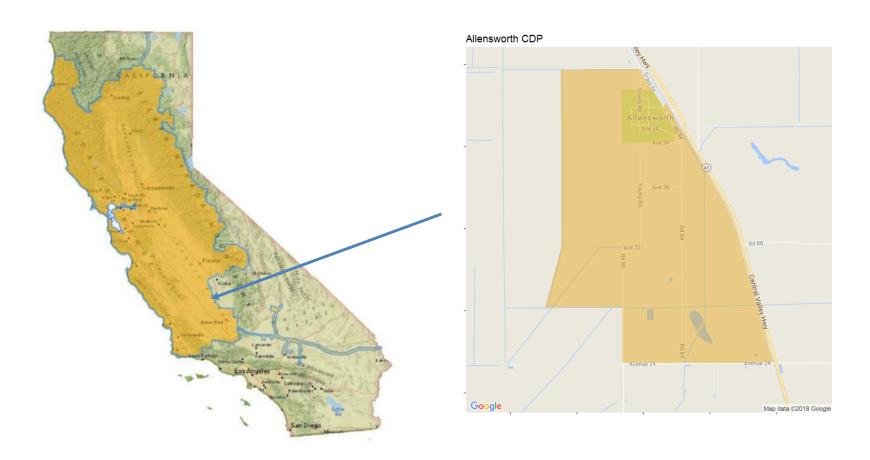
R.15-03-010
San Joaquin Valley
Disadvantaged Communities OIR





Gas & Electric Service Territories

- PG&E delivers clean, safe and reliable service to 4.3 million natural gas customers and 5.4 million electric customers
- 70,000 sq. miles with diverse topography
- 49,00 miles of natural gas transmission and distribution pipelines
- 125,000 miles of electric transmission and distribution lines





Proposed Electrification Energy Options

OPTION 1

Electric Bill Savings

+

PG&E Energy from Solar in California (not on your roof)

OPTION 2



Option 1

+

Replace Propane (or Wood) Appliances with Electric Appliances

OPTION 3



Options 1 & 2

+

Other Improvement



Proposed Option #1

Electric Bill Savings + PG&E Energy from CA Solar

ADVANTAGES

Save ~\$10%/yr on electric bill

No contractor work in house

Quick: 1 Home Visit

Reduced GHG

DISADVANTAGES

Still have propane

Minimal improvements to home

TYPICAL PG&E ELECTRIC BILL

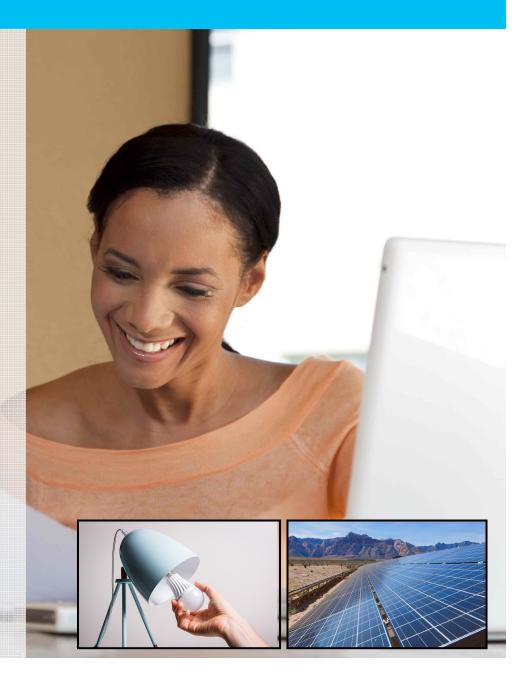
Old Total: \$1,100/year
Discount: -\$110/year
New Total: \$990/year

TYPICAL PROPANE BILL

Old Total: \$1,500/year New Total: \$1,500/year

Least Cost: ~\$4,000/Home*

* PG&E proposed that participants do not pay any costs, but participant cost is not decided





Proposed Option #2

Option 1 + Replace Propane (or Wood) Appliances with Electric Appliances

ADVANTAGES

- Save ~\$830-1,400 on energy
- Eliminate propane
- Some improvements to home safety and comfort
- Reduced GHG

