Kennebunk Light & Power District
4 Factory Pasture Lane
Kennebunk, Maine 04043
(207) 985-3311
www.klpd.org

BOARD OF TRUSTEES BUSINESS MEETING AGENDA
TUESDAY, MARCH 29, 2022
ZOOM AND IN PERSON MEETING @ 5:00 PM

I.	**CALL TO ORDER**	**5:00**
II.	**DISCUSSION WITH DAN SCRIMA OF EATON FOR BOARD QUESTIONS REGARDING METERING PROJECT**	**5:05**
III.	**BOARD REVIEW OF FEBRUARY, 2022 FINANCIALS**	**5:35**
IV.	**BOARD CONSIDERATION OF APPROVAL OF REVISED PASSENGER VEHICLE REPLACEMENT SCHEDULE**	**5:45**
V.	**BOARD CONSIDERATION OF APPROVAL OF REVISED COMMERCIAL VEHICLE REPLACEMENT SCHEDULE**	**6:00**
VI.	**BOARD CONSIDERATION OF APPROVAL OF REVISED CAPITAL PLAN REVISIONS**	**6:15**
VII.	**GENERAL MANAGER'S REPORT**	**6:30**
	a. ASPLUNDH PROGRESS	
	b. MARCH 21, 2022 OUTAGE REPORT	
	c. PUC/LEGISLATIVE UPDATE	
	d. ADDITIONAL FERC CORRESPONDENCE (IF ANY)	
VIII.	**PUBLIC COMMENT PERIOD (LIMITED TO 15 MINUTES TOTAL)**	**6:40**
IX.	**NEXT MEETINGS: APRIL 26, 2022, MAY 31, 2022**	**6:55**
X.	**BOARD RECOMMENDATION FOR AGENDA ITEMS FOR NEXT MEETING**	**6:55**
XI.	**ADJOURN**	**6:55**

Join Zoom Meeting
https://us02web.zoom.us/j/89261945486?pwd=am1VTVdCcGZUcFpYY01ONEJucTBaQT09
Meeting ID: 892 6194 5486 Passcode: 658196
One tap mobile
+13126266799,,89261945486#,,,,*658196# US (Chicago)
+16465588656,,89261945486#,,,,*658196# US (New York)

No Health Threat From Smart Meters

by
Klaus Bender. PE
Director of Standards & Engineering
Utilities Telecom Council

As utilities seek to modernize their aging infrastructure and upgrade to a “smart” electric grid, wireless communications will play an ever increasingly important role in the facilitating these enhancements. Several consumer groups have raised concerns about the potential health effects of a two way communications device, the next generation electric meter or smart meter, on their homes.

This article provides a brief review of the safety standards dealing with radio frequency energy and safety and shows that smart utility devices pose no health threat. We compare other household wireless devices to smart meters to show the energy from a meter is actually less than commonly used devices.

Smart grid deployments use devices that fall into the same category as many wireless devices found in the home, such as wireless routers used for internet connectivity and wireless baby monitors. And unlike the laptop or WiFi router in the home that are always transmitting, smart meters transmit for only a fraction of the day for short durations.

Introduction

Smart Grid is a transformed electricity transmission and distribution network or "grid" that uses robust two-way communications, advanced sensors, and distributed computers to improve the efficiency, reliability and safety of power delivery and use. Deploying the Smart Grid became the policy of the United States with passage of the Energy Independence and Security Act of 2007 (Title 13). The Smart Grid is also being promoted by the European Union and other nations.

The smart grid will rely on the use of radio frequencies to provide wireless connectivity to the various components of the new electric distribution system. Wireless communications technology has become ubiquitous in our lives, enabling mobile connectivity with cell phones, wireless internet services and home area networking with WiFi technology and even cooking our food with microwave ovens. Yet

there are unsubstantiated concerns that the smart meters being installed around the country and the world will cause ill health effects to members of the household where the meters are installed.

Therefore, we examine the facts about the impact of radio frequency energy on the body, showing that the devices utilities seek to install pose no threat of harm to humans. We show that the type of radio energy used and emitted by smart meters, cell phone, wireless routers and microwave ovens can only damage the body at extremely high levels. While research continues into long term effects, there has been no conclusive evidence that low level RF energy has a long term negative impact. We concentrate on RF energy and acknowledge that electric meters are connected to the power system and unauthorized tampering or dismantling an electric meter could pose electric shock danger to anyone coming in direct contact with energized electric conductors.

