

Kirkwood Meadows Public Utility District
Operations Committee
REGULAR MEETING AGENDA

NOTICE IS HEREBY GIVEN that the Operations Committee of the Kirkwood Meadows Public Utility District has called a Regular Meeting of the Committee to be held on **Wednesday, August 1, 2018 at 3:30 p.m.** at the Kirkwood Meadows Public Utility District, Community Services Building, 33540 Loop Road, Kirkwood, CA 95646.

The Agenda for this Regular Meeting is:

1. **Electric Vehicle HOA Metering.** Discussion and possible action. *GM Christeson Pgs. 2-4*
2. **Performance Reporting.** Updated efficiencies and losses of each Department. *AM Benson Pgs. 5-6*
3. **Wastewater I&I.** Discussion of options for improvements in the meadow. *GM Christeson*
4. **WWTP Feasibility Study.** Update of progress. *GM Christeson Pg. 7*
5. **On-Call Engineering Services.** Discussion. *GM Christeson*
6. **Design Standards.** Discussion of DRAFT design standards. *GM Christeson/ AM Benson*
7. **Propane Bulk Tank Internal Valves.** Discussion and possible action. *AM Benson Pgs. 8-9*
8. Future Topics
9. Next Meeting/Staff Recommendation: *Wednesday, August 29, 2018 - 3:30pm.*

Dated: July 25, 2018

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 jaustin@kmpud.com. Requests must be made as early as possible, and at least two business days before the meeting.

STAFF REPORT

ELECTRIC VEHICLE CHARGING

Requested Action:

That the committee review the status of current EV Charger sub-meters and recommend adoption of a policy on EV Charger metering in common spaces to the Board.

Background:

In 2016, the Meadow Stone Owners Association approached the District about an owner's request to install an electric vehicle charging station in the common garage in his assigned parking spot. After much discussion, it was decided that the owner would be allowed to install a sub-meter on the HOA common power source existing in the garage, though no official policy was adopted. In May 2018, the District was approached by another Meadow Stone owner interested in installing an EV charger in his assigned parking spot.

A potential issue of allowing a common electric service to be sub-metered to individual owners is that the District is directly involved in the HOA's apportionment of the limited power available on the existing service.

Currently, only one EV Charger sub-meter exists on the electric distribution system. The owner of the EV charger currently pays standard usage and base rates, and District staff manually computes usage for monthly billing. Alternatives to this arrangement are for the HOA to own the sub-meters and bill owners of EV chargers directly, or for a new service line to be run for each EV charger installed in a common space.

Fiscal Impact:

If EV sub-meters are owned by the HOA, the District would lose base rate revenue for each meter but save administrative costs needed to bill the sub-metered usage. It is anticipated that these costs would net near zero. If a new service line was required for each EV charger installed in a common space, the District would receive base rate revenue, but would save administrative costs needed to bill the sub-metered usage.

Alternatives:

1. Direct staff to explore a different alternative.

Reviewed by Committee:

Operations

Prepared By:

Brandi Benson

Erik Christeson

From: Karen Higgins <pstkaren@sbcglobal.net>
Sent: Wednesday, June 06, 2018 6:10 PM
To: Erik Christeson
Cc: Rick Ansel; Jessica Austin; Brandi Benson; Joan Pilar
Subject: Formal Request to install Tesla Charging station in MS404

Erik,

Still working remotely, and got the email below from Brian Porter about his EVCS (electric vehicle charging station) request. I'd spoke to Jessie yesterday and she said you were out. Would like to make sure the HOA's input / issues are part of the KMPUD committee recommendations. Anyway we (Joan and I) can sit in on the committee meeting to present the HOA issues and additional questions/ concerns that might come up?

When the original EVCS requests from Mike Moore (Meadowstone) and Stefan (Edelweiss) where made both Jon Wehan and I talked extensively with Michael Sharp, Brandi Benson, Dave Waddle, and Rick Ansel from the KMPUD. I personally work with two HOA attorneys, one in particular out of the Bay area, that EVCS is a specialty of his. I wanted to make sure both the HOAs I work with and KMPUD had the same information and precedence regarding future requests and installations. One of the few reasons those first requests were not automatically approved by either Board. (Mr. Porter's current request was approved by the Board solely on the same requirements required of Mr. Moore's)

The civil codes, governing HOA and EVCS says the HOA is not to incur any costs for the EVCS unless EVCS are installed for common use by all owners directly and not exclusive to individual owners. (This is obviously not the cases we are talking about.) The owner is responsible for everything, includes electricity and those costs to supply it.

