# Q1 2024 Business Update & Results

May 13, 2024

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# Important Notice

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# Overview

**Danny Rice**, Chief Executive Officer

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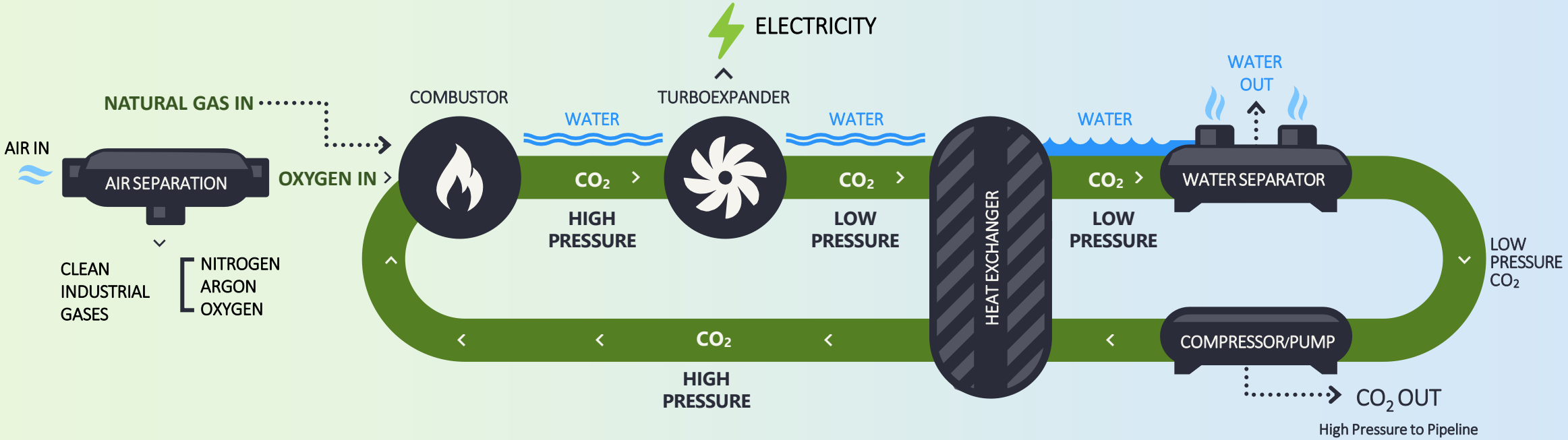
# We Generate Clean Power from Natural Gas

**NET Power's patented oxy-combustion cycle delivers reliable, affordable power with ultra-low emissions**




| 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Original patents filed for NET Power's technology | | NET Power starts basic engineering, conceptual design of test facility to demonstrate cycle | 50 $MW_{th}$ prototype combustor and turbine design and testing | FEED for Test Facility begins | | Construction begins on 50 $MW_{th}$ La Porte, Texas Test Facility | | Test Facility commissioned; combustor first fire complete; core technology of the cycle validated | Utility-scale conceptual design; controls system finalized | La Porte Test Facility achieves synchronization to the ERCOT grid | | Signed strategic partnership with Baker Hughes to develop key turbomachinery technology for NET Power cycle | FEED initiated with Zachry Group for first utility-scale NET Power Plant (Project Permian) | Release of initial long leads and commence validation campaigns at La Porte | | 2H 2027 / 1H 2028: Initial power generation expected for Project Permian | Expect to complete final validation campaigns with Baker Hughes at La Porte |

# Clean Power Generation that Checks all the Boxes

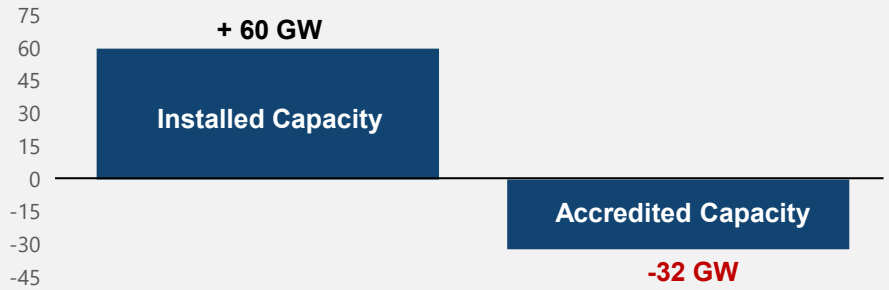
**NET Power is designed to meet the world's growing energy needs without compromising our planet**

| New Generation | Affordable (<$100/MWh) | Reliable (24/7, 365 days) | Flexible (Load-Following) | Scalable (>100 GW) | Low Carbon (<100 g CO2e/kWh) | Low Land Impact (>1 GW / sq mile) |
|---|---|---|---|---|---|---|
| NETPOWER | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Coal | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Natural Gas (CCGT) | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Natural Gas (CCGT + CCUS) | ? | ✓ | ? | ✓ | ✓ | ✓ |
| Nuclear | | ✓ | | ✓ | ✓ | ✓ |
| Solar / Wind + Battery | | | | ✓ | ✓ | |
| Geothermal | | ✓ | ? | | ✓ | ✓ |
| Hydro | | ✓ | ✓ | | ✓ | |

