Arq

Nasdaq: ARQ

Q3 2024 Earnings Call

November 7, 2024

Disclaimer

This presentation includes forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, which provides a “safe harbor” for such statements in certain circumstances. When used in this presentation, the words “can,” “will,” “intends,” “expects,” “believes,” similar expressions and any other statements that are not historical facts are intended to identify those assertions as forward-looking statements. All statements that address activities, events or developments that Arq, Inc. (“we,” “us,” “our,” "Arq" or the "Company") intends, expects or believes may occur in the future are forward-looking statements. These forward-looking statements may relate to such matters as business strategy, our goals for the remainder of fiscal year 2024, expectations about future market size, penetration rates demand and pricing for our PAC and GAC products and our ability to enter into new markets, the strategic GAC project at our Red River facility, including timing to completion and initial deliveries, contracting progress, expected capital expenditures, expected production capacity, potential future increases in expected production capacity and further facility expansion opportunities including the addition of further production lines, the benefits associated with bringing general contracting functions in-house with respect to our Red River facility, expectations surrounding our ongoing corporate transformation, the estimated costs and timing associated with potential capital improvements at our facilities, financing sources for such projects and potential production outputs thereafter, expected market supply of GAC products and the cost savings and environmental benefits of our GAC products, and the timing and scope of future regulatory developments and the related impact of such on the demand for our products. The forward-looking statements included in this presentation involve risks and uncertainties. Actual events or results could differ materially from those discussed in the forward-looking statements as a result of various factors including, but not limited to, timing and scope of new and pending regulations and any legal challenges to or extensions of compliance dates of them; the U.S. government’s failure to promulgate regulations that benefit our business; changes in laws and regulations, accounting rules, prices, economic conditions and market demand; impact of competition; availability, cost of and demand for alternative energy sources and other technologies; technical, start up and operational difficulties; competition within the industries in which we operate; our inability to commercialize our products on favorable terms; our inability to effectively and efficiently commercialize new products; changes in construction costs or availability of construction materials; our inability to effectively manage construction and startup of the GAC facility at our Red River facility or Corbin facility; our inability to obtain required financing or financing on terms that are favorable to us; our inability to ramp up our operations to effectively address recent and expected growth in our business; loss of key personnel; ongoing effects of inflation and macroeconomic uncertainty, including from the lingering effects of the pandemic and ongoing armed conflicts around the world, and such uncertainty's effect on market demand and input costs; availability of materials and equipment for our business; intellectual property infringement claims from third parties; pending litigation; other factors relating to our business strategy, goals and expectations concerning the Arq Acquisition (including future operations, future performance or results); our ability to maintain relationships with customers, suppliers and others with whom we do business and meet supply requirements, or our results of operations and business generally; risks related to diverting management's attention from our ongoing business operations; costs related to the Arq Acquisition; opportunities for additional sales of our AC products and end-market diversification; our ability to meet customer supply requirements; the rate of coal-fired power generation in the U.S.; the timing and cost of capital expenditures and the resultant impact to our liquidity and cash flows; and the other risk factors described in our filings with the SEC, including our most recent Annual Report on Form 10-K. You are cautioned not to place undue reliance on the forward-looking statements made in this presentation and to consult filings we have made and will make with the SEC for additional discussion concerning risks and uncertainties that may apply to our business and the ownership of our securities. The forward-looking statements contained in this presentation are presented as of the date hereof, and we disclaim any duty to update such statements unless required by law.

Non-GAAP Financial Measures

Included in this presentation are certain financial measures that are not calculated in accordance with U.S. generally accepted accounting principles ("GAAP") designed to supplement, and not substitute, the Company's financial information presented in accordance with GAAP. The non-GAAP measures as defined by the Company may not be comparable to similar non-GAAP measures presented by other companies. The presentation of such measures, which may include adjustments to exclude unusual or non-recurring items, should not be construed as an inference that the Company’s future results or leverage will be unaffected by other unusual or non-recurring items. Please see the attached appendix for how we define these non-GAAP measures, a discussion of why we believe they are useful to investors, and certain limitations and reconciliations thereof to the most directly comparable GAAP measures.