First off the HOA can not use HOA funds to pay for individual owner charges. This is not like the common area boiler propane used in Sun 34 and Meadowstone. The electricity for any EVCS is for only certain owners use, not the whole of the membership.

Secondly, CCRs are very restrictive on HOA liens on an owner account or foreclosure for lack of payment of fees assessed. If the owner refuses to pay a fee (electricity for EVCS) that is not an assessment even if billed though the HOA the HOA has many steps to go thru and could become costly to legally fight for those payments/reimbursements. I'm not even sure the HOA has the legal ability to shut off service since the HOA is not the provider, only the billing service, for lack of payment. It is my understanding KMPUD has this authority to lien properties for lack of payment and shut off utilities. (This was the primary concern of both Boards.)

Third, the bookkeeping of this service. HOA would have to pay someone to tract and bill the owners for electricity used, monitor payments, and forward funds to the KMPUD. This would burden the HOA and void the no costs to the HOA for EVCS maintenance. The PUD could bill the HOA, but KMPUD would have to wait till the owners pay their share of the bill and the HOA would then pass on the payment. (See item one) No late charges could be assessed to the HOA since the electricity used was not in any way used by the HOA. The HOA would only be a pass thru billing service.

When I first discussed these issues with Michael he understood the ramifications and why the HOA / Boards did not want to get involved in the billing EVCS electricity. I have discusses with HOA legal to determine the HOA can not split out fees or assessments to only certain owners, like a base rate for bookkeeping to having an EVCS. Therefore, the submeters was the alternative we came up with. I understand KMPUD incurs added labor for calculating and billing the submeters usage, but that is a fee the KMPUD should be easier to charge to the owners directly, unlike the HOA.

Maybe we can have a conversation when you have a minute? Both Joan and I have always wanted to, and wish to continue to work with KMPUD staff to solve issues that face all of us while keeping the HOA compliant with laws along with KMPUD being fiscally responsible to their customers.

Thanks for your consideration of our concerns - Karen

From: [Brian Porter](#)
Sent: Thursday, May 31, 2018 3:40 PM
To: [Karen Higgins](#)
Cc: [Joan Pilar](#) ; [Jon Wehan](#) ; [Maria Plaxina](#) ; [Michael Moone](#)
Subject: Re: Formal Request to install Tesla Charging station in MS404

Hey Karen,

I just met with the KMPUD operations committee. They wanted to review their official stance on ev chargers/submeters in Kirkwood before proceeding with my request for a submeter.

It sounds like the committee's recommendation is to develop their own formal policy and it appears that policy will include making the HOA the owner/administrators of the sub-panels. They state there is overhead/math on the backend to take the submeter usage out of the main HOA meter and this will only multiply with more users. This means the HOA would be responsible for billing of the customer for electric usage instead of the electric company direct billing the customer. This sounds like it could be problematic and/or take time to establish the HOA's policy and procedures for this.

I wanted to give you a heads up (hopefully this isn't stepping on anyone's toes) to try and give the HOA as much notice and to gauge the response. Hopefully this doesn't impact my and other's future efforts to bring more ev users to KW.

Someone from the committee will be in touch as they draft and finalize their proposal, I believe it is Jessica. My understanding was they expected to have a policy to review by July 1st (I think).

I just wanted to pass along what I learned.

