

HVAC Mapping Alternatives

September 28, 2009

This document provides two alternatives to the baseline building HVAC system mapping presented in the COMNET draft manual dated September 18, 2009. Both alternatives provide an alternative to electric resistance heating for baseline building systems 6 and 8.

Alternative One

With this alternative, baseline building systems 6 and 8 are eliminated. System 5 would become the baseline building system for medium size nonresidential buildings and System 7 would become the baseline building system for large nonresidential buildings. With this option, there would be a total of 6 baseline building systems.

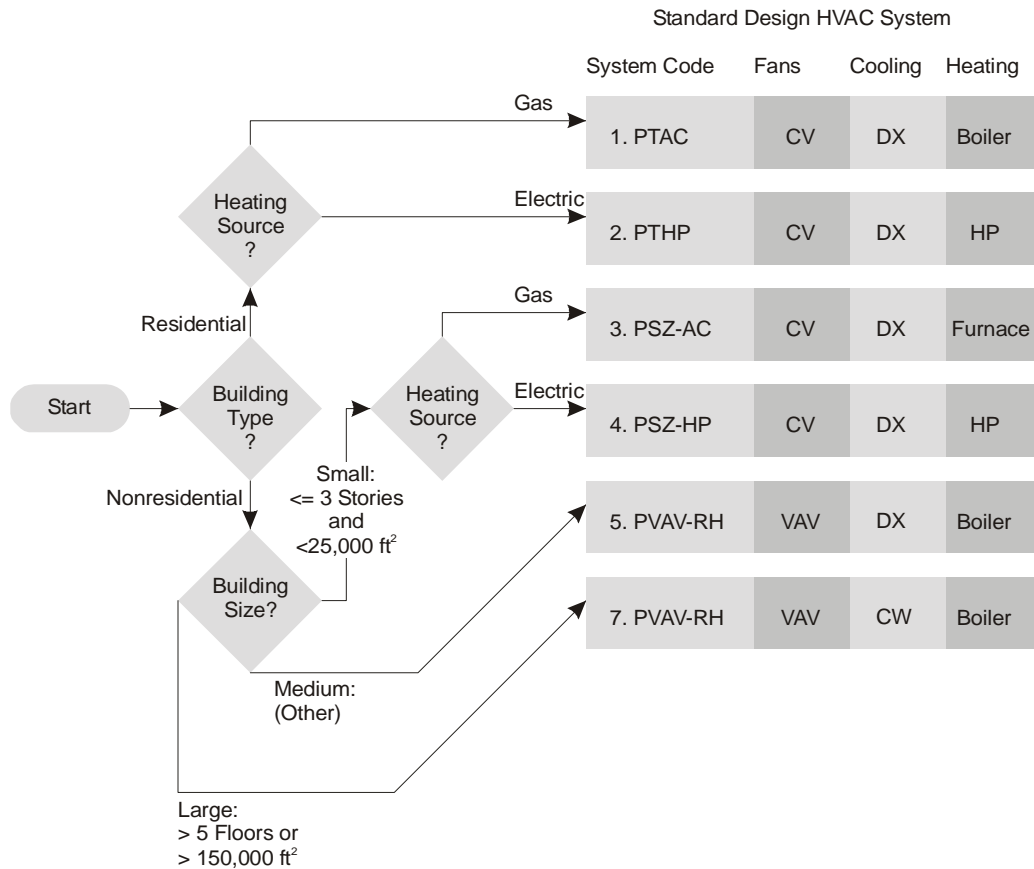


Figure 1 – Alternative One HVAC System Mapping

Alternative Two

With alternative two, both medium and large nonresidential buildings that have electric heat would map to a water loop heat pump system. Each thermal block in the model would be served by its own WLHP. The temperature of the condenser water loop would be maintained with an electric boiler and a cooling tower. With this option there would be a total of 7 baseline building systems.

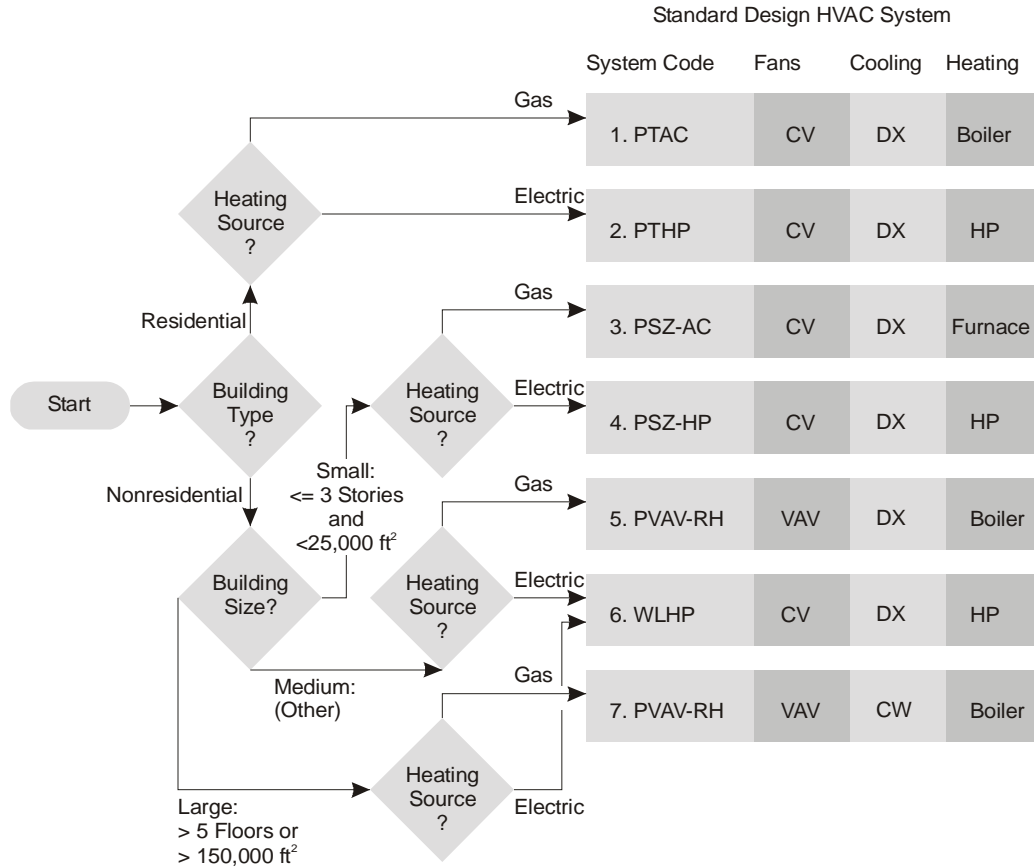


Figure 2 –