

**MPSC Staff – Proposed Distributed Generation Program Concept Tariff
October 2017**

Comments from Alain Godeau (AG)

(In the context of a Socially Responsible Customer Perspective)

The proposed distributed generation (DG) concept tariff is designed to function as a rider and is paired with the participating customer's retail rate schedule.

AG: The concept of “**Distributed Generation**” is too restrictive as it refers **only** to behind-the-meter power generation capacity located at the customer's site. It does not take into consideration the possibility to include energy storage and smart-inverter at the customer's location. Using the terminology “**Distributed Energy Resources**” would be much preferable and would open the door to much greater potential benefits. (This may be why it is not used).

The customer is billed according to the distributed generation provision shown on their retail rate schedule for metered inflow and receives a credit, in dollars rather than kWh, based on the metered outflow during the billing month.

The credit for outflow during the billing month is applied to the total monthly bill less the monthly customer charge. The customer will always pay the monthly customer charge. Any unused outflow bill credit is added to any unused bill credit from previous months and carried forward to the next month. The utility will not issue a check for unused bill credit unless the customer leaves the DG program.

AG: I support this approach

According to the initial cost of service study, where residential rates and production-related cost of service were analyzed, charges on a DG customer's retail rate schedule may need to be adjusted to reflect the cost of service based on metered inflow compared to the residential rate class. We envision each retail rate schedule applicable to customers that qualify for the DG program to include a distributed generation provision with an appropriate adjustment to power supply and distribution charges.

AG: I support the concept but believe it would be preferable to create a new Class of Customer for “DG/DER” customers. Such customers will progressively be able to provide increased levels of grid support services in the very near future (as technology continue to improve and Utilities start realizing that they can be an asset rather than a threat to their current comfortable business model). Having them in a different Class will make easier to focus on their particular-characteristics and potentialities.

It should be possible to meter the necessary billing determinants for the DG concept tariff using Advanced Metering Infrastructure (AMI or smart meters). A generator meter is not required to measure the DG concept tariff billing determinants.

AG: Almost all “Smart” or “Dumb” inverters are metering the volumetric clean energy generated at the customer's site

For utilities using meters other than AMI, the utility may provide a meter capable of independently measuring and recording bidirectional power flows. If there will be a charge for a different meter, the Commission should review the proposed cost as part of approving the DG tariff in the utility's rate case. An alternate tariff framework for utilities using meters without the ability to measure and record both inflow and outflow is under development.

This DG concept tariff framework can accommodate potential changes to generic rate design in the future (e.g., the introduction of a demand charge for residential customers to the extent it is supported by technology and Commission policy).

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C11. DISTRIBUTED GENERATION PROGRAM

A. The Distributed Generation Program is offered as authorized by 2008 PA 295, as amended, and the Commission in Case No. U-_____.

B. Distributed Generation Definitions

(1) A Category 1 distributed generation customer has one or more Eligible Electric Generators with an aggregate nameplate capacity of 20 kWac or less that use equipment certified by a nationally recognized testing laboratory to IEEE 1547.1 testing standards and is in compliance with UL 1741 scope 1.1A located on the customer's premises and metered at a single point of contact.

(2) A Category 2 distributed generation customer has one or more Eligible Electric Generators with an aggregate nameplate capacity greater than 20 kWac but not more than 150 kWac located on the customer's premises and metered at a single point of contact.

(3) A Category 3 distributed generation customer has one or more methane digesters with an aggregate nameplate capacity greater than 150 kWac but not more than 550 kWac located on the customer's premises and metered at a single point of contact.

(4) Eligible Electric Generator – a renewable energy system or a methane digester **with a generation capacity limited to no more than 100% of the customer's electricity consumption for the previous 12 months** and does not exceed the following: a. For a renewable energy system, 150 kWac of aggregate generation at a single site.