DISADVANTAGES

- Some contractor visits/minor construction
- Takes longer/more visits

TYPICAL PG&E ELECTRIC BILL

Old Total: \$1,100/year New Usage: +\$260/year New Total: \$1,360/year

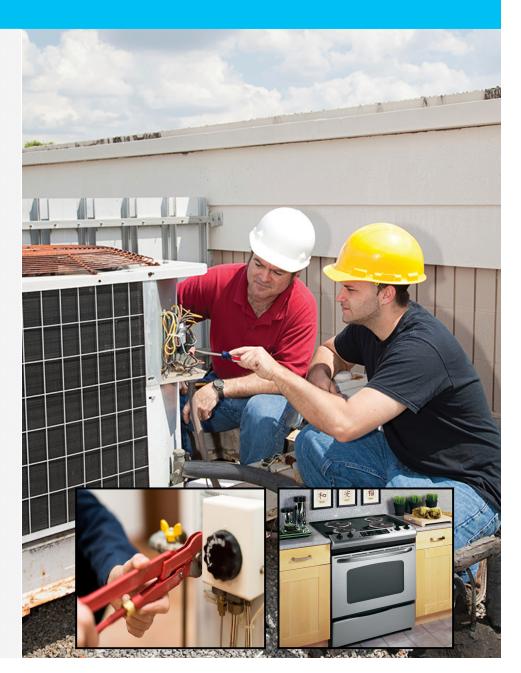
TYPICAL PROPANE BILL

Old Total: \$1,500/year

New Total: \$0/year

More Costly: ~\$40,000/Home*

* PG&E proposed that participants do not pay any costs, but participant cost is not decided





Proposed Option #3

Options 1 & 2 + Other Home Improvements

ADVANTAGES

- Save ~\$920-1,400 on energy
- Eliminate propane
- Improvements to home air quality, safety and comfort
- Reduced GHG

DISADVANTAGES

- Many contractor visits
- Takes longer / more visits

TYPICAL PG&E ELECTRIC BILL

Old Total: \$1,100/year New Usage: +\$220/year New Total: \$1,320/year

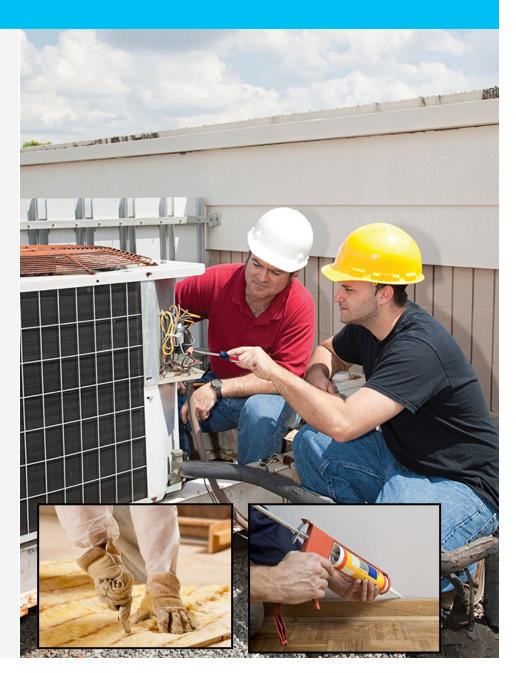
TYPICAL PROPANE BILL

Old Total: \$1,500/year

New Total: \$0/year

Most Costly -\$44,000/home *

* PG&E proposed that participants do not pay any costs, but participant cost is not decided



Opciones Energéticas a Precio Accesible en Allensworth, CA

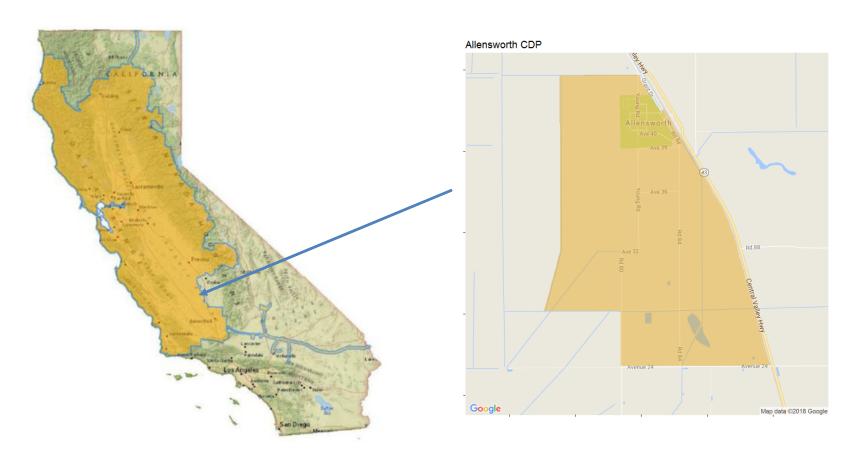
R.15-03-010 Valle de San Joaquín OIR de Comunidades en Desventaja





