CO_2llaborate 2 Decarbonize

Decarbonization for a **net zero future**

B&W BABCOCK & WILCOX

A better way

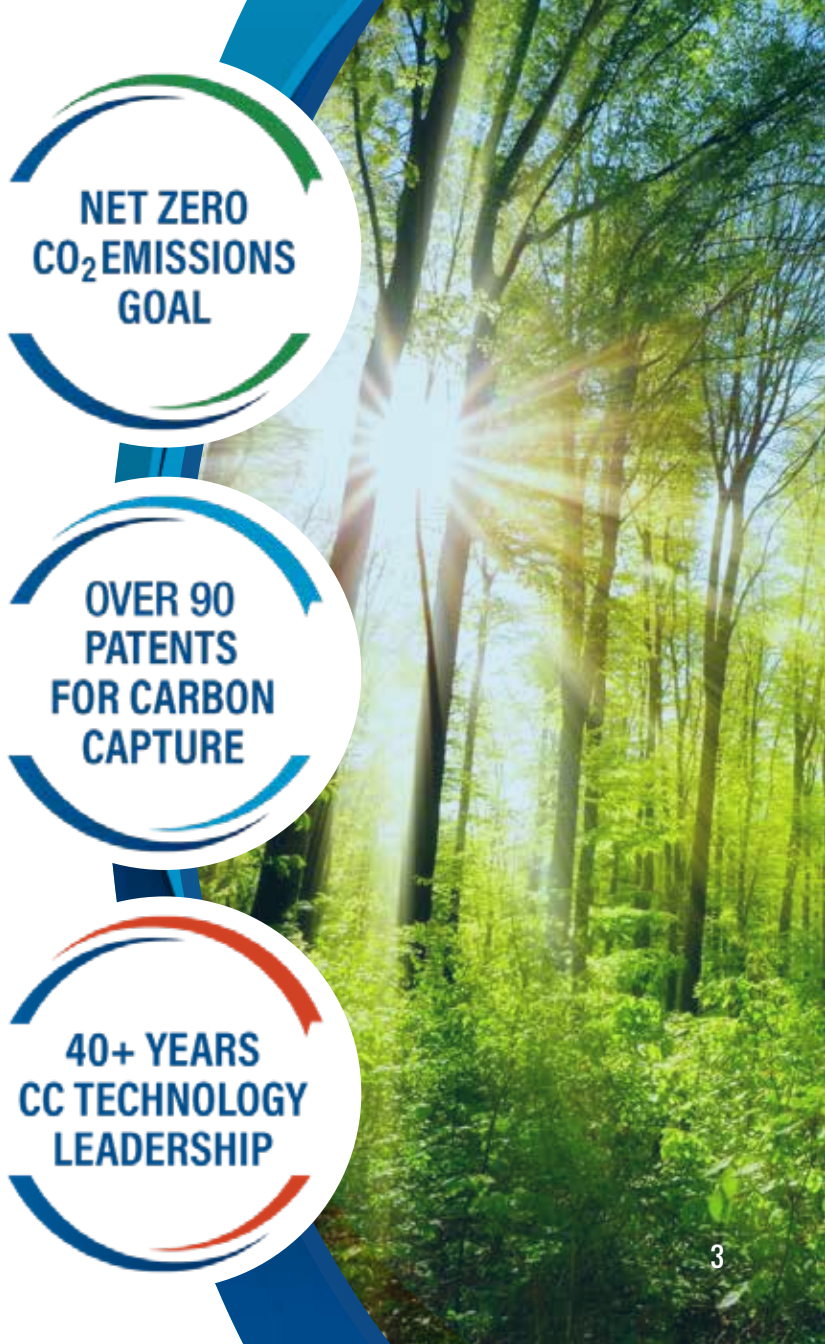
We didn't just jump on the clean energy train; **we're the engine driving it forward.**

The world wants action. More than 100 countries have committed to a carbon net-zero goal by the middle of this century.

As one of our founders put it, "there must be a better way" to safely and efficiently generate power. With over 90 active patents for carbon capture, Babcock & Wilcox (B&W) has been a leader in the research and development of decarbonization technologies — most notably B&W Climate Bright™ — with a focus on environmental stewardship for more than four decades.

Capturing the science behind carbon capture.

Every day, our goal is clear: reduce carbon, then reduce more carbon. And it all happens through B&W Research innovation.



Proven decarbonization – **today**

Babcock & Wilcox technologies can capture carbon pre-combustion, post-combustion — and even in-situ — from conceptual research to commercial installation globally.

