BRIGHTLOOP™

MARCH 2024

SAFE HARBOR STATEMENT

B&W Enterprises cautions that this presentation contains forward-looking statements within the meaning of federal securities laws. All statements other than statements of historical or current fact included in this presentation are forward-looking statements, including, without limitation, statements relating to the company's business outlook and expected financial performance, including adjusted EBITDA and sales targets, expectations regarding future growth, expansion and profitability, outlook and expectations regarding B&W's BrightLoop™ technologies, as well as statements about B&W's future pipeline of new projects and business within its Renewable, Environmental and Thermal operating segments and their impact on future shareholder value. These forward-looking statements are based on management's current expectations and involve a number of risks and uncertainties, including, among other things, our ability to continue as a going concern, our ability to maintain effective internal control over financial reporting; the impact of global macroeconomic conditions, including inflation and volatility in the capital markets; the impact of our divestiture of Babcock & Wilcox Solar Energy, Inc. ("Babcock & Wilcox Solar" or "B&W Solar"); the refinancing of our senior debt; our ability to integrate acquired businesses and the impact of those acquired businesses on our cash flows, results of operations and financial condition, including our acquisitions of Babcock & Wilcox Renewable Service A/S, formerly known as VODA A/S ("VODA"), Fossil Power Systems, Inc. ("FPS"), Babcock & Wilcox Chanute, LLC, formerly known as Optimus Industries, LLC. and certain assets of Hamon Holdings Corporation ("Hamon"); our recognition of any asset impairments as a result of any decline in the value of our assets or our efforts to dispose of any assets in the future; our ability to obtain and maintain sufficient financing to provide liquidity to meet our business objectives, surety bonds, letters of credit and similar financing; our ability to comply with the requirements of, and to service the indebtedness under, our debt facility agreements; our ability to pay dividends on our 7.75% Series A Cumulative Perpetual Preferred Stock; our ability to make interest payments on our 8.125% senior notes due 2026 and our 6.50% notes due 2026; the highly competitive nature of our businesses and our ability to win work, including identified project opportunities in our pipeline; general economic and business conditions, including changes in interest rates and currency exchange rates; cancellations of and adjustments to backlog and the resulting impact from using backlog as an indicator of future earnings; our ability to perform contracts on time and on budget, in accordance with the schedules and terms established by the applicable contracts with customers; failure by third-party subcontractors, partners or suppliers to perform their obligations on time and as specified; delays initiated by our customers; our ability to successfully resolve claims by vendors for goods and services provided and claims by customers for items under warranty; our ability to realize anticipated savings and operational benefits from our restructuring plans, and other cost-savings initiatives; our ability to successfully address productivity and schedule issues in our B&W Renewable, B&W Environmental and B&W Thermal segments; our ability to successfully partner with third parties to win and execute contracts within our B&W Environmental, B&W Renewable and B&W Thermal segments; changes in our effective tax rate and tax positions, including any limitation on our ability to use our net operating loss carryforwards and other tax assets; our ability to successfully manage research and development projects and costs, including our efforts to successfully develop and commercialize new technologies and products; the operating risks normally incident to our lines of business, including professional liability, product liability, warranty and other claims against us; difficulties we may encounter in obtaining regulatory or other necessary permits or approvals; changes in actuarial assumptions and market fluctuations that affect our net pension liabilities and income; our ability to successfully compete with current and future competitors; our ability to negotiate and maintain good relationships with labor unions; changes in pension and medical expenses associated with our retirement benefit programs; social, political, competitive and economic situations in foreign countries where we do business or seek new business; the impact of the ongoing conflicts in Ukraine and the Middle East, the impact of pandemics or other global health crises, and the other factors specified and set forth under "Risk Factors" in our periodic reports filed with the Securities and Exchange Commission, including, without limitation, the risks described in the Company's Annual Report on Form 10-K for the year ended December 31, 2022 under the caption "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" (as applicable). These factors should be considered carefully, and B&W Enterprises cautions you not to place undue reliance on these forward-looking statements, which speak only as of the date of this presentation, and undertakes no obligation to update or revise any forward-looking statement, except to the extent required by applicable law.

