

Kirkwood Meadows Public Utility District

Planning Committee

REGULAR MEETING AGENDA

NOTICE IS HEREBY GIVEN that the Planning Committee of the Kirkwood Meadows Public Utility District has called a Regular Meeting of the Committee to be held on **Friday, December 11, 2020 at 2:00 P.M.** at the Kirkwood Meadows Public Utility District Community Services Building, 33540 Loop Road, Kirkwood, California 95646.

IMPORTANT NOTICE REGARDING COVID-19 AND TELECONFERENCED MEETINGS:

Based on mandates by the Governor and the Alpine County Health Officer to shelter in place and the guidance from the CDC, to minimize the spread of coronavirus, please note the following changes to the District's ordinary meeting procedures:

- The District offices are not open to the public at this time.
- The meeting will be conducted via video and teleconference.
- All members of the public seeking to observe and/or to address the Committee may participate in the meeting telephonically or online, as described below.

HOW TO PARTICIPATE / OBSERVE THE MEETING:

Telephone: Call Zoom at (669) 900-6833 and enter Meeting ID# **891 9292 8533** followed by the pound (#) key.

Computer: Follow this link to join the meeting automatically:
<https://us02web.zoom.us/j/89192928533>

Mobile: Open the Zoom mobile app on a smartphone and enter Meeting ID# **891 9292 8533**

ACCESSIBILITY INFORMATION:

Committee meetings are accessible to people with disabilities and others who need assistance. Individuals who need special assistance or a disability-related modification or accommodation (including auxiliary aids or services) to observe and/or participate in this meeting and access meeting-related materials should contact Jessica Gillies, Clerk of the Board, at least 48-hours before the meeting at (209) 258-4444 or jgillies@kmpud.com Advanced notification will enable the District to swiftly resolve such requests and ensure accessibility.

The Agenda for this Regular Meeting is:

- 1) **WWTP Public Health Testing.** Update.
- 2) **COVID-19 Contingencies.** Update.
- 3) **2020/2021 GM Goals & Objectives Review.** Update. **Pg. 3**
- 4) **Propane Service.** Discussion & possible action. **Pgs. 4-7**
- 5) **Future Topics**
- 6) Next Meeting/Staff Recommendation: January 8, 2021 2:00 PM.

Dated: December 2, 2020

Kirkwood Meadows PUD

The Kirkwood Meadows Public Utility District is an equal opportunity provider and employer.

In compliance with the Americans with Disabilities Act, if you are a disabled person and you need a disability-related modification or accommodation to participate in this meeting, please contact the District at (209) 258-4444, by email to ijillies@kmpud.com. Requests must be made as early as possible, and at least two business days before the meeting.

**Kirkwood Meadows Public Utility District
General Manager Objectives
Fiscal Year 2020-2021**

Planning

1. Economic Development
 - Advocate, sponsor, and host (as appropriate) local economic development semi-annual meetings.
 - No activity.
 - Participate as an advocate for Kirkwood in local, regional, and state economic development activities, conferences, and meetings.
 - No activity.
 - Meet with our District's state senator and state assemblyman to discuss legislative concerns specific to Kirkwood. Coordinate as appropriate with ACWA, CSDA, CMUA, NCJPA or other representative organizations.
 - On-going.
2. Revise Electric, Propane, Wastewater, and Water District design and construction standards.
 - Electric – No activity
 - Propane – In process
 - Water – In process
 - Wastewater – No activity
3. Continue to research and pursue grant & loan opportunities for capital projects and fire department needs.
 - On-going
4. Through trade organizations, continue to track the issue of Inverse Condemnation and participate in meetings with trade organizations, regulatory bodies, or the legislature.
 - Complete in light of City of Oroville v. Superior Court of Butte County.

Planning committee

Decision regarding further extending propane service

Background

The planning committee has been asked to investigate the future of propane at KMPUD. Propane, like any fuel source, has to be evaluated based on multiple factors including greenhouse gas emissions, safety, cost, performance, and reliability.

Ways to limit or reduce propane use

- 1) Not offer propane service to new subdivisions
- 2) Not offer propane service to undeveloped lots in existing subdivisions. This may be perceived as a lost service and a negative impact to property value
- 3) Cease providing propane service. This would be impractical and costly to homeowners

Option 1 seems to be the option to consider for the immediate future.

Greenhouse Gas Emissions

Pounds of CO₂ emitted per million British thermal units (Btu) of energy for various fuels as reported by the US Energy Information Administration See <https://www.eia.gov/tools/faqs/faq.php?id=73&t=11>:

Coal (anthracite)	228.6
Coal (bituminous)	205.7
Coal (lignite)	215.4
Coal (subbituminous)	214.3
Diesel fuel and heating oil	161.3
Gasoline (without ethanol)	157.2
Propane	139.0
Natural gas	117.0

PG&E reports 60.38 pounds of CO₂ per 1M BTUs based on 2018 reporting. See https://www.pgecorp.com/corp_responsibility/reports/2019/en02_climate_change.html where they reported delivered electricity emits 206 pounds of CO₂ per MWH or .206 pounds per KWH. Conversion to BTU is 3412 BTU/KWH, 1M BTU requires 293KWH (1M/3412). 293KWH * .206 pounds of CO₂=60.38 pounds of CO₂ per 1M BTU.

