



# Industrial Energy Transition and Decarbonization (IETD) Consortium

Now includes Start-Up Level Membership Tier

2023

A Membership Program offered by  
The Catalyst Group Resources (TCGR)

*Formerly known as the CO<sub>2</sub>CC Program*

# No one company will reach Net-Zero alone. It takes collaboration and commitment.

## An industry in transition...

Over the coming decades, the **Energy Transition** will shift our world away from heavy hydrocarbons towards lighter or even hydrocarbon-free feedstocks, to produce energy, electricity, and products.

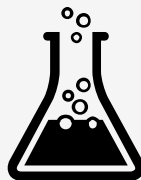
Significant efforts for **decarbonization** that reduce carbon feedstock usage and mitigate greenhouse gas (GHG) emissions are already underway, but billions of dollars in technology and capital investments are required to reach Net-Zero goals.

## TCGR's IETD Consortium will help meet those Net Zero goals



Our unique consortium approach allows members to cost-effectively track and access real technology and market developments towards industrial decarbonization and energy transition

The collaborative approach encourages members to contribute study topics, shape deliverables, and form lasting partnership opportunities



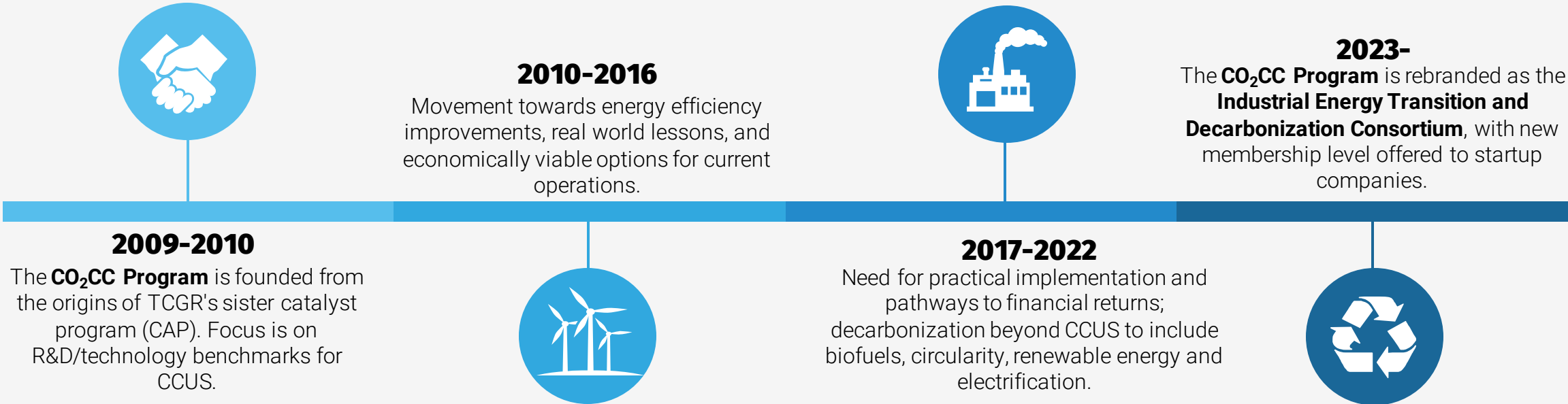
Members evaluate options that fit your timescale for emissions reductions goals, in real world scenarios built on sustainable business cases

# The Industrial Energy Transition and Decarbonization (IETD) Consortium

## 15 years in the making

The **IETD Consortium** is a membership-driven consortium of industrial organizations and research institutes seeking technological and commercial progress for pathways that reduce, capture, utilize, and/or permanently store greenhouse gas emissions. The program documents technically and commercially viable options for carbon capture, utilization, and storage (CCUS), the hydrogen economy, power-to-x, biomass, waste, and circular routes to fuels/chemicals, and many more topics that are significant in the energy transition.

TCGR's **IETD Consortium** is a uniquely value-added service, different from government-run efforts, in which members receive timely and insightful industrially focused information, analyses and commentary. The program can be installed corporate wide/globally in order to benefit resourcing and internal/external collaboration. This all results in a value-added relationship with TCG/TCGR.



# Value Added



# Consortium Members

## Energy transition growth segments

CCUS, biofuels, hydrogen economy, power to x, circular economy

## Time and cost savings

We aggregate news and technological progress into weekly updates and annual technical reports

## Access to top talent and information

Techno-economic reports written by the world's leading scientists and consultants

## Grow your network

Connect with like minded industrial peers that share pain points and can expand your business development opportunities



# IETD Consortium Scope

- ✓ Industrial decarbonization via process improvements and energy saving initiatives which mitigate CO<sub>2</sub> generation
- ✓ Green/blue hydrogen and green/blue ammonia developments
- ✓ CO<sub>2</sub> capture and/or separation
- ✓ Biofuels and bioenergy (biomass conversion to RD/SAF, biogas/biomethane)
- ✓ Energy storage (batteries, CAES, hydropower, etc.) and fuel cells
- ✓ Energy requirements and/or penalties (plus other costs), including energy efficiency
- ✓ Power-to-X (PtX)
- ✓ Low carbon feedstocks, carbon displacement, and novel pathways to more sustainable molecules

- ✓ Life-cycle assessments (LCAs) and sustainability of CO<sub>2</sub> applications
- ✓ Government-sponsored demonstration and scale-up activities
- ✓ CO<sub>2</sub> utilization/conversion (e.g., CO<sub>2</sub> as a feedstock) for use as a fuel or intermediate, including enhanced oil recovery (EOR) applications
- ✓ CO<sub>2</sub> concentration, purification and/or other post-treatment
- ✓ CO<sub>2</sub> transport and establishment of “hubs”
- Bottom-line financial (income) impacts resulting from decarbonization and energy transition programs