AG: This provision is intended to keep a current “Customer” as remaining a “Customer” and not becoming an independent (distributed) “Power-producer”, even when this might be beneficial to the overall power system and the society. This can be qualified as a monopoly status-quo protection clause.

b. For a methane digester, 550 kWac of aggregate generation at a single site

(5) Inflow – the metered inflow delivered by the Company to the customer during the billing month **or time-based pricing period. OK**

(6) Outflow – the metered quantity of the customer’s generation not used on site and exported to the utility during the billing month.

AG: “on a time-based pricing period” should also be mentioned for the “Outflow” side of the equation.

(7) Renewable Energy Resource – a resource that naturally replenishes over a human, not a geological, timeframe and that is ultimately derived from solar power, water power or wind power. Renewable energy resource does not include petroleum, nuclear, natural gas, or coal. A renewable energy resource comes from the sun or from thermal inertia of the earth and minimizes the output of toxic material in the conversion of the energy and includes, but is not limited to, all of the following: (i) Biomass

(ii) Solar and solar thermal energy

(iii) Wind energy

(iv) Kinetic energy of moving water, including the following: (a) waves, tides or currents

(b) water released through a dam

(v) Geothermal energy

(vi) Thermal energy produced from a geothermal heat pump

(vii) Any of the following cleaner energy resources: (a) Municipal solid waste, including the biogenic and anthropogenic fractions

(b) Landfill gas produced by municipal solid waste

(c) Fuel that has been manufactured in whole or significant part from waste, including, but not limited to, municipal solid waste. Fuel that meets the requirements of this subparagraph includes, but is not limited to, material that is listed under 40 CFR 241.3(b) or 241.4(a) or for which a nonwaste determination is made by the United States Environmental Protection Agency pursuant to 40 CFR 241.3(c). Pet coke, hazardous waste, coal waste, or scrap tires are not fuel that meets the requirements of this subparagraph.

AG: I want to stress that “Renewable Energy Generation” does not necessarily need to be originating from the customer site. The source of the “clean energy” may be located at a distant and more efficient (utility-size) “wind” or “solar farm” and contracted by the customer through a “Clean-Energy” consolidator such as Arcadia. This does not make sense when we are talking about a “Distributed Generator”, however it is an important distinction in a “Distributed Energy Resources” conceptual framework.

C. Distributed Generation Program Availability

The Distributed Generation Program is available for eligible Distributed Generation customers beginning with the first day of the _____ 2019 Bill Month.

A customer participating in a net metering program approved by the Commission before (*date of the rate case order approving this tariff*) shall have the option to take service under this tariff at the time service under the terms and conditions of the previous net metering program terminates in accordance with MCL 463.0183(1).

The Distributed Generation Program is voluntary and available on a first come, first served basis for new customer participants or existing customer participants increasing their aggregate generation. **The program size is equal to 1.0% of the Company's average in-state peak load for Full-Service customers during the previous 5 calendar years.**

AG: This is another artificial limitation imposed to limit the potential for destabilizing the current Utility monopoly business model. Such a limitation would be perfectly OK (even prudent) in the context of an EXPERIMENTAL program designed to assess the real operational benefits of “Distributed Energy Resources”. EXPERIMENTING implies some degree of risks, try-and-error adjustments when new technological improvements become available and fine-tuning. It may also require implementing some transitory (temporary) assistance measures deemed necessary to prime the development-pump and materialize a significant test base for new operational and financial concepts. The way the proposed Program is currently described looks more like something predefined and constrained in legal terms... with very little possibility to be flexible, experimenting and adjusting without having to go through a formal regulatory rate adjustment case.

Within the Program capacity, 0.5% is reserved for Category 1 Distributed Generation customers, 0.25% is reserved for Category 2 Distributed Generation customers and 0.25% is reserved for Category 3 Distributed Generation customers. The Company shall notify the Commission upon the Program reaching capacity in any Category.

