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Using Metering to Perform Energy Management

Performing Data Analytics via the Metering System

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This book covers many helpful analysis tools and processes to assist energy managers (EMs) administer their energy program through their meter management system (MMS). These tools and the corresponding techniques offer opportunities for the EM to optimize their time. If fully utilized, the MMS will allow an EM to reduce field time significantly, as they can perform most of the energy management pre-analysis, benchmarking, data analysis and, in many cases, complete the task of performing a virtual audit remotely from their office.

The book covers many instructional areas that are, for the most part, only offered by consulting groups and software vendors as services. Those two groups offer their services for fees and therefore do not publish their ideas or best practices for commercial use. Software vendors provide software analytics whose functional aspects are addressed by our descriptions of the essential tasks in each chapter. This book allows EMs to expand their knowledge of software capabilities by viewing other best practices. Consulting groups offer services in a few areas: basic benchmarking and monitoring-based commissioning (MBCx). These services are considered essential to energy management but are generally implemented as on-site services, which, due to their nature, are much more expensive than a monitoring commissioning (MCx) solution. Monitoring commissioning, in contrast to MBCx, is purely done at the monitoring level and allows you to manage the critical energy measures that comprise the majority of the savings, but without getting into the field testing.

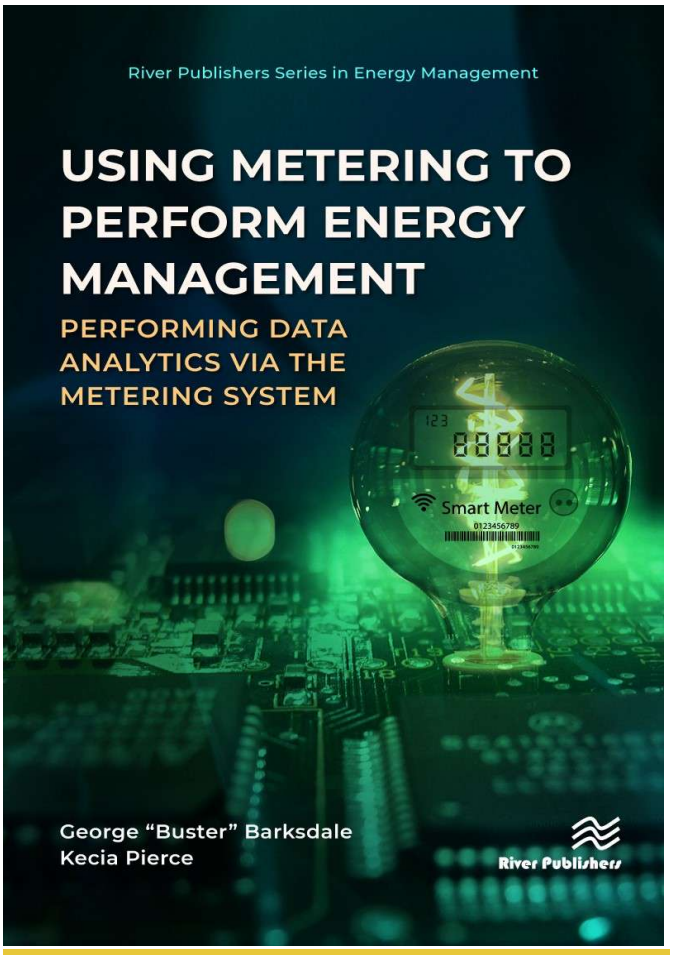
Benchmarking is covered much deeper in the book as we show how to benchmark each system within a building. The benchmarking sections show how to automatically analyze each system’s usage into a separate benchmark for baseload, lighting, AC, and fan/pump systems. These systems produce benchmarks so EMs can compare by site, category type, climate zone, etc. We also introduce benchmarks that enable the EM to utilize tools to determine the performance of each system and which are their most significant energy users. These analytics functions are covered to produce results that identify potential energy savings for each energy system.

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