# Reliability and Dispatchability in Focus

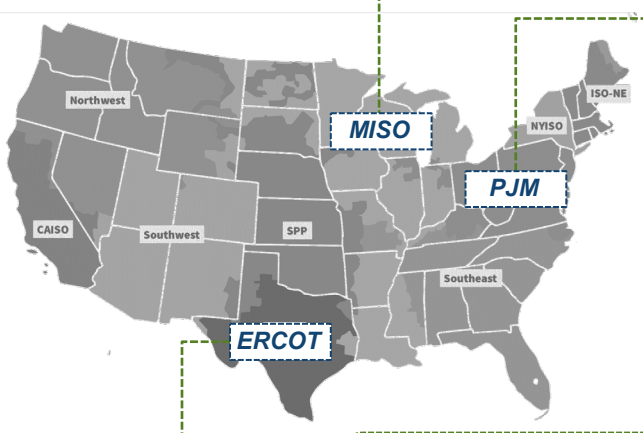
## Regional Transmission Organizations (RTOs) forecast significant shortfalls from baseload retirements and increased renewable penetration

### MISO Capacity Forecast through 2042 (1)




MISO forecasts a ~32 GW reduction in accredited capacity through 2042

*"…a reduction of that magnitude could result in load interruptions of 3-4 hours in length for 13-26 days per year when energy output from wind and solar resources is reduced or unavailable"*



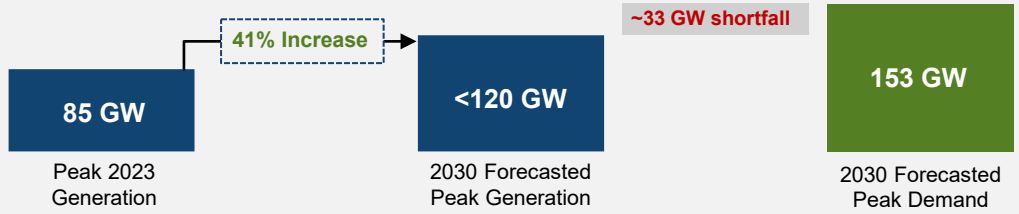

**24 – 58 GW**

*Forecasted thermal retirements in PJM over next 6 years, compared to ~15GW of new capacity resources in interconnect queue (3)*

*"…the increased penetration of variable energy resources is changing the net load profile in RTOs/ISOs and increasing the need for ramp-capable resources to manage net load variability and uncertainty"*

***– Federal Energy Regulatory Commission, State of the Market Report 2023 (2)***

### ERCOT 2030 Peak Summer Forecast (4)




*ERCOT forecasted 2030 peak summer load demand exceeds forecasted generation capacity by ~33 GW, despite generation capacity growth*

1. *MISO's Response to the Reliability Imperative, February 2024*
2. *FERC State of the Market Report, 2023*
3. *PJM Independent Market Monitor State of the Market Report*
4. *ERCOT 2024 Regional Transmission Planning – Generation Assumptions Update; ERCOT Peak Demand Records*



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# U.S. EPA Regulations on Power Sector Greenhouse Gas Emissions

**Finalized EPA standards under 111(b) of the Clean Air Act will set 90% $CO_2$ emission reduction requirement on new natural gas-fired plants**

## Implications for NET Power

- EPA's analysis finds carbon capture is an available and cost-effective pollution control approach
- Regulations affirm the role and importance of carbon capture and storage technologies
- **NET Power expects to be above-and-beyond compliance with the 111(b) new power plant standards**
  - NPWR >97% carbon capture vs. EPA standard of 90%
  - NPWR <30 lbs $CO_2$/MWh vs. EPA measure of 100 lbs $CO_2$/MWh

**New Stationary Combustion Turbines**

| Capacity Factor | Upon Startup | Phase 2: 2032 |
|---|---|---|
| Less than 20% | Requires use of lower-emitting fuels | |
| 20% to 40% | Requires highly efficient simple cycle generation | |
| **Greater than 40%** | **Requires highly efficient combined cycle generation** | **90% capture**<br>**Emissions limited to max of 100 lbs $CO_2$/MWh** |

1. *EPA's Presentation re: Final Carbon Pollution Standards to Reduce Greenhouse Gas Emissions from Power Plants (Apr 2024)*