Federal Jurisdiction for Safety of Radio Frequency Devices

The Federal Communications Commission (FCC) has jurisdiction over the approval and use of radio frequency devices, whether a license is required for the devices or if unlicensed operation is allowed. FCC regulations are based on standards set by the Institute of Electrical and Electronic Engineers (IEEE) based on years of research by health professionals. The FCC has a twofold role in ensuring safety. First, the FCC has allocated the radio spectrum into a variety of pieces, most of which need coordination and a license before operation is permitted. Examples of this include television, satellite and radio broadcast channels, a variety of cellular and personal communications service frequencies, and microwave frequencies that transmit huge amounts of information from one point to another using dish style antennas. At the same time, the FCC has allocated some frequencies for unlicensed operation, allowing consumers to purchase products at Best Buy or Wal-Mart and install them in their homes. These devices operate at low power levels, enabling communications but posing no threat of health effects to humans. Examples include the WiFi routers already discussed, wireless baby monitors and garage door openers.

The FCC's second role is to approve radio devices for manufacture, import and sale. Regardless of whether the equipment operates on low power unlicensed channels or at higher power operations that require an authorization, each device must be tested to meet FCC standards. The sale of untested and unapproved equipment is a serious offense and the FCC aggressively prosecutes violators.

FCC Mandates on RF Exposure and Impact on Humans

The FCC is required by the National Environmental Policy Act of 1969, among other things, to evaluate the effect of emissions from FCC-regulated transmitters on the quality of the human environment. Several organizations, such as the American National Standards Institute (ANSI), the Institute of Electrical and Electronics Engineers, Inc. (IEEE), and the National Council on Radiation Protection and Measurements (NCRP) have issued recommendations for human exposure to RF electromagnetic fields.

On August 1, 1996, the Commission adopted the NCRP's recommended Maximum Permissible Exposure limits for field strength and power density for the transmitters operating at frequencies of 300 kHz to 100 GHz. In addition, the Commission adopted the specific absorption rate (SAR) limits for devices operating within close proximity to the body as specified within the ANSI/IEEE C95.1-1992 guidelines.

(See Report and Order, FCC 96-326) The Commission's requirements are detailed in Parts 1 and 2 of the FCC's Rules and Regulations [47 C.F.R. 1.1307(b), 1.1310, 2.1091, 2.1093]. The potential hazards associated with RF electromagnetic fields are discussed in FCC's Office of Engineering and Technology (OET) Bulletin No. 56, "Questions and Answers About the Biological Effects and Potential Hazards of Radiofrequency Electromagnetic Fields."[1]

The FCC also offers OET Bulletin 65 on this topic. The revised OET Bulletin 65 has been prepared to provide assistance in determining whether proposed or existing transmitting facilities, operations or devices comply with limits for human exposure to radiofrequency (RF) fields adopted by the Federal Communications Commission (FCC). The bulletin offers guidelines and suggestions for evaluating compliance.

Understanding the Impact of RF Energy on Humans

RF signals are known to propagate as waves, and one of the key characteristics of the wave is its frequency. Frequency is the most significant control factor in radio transmission and impacts how the waves travel through space, whether they pass through walls or bounce off them, the wave's interaction with foliage, etc. Use of the transit frequency is common knowledge in our society, as commercial radio and television stations often use this parameter as part of the public persona.

Frequency also determines the impact of RF energy on the human body. Only very high frequencies, ultraviolet rays and above, have the capability of mutating living cells to cause cancer and similar illness. This frequency range is known as ionizing radiation because the RF energy creates ions out of living cells by removing or adding electrons at the cellular level.

Non-ionizing radio energy fall below this frequency range and the primary interaction with human cells is to heat them. This is the basis for the microwave oven. Non-ionizing energy, at a high enough level, will heat human cells until they die, but non-ionizing energy is simply incapable of mutating cells and causing diseases like cancer.

Industry research and standards agencies, such as ANSI and IEEE, have compiled the research associated with human exposure of RF energy and created guidelines that the FCC and the Federal Occupational Safety and Health Administration (OSHA) have adopted. The standards incorporate frequency of the energy to define maximum permissible exposure levels (MPE) correlated to frequency. The standards are most conservative at frequencies where the wavelength of the energy is near the size of the average human and have the most potential for whole body impact. The resulting MPE levels incorporated into the requirements include a 10:1 safety ratio to account for variations in size, weight and physical condition of the subject. Therefore, exposure even at 100% of the MPE level will not cause physical harm.

In order to further protect the public from exposure to RF energy, the FCC set the MPE levels discussed above as the "occupational" or "controlled" environment, intended for workers and other professional

[1] http://www.fcc.gov/oet/rfsafety/

previously trained in safety related to RF energy. The FCC then created a "general public" or "uncontrolled" environment criteria that added an additional 5:1 safety factor over the occupational level. Thus the FCC's MPE limit for the general public is 50 times less than the level research shows can actually cause harm. The tables below show the limits for occupational and general public MPE.