Acerca de PG&E

- PG&E suministra servicio limpio, seguro y confiable a
 - 4.3 millones de clientes de gas natural y
 - 5.4 millones de clientes de electricidad
- 70,000 millas cuadradas con una topografía diversa
- 49,000 millas de tuberías de transmisión y distribución de gas natural
- 125,000 millas de líneas de transmisión y distribución de electricidad





Propuesta de Opciones para Mejoras de Energía Usando Electricidad

OPCIÓN #1

Ahorros en la Factura Eléctrica

+

Energía de PG&E de California Solar (no en tu techo)

OPCIÓN # 2



Opción #1

+

Reemplazar aparatos domésticos de propano (o leña) con aparatos domésticos eléctricos

OPCIÓN#3



Opción 1 & 2

+

Otras Mejoras en el hogar



Opción Propuesta # 1

Ahorros en la Factura Eléctrica + Energía de PG&E de California Solar

VENTAJAS

- Ahorros del 10% en la factura eléctrica
- Sin visitas del contratista al hogar
- Rápido: 1 visita al hogar
- Reducción de gases de efecto invernadero

DESVENTAJAS

- Aún se usa propano
- Mejoras mínimas en el hogar

FACTURA ELÉCTRICA DE PG&E TÍPICA

Antiguo total: \$1,100/año 10% de descuento: -\$110/año Nuevo total: \$990/año

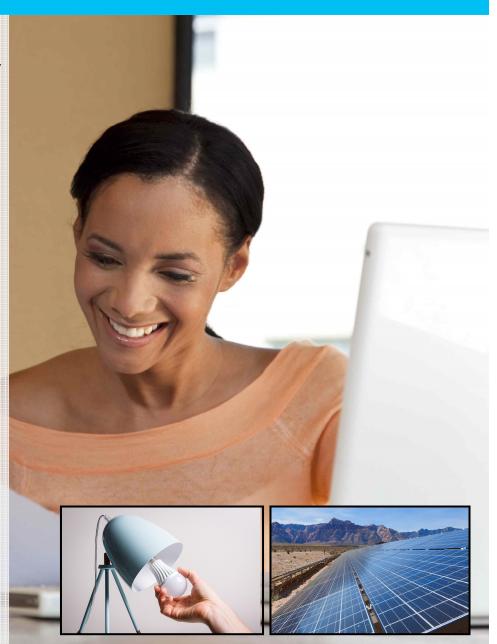
FACTURA DE PROPANO TÍPICA

Antiguo total: \$1,500/año

Nuevo total: \$1,500/año

Menos costoso* (\$4,000)

* PG&E propuso que los participantes no paguen ningún costo, pero los costos del participante aún no se han decidido.





Opción Propuesta #2

Opción # 1 + Reemplazar los aparatos domésticos de propano (o leña) con aparatos domésticos eléctricos

VENTAJAS

- Ahorros de ~\$830-1,400/año en energía
- Eliminación del propano
- Algunas mejoras en la seguridad y comodidad del hogar
- Reducción de gases de efecto invernadero

DESVENTAJAS

- Algunas visitas del contratista
- Requiere más tiempo / más visitas

FACTURA ELÉCTRICA DE PG&E TÍPICA

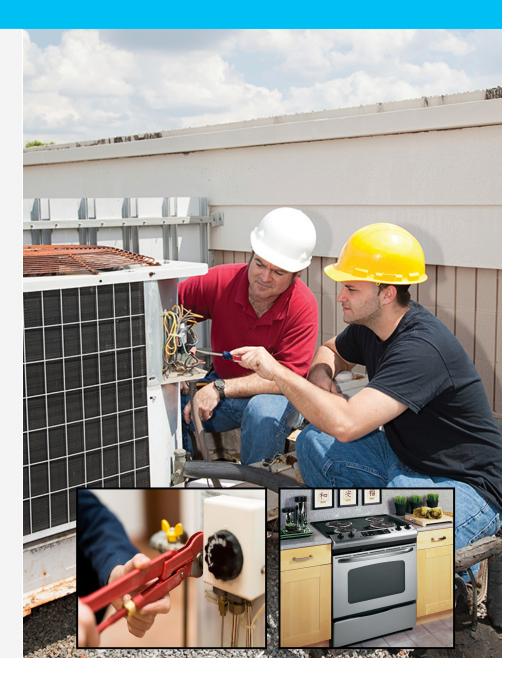
Antiguo total: \$1,100/año
Nuevo consumo: +\$260/año
Nuevo total: \$1,360/año
FACTURA DE PROPANO TÍPICA

Antiguo total: \$1,500/año

Nuevo total: \$0/año

Más costoso* (\$40,000)

* PG&E propuso que los participantes no paguen ningún costo, pero los costos del participante aún no se han decidido.