D. Customer Eligibility

In order to be eligible to participate in the Distributed Generation Program, customers **must generate** a portion or all of their own retail electricity requirements with an Eligible Electric Generator which utilizes a Renewable Energy Resource, as defined in Rule C11.B, Distributed Generation Definitions.

AG: See above remarks

A customer's eligibility to participate in the Distributed Generation Program is conditioned on the full satisfaction of any payment term or condition imposed on the customer by pre-existing contracts or tariffs with the Company, including those imposed by participation in the Distributed Generation Program, or those required by the interconnection of the customer's Eligible Electric Generator to the Company's distribution system.

E. Customer Billing on Inflow – Category 1, 2 and 3 Customers

(1) Full Service Customers

The customer will be billed according to the Distributed Generation Rate Provision shown on the customer's retail rate schedule, **plus surcharges, and Power Supply Cost Recovery (PSCR)** Factor on metered Inflow for the billing month.

AG: Here it is..... The door is open for adding unidentified and/or undefined charges (I might be wrong... it may not be the intent). Some of them might be justified under the umbrella of fairness but I am afraid it might be an attempt to satisfy the claim made by Utilities that "Private Solar Generation" do not pay their fair share of distribution costs for their OUTFLOWS of energy to the grid. Increasing the Distribution charge rate for DG/DER customers at the inflows level to compensate for the use of the grid for the outflows would not be fair on several accounts.

(2) Retail Open Access Customers

The customer will be billed for the distribution components according to the Distributed Generation Rate Provision shown on the customer's retail rate schedule, including applicable surcharges, if applicable, as stated on the customer's Retail Open Access Rate Schedule on metered Inflow for the billing month.

(3) Full Service Customers on Demand Rates

The customer will be billed according to the Distributed Generation Rate Provision shown on the customer's retail rate schedule, plus surcharges, and Power Supply Cost Recovery (PSCR) Factor on metered Inflow for the billing month. The customer will be billed for the Distributed Generation demand based capacity charges according to the Distributed Generation Rate Provision shown on the customer's retail rate schedule.

F. Customer Billing – Outflow Credit

The customer will be credited on Outflow for the billing month. The credit shall be applied to the current billing month and shall be used to offset total utility charges on that bill. Any excess credit not used to offset total utility charges will be carried forward to subsequent billing periods. Unused Outflow Credit from previous months will be applied to the current billing month, if applicable. Outflow Credit is non-transferrable.

(1) Full Service Customers

The Outflow Credit will be reviewed by the Commission in the Company's biennial avoided cost review cases pursuant to Case No. U-

_____.
Outflow Credit: \$_____/kWh (Based on the utility's avoided cost case.)

(2) Retail Open Access Customers

The Outflow Credit will be provided by the Retail Service Supplier.

Outflow Credit: \$_____/kWh

G. Application for Service

In order to participate in the Distributed Generation Program, a customer shall submit a completed Interconnection Application, including application fee of \$__ and a completed Distributed Generation Program Application, including application fee of \$50 to the Company. The Distributed Generation Program application fee is refundable if the customer withdraws the application prior to commencing service under the Distributed Generation Program.

The Distributed Generation Program application fee is waived if the customer is transitioning from the Net Metering Program.

H. Generator Requirements

The **Eligible Electric Generator(s) must be located on the customer's premises**, serving **only** the customer's premises and **must be intended primarily to offset** a portion or all the customer's requirement for electricity.

AG: In clear language these restrictions are aimed at keeping Customers as Customers and closing the door to wider cooperation/partnership with the Utility to contribute to higher levels of grid stability, efficiency, reliability and reduced energy cost. Such restrictions may NOT be in the best interest of the society as a whole (Especially in the context of "Distributed Energy Resources").

The customer's requirement for electricity shall be determined by one of the following methods:

- (1) The customer's annual energy usage, measured in kWh, during the previous 12-month period
- (2) In instances where complete and correct data is not available or where the customer is making changes on-site that will affect total usage, the Company and the customer shall mutually agree on a method to determine the customer's annual electric requirement

The aggregate capacity of Eligible Electric Generators shall be determined by the aggregate projected annual kWh output of the generator(s).

