



What is Decarbonization?

And how DC's building industry is affected.

What does decarbonization mean?

Decarbonization is the reduction or elimination of CO₂ from the energy sources we consume for all our human needs.

What is carbon neutrality?

Carbon neutrality means decarbonizing until we reach net zero carbon. Zero carbon refers to being able to remove the same amount of CO₂ from the atmosphere as is produced.

Why is this important?

CO₂ is the main contributor of greenhouse gas (GHG) emissions that is causing climate change. A full decarbonization of all our energy systems is the primary solution to stabilize or reverse climate change.



What are the District's goals?

The District has a goal of reducing GHG emissions by 50% by 2032 (over its 2006 baseline) and becoming carbon neutral by 2050.

How is the District planning to achieve carbon neutrality?

There are three major sources of the District's GHG emissions, each one has key actions to achieve measurable reductions.

Buildings

Efficient building design and operations

Energy Supply

Modernized and renewable energy supply

Transportation

Electrification and fuel switching

How does this affect the District's commercial real estate?

The District's goal to be carbon neutral means that it will be looking to regulate, incentivize, and encourage the building industry to work towards this goal. There are provisions to phase the District's buildings codes to require that all new buildings be net-zero energy and 100% electric and the Building Energy Performance Standards regulate existing building energy use.

How are building emissions characterized?

Direct GHG emissions. These are from sources that are owned or controlled by the reporting entity.

Indirect GHG emissions. These are a consequence of the activities of the reporting entity but occur at sources owned or controlled by another entity. Additionally, building-related GHG emissions are typically characterized by their "scope."

Scope 1 Combustion in a building

Scope 2 Grid-level electricity consumption

Scope 3 Supply chain and business operations

How should I be thinking about this?

To decarbonize buildings we must eliminate the use of fossil fuels to power buildings and switch to clean energy sources by shifting to renewably-generated electricity and away from energy supplied by oil, gas, or coal. Operational decarbonization strategies are feasible today. As GHG emissions are reduced from building operations, the industry is pivoting towards a focus on the embodied carbon of materials and products—taking an analytical lifecycle approach to decision-making.