Opción Propuesta #3

Opción # 1 & 2 + Otras Mejoras en el Hogar

VENTAJAS

- Ahorros de ~\$920-1,400/año en energía
- Eliminación del propano
- Mejoras adicionales en la calidad del aire, en la seguridad y en el confort del hogar
- Reducción de gases de efecto invernadero

DESVENTAJAS

- Muchas visitas del contratista
- Requiere más tiempo / más visitas

FACTURA ELÉCTRICA DE PG&E TÍPICA

Antiguo total: \$1,100/año
Nuevo consumo: +\$220/año
Nuevo total: \$1,320 /año

FACTURA DE PROPANO TÍPICA

Antiguo total: \$1,500/año

Nuevo total: \$0/año

Lo más costoso* (\$44,000)

* PG&E propuso que los participantes no paguen ningún costo, pero los costos del participante aún no se han decidido.









Home Energy Upgrades, Battery Storage, and Community Solar

A Proposed Clean Energy Program for Allensworth

May 15, 2018

*This is a proposal to gain community feedback – all options are under review

Outline for Today



- 1. Team overview
- 2. Benefits of pilot project
- 3. Total Energy Bill Savings
- 4. Customer eligibility
- 5. Cost of services
- 6. Timeline and process
- 7. Questions and answers

^{*}This is a proposal to gain community feedback – all options are under review

Clean Energy Proposal Team



GRID Alternatives (GRID)

Provides renewable energy technology and training to underserved communities, and has completed more than 10,000 solar installations for low-income families

GRID Central Valley office in Fresno serves the San Joaquin Valley

Proteus

Electrification and home efficiency contractor based in Visalia, with more than 45 years of experience providing home upgrades to families in the San Joaquin Valley

GRID and Proteus work together to provide job training to local communities, expanding career opportunities in the clean energy economy

Tesla

Battery storage and electric vehicle manufacturer, working to accelerate the world'satronsition than white income are under review

Proposed Clean Energy Program Benefits



- Financial Savings Estimated more than 70%, or \$1,900 \$2,900 annually off your total current energy bill
- New Electric Appliances Electric appliances are cleaner, more reliable, and less expensive to operate than wood and propane
- Energy Efficient Home Energy efficiency services in the home will let you get more out of your energy use, and will increase comfort
- Reliability & Resilience Battery storage option may provide even greater bill savings
- Career Opportunities Job training and local hiring integrated into home upgrade and solar installation programs
- Cleaner Air Clean appliances and solar energy reduces local air pollutants, and ensures your community leads California's clean energy transition

*This is a proposal to gain community feedback – all options are under review

Proposed Home Electrification Upgrades



- Replace wood and propane with all-electric appliances
- Upgrades to home heating system, water heater, cooking range and clothes dryer
- Energy efficiency measures, including insulation, window replacement and gap sealing
- Minor home repairs and electric panel upgrades as needed
- Battery storage provides energy when the power goes out

Proposed Community Solar

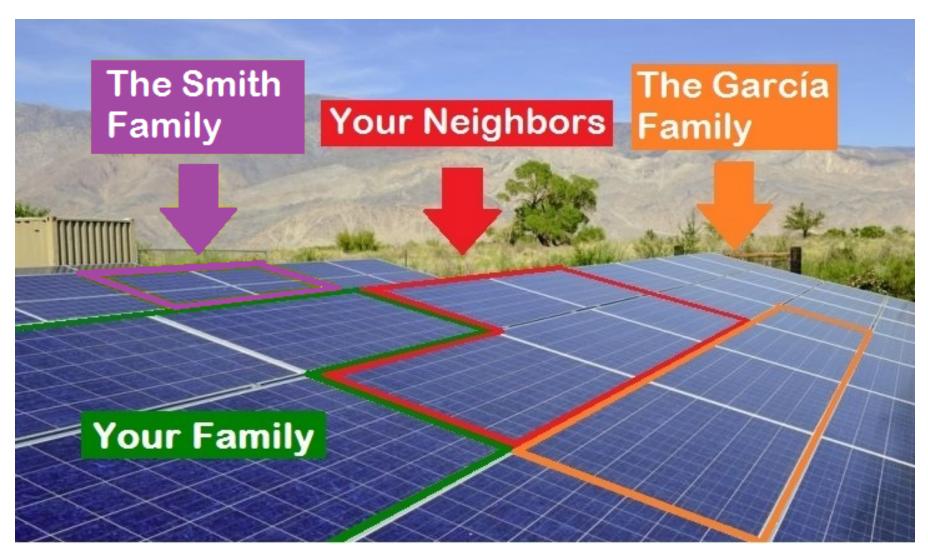




- Maximizes household savings
- New solar panels built in or near your community – not on top of your roof
- Solar panels create electric energy from the sun, available for all residents
- Solar energy provides savings to your electricity bill
- Maintenance fully included guaranteed regular production from central location
- Job training opportunities available, including local high schools