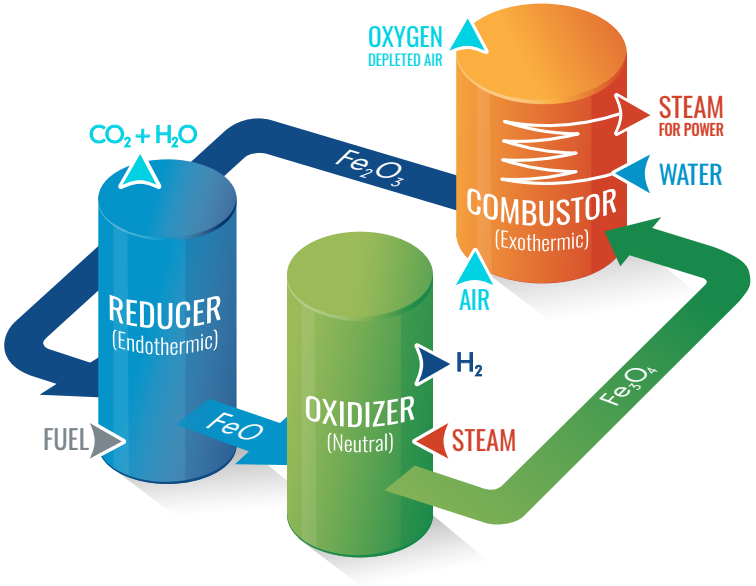
Our Climate Bright™ technologies work with a vast array of feedstock such as natural gas, biomass, petroleum coke, coal, municipal solid waste and syngas for both new and retrofit applications.

The next generation of Chemical Looping

Chemical Looping has always been a good idea — but we've advanced the technology for decarbonization applications.

Babcock & Wilcox has partnered with some of the brightest minds in academia to demonstrate that Chemical Looping is ready for commercial scale-up. Our collaboration has shown that Chemical Looping can effectively separate CO_2 while producing hydrogen, steam and/or syngas. Our Chemical Looping system is a game-changing evolution capable of ushering in a new era of decarbonization.

- In-situ carbon capture system
- Breakthrough technology under research with our university partner for 20 years
- Economically scalable to large and small installations
- Flexibility for feedstock (natural gas, biomass, petroleum coke, coal, municipal solid waste for waste-to-energy [WTE], and syngas)
- Suitable to support a broad range of applications
- An exceptionally versatile oxide in terms of application, cost and abundance
- Successfully demonstrated production of hydrogen from syngas at the National Carbon Capture Center Gasifier in the U.S.



A particle breakthrough made it happen.

The unique particle used in our design was developed by our university partner and is an extremely versatile oxide in terms of application, cost and abundance. This disrupter, breakthrough technology allowed B&W to make Chemical Looping possible for practical implementation.

Developed by B&W with our university partner.

This versatile oxide particle:

- Exhibits sustainability by allowing reprocessing or reuse of any fine particles lost from the system
- Reacts to a variety of feedstocks
- Readily regenerates itself for extended “shelf life” in operation in a more environmentally friendly and economical way (unlike copper, nickel cobalt or others)
- Applicable to many forms of power generation and industrial processes
- The elements are easy to access and economical

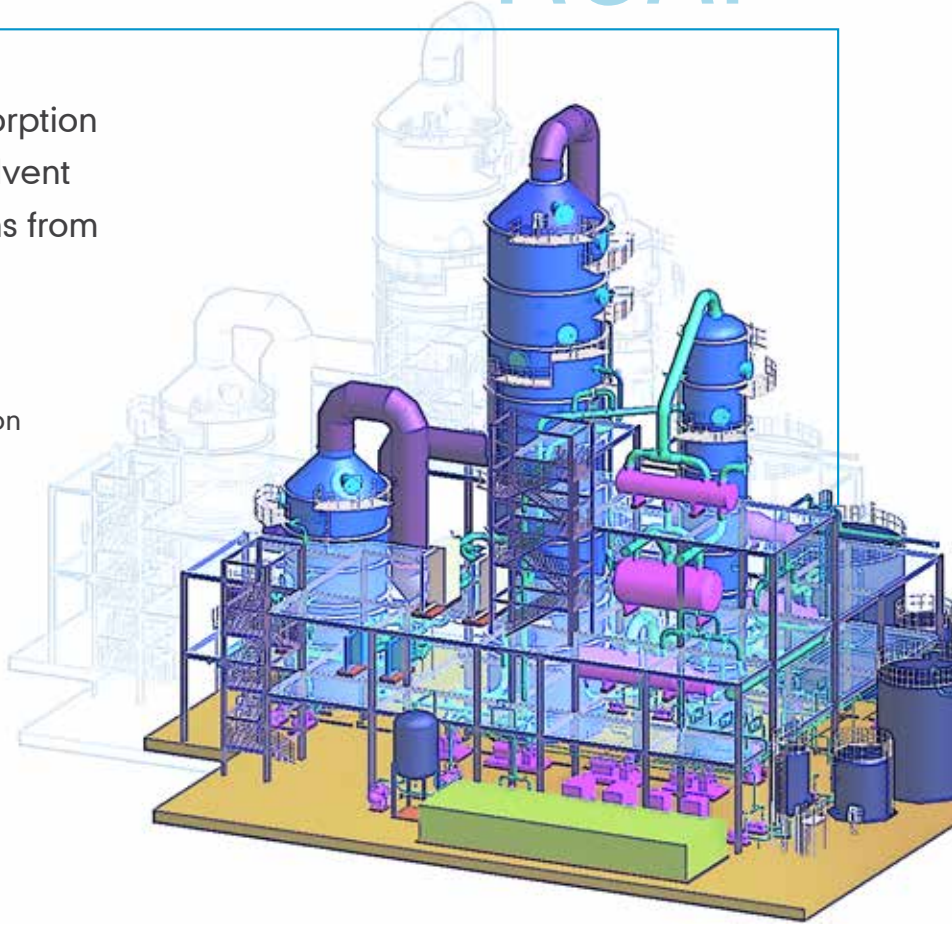
Capturing carbon every day using a range of leading technologies