California cities have adopted building codes to reduce reliance on natural gas including Berkeley, San Jose and San Francisco. Most ban natural gas installation in new construction, a few have exceptions for cooking and fireplaces.

States including Louisiana, Oklahoma, Tennessee and Arizona have passed legislation barring natural gas bans. Alaska, Texas and North Dakota may follow.

The primary driver for these bans is to reduce carbon emissions. Natural gas has been promoted as a cleaner and more efficient bridge from coal to renewable energy.

Safety

While the bans are based on reducing carbon emissions, natural gas also presents a danger to lives and property. PG&E was fined \$1.6B by the Public Utility Commission, paid \$558M in 3rd party claims and spent \$91M just for the San Bruno explosion alone. The two Kirkwood home and a condominium explosions are examples of the danger in the Kirkwood valley. In one case a fallen tree was the cause of the explosion and deemed an "act of god" where KMPUD was not liable. The other suit was brought under the principle of inverse condemnation KMPUD's insurer ACWA-JPIA settled. A ruling subsequent to the settlement, has changed a principle of inverse condemnation. In the City of Oroville v. Superior Court of Butte County, the California Supreme Court reversed the judgment of the court of appeal finding the City of Oroville liable in inverse condemnation for property damage suffered by a dental practice when raw sewage began spewing from the toilets, sinks, and drains of its building, holding that where the dentists did not install a legally required backwater valve on their premises the City was not liable for the property damage.

The dentists argued that the City was legally responsible for the property damage because it was caused by the sewer system's failure to function as intended. The City argued in response that the damage occurred because the dentists failed to install the backwater valve that would have prevented sewage from entering their building in the event of a sewer main backup. The trial court concluded that an inverse condemnation had occurred. The court of appeal affirmed. The Supreme Court reversed, holding that the damage was not substantially caused by the sewer system when the dentists failed to fulfill a responsibility to install a backwater valve that would have prevented or substantially diminished the risk of the mishap that occurred in this case.

Cost

Given the KMPUD current rates, propane is much more cost efficient than electricity. The high cost of electricity, should propane service not be offered in the future, might discourage new

development, however two condominium units were constructed without propane despite its availability.

BTUs are used to provide a cost comparison between energy sources.

Kirkwood Base Rates

\$.656 KWH

\$.071 cubic foot or \$2.55387 gallon (varies monthly based on supplier rates)

A cost calculator that can be found at http://suhresgas.com/propane_vs_electric.htm has been used to compare propane to electricity for common usages.

Fuel Type	Appliance Btu Input /hour	Energy Cost	Per Unit	Unit Price *	Per Unit	Cost Per Btu	Heat Efficiency	%	Heat Cost Per 10,000 BTU	Cost Per Hour
Propane Furnace	100000	91,547 BTU/gal		2.5539	/gal	\$0.00002790	92	%	\$0.30	\$3.03
Propane Water Heater	40000	91,547 BTU/gal		2.5539	/gal	\$0.00002790	85	%	\$0.33	\$1.31
Propane Range	45000	91,547 BTU/gal		2.5539	/gal	\$0.00002790	85	%	\$0.33	\$1.48
Propane Dryer	35000	91,547 BTU/gal		2.5539	/gal	\$0.00002790	90	%	\$0.31	\$1.08
Electric Furnace	100000	3,412 BTU/kWh		0.6560	/kWh***	\$0.00019226	100	%	\$1.92	\$19.23
Electric Water Heater	40000	3,412 BTU/kWh		0.6560	/kWh***	\$0.00019226	100	%	\$1.92	\$7.69
Electric Range	45000	3,412 BTU/kWh		0.6560	/kWh***	\$0.00019226	100	%	\$1.92	\$8.65
Electric Dryer	35000	3,412 BTU/kWh		0.6560	/kWh***	\$0.00019226	100	%	\$1.92	\$6.73

KMPUD propane storage is at capacity. Additional capacity would have to be funded to extend service to a new development. Under certain circumstances, e.g. pass closures, delivery schedules, usage, KMPUD estimates it has between 5 and 7 day storage capacity in the winter. A new developer would have to fund capacity as part of a connection service.

The District operates two bulk propane tanks, a 20,400 gallon tank (20K) and a 30,000 gallon tank (30K), that are interconnected and self-leveling. Due to operational and safety constraints, the tank levels must be maintained between 20% and 80%, which results in a usable capacity of 30,000 gallons. In practice, however, it is not possible to achieve 80% capacity consistently. Each propane delivery is approximately 9,500 gallons or 20% of overall tank capacity, meaning that the tanks must drop to 60% before a delivery can be received.

Current peak usage is approximately 4,000 gallons per day (gpd), which allows for 5 days of peak system operation between deliveries when both tanks are at 60% capacity, or up to 7.5 days of peak system operation when the tanks are both 80% capacity.

Performance

Even if costs were neutral many may prefer propane for cooking and fireplaces. Certainly induction cooktops provide a good alternative to gas. Would electric, pellet, or wood fireplaces be an alternative for those who desire the ambiance?

Reliability

KMPUD electric service given the generator house as a back up to PG&E is very reliable. Prior to getting on the PG&E grid, propane was a needed back up to a generator house outage for heating and cooking. Now on the grid for a number of years, reliability seems to be very good.