BRIGHTLOOP™ - B&W'S INNOVATIVE HYDROGEN GENERATION TECHNOLOGY SUPPORTS GLOBAL 2050 CLIMATE GOALS

PRIMARY HYDROGEN (H_2) PRODUCTION METHODS TODAY:

- **Steam Methane Reforming:** natural gas converted to hydrogen and carbon dioxide using a catalyst with additional processes needed for carbon capture
- **Autothermal Reforming:** syngas produced from natural gas, along with further processes creates hydrogen and carbon dioxide
- **Gasification:** carbonaceous fuels converted at high temperature into carbon monoxide, hydrogen and carbon dioxide which must all be separated with further processing
- **Electrolysis:** electricity used to convert water into hydrogen and oxygen

2030 H_2 GLOBAL MARKET

- 165 million Tonnes/Year (500,000 tonnes/day) from electrolysis, steam methane reforming, auto-thermal reforming, gasification, chemical-looping and other novel technologies
- US Department of Energy projects that the US will be producing 10 million Tonnes/year
- **Current State:** 70 million Tonnes/Year of high cost, high carbon intensity hydrogen from steam reforming of natural gas, gasification and electrolysis

*Data from IEA Net Zero by 2050 A Roadmap for the Global Energy Sector & US Department of Energy US National Clean Hydrogen Strategy and Roadmap

INCENTIVES DRIVING HYDROGEN MARKET

United States Incentives – Inflation Reduction Act	
Clean Hydrogen Production Tax Credit (PTC) 45V	New 10-year incentive for clean hydrogen production with four tiers and a maximum of 4 kilograms of CO_2 equivalent per kilogram of hydrogen
Carbon Capture & Sequestration Tax Credit 45Q	Increases the tax credits, lowers the threshold to be applicable, and adds direct air capture making carbon capture affordable
Advanced Energy Project Credit (ITC) 48C	New, tech-neutral ITC replaces Energy ITC after 2024, emissions-based and flexible between clean technologies
Hydrogen Hubs	
European Union Incentives – European Green Deal, EU Hydrogen Strategy and REPowerEU	
European Hydrogen Bank	Auction structure to support clean hydrogen production. Each project bids into the auction to determine whether they will receive the subsidy.
Important Projects of Common European Interest	Public funding supporting private financing which is available for projects which are strategic needed to implement the EU Strategy

BRIGHTLOOP™ HYDROGEN PRODUCTION

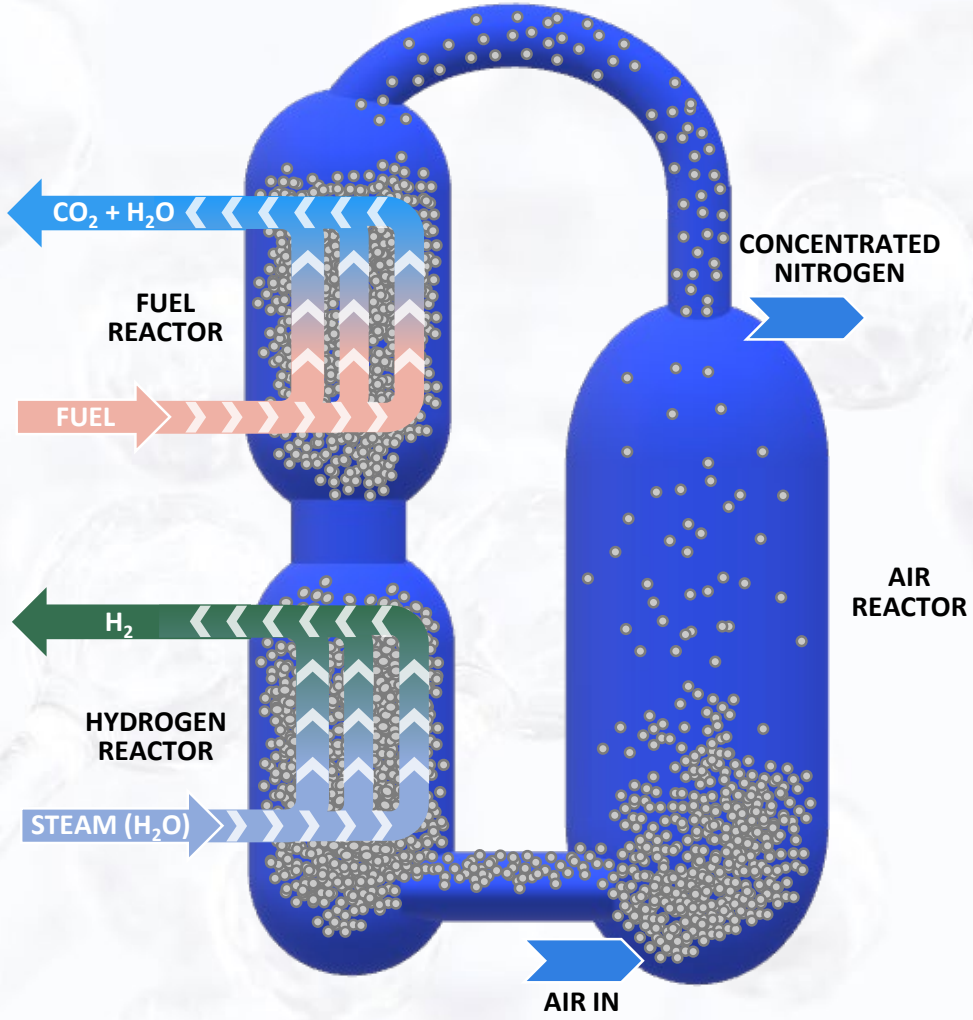
SIGNIFICANT ADVANTAGES:

