

Important Notice

Cautionary Note Regarding Forward-Looking Statements and Projections. Certain statements in this presentation may constitute "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, Section 21E of the Securities Exchange Act of 1934 and the Private Securities Litigation Reform Act of 1995, each as amended. Forward-looking statements provide current expectations of future events and include any statement that does not directly relate to any historical or current fact. Words such as "anticipates," "believes," "expects," "intends," "plans," "projects," or other similar expressions may identify such forward-looking statements. Forward-looking statements may relate to the development of NET Power's technology, the anticipated demand for NET Power's technology and the markets in which NET Power operates, the timing of the deployment of plant deliveries, and NET Power's business strategies, capital requirements, potential growth opportunities and expectations for future performance (financial or otherwise). Forward-looking statements are based on current expectations, estimates, projections, targets, opinions and/or beliefs of the Company, and such statements involve known and unknown risks, uncertainties and other factors. Actual results may differ materially from those discussed in forward-looking statements as a result of factors, risks and uncertainties over which NET Power has no control. These factors, risks and uncertainties include, but are not limited to, the following: (i) NET Power's history of significant losses; (ii) NET Power's ability to manage future growth effectively; (iii) NET Power's ability to utilize its net operating loss and tax credit carryforwards effectively; (iv) the capital-intensive nature of NET Power's business model, which will require NET Power and/or its subsidiaries to raise additional capital in the future; (v) barriers NET Power may face in its attempts to deploy and commercialize its technology; (vi) the complexity of the machinery NET Power relies on for its operations and development; (vii) potential changes and/or delays in site selection and construction that result from regulatory, logistical, and financing challenges; (viii) NET Power's ability to establish and maintain supply relationships; (ix) risks related to NET Power's joint development arrangements with Baker Hughes and reliance on Baker Hughes to commercialize and deploy its technology; (x) risks related to NET Power's other strategic investors and partners; (xi) NET Power's ability to successfully commercialize its operations; (xii) the availability and cost of raw materials; (xiii) the ability of NET Power's supply base to scale to meet NET Power's anticipated growth; (xiv) risks related to NET Power's ability to meet its projections; (xv) NET Power's ability to expand internationally; (xvi) NET Power's ability to update the design, construction and operations of its NET Power process; (xvii) the impact of potential delays in discovering manufacturing and construction issues; (xviii) the possibility of damage to NET Power's Texas facilities as a result of natural disasters; (xix) the ability of commercial plants using the NET Power process to efficiently provide net power output; (xx) NET Power's ability to obtain and retain licenses; (xxi) NET Power's ability to establish an initial commercial scale plant; (xxii) NET Power's ability to license to large customers; (xxiii) NET Power's ability to accurately estimate future commercial demand; (xxiv) NET Power's ability to adapt to the rapidly evolving and competitive natural and renewable power industry; (xxv) NET Power's ability to comply with all applicable laws and regulations; (xxvi) the impact of public perception of fossil fuel derived energy on NET Power's business; (xxvii) any political or other disruptions in gas producing nations; (xxviii) NET Power's ability to protect its intellectual property and the intellectual property it licenses; (xxix) risks relating to data privacy and cybersecurity, including the potential for cyberattacks or security incidents that could disrupt our or our service providers' operations; (xxx) the Company's ability to meet stock exchange listing standards following the Business Combination; (xxxi) potential litigation that may be instituted against the Company; and (xxxii) other risks and uncertainties indicated in NET Power's Annual Report on Form 10-K for the year ended December 31, 2023, including those under "Risk Factors" therein, its subsequent annual reports on Form 10-K and quarterly reports on Form 10-Q, and in its other filings made with the SEC from time to time, which are available via the SEC's website at www.sec.gov. Forward-looking statements speak only as of the date they are made. Readers are cautioned not to put undue reliance on forward-looking statements, and NET Power assumes no obligation and does not intend to update or revise these forward-looking statements, whether as a result of new information, future events, or otherwise. NET Power does not give any assurance that it will achieve its expectations.