POST-COMBUSTION

RSAT™

RSAT™ (Regenerable Solvent Absorption Technology) uses an advanced solvent to reduce carbon dioxide emissions from power plants.

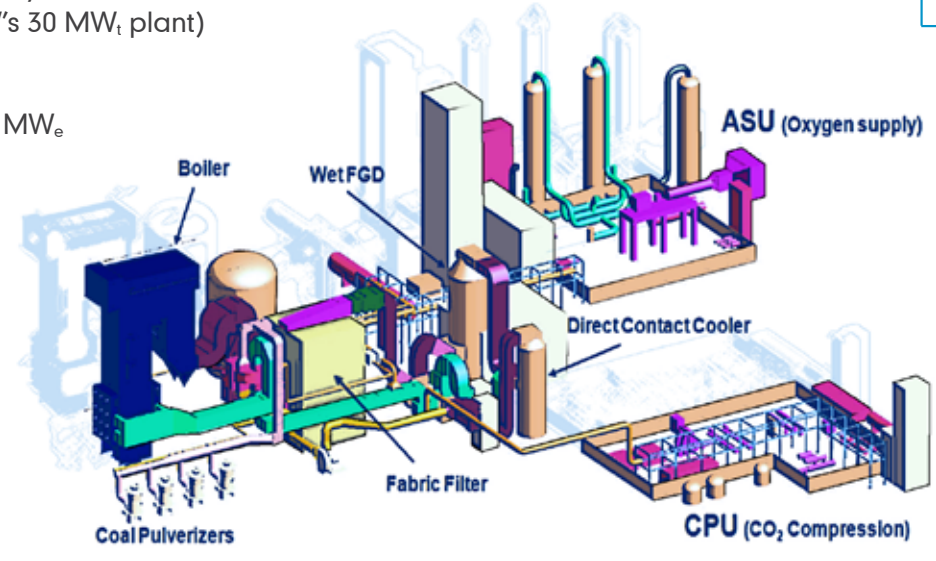
- Post-combustion system to extract CO_2
- Under research for 20 years in conjunction with university researchers
- The solvent was selected by U.S. Department of Energy
- The first solvent used at the National Carbon Capture Center Scrubbing System



OXY-COMBUSTION

Oxy-Combustion has been demonstrated at a large scale and is commercially ready.

- The technology produces a concentrated CO_2 stream suitable for sequestration and other uses, such as enhanced oil recovery
- Set the standard as the largest Oxy-Combustion system ever demonstrated (B&W's 30 MW_t plant)
- Selected as the Oxy-Combustion system for the Future Gen 2.0 167 MW_e commercial demonstration plant



HYDROGEN COMBUSTION

Hydrogen combustion is also both commercially ready and currently in operation.

- A combustion technology that produces no CO_2
- Successfully retrofitted equipment to fire hydrogen safely

H_2

For a **net zero world.**

It's an ambitious crusade, but we want to do our part. B&W is a leader, an innovator and an advocate for decarbonization in taking steps toward achieving the goal of reducing greenhouse gases.

Leader. Proven pre- and post-combustion carbon capture technologies for decades

Innovator. A history of research and innovation, with more than 17,000 technology patents, including the only Chemical Looping decarbonization technology ready for commercial demonstration

Advocate. It's only natural that Babcock & Wilcox commits resources for the pursuit of decarbonization technologies to make cleaner energy production standard. B&W Research can be a resource for knowledge and insight about this subject.

We collaborate with universities
to create **best-in-class solutions.**

We partner with industry leaders
and energy producers to develop programs
that push the limits.

We have technologies that help improve energy
production **in over 90 countries.**

Babcock & Wilcox provides decarbonization technologies for:

- Electric power generation
- District heating and cooling
- Emissions control
- Waste-to-energy
- Hydrogen production

For industries ranging from:

- Steel
- Power
- Cement
- Oil and gas
- Carbon black
- Food manufacturing
- Pulp and paper

We are ready for a clear path **to a cleaner future.**

We're here to CO_2llaborate, CO_2operate, CO_2mmunicate and CO_2nserve.

Let's CO_2llaborate

babcock.com/decarbonization

BABCOCK & WILCOX

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