

Presque Isle Electric & Gas Co-op

Bois Blanc Township Meeting October 12, 2022

Agenda

- Presque Isle Electric & Gas Co-op
 - Introductions
 - Co-op Business Model
 - Rates Electric & Gas
 - Energy Optimization/Energy Waste Reduction
 - 2022 Work Plan/Capital Improvements
 - Brushing/ROW
 - Recent Project Updates
 - New HQ
 - AMI
 - Fiber Project
 - Reliable Electric Distribution in Michigan
 - Liaison Board Meetings
- Questions

- Presque Isle Electric & Gas Co-op Bois Blanc Township
 - Electric
 - 539 services
 - 41 miles of electric line



Cooperative Business Model 7 Principles

International Co-operative Alliance*:

- 1. Voluntary and Open Membership
- 2. Democratic Member Control
- 3. Member Economic Participation
- 4. Autonomy and Independence
- 5. Education, Training, and Information
- 6. <u>Cooperation Among Cooperatives</u>
- 7. Concern for Community
 - * International Co-operative Alliance, www.ica.coop

Cooperative Business Model

9 Member Board of Directors
Term of office is three years
Elections are by mail in ballot (Country Lines) and in person at the annual meeting held on the last Friday in October

Alpena	Cheboygan	Montmorency	Presque Isle	Director at Large
Kurt Krajniak*	Sandy Borowicz	Charlie Arbour	Allan Berg	Sally Knopf
Brentt Lucas*	John Brown	Daryl Peterson	Ray Wozniak*	

^{*} Terms expire this year; all are running for re-election.

Cooperative Business Model

Patronage Capital / Capital Credits

Member patronage capital since 1937: \$51,460,902

Patronage capital retired/returned since 1937: \$22,287,344



Cooperative Business Model

Patronage Capital / Capital Credits Retired 2022

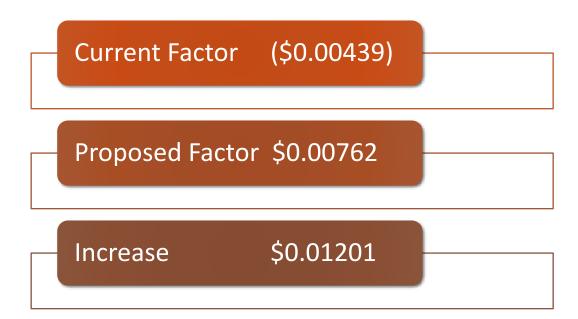
1990-91(PIE&G) - \$694,985

2005 (Wolverine) – \$742,382

Electric Rate Review



Member Regulation 2022 PSCR Factor





Member Regulation 2022 PSCR Factor

Resolution 2021-MR-07

 Accept management's proposed 2022 PSCR Factor of \$0.00762, an estimated increase of \$8.32/month*

*Based upon the average residential consumption of 666 kWh

COMPARISON OF MONTHLY RESIDENTIAL BILLS* FOR MICHIGAN ELECTRIC COOPERATIVE UTILITIES July 18, 2022

COOPERATIVE	Customer Charge	LIEAF	Minimum Charge	250	500	1,000	2,000
ALGER DELTA	\$25.00	\$0.87	\$25.87	\$64.13	\$102.38	\$178.89	\$331.91
CHERRYLAND	\$18.00	-	\$18.00	\$48.78	\$79.55	\$141.10	\$264.20
CLOVERLAND	\$23.75	-	\$23.75	\$48.62	\$73.48	\$123.21	\$222.67
GREAT LAKES	\$32.21	\$0.87	\$33.08	\$63.52	\$93.96	\$154.83	\$276.58
HOME WORKS	\$31.00	\$0.87	\$31.87	\$65.70	\$99.52	\$167.17	\$302.47
MIDWEST	\$39.00	\$0.87	\$39.87	\$70.50	\$101.12	\$162.37	\$284.88
ONTONAGON	\$25.00	-	\$25.00	\$73.48	\$121.96	\$218.91	\$412.82
PRESQUE ISLE	\$18.00	\$0.87	\$18.87	\$51.11	\$83.36	\$147.84	\$276.81
THUMB ELECTRIC	\$22.00	\$0.87	\$22.87	\$52.42	\$81.97	\$141.07	\$259.27
	\$0.00	-					
AVERAGE COOP	\$26.00	\$0.87	\$26.58	\$59.80	\$93.03	\$159.49	\$292.40
Prior PIE&G Percentage to Coop Avg	-30.76%		-28.99%	-14.53%	-10.40%	-7.30%	-5.33%

*Includes all applicable surcharges.

