The World's First Carbon Capture Plant Can Convert CO2 into Usable Energy

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Carbon dioxide in our atmosphere.

The innovators at Swiss company Climeworks may have solved the problem of excess CO2 in our atmosphere. By creating a system that converts CO2 into a usable byproduct, they are making our atmosphere more livable while creating a profitable industry at the same time. The company plans to open the world's first industrial-scale direct air capture (DAC) carbon plant next year, in a move that could potentially revolutionize the alternative resource game.

The method for transforming CO2 into a usable fuel occurs by capturing the air and binding the CO2 to a filter, where it will stay until heated. The filter is then heated to 100 degrees Celsius, creating a very pure gaseous CO2 that can be used for a wide variety of industrial purposes, including soda carbonation, synthetic fuels, and growing plants in greenhouses. Climeworks also prides itself on using as little energy as possible to fuel the plant itself, stating how waste heat from other industries could easily provide the necessary warmth to convert captured CO2 into a usable resource. Climeworks does not hide its environmentally responsible side, which is a refreshing realization, seeing as its product can easily be used for industries to profit. They are quick to remind consumers that, while the use of their DAC plants may move us toward significant removal of CO2 from our atmosphere, it should not be seen as an alternative to making changes to current emissions practices. The plant may provide a useful way to use the

excess we have created in our atmosphere, yet we should still be moving speedily toward the day when we won't need such innovation.