CITY OF SCOTTSDALE AMENDMENTS
TO THE
INTERNATIONAL ENERGY CONSERVATION CODE
2015 EDITION

Ordinance No. 4284, Resolution No. 10603
ARTICLE VII. INTERNATIONAL ENERGY CONSERVATION CODE
Sec. 31-110. Adoption of International Energy Conservation Code adopted and amended.
The International Energy Conservation Code (IECC), 2015 Edition, as published by the
International Code Council, Inc., declared a public record by city Resolution No. 10603, is
adopted by reference as part of the city Building Code.

Sec. 31-111. IECC Amendments – Chapter 4 (Commercial).
Only the following portions of CHAPTER 4 COMMERCIAL ENERGY EFFICIENCY of the IECC
are amended.

(a) Section C401.2 Application, is amended by substituting the following for subsection 3:

C401.2 Application
3. The requirements of Section C402.5, C403.2, C404, C405.2, C405.3, C405.5, C405.6
and C407. The building energy cost shall be equal to or less than 85 percent of the standard
reference design building.

(b) Section C407.3 is amended to read as follows:

C407.3 Performance-based compliance.
Compliance based on total building performance requires that a proposed building
(proposed design) be shown to have an annual energy cost that is less than or equal to 85
percent of the annual energy cost of the standard reference design. Energy prices shall be
taken from a source approved by the code official, such as the Department of Energy
Information Administration’s State Energy Price and Expenditure Report. Code officials shall
be permitted to require time-of-use pricing in energy cost calculations. Nondepletable
energy collected off site shall be treated and priced the same as purchased energy.

Exception: Jurisdictions that require site energy (1 kWh = 3413 Btu) rather than energy
cost as the metric of comparison.

Sec. 31-112. IECC Amendments – Chapter 4 (Residential).
Only the following portions of CHAPTER 4 RESIDENTIAL ENERGY EFFICIENCY of the IECC
are amended.

(a) Section R402.4.1.2 Testing, is amended to read as follows:
R402.4.1.2 Testing. The building or dwelling unit shall be tested and verified as having an
air leakage rate not exceeding five air changes per hour for detached dwelling units and
seven air changes per hour for attached dwelling units in Climate Zones 1 and 2, and three
air changes per hour in Climate Zones 3 through 8. Testing shall be conducted in
accordance with ASTM E 779 or ASTM E 1827 and reported at a pressure of 0.2 inch w.g.
Where required by the code official, testing shall be conducted by an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the code official. Testing shall be performed at any time after creation of all penetrations of the building thermal envelope.

(b) Section R403.5.1.1 Circulation systems, is amended to read as follows:

R403.5.1.1 Circulation systems
Heated water circulation systems shall be provided with a circulation pump. The system return shall be a dedicated return pipe or a cold water supply pipe. Gravity and thermo-syphon circulation systems shall be prohibited. Controls for circulating hot water system pumps shall start the pump based on the identification of a demand for hot water within the occupancy. The controls shall automatically turn off the pump when the water in the circulation loop is at the desired temperature and when there is no demand for hot water. Heated water circulation systems shall be provided when the length of hot water piping or tubing from the source of hot water to the furthest fixture exceeds:
   a. 21 feet for a 3/4 inch line
   b. 32 feet for a 5/8 inch line
   c. 43 feet for a 1/2 inch line
   d. 50 feet for a 3/8 inch line or less
Where the water piping or tubing length contains more than one size of pipe, the largest size shall be used for determining the maximum allowable length of pipe before a circulating hot water system is required. For the purpose of this section, the source of hot water shall be a water heater, boiler, circulation loop piping, distribution manifold, or heat-traced piping.

(c) Section R403.5.2 Demand recirculation systems, is deleted.

(d) Section R404.1 Lighting equipment (Mandatory), is amended to read as follows:

R404.1 Lighting equipment (Mandatory)
A minimum of 90 percent of the permanently installed lighting fixtures shall contain only high-efficacy lamps.

   Exception: Low-voltage lighting.

(e) Table R406.4 Maximum Energy Rating Index, is amended for Climate Zone 2 as follows:

<table>
<thead>
<tr>
<th>CLIMATE ZONE</th>
<th>ENERGY RATING INDEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>57(^1)</td>
</tr>
</tbody>
</table>

\(^1\)Energy generated from on-site renewable energy shall not be included in the calculation of the Energy Rating Index value.