

Wakefield Municipal Gas and Light Department

Board of Commissioners



January 6, 2021

NOTICE OF MEETING
WAKEFIELD MUNICIPAL LIGHT & GAS DEPARTMENT
BOARD OF COMMISSIONERS

DATE: January 6, 2021
CALL TO ORDER: 6:30 P.M.

Consistent with the Governor's orders suspending certain provisions of the Open Meeting Law and banning gatherings of more than 10 people, this meeting will be conducted by remote participation to the greatest extent possible. The public may not physically attend this meeting, but every effort will be made to allow the public to view and or listen to the meeting in real time. Persons who wish to do so are invited to click on the following link

Join Zoom Meeting

<https://wentworth.zoom.us/j/93937757684?pwd=V0FIQTE4ZWV6RHMwbUdtL0d1ZCt4UT09>

Meeting ID: 939 3775 7684
Password: 311217

Call In

1-312-626-6799 or
1-646-558-8656

Meeting ID: 939 3775 7684
Password: 311217

Please only use dial in or computer and not both as feedback will distort the meeting.

**WMGLD BOARD OF COMMISSIONERS MEETING
480 North Ave
Wakefield, Massachusetts 01880**

January 6, 2021

**AGENDA
6:30 PM**

- A. Call to Order**
- B. Opening Remarks**
 - Chair's Remarks – Phil Courcy
 - Commissioners Reports
 - Town Council Liaison Comments
 - Public Comments
- C. Secretary's Report**
 - 1 Approval of December 2, 2021 Minutes
- D. Old Business**
 - 1 Project Updates
 - A. Presentation of McGrail Substation Upgrades – Paul Redmond and Vincent McMahon
 - 2 2021 Goals and Objectives
 - 3 Strategic Planning – 2021 Plans
- E. New Business**
 - 1 Low Income Discussion
- F. Any other matter not reasonably anticipated by the Chair**
- G. Executive Session if necessary**
- H. Adjournment**



WMGLD

P.O. BOX 190 480 North Ave.

Wakefield, MA 01880

Tel. (781) 246-6363 Fax (781) 246-0419

Peter D. Dion, General Manager

Philip Courcy, Chair

Thomas Boettcher, Secretary

Kenneth J. Chase, Jr.

Jennifer Kallay

John J. Warchol

WAKEFIELD MUNICIPAL GAS & LIGHT DEPARTMENT

BOARD OF GAS & LIGHT COMMISSIONERS MEETING

December 2, 2020

MINUTES

IN ATTENDANCE: Commrs. Phil Courcy, Chairman
Thomas Boettcher, Secretary
Jennifer Kallay
John J. Warchol

Peter Dion, General Manager, WMGLD

Mark Cousins, Financial Manager
Dave Polson, Engineering and Operations Manager
Sylvia Vaccaro, Office Manager

Julie Smith-Galvin, Town Liaison

PLACE: ZOOM MEETING

CALL TO ORDER:

Chair Courcy called the meeting to order at 6:30 P.M. and informed the Board that the meeting is being recorded.

Chair Remarks: Commr. Courcy commented on recent energy news from Bloomberg. It is predicted that eastern United States will have a mild winter, expecting lower gas prices. Future prices have already plunged more than 20 percent in November. He stated that Exxon Mobil is struggling, as they will write off their North and South American natural gas field assets totaling between \$17 - \$20 billion dollars. They are also suspending employee bonuses and are in the process of laying off thousands of employees as well as curtailing retirement benefits and cancelling ambitious growth projects. It is reported that they will pay dividends. Commr. Courcy also reported that the Vineyard Wind 800-megawatt project has selected GE Renewable Energy as their preferred supplier of turbine generators. He further mentioned that he has received

inquiries about the availability of the WMGLD calendars. Pete explained that there were some issues in obtaining photos from the Historical Society, but they are now in print and will be available starting next week with drive-by pick-ups at the WMGLD office.

Commissioner Remarks:

Commr. Kallay reminded the Board that the Wakefield Resilience Framework dashboard review and training is scheduled for December 10th from 10:00 a.m. -11:00 a.m. This training will provide an opportunity to learn how the town is viewing resilience and there is some equity terminology in there as well.

Commr. Boettcher mentioned that he spoke to Pete about a grant for diesel vehicles being replaced with hybrid and/or electric vehicles that came from the Volkswagen settlement. He stated that the city of Beverly used the grant for an all-electric school bus. This may be an option for both the dump and bucket trucks that need to be replaced. Commr. Boettcher inquired if there was a resolution to the Sunrun/Vinint issue with the Department of Energy Resources (DOER). Pete stated that we identified the two customers that need to complete their paperwork and he noted that Vinnie is following up with this issue. He also said there is unofficial discussion on an extension with DOER. Commr. Kallay asked for the issue to be described for the record. Pete stated that MMWEC provides a report each month that indicates which of our solar projects have been approved by the DOER and there were inconsistencies for the past two months. Two projects had not submitted their paperwork to the DOER. They are complete from our prospective but not by DOER. He noted that it is up to the customer and their vendor to submit completed paperwork to DOER. The vendor in both instances was identified as Vivint, which was bought by Sunrun. We have contacted both customers and they are in the process of completing the paperwork along with Sunrun.

Commr. Boettcher inquired on the status and location of the DC fast charger that MMWEC could potentially install near the head of the lake. Pete stated that there have been no new updates, however we did share with MMWEC the potential locations around the lake near Route 128. We still have not heard if we would be selected. He mentioned that Steve Maio did identify a location across from Cumberland Farms, on Main Street. The charger would be placed on one of the existing jet outs, so it would be easily accessible from a parallel parked vehicle. Commr. Kallay asked if the location options were reviewed by the Town. Pete indicated that this project was presented to the Town and they did identify potential locations.

Commr. Warchol provided the Board with an update on his low-income rate research. He spoke with the Deputy General Counsel of the Department of Transitional Assistance. He explained to her that the investor owned utilities have low-income rates and inquired if any municipalities had these rates. As she was not familiar with this, she agreed to go back and look at these rate agreements and get back to Commr. Warchol, so he can present her findings to the Board in January or February of 2021.

Town Council Comments:

Julie Smith- Galvin noted that the Broadway project was discussed at the last Town Council meeting and the Albion Street design was approved.

Secretary's Report

Approval of minutes from the November 4, 2020 meeting was before the Board for approval. Pete forwarded to the Board comments from Commr. Kallay which included some typos as well as a list for inclusion in the 2015A discussion. He noted that it is possible to include a forecast of forward capacity, but there is no price for carbon right now. Commr. Kallay stated she just wanted to make it a formal request. She also said that if requested information cannot be provided, she would simply like an explanation. Pete said that he will add this as an agenda item for January 2021 Board meeting.

Commr. Courcy and Commr. Warchol both provided additional spelling and grammatical edits.

A motion was made by Commr. Warchol to approve the November 4, 2020 Board minutes with the edits discussed and seconded by Commr. Courcy

Vote: The motion was approved unanimously.

Approval of the minutes from the November 19, 2020 meeting was before the Board for approval. Commr. Kallay noted that in the first paragraph on page 16 she would like the second to last sentence changed because it inferred that she had spoken to this person about this idea, when she had not. She would like it to read as follows; She also mentioned she met someone in town who could possibly assist townspeople with heating or weatherization questions as well. She would like to strike the last sentence because she wasn't necessarily saying this would be paid at all.

Commr. Kallay also remarked that Commr. Boettcher's statement should read as Energy Rebate and Incentive packet and not just incentive packet.

Commr. Warchol commented on the Vision statement on page 19. He stated that the words "to what" should be included in the parentheses.

Commr. Courcy mentioned that on page 20, he would like it to read as so it is not implying that he is speaking for National Grid. Commr. Courcy would like it to read as follows: "He said in his experience at National Grid that he was never allowed to cut tracks/remove". In the next sentence it should read: "His projects always had to jack and bore". The following sentence should have a comma inserted before "so the town" doing the permitting is out of his domain.

A motion was made by Commr. Boettcher to accept the November 19, 2020 Board minutes as appended and edited and seconded by Commr. Kallay.

Vote: The motion was approved unanimously.

Accounts Receivable Dashboard

Discussion ensued about the Receivables Aging Dashboard. Pete explained we have gone directly from a COVID moratorium into the winter moratorium. Commr. Kallay inquired as to when this winter moratorium ends. Pete replied that it usually ends on April 15th. He stated that we are reaching out to customer's with past due balances to

assist them in making payment plans. He informed the Board that if anyone talks to them about their account, to please tell them to call us and we will work with them in establishing a payment plan. He also declared that if we do not hear from people, then their service will be disconnected once the moratorium ends. Commr. Kallay questioned how many customers are now eligible for disconnection. Mark Cousins explained that the dashboard is in terms of dollars and not in the number of delinquent customers, but he would have that information for the next Board meeting in January 2021. Commr. Boettcher also noted that it would be helpful to see the breakdown of Residential and Commercial & Industrial (C & I) customers.

Commr. Warchol noted that the percentage of delinquent accounts is getting larger and inquired if we were at the point now or soon to be that we should be discussing future plans in Executive session. Both Pete Dion and Mark Cousins explained that we are not at that point yet. Commr. Warchol stated that maybe we should be thinking outside the box, perhaps arranging some type of a loan for the customer, so that WMGLD would not be at risk. Mark explained that with a loan the customer would need some sort of security. This would require the customer to put up a hard asset and he does not think they would be amenable to that. He stated that we try several times to collect and to establish payment plans before disconnection, so no one should ever be surprised when their service is disconnected. Mark assured that he is watching the receivables and there is limited things that can be done especially on the residential side. He also noted that in speaking to our peers it is not an issue specific to Wakefield.

Commr. Courcy inquired about other utilities such as water and wastewater and how they are handling these issues and what does our State Representatives say about this. Mark commented that unlike electric, water and wastewater is specific to the property owner and can be liened. Mark informed the Board that we cannot lien rental customers. We do lien property owners once a year in the Spring.

Commr. Kallay mentioned that we had previously discussed how MMWEC might have a role to play in this situation. Pete said we are not at that point yet. It would be financing a month of power bills with a line of credit paying it off over time. Pete noted that all 20 municipalities have that option with MMWEC.

Old Business:

Project Updates

McGrail Substation

Pete stated that there has been significant progress on the 4kv project. The switch gears are live. The first circuit was cut over last week with the second this coming Saturday and last circuit next week.

Foundry Street

Pete mentioned that the Foundry street project is moving along quickly. He noted that since the National Grid work is dormant on Broadway, we are bringing in a contractor next week to work on Broadway up to Foundry

street. There is a class 2 leak and some conversion work that we can complete. Commr. Kallay suggested advising the public of this work, so they are not confusing this with the National Grid project, which is on hold. Pete responded that he will put forth a press release about this work.

Community Solar Structures and Models

Pete stated that he shared a download of a report that illustrates how different communities have structured their solar programs as well as his discussions with MMWEC. Pete explained that in early 2021, WMGLD will put out an RFP (Request for Proposal) and offer a few different structure options. The first option would be a straight EPC (Engineering, Procurement, Construction) contract for a certain number. We would own it and talk about how we want community members to buy into the project. The second option would be a straight PPA (Purchase Power Agreement) where a third party owns the project and we have a PPA with them. The third option would be a hybrid of the two where we would have a partner that would receive the tax benefits. They would own the project for a set number of years and exhaust the tax benefits. We would have a PPA and agreement in advance to buyout the project at a lower capital number after the set time period and have agreed upon a cents per kilowatt hour for the first half of the project. We would then own the project for some fixed capital dollars lower than the original amount. Pete noted that he will work with MMWEC to formulate the RFP. We will have a quarter of a megawatt on the combined roofs of Wakefield Ave. and North Ave. There are a few options on how to structure this project for our customers to buy in. The first option would be a premium on a cents per kilowatt hour basis. The next option would be on a fixed monthly charge basis. Great Blue, who conducted our Customer Service survey a few years ago conducted a survey on this for North Attleboro Electric Department and their findings were that customers preferred a fixed cents per kilowatt hour basis slightly over being assessed a fixed monthly charge. Pete stated that Braintree Electric charges a one cent premium per kilowatt hour charge locked in for 15 years. RMLD charges a fixed charge of \$4 or \$5 a month on their bill.

Commr. Courcy commented that reading through the package the financials noted that most of revenue comes from sale of SRECs (Solar Renewable Energy Credits). The number of examples of existing projects that were under water were impressive. The information stated that if you are not interested in selling SRECS, you'll be underwater before you even start. Pete explained that the benefit of our project is that we are keeping costs down by using our own roofs, so we do not have to pay for land procurement and that we will not have to pay for a separate pilot because we already pay a pilot. Pete also said that is why we are targeting this project at quarter of a megawatt to see what kind of interest we receive. Commr. Boettcher inquired if we would retire or sell the RECs (Renewable Energy Credits). Pete assured that this would be a decision that the Board would make. He also said that selling RECs is the greatest source of revenue, but this project is a green project. He stated that you could sell the Massachusetts RECs and buy Maine Class 1 RECs to offset that and use the financial benefit of the delta. Commr. Boettcher asked if there would be an analysis pertaining to the best options of how to manage the RECs. Pete responded that it would be shared with the Board.

Pete stated that the first step would be to create an RFP for the project to determine cost. He said we have a rough idea of our costs for the EPC project, however the numbers mentioned in the budget last month were a little low because we had not added in the Wakefield Ave roof. The numbers are between \$850,000.00- \$900,000.00 if we were going to pay for it ourselves and then try to sell it off. He has learned in reading through Community Shared Solar and talking to people that there are a lot of ways to reduce that number. Obviously getting an equity partner that will receive tax benefits will reduce these costs immediately as well as the options of creating hybrid deals.

Commr. Boettcher inquired if there are any local prospects for equity partners. Pete stated that an equity partner would probably be a solar vendor. He mentioned the company, EDF that completed Ashburnham's project and who is also the leading candidate for the MMWEC program. However, we are going to put out an RFP, so we will be getting proposals from all interested vendors.

Commr. Kallay questioned how applicable this report is to us as a municipal. She stated that Pete mentioned a Purchase Power Agreement (PPA), but a PPA is not mentioned in the report. She inquired if there are additional opportunities or disadvantages to us that are not in the report that we should be aware of. Pete explained that we own the land and roof assets and do not have to pay a separate pilot. He conveyed that that we have the flexibility to create a project with less bureaucracy. He explained that some of the large costs associated with projects like this are for an interconnection study, so they can interconnect your solar farm into their system. These costs will not have to be factored into this project because we will do this work ourselves. Commr. Kallay asked if we would have access to the SMART program if we go through a private partner. Pete replied that we would not because we are a municipal. She also inquired about MMWEC's role. She stated she would like to know how many other municipalities that MMWEC serves have gone through similar projects, and if there is an opportunity to aggregate with them on future projects. She also asked if MMWEC may have a more efficient project or costs. Pete replied that MMWEC 2020A is their solar project. He also stated that there is a possibility if EDF won the bid there may be some economies of scale, but most municipalities are on their own timeframe. MMWEC strives to help facilitate what the municipalities are trying to accomplish.

Pete went on to say that we need to be careful on how we market this program, so customers do not think that they will realize an immediate reduction on their electric bill without a substantial capital outlay. He concluded that we need to structure a deal to reduce our capital cost, ultimately owning it at the end of an established time period. We would then collect money from our customers, so that some portion of the capital is paid off. Down the road 10- 15 years the project would be paid off in full, so the customer's share of the output would then reduce their electric bill.

Commr. Boettcher inquired if the billing system would be able to process this type of adjustment. Mark Cousins noted that we would investigate this but did not think it would present an issue. He stated that the credit would probably be issued either quarterly or yearly. Both Commrs. Boettcher and Kallay thanked Pete for the information he provided the Board and eagerly await the RFP results.

Commr. Warchol asked if this concept of Community Shared Solar makes more sense for a larger utility and questioned if we should have this for targeted customers who want to join versus having the project for the benefit of the entire community. If the purpose is to have clean energy than we should just put it on the roof and add it to our supply mix. Commr. Boettcher said then that would be option on the RFP. Commr. Kallay said if we see the RFP than we can compare the two options. Her understanding is that it could get the utility to higher levels because you have an incremental funding source from the customers thereby, reaching renewables faster than you would otherwise. This is if it fits within the budget without having an impact on rates. Commr. Courcy inquired if we would pay MMWEC for the RFP. Pete stated that it is part of the service they provide us.

Commr. Kallay's expressed her larger concern in looking at Community Solar is the idea of continuing to replicate the incentive programs that we had this past year. It is essentially loading incentives onto a small number of people with a fair amount of wealth, who receive a lot of benefits. This feels inequitable over the long term. Therefore, being able to spread the ability to participate among more people and give those that may not have had an opportunity feels more equitable. Commr. Warchol stated that he understood that this may be for those that would not be able to participate in our other solar programs. Pete stated that this project would test the interest level in Community solar and any unsubscribed portion would go into the portfolio.

Commr. Kallay thinks the Board should discuss strategy, before we go too far and to make sure that the Board is aligned in thinking this is a valuable approach.

