

Smart Metering

Section 1254(a)(15) EPACT

Tamie Aberle, Pricing & Tariff Manager
Montana-Dakota Utilities Co.



Section 1254(a)(15)

- Each electric utility shall offer each of its customer classes, and provide individual customers upon customer request, a time-based rate schedule under which the rate charged by the electric utility varies during different time periods and reflects the variance, if any, in the utility's costs of generating and purchasing electricity at the wholesale level. The time-based rate schedule shall enable the electric consumer to manage energy use and cost through advanced metering and communications technology.



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- Would require electric utilities to offer:
 - Time of Use Pricing (TOU)
 - Critical Peak Pricing (CPP)
 - Real-Time Pricing (RTP)
- Such pricing structures require an “Advanced Metering Infrastructure (AMI)”
 - involves more than a meter that can measure consumption in frequent intervals



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- Would the required rate structures be optional or mandatory?
- Optional
 - Could destroy the economic rational for the rates if ---
 - Cost causers stay on existing uniform rate structures.
 - Non-cost causers sign up for optional rates.



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- Mandatory

- Substantial price risk for customers
- Capital costs for AMI would be significant cost burden to customers
- Montana-Dakota and Commission would need to devote significant resources to detailed cost of service studies/billing systems.



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- Standard raises issues on
 - Costs
 - Benefits
 - Equities
- Costs and benefits may vary from customer class or utility
- Different rates likely appropriate for different utilities and different customer sectors within a utility



Smart Metering

- Meters purchased in recent years are
 - Complex
 - Programmable
 - Flexible
 - Multi-purpose
- Meters can measure
 - Normal power
 - Reactive
 - Time-of-Day
 - Load Profiling
 - Power Quality



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- Montana-Dakota offers various optional load management rates today
 - Time-of-use rates
 - Dual fuel rates
 - Radio controlled load management programs
 - Interruptible service



Summary

- Montana-Dakota has started a project to implement automated meter reading (AMR). This will provide a basis in which to explore additional innovative pricing and information mechanisms.
- Montana-Dakota has optional rates in place that will allow customers to take advantage of time of use pricing.
- The pricing structures should be implemented where cost effective and should NOT be driven by adoption of the EPACT Standard.