^{*}This is a proposal to gain community feedback – all options are under review

Community Solar



Estimated Total Energy Bill Savings



<u>Home Electrification</u> - Eliminates Propane and wood payments

<u>Community Solar</u> - Offset new electric appliances and provide additional savings

Total Energy Bill Savings = \$1,900 - \$2,900 annual savings (Estimated)

10 year savings potential = \$19,000-28,000 20 year savings potential = \$38,000-58,000

^{*}This is a proposal to gain community feedback – all options are under review

Who would be Eligible?



We have proposed that <u>All residents</u> would be eligible for home upgrades and community solar credits

- Homeowners and renters welcome
- All home types mobile homes, single family, multi-family
- Battery Storage offered to all residents
- If home energy upgrades cannot be completed due to home or roof conditions, community solar credits will still be available to lower your energy bills

^{*}This is a proposal to gain community feedback – all options are under review

Where will services offered?



We propose that this Clean Energy Program will be offered to all residents in Allensworth

Residents in a nearby community such as Alpaugh services

*This is a proposal to gain community feedback – all options are under

Clean Energy Program Cost Information

Proposal: Absolutely <u>no cost</u> to program participants at any time

Costs recovered through utility sources and incentives. The program cost per home is approximately \$34,000





*This is a proposal to gain community feedback – all options are under

Clean Energy Program Timeline and Process

GRID, Proteus and Tesla will partner with residents to plan an efficient process for all work done in the home

Timelines will vary according to the unique needs of each home and family

Stage 1: Home Assessment

- Assess home condition, potential for energy efficiency upgrades, and appliance needs.
- Estimated time in home: 1-2 hours

Stage 2: Electrification

- Electrical assessments, rewiring, minor home repairs, and panel upgrades as needed.
- Estimated time in home: 2 days

Stage 3: Energy Efficiency & Appliances

- Energy
 efficiency
 upgrades,
 weather stripping,
 sealing and
 lighting.
- Install electric appliances including water heater, cooking range, clothes dryer, and battery storage.
- Estimated time in home: 2 days

Stage 4: Community Solar

- Community solar means no panels installed at your home.
- GRID installs community solar while providing hands-on job training to community members.
- Estimated time in home: none

Stage 5: Follow Up

- Residents
 contacted by
 phone to
 confirm
 upgrades and
 appliances are
 working.
- Proteus and GRID work to resolve any issues that arise on-site.
- Estimated time in home: Phone call or 1-2 hours as needed

*This is a proposal to gain community feedback – all options are under

Comparison of Proposals: Clean Energy Program vs. PG&E Electrification Pilot

	Clean Energy Program – GRID, Tesla, Proteus	Electrification Pilot – PG&E
Energy Efficiency Services	Yes	Yes
Electrification: Replace Wood and Propane with Electric Appliances	Yes	Yes
Community Solar Discount Offered	More than 45% off electric bill	10% off electric bill
Workforce Development and Training	Yes	No
Implementer Leads	GRID Alternatives and Proteus (local community organizations)	PG&E (electric utility)

^{*}This is a proposal to gain community feedback – all options are under review

Thank you! Do you have questions?

Contact Us

Community Solar: **Tom Esqueda, GRID Alternative**s

Email: <u>tesqueda@gridalternatives.org</u>

Phone: (559) 261-4743

Alicia Bohigian, GRID Alternatives

Email: abohigian@gridalternatives.org

Phone: (886) 921-4696

Electrification: **Jose Landeros, Proteus Inc.**

Email: josel@proteusinc.org

Phone: (559) 733-5423

Battery Storage: Damon Franz, Tesla Inc.

Email: dfranz@tesla.com Phone: (805) 681-5100





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SoCalGas®

- Nation's largest natural gas distribution utility.
- SoCalGas delivers clean, safe and reliable energy to 21.6 million customers in more than 500 communities.
- Our service territory covers
 Central and Southern
 California, from Visalia to
 the Mexican border.
- California is our home, too.
 We strive to improve the quality of life in our communities.