Recent Financial Highlights & Business Updates

Ongoing PAC portfolio optimization drives significant gross margin, net income and Adjusted EBITDA improvement; Red River GAC expansion remains on time & budget; Red River capacity upside potential

Q3 2024 Financial Update

- **Continued growth:** Revenue +17% and ASP +15% YoY
- **Improved profitability:** Gross margin up ~800 basis points YoY
- **Generated strong Adjusted EBITDA[1]:** $5.1 million vs. $0.9 million YoY
- **Strong momentum:** 5th straight quarter YoY Adj. EBITDA growth; 6th consecutive quarter double digit % ASP increase YoY

Business & Market

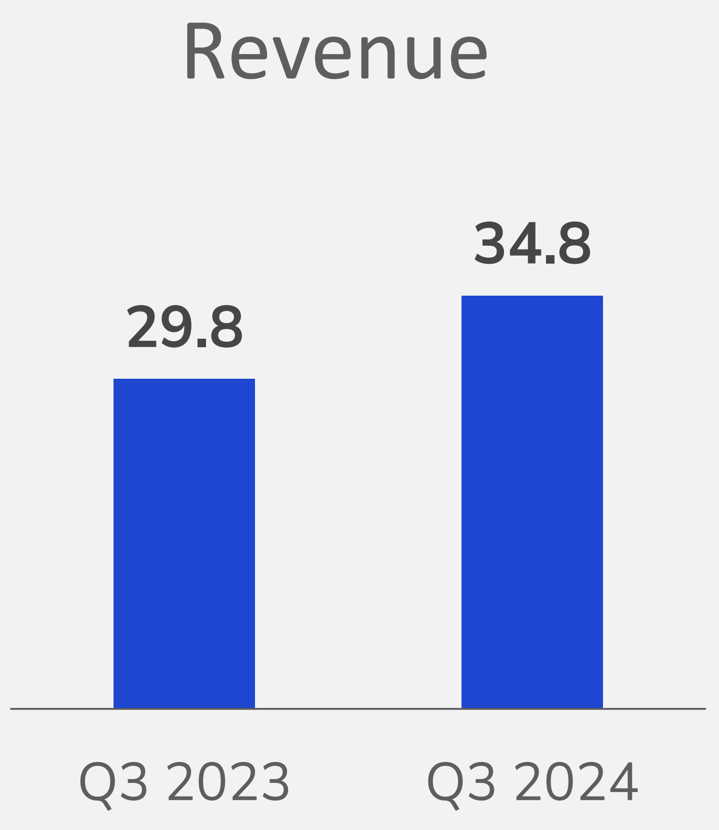
- **GAC contracting:** 60% of Red River nameplate capacity contracted at attractive pricing. In advanced negotiations for remaining contracts by time run-rate production achieved (Q1 ‘25)
- **PAC pricing:** Continue to prioritize profitability over volume; expanding efforts in water market (higher ASP)
- **PAC visibility:** Strong visibility in contract renewals through 2025 and beyond extends performance sustainability

