

# 'Measuring' Energy Savings

## TO MANAGE FACILITY ENERGY USE OR SAVINGS

- Use utility meter or add new whole facility meter
- Create mathematical model of: energy and driving variable(s)
- Select driving variable(s) such as: weather and/or production volume
- Record baseline data for most recent year: energy/ demand, driving variables, facility design, operation and all installed equipment



WHOLE FACILITY MEASUREMENT BOUNDARY

RETROFIT ISOLATION BOUNDARY  
MOTORS + VSDs



## TO MANAGE ONLY THE RETROFIT

example: Variable Speed Drive applied to an electric motor:

- Install isolation meters for the retrofit
- Metering consideration: accuracy and range of meter(s) cost of installing, maintaining and calibrating meters
- Estimate effects outside the isolation boundary
- Create mathematical model of: energy and driving variable(s)
- Select variable(s): load, operating hours, weather, production volume
- Record baseline: energy, driving variables, system design and operation



## PROJECT TIMELINE