Table 1. LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

(A) Limits for Occupational/Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	$(900/f^2)$*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

(B) Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	$(180/f^2)$*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz *Plane-wave equivalent power density

NOTE 1: ***Occupational/controlled*** limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

NOTE 2: ***General population/uncontrolled*** exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

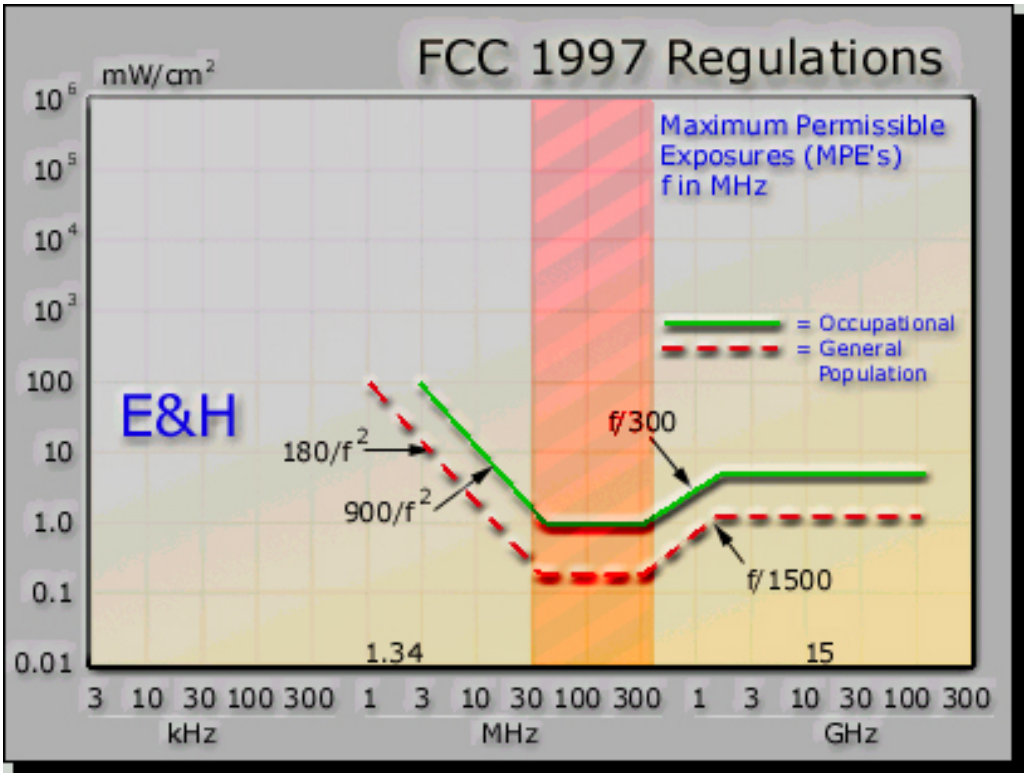

Figure 1. MPE Level by Frequency and Class (Source: Sitesafe, Inc., Arlington VA)

The FCC's OET 65 document also defines concepts like time averaging. As shown in the tables above, the averaging time for occupational/controlled exposures is 6 minutes, while the averaging time for general population/uncontrolled exposures is 30 minutes. It is important to note that for general population/uncontrolled exposures it is often not possible to control exposures to the extent that averaging times can be applied. In those situations, it is often necessary to assume continuous exposure. [2] Since the known danger in RF energy is tissue heating, if the subject moves out of the area of high RF levels, the cells will return to normal temperature. At 100% or less of MPE, there is no danger in continuous exposure. Time average says that if one is an area identified as 200% of the occupational MPE, up to three minutes of exposure is safe as long as three minutes elapse in an area at less than 100% MPE.

In summary, there is no known long term health effect from exposure to RF energy at levels below those designated by the FCC. This energy is all around and the energy associated with smart meters is far less than those of other common services and equipment.

[2] FCC OET Bulletin 65

Comparison of RF Power Density in the Everyday Environment

Device Relative Power Density in microwatts per square centimeter (µW/cm2)

FM radio or TV broadcast station signal	0.005
SmartMeter™ device at 10 feet	**0.1**
Cyber cafe (Wi-Fi)	10-20
Laptop computer	10-20
Cell phone held up to head	30-10,000
Walkie-Talkie at head	500-42,000
Microwave oven, two inches from door	5,000

Source: Richard Tell Associates, Inc.[3]

Meter Reading System Configurations

Residential and industrial electric meters allow utilities to accurately bill for the energy consumed. These devices have been used as long as the electric industry has been in place. Early meters required manual reading, with a utility employee writing down the use data and returning to the office to enter that information into the utility billing system. The use of radio frequencies to interrogate meters began in the early 1980's. These systems used an interrogation signal sent from a utility employee either walking or driving through the area of interest. A radio signal "pings" the meters within range and the devices respond with consumption information, also using radio signals.