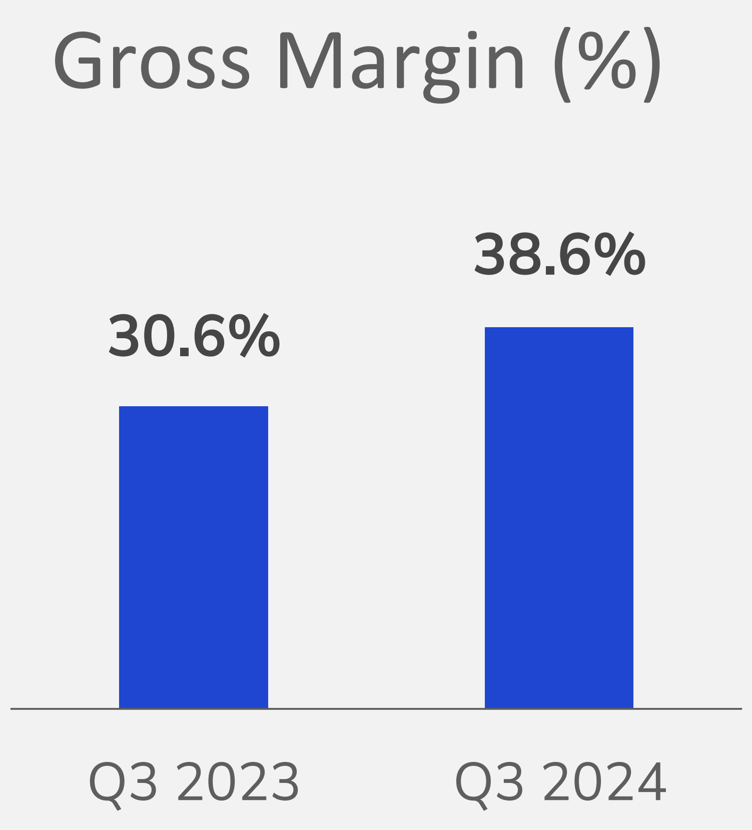
Strategic Growth Projects

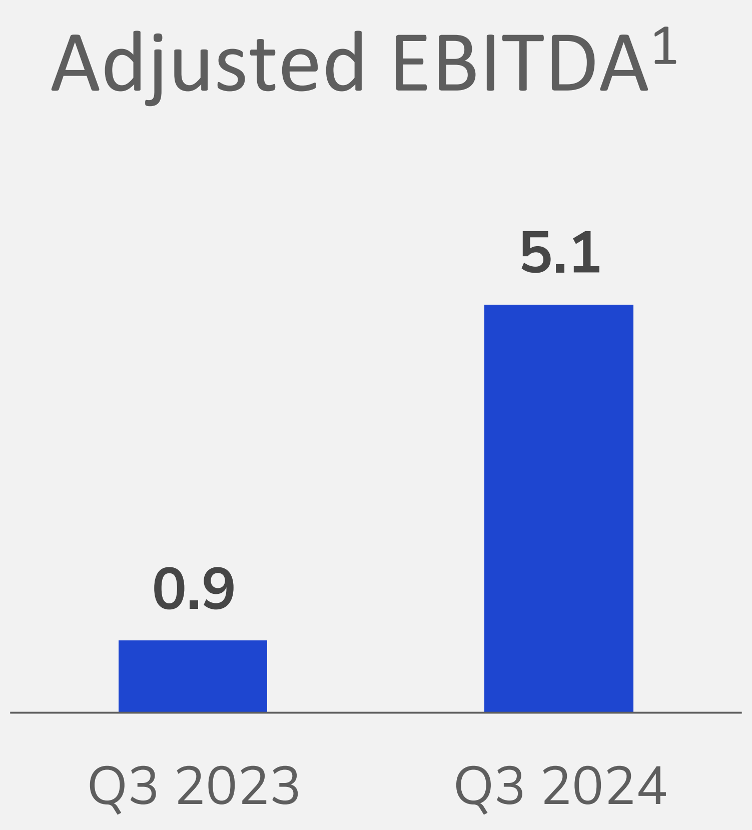
- **GAC facility:** On target for first deliveries in Q1 ‘25; run-rate of 25mm pounds targeted by end of Q1 ‘25
- **GAC upsize:** Identified potential to increase Red River’s 25mm lbs. nameplate capacity by 10-20% with no additional capex; expected to be achievable by Q3 ‘25
- **FY 2024 capex:** Reiterating $60-70 million
- **Funding & Capital:** Raised ~$27 million, net proceeds in Sep. 2024; strong participation by high-quality institutional investors

