

Carbon Transformation, a Carbon Removal Solution

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Thank you for the opportunity to participate in the 2022 Scoping Plan Update and for the workshop focused on engineered carbon removal technologies. As discussions for updating the plan move forward, continuing to hold open sessions with multiple stakeholders, including the EJAC and public health experts, and a diversity of perspectives will be imperative to ensure a robust plan that is truly equitable.

The session held on August 2nd highlighted the importance of including a variety of stakeholders and perspectives so as not to further disadvantage historically often forgotten -- and often BIPOC -- communities. In the next iteration of the plan, it's imperative that we collectively move beyond the goal of sustainability and toward equity. The science demonstrates that we're beyond being able to stop at carbon-neutrality; in order to reverse the innumerable impacts of climate change that we've accepted and begun to adapt to, we must seek out solutions that are carbon negative. This was echoed by the recent IPCC Assessment Report released August 2021, which showed that any scenario allowing us to limit warming to 1.5 °C or 2 °C, will require carbon removal.

Our company, Twelve, has developed a solution to transform CO₂ into critical chemicals, materials, fuels, and products. By replacing the fossil fuel-produced carbon in critical chemicals with renewable carbon from CO₂, we can eliminate emissions from thousands of essential products and set a new standard for how things get made in the future. We can address carbon emissions while creating jobs and reducing the need for fossil fuels by making critical chemicals and fuels from what today is discarded as waste. The potential impact on communities often laden with the burden of heavy emissions could similarly be significant.

Twelve's technology connects to any source of CO₂, including industrial point source emissions (such as the hard to decarbonize sectors such as cement and steel) as well as direct air capture systems that can take CO₂ directly from the atmosphere, and presents a viable alternative to the current fossil fuel-powered carbon paradigm. At scale, our technology has the same CO₂-reducing power as 120 billion trees -- it's like fitting 37,000 trees in a suitcase. Our technology can address up to 10% of total global emissions and up to 50% of difficult to decarbonize industrial emissions.

There is no singular magic bullet that will save our state from the terrific and persistent heat waves, ferocious wildfires, extreme droughts, and other day-to-day markers of climate change we've accepted and adapted to, but rather it will take a diverse range of solutions.

Twelve welcomes opportunities to work collaboratively across organizations such as CARB and EJAC moving forward to explore carbon transformation as a solution to sculpt a plan that achieves our aggressive climate goals while helping to build a more equitable and livable future.