Benefits of Natural Gas

AFFORDABLE

9 out of 10 Southern California families choose natural gas for space and water heating and they prefer it 4 to 1 over electricity because it is inexpensive and more reliable*.

RELIABLE

Natural gas can provide you with a reliable supply of hot water, temperature control for cooking, faster drying for laundry and more efficient heating for your home. Natural gas is there for you, whether the sun is shining or the wind is blowing.

CLEAN & RENEWABLE

The cleanest fossil fuel, and a highly efficient form of energy, natural gas has many advantages over propane that result in less pollution. Renewable gas is even cleaner, and can be produced from a variety of sustainable sources, like animal waste, landfills, crop residuals and food waste.



*California Building Industry Association. (2018). Energy Choice Survey.

Non-Energy Benefits

Health, comfort, safety, reliability & the environment

 Natural gas produces less Greenhouse gases and Particulate Matter than burning propane or wood

Potential economic development of the proposals

- Short-term jobs with local contractors doing home pipeline installations
- Long-term community development options with natural gas

No-cost services

- Appliance safety check and furnace re-lighting for winter
- Online "My Account" and Customer Call Center are available 24/7 for bill payment and service orders

Customer Assistance Programs



- California Alternate Rate for Energy (CARE) – provides income-qualified customers a 20% monthly discount on their SoCalGas bill.
- Energy Savings Assistance
 Program provides qualifying
 customers home improvements at no cost.
- Medical Baseline Allowance –
 offers additional natural gas at the lowest
 SoCalGas baseline rate

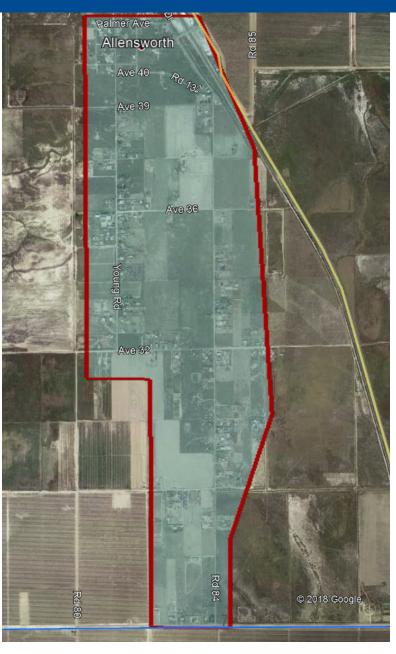
These programs are funded by California utility customers and administered by Southern California Gas Company under the auspices of the California Public Utilities Commission.







Construction Area



Project Timeline

PLANNING/ASSESSMENTS

with community participation (ongoing)

CONSTRUCTION OF PIPELINES approximately 4 months

We plan to install pipelines at each community, with natural gas meters at each home.

HOUSEHOLD CONVERSIONS approximately 5 months

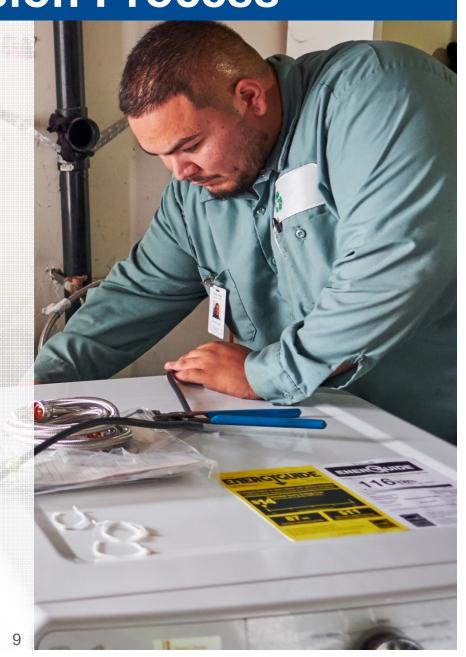
- SoCalGas plans to replace your propane heater, water heater, cooking stove and clothes dryer (if you have one). Approximately 2 days for conversion.
- Eligible homeowners and renters may be able to receive home improvements to make homes warmer in the winter and cooler in the summer, at no cost to the resident.

Home Conversion Process

 Install pipes below ground to the house

approximately 2 days per home

- Convert existing propane lines or install new house lines
- Install and connect new appliances
- Install proper venting
- Install meter in front of house
- Inspect and test appliances



Replacement Appliance Examples



Natural Gas Stove



Natural Gas Dryer



Natural Gas Wall Furnace



Natural Gas Water Heater

Appliance makes and models subject to change

Energy Cost Comparison

Current
Monthly Costs*
PROPANE

\$125+

VS.