Thanks,
Brian

Kirkwood Meadows Public Utility District
Electric Generation
2017/2018

	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY*	JUNE	2017/2018 Totals
Total Production (kWh)	445,469	412,195	397,613	462,207	785,068	1,255,598	1,085,036	978,697	972,869	649,864	455,564	392,067	8,292,248
CAISO Purchase (kWh)	445,469	412,195	394,133	462,207	785,068	1,217,158	1,085,036	978,697	933,569	649,864	455,564	392,067	8,211,028
Powerhouse Production (kWh)	0	0	3,480	0	0	38,440	0	0	39,300	0	0	0	81,220
Actual Metered (kWh)	363,139	324,178	314,989	361,883	685,500	1,034,190	925,904	842,547	873,121	542,048	411,577	308,284	6,987,360
Total System Losses (kWh)	82,330	88,017	82,624	100,324	99,568	221,408	159,132	136,150	99,748	107,816	43,987	83,783	1,304,888
Identified System Losses (Estimated kWh):													
KM Blue Transformer	8,928	9,226	8,630	9,523	8,928	8,928	9,523	8,333	8,928	9,226	9,226	8,928	108,326
KM Green Transformer	10,541	10,892	10,189	11,244	10,541	10,541	11,244	9,838	10,541	10,892	10,892	10,541	127,895
Step-Up Transformers	8,640	8,640	8,640	8,640	8,640	8,641	8,642	8,643	8,644	8,645	8,646	8,646	103,707
Total Identified System Losses (kWh)	28,109	28,758	27,460	29,407	28,109	28,110	29,409	26,814	28,113	28,763	28,764	28,115	339,928
Unidentified System Losses (kWh):													
Distribution System Losses	36,782	25,720	26,208	37,976	38,715	160,137	52,280	61,699	55,668	43,694	-22,196	22,522	539,205
OV Line Loss	17,439	33,539	28,956	32,941	32,745	33,161	77,444	47,638	15,967	35,359	37,420	33,146	425,754
Total Unidentified System Losses (kWh)	54,221	59,259	55,164	70,917	71,459	193,298	129,724	109,337	71,635	79,053	15,224	55,668	964,959
% Unidentified System Losses (Goal 18%)	12%	14%	14%	15%	9%	15%	12%	11%	7%	12%	3%	14%	12%

*Note: Underbilled usage for meter # 53088363 added to May Actual Metered.

Kirkwood Meadows Public Utility District
Propane Production
2017/2018

	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	2017/2018 Totals
Propane Usage (cf)	461,171	427,180	632,604	1,004,354	2,000,364	2,673,866	3,210,610	3,106,585	3,558,044	1,598,291	902,271	492,249	20,067,591
Actual Metered (cf)	420,715	431,730	645,871	1,002,329	2,142,632	2,819,886	3,364,747	3,283,501	3,745,768	1,676,747	945,368	550,101	21,029,395
Unmetered Total	40,456	(4,550)	(13,267)	2,025	(142,268)	(146,020)	(154,137)	(176,916)	(187,724)	(78,456)	(43,097)	(57,852)	(961,804)
% Unmetered (Goal 2%)	9%	-1%	-2%	0%	-7%	-5%	-5%	-6%	-5%	-5%	-5%	-12%	-5%

**Kirkwood Meadows Public Utility District
Water Production
2017/2018**

	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	2017/2018 Totals
Total Production (Gallons)	1,385,774	1,183,662	845,537	802,243	704,269	2,038,231	1,877,253	1,713,744	1,830,007	776,889	572,809	919,399	14,649,817
Actual Metered (Gallons)	1,158,846	854,829	700,645	642,558	699,215	1,637,963	1,842,235	1,534,500	1,375,722	680,052	350,210	696,164	12,172,939
Total System Losses (Gallons)	226,928	328,833	144,892	159,685	5,054	400,268	35,018	179,244	454,285	96,837	222,599	223,235	2,476,878
Identified System Losses - (Estimated Gallons)													
District Facility Use	12,000	26,000	12,500	12,500	12,000	12,000	131,000	82,000	92,000	80,000	12,500	16,500	501,000
Hydrant / Sample Flushing	1,000	1,000	1,000	1,000	1,275	7,677	1,000	1,000	1,000	20,000	24,500	1,000	61,452
Backwards Meter Reads	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
Discovered Leaks Before Meters	0	0	0	0	0	0	0	0	0	0	0	0	0
Fire Department	0	0	0	1,000	1,000	0	0	0	0	0	0	0	2,000
Total Identified System Losses (Gallons)	14,000	28,000	14,500	15,500	15,275	20,677	133,000	84,000	2,000	2,000	38,000	18,500	576,452
Unidentified System Losses (Gallons)	212,928	300,833	130,392	144,185	(10,221)	379,591	(97,982)	95,244	452,285	94,837	184,599	204,735	2,091,426
% Unidentified System Losses (Goal 16%)	15%	25%	15%	18%	-1%	19%	-5%	6%	25%	12%	32%	22%	14%