- Hydrogen from solid fuels – can utilize a variety of solid or gaseous fuels as feedstock
- High rate of carbon captured – inherent CO_2 isolation supports sequestration or utilization without the expensive post combustion capture equipment and operation
- Competitive hydrogen cost – lower levelized cost of hydrogen when compared to other hydrogen production methods
- High quality hydrogen – production from steam produces higher quality as compared to separating hydrogen from fuel
- Scalable for a range of applications – accommodates both large and small applications

BRIGHTLOOP™ CHEMICAL LOOPING OVERVIEW

Fuel reactor – moving bed design that allows full reaction of particle to achieve FeO state of the particle

Hydrogen reactor – hydrogen is created from the steam reacting with the hot particle



Patented iron oxide particle – oxidation state of particle is controlled through chemical reactions as it moves around the system

Depleted Air and CO_2 streams – heat exchangers to create steam for use in the hydrogen reactor and concentrated streams allow for small footprint equipment to clean up any pollutants in the streams

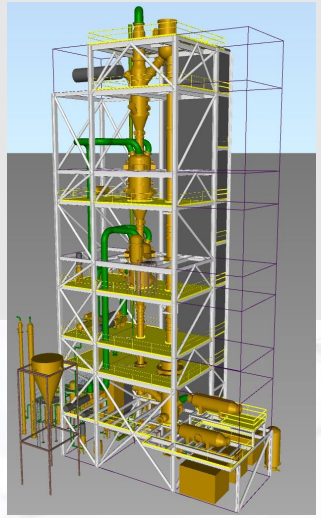
BRIGHTLOOP IDEAL FOR WIDE RANGE OF APPLICATIONS

CREATES HYDROGEN WITHOUT INCINERATION OR GASIFICATION

SMALL SCALE

1-3 tonnes per day of H_2 for industry, industrial equipment or transportation.

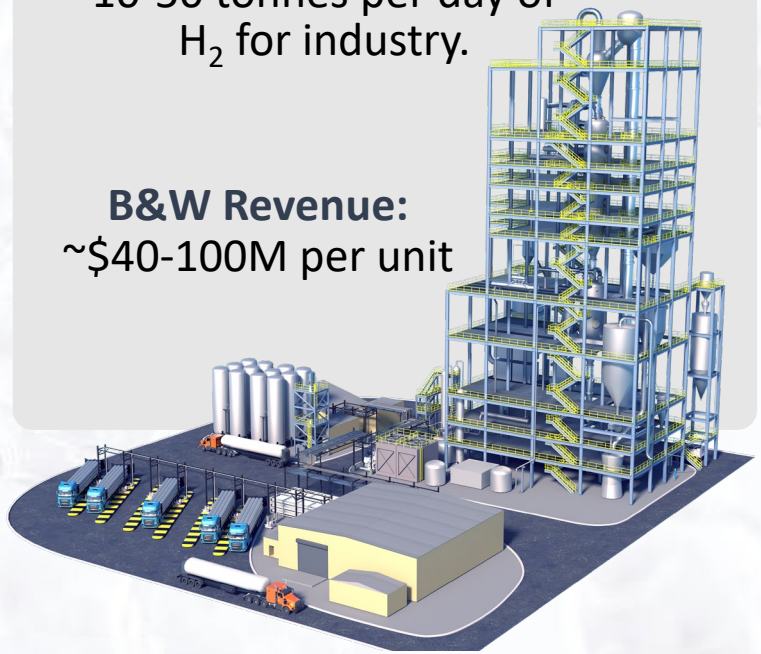
B&W Revenue:
~$5-30M per unit



MEDIUM SCALE

10-50 tonnes per day of H_2 for industry.