Commr. Warchol stated that we should move forward with solar. Pete stated if it is not fully subscribed then it tells us the information and doesn't commit us. We selected our roofs because it takes some variables out of the equation. Commr. Boettcher stated that the project is a worthwhile endeavor. He personally leans towards the community buy in and it gives us a new model that can grow and expand if the demand is there. Commr. Kallay feels we should do as much in the base as we can possibly do without effecting the rates. Commr. Courcy stated that the community share is fraught with challenges and not an easy path. He also stated that we will have to look at the benefits compared to the numbers. Perhaps to look at this as a utility owned asset. Pete stated that Reading Municipal Light department's first project was fully subscribed, however their second project is not.

Strategic Planning - Mission and Vision Statements

Commr. Warchol suggested to remove the comma after the word services in the Mission statement. He stated that a Vison statement comments on our actions in the future, it was agreed upon that the words, "In addition" would be replaced with "Beyond our Mission. He noted that on the Values statement there should be a comma after the words "core value" and semi colons should be added to the end of all lines except for a period at the end of the last statement.

A motion was made by Commr. Boettcher to accept the Mission, Vision, and Values statements as amended and edited and seconded by Commr. Kallay.

Vote: The motion was approved unanimously.

New Business

2021 Board Meeting Schedule

There were no objections to the 2021 Board meeting schedule.

2021 Goals and Objectives

Pete stated that he used the 2020 goals with some modifications. In the past, a subcommittee was formed to review goals and make suggestions to bring back to the larger group. Commr. Courcy said he worked on the 2020 Subcommittee and would be happy to do so this coming year. Commr. Kallay volunteered as well. She asked if the other Board members had any ideas or changes that they would like to see. Commr. Courcy stated that 2020 goals may not have been met because of the COVID environment, so it may be best to review 2020 goals first and proceed from there. Commr. Kallay suggested that they may want to consider changing leadership to environment because it is a significant part of our Mission, Vision, & Values. She expressed that there may be better ways to organize and formulate goals and is open to suggestions. She proposed that the Board may want to consider benchmarks for financial performance. Pete said the two goals that matter the most are how often your lights go out and how quickly your power is restored. That is why we have focused on CAIDI (Customer Average Interruption Duration Index) and SAIFI (System Average Interruption Frequency Index). Regarding the financials, he stated that it is important to note that we have received clean audits with no management letters and that we are able to keep our rates down. He continued to say that we could possibly include one or two indicators that were highlighted by Melanson & Heath into the financial goals.

Any other matter not reasonably anticipated by the Chair

Commr. Boettcher inquired if we got our Chargepoint signed into EV WATTS. Pete said it did not and he will investigate. He noted that this was the busiest month for the Town's EV chargers. There was a net revenue generation for the Town. Commr. Boettcher also stated that GM announced that they have a new battery technology and will now bring 30 new vehicles to market by 2025.

A motion to adjourn was made at 8:36 p.m. by Commr. Courcy and seconded by Commr. Kallay.

Vote: Unanimously in favor of adjournment.

WMGLD
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Philip Courcy, Chair
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WAKEFIELD MUNICIPAL GAS & LIGHT DEPARTMENT

BOARD OF GAS & LIGHT COMMISSIONERS MEETING

December 2, 2020

EXECUTIVE SESSION MINUTES

IN ATTENDANCE: Commrs. Phil Courcy, Chairman
Thomas Boettcher, Secretary
Jennifer Kallay
John J. Warchol

Peter Dion, General Manager, WMGLD

Mark Cousins, Financial Manager
Dave Polson, Engineering and Operations Manager
Sylvia Vaccaro, Office Manager

PLACE: ZOOM MEETING

A motion was made at 8:26 PM by Commr. Boettcher and seconded by Commr. Kallay to go into Executive session for the purpose of approving the November 4, 2020 Executive minutes and to return to open session for the sole purpose of adjournment.

Vote: The motion was approved unanimously.

Pete informed the Board that next year is a contract year for the Associations (contracts expiring on July 1, 2021) with negotiations typically beginning in February.

Approval of minutes from the November 4, 2020 Executive Session was before the Board for approval. Commr. Courcy asked for clarification of the acronym PSA. The words "Power Supply Agreement" will be added.

A motion to approve the Executive session minutes from the November 4, 2020 meeting was made by Commr. Courcy and seconded by Commr. Kallay.

Vote: The motion was approved unanimously.

A motion to exit Executive session was made at 8:35p.m. by Commr. Courcy and seconded by Commr. Kallay

Vote: The motion was approved unanimously.



DECEMBER 2020 WMGLD COMMISSIONER'S DASHBOARD

Outages (Elec)		
	SAIFI	CAIDI
Oct	0.54	53
Nov	-	54
Dec	-	56
Cal YTD	-	60

FYTD WMGLD Generation - November			
	Salem St.	Battery	Total
RNS Benefit	\$ 272,931	\$ 108,228	\$ 381,159
Capacity Benefit	389,004	220,899	609,903
Debt Service	(265,753)	(102,695)	(368,448)
Net Benefit	\$ 396,182	\$ 226,432	\$ 622,614

CYTD Pipe Replacement		
	Replaced	System Total
4"	3,590	178,403
6"	3,465	146,802
8"	-	79,555

CONSERVATION BUDGET	
YTD FY21 Conservation Fees Billed	\$ 50,589
YTD FY21 Paid out to Customers	\$ (85,798)
(Under) / Over Collected	\$ (35,209)

New Services on the System		
	Electric	Gas
Sep	3	4
Oct	4	5
Nov	4	4

PV Under Contract	259.400 kW
PV In Service	178.445 kW
Total PV Rebate	250.000 kW

Natural Gas Peak Usage	
Current Year Peak (Nov '20 → May '21)	398,894 CCF
Prior Year Peak (Nov '19 → May '20)	1,020,971 CCF
All-Time Peak - Jan '18	1,370,554 CCF

Solar Generation 55 Customers		
	Generated	Back to WMGLD
CYTD	1,870,399	641,242
Comm'l	5,249,520	1,018,000
Res	1,236,626	658,696
Inception	6,486,146	1,676,696

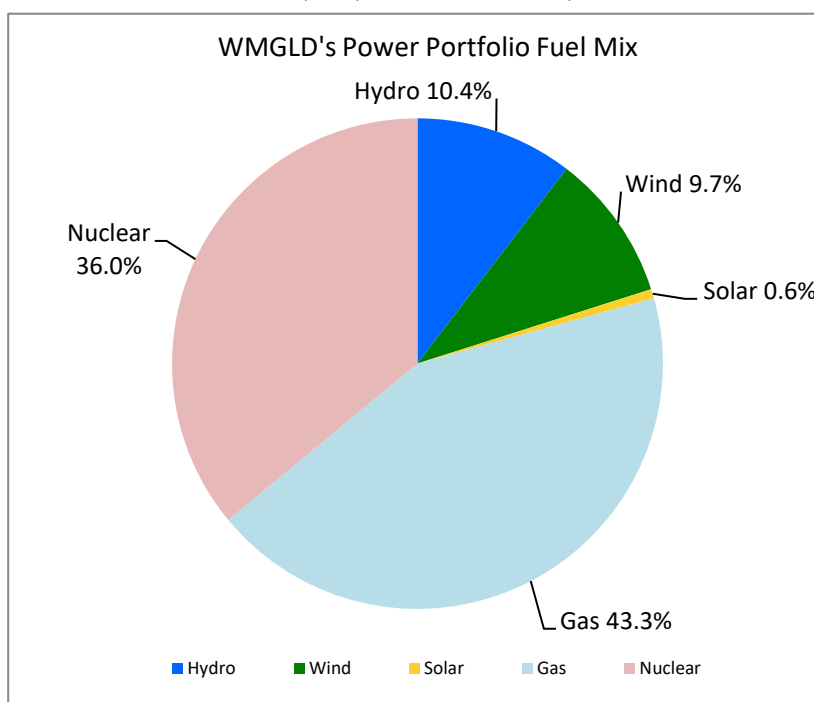
FYTD Sales 5 Mos. → 11/30/20			
	Electric	Gas	Total
\$\$	\$11,858,499	\$1,645,240	\$ 13,503,739
kWh/CCF	72,355,412	942,505	

Monthly & Annual Peaks		
	Prior Year	Current Year
Sep	32.4 Mw	32.0 Mw
Oct	22.2 Mw	21.3 Mw
Nov	24.8 Mw	25.1 Mw

Summer YTD Peak	
7/31/19	7/28/20
42.5 Mw	44.0 Mw

Winter YTD Peak	
12/17/19	11/2/20
28.6 Mw	25.1 Mw

All Time Peak	
1/2/14	8/2/06
36.5 Mw	50.7 Mw

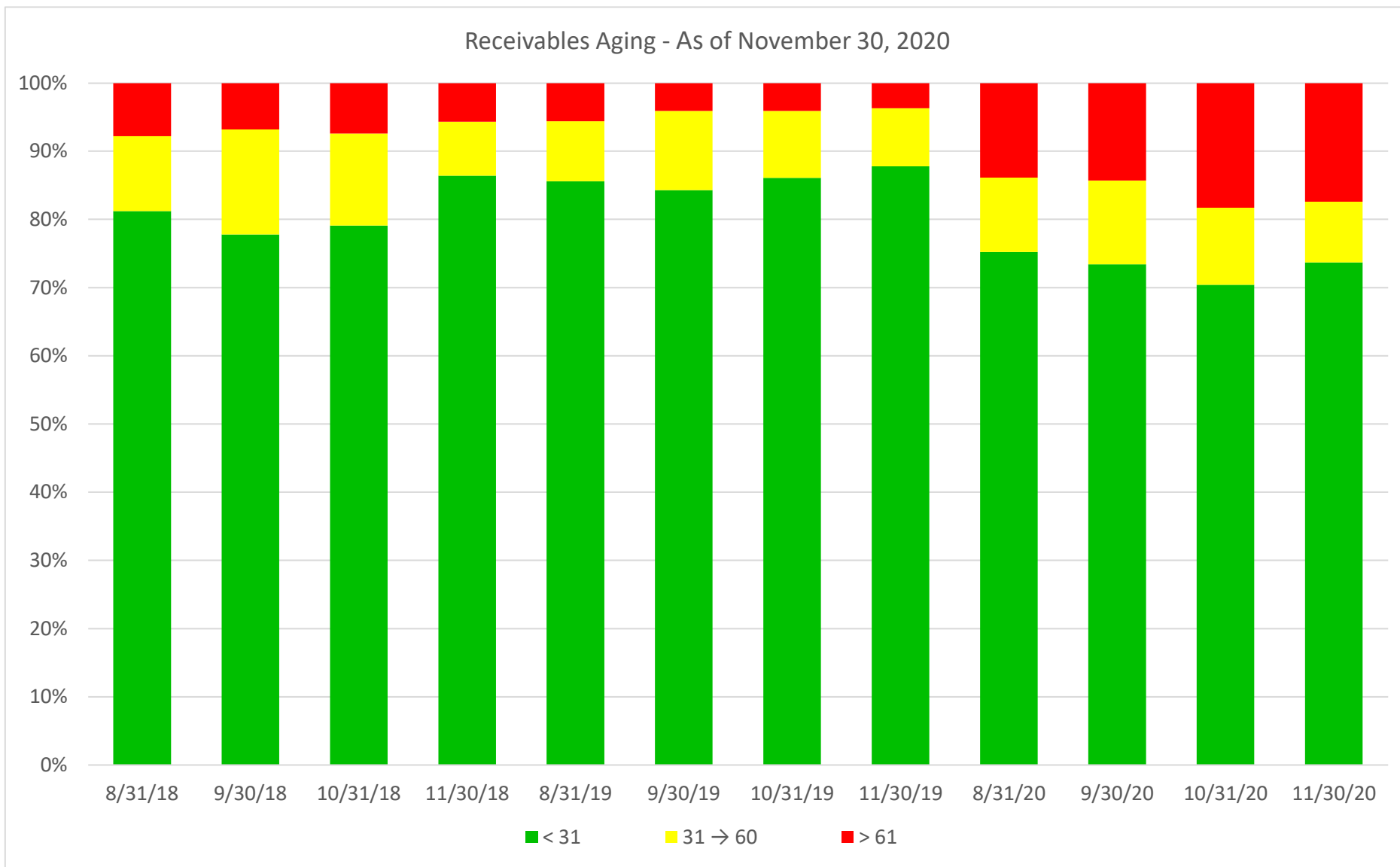


Wakefield Municipal Gas & Light Department
Customer Issues Log

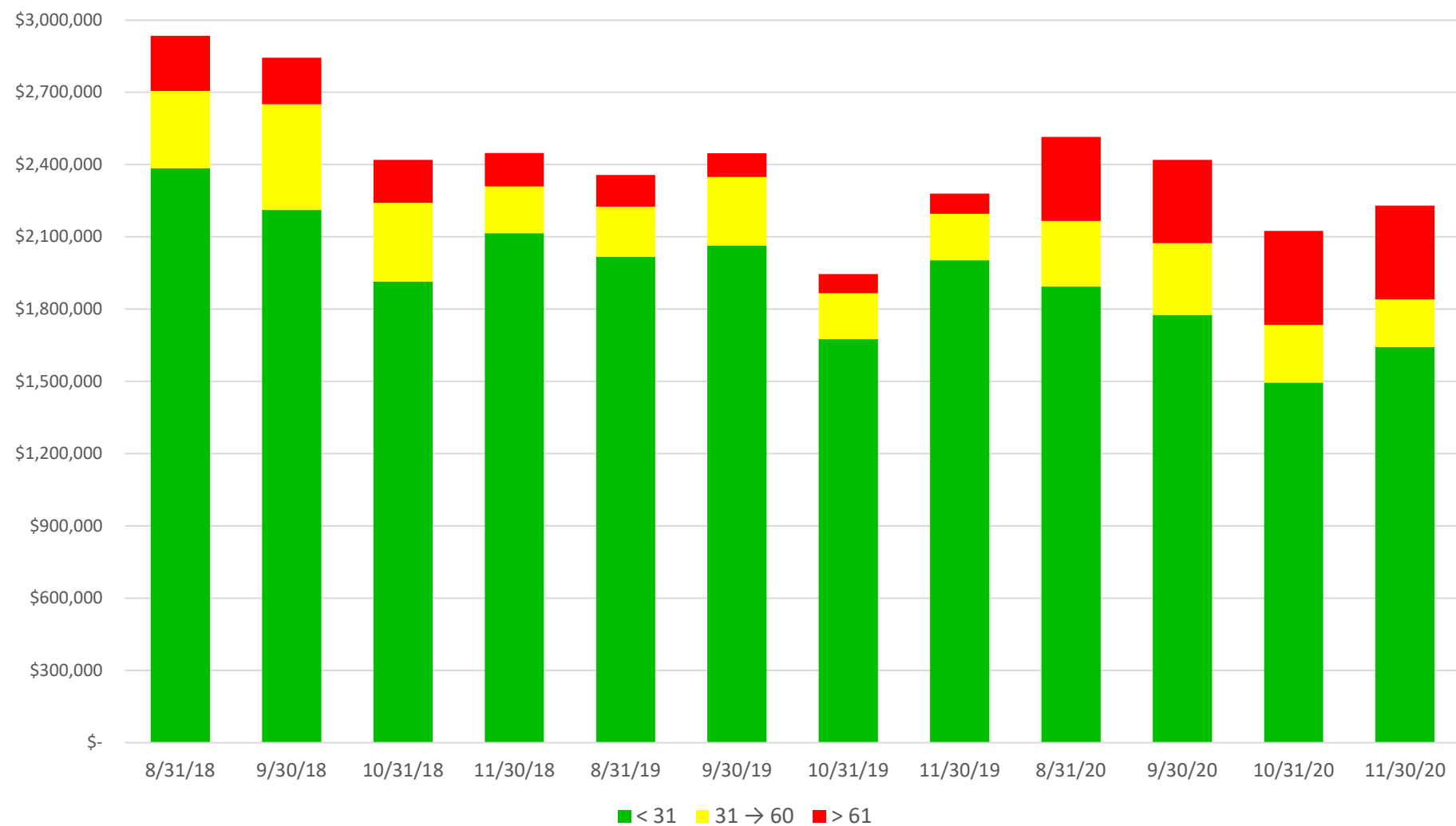
Date	Issue	Resolution
December 15, 2020	Question regarding answering service / office calls not being returned in a timely manner for a real estate agent / property sale / final bill	Realtor was given an office single point of contact.
August 24, 2020	Customer called indicating that during storm clean-up our contracted tree crew had damaged a retaining wall & customers driveway	WMGLD's E & O Manager along with representative from tree company met with the customer at his home and explained the damage was caused by erosion during the storm, not tree crew
July 2, 2020	Customer requested billing name change on account to reflect the name of a close relative who did not own & did not lease the property	Explained that the customer of record can only be the owner or lessor of the property
3/16/20 to 5/1/20	Slow down in posting payments to customer accounts due to continued Century Bank LockBox processing delays	Currently in communications with Century Bank & have re-tooled to process additional payments in-house with clean environment
January 16, 2020	Customer claimed move out in November but did not notify WMGLD until January. Disputed Nov - Jan billings. Posted on social media	Discussed with customer the responsibility of timely notification of move out
November 5, 2019	Customer requested service termination on account in his name, not living at service location anymore due to divorce	Explained service termination process involving move in / move out and spousal rights & responsibilities as it relates to the customer of record
October 8, 2019	Collections & payment plan. Customer contacted the DPU regarding protection from service termination	Service was terminated on customer account due to non payment and non response
August 23, 2019	Collections & payment plan. Customer contacted the DPU regarding payment plan, liens and protection from service termination	This customer has been on the December & April issue logs. Lein process, collections & termination process and protections process explained
August 19, 2019	Customer complained that his mother's home health aid could not reach her due to gas main replacement on Salem Street.	Gas Superintendent gave his cell phone number to customer and offered to escort the health aid to mom's house through the construction