As previously noted, the electric infrastructure in the US is going through a major transition, replacing equipment that can be 40 to 50 years old. At the same time, variable renewable energy sources like solar and wind must be integrated into this new grid. Increased communication with consumers that allows customers to adjust their energy usage in response to pricing or reliability based signals. Remote meter reading and cutoff, as well as other smart grid applications are all key components of the smart grid and these capabilities rely on smart meters.

Smart meter systems varying in implementation depending on the utility's needs and the vender selected. Most utilities are electing to install radio based smart meter systems. Radio based systems also vary in configuration, but each system is made up of the following components:

1. Meter: The meter device measures consumption and stores the information for retrieval by the utility.

[3] Pacific Gas and Electric: http://www.pge.com/myhome/edusafety/systemworks/rf/

2. Meter Transceiver: The transceiver is a radio that receives instructions from the utility network and transmits necessary information to the utility. The transceiver is often an integral part of the meter, especially in the case of electric meters. Often, water and gas meters' transceivers are mounted near the device. The meter's radio system can also communicate with home energy management systems used by customers to control and monitor appliance power consumption. The meter transceivers operate on low power unlicensed channels, or in some cases, using cellular radio channels.

3. Data Aggregation Points: The meter transceiver transmits information to nearby collection devices, often called data aggregation points (DAPs). These devices are often mounted on nearby power poles at heights of 20 to 30 feet above ground. The DAPs collect information and transmit that information to the utility. If the utility has high capacity fiber infrastructure, that resource carries information from the DAPs. Typically, the DAP will communicate with center receive stations on radio frequencies in the unlicensed bands, or using cellular technology.

A common misconception about smart meters is that they are always "on" or transmitting. This is far from the case. Until recently, water and gas utilities usually read meters once or twice a month and the time needed to transmit information is less than 1 second. Only recently have gas and water utilities initiated more frequency meter queries. Electric utilities are implementing time-of-use billing structures but rarely need to read the meter more than once every 15 minutes. Again, the time to transmit consumption data is less than 1 second. This means, in this scenario, these low power devices are transmitting approximately 0.11% of the day[4], at short bursts of less than one second. Even if the meter transmits once every 15 seconds, as is the case when no interrogation signal is used, transmission would still only by 6.7% of the day

We know from our discussion of RF exposure, even if the RF levels from these devices would exceed 100% of the FCC MPE, the impact on the body takes time. For the RF signal from a smart meter to be powerful enough to harm the human, that signal would have to be so powerful the transmission would be on the order of TV or radio broadcast stations. This is clearly not the case for smart meters.

[4] Daily exposure percentage = [(4 seconds/hour)/(24 hours/day*60 minutes/hour*60 seconds/minute)]* 100

Summary

In this article, we defined the concept of the smart grid and the benefits to society. We also highlighted the importance of radio networks to the successful deployment of the smart grid. We discuss the important concepts of RF energy and the impact on humans. Specifically, there is no demonstrated long term impact of low level non-ionizing energy on humans. Ionizing energy, beginning with the ultraviolet component of sunlight, has been demonstrated to have long term impact, but the frequencies citing in this report are hundreds of orders of magnitude below that of sunlight. Therefore, this shows that the often quoted sources in the media expressing concern about the RF safety from smart meters are shown to be based on faulty logic, or faulty "facts" and misrepresentations.

We show that a specific analysis of the component used in this smart grid deployment are significantly below general population MPE and note, again, that FCC limits for MPE of general population are already at least 50 times lower than levels that can cause tissue heating.

An examination of a majority of smart meters being deployed today will show these devices use low power levels associated with unlicensed devices, on the equivalent magnitude as the devices that provide WiFi connectivity in the home. Millions of laptop computers are used in homes every day that transmit at levels similar to the smart meter and the transmitters from these devices are always "on". Some utilities are deploying meter reading systems that use commercial wireless providers to gather data. These meters have the same radio components as cell phones, the same phone consumers raise to their head every day.

So when confronted with complaints that say smart meters cause a variety of health effects, ask the complainant to produce the science to support the claim. The conversation should end shortly thereafter.

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Appendix – Useful Links

http://www.fcc.gov/oet/rfsafety

http://www.fcc.gov/oet/rfsafety/rf-faqs.html

http://www.fcc.gov/oet/info/documents/bulletins/Welcome.html#56

http://www.fcc.gov/oet/info/documents/bulletins/Welcome.html#65

For more information, please contact:
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+1.202.833.6803

EXPENSES

Department	2022 Actual	2022 Budget	Variance
General Operations	$ 37,760	$ 43,400	$ (5,640)
Customer Collections	23,628	22,011	1,617
Administration	86,564	88,041	(1,477)
Other expense	39,279	39,008	271