Overview

Danny Rice, Chief Executive Officer



NET Power delivers the Energy Trifecta



CLEAN



RELIABLE



AFFORDABLE

High carbon capture capacity

97%+ inherent carbon capture generating pipeline-ready CO₂ through patented oxy-combustion process

24 hours/day, 7 days/week

Baseload, dispatchable, and peaking capabilities complement variable renewable generation for a more robust and resilient electric grid

Competitive power production

State-of-the-art modularized standard design reduces costs and maximizes returns; small footprint, high efficiency



Three-Pillar Strategy to Create Shareholder Value

- 1) Develop and Prove the Technology at the Utility Scale
 - Progress equipment development program with Baker Hughes
 - Complete Front-End Engineering and Design (FEED)
 - Secure equipment partnerships, supply and offtake agreements, and necessary capital
 - Construct and operate with focus on clean, reliable, safe operations

2 Build the Customer Backlog

- Drive rapid adoption of NET Power's technology by focusing on economic, financeable, fleet-deployment opportunities
- Leverage business intelligence to identify the "bright spots"
- Employ origination strategy to kick-start development and create shareholder value

(3) Prepare for Manufacturing Mode

- Maximize standardization, modularization and cost competitiveness for major equipment, systems and services
- Develop partnerships for key equipment supply including Air Separation Units and Heat Exchangers
- Pre-qualify Engineering, Procurement and Construction ("EPC") companies and equipment manufacturers to ensure ample production and construction capacity

2024 Milestones



Commence Baker Hughes Equipment Validation at La Porte



Complete Project Permian Front-End Engineering and Design (FEED)



Finalize Long-Term Air Separation Unit Partnership



Advance NPWR Origination Projects

North America Origination – Setting the Stage for Valuable Future Deployments

Alberta, Canada (AESO)

Supportive carbon capture policy incentives and carbon emissions pricing, low-cost gas + proven CO₂ storage

NPWR: Project Feasibility phase

California (CAISO)

State-wide decarbonization commitments, data center demand growth

NPWR: Project Feasibility phase

Wyoming

Supportive carbon management approaches, potential for offtake

NPWR: Site Identification phase

North American TAM (1) = 800-1,000 *NPWR Plants between 2028-2040*



Midcontinent (MISO)

Load growth, carbon storage projects across states, datacenter demand

NPWR (OP1): Site + Permitting phase

- Interconnect submitted
- Class VI permit submitted to EPA via sequestration partner
- · First phase community and stakeholder engagement underway

Mid-Atlantic (PJM)

Load growth, low-cost gas, technical work underway to determine CO₂ storage

NPWR: Prospecting phase

Texas (ERCOT)

Load growth, low-cost gas, existing CO₂ infrastructure

NPWR: Project Permian in Development phase: additional sites in Prospecting phase

Development

Origination

Site Identification

Project Feasibility

Site + Permitting

Construction

Operations

Note: TAM = Total Addressable Market. 1. Source: NPWR internal estimates.

Prospecting

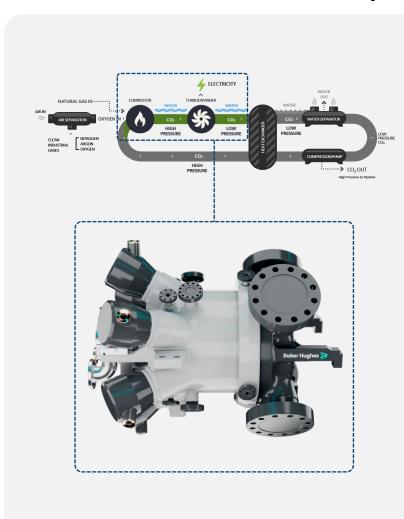
Operational Updates

Brian Allen, President and Chief Operating Officer



On Track for Phase 1 Baker Hughes Testing in Q4 2024

La Porte validation will de-risk and optimize the first utility-scale plant



Validation Phases

Phase 1: Oxy-Fuel Burner Configurations

- Test multiple burners configurations in a dedicated test rig
- **Result:** ignite and detect flame, validate high-pressure combustion models, down select best design

Phase 2: Single Demonstrator Combustor Can

- Test selected burner, transition piece, liner in a single "combustor can"
- **Result:** prove cooling and dilution, validate acoustic and structural dynamic, scaled vs full conditions, optimize burner design at its full pressure, temperature and power