COMMISSIONER REQUESTS LOG	Requested By	Request Date	Completion Date	NOTES
Review net metering policy	JK	12/5/2018	1/9/2019	VZ
Add completion dates to this form	JW	12/5/2018	1/9/2019	
Remove identifying information on customer requests	JW	12/5/2018	1/9/2019	
Add solar to supply mix	JK	12/5/2018	1/9/2019	
Streetlight conversions to be added to Dashboard	JW	2/1/2018	2/26/2018	
Dashboard to reflect KWH demand	JW	2/1/2018	2/26/2018	
3 double poles on Nahant Street	KC	3/1/2018	3/2/2018	
Review Employee handbook	KH	3/1/2018	4/11/2018	
Subcommittee of JW and JK on survey development	JW	5/24/2018	6/20/2018	
Update Gas service Request List	KC/JK	5/24/2018	6/20/2018	
Berkshire Pro-Formas to Board	JW	3/1/2018	4/11/2018	
Access to be provided to website under construction	JK	6/20/2018	6/27/2018	
Minutes to webpage	JK	9/12/2018	9/19/2018	
Review Energy audit format	WT	11/1/2018	12/5/2018	
Progress made fixing gas leaks	JW	continuing		
Copy of Ngrid 345 KV contract	JK	2/13/2019	when available	
Share Strategic Planning dates with Town Administrator	JK	2/13/2019	2/14/2019	
Provide Board with size of solar projects	TB	6/5/2019	9/4/2019	

COMMISSIONER REQUESTS LOG	Requested By	Request Date	Completion Date	NOTES
Provide Board with additional information for EE proposal	JK, JW, TB	7/7/2019	9/4/2019	
Updates to EE proposal including rates hearing	JK, JW, TB	9/4/2019	10/2/2019	
Meet to discuss goal setting with Manager	JW - PC & KC	10/2/2019	10/15/2019	
Next year's goal setting meet with GM	PC & KC	11/13/2019	11/22/2019	
Provide pricing on Renewable Energy Credits = 15%	JK	11/13/2019	11/20/2019	
Provide detailed data on gas leaks	TB	11/13/2019	11/27/2019	
Provide information on data structures and fields in Customer Informtion System (Cogsdale)	JK	12/4/2019	1/8/2020	
Rework solar consumption as presented on solar bills	TB	1/8/2020	1/31/2020	
Update Electric Vehicle Dashboard to include cost data	TB	5/6/2020	6/3/2020	
Revise 2020 General Manager Goals due to COVID-19	PC	6/3/2020	7/15/2020	
Mission statatement development	JK	7/15/2020	9/2/2020	
Rebates - Sense Rebate to Webform & Add WIFI Thermostats to Connected Homes Program	TB, JK	9/2/2020	10/7/2020	
Provide additional details on Customer Accounts Receivable / Collections	JW	12/2/2020	1/6/2021	



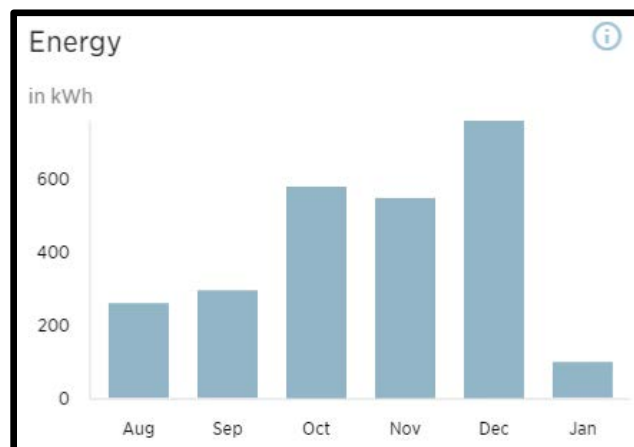
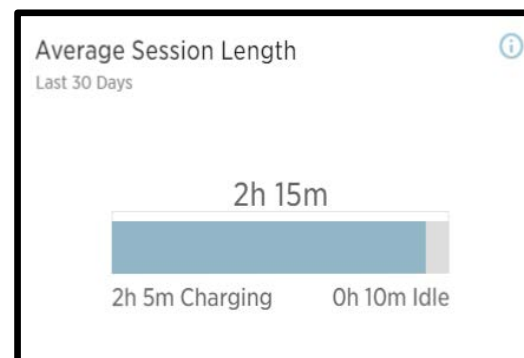
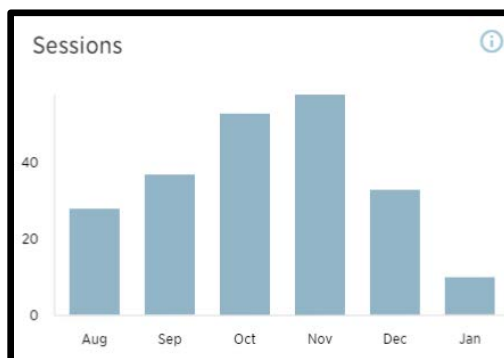
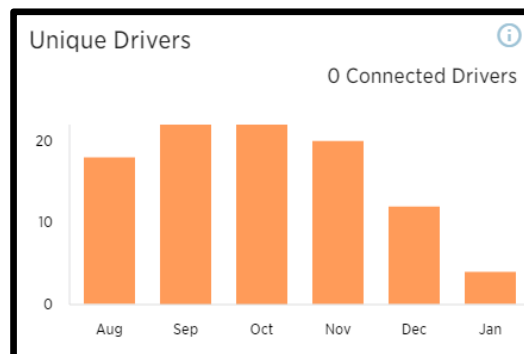
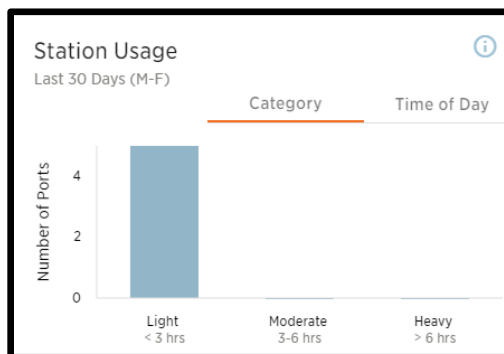
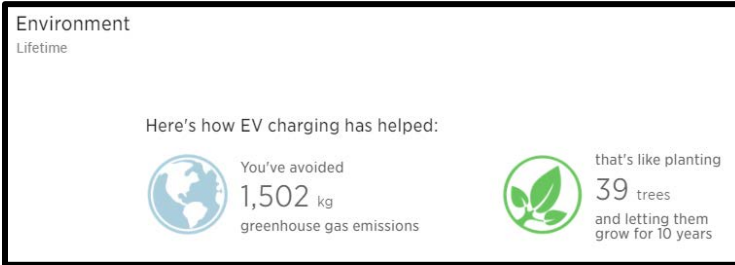
Receivables Aging - As of November 30, 2020



Electric Vehicle Public Charging Stations

Dashboard – 11/2020

EV Charging Stations				
Utility Billing and Town Revenue				
Nov-20				
Locations	Utility Billing	KWh	Town Revenue From Charge Point	KWh
Vets Field	\$57.42	311	\$56.64	311
Civic Center	\$19.19	118	\$21.25	118
Public Parking Lot	\$54.72	294	\$52.04	231
Totals	\$131.33	723	\$129.93	660



General Manager's Report

The following is the General Managers Report for January, 2021

Engineering and Operations Report

Major New Customer Projects:

Harvard Mills – convert portion of building to 190 apartments – Project under construction. Convert building from 4kv ckt 397-03 to 13.8kv ckt 0005 (customer cost). Ductbank and switch installed, customer working on transformer foundation and mainline cable installed. **Transformer installed on 12/15/2020 – waiting on customer to finalize easement agreement before we energize.**

581-583 Salem St. – New 19 unit apartment build – **Permitting Phase**

525-527 Salem St – New 22 unit building – **Permitting Phase**

404 Lowell St. – 8 Residential units – **Permitting Phase**

Foundry Street phase 2 – 50 unit condo complex – planning and preparation phase – **On Hold**

Hopkins Street @ Tarrant Lane - Project approved by the town 160+/- apartments proposed – **Planning and Permitting**

127 Nahant St. – 26 Residential units proposed – **Planning stage**

1000 Main Street – 30 Residential units proposed – **Planning stage**

Gas Department

- The main, services and tie overs on Bartley and Nelly Streets have been completed. Main and service tie overs on Forrester and Brewster are in progress.
- Work on the New Salem St regulator station is underway. The cutover will be scheduled on a weather appropriate day.

- 967 meters were replaced in 2020. There are 4 meters remaining, of the meters required for replacement in 2020. All are exempt until Spring because the customers were concerned about building entry during the pandemic.
- There are currently 2241 inside gas services and 2873 outside services. 111 services have been moved outside this year.
- Leaks Class 1 – 0* Class 2 – 3 Class 3 – 74

*(0- Class 1 Leaks this month)

Financial Reports

Monthly Financials for through November and Consumption Reports through November are enclosed.

Wakefield Municipal Gas and Light Department
Comparative Balance Sheet - Electric Fund

	11/30/2019	11/30/2020
ASSETS		
Sinking Fund - Self Insurance	\$ 178,334.30	\$ 179,845.74
Depreciation Fund	182,695.36	182,832.80
Consumer Deposits	869,715.13	878,560.64
Total Investments	<u>1,230,744.79</u>	<u>1,241,239.18</u>
Operating Cash	12,572,978.73	13,521,823.32
Depreciation Fund	2,718.94	2,721.94
Consumer Deposits	335,426.44	300,981.25
Petty Cash	525.00	525.00
Total Cash	<u>12,911,649.11</u>	<u>13,826,051.51</u>
Accounts Receivable-Rates	3,120,782.24	3,234,305.99
Accounts Receivable-Other	2,367,486.84	2,086,356.40
Inventory	454,189.60	683,559.37
Prepayments Miscellaneous	943,380.95	930,313.73
Prepayments Power	3,697,585.10	3,689,858.70
Other Deferred Debits	1,165,114.10	1,563,987.19
Total Other Assets	<u>11,748,538.83</u>	<u>12,188,381.38</u>
Total Current Assets	25,890,932.73	27,255,672.07
Distribution Plant	21,238,078.78	20,197,806.31
General Plant	1,497,564.30	1,564,216.35
Net Fixed Assets	<u>22,735,643.08</u>	<u>21,762,022.66</u>
Total Assets	<u>\$ 48,626,575.81</u>	<u>\$ 49,017,694.73</u>
LIABILITIES AND EQUITY		
Accounts Payable	\$ (77,929.20)	\$ (17,656.39)
Consumer Deposits	1,205,141.57	1,179,541.89
Other Accrued Liabilities	16,415.27	18,158.65
Reserve for Uncollectable Accounts	108,563.84	218,397.21
Total Current Liabilities	<u>1,252,191.48</u>	<u>1,398,441.36</u>
Compensated Absences	460,003.07	467,256.96
MMWEC Pooled Loan Debt	15,525,073.84	13,053,541.86
OPEB Liability	1,915,566.25	1,936,702.25
Pension Liability	7,948,500.00	7,948,500.00
Total Long Term Liabilities	<u>25,849,143.16</u>	<u>23,406,001.07</u>
Total Liabilities	27,101,334.64	24,804,442.43
Retained Earnings	8,619,962.70	10,630,846.32
Year to Date Income	1,769,219.13	1,645,165.20
Sinking Fund Reserve-Self Ins	178,334.30	179,845.74
Contribution in Aid of Construction	3,705,337.66	3,705,337.66
Investment in Fixed Assets	7,252,387.38	8,052,057.38
Total Equity	<u>21,525,241.17</u>	<u>24,213,252.30</u>
Total Liabilities and Equity	<u>\$ 48,626,575.81</u>	<u>\$ 49,017,694.73</u>

Wakefield Municipal Gas and Light Department
Income Statement - Electric Fund
For the Five Months Ending, November 30, 2020

	CURRENT MONTH		YEAR TO DATE	
	FY 2020	FY 2021	FY 2020	FY 2021
Energy Revenue (Net of Discounts)				
Residential Sales	\$ 889,405.99	\$ 900,036.46	\$ 5,721,779.22	\$ 6,217,837.37
Commercial Sales	991,346.76	857,097.45	5,390,237.58	4,731,473.88
Street Lighting	15,678.00	15,678.00	78,385.00	78,385.00
Municipal Sales	94,329.48	87,139.61	489,994.75	446,188.80
Private Area Lighting	7,481.00	7,363.00	37,440.07	36,852.63
Total Energy Revenue	1,998,241.23	1,867,314.52	11,717,836.62	11,510,737.68
Other Revenues				
Unbilled Revenue	-	-	-	-
Interest Income-Consumer Deposits	1,010.70	449.03	6,751.63	2,666.34
Interest Income-Depreciation Fund	11.69	11.39	59.71	58.04
Interest Income-Self Ins Sinking Fund	277.15	26.97	1,654.56	196.04
Interest Income-MMWEC	3,023.63	3,435.24	16,519.38	6,707.11
Income from Merchandise & Jobbing	(17,489.50)	(35,608.88)	(138,957.56)	(61,033.54)
Other Revenues	200.00	(460.71)	(190.01)	69.54
Sales Tax	53,487.91	46,788.76	290,834.05	263,528.54
Conservation Charge	3,876.62	7,705.12	19,410.62	50,589.74
Reconnect Fees	850.00	-	4,225.00	350.00
Comcast & RCN Pole Fees	-	-	-	69,501.20
Insurance Reimbursements	5,529.80	-	5,605.18	-
Other Electric Revenue	309.84	410.00	2,461.16	885.05
Total Other Revenue	51,087.84	22,756.92	208,373.72	333,518.06
Total Revenue	2,049,329.07	1,890,071.44	11,926,210.34	11,844,255.74
Power Costs				
Purchased Power	(1,058,923.64)	(938,754.74)	(6,170,851.88)	(5,826,684.89)
Power Expense Generation	-	(9,873.85)	(57,163.44)	(50,449.29)
Power Expense Battery	-	(6,939.67)	(44,319.60)	(35,060.27)
Total Power Costs	(1,058,923.64)	(955,568.26)	(6,272,334.92)	(5,912,194.45)
Gross Profit	\$ 990,405.43	\$ 934,503.18	\$ 5,653,875.42	\$ 5,932,061.29
Operating Expenses				
Miscellaneous Operating Expenses				
Depreciation Expense	(220,824.77)	(240,435.59)	(1,104,123.85)	(1,202,177.95)
Sales Tax	(53,487.91)	(46,788.76)	(290,834.05)	(263,528.54)
Interest Expense-Consumer Deposits	(2,308.70)	(2,016.18)	(11,499.26)	(10,045.49)
Interest Expense-MMWEC	(2,812.89)	(19,972.22)	(115,426.40)	(104,586.22)
Total Misc Operating Expenses	(279,434.27)	(309,212.75)	(1,521,883.56)	(1,580,338.20)
Distribution Expenses				
Operations Supervision and Engineering	(18,018.13)	(9,144.77)	(90,443.85)	(71,532.48)
Operations Labor	(1,326.08)	446.47	(856.37)	5,570.95
Substation Salaries and Expense	(58,880.74)	(47,307.70)	(224,640.32)	(216,019.95)
Customer Installation Expenses	21.67	2.55	(1,786.40)	(20,775.65)
Miscellaneous Distribution Expenses	(103,632.48)	(52,786.57)	(321,001.11)	(269,099.73)
Total Distribution Expenses	(181,835.76)	(108,790.02)	(638,728.05)	(571,856.86)

Wakefield Municipal Gas and Light Department
Income Statement - Electric Fund
For the Five Months Ending, November 30, 2020