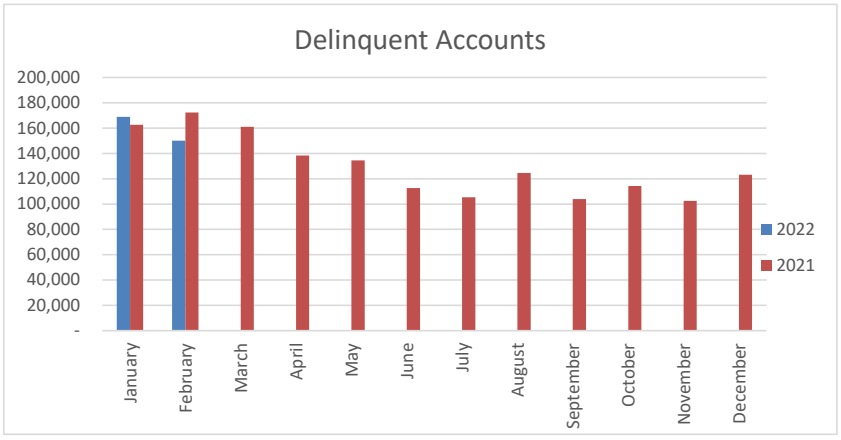
	February 2022	2022 YTD
Photovoltaic Credits	$ 1,834	$ 2,872
KLPD electrical usage	3,700	6,892

	MONTHLY			YTD			ANNUAL
	February 2022	February 2022	February 2021	2022	2022	2021	2022
Revenue	**Actual**	**Budget**	**Actual**	**Actual**	**Budget**	**Actual**	**Budget**
Energy revenue	$ 661,513	$ 659,011	$ 686,677	$ 1,316,090	$ 1,312,022	$ 1,412,570	$ 6,683,484
Energy expense	(605,143)	(659,011)	(593,901)	(1,330,875)	(1,312,022)	(1,239,394)	(6,683,484)
Net energy revenue	56,370	-	92,775	(14,785)	-	173,176	-
RNS revenue	243,853	241,142	186,921	472,309	467,241	384,504	2,258,068
RNS expense	(246,228)	(241,142)	(196,855)	(468,847)	(467,241)	(410,863)	(2,258,068)
Net RNS revenue	(2,374)	-	(9,934)	3,462	-	(26,359)	-
Transmission revenue	52,637	51,200	50,940	102,889	102,914	104,386	502,355
Transmission expense	(45,721)	(51,200)	(34,360)	(93,724)	(102,914)	(66,377)	(502,355)
Net transmission revenue	6,916	-	16,580	9,165	-	38,009	-
Net Energy/Transmission Revenue	**60,912**	**-**	**99,422**	**(2,158)**	**-**	**184,826**	**-**
Delivery revenue	241,427	237,507	222,324	472,133	469,062	455,820	2,439,240
Minimum charge revenue	50,650	50,500	50,146	101,225	101,000	100,306	610,230
Other revenue	14,698	7,500	28,081	33,472	19,074	36,266	90,506
Total Operating Revenue	**306,775**	**295,507**	**300,551**	**606,830**	**589,136**	**592,391**	**3,139,976**
Expenses							
General Operations	37,760	43,400	41,844	84,683	90,843	80,816	825,000
Customer Collections	23,628	22,011	14,671	39,150	38,422	27,362	231,677
Administration	86,564	88,041	142,335	239,697	243,260	227,586	1,375,000
Other expense	39,279	39,008	36,981	75,536	76,019	73,962	445,000
Total Operating Expense	**187,231**	**192,460**	**235,831**	**439,066**	**448,544**	**409,726**	**2,876,677**
Net Operating Gain/(Loss)	**119,544**	**103,047**	**64,720**	**167,764**	**140,592**	**182,666**	**263,299**
Total Gain/Loss	**$ 180,455**	**$ 103,047**	**$ 164,142**	**$ 165,606**	**$ 140,592**	**$ 367,492**	**$ 263,299**