# Consortium Deliverables

Benefits from the four-tiered deliverable approach



## Weekly Communications

Stay up to date and save time with weekly *Decarbonization Dispatch* and *Energy Transition Tribune* newsletters, which aggregate and highlight technology and commercial developments from over 30+ sources



## Market & Technology Research Reports

Topics and report scope are determined by the members and are authored by leveraging our network of 165+ commercial and technical leaders



## Member Initiated Projects

Confidentially pose challenges to meet net-zero targets and locate collaborative partners, encouraging future JV opportunities



## Network Events and Contact Information

Join peers at annually scheduled meetings held concurrently with industry events, bringing hot topics to the forefront and establishing networking channels for collaboration

# Representative Techno-economic Study Topics

Selected by members, for members from 2010 - present

- [Analysis of CO<sub>2</sub> Sources and Demand for CO<sub>2</sub>-Derived Products](#)
- [State of the Art and Future Prospects for Catalytic and Electrochemical Routes to CO<sub>2</sub> Conversion](#)
- [Advanced Materials for CO<sub>2</sub> Capture and Separation](#)
- [Catalogue of Most Important Scientific Advances in CCUS Over the Past 3 Years](#)
- [Permanent Sequestration of CO<sub>2</sub> in Industrial Wastes/Byproducts](#)
- [Life Cycle Assessment \(LCA\) for Sustainable Chemical and Polymer Production](#)
- [Technical and Commercial Progress Towards Viable CO<sub>2</sub> Storage](#)
- [Compact Light-Weight CO<sub>2</sub> Capture Technologies for Small- to Medium-scale CO<sub>2</sub> Emitters](#)
- [Advances in Direct Air Capture of CO<sub>2</sub>](#)
- [Advances in Mineral Carbonation of CO<sub>2</sub>](#)
- [State of the Art and Future Prospects for Electrochemical CO<sub>2</sub> Conversion Routes](#)
- [CO<sub>2</sub> Conversion Startups for Venture Capital](#)
- [Progress Towards Cost-Effective and Sustainable H<sub>2</sub> Production](#)
- [Integrated CO<sub>2</sub> Capture and Conversion from Flue Gases](#)
- [Progress Towards Technologically and Commercially Viable CO<sub>2</sub> Conversion to Olefins, Acids and Esters](#)



## Market & Technology Research Reports

See the full library of 40+ reports

[HERE](#)



# New Start-Up Level Membership Option



## Quarterly Meetings

Virtual and in-person events with established industrial membership, providing exposure to their needs and an opportunity to indicate how your start-up should be evaluated.



## TCGR Advisory Services

Leverage access to TCG consultants, of up to 4 hours of service per a quarter related to technology scale-up, funding and resources, market developments in the energy transition.



## Member Initiated Projects

Confidentially propose questions, through TCGR, to Patron and Sponsor members, leaders in the industrial energy transition, to inquire about partnerships of the consortium.



## Weekly Communication

Stay up to date on new funding sources, technological and commercial developments and insights into competition with TCGR's *Start-Up Edition Newsletter*, delivered only to members at the Start-Up level.



## Current Investment Range

USD \$20-\$200 Million



## 3<sup>rd</sup> Party Base Screen

Completed mass balance, energy balance, etc.

## Start-Up Membership Criteria



## DOE TRL

4-8 (must be scientifically proven)



## Operating

<5 years



# Consortium Options and Fees

**NEW! Start-Up Membership at \$12,500 per year**

The *Industrial Energy Transition and Decarbonization Consortium* is an annual consortium with three levels of participation in 2023:

- **Patron Membership** at \$41,500 per year;
- **Sponsor Membership** at \$32,500 per year;
- **Start-Up Membership** at \$12,500 per year.

Each member company signs a Corporate Membership Agreement, which fully documents the program content and the way that the program works.

The **Patron** membership entitles the subscriber to all three (3) techno-economic reports produced each year. At the **Sponsor** level, the company selects two (2) of the three (3) techno-economic reports produced each year. Interested **Start-Up** Members should contact TCGR for more information on those separate deliverables.

Once a company has committed to joining the program for two consecutive years (e.g., 2023-24), they may elect to exchange report selections in a given year for previously completed reports.

**The Catalyst Group Resources (TCGR) is known for its visionary stance in the identification of new technologies that lead to the development of new markets and industries. The clients who join our programs/studies benefit by being leaders in these new opportunities to their competitive advantage.**

# Do you have any questions?

**Feel free to reach out!**

Global Headquarters  
The Catalyst Group  
750 N. Bethlehem Pike  
Spring House, Pa 19477-0637 USA  
Phone: +1-215-628-4447

Follow us on LinkedIn!

<https://www.linkedin.com/company/the-catalyst-group-inc./>



## Contacts:

**Chris Dziedziak**

Senior Sales & Project  
Manager

[cdziedziak@catalystgrp.com](mailto:cdziedziak@catalystgrp.com)

**Hunter Puza**

Senior Project  
Associate

[hpuza@catalystgrp.com](mailto:hpuza@catalystgrp.com)

**The Industrial Energy Transition and Decarbonization (IETD)  
Consortium is available on a membership  
basis from The Catalyst Group Resources (TCGR)**

Further details can be obtained at:

<https://www.catalystgrp.com/IETD>