

Proposed Draft Outline for Report on Rate Design for Distributed Energy Resources
Regulatory Assistance Project for the Michigan Public Service Commission
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1. Introduction/Executive Summary
2. Background and Regulatory Context in Michigan
 - a. Overview of electricity market structure and utility regulation in Michigan
 - b. History of rates and distributed generation (DG) compensation policies in Michigan
 - i. Full retail rate net metering with monthly netting and rollover starting in 2008 through phaseout in 2019-2020
 - ii. DG program tariff framework
 - iii. Rate case orders and DG program implementation
 - c. Brief survey and statistics on DER by technology type in Michigan, including which tariffs they are on
 - d. Future directions for the electric system and utility regulation
3. Ratemaking principles and perspectives on costs and benefits
 - a. Traditional ratemaking principles
 - b. Broader policy goals
 - c. Cost causation on the electric system
 - d. Cost-benefit tests
 - e. Cost of service frameworks
4. Overarching program parameters
 - a. Metering and billing frameworks
 - i. Monthly netting
 - ii. Buy all-credit all
 - iii. Inflow/outflow
 - iv. Time-of-use netting
 - v. Granular netting options using AMI
 - b. Other program/tariff design features
 - i. Program and tariff eligibility
 - ii. Customer class definitions and rate eligibility
 - iii. Treatment of renewable energy credits (RECs) for REC-eligible technologies
 - iv. Recovery of program costs and non-bypassable rate elements
 - c. Treatment of pre-existing net metering and DG program customers

5. Designing Rates and Credits
 - a. Designing retail rates
 - i. Fixed charges
 1. Monthly customer charges
 2. System access charges
 3. Minimum bills
 - ii. kWh charges
 1. Flat kWh rate
 2. Time-of-use rates
 3. Critical peak pricing and peak-time rebates
 4. Real-time pricing
 5. Bidirectional kWh rates
 - iii. Individual maximum kW charges (demand charges)
 1. Traditional billing period individual non-coincident peak (NCP) demand charge
 2. "Peak window" NCP demand charge
 3. Daily-as-used demand charge
 4. Standby charge
 5. Contract demand charge
 - b. Designing credits
 - i. Crediting mechanisms
 1. Volumetric – defined in kWh units, but can be a % of kWhs
 2. Monetary – defined in \$ terms
 - ii. Methods for setting export credits
 1. Linked to retail rates
 - a. Flat or time-varying
 - b. Which components to include?
 2. Valuation-based
 - a. Flat or time-varying
 - b. Which values to include?
 3. Policy-based credits
 - a. Market transition credit
 - b. Community credit
 - iii. Rollover Provisions/Restrictions
6. Evaluating Comprehensive Program Designs and Options to Consider
 - a. Key evaluation metrics
 - i. Fair cost allocation
 - ii. Efficient customer pricing signals
 - iii. Customer understanding and acceptance
 - iv. Equitable distribution of program benefits
 - v. Levels of DER buildout
 - b. Options to construct new rate designs for distributed energy resources
 - i. [To be determined]
7. Appendices with one-pagers on key state examples
 - a. [To be determined]