**Kirkwood Meadows Public Utility District
Waste Water Production
2017/2018**

	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	2017/2018 Totals
Influent Metered (Gallons)	1,876,662	1,051,787	697,650	586,803	1,313,317	1,876,110	2,672,026	2,018,933	2,476,123	3,586,688	2,030,842	1,137,490	21,324,431
Actual Metered (Gallons)	844,866	687,457	573,821	527,549	511,325	1,078,324	1,799,868	1,328,500	1,375,722	679,999	332,516	463,805	10,203,752
Total System Unmetered (Gallons)	1,031,796	364,330	123,829	59,254	801,992	797,786	872,158	690,433	1,100,401	2,906,689	1,698,326	673,685	11,120,679
Identified Unmetered Usage - (Estimated Gallons)													
District Facility Use	12,000	26,000	12,500	12,500	12,000	12,000	131,000	82,000	92,000	80,000	12,500	16,500	501,000
Hydrant Flushing Into System	1,000	1,000	1,000	0	0	0	1,000	1,000	5,000	1,000	24,500	1,000	36,500
Backwards Reads	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
Total Identified Unmetered Usage (Gallons)	14,000	28,000	14,500	13,500	13,000	13,000	133,000	84,000	13,000	13,000	38,000	18,500	395,500
Unidentified Unmetered Usage (Gallons)	1,017,796	336,330	109,329	45,754	788,992	784,786	739,158	606,433	1,087,401	2,893,689	1,660,326	655,185	10,725,179
% Unidentified Unmetered Usage (Goal 27%)	54%	32%	16%	8%	60%	42%	28%	30%	44%	81%	82%	58%	50%

Work through July 18, 2018 for the Kirkwood Meadows WWTP Feasibility Study:

Stantec continued work toward completion of the draft Feasibility Study. On May 29, 2018 Steve Beck, Project Manager; Mike Canevari, Architect; Long Hoang, Electrical Engineer; and Linping Wu, EIT were on-site to inspect the main wastewater treatment building and ancillary structures. During the site visit, the plant O&M manuals were collected to obtain data on the existing process equipment.

Tasks completed to date include the following:

- Initial site visit to inspect the main wastewater treatment plant building and ancillary structures, interview the chief plant operator, district manager, and collect data on the existing process equipment.
- Reviewed previous reports, drawings, and O&M Manuals.
- Prepared equipment list spreadsheet and condition assessment table for existing process equipment.
- Worked on draft writeup of condition assessment of the existing treatment building, ancillary structures, and equipment.
- Worked with packaged MBR manufacturer for design and layout of new packaged wastewater treatment plant to replace existing plant.

Next steps:

- Schedule second site visit to evaluate SCADA and control systems for the week of July 30th.
- Obtain cost proposal for packaged MBR plant.
- Work on draft report writeup for condition assessment and new plant alternative.
- Work and cost estimate and phasing plan.
- Update schedule for completion of the Feasibility Study.

Budget (through June 30, 2018):

TASK	BUDGET	EXPENDED	REMAINING	% EXPENDED	%COMPLETE
1- PM	\$4,220	\$920.00	\$3,300.00	21.8%	22%
2 - Assessment	\$25,898	\$9,342.90	\$16,555.10	36.1%	40%
3 - Report	\$29,882	\$7,022.50	\$22,859.50	23.5%	25%
TOTAL	\$60,000	\$17,285.40	\$42,714.60	28.8%	31%

STAFF REPORT

PROPANE TANK VALVES

Requested Action:

That the Board consider the request for a budget augmentation of \$40,046 to cover the cost of replacing all internal and semi-internal valves on the 20,400 gallon bulk propane tank.

Background:

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. The bulk tanks provide propane to the propane distribution system. In February 2018, the tank leveling system began to fail, leading to propane being drawn out of the 20K tank faster than the 30K tank. During periods of high demand in February and March 2018, the tank leveling problem persisted, and at its worst, the 20K tank level was 27% compared to 85% in the 30K tank. If either tank level falls below 20%, there is a risk of not maintaining adequate distribution system pressure during high demand periods. A budget allocation of \$10,000 was included in the capital budget to address this issue.

On July 20, 2018 KIVA Propane Construction & Meter Services (PPMS) did initial investigation and maintenance work to drain the liquid piping from both tanks, perform maintenance on all liquid strainers and adjust the regulator on the 30K tank. During this work, PPMS found that the internal liquid excess flow valve on the 20K tank had activated and failed in the closed position. After considerable time, technicians were able to reset the valve, but due to the age and unknown condition of the valve, which is believed to be the original 1956 installation, PPMS has recommended replacement of this, and all other internal and semi-internal valves on the 20K tank. In order complete the work, the propane from the 20K tank would be moved to the 30K tank and any remaining vapor will be flared-off to completely empty the tank.

Fiscal Impact:

PPMS has provided a proposal to replace all internal and semi-internal tank valves for a total cost of \$40,046.

Alternatives:

1. Continue operating with the existing valve for the 2018/2019 winter.
2. Direct staff to solicit other proposals for valve replacement to be completed prior to winter.

Reviewed by Committee:

Operations

Prepared By:

Brandi Benson