As the result of the rapid expansion of Smart Grid and advanced meter infrastructure, many utilities around the country are replacing existing electricity meters with new solid-state smart meters and two-way communication devices. These new systems offer significant new benefits to both the consumer and the utility (electricity service provider). For the first time, these new meters will allow the consumers to adjust their electricity use in response to the price of electricity that varies throughout the day.

New smart meters are often installed in pre-existing meter sockets. Meter sockets are expected to operate safely for many, many years. However, the safe operating life of the meter socket may be reduced by many factors including (but not limited to) excessive moisture, environmental contaminants, frequent changing of meters, excessive electrical load (overload or short circuit), vandalism, ground settling, storm damage, and many other conditions.

As utilities move to two-way communications for meters and remote meter reading, the opportunity for inspection of meter sockets is expected to decline radically. The interval between site visits by utility personnel could be as much as 100 times as long as the current monthly opportunity for inspection. Only the utility has the opportunity to inspect the socket due to the utility seal. For this reason, NEMA strongly recommends that all existing meter sockets be thoroughly inspected when electrical meters are installed. Inspection criteria should include (but not be limited to) indications of excessive heating, corrosion, loose connections or components, deformed socket jaws, broken components, failed insulation, damage due to ground settling or vandalism, or any exposed live parts.

If any damage is discovered, the meter socket should be replaced with a new meter socket that meets current specifications by a qualified electrician prior to the installation of the new meter.

For more information on Smart Meters, visit Smart Meter Facts.