FERGUSON

COMMERCIAL WATER HEATING & HYDRONICS ASSESSMENT GUIDE

Rheem RUUD Raypak A Rheem Company



WHY THE RIGHT REPLACEMENT PARTNER MATTERS NOW

Commercial water heating and hydronic equipment is trending toward higher-efficiency condensing technology — driven by rising utility costs, growing water quality and conservation priorities, and the simple reality that a lot of equipment in the field is aging out.

For multi-trade contractors, that's an opportunity. Buildings running older standard-efficiency atmospheric equipment are strong candidates for an upgrade conversation — whether the driver is a failing unit, a water quality push, or better long-term performance and lower operating costs.

THIS GUIDE COVERS WHAT TO WATCH FOR WHEN GUIDING CLIENTS TOWARD THAT UPGRADE AND HOW FERGUSON HELPS YOU MAKE IT HAPPEN — FROM THE FIRST AUDIT TO FINAL START-UP.



THE COST OF WAITING: WHY "RUN-TO-FAIL" PUTS YOU AT A DISADVANTAGE



Many building managers still favor the "run-to-fail" approach: if it isn't broken, don't fix it. But that reactive posture puts them — and you — at a real disadvantage next to a contractor who gets ahead of the replacement conversation with a plan.

The Value of Getting Ahead With a Field Audit

A proactive field audit lets you assess system age, performance, and fit before an emergency happens — and often uncovers a stronger, better-matched solution than a like-for-like swap, sometimes at a lower cost than the customer expects.

It positions you as a trusted advisor instead of a vendor scrambling for parts during an outage — and it's often the difference between winning the replacement job and losing it to whoever answers the emergency call first.

Why Waiting Until Failure Hurts Your Customers

EXTENDED DOWNTIME

Converting an aging atmospheric system to a modern condensing setup isn't a simple swap — it requires new piping, new venting, and often electrical changes. Under emergency "no hot water" conditions, a hotel, apartment building, or hospital can be offline for days instead of hours.

HIGHER LABOR COSTS

Emergency jobs mean after-hours premiums, rushed permits, and last-minute venting or drainage changes — all of which drive the bill up fast.

SUPPLY CHAIN PRESSURE

Reactive, last-minute ordering leaves you at the mercy of whatever's in stock. Planning ahead lets you order the right equipment on your own timeline and protect your margins.



TECHNICAL CROSSOVERS & JOBSITE WATCH-OUTS

Upgrading a commercial facility to higher-efficiency water heating and hydronic systems requires a close look at the mechanical room layout, venting paths, and utilities. Use this guide during your site walkthroughs.

Common Replacement Scenarios

SCENARIO	Tank to Tankless (Gas)	Standard to Condensing (Gas Storage)	Standard to Heat Pump (Electric-HP)
WHAT IT MEANS	Swapping commercial gas tanks for high-efficiency multi-unit tankless racks (96%+ TE).	Swapping standard gas tanks (80% TE) for condensing units (95%+ TE).	Converting gas or electric resistance tanks to commercial air-source heat pumps.
CONTRACTOR WATCH-OUTS	**Gas Line & Venting:** Resize gas piping for higher peak BTU loads and install dedicated venting. **Water Quality:** Tankless heat exchangers are more sensitive to scale and mineral buildup than tank units. Hard water conditions may call for a water treatment or conditioning solution alongside the swap — a good opening to bring Ferguson's water quality and conservation offerings into the conversation.	**Acidic Runoff:** Must install acid neutralizers on condensate drains and run plastic venting (PVC/CPVC/PP).	**Airflow & Space:** Needs substantial air volume (CFM) for heat exchange, a large structural footprint, and dedicated drainage.

Sizing, Compatibility, and Field Audits

DO NOT JUST MATCH THE OLD NAMEPLATE

Older systems were almost always oversized. Modern high-efficiency equipment works best when it matches the actual building load. Use fixture counts or peak-demand metering to size the new system accurately.

ACIDIC CONDENSATE DRAINAGE

Condensing systems produce mildly acidic water. Install condensate drains with acid-neutralizing cartridge kits to protect the building's cast-iron or copper drain lines.

