### Renewable Energy Annual Report

Revised May 2018

Electric Provider: Great Lakes Energy Cooperative

Reporting Period: Calendar Year 2017

- Section 51(1) of 2008 PA 295, as amended by 2016 PA 342, requires the filing of this document with the Michigan Public Service Commission.
- Many of the requested figures are available from MIRECS reports; names of which are noted
  within this template. If your figures agree with those within MIRECS, you may submit the
  MIRECS report as an attachment to this annual report. If your figures differ from those within
  MIRECS, please explain any discrepancies. Staff from the MPSC and MIRECS Administrator, APX,
  Inc., are available to help reconcile.
- The purpose of this annual report is to provide information regarding activities that occurred within calendar year 2017, not simply activity regarding energy credits with the vintage of 2017.

### Section 51(1).

Within this section, list and describe actions taken by the electric provider to comply with the renewable energy standards.

a. Filings to the Commission (case numbers)

2016 Renewable Energy Plan – U-16593. 2016 Annual Report – U-16593.

b. Summary of actions taken during reporting period

Great Lakes Energy Cooperative acquired 238,232 RECs and 3,592 IRECs in 2017.

All REC transfers were directed through Wolverine Power Supply Cooperative Inc.'s MIRECS account.

### Section 51(2)(a).

Within this section, list the number of energy credits obtained and, if bundled credits, the MWh of electricity generated or otherwise acquired during the reporting period, including those credits transferred from ones wholesale electric supplier. This data may be found in the MIRECS report titled: My Credit Transfers using the transfer tabs indicated below and filtering the report by date (only activity occurring in 2017).

Credits From	Renewable Energy	Incentive Credits	MWh Electricity
	Credits		Generated/Acquired
Generated	2017 Vintage: 0	2017 Vintage: 0	0
(Intra-Account Transfer,	2016 Vintage: 0	2016 Vintage: 0	
only "Issued" in the	2015 Vintage: 0	2015 Vintage: 0	
Action column)	2014 Vintage: 0	2014 Vintage: 0	
	Older Vintages: 0	Older Vintages: 0	
Purchased	2017 Vintage: 238,232	2017 Vintage: 3,592	238,232
(Inter-Account Transfer,	2016 Vintage: 0	2016 Vintage: 0	
only "Confirm" or	2015 Vintage: 0	2015 Vintage: 0	
"Forward Transfer" in	2014 Vintage: 0	2014 Vintage: 0	
the Action column)	Older Vintages: 0	Older Vintages: 0	
Total Credits	238,232 REC	3,592 IREC	238,232 MWh

"Issued" within the Action column refers to an account holder accepting the generation data after which energy credits are created. "Confirm" within the Action column refers to both the transferee and transferor agreeing to the non-recurring transfer. "Forward Transfer" within the Action column indicates a recurring transfer of which subsequent transfers of credits do not need to be accepted by both parties.

Explain any differences between the data provided and MIRECS reports.

Banked RECs and IRECs are collected within Wolverine Power Cooperative Inc.'s MIRECS account. Those RECs needed for annual compliance have been transferred into Great Lakes Energy Cooperative's MIRECS account on a first in / first out basis.

Within this section, list the type of and number of energy credits sold, traded or otherwise transferred during the reporting period.

	Renewable Energy Credits	Incentive Credits
Sold, traded or	2017 Vintage: 0	2017 Vintage: 0
otherwise transferred	2016 Vintage: 0	2016 Vintage: 0
	2015 Vintage: 0	2015 Vintage: 0
	2014 Vintage: 0	2014 Vintage: 0
	Older Vintages: 0	Older Vintages: 0
Expired	0	0
(not in compliance sub-account)		

This data may be found in MIRECS reports titled: My Sub-Accounts (filtered by Michigan eligibility and its end date) and My Credit Transfers.

# Section 51(2)(b).

Within this section, list the number of advanced cleaner energy credits obtained and, if bundled, the MWh of advanced cleaner energy generated or otherwise acquired during this reporting period. This data may be found in the MIRECS report titled: My Credit Transfer using the transfer tabs indicated below and filtering the report by date (only activity occurring in 2017).

