





















**LEED 2.2 for New Construction and Major Renovations:**

To meet or exceed the 2030 Challenge 50% reduction target, those using the LEED 2.2<sup>26</sup> rating system as a building performance standard would require

1. six (6) mandatory points in EA (Energy & Atmosphere) Credit 1: Optimize Energy Performance for New Buildings or
2. eight (8) mandatory points for Existing Building Renovations.

*Amending Your Code*

Amending the local or state building energy code to meet the initial 50% reduction target of the 2030 Challenge via the above code equivalents is the first step to reducing emissions in the Building Sector. When amending an energy code, it is important to amend both the prescriptive and performance paths of the code, or to use only the performance path for compliance.<sup>27</sup> The EECC (residential) and NBI (commercial) options listed in Table A provide a method for amending the prescriptive path of a code, so that it meets the 50% target.

In most cases, local governments can amend their code as long as it meets or exceeds the state standard. A sample ordinance, which can be modified to incorporate the code equivalents, is provided as part of the ASHRAE Standard and IECC to help state and local governments in this process. Additional help can be obtained by reviewing the 'Architecture 2030 Energy Ordinance' unanimously approved by the city council of Santa Barbara, the first city to officially incorporate the 2030 Challenge into their building energy code. The ordinance can be found online at the California Energy Commission website.<sup>28</sup>

## Conclusion

---

Given the shortening timeline for dramatically reducing greenhouse gas emissions, it is imperative that governments committed to doing so have a readily assessable way to begin realizing reductions in their building sector. The 2030 Challenge code equivalents listed in Table A provide a simple, practicable solution using existing building energy codes and rating systems. By amending existing codes based on these code equivalents, governments can be confident that their codes meet the initial 50% reduction target of the 2030 Challenge.

---

<sup>26</sup><http://www.usgbc.org/DisplayPage.aspx?CMSPageID=220>.

<sup>27</sup> All energy codes have two paths to demonstrate compliance, a prescriptive path and a performance path. The prescriptive path, which addresses items such as building envelope, insulation requirements, types of glazing and equipment requirements, makes up the bulk of the code. The requirements for the prescriptive path change as codes are updated and as each newer code or standard is released. The performance path, on the other hand, is only a few pages in length and remains basically the same with each new code update or release. The performance path requires that a building performance baseline be determined and the building design be quantified through a whole building simulation to demonstrate that it consumes less delivered energy as compared to that baseline.

<sup>28</sup>[http://www.energy.ca.gov/title24/2005standards/ordinances\\_exceeding\\_2005\\_building\\_standards.html](http://www.energy.ca.gov/title24/2005standards/ordinances_exceeding_2005_building_standards.html).