

## How can sustainability affect climate change?

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By now, we should all be aware of the 2030 Challenge. If not, it is an initiative setup by Architecture 2030, a non-profit firm, to accomplish a baseline which can be used to determine a national energy use intensity. Per the 2030 Challenge, the goal is that we, the building industry will strive to stop being the major source of global demand for energy and materials that produce by-product greenhouse gases (GHG). Slowing the growth rate of GHG emissions and then reversing it is the key to addressing climate change and keeping global average temperature below  $2\hat{A}^{\circ}C$  above pre-industrial levels.

To accomplish this, Architecture 2030 issued The 2030 Challenge asking the global architecture and building community to adopt the following targets:

All new buildings, developments and major renovations shall be designed to meet a fossil fuel, GHG-emitting, energy consumption performance standard of 60% below the regional (or country) average/median for that building type.

At a minimum, an equal amount of existing building area shall be renovated annually to meet a fossil fuel, GHG-emitting, energy consumption performance standard of 60% of the regional (or country) average/median for that building type.

The fossil fuel reduction standard for all new buildings and major renovations shall be increased to:

- \* 70% in 2015
- \* 80% in 2020
- \* 90% in 2025
- \* Carbon-neutral in 2030 (using no fossil fuel GHG emitting energy to operate).

These targets may be accomplished by implementing innovative sustainable design strategies, generating on-site renewable power and/or purchasing (20% maximum) renewable energy.

For those of us in the sustainable design field, making the world a better place through our designs is a worthy goal. One we all know that we need to pursue before it is too late. As a design firm it is important consider our part in the equation and determine how we can be a part of the solution. With today's technology we are able to be more and more efficient with our design tools.

We can collaborate sooner, coordinate more efficiently and even use our BIM tools to create energy models and analyze our energy consumption, carbon emissions, life cycle energy use and renewable energy potential. I invite you to learn more about the 2030 Challenge here. http://architecture2030.org

Let's make a difference in our work and in our lives for a more sustainable planet. Brian McGuire is the director of BIM services at Edwards & Zuck, D.P.C., New York, N.Y.

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