The customer is required to provide the Company with a capacity rating in kW of the generating unit and a projected monthly and annual Kilowatt-hour output of the generating unit when completing the Company's Distributed Generation Program Application.

The customer need not be the owner or operator of the eligible generation equipment, but is ultimately responsible for ensuring compliance with all technical, engineering and operational requirements suitable for the Company's distribution system.

I. Generator Interconnection Requirements

The requirements for interconnecting a generator with the Company's facilities are contained in Rule B8., Electric Interconnection and Distributed Generation Standards, the Michigan Electric Utility Generator Interconnection Requirements and the Company's Generator Interconnection Supplement to Michigan Electric Utility Generator Interconnection Requirements. All such interconnection requirements must be met prior to the effective date of a customer's participation in the Distributed Generation Program. The customer must sign an Interconnection and Operating Agreement with the Company and fulfill all requirements as specified in the Agreement. The customer shall pay actual interconnection costs associated with participating in the Distributed Generation Program, subject to limits established by the Michigan Public Service Commission.

J. Metering Requirements

Metering requirements shall be specified by the Company, as detailed below. All metering must be capable of recording inflow and outflow and all parameters metered on the customer's otherwise applicable retail rate schedule, for both Full Service and Retail Open Access customers.

K. Distribution Line Extension and/or Extraordinary Facilities

The Company reserves the right to make special contractual arrangements with Distributed Generation Program customers whose utility service requires investment in electric facilities, as authorized by the Company's Rule C1.4, Extraordinary Facility Requirements and Charges, Rule C1.6, General Provisions of Service, and Rule C6., Distribution Systems, Line Extensions and Service Connections, as set out in the Company's Electric Rate Book. The Company further reserves the right to condition a customer's participation in the Distributed Generation Program on a satisfactory completion of any such contractual requirements.

L. Customer Termination from the Distributed Generation Program

A participating customer may terminate participation in the Company's Distributed Generation Program at any time for any reason on sixty days' notice. In the event that a customer who terminates participation in the Distributed Generation Program wishes to re-enroll, that customer must reapply as a new program participant, subject to program size limitations, application queue and application fees.

The Company may terminate a customer from the Distributed Generation Program if the customer fails to maintain the eligibility requirements, fails to comply with the terms of the operating agreement, or if the customer's facilities are determined not to be in compliance with technical, engineering, or operational requirements suitable for the Company's distribution system. The Company will provide sixty days' notice to the customer prior to termination from the Distributed Generation Program, except in situations the Company deems dangerous or hazardous. Such notice will include the reason(s) for termination.

Upon customer termination from the Distributed Generation Program, any existing credit on the customer's account will either be applied to the customer's final bill or refunded to the customer. The Company will refund to the customer any remaining credit in excess of the final bill amount. Distributed Generation Program credit is non-transferrable.

M. Company Termination of the Distributed Generation Program

Company termination of the Distributed Generation Program may occur upon receipt of Commission approval.

Upon Company termination of the Distributed Generation Program, any existing credit on the customer's account will either be applied to the customer's final bill or refunded to the customer. The Company will refund to the customer any remaining credit in excess of the final bill amount. Distributed Generation Program credit is non-transferrable.

N. Distributed Generation Program Status and Evaluation Reports

The Company will submit an annual status report to the Commission Staff by March 31 of each year including Distributed Generation Program data for the previous 12 months, ending December 31. The Company's status report shall maintain customer confidentiality.

O. Renewable Energy Credits

Renewable Energy Credits (RECs) are owned by the customer.

The Company may purchase Renewable Energy Credits from participating Distributed Generation Program customers who are willing to sell RECs generated if the customer has a generator meter in place to accurately measure and verify generator output. REC certification costs are the responsibility of the customer.

The Company will enter into a separate agreement with the customer for the purchase of any RECs.