



## Water Submetering Best Practices

### Preparing for a New Construction Submetering Installation

I travel quite a bit for my job and it's a rarity when I look out the cab window on my way to a client meeting that I don't see dirt being moved. The construction market is hot for multifamily, university and affordable housing. While some markets are seeing a slight slowdown, particularly those heavily driven by the energy industry, most are still in boom mode.

With so many projects and tight deadlines, submetering is often overlooked in the initial planning process – even in states that require submetering on new construction such as Texas, Georgia and California. Planning early not only saves time and money but headaches for your Project Management team.

If you are a contractor, your goal is to complete the project on time and on budget. If you are an owner or management company, your goal is to recover utility expenses that otherwise hit your bottom line. With rising water costs and shortages nationwide, water meters are becoming a standard fixture in new construction. One of the biggest pitfalls for not planning that impacts both parties is the costs involved when the plumber has to go back and install tubes and couplings in each unit after he's already completed the initial work.

#### Best Practices for a Seamless and Cost Effective Submetering Project

##### Plan Early

Don't wait until the building is framed. The best case scenario is to include the request for submeters in the architectural plans. Also, make sure to identify which contract the submetering installation will be under – General Contractor, Mechanical Engineer or Plumber contract. You will then want to work closely with them to select the best meters for your project.

##### Choose Wisely

When selecting meters, make sure they are designed for horizontal installation. Work with your project team to insure sufficient room has been provided for the meter so read accuracy is not effected. Another critical component is the AMR system. Always choose a non-proprietary AMR system to avoid technical and financial challenges as your system ages.

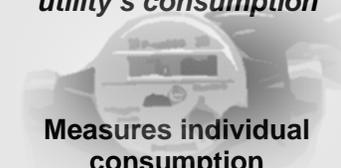
##### Central Boiler Systems

Are you installing a central boiler system? If yes, each unit must have a single entry point for both cold water and hot water with shut off valves. If you are not installing a central system, you will only need a single meter for each unit. Make sure the meter is easily accessible. Typically, next to or above the hot water tank is the best location for optimal performance.

If you are using gas to heat the boiler, make sure you meter everything so the owner can recapture gas costs associated with the water systems.

**Submetering Benefits**

*Studies show submetering energy usage may result in a 10-26% reduction in that utility's consumption*



- Measures individual consumption
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- Controls utility expenses
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- Increases property value
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- Improves NOI
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- Identifies potential leaks
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- Promotes conservation



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## Valve Location

Valves must be in an accessible area. Preferably, valves are located outside the wall in an accessible area so the system can be maintained. If they are in the wall, access panels must be able to open. Otherwise, if valves are completely inaccessible, the building must be shut down to perform maintenance.

## Tubes and Couplings

Don't forget tubes and couplings need to be installed by a plumber during rough plumbing. These are sent by your submetering provider to the plumber or GC. It is their responsibility to install during rough in.

## Timing is Everything

Do not put in a meter right before the plumber flushes out the lines. Lines get flushed when they are ready for their certificate of occupancy.

## Hold the Phone

Make sure you have an Ethernet connection. Analog phone lines are being phased out and you don't want to find yourself with an outdated connection.

## Start Planning for Submetering Early in the Project

The sooner you plan, the better chances for a seamless installation. There is no financial benefit to having your plumber install a submeter versus your submetering provider. It is best to have your submetering provider manage the installation since they will need to install the transmitter and calibrate each meter to the appropriate transmitter. Properly commissioning the system to insure the transmitter is connected to the assigned unit is imperative to make sure the owner is billing the correct unit.

Be prepared to bring in reliable partners to help you select the highest quality and most cost effective submetering solution. They will also determine the best configuration for your building type. The payoff is well worth the effort – greatly increasing revenue and property value while also encouraging conservation.

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Phil Neeves, a 20-year veteran of the submetering industry, is regarded as one of the leading industry experts in heating and cooling cost allocation systems.

Prior to joining Minol, Neeves served as Vice President of Central Region for ista North America. His experience includes 16 years in the submetering industry and 14 years as an owner/partner of a full-service real estate company specializing in syndicating multifamily apartment communities nationwide. Neeves extensive expertise in submetering and energy allocation has allowed him to successfully guide clients through utility metering conversions for both conventional financed and HUD insured properties. He served three years on the Board of Directors for the National Submetering and Utility Allocation Association (NSUAA) and is a Lifetime Member of the America's Registry of Outstanding Professionals.