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# 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**

# Operational Updates

**Brian Allen**, President and Chief Operating Officer

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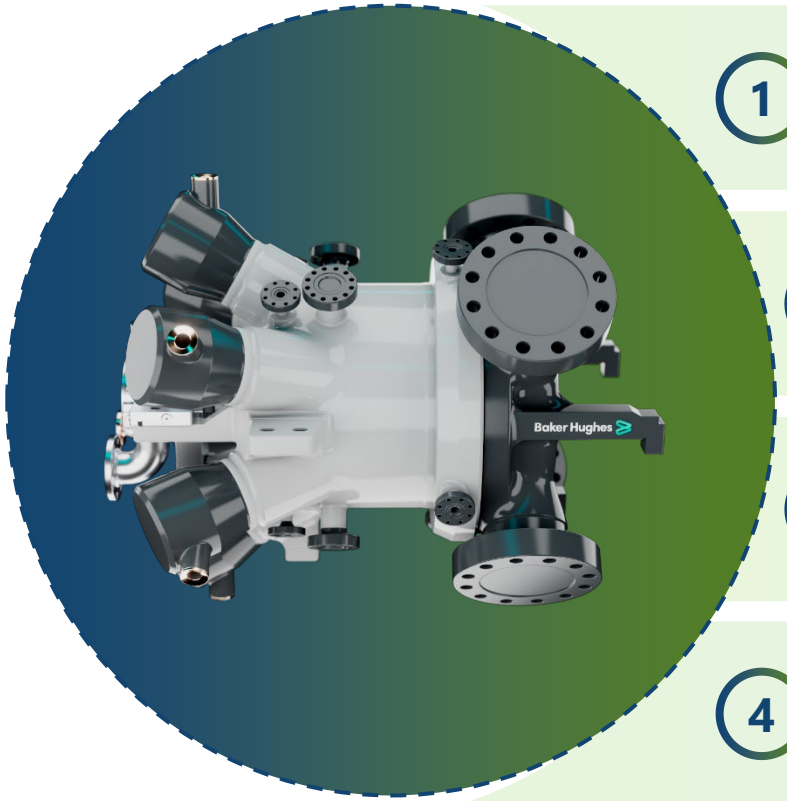
# Validation Campaigns at La Porte

## Baker Hughes validation and risk reduction strategy encompasses multiple proven approaches

- The validation campaign aims to assess, model and test the nearest utility-scale conditions (e.g. technologies, techniques, architecture, behavior and environment as practically possible)




**1 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

**2 Phase 2: Single Demonstrator Combustor Can**
- Test selected burner and liner in a single "combustor can"
- Result: prove cooling and dilution, validate acoustic and structural dynamic, optimize design at La Porte full pressure, temperature and power

**3 Phase 3: Single Utility-Scale Combustor Can**
- Test full utility-scale cluster, liner, and transition piece
- Result: prove burner cluster operability, cooling and dilution, validate acoustic and structural dynamic, optimize design at utility scaled pressure, temperature and power

**4 Phase 4: Full Demonstrator Turboexpander & Cycle**
- Result: validate mechanical architecture and materials at full pressure and temperature
- Result: tune performance model to real test outcomes
- Result: validate full plant operability and dynamic capabilities (load following)

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

*Due to the intrinsic nature of a new technology development, the information listed herein is subject to change without notice.*
*Baker Hughes' relationship with NET Power should not be viewed as an endorsement of NET Power or an investment in its common stock.*



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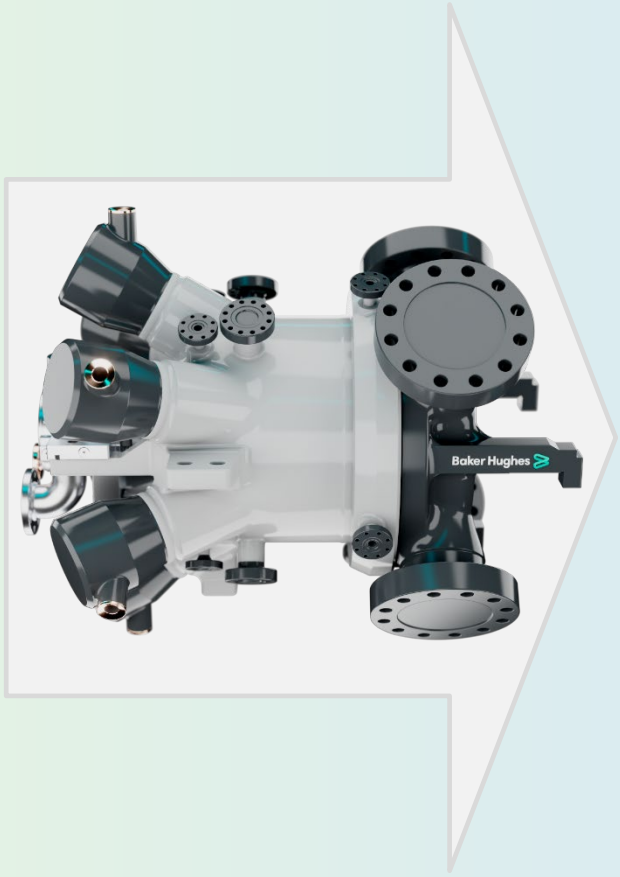
# Validation Campaigns at La Porte De-Risk Utility-Scale Adoption