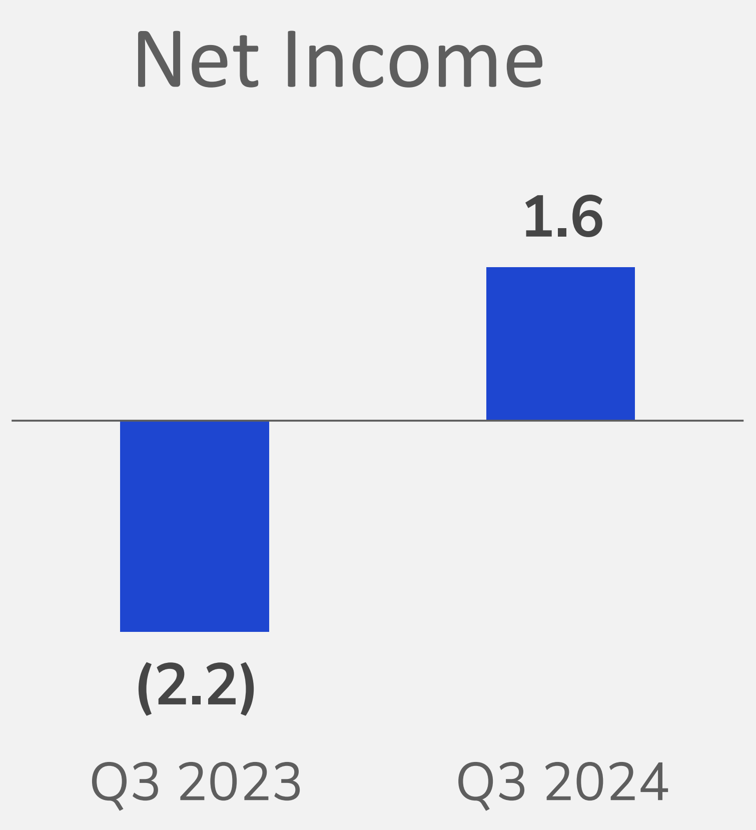
(1) Adjusted EBITDA is a non-GAAP measure. Please see "Financial Detail" slides for reconciliation information .

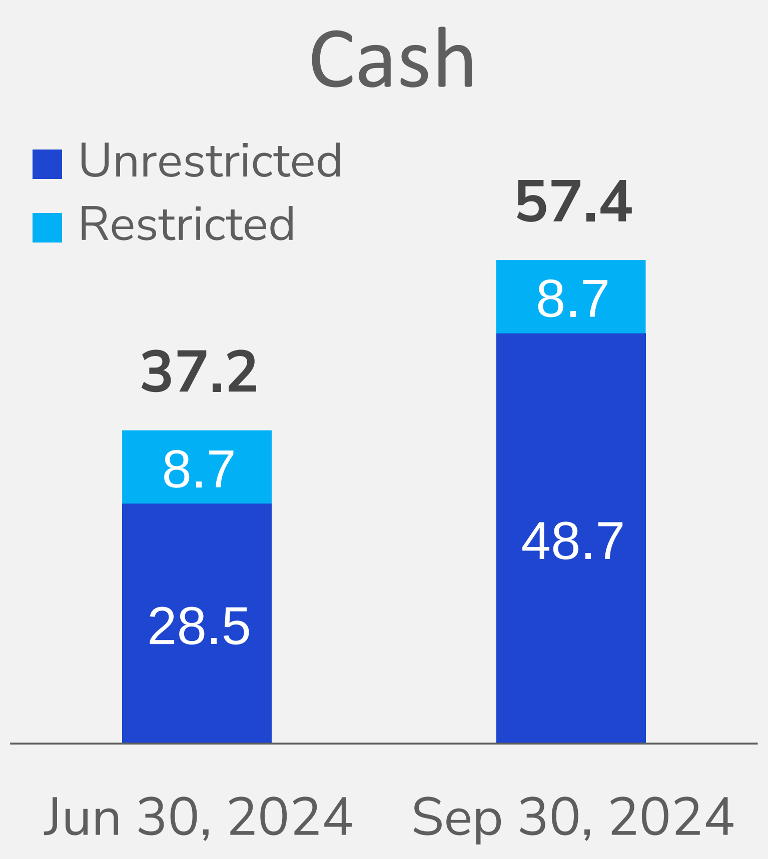
Q3 2024 Financial Highlights











Continued Revenue Growth YoY

- **Revenue** +17% to $34.8 million
- Higher ASP, positive changes in product mix and slightly higher volumes