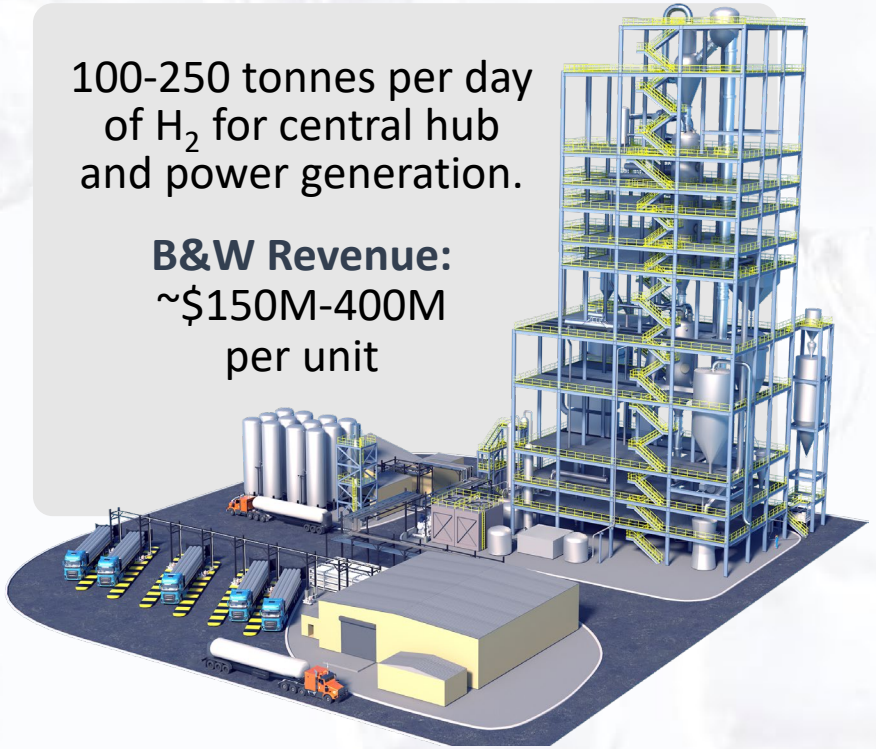
B&W Revenue:
~$40-100M per unit



LARGE SCALE

100-250 tonnes per day of H_2 for central hub and power generation.

B&W Revenue:
~$150M-400M per unit



Hydrogen available for: Industrial processes, transportation fuels, ammonia and methanol production, and power generation.

LEVERAGING DECADES OF FUNDING AWARDS AND INVESTMENTS

CONTINUE TO SCALE THIS INDUSTRY – CHANGING TECHNOLOGY

COAL DIRECT CHEMICAL LOOPING (CDCL)

2,000 OPERATING HOURS

50 STARTUP / SHUTDOWNS

NATIONAL CARBON CAPTURE CENTER (NCCC)

1,000 OPERATING HOURS

20 STARTUP / SHUTDOWNS

2009 CL with OSU → 2010 NCCC Design & Construction → 2010 NCCC Testing → 2012 – 2014 CDCL DOE Techno-Economic Analysis → 2016 – 2018 DOE Pre-FEED CDCL → 2022 - Present Commercialization