## La Porte Phase 4 Validation Campaign

- Enabling technology: Baker Hughes' **Turboexpander**
  - 6 multi-can combustors
  - Single burner per each can
  - Reduced-size flow path with **same design philosophy as utility-scale**
- Same cycle full operating pressures and temperatures already validated in NET Power's previous test campaigns
- **Demonstrate full cycle operability**: startup sequence, sync to grid, load follow, load rejection, emergency shutdown, etc.
- **Tune performance models to optimize utility-scale design**




## Utility-Scale Deployments

- Baker Hughes Turboexpander technology:
  - 12 multi-can combustors, multiple burners
  - **Same burner design as La Porte validation campaign**
  - Flow path with 8 stages, optimized design for both 50 & 60 Hz
- **Baker Hughes' optimized $CO_2$ pump and compression technology**
- Improved cycle full operating pressures and temperatures to maximize overall efficiency
- **Key suppliers and partners are manufacturing critical long lead time components already**

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# Progressing Project Permian and Technology Development

## Project Permian initial power generation on track for 2H 2027 / 1H 2028

Upcoming
**(2024)**

### Project Permian

- 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

### Technology Development

- Standard plant design initial Process Design Package
- Finalize long-term ASU partnership

**Project Permian location de-risks first-of-a-kind utility-scale deployment:**

- Access to abundant, low-cost natural gas
- High visibility into $CO_2$ and power offtake and necessary permitting

**Goal: safe, clean, reliable operations at utility-scale**

**2024:** Release initial long-lead equipment orders

**2H 2027 / 1H 2028:** Initial power generation

**Anticipated Project Timeline**



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# Financial Updates

**Akash Patel**, Chief Financial Officer

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# Q1 2024 Financial Updates

## Continued Prudent Deployment of Capital

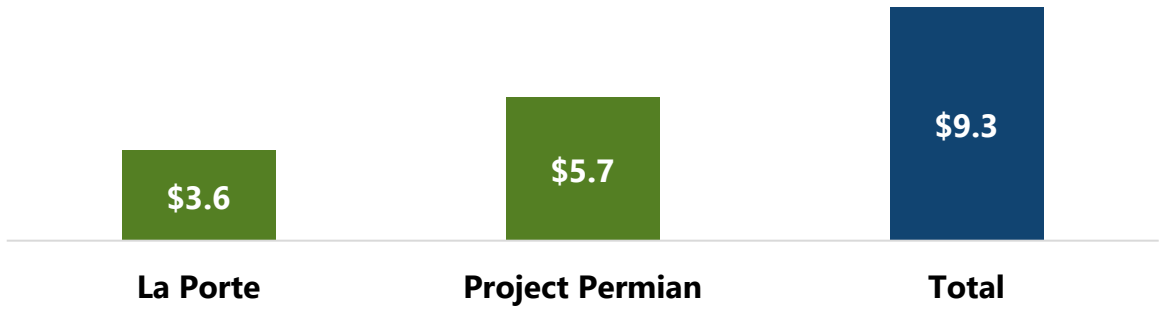
- **Total cash and investments of ~$625mm as of 3/31/2024**
- Q1 2024 change in cash and investments of ~($12mm)
- Cash flow used in operations of ~$3mm
  - Includes Baker Hughes JDA cash payments of ~$4mm
  - **Interest income continued to offset majority of cash burn from operations in Q1 2024**
- Cash flow used in investing of ~$106mm, including:
  - ~$10mm of capital expenditures
  - ~$96mm of available-for-sale securities purchases

## Cash and Investments Breakdown

| *(in $mm)* | Q1 2024 | Q4 2023 | Change (Q1 vs. Q4) |
|---|---|---|---|
| Cash | $429 | $537 | |
| Short-Term Investments | 100 | 100 | |
| Available-for-Sale Securities | 96 | - | |
| **Total Cash & Investments** | **$625** | **$637** | **($12)** |

## Q1 2024 Capex – La Porte & Project Permian (1)

*(in $mm)*




*1. Excludes $0.2mm of other capitalized expenses*



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