	CURRENT MONTH		YEAR TO DATE	
	FY 2020	FY 2021	FY 2020	FY 2021
Maintenance Expenses				
Maintenance Supervision and Engineering	(22,160.18)	(18,640.09)	(81,634.59)	(82,840.85)
Maintenance of Station Equipment	-	(183.75)	(146.20)	(1,534.84)
Maintenance of Other Equipment	-	-	(6,580.04)	(3,877.02)
Maintenance of Overhead Lines	(82,763.31)	(46,759.18)	(225,684.63)	(249,400.55)
Maintenance of Underground Lines	(465.77)	-	(5,721.73)	(8,081.63)
Maintenance of Line Transformers	-	-	(877.50)	-
Maintenance of Street Lighting	(6,410.68)	-	(11,848.97)	(201.25)
Maintenance of Meters	21.67	2.55	(34,499.60)	722.35
Maintenance of Misc Distribution Plant	(6,249.34)	(4,982.84)	(26,709.58)	(21,103.96)
Total Maintenance Expenses	(118,027.61)	(70,563.31)	(393,702.84)	(366,317.75)
Customer Account Expense				
Meter Reading Expense	(4,852.39)	(3,587.44)	(17,197.04)	(40,957.98)
Customer Records & Collection Exp	(81,565.29)	(53,868.44)	(317,929.61)	(268,939.06)
Total Customer Account Exp	(86,417.68)	(57,455.88)	(335,126.65)	(309,897.04)
Administrative and General Expenses				
Community Relations & Advertising	(5,199.08)	(6,752.71)	(17,623.07)	(7,151.71)
Administrative Salaries and Expense	(22,326.39)	(16,043.28)	(98,819.52)	(76,960.23)
Business Mgr and Accting Salaries and Exp	(12,832.49)	(14,291.39)	(65,958.71)	(68,924.91)
MIS Salaries and Expense	(18,618.41)	(1,398.75)	(160,461.37)	(95,863.60)
Outside Services	-	(3,750.00)	(15,000.00)	(16,125.00)
Conservation & Rebates	(7,115.33)	(16,030.85)	(54,299.35)	(93,382.61)
Property Insurance	(4,740.25)	(5,375.08)	(23,701.25)	(26,875.44)
Injuries and Damages	(4,805.88)	(5,052.48)	(28,083.94)	(23,720.38)
Employee Pensions and Benefits	(140,576.39)	(152,794.52)	(696,881.01)	(737,569.43)
Miscellaneous General Expenses	(2,551.44)	(4,847.32)	(35,991.03)	(33,467.88)
Maintenance of General Plant	(17,591.54)	(20,322.98)	(48,429.36)	(54,711.06)
Total Admin & General Expenses	(236,357.20)	(246,659.36)	(1,245,248.61)	(1,234,752.25)
Net Income (Loss) Before Surplus				
Adjustments	\$ 88,332.91	\$ 141,821.86	\$ 1,519,185.71	\$ 1,868,899.19
Surplus Adjustments				
Additions				
Sale of Scrap	-	17,018.70	-	17,018.70
MMWEC Refund	-	-	534,347.98	46,343.35
Total Additions to Surplus	-	17,018.70	534,347.98	63,362.05
Subtractions				
Interest on Sinking Fund	277.15	26.97	1,654.56	196.04
Payment in Lieu of Taxes	56,532.00	57,380.00	282,660.00	286,900.00
Plant Removal Costs	-	-	-	-
Total Subtractions from Surplus	56,809.15	57,406.97	284,314.56	287,096.04
Net Income (Loss)	\$ 31,523.76	\$ 101,433.59	\$ 1,769,219.13	\$ 1,645,165.20

Wakefield Municipal Gas and Light Department
Comparative Balance Sheet - Gas Fund

	11/30/2019	11/30/2020
ASSETS		
Sinking Fund - Self Insurance	\$ 178,334.29	\$ 179,845.73
Consumer Deposits	95,503.97	96,486.83
Total Investments	273,838.26	276,332.56
Operating Cash	(15,616,148.73)	(15,528,248.98)
Consumer Deposits	184,113.62	197,067.85
Petty Cash	175.00	175.00
Total Cash	(15,431,860.11)	(15,331,006.13)
Accounts Receivable-Rates	787,403.46	697,262.81
Accounts Receivable-Other	133,242.68	0.00
Inventory	509,397.19	435,232.44
Prepayments Miscellaneous	108,091.85	99,171.40
Other Deferred Debits	390,530.08	519,695.20
Total Other Assets	1,928,665.26	1,751,361.85
Total Current Assets	(13,229,356.59)	(13,303,311.72)
Distribution Plant	22,874,770.86	23,737,820.38
General Plant	506,537.53	479,138.39
Net Fixed Assets	23,381,308.39	24,216,958.77
Total Assets	\$ 10,151,951.80	\$ 10,913,647.05
LIABILITIES AND EQUITY		
Accounts Payable	\$ (53,315.18)	\$ (52,894.96)
Consumer Deposits	279,617.59	293,554.68
Other Accrued Liabilities	4,841.52	7,273.94
Reserve for Uncollectable Accounts	108,563.83	218,397.21
Total Current Liabilities	339,707.76	466,330.87
Compensated Absences	235,784.91	267,026.80
OPEB Liability	537,034.75	544,080.75
Pension Liability	2,649,500.00	2,649,500.00
Total Long Term Liabilities	3,422,319.66	3,460,607.55
Total Liabilities	3,762,027.42	3,926,938.42
Retained Earnings	(15,599,805.12)	(16,024,248.00)
Year to Date Income (Loss)	(1,119,909.46)	(934,910.77)
Sinking Fund Reserve-Self Ins	178,334.29	179,845.73
Contribution in Aid of Construction	13,600.00	13,600.00
Investment in Fixed Assets	22,917,704.67	23,752,421.67
Total Equity	6,389,924.38	6,986,708.63
Total Liabilities and Equity	\$ 10,151,951.80	\$ 10,913,647.05

Wakefield Municipal Gas and Light Department
Income Statement - Gas Fund
For the Five Months Ending, November 30, 2020

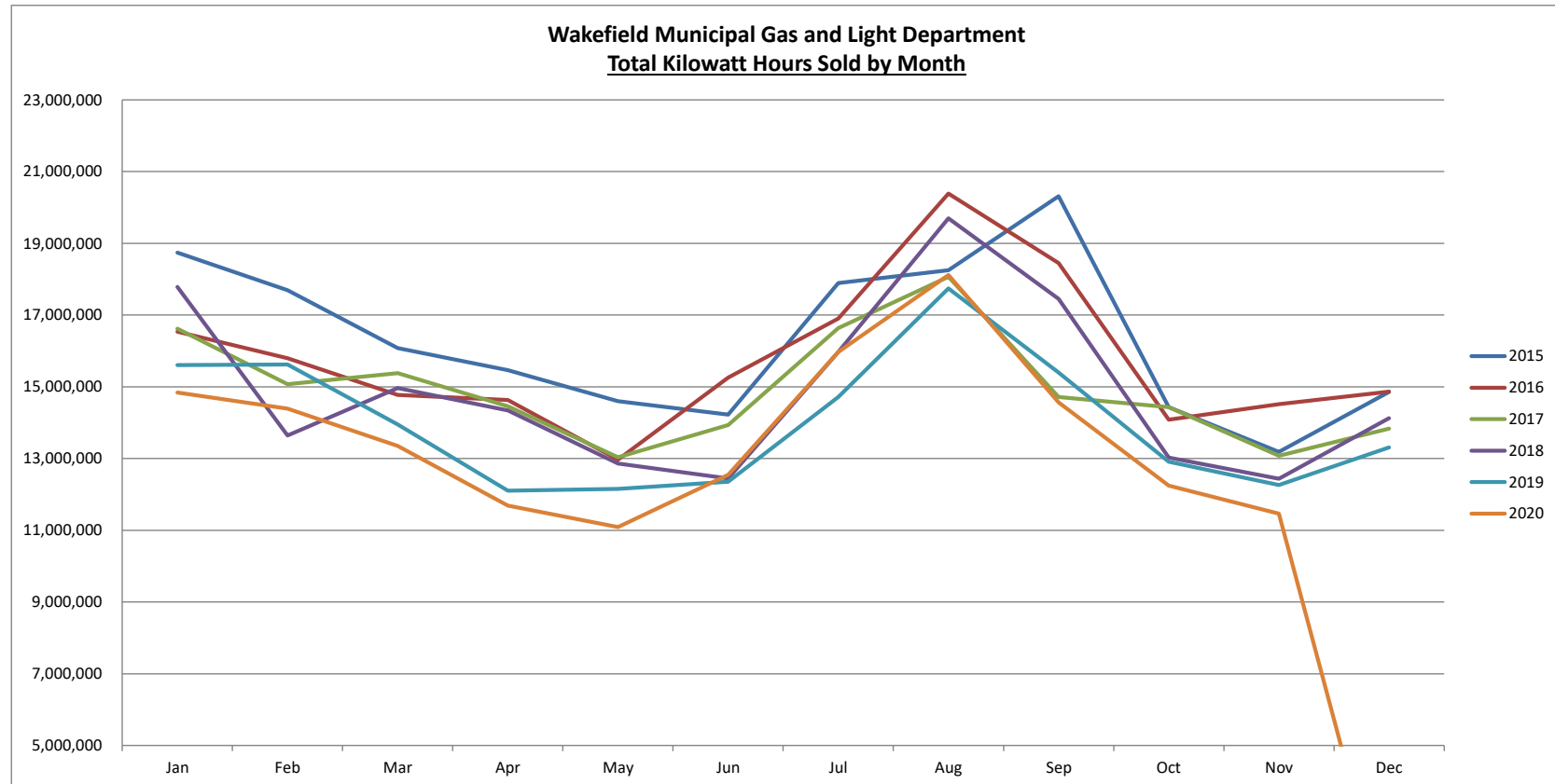
	CURRENT MONTH		YEAR TO DATE	
	FY 2020	FY 2021	FY 2020	FY 2021
Energy Revenue (Net of Discounts)				
Residential Sales	\$ 518,372.90	\$ 460,777.27	\$ 1,226,692.18	\$ 1,149,005.79
Commercial Sales	138,217.58	127,908.52	383,328.78	328,093.45
Municipal Sales	71,907.25	66,027.87	102,610.28	98,949.38
Total Energy Revenue	728,497.73	654,713.66	1,712,631.24	1,576,048.62
Other Revenues				
Unbilled Revenue	-	-	-	-
Interest Income-Consumer Deposits	112.30	49.89	750.21	296.29
Interest Income-Self Ins Sinking Fund	277.15	26.96	1,654.55	196.02
Income from Merchandise & Jobbing	(98,297.99)	(4,962.49)	(202,977.43)	44,130.86
Special Gas Charges	400.30	74.03	2,286.72	724.63
Sales Tax	6,268.57	6,002.90	18,052.00	16,077.66
Reconnect Fees	-	-	-	-
Insurance Reimbursements	-	-	-	-
Other Gas Revenue	-	-	-	(119.30)
Total Other Revenue	(91,239.67)	1,191.29	(180,233.95)	61,306.16
Total Revenue	637,258.06	655,904.95	1,532,397.29	1,637,354.78
Gas Purchased	(618,185.64)	(366,334.22)	(1,143,008.19)	(838,095.37)
Gross Profit	\$ 19,072.42	\$ 289,570.73	\$ 389,389.10	\$ 799,259.41
Operating Expenses				
Miscellaneous Operating Expenses				
Depreciation Expense	(115,169.69)	(156,760.47)	(575,848.45)	(783,802.35)
Sales Tax	(6,268.57)	(6,002.90)	(18,052.00)	(16,077.66)
Interest Expense-Consumer Deposits	(577.17)	(504.04)	(2,874.81)	(2,511.37)
Interest Expense-MMWEC	-	-	(3,300.67)	-
Total Misc Operating Expenses	(122,015.43)	(163,267.41)	(600,075.93)	(802,391.38)
Distribution Expenses				
Operations Supervision and Engineering	(18,600.17)	(15,845.35)	(68,821.46)	(79,516.16)
Station Labor and Expenses	(21,387.85)	(14,625.26)	(88,433.42)	(75,427.78)
Mains and Service	5,371.60	4,674.37	1,475.69	(17,756.11)
Customer Installation Expenses	(21,522.34)	(6,016.65)	(71,858.47)	(47,011.68)
Miscellaneous Plant Expenses	(6,361.55)	(2,022.02)	(19,643.67)	(49,097.48)
Total Distribution Expenses	(62,500.31)	(33,834.91)	(247,281.33)	(268,809.21)
Maintenance Expenses				
Maintenance of Mains	(21,009.66)	(27,800.29)	(89,935.01)	(110,899.98)
Maintenance of Meters and House Regulators	(47.90)	(31.00)	(9,137.43)	(5,343.21)
Maintenance of Other Equipment	-	(683.64)	(11,880.27)	(17,938.15)
Total Maintenance Expenses	(21,057.56)	(28,514.93)	(110,952.71)	(134,181.34)
Customer Account Expense				
Meter Reading Expense	(1,617.47)	(1,195.81)	(5,732.37)	(13,652.65)
Customer Record and Collection Expenses	(30,171.41)	(19,954.65)	(115,434.50)	(98,755.76)
Total Customer Account Expenses	(31,788.88)	(21,150.46)	(121,166.87)	(112,408.41)

Wakefield Municipal Gas and Light Department
Income Statement - Gas Fund
For the Five Months Ending, November 30, 2020

	CURRENT MONTH		YEAR TO DATE	
	FY 2020	FY 2021	FY 2020	FY 2021
Administrative and General Expenses				
Advertising	(496.56)	(1,086.15)	(753.11)	(1,307.15)
Administrative Salaries and Expense	(7,242.13)	(5,147.74)	(42,909.89)	(24,653.38)
Business Mgr and Accting Salaries and Exp	(4,569.14)	(5,140.05)	(19,133.22)	(23,769.21)
MIS Salaries and Expense	(6,206.13)	(466.25)	(53,487.09)	(31,954.53)
Outside Services	-	(1,250.00)	(13,408.55)	(6,975.00)
Property Insurance	(300.67)	(329.08)	(1,503.31)	(1,645.44)
Injuries and Damages	(1,271.89)	(1,936.70)	(4,953.96)	(7,215.69)
Employee Pensions and Benefits	(24,866.93)	(40,442.76)	(161,312.69)	(200,553.11)
Miscellaneous General Expenses	(786.54)	(328.65)	(20,137.07)	(12,185.03)
Maintenance of General Plant	(2,537.99)	(2,575.20)	(16,348.28)	(10,291.97)
Total Admin & General Expenses	(48,277.98)	(58,702.58)	(333,947.17)	(320,550.51)
Net Income (Loss) Before Surplus				
Adjustments	(\$266,567.74)	(\$15,899.56)	(\$1,024,034.91)	(\$839,081.44)
Surplus Adjustments				
Additions	-	-	-	-
Subtractions				
Interest on sinking fund investment	277.15	26.96	1,654.55	196.02
Payment in Lieu of Taxes	18,844.00	19,126.67	94,220.00	95,633.31
Plant Removal Costs	-	-	-	-
Total Subtractions from Surplus	19,121.15	19,153.63	95,874.55	95,829.33
Net Income (Loss)	(\$285,688.89)	(\$35,053.19)	(\$1,119,909.46)	(\$934,910.77)

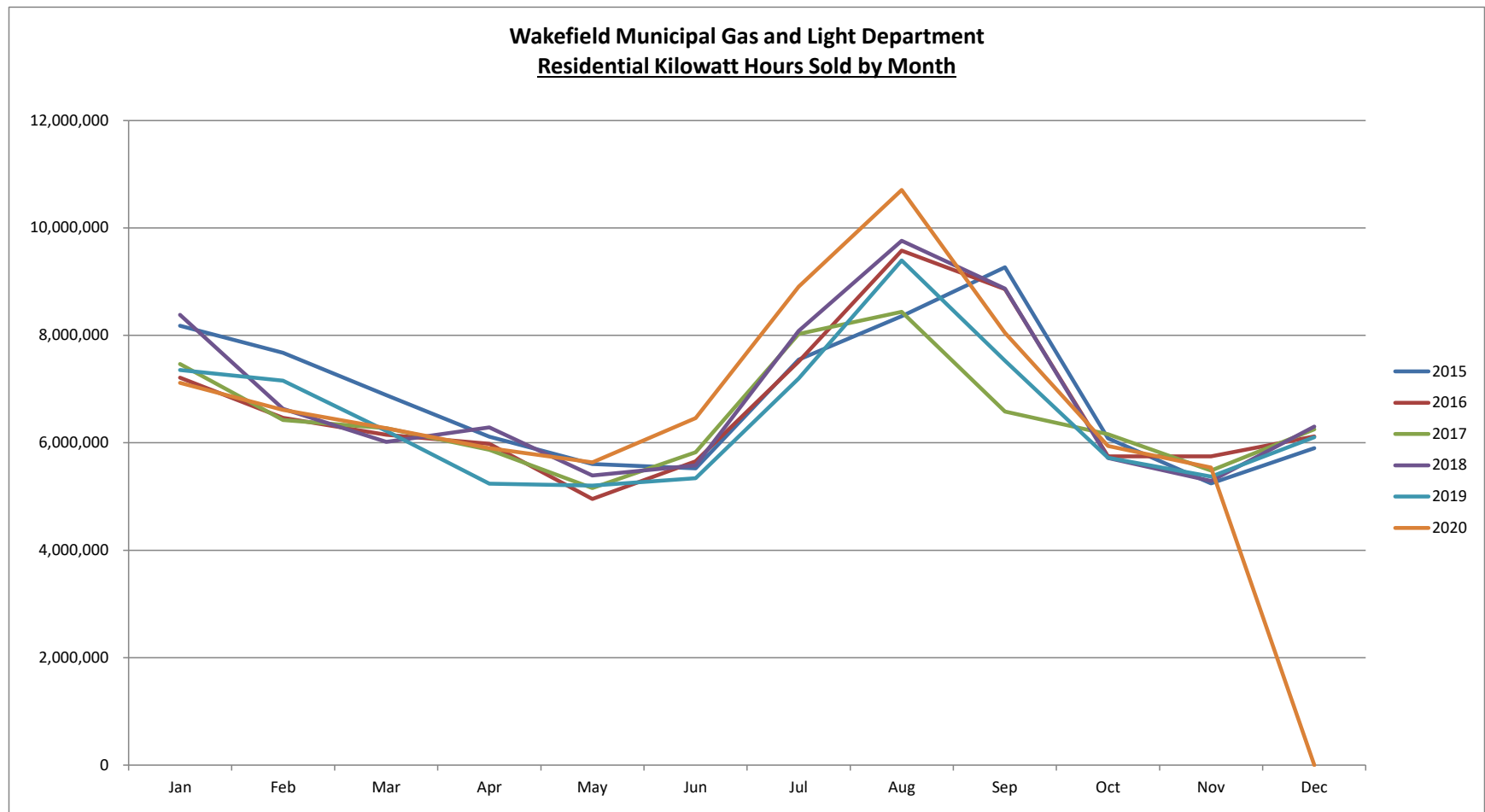
Wakefield Municipal Gas and Light Department
Total Kilowatt Hours Sold by Month

