PERFORMANCE-BASED CONTROL

BY PERFORMANCE, WE MEAN

Percentage of heating time when delivered temp ≥ (setpoint − 2.5°C) OR output of all available boilers >95% (undersizing not penalized)

WE CALL THIS METRIC

BOILER PLANT EFFECTIVENESS (BPE)

Boiler Maestro

52%
MANUFACTURER AVERAGE

88%
BoilerMaestro AVERAGE

Manufacturer BPE Results
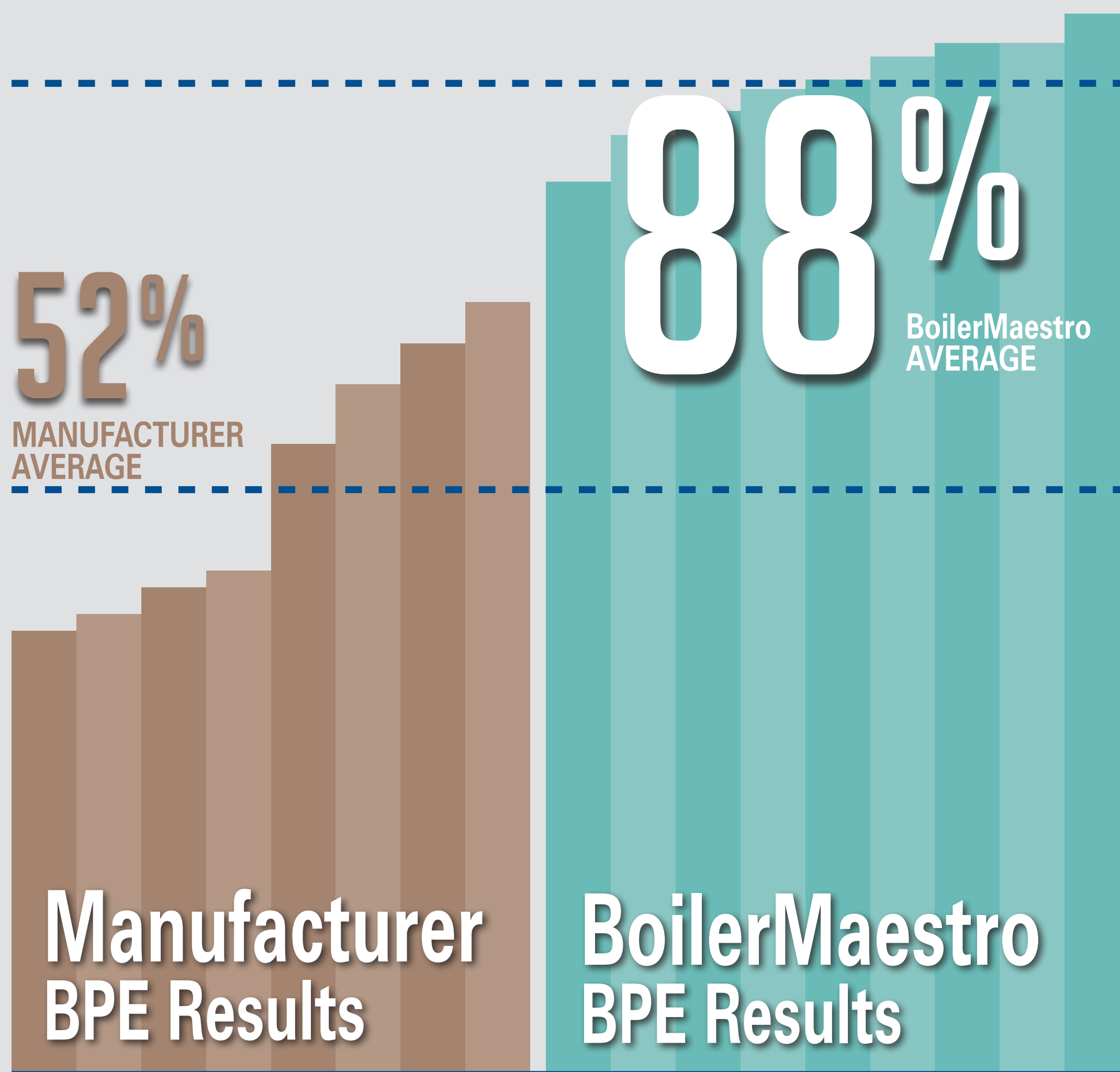
BoilerMaestro BPE Results

Chart shows plants comprised of one to three boilers, all of the same model. Each bar represents a boiler plant.