THE OHIO STATE UNIVERSITY

TGA TESTING

500 TEST RUNS

10,000 HOURS OF TESTING

3 Reactor SUB-PILOT

50 TEST RUNS

1,000 HOURS OF TESTING

BENCH SCALE

200 TEST RUNS

5000+ HOURS OF TESTING

SUB-PILOT

50+ TEST RUNS

2,000+ HOURS OF TESTING

75 STARTUP / SHUTDOWNS

PATENTED IRON OXIDE PARTICLE

10,000+ CYCLE TIMES

3,000+ HOURS OF TESTING

10,000+ TOTAL TESTING HOURS

Experts Trained

70 OSU CL RESULTED PHDs

100 GRAD STUDENTS

250 OTHER STUDENTS AND STAFF

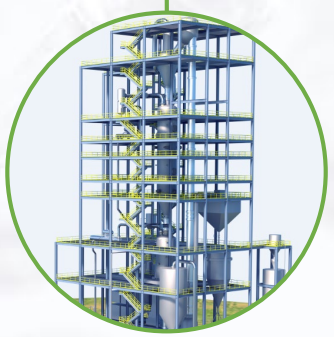
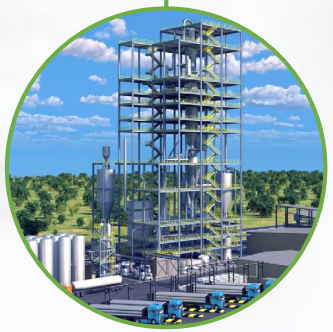
TOTAL R&D INVESTMENT

$275M+

DOE GRANTS – STATE GRANTS – OSU – B&W
to study impact of various feedstocks on hydrogen production and advance the technology

BRIGHTLOOP™ HYDROGEN PRODUCTION PROGRESS

BRIGHTLOOP™ EVOLUTION

1994-2004	2008	2014	2017	2025	2026	2029
						
Laboratory Scale	Sub-Pilot with The Ohio State University and B&W	Steam & Hydrogen National Carbon Capture Center in Alabama	Coal Direct Chemical Looping Barberton, Ohio	SMALL SCALE 1-3 Tonnes Per Day Hydrogen Output	MEDIUM SCALE 10-50 Tonnes Per Day Hydrogen Output	LARGE SCALE 100-250 Tonnes Per Day Hydrogen Output
RESEARCH STAGE (Complete)	SUB-PILOT SCALE (Complete)	PILOT SCALE (Complete)	PILOT SCALE (Complete)	IN PROGRESS	IN PROGRESS	

PROJECT – MASSILLON, OH

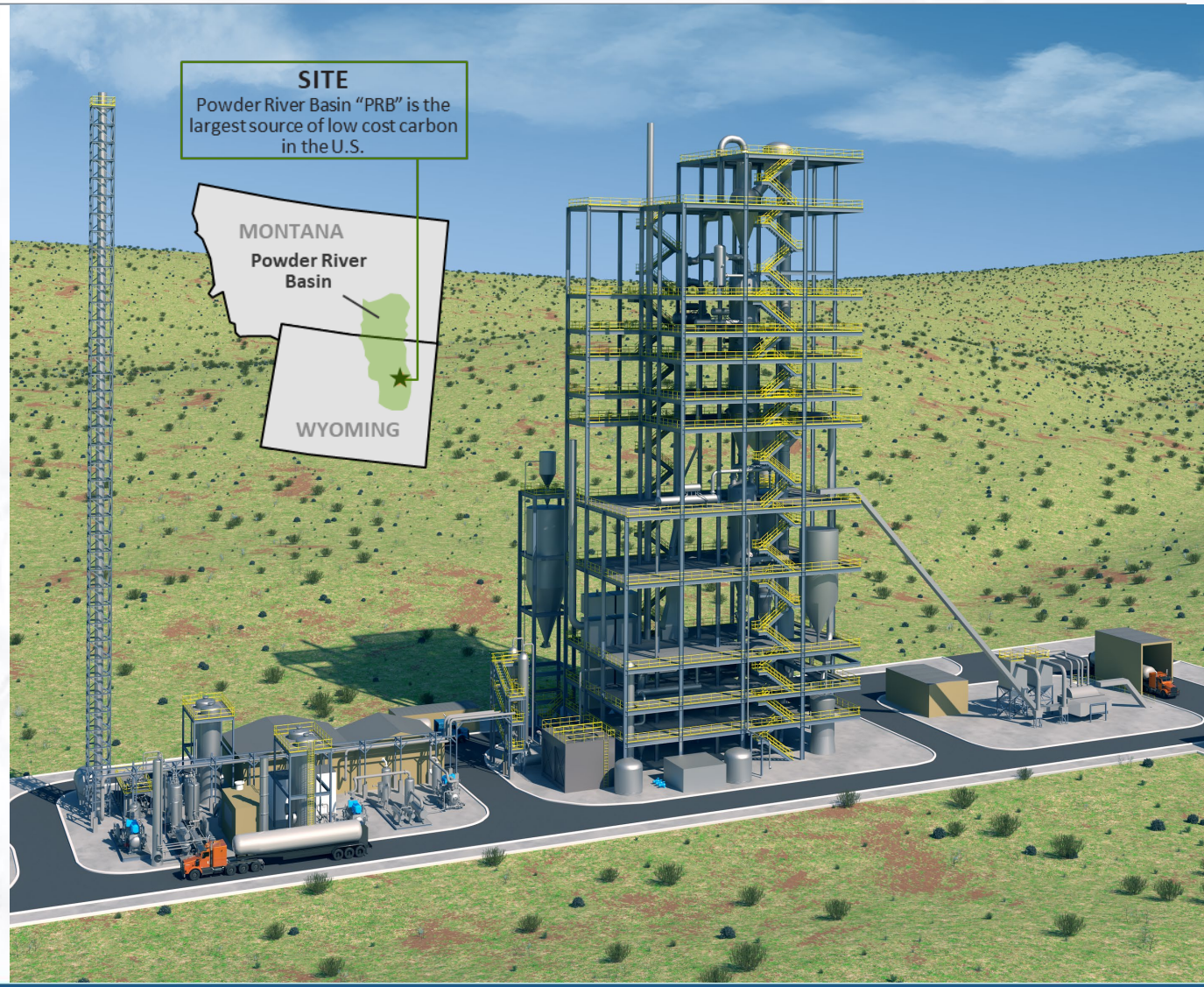
REVENUE OUTPUTS	
H_2 from Natural Gas	**~1-3 tonnes/day**
H_2 production use	**Industrial and/or transportation**
PROJECT DEVELOPMENT PLAN – APPROXIMATE TIMELINE	
Off-take agreement finalized	**2Q 2024**
Funding Commitment	**2Q 2024**
Permits issued	**3Q 2024**
Target first H_2 production	**3Q/4Q 2025**