KENNEBUNK LIGHT & POWER DISTRICT
STATEMENT OF FINANCIAL POSITION

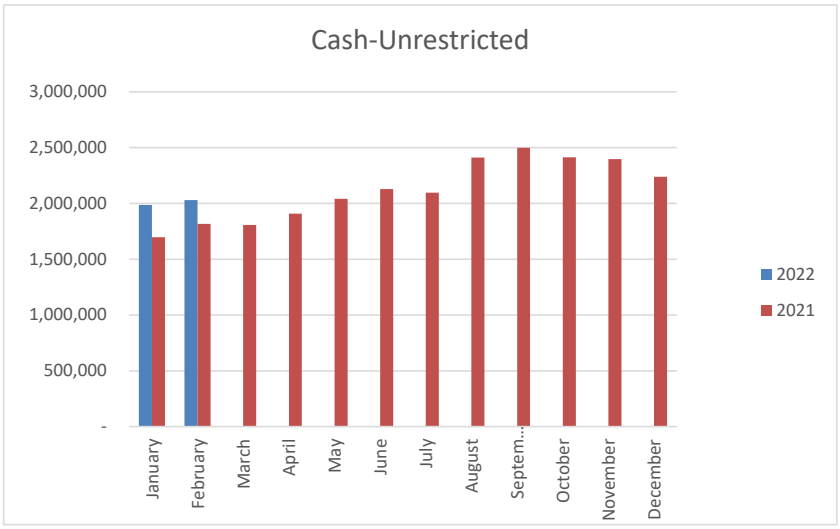
	February 2022	February 2021
Assets		
Cash and short-term investments	3,063,105	2,323,562
Accounts receivable	1,192,092	1,310,833
Fixed assets and property	10,856,193	10,443,664
Other assets	400,812	704,111
Total assets	**15,512,202**	**14,782,170**
Liabilities		
Accounts payable	901,580	850,870
Payroll liabilities	17,589	8,626
Long-term liabilities	1,555,660	1,771,608
Other liabilities	926,506	922,890
Total liabilities	**3,401,335**	**3,553,994**
Equity		
Surplus	11,945,260	10,860,684
Current year excess revenue	165,606	367,492
Total equity	**12,110,866**	**11,228,176**
Total liabilities & equity	**15,512,202**	**14,782,170**

Kennebunk Light & Power District
February 2022



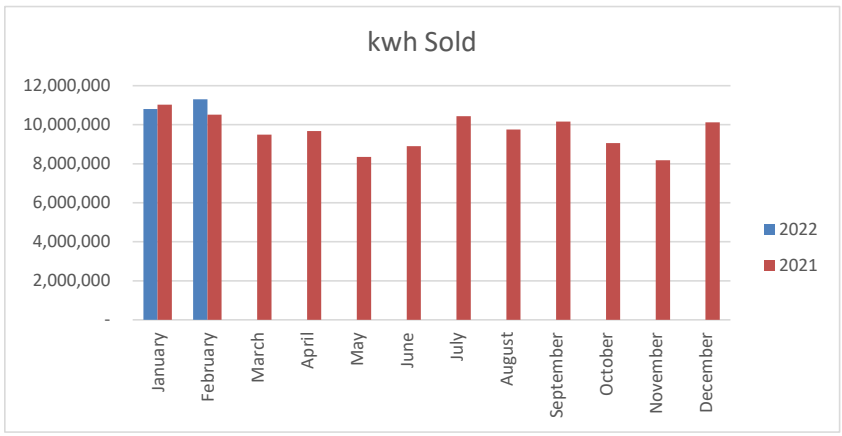
Aging	2022	2021
29 to 60 days	102,024	99,886
61 to 90 days	18,113	24,617
91 days +	30,031	47,794
Total	150,168	172,297

Delinquent accounts as a % of current month's sales:	11.87%	14.06%

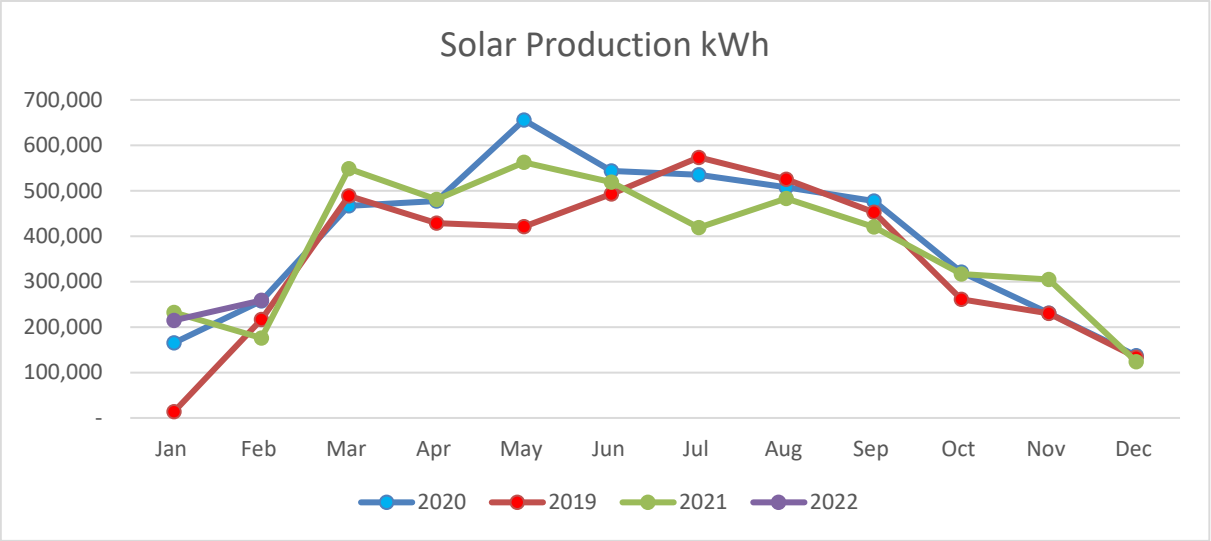


Days of Cash on Hand		Without Bond
Required	90	90
Actual	62	71
Variance	-28	-19

Cash required:	$ 2,950,000
Cash unrestricted	**$ 2,029,330**
Cash-deposits	$ 140,794
Cash-capital	$ 892,981
Cash-Efficiency ME	$ -
Cash-Total	**$ 3,063,105**
Variance	$ (920,670)