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year to Date Thru Nov	Annual Total
2015	18,740,892	17,690,022	16,080,730	15,466,811	14,598,701	14,223,390	17,889,206	18,246,969	20,317,312	14,434,902	13,189,867	14,852,037	180,878,802	195,730,839
2016	16,533,974	15,797,950	14,772,758	14,634,278	12,966,436	15,255,131	16,901,222	20,390,535	18,447,864	14,084,731	14,517,900	14,862,522	174,302,779	189,165,301
2017	16,621,327	15,070,229	15,380,671	14,453,301	13,037,016	13,930,871	16,639,208	18,069,872	14,713,966	14,432,674	13,077,414	13,830,767	165,426,549	179,257,316
2018	17,781,658	13,643,198	14,968,016	14,337,800	12,863,470	12,441,286	15,974,013	19,698,047	17,452,170	13,030,487	12,439,795	14,124,456	164,629,940	178,754,396
2019	15,603,457	15,622,295	13,945,735	12,101,427	12,149,665	12,351,319	14,712,024	17,745,521	15,394,404	12,913,523	12,257,655	13,307,183	154,797,025	168,104,208
2020	14,836,049	14,389,293	13,347,066	11,685,023	11,090,225	12,545,141	15,967,057	18,117,718	14,566,100	12,242,375	11,462,162	0	150,248,209	150,248,209



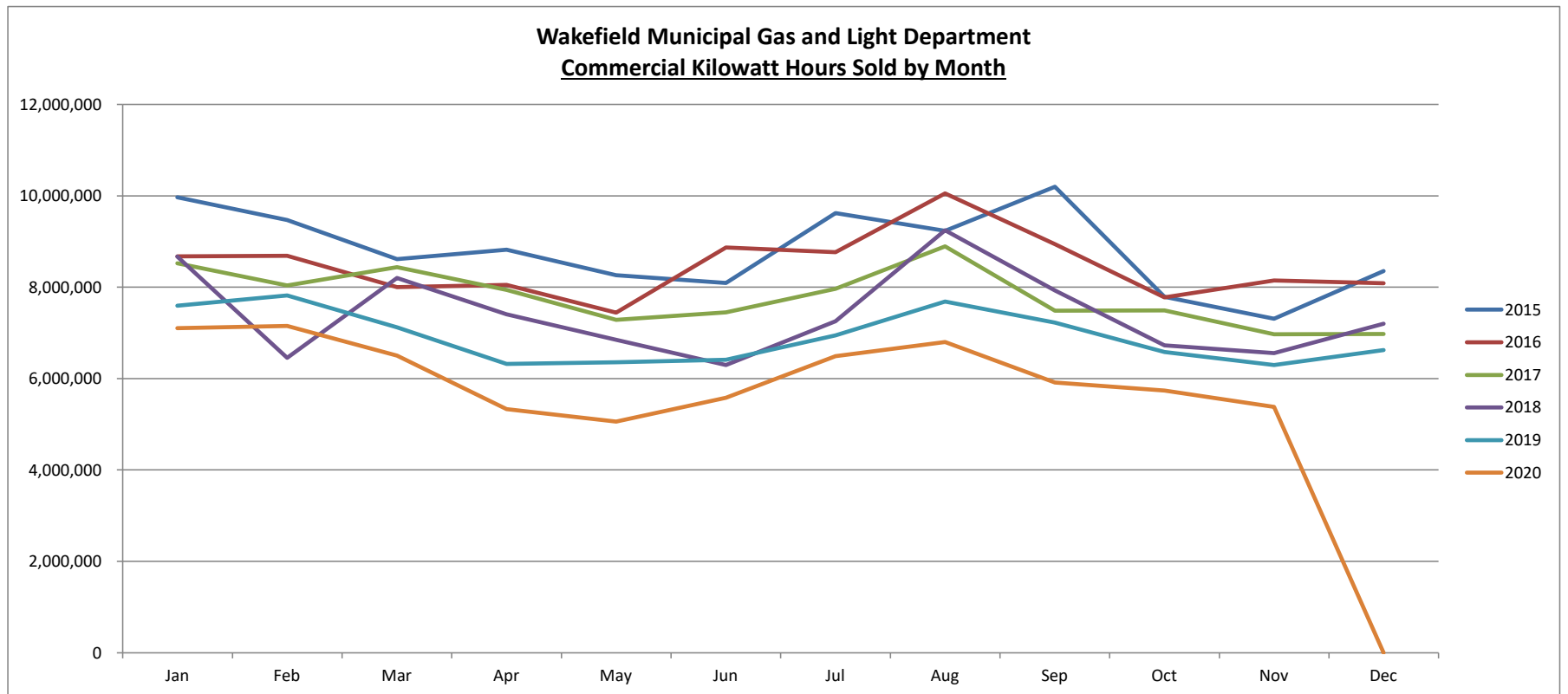
Wakefield Municipal Gas and Light Department
Residential Kilowatt Hours Sold by Month

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year to Date Thru Nov	Annual Total
2015	8,178,424	7,676,232	6,887,656	6,114,348	5,604,983	5,522,641	7,546,631	8,356,952	9,266,873	6,082,228	5,246,984	5,899,584	76,483,952	82,383,536
2016	7,213,246	6,462,572	6,152,141	5,983,207	4,954,943	5,656,308	7,510,425	9,575,466	8,857,734	5,745,728	5,748,680	6,120,760	73,860,450	79,981,210
2017	7,467,150	6,424,129	6,270,260	5,869,151	5,160,098	5,826,264	8,024,557	8,439,346	6,581,965	6,158,377	5,483,264	6,253,864	71,704,561	77,958,425
2018	8,381,831	6,634,709	6,019,617	6,286,768	5,394,451	5,580,611	8,081,951	9,761,016	8,872,178	5,715,595	5,291,009	6,301,934	76,019,736	82,321,670
2019	7,355,946	7,154,845	6,221,898	5,239,541	5,205,792	5,339,985	7,199,576	9,395,819	7,528,296	5,721,653	5,370,353	6,105,033	71,733,704	77,838,737
2020	7,113,352	6,609,987	6,273,251	5,900,586	5,636,455	6,461,325	8,907,437	10,707,789	8,046,009	5,941,223	5,537,377	0	77,134,791	77,134,791



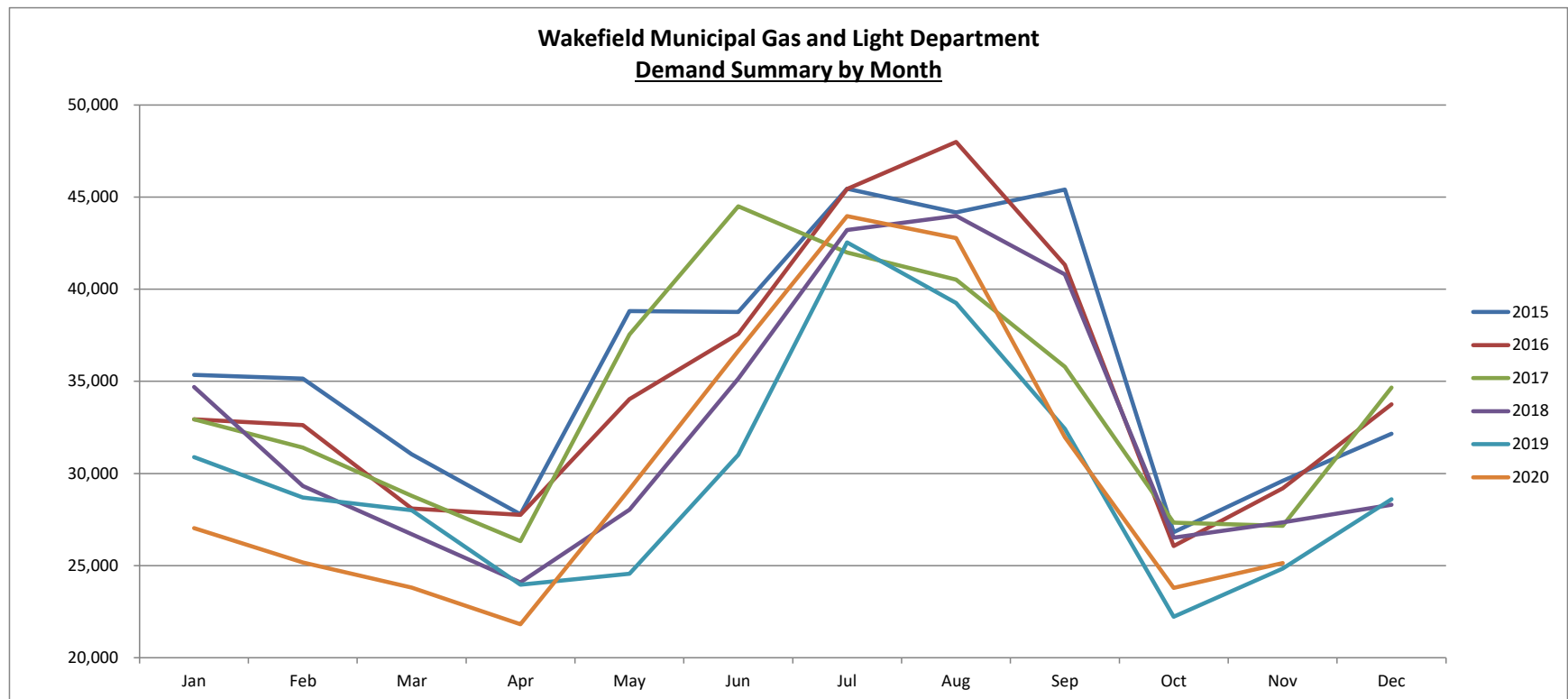
**Wakefield Municipal Gas and Light Department
Commercial Kilowatt Hours Sold by Month**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year to Date Thru Nov	Annual Total
2015	9,967,369	9,469,303	8,613,429	8,821,582	8,262,753	8,094,609	9,621,561	9,232,271	10,201,316	7,791,890	7,309,757	8,355,668	97,385,840	105,741,508
2016	8,673,865	8,689,011	7,999,923	8,051,075	7,445,033	8,872,760	8,766,522	10,055,972	8,941,165	7,779,242	8,150,450	8,087,516	93,425,018	101,512,534
2017	8,523,398	8,036,867	8,440,054	7,944,183	7,284,920	7,449,910	7,967,311	8,893,548	7,485,167	7,489,927	6,972,575	6,974,940	86,487,860	93,462,800
2018	8,672,072	6,454,777	8,202,783	7,408,045	6,850,856	6,298,357	7,254,302	9,246,878	7,926,678	6,730,578	6,558,328	7,202,785	81,603,654	88,806,439
2019	7,598,845	7,821,861	7,121,215	6,321,095	6,359,892	6,410,293	6,948,166	7,687,622	7,224,317	6,582,051	6,298,066	6,622,414	76,373,423	82,995,837
2020	7,101,214	7,149,847	6,506,316	5,331,398	5,060,094	5,582,761	6,493,108	6,799,461	5,916,686	5,740,412	5,383,020	0	67,064,317	67,064,317



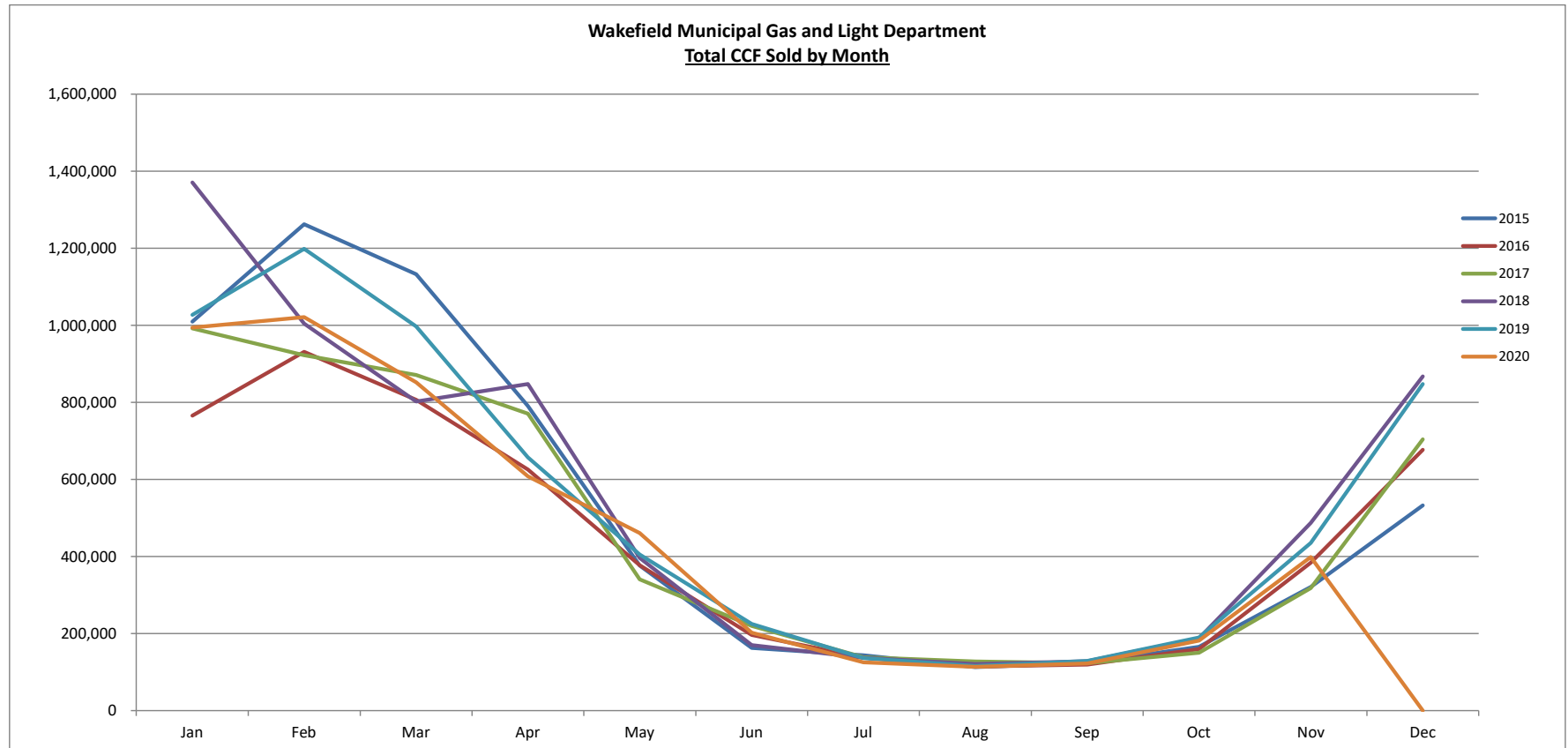
**Wakefield Municipal Gas and Light Department
Demand Summary by Month**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year to Date Thru Nov	Annual Total
2015	35,347	35,146	31,047	27,787	38,808	38,758	45,461	44,167	45,410	26,813	29,602	32,152	398,346	430,498
2016	32,943	32,626	28,103	27,751	34,030	37,581	45,442	47,999	41,318	26,069	29,200	33,750	383,062	416,812
2017	32,945	31,399	28,795	26,326	37,549	44,504	41,984	40,522	35,784	27,334	27,166	34,658	374,308	408,966
2018	34,692	29,316	26,712	24,091	28,039	35,145	43,210	43,982	40,807	26,527	27,350	28,308	359,871	388,179
2019	30,896	28,694	28,005	23,973	24,561	31,013	42,538	39,245	32,423	22,226	24,847	28,610	328,421	357,031
2020	27,031	25,166	23,806	21,823	29,147	36,658	43,966	42,773	31,971	23,789	25,149		331,279	331,279



