

Power Tile™ Energy Harvester

Use Case: East Coast Utility



Situation

A large East Coast utility company has traditionally monitored steam flow gauges in its vast underground infrastructure by hand. Monitoring the meters, while expensive and dangerous, is critical to prepare customer utility bills. Converting the instruments to modern, digital devices, and providing for automatic, unattended monitoring is the goal.

Challenge: How to power to the new digital flow meters in a cost effective manner?

Installing line power can be very expensive. Costs include engineering, materials, and labor to install power cable in conduit while ensuring compliance with safety standards, securing potential site approvals, and remediation of hazardous substances (e.g. asbestos).

Solution

The utility installed flow meters powered by Perpetua Power Tile energy harvesters. Abundant heat from steam pipes enabled Power Tiles to effortlessly power the flow meters without need for line power.



Customer Benefits

- Safer and more reliable steam flow measurements ensure customer billing data is fast, accurate, and secured at the lowest cost possible
- Wireless digital metering obviates the need for manual meter readers
- By decoupling the location of steam flow meters from power sources, installation options increased, with greater flexibility for installations in the future
- In cases where asbestos was present, by eliminating line power no hazardous materials remediation was needed
- The Power Tile could power a range of 24V, 4-20mA HART and FOUNDATION Fieldbus devices, allowing for maximum flexibility aligning equipment with need

For More Information

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