Expanding Gross Margins YoY

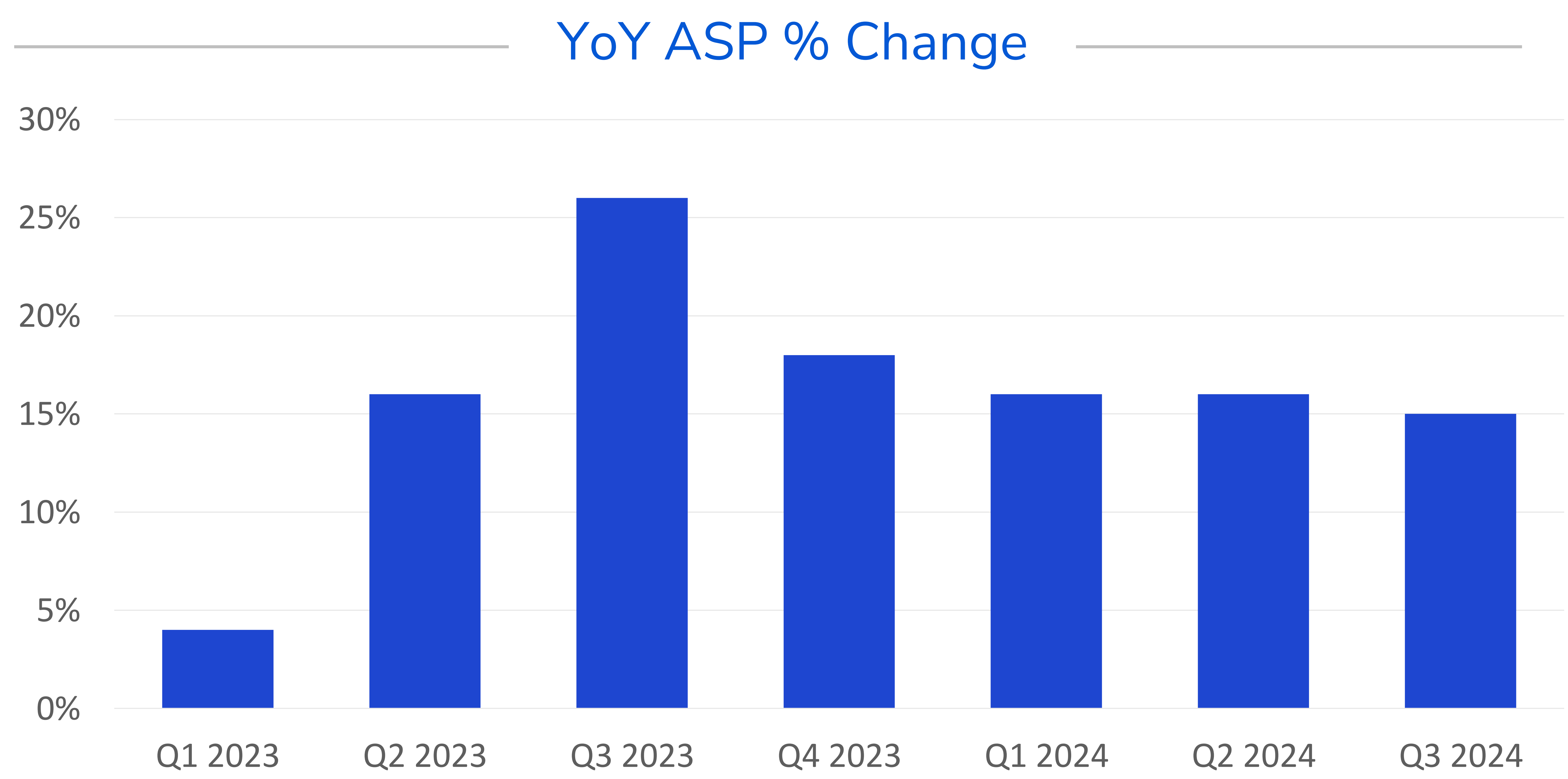
- **Gross margin** of 38.6%, up ~800 bps vs. 30.6% YoY
- **SG&A** reduced by 3% to $8.1 million (vs. $8.3 million)
- **Adjusted EBITDA** [1] of $5.1 million vs. $0.9 million YoY, demonstrating sustained improvement in PAC business
- Improvements driven by continued focus on profitability over volume, cost management, positive changes in product mix. Reflects improvement towards annualized cash generation

Cash & Balance Sheet Flexibility

- **Cash** totaled $57.4 million as of September 30, 2024; includes $8.7 million restricted cash
- Total **debt**, inclusive of financing leases, of $20.0 million

1) Adjusted EBITDA is a non-GAAP measure. Please see "Financial Detail" slides for reconciliation information.

