

Metering Technology Options

		Non-communicating Basic Meter	Communicating Basic Meter	Non-communicating Advanced Meter	Communicating Advanced Meter
Primary Purpose		Monthly meter reading for billing	Automatic Meter Reading (AMR) for monthly meter reading for billing	Monthly meter reading for time-of-use billing	Real-time, daily, and monthly meter reading for conventional billing, dynamic pricing billing, outage management, and integrated energy management
	Communications	Human meter reader	Private radio	Human meter reader	Private radio Public radio Telephone Satellite Power line carrier
	Media				
	Network	None	Mobile (van)	None	Fixed network
	Equipment/Appliance Control Capability	--	--	--	✓
Metering Functional Capabilities	Total usage (kWh)	✓	✓	✓	✓
	Maximum demand (kW)	✓	✓	✓	✓
	Time-of-use (peak, partial, off-peak)	--	✓	✓	✓
	Critical peak pricing (dispatchable peak, with or without TOU)	--	--	✓	✓
	Hourly pricing (15-min or hourly data)	--	--	✓	✓
	Load research (15-min or hourly data)	--	--	✓	✓
	Outage alarms	--	--	--	✓
	Restoration check (power on)	--	--	--	✓
	Power quality (voltage)	--	--	✓	✓
	Remote programming of meter parameters, including measurement period	--	--	--	✓
Data Measurement Frequency		Monthly	Monthly, time-of-use	Monthly, time-of-use, hourly, or 15-minute	Monthly, time-of-use, hourly, 15-minute, or real-time
Data Transmittal Frequency	To utility for billing	Monthly	Monthly	Monthly	Monthly
	To utility for other uses	--	--	Monthly	Daily, real-time, or on demand
	To customer as part of billing	Monthly	Monthly	Monthly	Monthly
	To customer to manage usage	--	--	--	Daily, real-time, or on demand
Information to Customers	Energy usage data	Monthly via bill	Monthly via bill	Monthly via bill	Monthly via bill, Daily via Internet, Real-time via direct connection to meter or power line communications
	Pricing data	Notice of changes to tariffs via letter or bill insert	Notice of changes to tariffs via letter or bill insert	CPP/RTP pricing via dial up, Internet, pager, or mass media; changes to TOU tariffs via letter or bill insert	CPP/RTP pricing via dial up, Internet, pager, or mass media; changes to TOU tariffs via letter or bill insert
Metering Costs	Mass market meter (single phase)	\$25	--	\$75-100	--
	Module to retrofit used mass market meter	--	\$45-100	--	\$45-100
	Mass market meter with communications built-in	--	\$50-100	--	\$50-100
	Large commercial meter (polyphase)	\$175-300	--	\$175-600	--
	Large commercial meter with communications	--	\$300-1,000	--	\$300-1,000
Meter Installation Costs	Mass market meter, scattered deployment	\$50-100			
	Mass market meter, saturation deployment	\$5-10			
	Large commercial meter, scattered deployment	\$150-250			
	Large commercial meter, saturation deployment	\$50-100			
Communications Network Costs	(includes installation)	--	\$2	--	\$20-100
Total Metering & Communications	Mass market	\$75-125	\$52-200	\$125-200	\$70-225
	Large commercial	\$225-400	\$350-1,000	\$225-700	\$370-1,250