Building Energy Asset Score: Use Types, HVAC Systems, and System Controls - At-a-Glance

Asset Score Available Use Types

The building use types that may be modeled in the Asset Score tool are listed below. Asset Score supports mixed-use buildings using two or more of these use types. Use type descriptions are available in the Help File at http://help.buildingenergyscore.com/support/solutions/articles/8000026036-available-use-types.

   Assisted Living Facility
   City Hall
   Community Center
   Courthouse
   Education
   Library
   Lodging
   Medical Office
   Multi-family (4 floors or greater)
   Multi-family (fewer than 4 floors)
   Office
   Parking Garage (Heated Only)
   Parking Garage (Ventilation Only)
   Police Station
   Post Office
   Religious Building
   Retail
   Senior Center
   Warehouse non-refrigerated

Notable use types that are not available at this time include:

   Data Centers
   Hospital (Inpatient health care)
   Food Sales (Convenience Store, Supermarket/Grocery Store, Wholesale Club/Supercenter)
   Food Service (Buildings with commercial kitchens including: Restaurant; Bar/Nightclub)
   Refrigerated Warehouse

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Asset Score Available HVAC System types

The major system types supported by Asset Score are listed below.   These systems may be added and configured in the tool by selecting the appropriate Cooling and Heating sources, Equipment and Distribution types, as outlined in the Help File at
http://help.buildingenergyscore.com/support/solutions/articles/8000026049-hvac-system-types.

> Baseboard (Supplementary Heating)
> Dedicated Outdoor Air System (DOAS)
> Four Pipe Fan Coil Unit
> Ground Source Heat Pumps
> Packaged Rooftop Air Conditioner
> Packaged Rooftop Heat Pump
> Packaged Rooftop VAV with Reheat
> Packaged Terminal Air Conditioner
> Packaged Terminal Heat Pump
> VAV with Reheat
> Ventilation Only
> Warm Air Furnace
> Water Loop Heat Pump
> Window Air Conditioners

Future developments will add the following systems to the Asset Score Tool:

> Photovoltaic (PV) Systems
> Radiant Heating and Cooling Systems
> Solar Water Heating
> Variable Refrigerant Systems (VRF)

The following systems are presently unsupported in Asset Score:

> Multiple Zone Water Loop Heat Pump with Reheat
> Multiple Zone CAV with Reheat
> Boiler Plants controlled by Outdoor-air temperature

Asset Score Available System Controls

System controls that may be selected in Asset Score are listed below. Additional details regarding the available controls are in the associated component sections of the Help file at http://help.buildingenergyscore.com/support/solutions.

Lighting Controls
    Daylighting Control (Toplighting and Sidelighting)
    Occupancy Sensor Control

Hot Water Supply Controls
    Low Flow Faucets

HVAC System Controls

Water-Side
    Chilled Water Reset
    Chiller Pump Control
    Condenser Pump Control
    Cooling Tower Fan Control

Air-Side
    Air-side Economizer Control
    Demand Control Ventilation (DCV)
    Energy Recovery Ventilation (ERV)
    Fan Control
    Fan Static Pressure Reset
    Supply Air Temperature (SAT) Reset
    VAV Minimum Airflow Fraction

Future Development
    Additional economizer control options
    Variable Speed Chillers

The Asset Score *Program Overview and Technical Protocol* documents the modeling approach and assumptions for each input in the Asset Score tool. This document is available at https://buildingenergyscore.energy.gov/resources.