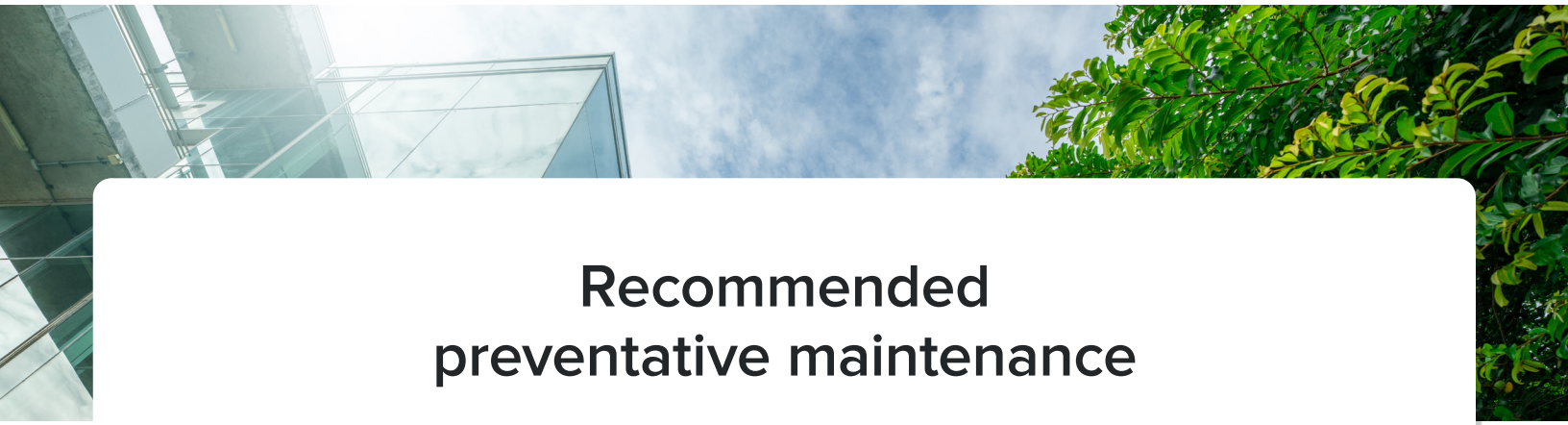

Recommended preventative maintenance

Vicinity's comprehensive maintenance services are offered year-round—during peak usage or before system turn-ons—to optimize steam efficiency, reliability, and cost savings.

Improve the operating performance of steam systems by taking preventive steps to avoid energy losses. Customers who have leveraged Vicinity's preventive maintenance program have experienced the following benefits:

- **Conserved energy and reduced energy costs** by improving system performance and eliminating inefficiencies.
- **Improved reliability** by identifying problem areas that could cause unscheduled system outages.
- **Optimized capital expenditure and operating expenses** by maximizing system efficiency and strategically planning for infrastructure investments with an identified budget for equipment repair or replacement.
- **Improved operating procedures** by reviewing, refining, and documenting preventative maintenance best practices.

We partner with each of our customers to customize recurring service agreements for the summer and winter seasons, tailoring the maintenance services outlined on the following page to their specific needs. Reach out to your Account Manager today to understand the preventative maintenance services offered in your district.

Equipment	Service description	Maintenance value
Steam traps	Survey building, locate, identify, tag, and test steam trap performance.	Ensure steam traps function correctly and prevent issues that can lead to energy waste, equipment damage, and safety hazards.
Pressure Regulating Valves (PRVs)	Identify valves' make, model, size, and serial number. Test pilot valve for leaks, clean orifices, check diaphragm plates, test the gauging, and set to desired system pressure.	Prevent system over-pressurization and relief valves from releasing steam into the atmosphere. Failed PRVs may improperly cycle open and close, both oversupplying and then starving the downstream equipment of steam.
Strainers	Inspect screens and clean out debris, evaluate source of debris, and troubleshoot. Ensure blow-down valves are functioning properly to flush trapped material.	Reduce rust and pipe scale damage to valves and pumps. Ensure heat transfer surfaces are kept free of efficiency reducing deposits.
Heat exchangers	Perform water chemistry testing, determine if leaks exist, measure tube thickness, repair or plug tubes as needed, and perform preventative maintenance, such as hydrolasing or cleaning as needed.	Recover efficiency losses, optimize operation of the exchangers, and reduce energy consumption.
Steam pipe	Inspect steam piping. Check for leaking joints, watermarks on insulation, and corrosion.	Deliver safe and reliable steam into the building while reducing potential for steam emissions into the building.
Condensate return line	Inspect for leaks and corrosion. Check condensate pump seals for leaks. Check vent pipes for vapor emissions.	Avoid condensate water spills, ensure proper evacuation of condensate from system lines, and identify the presence of leaking steam traps in the system.
Mechanical room hot water loop	Inspect all piping, inlet/outlet temperatures, and pressures on heat exchangers and mechanical pumps.	Confirm adequate operation of key energy transfer equipment, such as heat exchangers, which supply building heat, hot water, or other process loads.

Equipment	Service description	Maintenance value
Seasonal and maintenance shutdowns/turn-ons	Manage closure and opening of Vicinity's main service valve for seasonal system curtailment or start of use. Shutdowns require draining of systems while turn-ons require both draining of systems and operating pressure checks.	Ensure safe and confined operation of Vicinity's main service valve for shutdowns/turn-ons related to seasonal changes and maintenance activities. Reduce radiant energy losses, condensate accumulation in system piping, and mechanical room air space temperature. Prevent pipes from rotting and prepare systems to be dormant for an extended period by draining the systems for shutdowns.

To learn more about Vicinity's products and services, visit www.vicinityenergy.us, or email info@vicinityenergy.us.