VENTING & CLEARANCES

Standard B-vent metal chimneys can't handle wet, pressurized, acidic exhaust. Plan for plastic (PVC, CPVC, polypropylene) or specialized stainless steel venting — often meaning core-drilled exterior walls for horizontal venting, which changes clearances and code requirements.

Boiler, Hydronics, and Air Handler Integration

CONDENSING BOILERS & RETURN WATER TEMP

To hit their rated 90%+ efficiency, condensing boilers need return water temperatures below 130°F. Adjust outdoor reset curves and variable-speed pumps to keep return water cool enough.

HYDRONIC AIR HANDLERS

Check flow rates, water temps, and pressure drops through the air handler heating coils to prevent uneven heating or cracked coils.

COMBINATION (COMBI) SYSTEMS

When a system handles both space heating and domestic hot water, make sure it's set up to prioritize domestic hot water without starving the building's heat.









ACCESSORY AND PARTS READINESS: PLANNING FOR THE CRITICAL MOMENT

In commercial work, a missing part doesn't just stall the job — it kills your margin, delays inspections, and leaves you with an angry customer. The best protection is having the right parts on hand before they're needed, whether that's stocked on your truck, kept on-site at the building, or pulled together in a jobsite-ready package with Ferguson.

HIGH-RISK ZONE: Occupied Buildings (Hotels, Senior Living, Condos)

These properties have a zero-tolerance policy for extended hot water shut-offs. Missing a single venting elbow, a gas regulator, or a backflow preventer can cause a failed inspection or prevent start-up — costing you money and reputation.

Frequently Forgotten Parts

VENTING & INTAKE

Concentric vent kits, sidewall termination caps, and CPVC-to-PVC adapters.

WATER & FUEL SAFETY

Properly sized thermal expansion tanks, thermostatic mixing valves (crucial for safe, high-temp domestic storage), and gas regulators to step high-pressure main gas down to the low pressure required by modulating burners.

SYSTEM BALANCING

Calibrated zone valves, balancing valves, and low-loss headers to isolate boiler loops.

ENVIRONMENTAL CODE

Certified backflow preventers, condensate neutralizers (and replacement media), and drain-line trap seals.

HOW FERGUSON HELPS YOU WIN THE JOB

We're here to help you turn every replacement conversation into a stronger client relationship and a smoother job — with the technical expertise and services that go well beyond just supplying equipment and parts.

PROACTIVE SYSTEM AUDITS

We help you audit your clients' current systems, flag aging equipment, and build a multi-year replacement roadmap — securing the work for you before an emergency happens.

FAST, ACCURATE QUOTES

Our dedicated commercial team delivers accurate, multi-trade equipment and parts quotes quickly so you can lock in your project pricing.

JOBSITE-READY PACKAGES

We bundle the equipment, correct venting, neutralizers, expansion tanks, and exact fittings into one delivery, dropped right at your jobsite — and we'll work with you on a plan for parts stocked on your truck or kept on-site, so the critical moment doesn't come down to a single missing part.



SERVICE	WHAT WE DO FOR YOU
24/7 Commercial Water Delivery	Rapid, on-demand delivery of stocked commercial water heaters directly to your jobsite or shop to handle emergency outages.
Old Unit Haul-Away	We load up, haul away, and legally/responsibly dispose of the decommissioned old units so you don't have to deal with the junk.
Engineering & Design Support	Get direct access to Ferguson application engineers for hydronic layout design, load calculations, and equipment matching.
Field Audits & Logging	We assist with on-site system testing, including water flow, BTU, and temperature logging to guarantee real-world performance.
Supervised Start-Up	We coordinate factory-authorized start-up and commissioning to protect your warranty and ensure everything runs perfectly from Day 1.

THE BOTTOM LINE: PARTNER UP TO WIN

Replacement decisions are an opportunity to strengthen your relationship with the buildings you serve. By partnering with Ferguson early — for field audits, technical expertise, accurate quotes, and jobsite-ready logistics — you make every replacement conversation profitable, smooth, and painless. Let's start building your clients' replacement roadmaps today.

Visit **ferguson.com/commercial** to learn more.

©2026 Ferguson Enterprises, LLC 0926 9707204