Phase 3: Single Utility-Scale Combustor Can

- Test full utility-scale burner cluster, liner, and transition piece
- **Result:** prove burner cluster operability, cooling and dilution, validate acoustic and structural dynamic, optimize can design at utility scaled pressure, temperature and power

Phase 4: Full Demonstrator Turboexpander & Cycle

• **Result:** validate mechanical architecture and materials at full pressure and temperature; tune performance model to real test outcomes; validate full plant operability and dynamic capabilities (load following)

Expected Phase Timing

Q4 2024 - Q1 2025

2025

2025 - 2026

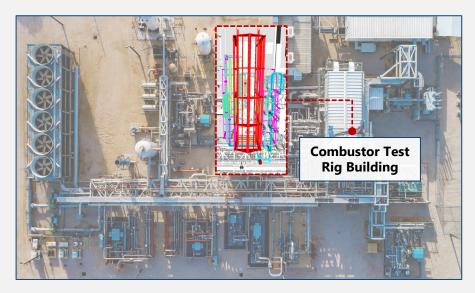
2026 Start



First Phase of Baker Hughes Equipment Validation Expected to Start in Q4 2024

Finalizing La Porte Preparations

- Ongoing activities related to inspections, motor runs and preventative maintenance on all major components
- Installation of piping and instrumentation continues per schedule
- Ongoing work with HSE study and full plant equipment risk review
- Added key staff including NET Power engineering and Constellation operations resources
- Site on track to commence testing in Q4 2024











Baker Hughes Combustor Test Rig (Phase 1 & 2)

- Hardware currently in Baker Hughes facility in Florence, Italy
- Undergoing assembly, instrumentation, calibration, sealing, flow tests
- Expect air-freight shipping to La Porte in Q3 2024
- Test rig supporting Phase 1 burners down-selection and Phase 2 combustor can configuration definition

Progressing Project Permian

Recent Updates

- Signed Limited Notice to Proceed (LNTP) with Baker Hughes to release all long-lead materials required to meet schedule for utility-scale turboexpander
- Commenced ASU FEED for standard 2 x 50% configuration for Permian and other projects
- Commenced full interconnect study with ONCOR
- Optimized plot plan to minimize main process loop piping
- Finalizing purchases for identified long lead items:
 - 345kV Circuit Breakers
 - Generator Step-Up Transformer
 - Unit Auxiliary Transformer
 - Air Separation Unit Transformer

Upcoming: Q3 – Q4 2024

Completion of FEED

- Standard inside battery limits (ISBL) / site-specific outside battery limits (OSBL)
- Integrated Air Separation Unit (ASU) design
- Open-book estimate leading to EPC contract
- Negotiation of key supply and offtake contracts
- Financing strategy with strategic owner group
- Ordering of additional long-lead components including recuperative heat exchanger and electrical equipment

2H 2027 / 1H 2028: Anticipated initial power generation



Financial Updates

Akash Patel, Chief Financial Officer



Q2 2024 Financial Updates

Continued Prudent Deployment of Capital

- Total cash and investments of ~\$609mm as of 6/30/2024 (1)(2)
 - Total quarter-over-quarter change in cash & investments of ~(\$17mm)
 - Restricted cash of ~\$2mm represents amounts posted as collateral for MISO interconnection application
- Cash flow used in operations of ~\$8mm
 - Includes Baker Hughes JDA cash payments of ~\$3mm
 - Interest income continued to offset cash burn from operations in Q2 2024
- Cash flow used in investing of ~\$13mm
 - Capital expenditures of ~\$8mm
 - ~\$5mm of available-for-sale securities purchases net of maturities

Cash and Investments Breakdown

(in \$mm)	Q2 2024	Q1 2024	Change (Q2 vs. Q1)
Cash and cash equivalents	\$405	\$429	
Restricted Cash	2	-	
Short-Term Investments	100	100	
Available-for-Sale Securities (2)	102	97	
Total Cash & Investments (1)(2)	\$609	\$626	(\$17)

Q2 2024 Capex – La Porte & Project Permian (3)

(in \$mm)





Includes restricted cash of \$2mm.

^{2.} Available-for-sale securities balance measured at fair value and includes unrealized gains. A portion of these investments have maturities greater than one year.

Excludes corporate and other capex.