	Advanced Cleaner Energy Credits	MWh Electricity Generated/Acquired
Generated	2017 Vintage: 0	2017 Vintage: 0
(Intra-Account Transfer, only	2016 Vintage: 0	2016 Vintage: 0
"Issued" in the Action column)	2015 Vintage: 0	2015 Vintage: 0
	2014 Vintage: 0	2014 Vintage: 0
	Older Vintages: 0	Older Vintages: 0
Purchased	2017 Vintage: 0	2017 Vintage: 0
(Inter-Account Transfer, only	2016 Vintage: 0	2016 Vintage: 0
"Confirm" or "Forward Transfer"	2015 Vintage: 0	2015 Vintage: 0
in the Action column)	2014 Vintage: 0	2014 Vintage: 0
	Older Vintages: 0	Older Vintages: 0
Total Credits acquired	0	0

## Section 51(2)(c).

Within this section, list each renewable energy system (RES) and advanced cleaner energy system (ACES) owned, operated or controlled by the electric provider. List the capacity of each system, the amount of electricity generated by each system and the percentage of electricity which was generated from renewable energy (RE) or advanced cleaner energy (ACE).

System Name1	System Type (RES or ACES)	Nameplate Capacity (MW)	Electricity Generated (MWh)	% of Electricity generated by RE/ACE
N/A				

<sup>1</sup>System name should agree with the project name listed within MIRECS. This data may be found in the Project Management module within MIRECS.

Within this section, list the renewable energy system (RES) and advanced cleaner energy systems (ACES) the electric provider is purchasing energy credits from. These include purchase power agreements. However, unbundled (credit only) purchases do not need to be listed here. Projects (generators) serving multijurisdictional electric providers should be listed here.

System Name	System Type (RES or ACES)	Electricity Purchased (MWh)	Energy Credits Purchased1	Allocation Factor and Method
Harvest Wind Farm, LLC	RES	33,882 MWh	33,882 REC	27.2%
Thunder Bay – Four Mile	RES	20,000 MWh	20,000 REC 1,871 IREC	47.4%
Deerfield Wind Farm	RES	183,544 MWh	183,544 REC	34.7%
SpartanSolar	RES	806 MWh	806 REC 1,721 IREC	47.4%

<sup>1</sup>Distinguish between different types of credits (REC or ACEC).

Allocation Factor and Method: For use if 100% of system output is not purchased. For instance, a system selling to multiple parties: list how the energy and credits are allocated – if by percentage, list the percentage as well.

Allocation Factor and Method: If used by multijurisdictional electric providers please include which percentage of energy and credits are to be distributed to Michigan (list allocation method as well, for example: system load).

### Section 51(2)(d).

Within this section, list whether, during the reporting period, the electric provider entered into a contract for, began construction on, continued construction of, acquired, or placed into operation a renewable energy (RE) system or advanced cleaner energy (ACE) system.

System Name1	Resource (technology, RE/ACE)	Nameplate Capacity (MW)	Construction start date or acquisition date	Commercial operation date	Owned by electric provider?
N/A					

<sup>1</sup>System name should agree with the project name listed within MIRECS. Dates may be forecast.

### Section 51(2)(e).

Within this section, list the expenditures incurred during the reporting period to comply with the renewable energy standards or the forecasted expenditures for the remaining plan period. Also, electric providers with an approved or planned renewable energy surcharge (as per Section 45), list the incremental cost of compliance (ICC) incurred during the reporting period.

Total Costs to Comp	oly with Renewable E	nergy Standard in	2017	
	0			

Forecast of total expenditures for the remaining plan period of 2018-2029	
0	

Total Expenditures: ICC + Transfer Cost

Total Transfer Cost for 2017 (if any)				
	0			

Transfer Cost: The component of renewable energy and capacity revenue recovered from PSCR clause.

Total ICC for 2017	

Forecast of the ICC for the remaining plan period (2018-2029)	Monthly residential surcharge (\$3 or less)
0	0

Capital Expenditures for 2017 (if any)				
		0		

Capital Expenditure: An investment in a renewable energy capital asset.

### Section 51(2)(f).

Compliance: List the energy credits used for compliance for the 2017 compliance year. This number should agree with the compliance requirement listed in the 2017 compliance subaccount in MIRECS. Take into account any energy optimization or advanced cleaner energy credit substitutions and limits on their use.

139,943 energy credits

Does the "energy credits used for compliance for the 2017 compliance year" figure above include any credits representing energy generated within 120 days after the start of the next calendar year? Yes/No.

No

If yes, how many credits from 2018 generation are included?