Sources: individual electric cooperative utility rate books

Compiled by PIE&G

INTERNAL USE ONLY

COMPARISON OF MONTHLY RESIDENTIAL BILLS* FOR LOCAL ELECTRIC UTILITIES July 18, 2022

<u>UTILITY</u>	Customer Charge	LIEAF	Minimum Charge	250	500	1,000	2,000
ALPENA POWER	\$5.00	\$0.87	\$5.87	\$40.30	\$74.74	\$143.60	\$281.33
CONSUMER ENERGY	\$8.00	\$0.87	\$8.87	\$53.01	\$97.15	\$185.43	\$362.00
PRESQUE ISLE	\$18.00	\$0.87	\$18.87	\$51.11	\$83.36	\$147.84	\$276.81
AVG LOCAL UTILITY (PRIOR RATES) Prior PIE&G Percentage to Local Avg	\$13.00 38.46%	\$0.87	\$11.20 68.43%	\$48.14 6.17%	\$85.08 -2.03%	\$158.96 -6.99%	\$306.71 -9.75%

^{*}Includes all applicable surcharges.

Sources: individual electric cooperative utility rate books and MPSC

Compiled by PIE&G

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Member
Regulation
Electric Rate
Review – TIER
Analysis

0.73 TIER

\$2,031,825 revenue increase to achieve 1.8 TIER

7.87 mills per kWh sold

Rate Class	COSS Revenue Adjustments	%
Residential Monthly	\$1,341,347	5.72%
Residential Seasonal	\$ 309,896	4.33%
General Service	\$ 197,320	3.55%
Large General Service	\$ 19,802	2.90%
LPTOD	\$ 74,961	4.95%
Primary Service	\$ 71,569	5.16%
Outdoor Lighting	\$ 16,934	8.48%
Total	\$2,031,829	5.09%

Member Regulation Electric Rate Review – Increase per Cost of Service Study



Member Regulation Electric Rate Review Rate Design

Board Policy 307 – Revenue Requirement & Rate Policy Statement

 Requires Availability Charge to be between 60% and 70% of the COSS Availability Charge result.

COSS Availability Charge -- \$29.99

Current Availability Charge – Residential Seasonal

\$18.00 \$19.00

Percentage of COSS 60% 63%

Member Regulation Electric Rate Review Rate Design

Propose Adjusting the Rate Classes in the following manner:

Rate Class	Availability* Charge	kWh Charge	\$ Increase
Residential Monthly	\$18.00	\$0.04163	\$0.00858
Residential Seasonal	\$19.00	\$0.09736	\$0.01295
General Service 1PH	\$16.00	\$0.03230	\$0.00454
General Service 3PH	\$35.00	\$0.03230	\$0.00454
Large General Service	\$50.00	\$0.02074	\$0.00348
Large Power Time of Day	\$60.00	\$0.07493	\$0.00542
Primary Service	\$0.00	\$0.01246	\$0.00501

^{*}No change to availability charges

Member Regulation Electric Rate Review Rate Design

- Average Residential customer will see an increase of approximately \$5.71 per month or \$68.52 per year based on the average monthly usage of 666 kWh.
- Average Seasonal customer will see an increase of approximately \$3.34 per month or \$40.08 per year based on the average monthly usage of 258 kWh.

COMPARISON OF MONTHLY RESIDENTIAL BILLS* FOR MICHIGAN ELECTRIC COOPERATIVE UTILITIES September 1, 2022

<u>COOPERATIVE</u>	Customer Charge	LIEAF	Minimum Charge	250	500	1,000	2,000
ALGER DELTA	\$25.00	\$0.87	\$25.87	\$64.13	\$102.38	\$178.89	\$331.91
CHERRYLAND	\$18.00	-	\$18.00	\$48.78	\$79.55	\$141.10	\$264.20
CLOVERLAND	\$23.75	-	\$23.75	\$48.62	\$73.48	\$123.21	\$222.67
GREAT LAKES	\$32.21	\$0.87	\$33.08	\$63.52	\$93.96	\$154.83	\$276.58
HOME WORKS	\$31.00	\$0.87	\$31.87	\$65.70	\$99.52	\$167.17	\$302.47
MIDWEST	\$39.00	\$0.87	\$39.87	\$70.50	\$101.12	\$162.37	\$284.88
ONTONAGON	\$25.00	-	\$25.00	\$73.48	\$121.96	\$218.91	\$412.82
PRESQUE ISLE	\$18.00	\$0.87	\$18.87	\$53.26	\$87.65	\$156.42	\$293.97
THUMB ELECTRIC	\$22.00	\$0.87	\$22.87	\$52.42	\$81.97	\$141.07	\$259.27
	\$0.00	-					
AVERAGE COOP	\$26.00	\$0.87	\$26.58	\$60.04	\$93.51	\$160.44	\$294.31
Prior PIE&G Percentage to Coop Avg	-30.76%		-28.99%	-11.30%	-6.27%	-2.51%	-0.11%

*Includes all applicable surcharges.