Steady Price Increases Underpin Sustainable PAC Business Performance



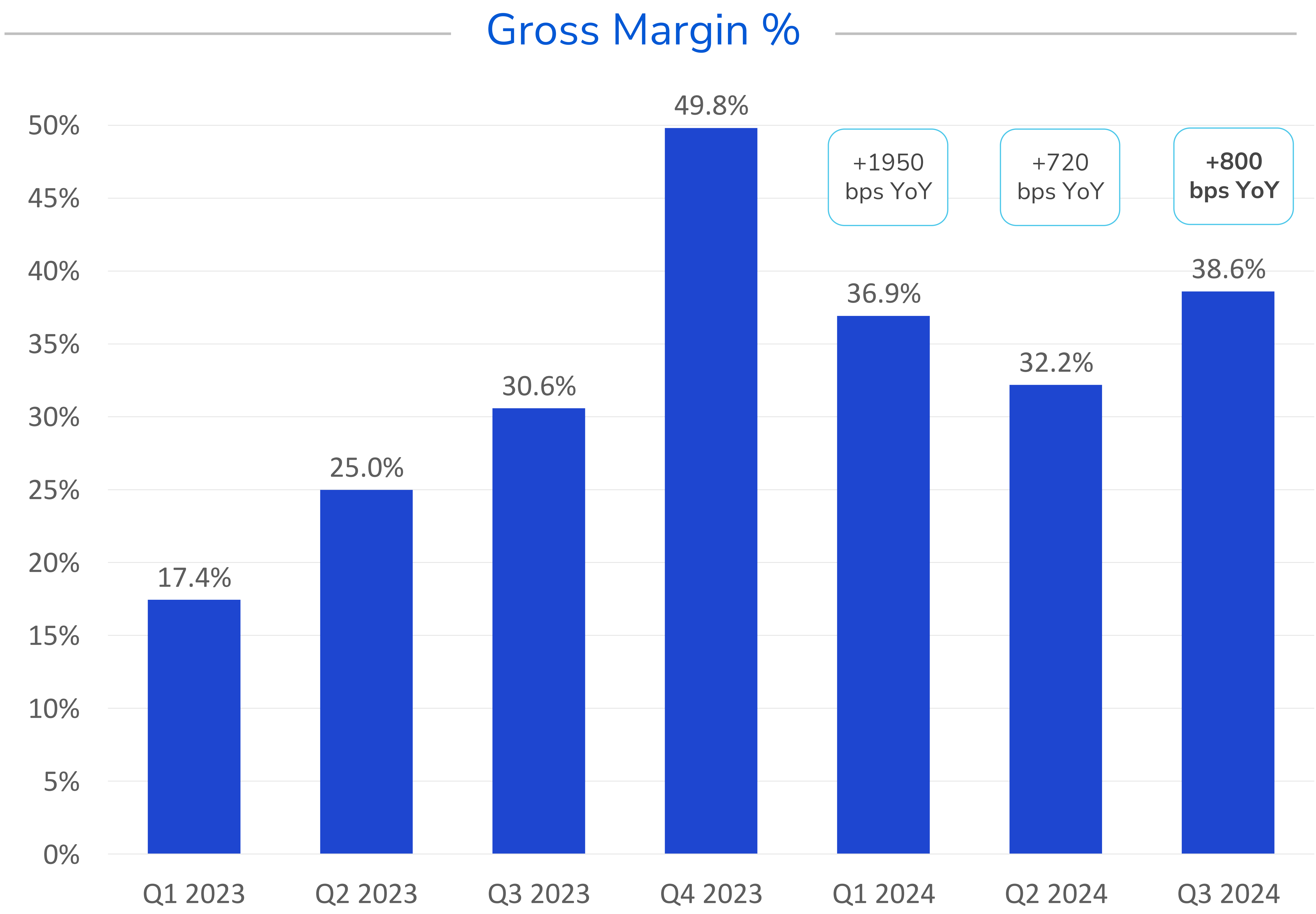
Q3 2024:

