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Catalyzing the carbon utilization industry through the NRG COSIA Carbon XPRIZE

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Catalyzing the Carbon Utilization Industry The NRG COSIA Carbon XPRIZE Competition





First team to privately build a spaceship that could carry 3 adults to 100 km, twice in two weeks

XPRIZE CONTINUES TO MAKE HISTORY

ACTIVE: \$94 Million

Google XPRIZE

BARBARA BUSH FOUNDATION ADULT LITERACY DOLLAR GENERAL LITERACY FOUNDATION

OCEAN DISCOVERY XPRIZE

AWARDED: \$34 Million

OIL CLEANUP XCHALLENGE

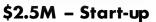
SENSING XCHALLENGE

WENDY SCHMIDT OCEAN HEALTH XPRIZE

PRIZES ARE POWERFUL TOOLS FOR INNOVATION

- 1. Very EFFICIENT
- 2. Highly LEVERAGED
- 3. Open to innovators EVERYWHERE
- 4. It's about MORE than the purse
- 5. Audacious but ACHIEVABLE target
- 6. Clear, MEASURABLE outcomes







\$10M - Purse Ansari Family

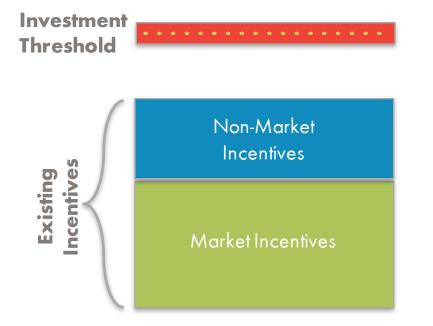


>\$120 Million Teams' spend

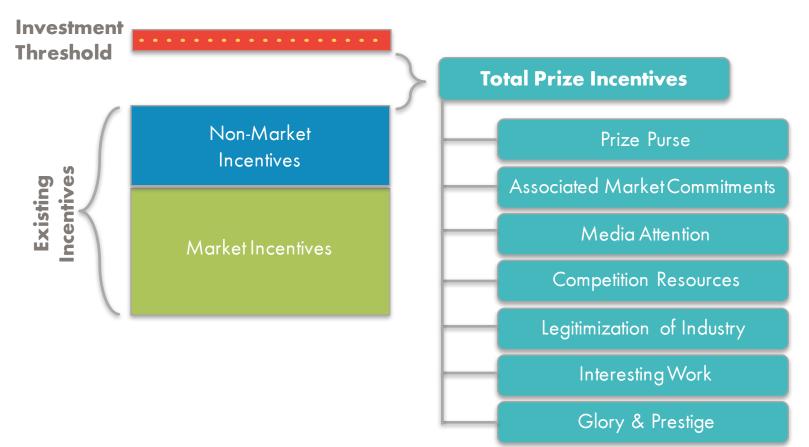


~\$3 Billion Industry

PRIZE COMPETITIONS: STACKING INCENTIVES



PRIZE COMPETITIONS: STACKING INCENTIVES



CO2 EMISSIONS DRIVE CLIMATE CHANGE

THE WORLD DEPENDS ON ENERGY





INTRODUCING THE

The NRG COSIA Carbon XPRIZE is a \$20 million competition to convert the most CO_2 into one or more products with the highest net value.

SNAPSHOT OF THE CARBON XPRIZE

THE WINNING TEAM WILL	Convert the most CO ₂ into one or more products with the highest net value
PRIZEPURSE	 \$2.5M milestone prize purse for each track \$7.5M grand prize purse for each track
TIMELINE	4.5 years: September 2015 – March 2020
STRUCTURE	Teams register for one of two tracks: • 1 track tested on coal • 1 track tested on natural gas Teams compete in three rounds: • Round 1: Technical and Business Viability Assessment • Round 2: Pilot Scale Competition • Round 3: Demonstration Scale Competition
JUDGING CRITERIA	 Scoring Criteria: Amount of CO₂ converted into products Net value of products Minimum Thresholds: Maximum volume of fresh water consumed Maximum land footprint in Round 3 demonstration

Snapshot of Competition Rounds

Round 1: Technical & Business Viability Assessment

Down-selection by judges based on scoring criteria, performance thresholds, and demonstrated ability to compete in Round 2

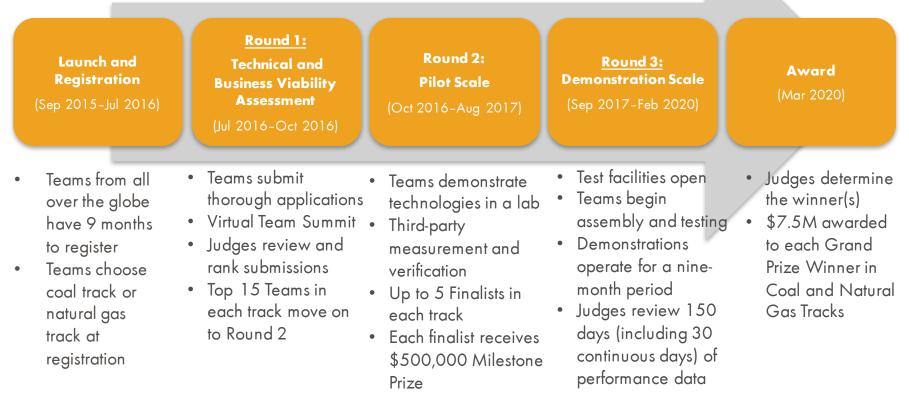
Round 2: Pilot-Scale Competition

Up to 30 teams (15 per track) Testing at lab / **location of team's choosing** Simulated flue gas, **min. 200 kg CO₂ / day** 3rd party measurement and verification of performance data

Round 3: Demonstration-Scale Competition

Up to **10 teams** (5 per track) Testing at competition **test facilities** (Track A & Track B) Real flue gas, **2T – 5T CO₂ / day** <u>3rd party measurement and verification of performance data</u>

COMPETITION TIMELINE





As of 7 April 2016:

1202 Individuals113 Team ProfilesFrom 29 Countries

BENEFITS OF COMPETING

- Prove a Radical Breakthrough
- Accelerate an Industry
- Publicity
- Access to Industrial Testing Facilities
- Professional Resources
- Networking With Experts
- Prize Money



PRIZE IMPACTS

- 1. Accelerate Innovation Lifecycle
 - Demonstrate Technology
 Breakthrough
 - Mobilize Talent
- 2. Catalyze Markets
 - Create or Disrupt Markets
 - Attract & Leverage Investment

- 3. Benefit Humanity
 - Inspire Positive Action
 - Influence Public Perception
- 4. Energize the Community
 - Strengthen Community
 - Enable Thought Leadership
 - Enable Partner Missions
 - Engage the Government

Join A Team Join the Conversation

A Made in they & Cd.



carbon.xprize.org