Sources: individual electric cooperative utility rate books

Compiled by PIE&G

INTERNAL USE ONLY

COMPARISON OF MONTHLY RESIDENTIAL BILLS* FOR LOCAL ELECTRIC UTILITIES September 1, 2022

<u>UTILITY</u>	Customer Charge	LIEAF	Minimum Charge	250	500	1,000	2,000
ALPENA POWER	\$5.00	\$0.87	\$5.87	\$38.30	\$70.74	\$135.60	\$265.33
CONSUMER ENERGY	\$8.00	\$0.87	\$8.87	\$53.00	\$97.13	\$185.39	\$361.90
PRESQUE ISLE	\$18.00	\$0.87	\$18.87	\$53.26	\$87.65	\$156.42	\$293.97
AVG LOCAL UTILITY (PRIOR RATES) Prior PIE&G Percentage to Local Avg	\$13.00 38.46%	\$0.87	\$11.20 68.43%	\$48.19 10.53%	\$ 85.17 2.90%	\$159.14 -1.71%	\$307.07 -4.27%

^{*}Includes all applicable surcharges.

Sources: individual electric cooperative utility rate books and MPSC

Compiled by PIE&G

INTERNAL USE ONLY

Energy Optimization/Energy Waste Reduction Initiatives



Member Regulation Continuation of Energy Optimization/Energy Waste Reduction Charges

Resolution 2021-MR-08

Accept management's proposed continuation of the EO/EWR charges.

EWR Surcharge Schedule

Residential Monthly \$0.00229/kWh

Residential Seasonal \$0.00229/kWh

General Service 1PH \$3.10/month

General Service 3PH \$3.10/month

Large General Service \$74.14/month

Optional Large Power

Time of Day Service \$74.14/month

Primary Service \$400.99/month

Outdoor Lighting \$0.00312/kWh

Natural Gas Rate Review

PIE&G Natural Gas Rates

	Residen	tial/Base	General	l Service	Indu	ıstrial
	Current	Apr 2022	Current	Apr 2022	Current	Apr 2022
Availability - \$/mo.	\$12.00	\$12.00	\$17.00	\$17.00	\$188.00	\$188.00
Distribution- \$/ccf	\$0.48914	\$0.48914	\$0.32273	\$0.32273	\$0. 2757	\$0. 2757
Gas Cost – GCR, \$/ccf	\$0.3642	\$0.4161	\$0.3642	\$0.4161	\$0.3642	\$0.4161
Total -\$/ccf	\$0.85334	\$0.90524	\$0.68693	\$0.73883	\$0.6399	\$0.6918

Utility Plant Investments

Presque Isle Electric & Gas Co-op

Investments in NE Michigan Past 5 Years

Annual Investment
Electric Plant
\$ 7,669,466

Annual Investment Natural Gas Plant \$ 2,626,318

2022 Work Plan

- Work Plan = Capital Improvements
- Electric \$3,717,000

New Line Extensions	\$	900,000
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- Conversion & Line Changes \$1,247,000
- ➤ Misc. System Improvements \$ 500,000
- >Other Distribution Items \$1,070,000
- Gas \$1,100,000
 - ➤ New Line Extensions, service \$ 400,000
 - ➤ New Line Extensions (Emerson/Wilson Twp) \$ 350,000
 - Coop Lines (road moves, sys. Imp., etc.) \$ 350,000

Total – Utility Plant \$4,817,000

Brushing/ROW Activity

Herbicide Treatment

HERBICIDE TREATMENT FOR 2022

SUBSTATION	CIRCUIT	MILES	
ATLANTA	AA1/AA2	61.16	Complete
ATLANTA	AA3	63.82	0%
ATLANTA	BL3	51.91	0%
BLACK LAKE	BL4	19.86	Complete
CANADA CREEK	CC4	9.92	0%
FINGERBOARD	FB2	8.81	Complete
FINGERBOARD	FB4	106.60	0%
MULLETT LAKE	ML4	51.81	Complete
]
TOTALS]	373.89]