Wakefield Municipal Gas and Light Department
Total CCF Sold by Month

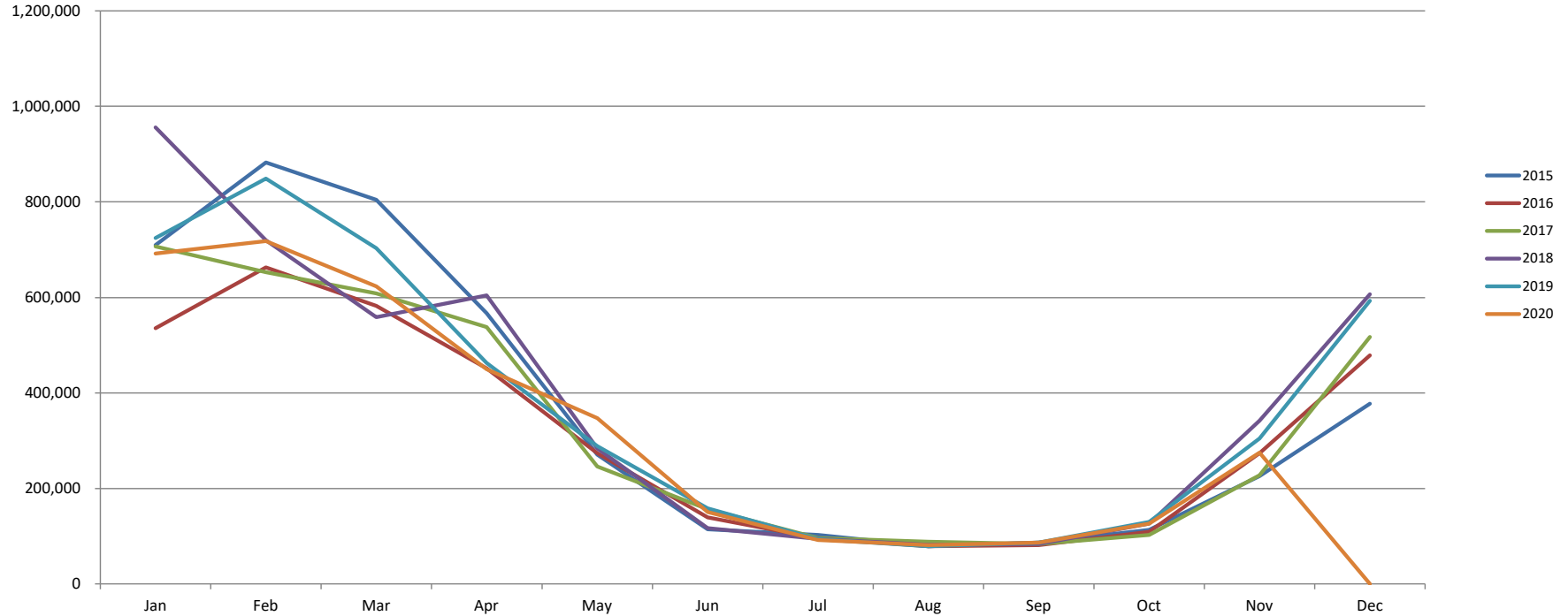
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year to Date Thru Nov	Annual Total
2015	1,009,763	1,262,240	1,132,746	790,303	376,704	162,785	143,849	113,013	124,003	165,477	321,060	533,054	5,601,943	6,134,997
2016	765,531	931,089	806,477	625,895	377,396	196,282	137,576	114,295	119,858	159,642	383,967	676,788	4,618,008	5,294,796
2017	992,147	922,194	871,001	770,881	341,035	219,847	138,513	127,619	122,846	150,433	318,338	704,061	4,974,854	5,678,915
2018	1,370,550	1,004,477	802,171	848,137	396,183	170,309	137,249	120,845	127,950	187,532	487,660	867,528	5,653,063	6,520,591
2019	1,027,554	1,198,806	997,533	657,267	405,201	224,983	136,083	116,142	129,215	189,712	435,624	847,819	5,518,120	6,365,939
2020	994,568	1,020,971	852,440	608,122	461,181	202,283	125,139	113,927	122,475	182,071	398,894	0	5,082,071	5,082,071



Wakefield Municipal Gas and Light Department
Residential CCF Including Heat Sold by Month

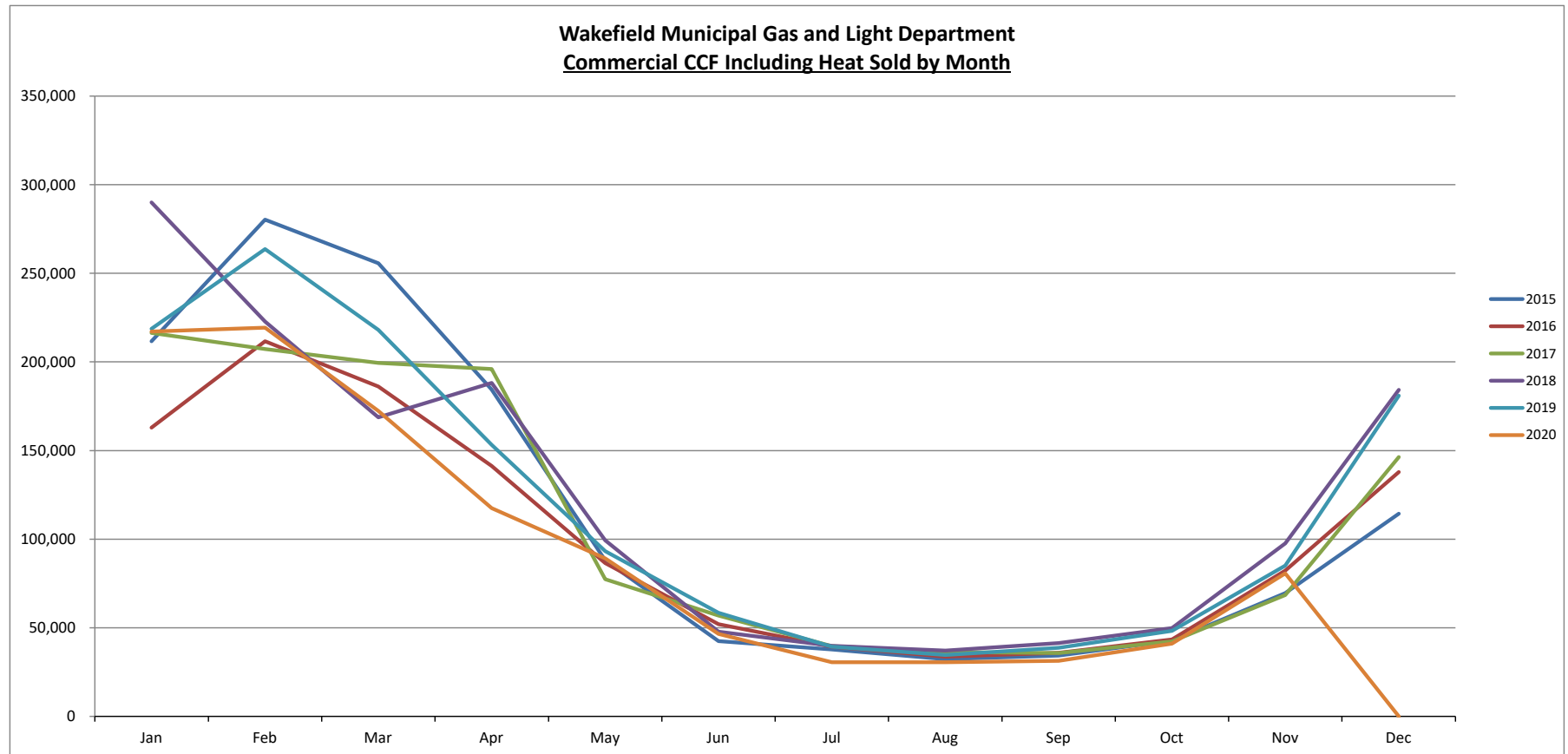
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year to Date Thru Nov	Annual Total
2015	709,258	882,366	804,314	567,283	271,108	114,243	102,782	78,644	86,567	113,195	226,095	377,416	3,955,855	4,333,271
2016	535,549	662,659	582,337	451,806	273,729	139,457	95,766	78,465	81,548	109,253	273,630	478,948	3,284,199	3,763,147
2017	706,641	652,293	608,703	537,827	246,194	156,746	96,121	88,308	83,699	102,620	227,364	517,605	3,506,516	4,024,121
2018	955,996	719,247	559,069	604,296	284,006	117,101	94,578	81,483	83,489	126,051	341,704	606,524	3,967,020	4,573,544
2019	723,933	849,023	702,875	462,667	288,440	158,602	93,767	78,965	86,479	129,638	304,511	593,201	3,878,900	4,472,101
2020	691,648	718,153	623,618	449,871	347,517	150,699	92,145	81,363	86,869	126,324	274,836	0	3,643,043	3,643,043

Wakefield Municipal Gas and Light Department
Residential CCF Including Heat Sold by Month



Wakefield Municipal Gas and Light Department
Commercial CCF Including Heat Sold by Month

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year to Date Thru Nov	Annual Total
2015	211,670	280,348	255,703	184,532	88,149	42,594	37,791	32,329	34,412	42,841	69,578	114,429	1,279,947	1,394,376
2016	163,042	211,741	186,069	141,396	86,581	52,156	39,363	33,659	36,024	43,452	82,379	138,006	1,075,862	1,213,868
2017	216,460	207,247	199,361	195,882	77,406	56,935	39,707	36,467	35,684	42,359	68,622	146,446	1,176,130	1,322,576
2018	290,000	222,668	168,757	188,150	99,393	47,799	39,904	37,080	41,507	49,921	97,681	184,325	1,282,860	1,467,185
2019	218,646	263,667	218,111	153,398	93,310	58,477	39,440	34,670	38,851	48,314	85,137	181,045	1,252,021	1,433,066
2020	217,069	219,428	172,432	117,609	89,169	46,614	30,586	30,645	31,361	41,120	80,742	0	1,076,775	1,076,775



Project Updates

COVID 19

The department has been closed to public access since March 18. Customer service personnel are split up with some working from home and some coming in on limited days. Gas and Electric crews have been separated in to two groups with focused on responding to emergencies and we are expanding the amount of planned work they are able to complete based on DPU guidelines. Workers that are exposed to someone who has tested positive or have traveled are being quarantined for up to two weeks.

NGrid 345kv Project Update NGRID

NGRID/United Civil project – DPW implemented Winter moratorium restrictions on 11/20, project is on-hold until the Spring. The Gas Division is completing tie in work and repair of leaks in the area.

McGrail Substation Upgrades

All new switchgear and (2) 3750kva transformers were energized on 9/30/2020. Scheduling the cutovers of 4kv;

- Circuits 6 & 9 cutover to new equipment – **COMPLETE**
- Circuit 11 load cutover to 126-W27 – **COMPLETE**
- Circuit 4 load cutover to the new equipment – **COMPLETE in December**
- Circuit 3 load cutover to the new equipment – **COMPLETE in December**
- Circuits 3 and 4 tie – **COMPLETE in December**
- Old 4 KV switchgear de-energized – **COMPLETE in December**
- Old Transformers “F” and “H” de-energized and disconnected on both the 13.8kv and 4kv sides, also oil drained from both units. These transformers were 65-70 years old, equipment liability eliminated. - **COMPLETE in December**

4kv to 13.8kv conversions - Converting portions of ckt 9 on Water to ckt 443-W32 – **COMPLETE**

No votes required at this time - Discussion only

**Board of Commissioners
January 6, 2021
Agenda Item No. D-2**

2021 Goals and Objectives

A draft of the proposed 2021 Goals and Objectives that was prepared and reviewed by the General Manager and Commissioners Courcy and Kallay, will be reviewed and discussed with the group.

Possible Vote required

**Board of Commissioners
January 6, 2021
Agenda Item No. D-3**

Strategic Planning

The Board will discuss Strategic Planning focus in 2021.

No votes required at this time - Discussion only

Low Income Discussion

The WMGLD Board of Commissioners are in preliminary discussions to explore the factors that may comprise a new qualifying low-income gas and electric rate.

Commissioner Courcy has provided some research to further the discussion

State of Massachusetts: A refundable tax credit (\$1,150 max.) on a qualified senior citizen's personal state income tax return is available. See www.mass.gov, Senior Circuit Breaker Tax Credit Program.

Qualifiers include adults over 65 years old whose property taxes and half of the water and sewer bills are more than 10% of their annual gross income (or for renters, if their rent is greater than 25% of their income) and who meet a few other rules. Based on real estate taxes paid on MA residential property owned and occupied as a principal residence. See MA state tax form "schedule CB". Town of Wakefield: See the Town of Wakefield website, Assessors Office, Senior discount program.

To take advantage of Wakefield's Senior Discount Program, applicants must:

- Have received the State's Senior Circuit Breaker Income Tax Credit
- Have been 65 years of age by the close of the prior calendar year. A co-applicant must have turned 60 years of age.
- Have owned and occupied a home in Wakefield for the past 10 consecutive years.
- Have no other significant assets, i.e. second home, trust fund, etc.
- Make timely application with the Board of Assessors; August 1 to September 30, 2020.

Possible Vote required

Executive Session

If necessary

APPENDICIES



WMGLD Major System Improvements

Design, Planning, and Construction of a
New Substation at Wakefield Ave

Presented by:

Vinnie McMahon (Senior Engineer)

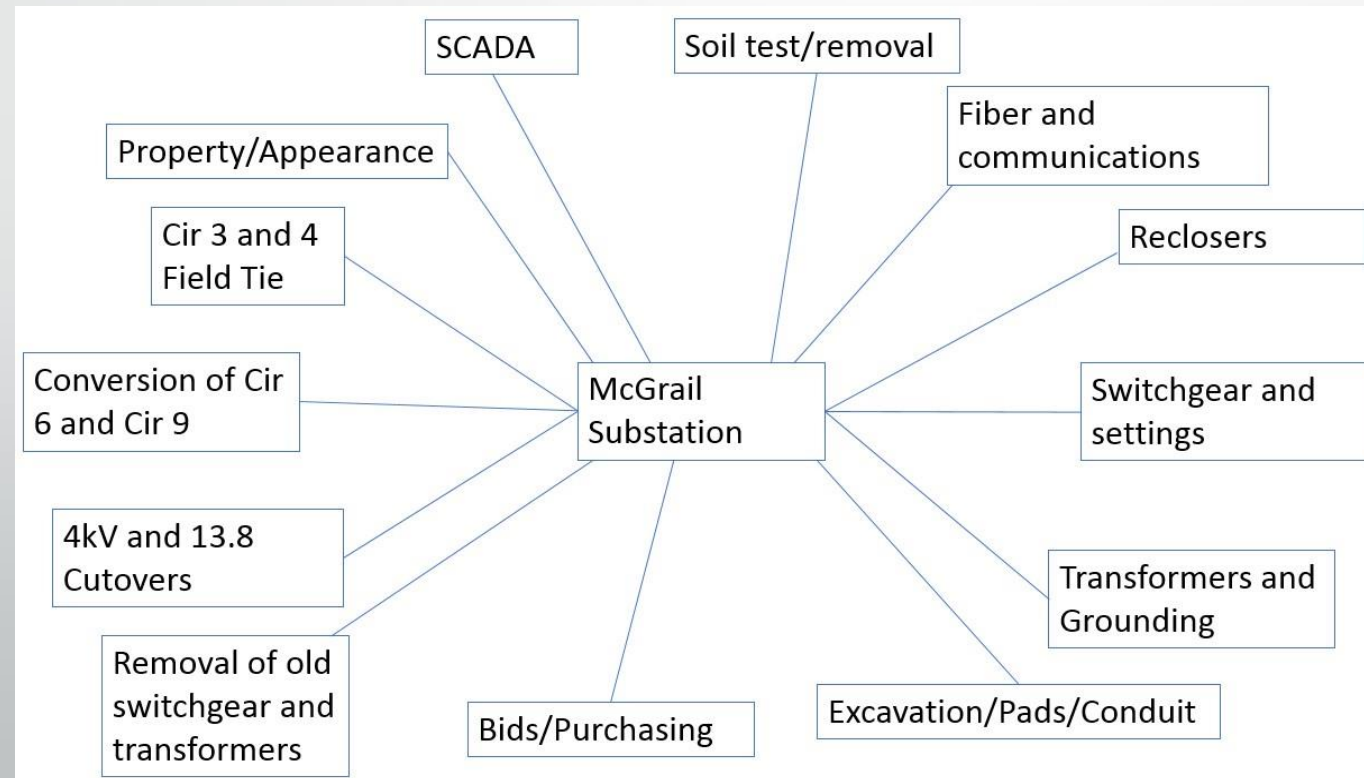
Paul Redmond (Electric Superintendent)