PROJECT – GILLETTE, WY

Received $16M grant from Wyoming Energy Authority to support the project through mid-2025

REVENUE OUTPUTS	
H_2 from Powder River Basin Coal	**~10-15 tonnes/day**
H_2 production use	**Power generation and/or transportation**

PROJECT DEVELOPMENT PLAN – APPROXIMATE TIMELINE	
Permits issued	**1Q 2025**
Target first H_2 production	**4Q 2027/ 1Q 2028**
Follow-on >100 tonnes/day large unit project commences	**2Q/3Q 2028**
Large unit H_2 production	**4Q 2030/ 1Q2031**



PROJECT – BATON ROUGE, LA

REVENUE OUTPUTS	
H_2 from biomass to produce carbon negative H_2	**~10-15 tonnes/day**
H_2 production use	**Industrial**
PROJECT DEVELOPMENT PLAN TARGET DATES	
Land lease, feedstock and off-take agreements in progress with completion	**2Q 2024**
Permits issued	**Summer 2025**
Target first H_2 production	**3Q/4Q 2026**
Follow-on >100 tonnes/day large unit project commences	**2Q/3Q 2027**
Large unit H_2 production	**3Q/4Q 2029**

AFTERMARKET POTENTIAL FOR B&W

ANNUAL REVENUE ~ $200-250K PER TONNE OF H_2 PER DAY PRODUCTION

- Standard designs support strong aftermarket potential of all plant equipment
- Patented iron oxide particle addition required each year to maintain performance
- Ongoing support by continuous monitoring of operation utilizing subject-matter experts and artificial intelligence for groundbreaking analysis and ongoing performance improvement

UNLOCKING FUTURE REVENUE POTENTIAL OF BRIGHTLOOP AND POSITION BASED ON MARKET

WITH SIGNIFICANT GROWTH OF HYDROGEN PROJECTED

Target Market Share	Assumed Mix of Projects	2030 Approximate Revenue
Achieving only **1%** market share of a **$140B** US market	3-5 Large Unit Projects 2-4 Medium Unit Projects 3-8 Small Unit Projects	**~$1 Billion** annual revenues at **25%+** Gross Margin

B&W currently has 8 projects in pipeline which alone total over $1Billion

B&W Project Timeline:

- 2025 – Producing hydrogen from the first small unit
- 2026 – Producing hydrogen from the first medium unit
- 2030 – Booking multiple units of each size per year

*Market Data from US Department of Energy Hydrogen Shot


B&W
BABCOCK
& WILCOX