Mechancal Clearing

MECHANICAL CLEARING FOR 2022

SUBSTATION	CIRCUIT	MILES	
AIRPORT	AA4	34.96	Complete
CHEBOYGAN	BB2/BB4	25.61	0%
FINGERBOARD	FB1	16.19	70%
HAWKS	HK1	75.40	Complete
HILLMAN	HN1	77.51	50%
LEWISTON	LW1	26.11	Complete
LEWISTON	LW3	74.19	50%
LEWISTON	LW4	8.25	0%
MILLERSBURG	MB4	28.54	Complete

TOTALS 366.76

Current Projects

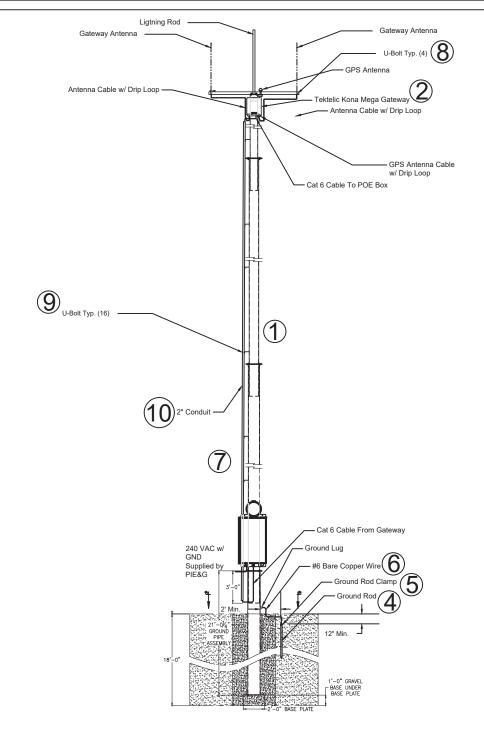


New Headquarters Complete!

Advanced Metering Infrastructure - AMI

AMI Project Updates

Began construction in 2020 89% of the meters have been deployed 27 communication poles 5 cellular/radio towers



ITEM NO.	PartNo	DESCRIPTION	QTY.	PIE&G PartNo
1	AMI Pole	Moran Iron Works Galvanized AMI Pole	1	110001
2	Gateway	Tektelic Gateway Assembly	1	??????
3	POE Box	Vision POE Box Assembly	1	??????
4	Ground Rod	हुँ" Ground Rod	1	??????
5	Ground Rod Clamp	Ground Rod Clamp	1	??????
6	Wire	#6 Bare Copper Wire	10'	??????
7	Wire	10-2 UMB Wire	250'	??????
8	U17277.025.0100	Fabory 1" Dia. U-Bolt Stainless Steel	4	??????
9	U17243.032.0200	Fabory 2" Dia. U-Bolt Zinc Coated	16	??????
10	A52CA12	2" Conduit 10' Long	10	??????

REVISIONS				
REV.	DESCRIPTION	DATE	APPROVED	
Α	Original Release	1/15/21	DAD	

PRESOUE ISLE ELECTRIC AND BAS CO-OP	Drawing Name: 100' Pole Assembly	
Date: 1/15/2021	Drawn:	DAD
Page 1 of 3	Chk'd:	WRR





Fiber 4 Year Work Plan

PIEG Connect – Construction Budget

	Miles	Services	Cost
Phase I	702	10,580	\$29,168,794
Phase II	956	12,721	\$45,091,120
Phase III	988	8,999	\$37,380,215
Phase IV	572	3,846	\$22,771,686
Totals	3,218	36,146	\$134,411,815



We're excited to tell you about our new fiber division, PIE&G Connect, and our

new fiber logo! PIE&G Connect is separate from our electric and natural gas operations. Plus, we're also pleased to announce our proposed construction schedule for all four phases of our fiber internet network!

These are the four build phases that include associated neighborhoods in each zone with the corresponding substation abbreviation. To find which phase you reside in, please see the first two letters of your "Map Location" listed on your billing statement, and compare it to the substation abbreviations corresponding to each zone or area below.

PHASE 1:

Construction will start to bring fiber broadband to our service territory's first phase of the Central area. This includes Onaway (ON), Canada Creek (CC), Black Lake (BL), Tower (TW), Fingerboard (FB), and Mullet Lake (ML). The first installations are expected to start in Q1 2022.