February 2022	11,305,617
February 2021	10,514,689
Variance	790,928


Solar Production kWh
700,000
600,000
500,000
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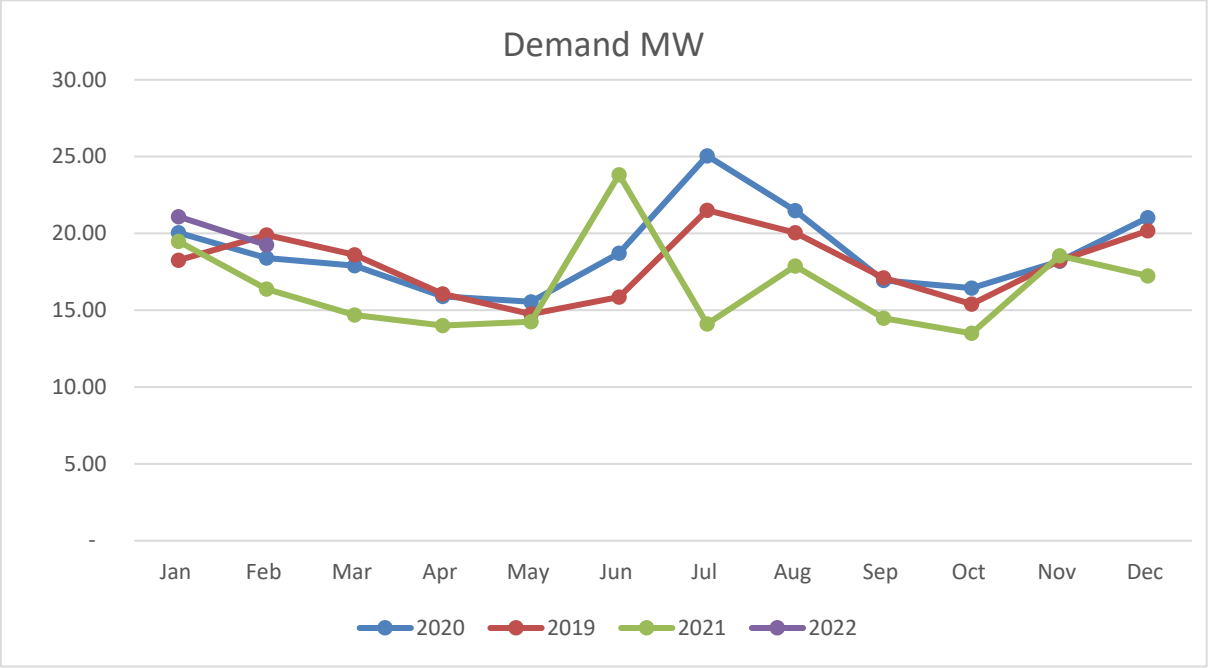
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KENNEBUNK LIGHT & POWER DISTRICT
HYDRO STATEMENT OF ACTIVITY

Revenue	February 2022	YTD 2022	2022 Budget
Electrical Production	$ -	$ -	$ -
Total Revenue	**-**	**-**	**-**
Expenses			
Labor	222	520	5,000
Benefits	107	250	2,400
Supplies	354	832	5,000
Electrical Use	42	118	1,000
Liability/Property Insurance	600	1,200	7,200
Depreciation	1,343	2,687	22,000
Legal & Professional Fees	-	640	30,000
Total Expenses	**2,668**	**6,246**	**72,600**
Gain/ (Loss)	**$ (2,668)**	**$ (6,246)**	**$ (72,600)**

KLPD 2022-2029 PASSENGER VEHICLE REPLACEMENT SCHEDULE
3/29/2022

General Foreman Truck (2019). This purchase was completed in December 2019. Plow equipped. Vehicle currently has 39,369 miles. Anticipated replacement 2029.

Crew Call Truck (2020). This purchase was completed in 2020. Vehicle currently has 27,147 miles. Anticipated replacement 2027.

Maintenance Truck (2022), $40,000 estimated cost in 2020. ¾ ton (possibly replaced with 1 ton) work horse for the District. Current vehicle is a 2011 GMC long bed pickup with 137,920 miles. This vehicle plows the yard (for less than contracting services out), substations and dams. Also carries all of the heavy loads that need to be carried that cannot be loaded on bucket or digger trucks. Anticipated 10 year useful life on replacement. Truck will be sold to highest bidder or traded in toward new vehicle.