Control objective comparison

Heat a storage tank	Consistently provide water at the specified temperature

Works best with

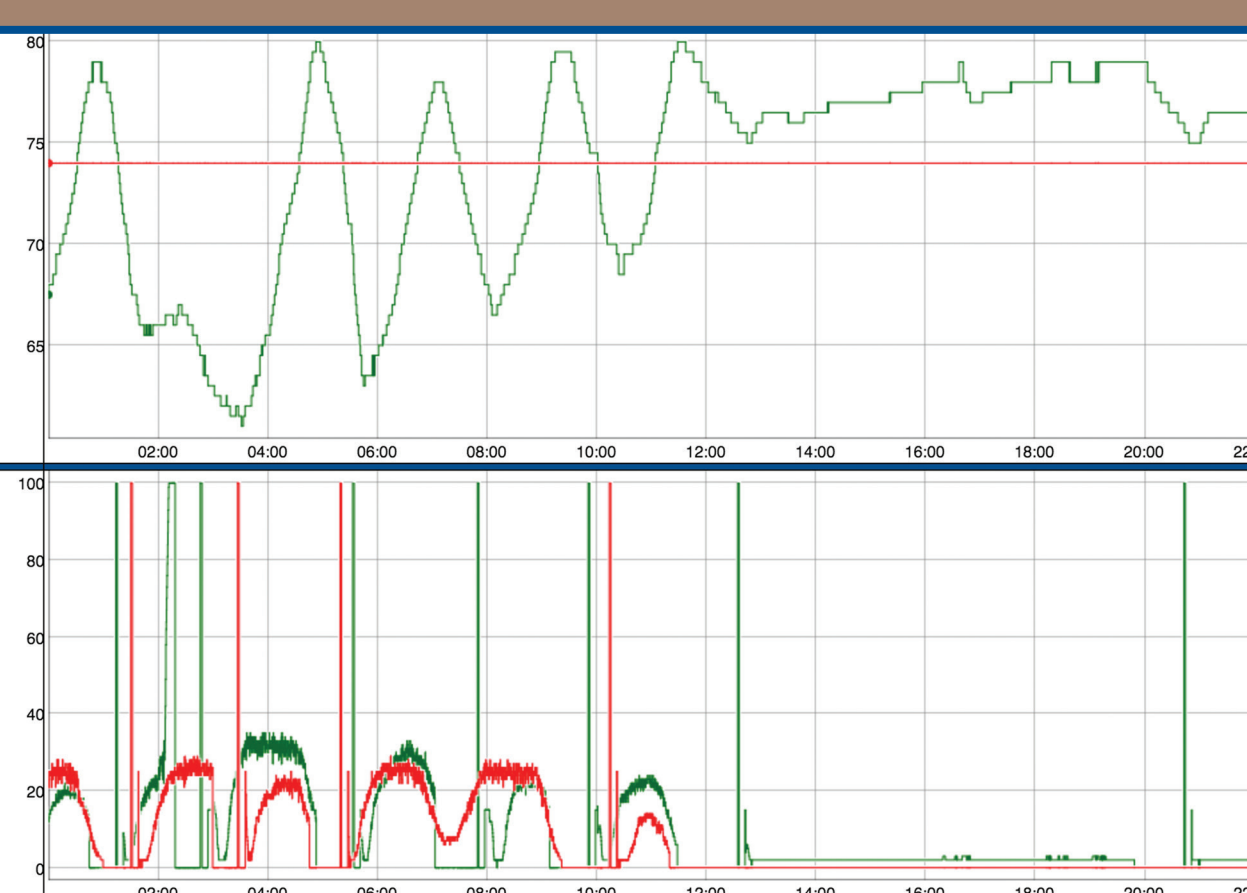| Low temperature distribution systems	High and low temperature distribution systems

BPE at one boiler plant, before and after switching controls

41% (entire 2013–2014 heating season)	**88%** (entire 2014–2015 heating season)

Temperature and cycling results from the same boiler plant

Manufacturer's Controls 3/10/2014

BoilerMaestro Controls 3/10/2015

12 CYCLES Per Day

4 CYCLES Per Day

TOTAL BOILER PLANT CONTROL

STAGING CONTROL

MODULATION CONTROL

CAREFULLY INTEGRATED PEAKING BOILER

- Overarching control goal is maximizing BPE
- Circulators carefully controlled to minimize cycling and wear
- Boilers always start with full daybins
- Gives biomass plant ample opportunity to meet loads before calling peaking boiler
- In multiple-boiler plants, daybins filled at different times to prevent large droops in supply temperature
- Includes BoilerBrowser comprehensive monitoring, customizable graphs, and performance metrics

WE ARE

The only controls package for boilers of any fuel type to focus on, define, and measure boiler plant performance

One of a very few biomass boiler plant software packages designed to excel in a high temperature (170°–180°F) distribution environment

One of only two US-developed control systems for small- or medium-sized automatic feed biomass boilers

Learn more at dcmlogic.com

DCM LOGIC
DESIGN CONTROL MONITOR