Multi Year Long-Term Plan

- **Goals:**
 - Eliminate antiquated equipment at Wakefield Ave.
 - Leverage Wallace Substation capacity with a new circuit to Wakefield Ave.
 - Design Wakefield Ave to be a distribution switching hub between Wallace and Beebe Substations with new equipment
 - Build the underground and overhead infrastructure to support the plan
 - Convert a significant amount of 4kv load to 13.8kv to make this possible

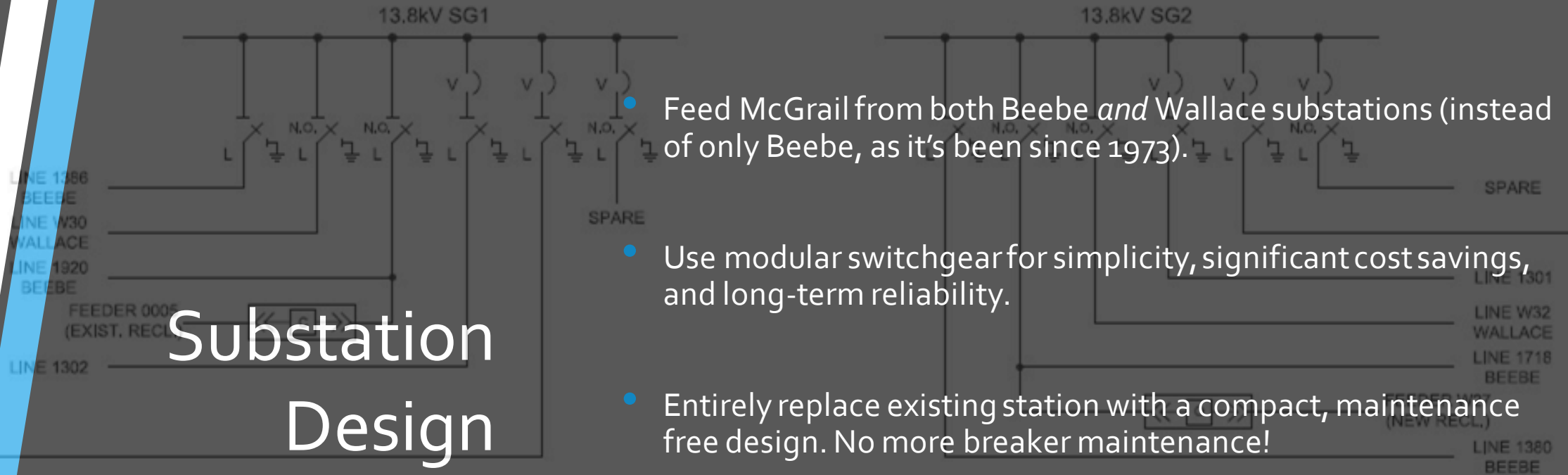
Tasks and Scope

- Goal: Replace 70-year-old substation with a modern design
- To start, this diagram was used to create a rough schedule and cost estimate and gather ideas for the project.
- Work outside the substation needed to be done as well, including building a new circuit out of Wallace substation.
- All these tasks moved forward simultaneously, not sequentially, to speed the project up.



Substation Design

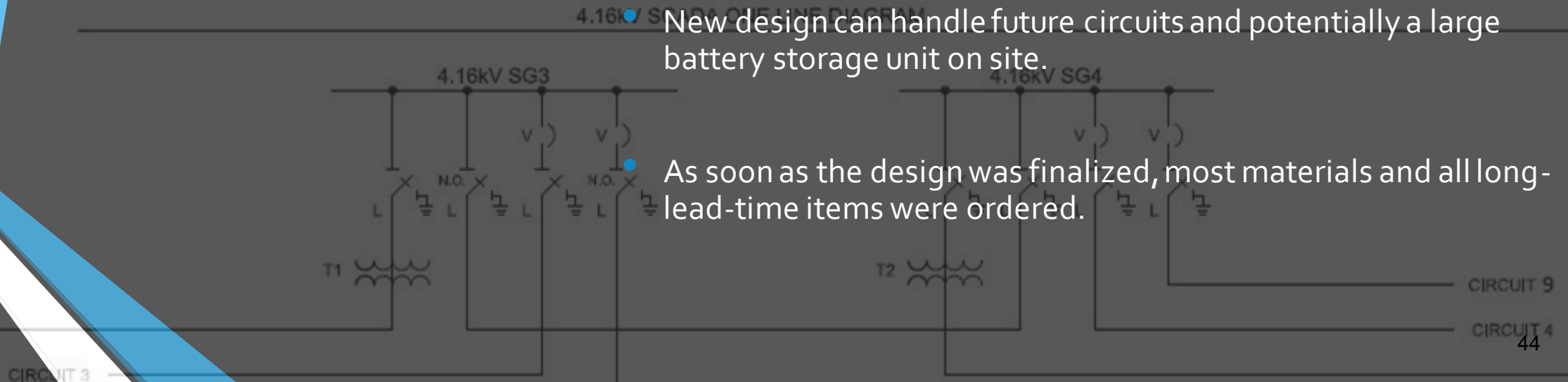
13.8kV SCADA ONE LINE DIAGRAM



- Feed McGrail from both Beebe *and* Wallace substations (instead of only Beebe, as it's been since 1973).

- Use modular switchgear for simplicity, significant cost savings, and long-term reliability.
- Entirely replace existing station with a compact, maintenance free design. No more breaker maintenance!

4.16kV SCADA ONE LINE DIAGRAM

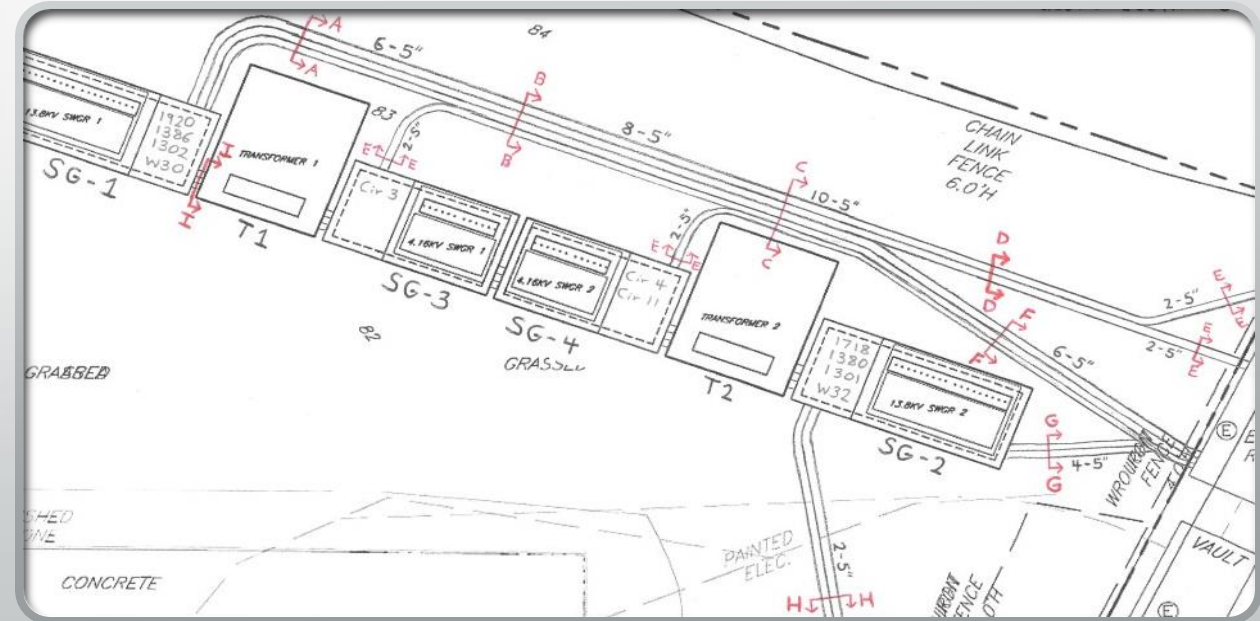
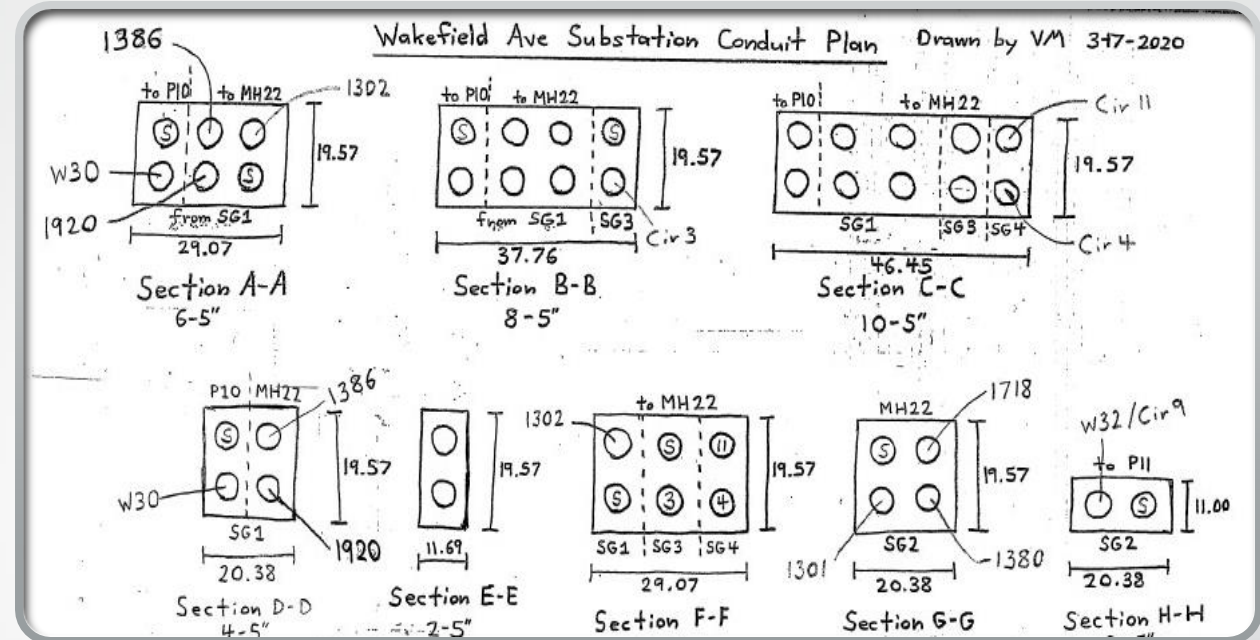


- New design can handle future circuits and potentially a large battery storage unit on site.

- As soon as the design was finalized, most materials and all long-lead-time items were ordered.

Planning the Layout

- Conducted a full site survey and marked new manhole locations
- Located each conduit, the circuit it would contain, and duct bank sizes and depths.
- Planned the setup of each manhole. Used shallow manholes to save cost.
- Ordered manholes and conduit and prepared site for excavation.



Site Work

- Excavation was done by our excavation contractor, B&E Services, to save cost. They also installed a new wall and fence.
- Deliveries of large items were planned to the exact hour to minimize crane rental costs.
- Our own linemen performed all the conduit and form work, no contractor needed!
- B&E Services and free-of-charge help from United Civil poured the concrete.





Conduit Installation

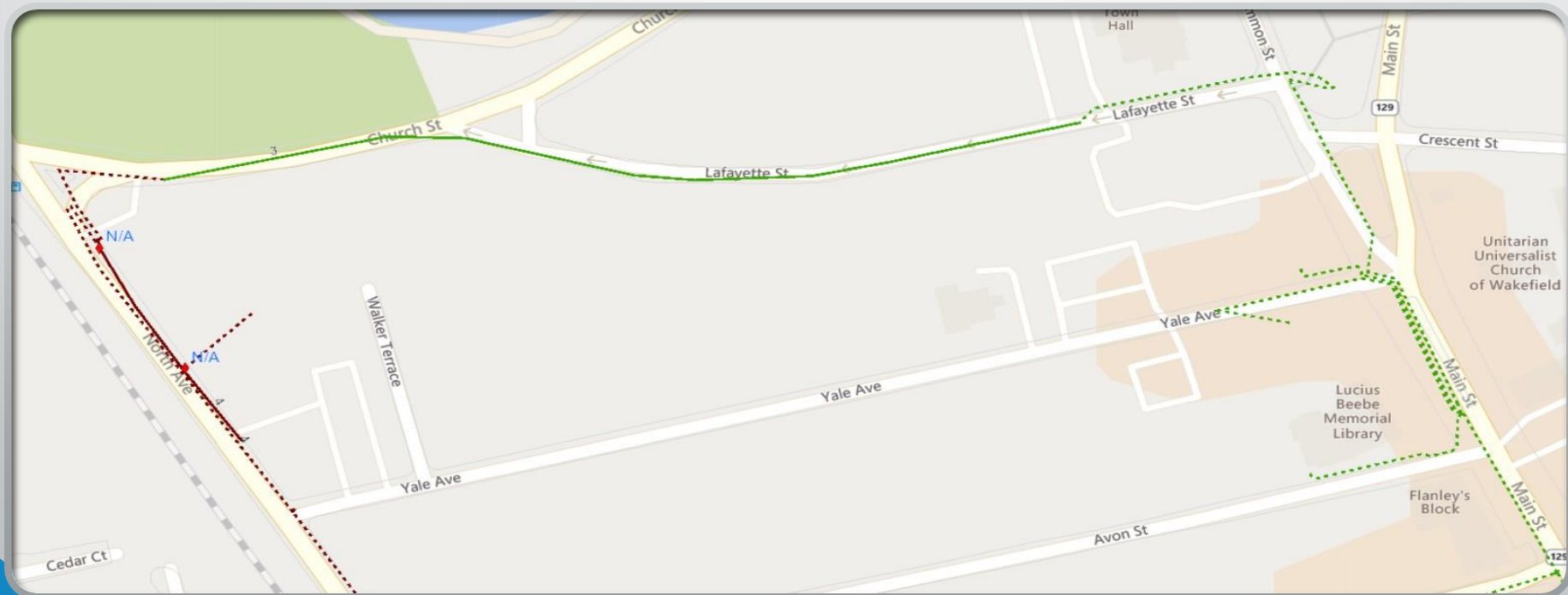


Distribution System Upgrades

- Step 1: Cut over two 13.8kV circuits to energize the new substation. Ensured both new and old substations had backup feeds during the transition.
- Step 2: Cut over 4kV circuits – which feed downtown Wakefield – to the new substation. This required extensive planning, switching, and after-hours work.
- Step 3: Cut over the remaining 13.8kV circuits to the new substation and decommission the entire old substation.
- Where are we now? We've started Step 3 by draining oil from the two old transformers to prepare for their removal.

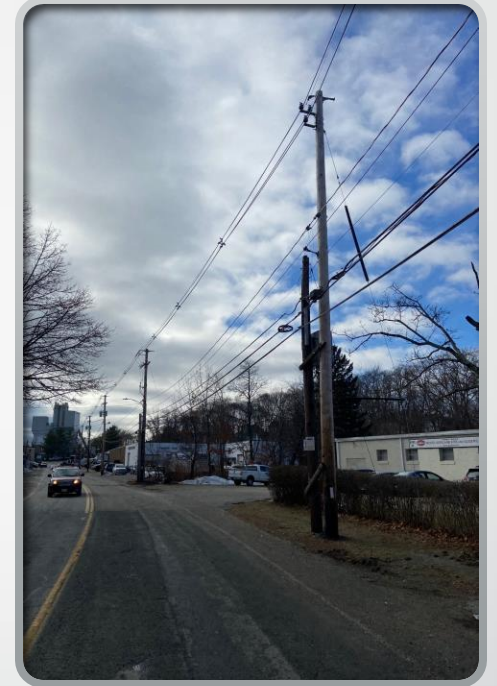
Cir 3 and Cir 4 Tie

- This tie, which connects the two circuits feeding downtown Wakefield, helped with 4kV circuit cutovers by greatly shortening outages.
- Over 1000ft of underground and 1300ft of overhead cable was installed; all work was done by WMGLD linemen.
- Customer communication was imperative – outages were scheduled off-hours to accommodate our customers.
- Complex switching and phasing needed to be done to tie and cut over the circuits to the new substation.



The map displays the Mill River and Mill Creek area. Key features include:

- Streets:** Mill Creek, Mill River, Mill St, Central Ave, Azanah Ct, Cline Creek Ext, 10th St, 2nd St, 15th St, 1st St, 3rd St, 4th St, 5th St, 6th St, 7th St, 8th St, 9th St, 10th St, 11th St, 12th St, 13th St, 14th St, 15th St, 16th St, 17th St, 18th St, 19th St, 20th St, 21st St, 22nd St, 23rd St, 24th St, 25th St, 26th St, 27th St, 28th St, 29th St, 30th St, 31st St, 32nd St, 33rd St, 34th St, 35th St, 36th St, 37th St, 38th St, 39th St, 40th St, 41st St, 42nd St, 43rd St, 44th St, 45th St, 46th St, 47th St, 48th St, 49th St, 50th St, 51st St, 52nd St, 53rd St, 54th St, 55th St, 56th St, 57th St, 58th St, 59th St, 60th St, 61st St, 62nd St, 63rd St, 64th St, 65th St, 66th St, 67th St, 68th St, 69th St, 70th St, 71st St, 72nd St, 73rd St, 74th St, 75th St, 76th St, 77th St, 78th St, 79th St, 80th St, 81st St, 82nd St, 83rd St, 84th St, 85th St, 86th St, 87th St, 88th St, 89th St, 90th St, 91st St, 92nd St, 93rd St, 94th St, 95th St, 96th St, 97th St, 98th St, 99th St, 100th St.
- Data Points:** Green squares (SOLID) and red diamonds (N/A) are scattered throughout the map, indicating water quality data points.
- Model Results:** Blue lines with green arrows represent the model results, showing flow direction and magnitude.
- Boundaries:** A red boundary outlines the area of interest, and a blue boundary outlines the Mill River area.

