**Background & Problem**

Every 5 years, PG&E gas service technicians are required to perform a complete tear-down and re-build of a GE Becker VRP-600-CH Pilot, as part of preventive maintenance. There are up to 20 pilots in a Field Service Representative’s (FSR) territory. Due to the complex nature of parts and components, both the error rate as well as the time to train the technicians can be high. This results in a lot of support calls related specifically to the rebuild procedure for both new and experienced FSRs, causing downtime and damage to equipment.

**Solution**

PG&E deployed a 3D interactive maintenance simulation (built by Heartwood) that allows the FSR to practice each action and step, as if they were tearing it down and rebuilding it in the real world. It includes choosing the appropriate tool at the relevant step and shows how this equipment works in the overall system. The simulation was designed to be portable, scalable and modular – on iPads and PCs.

**Benefits**

1. Instructors use it in the classroom as a visual instructive aid, without multiple students crowding around one actual physical valve.
2. The simulation serves as a practice tool for the students to master their own individual skill level in the practical portion of the classroom training.
3. Post-training, deployed FSRs are able to ‘jump-to’ specific steps as needed, to match their real-life troubleshooting scenarios.

**Customer Feedback**

“The owner’s manual is so confusing but it’s almost impossible to mess up when we use this app. It easily cut the time in half that it usually takes for training and no one blew a diaphragm, we usually have at least 1 per class.”

PG&E Technicians & Instructors

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**RESULTS**

1. Savings - reduced job time & associated costs by 62%! Employees are completing the job safely the first time, decreasing rework by 37%.
2. Reduced Over Pressure (OP) events and Truck Rolls.
3. Reduced travel and facility cost for refresher training annually since the marginal cost to deploy additional simulations is near-zero.

**Customer Snapshot**

About

Pacific Gas and Electric Company (PG&E) is one of the largest natural gas and electric energy companies in the US, providing natural gas and electric service to 16 million people throughout a 70,000-square-mile service area in northern and central California.

Founded: 1905
Location: HQ San Francisco, CA
Employee #: 23,500
Revenue: $17.6 Billion
Website: www.pge.com
Parent: www.pgecorp.com

**ROI Highlights**

Training Time Reduction: 62%
Total Costs (Before): $410,030
Annual Savings: 62%!