- 6th consecutive quarter of double digit % ASP YoY increase
- 15% ASP increase YoY (16% average increase since Q1 2023)
- In Q3 2024, amended sole remaining loss-making contract which will now be a net contributor in 2025

Strong visibility in PAC contract renewals extends runway and sustainability in 2025 and beyond

Attractive & Consistent Growth in Gross Margin

Material and consistent gross margin improvement due to ASP growth and focused cost cutting initiatives



- Gross margin improved ~800 basis points YoY (from 30.6% to 38.6%)
- Gross margin expansion driven by reduced opex costs and increased ASP
- Q2 2023 and Q2 2024 gross margin include impact of plant turnaround maintenance costs
- Q4 2023 gross margin include $4.7 million associated with contractual take-or-pay revenue

Key Drivers of Arq's Corporate Transformation

What We're Doing

Red River Project

- **Adding production of GAC + expanding plant to deliver incremental 25mm pounds of GAC product**
- Entered into supply contracts for 60% of nameplate capacity at attractive pricing vs PAC products
- Reiterating 2024 capex forecast of $60-70 million
- In advanced contract negotiations for remaining nameplate capacity; expected by time run-rate production achieved (Q1 '25)
- Identified potential to increase Red River's 25 million lbs. nameplate capacity by 10-20% with no anticipated additional capex required

Corbin Project

- **Utilizing bituminous coal waste from Corbin to serve as feedstock for Red River**
- Unique patent-protected process
- Development on time & within budget; production-ready
- Production of initial product for quality control & specification testing commenced; will ramp ahead of first production at Red River

What it Delivers

- ✓ Targeted payback of ~3 years
- ✓ Expanded products and solutions portfolio
- ✓ Expansion into rapidly growing markets
- ✓ Differentiated feedstock source with cost & sustainability benefits
- ✓ Generate strong additional GAC cash flow to PAC foundation
- ✓ Continue transformation to environmental tech company

Red River GAC Development Update

Development remains on time & on budget; upsize announced

- Following several key recent hires, all aspects of construction process at Red River brought in-house
- No material costs expected in connection with termination of previous general contractor
- Leveraging of strong in-house capabilities expected to reduce capital requirements and provide potential for expedited timeline
- Project completion timelines and budgets remain on track with previous guidance; expect first deliveries in Q1 2025
- Recently completed installation and commissioning of furnace feeder; reflects first modular commissioning of GAC plant expansion
- Identified potential to increase Red River's 25mm nameplate capacity by 10-20% with no additional capex expected; upsized production run-rate achievable by Q3 2025

Note: Above photos as of October 2024

Capital & Funding Update

September 2024 Equity Offering

- Raised approximately $27 million of net proceeds via issuance of common stock
- Provides funding surety for completion of Red River, diversifies investor base, protects balance sheet, enhances financial & operational flexibility
- Supports continued development of transformational Red River GAC facility
- Oversubscribed offering attracting new high-quality institutional investors
- Enables future financing flexibility of Red River Phase II via traditional cash-flow based credit; lowers funding costs and increases shareholder accretion
- CEO Bob Rasmus purchased additional shares, further aligning with shareholders.[1]

Term Loan Refinancing Update – What Changed?

- Previously disclosed term sheet for contemplated term loan refinancing
- Terms became increasingly unfavorable in negotiations, including non-callable, cashflow sweeps, high and increasing coupon, restrictive covenants, etc.
- Explored equity alternative via 3-day confidentially marketed offering; met with strong institutional demand
- Reasonable discount vs. pricing at process launch; accretive vs. debt alternatives

[1] Total shares purchased to date 975,000. Material amount of outstanding equity awards includes stock that has no value until Arq's share price maintains $10 and $15 per share.

