



Smartest

Companies of the Year 2017

Global Thermostat transforms a global carbon dioxide emissions risk into massive financial opportunity for energy markets.



Dr. Graciela Chichilnisky, CEO & Co-Founder
Global Thermostat

Angela Merkel once remarked on global climatic change *“we must now agree on a binding review mechanism under international law, so that this century can credibly be called a century of decarbonisation.”* It is true that global warming and climate change concerns have triggered global efforts to reduce the concentration of atmospheric carbon dioxide (CO₂). However, the catastrophic risks of climate change require a fundamental transformation in the production and use of energy and the world’s carbon cycle on which life depends. The advancement in technologies has brought forth new solutions to reduce the carbon dioxide content in the atmosphere. Of these, carbon dioxide capture is considered a crucial strategy for meeting CO₂ emission reduction targets. Every year over 30 billion

tons of carbon dioxide is pumped into the air and Global Thermostat, a New York based company created a Technology that helps captures CO₂ directly from Air and helps industries cleanse the atmosphere from the emission of this harmful gas.

Start the ball rolling

Global Thermostat was founded in 2010 with an aim of materializing a carbon negative environment that reduces the excess carbon that is generated mostly in producing electricity. It develops and commercializes a technology for the direct capture of carbon dioxide from the atmosphere and other sources. GT deploys a unique process that cogenerates carbon capture and power. There are other solutions that can remove carbon dioxide from the flue gas. But GT is the pioneer in capturing CO₂ directly from the air as well as from the smoke stacks. The higher capture of CO₂ per area the use of low heat rather than electricity and the speed of the technology contributes to the lower cost solutions offered by it. GT plants can generate their own heat and power, so it can be located practically anywhere and that makes it easy for those industries depending on it.

GT partners with world-leading companies & institutions including Georgia Tech and SRI International. The company offers fast and low cost systems to its clients and partners including carbonated beverages companies. In this way it merges sustainability with profit.

GT's air capturing technology

CO₂ is a harmful component in the atmosphere, but on earth it is required in many emerging industries like enhanced oil recovery, synthetic fuels, carbonated beverages, dry ice, water desalination, carbon fibers and industrial gases. Global Thermostat's air capturing technology cleans the environment of excess carbon dioxide and makes it available for the multiple large and emerging industries. Its patented breakthrough technology removes CO₂ from ambient air or other sources utilizing readily available, low-cost process heat. That CO₂ is then used profitably in multiple industrial processes, meeting the needs of a > \$1 Trillion annual market. The technology can also be used in the refineries, power plants, cement smelters and other industrial operations as well.

The Fact

Global Thermostat has entered its commercial phase and has build two GT operational plants that can be visited in Silicon Valley; a third commercial GT plant is being built right now in Huntsville Alabama.

A cost-friendly approach

GT focuses on carbon negative technology that can be used to produce electricity and industrial gases. The GT methodology earned 32 patents in the US and in 147 nations, and received many awards, including world's Top Ten Most Innovative Company (Fast Company Magazine). It involves a process where carbon dioxide can be sucked out of the air, stored, and sold back to companies that need it. GT uses custom equipment and proprietary (dry) amine-based chemical "*sorbents*" bonded to porous honeycomb ceramic "*monoliths*" that together act as carbon sponges, efficiently adsorbing CO₂ directly from the atmosphere, from smokestacks, or from a combination of both. A GT plant utilizing the residual heat of, and capturing the CO₂-rich flue gases from, an adjacent fossil fueled power plant and can capture substantially more CO₂ than that plant emits, this creation Carbon Negative Power Plants (TM). It can utilize the excess heat produced by the CSP solar farms to power its Plants and increases their profitability by producing excessive amount of CO₂ sales.

Admire the passionate Minds

Dr. Graciela Chichilnisky, CEO and Co-Founder: Dr. Chichilnisky is a world-renowned economist and mathematician, the creator of the Carbon Market of the UN Kyoto Protocol, the concept of Basic Needs and the formal theory of Sustainable Development. She was the Lead US Author of the Intergovernmental Panel on Climate Change, which received the Nobel Prize in 2007. Chichilnisky was selected by Fast Magazine as 2016 CEO of the Year, and in July 4 2017 was selected by the Carnegie Corporation as a Great Immigrant Great American in the New York Times p. A5. Her pioneering work uses innovative market mechanisms to create Green Capitalism.

Dr. Peter Eisenberger, CTO & Co-Founder: Dr. Eisenberger is a renowned scientist, corporate research executive, business entrepreneur, and leading academic. He started his career at the Bell Laboratories until he was recruited by Exxon to lead their Physical Sciences Research and Development Laboratory.

Edgar Bronfman Jr., is Executive Chairman of Global Thermostat and currently serves as Chairman of Endeavor; Mr Bronfman was until recently a Managing Partner at Accretive LLC, a private equity firm focused on creating and investing in technology companies. He also served as CEO of Warner Music Group from 2004 to 2011 and as Chairman from 2011 to 2012, as well as CEO of Seagram. He currently chairs the Board of Directors of Endeavor, a world international non-profit development organization that finds and supports high-impact entrepreneurs in emerging markets.

"Consumers are very interested in both the speed and low cost of our systems ability to capture carbon dioxide from the atmosphere"