Future
Monthly Costs**

NATURAL

GAS

\$27_\$45

^{*} Estimated current cost based on \$3.50 per gallon of propane (including delivery fees)

^{**} Estimated future cost based on approximately 23-411therms of natural gas at 2018 rates

Estimated Monthly Savings

Monthly Savings

\$80-\$98

Annual Savings \$959-\$1,175

Income Qualified Customers can

Save Additional 20%

Monthly Savings

\$90-\$103

Annual Savings

\$1,079-\$1,235

or more

^{*} Estimated current cost based on \$3.50 per gallon of propane (including delivery fees)

^{**} Estimated future cost based on approximately 23-41 therms of natural gas at 2018 rates

Estimated Construction Costs

	Per Home	Total Project
Construction of Pipelines	\$58,600	\$6,212,500
Home Pipeline Installation	\$3,500	\$371,000
Appliances & Installation	\$6,000	\$636,000

Estimated Total: \$68,100 \$7,219,500

These estimates are for approximately 106 households and is a proposal for the CPUC; all elements are subject to change and approval by the CPUC.

Residential Customer Monthly Bill Impact +\$0.01

Thank You!



This is a proposal for the California Public Utilities Commission (CPUC); all elements are subject to change and approval by the CPUC.



Glad to be of service.®



SoCalGas®

- La empresa de servicios públicos de distribución de gas natural más grande del país.
- SoCalGas distribuye energía limpia, segura y confiable a 21.6 millones de clientes en más de 500 comunidades.
- Nuestro territorio de servicio abarca el Centro y Sur de California, desde Visalia hasta la frontera mexicana.
- California también es nuestro hogar. Nos esforzamos por mejorar la calidad de vida en nuestras comunidades.



¿Cuáles son los beneficios del gas natural?

ECONÓMICO

Nueve de cada diez familias en el Sur de California eligen el gas natural para su calefacción y para el calentamiento del agua, y lo prefieren cuatro veces más que la electricidad porque es más económico y confiable.*

CONFIABLE

El gas natural puede ofrecerle una cantidad confiable de agua caliente, control de la temperatura para cocinar, un secado de ropa más rápido y una calefacción más eficiente de su casa. El gas natural está allí para usted, sin importar si brilla el sol o sopla el viento.

LIMPIO Y RENOVABLE

Siendo el combustible fósil más limpio, y una forma altamente eficiente de energía, el gas natural tiene muchas ventajas sobre el gas propano que se traducen en menos contaminación. El gas renovable es aún más limpio, y se puede producir de diferentes formas sustentables, como excrementos de animales, basureros, y residuos agrícolas y alimenticios.

*Asociación de la Industria de la Construcción de California (California Building Industry Association). (2018). Encuesta de Energy Choice.



Beneficios adicionales

Salud, comodidad, seguridad, confiabilidad y el medio ambiente

 El gas natural produce menos gases de efecto invernadero y partículas suspendidas en el aire

Potencial desarrollo económico de la propuesta

- A corto plazo empleos con contratistas locales que realizan instalaciones de tuberías en casas
- A largo plazo opciones de desarrollo comunitario con el gas natural

Servicios sin costo

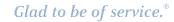
- Chequeo de seguridad de los aparatos domésticos y reencendido del piloto de calefactor para el invierno
- "My Account" en línea y el centro de servicio al cliente están disponibles 24 horas los 7 dias de la semana para pagos de facturas y órdenes de servicio

Programas de Asistencia al Cliente



- Programa de Tarifas Alternas para Energía en California (CARE): ofrece un 20% de descuento mensual en la factura para clientes que califiquen.
- Energy Savings Assistance Program:
 Ofrece mejoras sin costo para el hogar para clientes que califiquen.
- Asignación Médica Inicial: proporciona gas natural adicional a la tarifa inicial más baja de SoCalGas.

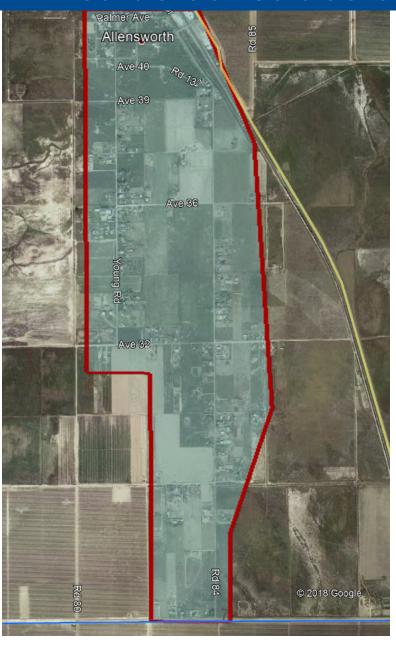
Estos programas están financiados por los clientes de las empresas de servicios públicos de California y administrados por Southern California Gas Company, bajo los auspicios de la Comisión de Servicios Públicos de California.







