



**BPI-2100-S-2013**  
**Standard for Home Performance-Related Data Transfer**  
**(Rev. 11-15-13)**

## **Addendum A: HPXML Change Log**

The [Change Log](#) provides a description of the changes to HPXML since its publication as a BPI Standard in June 2013. Changes between version 1.0.1 and version 1.1.1 constitute a non-breaking change, which means HPXML v1.1.1 is compatible with previous versions of the data standard.

A link to the latest version of HPXML (version 1.1.1) is provided in *BPI-2101-S-2013 Annex A: BPI-2100 Schemas – HPXML (Normative)* and is also available on the [download](#) page.

### **Version 1.1.1**

#### Bugfix release

- EnergySavingsType/AnnualPercentReduction now allows negative savings values.
- Extension element: the xs:any now has a processContents set to skip, which tells schema validators to skip those elements.
- Bug fix for schemaVersion attribute on root element. Namespace issues cleared up.
- Fixed typo in name of InsulationLocation.\*

\* This is *technically* a breaking change, but was included here as a minor bugfix. Make sure your implementation expects this.

### **Version 1.1**

This is a minor (backwards compatible) release that incorporates the following changes from v1.0.2:

- Added a version number to the schema and instance documents.
- Multiple installed components are allowed in a measure.
- Add ability to select "unknown" as insulation material type sub-selection after the main selection.

- Allow for more than one duct leakage measurement and be able to specify whether it was for the supply or return ducts.
- Allowing multiple ConsumptionInfo elements under BuildingSummary/AnnualEnergyUse. Allowing multiple ThirdPartyCertifications under ceiling fans.
- Augmented the solar thermal system element to include integral collector storage systems and passive thermosyphons.
- Added SolarThermal and PV as end uses to modeled energy use, documented that their values should be recorded as negative to indicate production of energy.
- Changed type of all temperatures from integer to float.
- Added Elements
  - ModeledUsageType/AnnualFuelCost
  - HealthAndSafety/Stoves/TimeofCOReading
  - CeilingFan/AirFlow/FanSpeed, Airflow, and Efficiency as well as ThirdPartyCertification
  - Lighting/LightingGroup/AverageLumens  
HealthAndSafety/General/TestsCompleted, TestsPassed
  - EnergyAndWaterUseTypeDescription/Energy/EnergyUseIntensity
  - Systems/Photovoltaics/PVSystem/YearModulesManufactured
  - InsulationInfo/InsulationLocation
  - FoundationWall/AdjacentToFoundation
  - Project/ProjectDetails/YearCertifie, CertifyingOrganizationURL, EnergyStarHomeVersion
  - Skylight/SolarTube
  - WallType/LogWall
  - WindowInfo/FrameType/Wood (used in both windows and skylights)
  - WindowInfo/FrameType/ThermalBreak (used in both windows and skylights)
  - Window/GasFill
  - HVACPlant/PrimarySystems with PrimaryHeatingSystem, PrimaryCoolingSystem subelements

- SolarThermal/Manufacturer, ModelNumber
- Measure/WaterSavingsInfo
- AirDistributionInfo/NumberofReturnRegisters
- AirdistributionInfo/Ducts/DuctType
- HealthAndSafety/MechanicalVentilation/VentilationFans/VentilationFan/TotalRecoveryEfficiency, SensibleRecoveryEfficiency, FanPower
- Wall/Thickness
- Added Enumerations
  - Energy Star Home to CertifyingOrganization
  - Mini-split to HeatPumpType
  - Ground-to-air to HeatPumpType
  - Other to DoorMaterial
  - Several fluorescent lighting tube types to FluorescentTubeType
  - Several stud dimensions to StudDimensions
  - Other housing unit to AdjacentTo
  - Crawlspace to DuctLocation. (Previously you had to select either vented crawlspace or unvented crawlspace.)
- Modified Schema Documentation
  - CAZApplianceReading/CurrentCondition
  - CombustionApplianceZone/CombustionApplianceTest/StackTemperature
  - CombustionApplianceZone/BaselineTest
  - CombustionApplianceZone/NetPressureChange
  - MeasureDetailsType/ResourceSavingsInfo/ResourcesSaves/LoadProfile
  - HeatingSystemInfoType/HeatingCapacity to indicate it is input capacity
  - Wall/Area defined as gross wall area
  - LightingGroup/AverageWattage defined as per unit (lamp)
  - AtticFloorInsulation
  - CombustionApplianceZone/PoorCaseTest

- AirInfiltrationMeasurementType/EffectiveLeakageArea
- Bugfixes:
  - Removed redundant multiplicity of EmailInfoType.
  - Allowing fuel savings percentages to be negative.
  - Removed union from enumerations in ConsumptionType because it confused some XML schema processors.
  - Made TelephoneType optional

## Version 1.0.2

This is a bugfix release and incorporates the following changes:

- Added sameas attribute to SystemIdentifier, which permits linking components on the before and after building description that were not removed or replaced in a measure.
- Added a SystemIdentifier to AirSealing for referencing in measures. Also set maxOccurs on AirSealing and AirInfiltrationMeasurement to unbounded to allow for multiple air sealing and infiltration measurements on a building.\*
- Added TuneAndRepair to HVACSystemInfo/HVACMaintenance
- Added InsulationInfo/MisalignedInsulation (boolean)
- Corrected a typo on VentilationFan/UsedForWholeBuildingVentilation\*
- Added notes field to CombustionApplianceZone
- Set maxOccurs to unbounded on heating and cooling efficiencies to permit specifying multiple different efficiency types.

\* This is *technically* a breaking change, but was included here as a minor bugfix. Make sure your implementation expects this.

## Version 1.0.1 and before

Pre-standard development.