# Home Performance: Other Factors to Consider

There are numerous other factors to consider that will also affect home performance. Some of the most critical are discussed below.

| Energy Feature | Other Factors to Consider |
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| **Heating and Cooling System Diagnostics** | Extensive field data has shown a majority of heating and cooling systems have improper air flow and refrigerant charge along with extensive duct leakage. These system problems can dramatically reduce overall efficiency, comfort, and indoor air quality while also leading to costly moisture problems. Calling in a certified mechanical or home performance contractor to perform diagnostics can reveal opportunities for valuable system adjustments that are not too costly. |
| **Heating and Cooling Equipment Sizing** | It is common practice to oversize heating and cooling equipment. With energy efficiency upgrades such as increased insulation, caulking and sealing, and advanced low-E windows, current equipment sizing practices will lead to even more oversizing. Oversized equipment operates much more sporadically. This will result in much less humidity control in summer, lower efficiency (higher energy bills) and decreased life span. Thus, when replacing heating and cooling equipment, check with the installer to be sure accepted sizing procedures (ACCA Manual J and S) have been used. |
| **Interior Ventilation** | Tightly constructed homes need adequate supplies of fresh air and moisture removal for healthy indoor conditions. Thus tightly constructed homes should be equipped with some form of fresh air ventilation. These can range from simple systems such as a continuous operation bathroom fans or outdoor air intakes tied into the return duct, to separate whole-house ventilation systems. In addition, all homes should have spot ventilation systems (exhaust fans) to remove excessive moisture from bathrooms and kitchens. Energy efficient ventilation fans are much more quiet and durable. |
| **Solar Orientation** | Homes with most windows facing south are more comfortable because this window orientation allows solar heating from the low winter sun along with easy shading of high summer sun with simple overhangs. West and east facing windows are much more troublesome because intense summer sun is too low to shade, and there is minimal cold weather benefit since the sun barely reaches the east and west during winter. You could use a compass to check south orientation, or you can note the sun's direction at mid-day (e.g., noon). |