Área de construcción



Etapas del proyecto

PLANIFICACIÓN/EVALUACIÓN

Con la planificación y participación continua de la comunidad

CONSTRUCCIÓN DE TUBERÍAS aproximadamente 4 meses

Planeamos instalar tuberías en cada comunidad, con medidores de gas natural en cada casa.

conversiones en las casas aproximadamente 5 meses

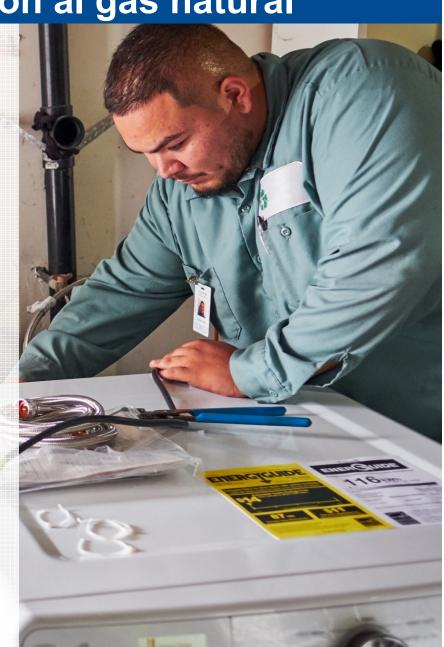
- SoCalGas planea reemplazar el calefactor, el calentador de agua, la estufa y la secadora de ropa de gas propano (si cuenta con uno de éstos). Aproximadamente 2 días por casa.
- Los propietarios de casa y los inquilinos que cumplan con los requisitos pueden recibir mejoras para la casa a fin de hacer los hogares más calientitos en invierno y más frescos en verano, sin costo para el residente.

Proceso de conversión al gas natural

 Instalar tuberías subterráneas hacia la casa

aproximadamente 2 días por casa

- Convertir las líneas existentes de gas propano o instalar nuevas líneas en la casa
- Instalar y conectar aparatos domésticos nuevos
- Instalar ventilación apropiada
- Instalar un medidor al frente de la casa
- Inspeccionar y probar los aparatos



Ejemplos de aparatos domésticos



Estufa de gas natural



Secadora de gas natural



Calefactor de pared de gas natural



Calentador de agua de gas natural

Las marcas y modelos de los aparatos están sujetos a cambios

Comparación de costos de energía

Costos mensuales actuales*

GAS PROPANO \$125+

Futuros costos mensuales**

GAS NATURAL VS

\$27-\$45

^{*} Costo actual estimado con base en un precio de \$3.50 por galón de gas propano (incluye cargos por entrega)

^{**} Costo futuro estimado con base en un consumo de áproximadamente 23-41 termias de gas natural a tarifas

Ahorros estimados

Ahorros mensuales

\$80-\$98

Ahorros anuales

\$959-\$1,175

Los clientes que reúnen los requisitos de ingreso pueden

ahorrar un 20% adicional Ahorros mensuales

\$90-\$103

Ahorros anuales

\$1,079-\$1,235

^{*} Costo actual estimado con base en un precio de \$3.50 por galón de gas propano (incluye cargos por entrega)

^{**} Costo futuro estimado con base en un consumo de aproximadamente 23-41 termias de gas natural a las tarifas de 2018

Costo Estimado de construcción

	Por casa	Total del proyecto
Construcción de tuberías	\$58,600	\$6,212,500
Instalación de tuberías en la casa	\$3,500	\$371,000
Aparatos domésticos e instalación	\$6,000	\$636,000

Total estimado:

\$68,100

\$7,219,500

Estas estimaciones son para aproximadamente 106 casas y es una propuesta para la CPUC; todos los elementos están sujetos a cambios y la aprobación de la CPUC.

Impacto mensual en la factura del contribuyente residencial

+\$0.01

¡Muchas Gracias!



Ésta es una propuesta para la Comisión de Servicios Públicos de California (CPUC); todos los elementos están sujetos a cambios y la aprobación de la CPUC.

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