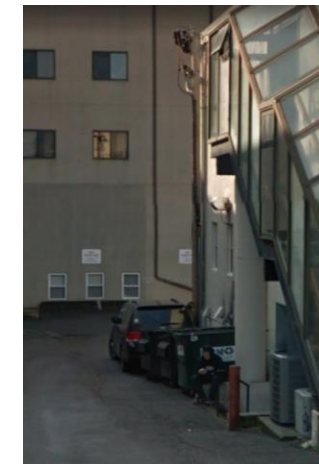
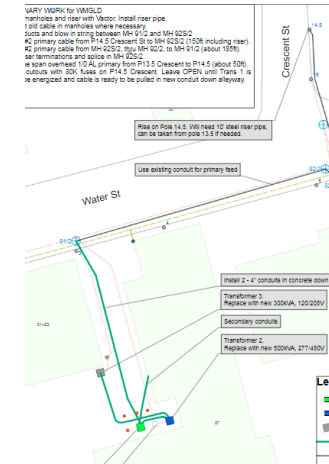


- Cir 6 & 9 were switched back and forth over the fall to accommodate construction
- W30 Conversion work was completed on New Salem St and Cir 6 was removed
- 3 step down transformers were installed on Preston via W30 from New Salem St
- Preston St was isolated from Cir 6 at Water St
- Cir 9 was cutover to new switchgear and reconfigured which retired Cir 6

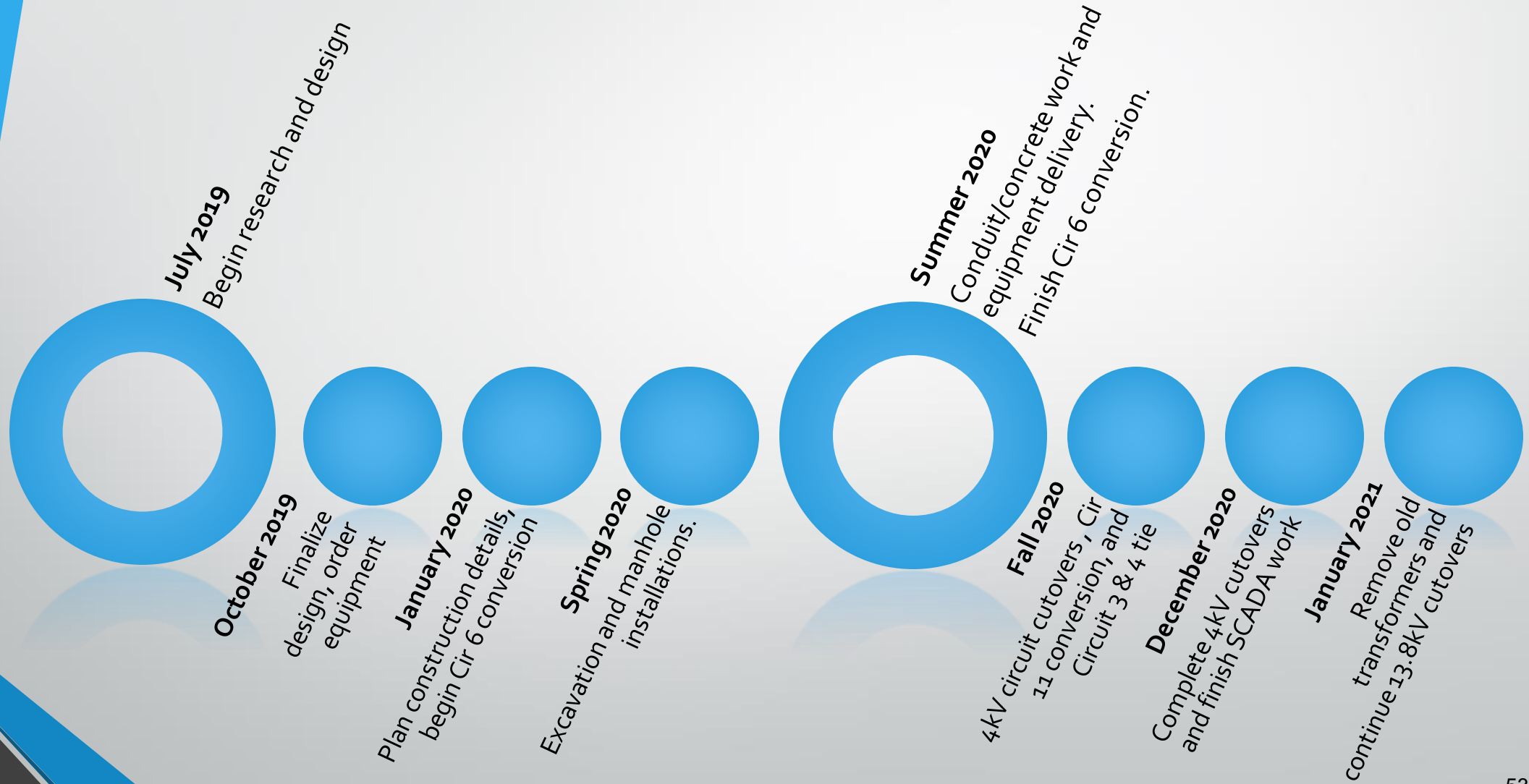


Cir 11 Conversion and Retirement

- Install 5 sections of cable
- Eliminated existing switch by ordering 3 new pad mount transformers that have primary switches built in.
- Coordinated multiple outages to establish new feed via cir W27
 - This included notifications to Verizon who provides service for the Wakefield Police and Fire Operations. Verizon was put on generator.
- 27 Water St was put on 2 of the 3 pad mount transformer and 37 Water St was put on the third
- Primary riser within a foot of 37 Water Streets roof was removed



Project Timeline



COVID & CREW SEPERATION CHALLENGES

- 1 Person Per Vehicle Policy
- No mixing personnel between crews – this minimized our ability to fill in vacations and other absences
- Planned outages rescheduled
- It was a challenge each day to balanced crew staffing and crew separation to meet our new customer's needs, capital projects, system maintenance and emergency response
- Dedicated Line Crew and Substation personnel assigned to the Wakefield Ave Project
- COVID concerns following Halloween Weekend
- 2 line workers from the same crew quarantined due to possible COVID contact

Section A: Employee Information		
Peter Dion	General Manager	Performance Period: 2021

General Manager Signature: _____

Board Signature: _____

Date: _____

Section B.1: Performance Goals – Safety (16.67%)			
Goals & Objectives (What)	Measures (How/When/Metric)	Evaluation	Rating (1 to 5)
1. Reduce Lost Time Accidents	Upper Limit 3 max - YE		
2. Reduce Responsible Motor Vehicle Accidents	a. Major: Upper Limit (# or \$) max - YE		
	b. Minor: Upper Limit (# or \$) max - YE		
3. Reduce Personal Injuries	Upper Limit 5 max – YE		
4. Train Employees	Identify and conduct another all employee-based class focused on incidence-based experience - YE		
5. Continue to operate in the department COVID-19 control plan	Limit exposures and virus spread		

Section B.2: Performance Goals – Operational (16.67%)			
Goals & Objectives (What)	Measures (How/When/Metric)	Evaluation	Rating (1 to 5)
1. Minimize Electric System Average Interruption Frequency (SAIFI)	Exceed Wakefield Average SAIFI < 0.8 - YE		
2. Minimize Electric Customer Average Interruption Duration (CAIDI)	Exceed Industry Average CAIDI < 60 minutes - YE		
3. Deliver Capital Projects On Time and On Budget	a. Electric: Complete Capital Plan– YE		
	b. Gas: Complete Capital Plan– YE		
4. Deliver Operation and Maintenance Services On Time and On Budget	a. Electric: Complete O&M (Distribution and Substation) Inspection Program and Address Items –YE		
	b. Electric: Complete Vegetation Management Plan – Q2		
	c. Gas: Move 100 inside services outside - YE		
	d. Gas: Complete Class 2 leak repairs per required targets – YE		
	e. Gas: Reduce Class 3 leaks by 15% from starting point of 73 leaks - YE		

Section B.3: Performance Goals – Customer Service (16.67%)			
Goals & Objectives (What)	Measures (How/When/Metric)	Evaluation	Rating (1 to 5)
1. Update, Add to, and Organize Website Content	a. Update: <ul style="list-style-type: none"> About Us section Solar program 		
	b. Add: <ul style="list-style-type: none"> Heat pump information materials Non-emitting resource goals and progress Rate sheets Commercial EE program 		
	c. Organize: <ul style="list-style-type: none"> Non-emitting resources Heating system electrification Vehicle electrification 		
2. Provide Customer Service, Education, and Outreach	a. Hold two topic-specific forums annually to educate and collect feedback from customers on new technologies, solutions and program offerings		
	b. Educate customers on heating and transportation electrification options and costs		
	c. Roll out commercial energy efficiency program		

Section B.4: Performance Goals – Financial (16.67%)			
Goals & Objectives (What)	Measures (How/When/Metric)	Evaluation	Rating (1 to 5)
1. Prudent O&M Spending	a. Budget to actual – YE		
	b. Overtime (excluding Mutual Aid) < 19% of payroll - YE		
2. Prudent Capital Spending	Budget to actual – YE		
3. Annual Audit Performance	a. Positive position – No deficiencies		
	b. Work towards 3 months of cash on hand		
4. Long-Term Capital Planning	Maintain a three-year capital investment plan		
5. Manage account receivable growth due to COVID-19	Review detailed data with the Board and develop a plan to address any issues		

Section B.5: Performance Goals – Leadership (16.67%)

Goals & Objectives (What)	Measures (How/When/Metric)	Evaluation	Rating (1 to 5)
1. Communicate with and Represent the Board	a. Provide regular updates to the Board on discussions with partners (e.g., customers, town, vendors, contractors, municipal utility associations, energy industry organizations, other communities, states, and nationally)		
	b. Solicit and provide Board feedback to partners (e.g., see list above)		
2. Data Development	Develop performance dashboards to establish metrics, enable comparisons of metrics for various initiatives, and inform decision-making		
3. Strategic Planning	Conduct the next phase of strategic planning		
4. Improve communication with Town Departments, Committees and Boards	a. Notify Board Chair of requests pertaining to Town Committees or Boards and coordinate a plan of action with the Board		
	b. Coordinate effectively with DPW per Memorandum of Understanding		
	c. Inform relevant Boards about energy sector initiatives and policies in other communities and the state, such as gas moratoriums, solar ready roofs, EV ready buildings, and net zero energy buildings		
5. Staff Development	a. Develop staff capabilities through Board presentations on projects or efforts		
	b. Develop marketing plans for recently launched programs		

Section B.6: Performance Goals – Environmental (16.67%)			
Goals & Objectives (What)	Measures (How/When/Metric)	Evaluation	Rating (1 to 5)
1. Comply with Environmental Legislation	a. Address compliance steps with respect to final passage of the Senate and House 2050 Roadmap Bills		
2. Support installation of non-carbon emitting generation resources	a. Conduct a preliminary feasibility and alternative study to determine what would be involved in initiating a community shared solar program		
	b. Develop a proposal for the board on how to update and expand Residential and Small Commercial battery incentives		
3. Support decarbonization of the heating and transportation sectors	a. Investigate community support options for heating system electrification including contractor education and coaches		
	b. Support electric vehicle adoption through incentives for at home chargers, public chargers, dealer rebates on vehicles, and test drive events.		
Major Items Not Covered			

Rating Summary:

B.1 – Safety (1 to 4): _____ * 4.167 = ____%
 B.2 – Operational (1 to 4): _____ * 4.167 = ____%
 B.3 – Customer Service (1 to 4): _____ * 4.167 = ____%
 B.4 – Financial (1 to 4): _____ * 4.167 = ____%
 B.5 – Leadership (1 to 4): _____ * 4.167 = ____%
 B.6 – Environmental (1 to 4): _____ * 4.167 = ____%

Total Rating (out of 100%): _____%

Total Incentive (out of 6%): _____%

T's plan to buy battery-powered buses may do little to ease emissions

By Adam Vaccaro
GLOBE STAFF

The MBTA has hardly been a pioneer among transit agencies in weaning itself off fossil fuels altogether, with just 33 electric-powered buses in its overall fleet of nearly 1,100, the rest mostly a mix of diesel powered or diesel-electric hybrids.

But the agency is planning to take a measurable step forward in 2021 by launching a plan to buy at least 35 battery-powered buses, its biggest acquisition yet of a technology that despite its many promises is still unproven.

There's a catch, however: the T is not planning to use the new electric buses to replace the older, rumbling diesel ones, or even the hybrids that still emit some greenhouse gases.

Instead, the agency would use the new electric buses to replace the bulk of its current electric-powered fleet, meaning it wouldn't actually result in much of a reduction in emissions.

"It doesn't make any sense to me. It's a like-for-like replacement," said Veena Dharmaraj, director of transportation at the Massachusetts Sierra Club. "It won't reduce emissions or pollution."

The 35 new buses would arrive in 2023 and replace the 28 vehicles that have been powered by overhead electric catenary lines in Cambridge, Belmont, and Woburn for decades.

Those buses are 16 years old and due for replacement.

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T's battery-powered buses may do little to ease pollution

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ment. The MBTA has long expressed frustration with maintaining the catenary system, and apparently sees the buses' advanced age as an opportunity to move away from it. Hence the plan to sub in electric buses instead.

Spokeswoman Lisa Battiston said substituting battery-powered electric buses for the overhead ones could result in a smoother ride and better service. "Without being tied to the overhead catenary system, buses are able to operate around double-parked vehicles, perform emergency route detours, [and] be part of scheduled route variations," she said.

But the plan has baffled environmentalists, who think the MBTA should replace the catenary-powered buses with similar vehicles, and deploy new battery-powered technology in places where buses are still polluting — especially in poorer neighborhoods.

Among those critics is the Cambridge City Council, which in November voted unanimously to oppose the plan, suggesting the MBTA instead "prioritize environmental justice communities such as Chelsea and Dorchester for electrification efforts that would improve service and reduce emissions."

The MBTA already has five battery-powered buses that it acquired to test the zero-emission technology. It has been used since 2019 on the Silver Line — so far, to mixed results.

Some advocates have questioned why the T would move away from catenary wires, which

are a proven technology, when batteries are still maturing. On its test buses, the MBTA found the vehicles take too long to charge and their range is shorter in cold weather.

The drawback is severe enough that the MBTA has said the new battery buses may need to use an auxiliary fossil fuel source to heat the interior for passengers and lessen the load on the battery. That's another issue Cambridge officials "have concerns" about, said city spokesman Lee Gianetti.

The T, along with many industry specialists, expects battery technology to improve enough in the near future to eventually justify purchasing more. MBTA chief engineer Erik Stoothoff said at a November meeting that the small size of the Cambridge fleet and a goal to "simplify our fleet makeup" make them best-suited for replacement by battery power.

The current proposal could be expanded to include up to 50 more buses to operate out of a new garage in Quincy, which would be outfitted with charging capabilities, and then to other facilities as they become equipped.

A similar debate cropped up with a separate purchase of new buses the MBTA approved for the Silver Line in November. Those 45 buses are to be hybrids, switching between battery and diesel power, with the diesel engine charging the battery when in operation.

The current Silver Line buses use electric power from a catenary wire to run through the poorly ventilated tunnel under the Seaport District, and then

switch to diesel power above ground. The new buses will follow a similar pattern.

The MBTA says the battery power can also be activated on parts of the above-ground trip, such as through Chelsea, a community that has long borne the brunt of regional transportation pollution.

But critics say the MBTA should have instead bought buses that use the overhead wires in the tunnel to charge batteries, so they continue to run on electric power once back above ground. The new buses will still cause some pollution above ground by using diesel power, said Ari Osevit, a senior associate in the Boston office of the Institute for Transportation and Development Policy.

Transit agencies have been increasingly focused on reducing their own carbon footprint by lessening their dependence on fossil fuels. The MBTA, for example, has spent most of the last decade swapping diesel buses for diesel-electric hybrids, and expects to complete that transition by the mid-2020s.

But, as with automobiles, the focus is rapidly shifting to full electrification. While the MBTA does not significantly trail other major US transit agencies in deploying zero-emission buses, some of its peers have set aggressive goals to replace their fleets with all electric vehicles by as soon as 2030. The T has declined to establish a similar benchmark.

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