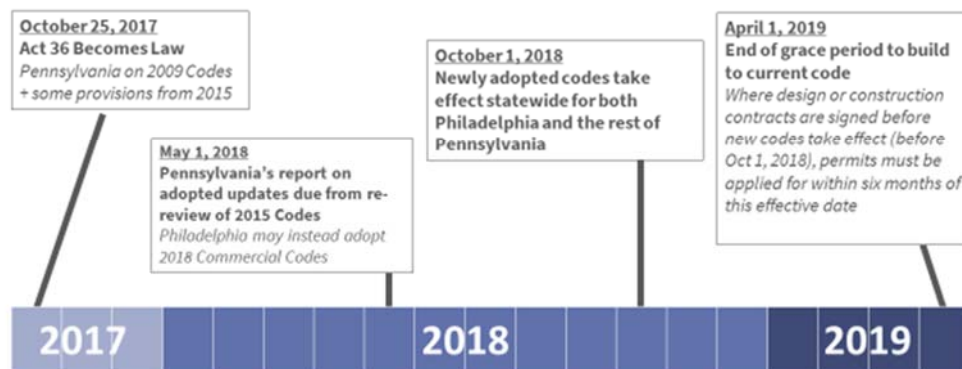


Philadelphia Jump-Ahead to 2018 Commercial Codes

As the Uniform Construction Code Review and Advisory Council (RAC) re-reviews the 2015 International Codes (Codes) for adoption throughout Pennsylvania this year, the Pennsylvania State Legislature has granted Philadelphia a one-time opportunity to jump ahead to 2018 Codes for commercial buildings for both new construction and major renovations.

The decision of whether or not to adopt the 2018 Codes for commercial buildings must be made on the same timeline as the RAC's review and adoption of the 2015 Codes. In practice, if Philadelphia would like to take advantage of this opportunity, **City Council must pass [Bill 180176](#) authorizing the adoption before it recesses for the summer.** This would allow the city to comply with the October 1, 2018 effective date as prescribed by Act 36 of 2017.

Implementation Timeline



If Philadelphia chooses not to take advantage of the jump-ahead opportunity to adopt 2018 Codes for commercial buildings this year, the city cannot remain on the 2009 Codes. At the minimum, Philadelphia must adopt the 2015 Codes in alignment with the rest of the commonwealth. Under this scenario, Philadelphia will not have the opportunity to adopt the 2018 Codes until the year 2022, as it would be subject to the RAC's 4.5-year review and adoption process. It will also be difficult to make a future case to the state legislature that Philadelphia should be permitted to control its own code adoption process should it not accept this one-time exemption.

To assist our membership in its evaluation of this jump-ahead opportunity, Green Building United has compiled resources for consideration on the key differences between accepting the 2015 International Codes as adopted by the RAC and the choice to advance to 2018 International Codes for commercial buildings. Our resources are focused on the section of the 2018 International Codes that pertains to energy code, the International Energy Conservation Code (IECC.) The 2018 IECC references ASHRAE 90.1-2016.

The Value of Modern Energy Codes

Building codes codify minimum construction standard to protect the health, safety, and welfare of those constructing, occupying, and managing buildings. Building codes ensure that construction standards are rigorous, keep pace with emerging technologies and practices, and promote continuity across city and state lines.

The International Codes, published by the International Codes Council, are widely used throughout the United States and in global markets. The triennial International Codes are developed and voted on through an open and transparent [consensus process](#) by members from government and a diverse group of industry professionals. The outcome of the triennial vetting process reflects the best technology, materials, and practices that the market can bear.

Per the U.S. Environmental Protection Agency, the average commercial building wastes [30 percent](#) of the energy it uses. In addition, buildings account for nearly half of carbon emissions in the United States; that percentage is even greater in our region. In the life cycle of a building, the most cost-effective time to ensure efficient energy usage and avoid unnecessary cost is in the initial design and construction phase. More energy efficient buildings save consumers money on utility bills and reduce the environmental impact from energy use in the built environment.

The International Energy Conservation Code (IECC), a chapter of the International Codes, as well as American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Standard 90.1, which is referenced by the IECC for use in commercial buildings, ensure that minimum building energy efficiency [improves continuously](#) over time.

For commercial buildings, the transition from Pennsylvania's current code (2009 International Energy Conservation Code (IECC) which references ASHRAE 90.1-2007) to the next triennial code (2012 IECC/ASHRAE 90.1-2010) yields an [energy savings of 18.5%](#) nationally, per a U.S. Department of Energy report. A jump ahead to the code Pennsylvania is currently reviewing for adoption (2015 IECC/ASHRAE 90.1-2013) yields yet another [7.6% increase](#) nationally in whole building energy savings. With an adoption of the 2018 IECC/ASHRAE 90.1-2016 in Philadelphia, there's potential for yet another [6.8% increase](#) in whole building energy savings from the previous edition.

Per an [analysis](#) by the Pennsylvania Department of Environmental Protection (PA DEP), adoption of modern building codes "provides the single most cost-effective and expeditious means of achieving reductions in energy-related GHG emissions in the building sector." With the adoption of modern building codes in the commonwealth-wide, PA DEP estimates that over a fifteen-year period the commonwealth would [avoid 32.2 million](#) metric tons of carbon dioxide equivalents. For the commercial sector, adoption of modern energy codes would yield a [positive net cost](#) by the year 2030 of \$304 million due to the impressive energy savings relative to increase upfront costs.

While [peer states](#) including New Jersey, Maryland, and Massachusetts are currently on 2015 Codes, each updates its codes every three years in alignment with the release of the latest International Codes edition. The jump to 2018 Commercial Codes, effective October 1, 2018, would position Philadelphia as a leader in modern code adoption on par with neighboring states.

As a leader, Philadelphia will need resources to ensure smooth compliance and enforcement. Training for and communication between the design-build community and code enforcement is essential for the full energy and energy cost savings to be realized should the city adopt the 2018 Codes for commercial buildings.

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