



Reimagine CO₂

OBJECTIVE: INCENTIVIZE TECHNOLOGY THAT WILL CONVERT CO₂ EMISSIONS INTO VALUABLE PRODUCTS.

GRAND CHALLENGE

Energy drives the global economy, and the majority of that energy we rely on every day comes from fossil fuels such as coal, oil and natural gas. However, fossil fuels also account for a majority of global carbon dioxide (CO₂) emissions, and those CO₂ emissions are a leading contributor to climate change.

In order to address today's CO₂ emission levels, the world must accelerate new zero-carbon energy technologies, while at the same time continuing to develop a portfolio of carbon re-use or recycling solutions. The NRG COSIA Carbon XPRIZE is incentivizing breakthroughs to convert CO₂ emissions into useful products.

COMPETITION

The \$20M NRG COSIA Carbon XPRIZE will challenge teams from all around the world to develop innovative approaches to convert CO₂ emissions from fossil fuels into

valuable products. This will include a broad suite of solutions, some radically new and some already in the early stages of development, such as:

- Alternative cement, concrete and other building materials
- Chemicals used to manufacture a variety of industrial products and consumer goods
- Low-carbon transportation fuels

The competition will be structured as a two-track prize, with one track focused on testing technologies at a coal power plant, and the other focused on testing technologies at a natural gas power plant. ***The winning teams will convert the most CO₂ into the highest value products. To be competitive, teams will have to minimize their use of energy, water, land, and other inputs that impact the environment.***

PRIZE PURSE

The \$20M prize purse will be awarded as follows:

Round 2: A \$2.5M milestone purse will be shared equally among up to five finalists in each track.

Round 3: A \$7.5M grand prize purse will be awarded to the winner in each track.

TIMELINE

Prize launch: September 2015

Regular Registration Deadline: April 30, 2016

Late Registration Deadline: July 15, 2016

Round 1: Technical and Business Viability Assessment

Round 2: Pilot Scale Competition

Round 3: Demonstration Scale Competition

PRIZE IMPACT

The NRG COSIA Carbon XPRIZE is a profound effort to transform the way CO₂ impacts our world. The NRG COSIA Carbon XPRIZE will catalyze broad innovation in CO₂ conversion technologies, accelerating them from laboratory to pilot to small demonstration scale. The competition is poised to increase awareness, inspire investment, and stimulate demand for such technologies as a mechanism for reducing CO₂ emissions. Ultimately, the impact of the prize will go far beyond the critical demonstration of innovative technologies by inspiring markets, enabling innovation, and empowering people to be a part of the solution to one of our world's grandest challenges.

SPONSORS

NRG ENERGY

NRG is leading customer-driven change in the U.S. energy industry by delivering cleaner and smarter energy choices, while building on the strength of the nation's largest and most diverse competitive power portfolio. A Fortune 200 company, we create value through reliable and efficient conventional generation while driving innovation in solar and renewable power, electric vehicle ecosystems, carbon capture technology and customer-centric energy solutions. Our retail electricity providers serve almost 3 million residential and commercial customers throughout the country. More information is available at www.nrg.com. Connect with NRG Energy on Facebook and follow us on Twitter @nrgenergy and @NRGMedia.

COSIA

COSIA (Canada's Oil Sands Innovation Alliance) is an alliance of 13 oil sands producers, representing 90 percent of production from the Canadian oil sands. Our vision is to enable responsible and sustainable development of Canada's oil sands as a global energy source while delivering accelerated improvement in environmental performance through collaborative action and innovation in the areas of greenhouse gases, land, tailings and water. Since COSIA's inception in 2012, our member companies have shared 814 distinct technologies and innovations that cost almost \$1.3 billion to develop. For more information, please visit www.cosia.ca.



carbon.xprize.org

PRESS CONTACT:

Eric Desatnik | eric@xprize.org | 310.741.4880



XPRIZE®

XPRIZE is an innovation engine. A facilitator of exponential change. A catalyst for the benefit of humanity.

We provide the thought leadership to identify the Grand Challenges of our time – the national or global crises, market failures and opportunities where solutions are thought to be either out of reach, or just plain impossible. And then we design and operate incentivized prize competitions to solve them.

Our prize competitions inspire innovative solutions in five distinct Grand Challenge areas: Exploration, Global Development, Energy and Environment, Learning, and Life Sciences.

We act as a convening platform, bringing together passionate partners to accelerate a positive future based upon our vision of a preferred state: the sponsors, entrepreneurs, philanthropists, industry, government, academia and innovators who help us make the impossible possible.

We don't dictate the solution. We ask the right questions. And we provide the platform, global visibility, credibility and opportunity for our partners to take risks that ultimately lead to radical breakthroughs. Together, we create the future. The result? Averted crises. Revitalized markets. Better technologies. New industries. And empowered people.

For information on our active and awarded prizes, go to xprize.org.

MAKING THE IMPOSSIBLE POSSIBLE