PHASE 2:

Mainline construction in Phase II of our North area, including Cheboygan (CN), Hammond Bay (HB), Millersburg (MB), Hawks (HK), and Hagensville (HG) is expected to begin Q1 2023. Please be assured that your Presque Isle Electric & Gas Co-op teams are working tirelessly to complete the necessary preparations for construction and configuration required to deliver fiber internet services as quickly as possible. Sometimes weather or other unforeseen factors may impact our plans, but we will continue to communicate with members about any changes to the schedule.

The schedule is intended to provide an outline for the fiber build for the next several years based on the most current assessment of our project. The sequence of the build phases was driven by two primary factors: proximity to PIE&G's headquarters and the nature of our design. The construction is estimated to take about a year for the completion of each phase.



PHASE 3:

Mainline construction in our East area of Posen (PS), Grand Lake (GL), Alpena (AP), Hillman (HN), and Avalon (AV) is expected to begin Q1 2024.

PHASE 4:

Mainline construction in our South area of Beaver Lake (BV), Atlanta (AA), and Lewiston (LW) is expected to begin in Q1 2025.

The process of building a fiber-to-the-home network is complex, and all areas to be served will go through several steps for each phase of design and construction.* As each substation feed begins inventory and make-ready construction, you can expect to see crews from Davey Resource Group on or near your property and in your neighborhoods working on the project.

Construction Status Connect



Step	Farthest Location	Fiber Construct	<mark>tion</mark>
Inventory	Lewiston 6	Phase 1 – miles complete	438
Make Ready Engineering	Hagensville 4	Phase 1 – % complete	61%
Make Ready Contruction	Millersburg 3	Total % complete	14%
Fiber Construction	Fingerboard 4		

PIE&G Connect Service Offerings



- Internet Service
 - 100 Mbps \$54.95 (includes a \$5 autopay discount)
 - 1 Gigabit \$84.95 (includes a \$5 autopay discount)
- Voice Services
 - Home \$29.95 plus fees and tax
 - Small Business \$29.95 plus fees and tax
 - Commercial \$34.95 plus fees and tax
- Internet Service Vacation \$20/month
- Voice Service Vacation \$10/month

Midwest Electric Grid Reliability

Midwest Reliability

in **Jeopardy**

- MISO's statements¹:
 - "Zones 1-7 have an increased risk of needing to implement temporary, controlled load sheds."
 - "Unless more capacity is built that can supply reliable generation shortfalls such as those highlighted in this year's auction will continue."
- NERC statements²:
 - "More extreme temperatures, higher generation outages, or low wind conditions expose the MISO North and Central areas to higher risk of temporary operator-initiated load shedding to maintain system reliability."



2022 Summer Reliability Assessment

Energy Emergency Risk Areas

NERC NORTH AMERICAN ELECTRICAL RELIABILITY CORPORATION

MISO

A **capacity shortfall** in the North and Central areas poses high risk of energy emergencies during peak summer conditions. The shortfall is largely driven by a peak demand increase of 1.7% percent and 3,200 MW less generation capacity than summer 2021.

SPP

Drought conditions may impact summer reliability. Low-output from affected thermal and hydro generation could lead to a shortfall in needed flexible capacity to balance wind variability during peak demand.

Saskatchewan

Saskatchewan **peak demand projections have risen** by over 7.5% since 2021. Sufficient operating reserves are expected during normal peak conditions but may require external assistance during extreme peak demand conditions.

Texas

Solar and wind additions in Texas ease concerns for capacity shortfalls for normal peak demand. **Drought conditions and high temperatures can challenge system balance.** Emergency procedures, including manual load shed, could be needed during a low wind and high outage rate scenario.

Pacific Northwest, Southwest, and California/Mexico

Reserve margins are expected to be sufficient under normal conditions, but **external assistance is likely needed under extreme conditions.** California continues to procure resources and is expected to have sufficient resources with external transfers to meet normal peak conditions. A wide-area heat event can limit the availability of electricity for transfer, causing energy emergencies. Wildfires, droughts, and supply chain issues can cause localized risks.

High Risk

Saskatchewan

Pacific Northwest

Southwest

California/

Resources are potentially insufficient to meet peak load during both normal and extreme conditions.

Elevated Risk

Resources are likely sufficient to meet peak load during normal conditions, but potentially insufficient during extreme conditions.

Liaison Board Meetings 2 per year Memorial Day / Labor Day Tentative dates for 2023 May 3 – Cheboygan area September 6 - Onaway

Questions?