ESM/Scouting Vehicle (2024), $40,000 (considering trade in) estimated cost in 2024. General utility vehicle for District. Current vehicle is a 2010 Honda Pilot with 103,379 miles. Anticipated useful life is an additional 2 years. Anticipated 10 year useful life on replacement.

Meter/Additional crew use vehicle, not anticipated to be replaced due to advanced metering infrastructure. Current meter vehicle is a 2010 Toyota Highlander with 97,527 miles (former GM vehicle). Anticipated useful life is an additional 5 years, or until the end of its ability to serve.

Kennebunk Light and Power District
2022-2026 Capital Improvement Plan

Initiative	Total Cost	2022 Cost	2023 Cost	2024 Cost	2025 Cost	2026 Cost
New Metering System	$ 940,000	$ 470,000	$ 470,000			
New Metering System Installation	140,000	70,000	70,000			
Mill Street Reconductoring	75,000	75,000				
Replace 2005 Bucket Truck	350,000	116,667	116,667	116,667		
Replace 2012 Bucket Truck	365,000			121,667	121,667	121,667
Replace Maintenance Pickup Truck	40,000	40,000				
Total CIP	$ 1,910,000	$ 771,667	$ 656,667	$ 238,333	$ 121,667	$ 121,667

Funding	
Current capital reserve	$ 893,000
Current cash reserve	392,000
Fiscal year 2022 surplus	125,000
Fiscal year 2023 surplus	125,000
Fiscal year 2024 surplus	125,000
Fiscal year 2025 surplus	125,000
Fiscal year 2026 surplus	125,000
Total Funding	$ 1,910,000

Funding assumes a 1% increase in the delivery rate per year

KLPD COMMERCIAL VEHICLES
3/25/22

- **1999 GMC C 8500, 39,760 MILES, DIGGER DERRICK (SETS POLES).** No issues other than it is a manual transmission. No replacement anticipated in 5 year plan, potentially within the 10 year horizon.
- **2005 FREIGHTLINER BUSINESS CLASS M2, 78,139 MILES, UTILITY BUCKET TRUCK. ANTICIPATED REPLACEMENT COST $350,000.** Rust issues. Request authorization to begin developing specifications for replacement due to rapidly accelerating rust issues. Trade in/private sale value $40-$50,000.
- **2012 INTERNATIONAL 4300, 32,059 MILES, UTILITY BUCKET TRUCK.** No issues. Consideration of replacement in 2026.

LARGE SCALE CAPITAL PROJECTS

- WATER STREET SUBSTATION SAFETY AND RELIABILITY IMPROVEMENTS
  - Transformer reconfiguration. Needs 2 transformers to run reliably. Properly reconfigure transformers for maximum reliability and safety. Continued circuit consolidation. Remove or relocate voltage regulators to create additional safety clearance within footprint of current substation. Replace porcelain insulators with appropriate insulators. Provide additional insulating materials of live electrical fixtures to create additional working clearance within footprint of current substation. (2020-2021 projected to be in house financeable.)
- METERING
  - KLPD's remote metering has reached end of life. Staff and crew currently identifying advanced metering options. Focus is on long term needs, value and functionality. Ability to integrate technological changes and vendor/system track records for performance imperative. (2020 or 2021 potential for 3 year lease/purchase to defray costs. Minimum charge rate increase potential to finance this system.)
- MILL STREET RECONDUCTOR
  - Dependent upon Water Street Substation Project. Load reduction from Ross Road project still TBD. Circuit consolidation and Water Street Substation upgrades to determine scope of this project. May prove unnecessary or not cost effective pending loading results from Ross Road project.

SMALLER SCALE CAPITAL PROJECTS

- PARKING LOT RESURFACE/RECONSTRUCTION
- HEATING SYSTEM
- RENOVATION OF OFFICES
- RECLOSERS (MAGUIRE, SEA ROAD, WALKER ROAD)
- REGULAR FACILITIES MAINTENANCE AND UPKEEP

Other upgrades and improvements to our system and facilities are performed every year through the budgetary process. Examples of such work include: Commercial and Industrial facility upgrades and refinements; replacement of direct bury underground facilities (a practice no longer permitted); aged or failing field transformer replacement; aged utility pole replacement; overhead line protection devices; fuse upgrades and replacement; air break and recloser deployment; circuit consolidations; GIS system refinements; IT system maintenance; testing and upkeep of substation transformers.

The KLPD Board of Trustees is inviting you to a scheduled Zoom meeting.

Topic: KLPD BOARD OF TRUSTEES ZOOM MEETING

Time: Mar 29, 2022 05:00 PM Eastern Time (US and Canada)

Join Zoom Meeting

https://us02web.zoom.us/j/89261945486?pwd=am1VTVdCcGZUcFpYY01ONEJucTBaQT09

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