Utilities are continuously looking for methods to improve efficiency with fewer resources.

**Problem**
Large meters represent 40% to 60% of a typical utility’s revenue and normally less than 10% of its meter population. Without regular maintenance and testing, large meters will not maintain accuracy over a long period of time. Eventually, water loss and corresponding revenue loss result in higher water rates. As the population of large meters ages, a meter changeout is warranted; however, it cannot be easily justified without a database of tested meters. Techniques exist to determine which meters are not performing accurately; however, many of these techniques can be time-consuming, costly, and lack sufficient credibility to justify a large-scale changeout of meters within your utility.

Neptune Technology Services Group tested over 10,000 large meters of various makes, sizes, and ages. Neptune® ran these test results through a multiple linear regression analysis to determine which factors affected meter accuracy. This analysis showed key variables that impact water meter accuracy.

**Solution**
The result of this study is Neptune’s tool called SEER® (Statistical Evaluation for Enhancement of Revenue). The SEER model can determine meter accuracy to within a 95% confidence interval without the need to perform a site test on the meter. This allows the utility to quickly determine which meters to replace first and how quickly the resulting increase in revenue will pay for the costs of installing a new meter.

Often utilities know that their meters are inaccurate but are not sure of the level of inaccuracy. SEER makes it easy for the utility manager to determine meters that need to be replaced and to set replacement priorities. SEER allows for easy presentation of the information gained from the program. The program allows you to import meter data and capture and import screens into a presentation or a text document. Analysis results can also be exported and printed using the REPORTING function within SEER.

**KEY FEATURES**
- Provides analysis for large meters and residential positive displacement meters
- Meter accuracy to within a 95% confidence interval
- No site test required
- Highlights misapplication of meters
- Reporting functions
- Importing and exporting features
- Desktop and mobile versions available online at www.neptunetg.com
- Guaranteed to increase revenue
- Identifies which meters need attention
- Establishes priorities based on revenue gain and payback
- Allows implementation of targeted revenue enhancement programs
- Indicates possible meter failures, wrong-sizing, and theft
**Benefits to the Utility**

Increased revenue can be used by the utility to focus on:

- Meter changeouts
- Increased operating costs
- Decaying facilities (infrastructure)
- Rising water demands
- Preventing increases in water rates
- Reducing water loss
- Increasing meter reading efficiencies
- Revenue recovery
- Implementing effective meter maintenance programs
- Increasing resources
- Replacing an aging meter population
- Updating meter databases