Growth Beyond Red River Phase I

Key Triggers Needed to Pursue Phase II

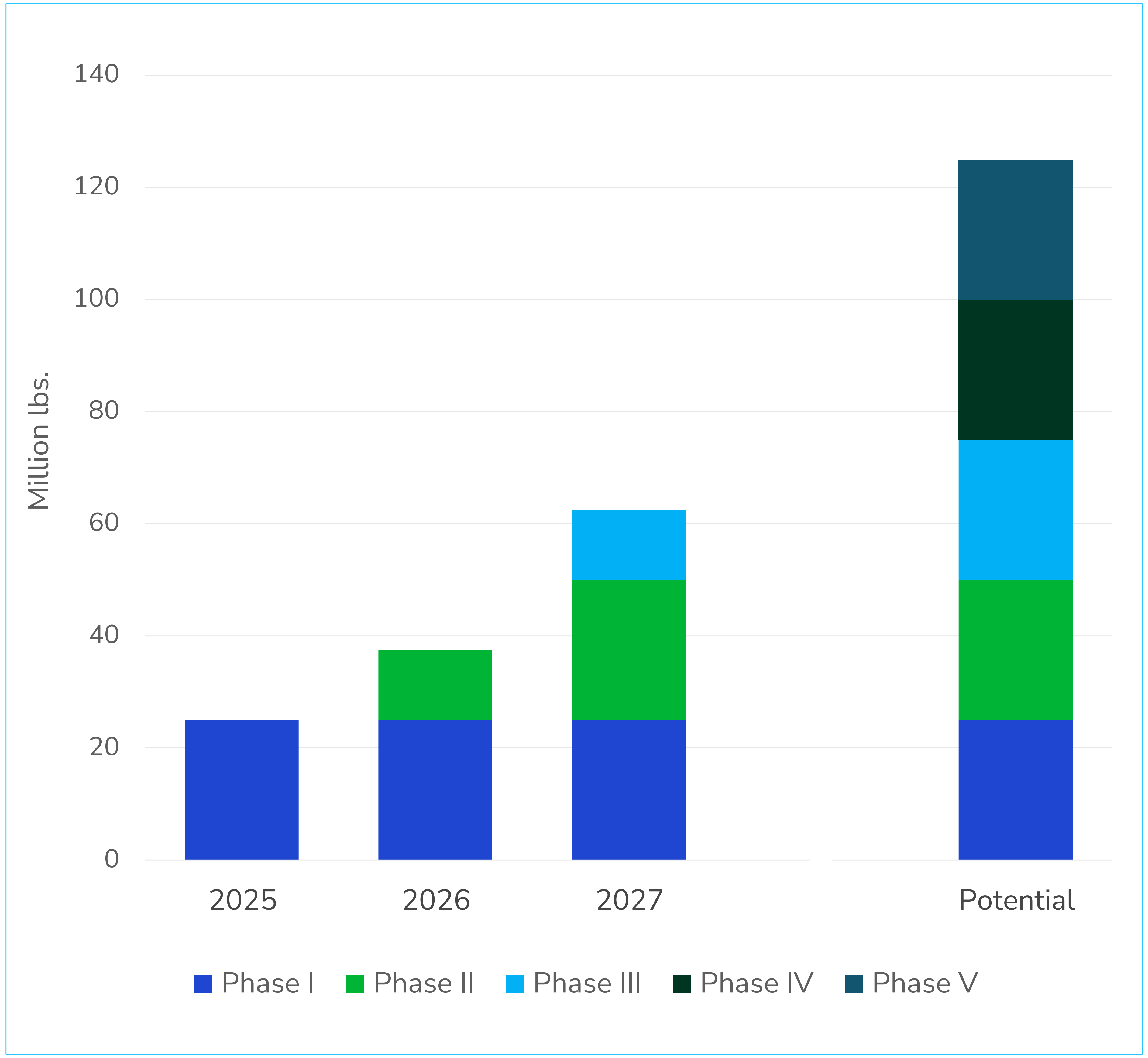
- Successful commissioning of Red River Phase I
- Achieving Phase I annual nameplate production levels of 25 million pounds (or better)
- Visibility on contract demand supporting investment return and evidencing continued competitive positioning

Other Notable Points

- Permitting already in place for Phase II
- Potential to expand to a total of 125 million lbs GAC at Red River
- Potential targeted groundbreaking for Phase II as early as Q3 2025 (in-service in mid-2026)
- Phase II construction timeline forecast of 12-months or less
- Phase II capex expectations roughly equivalent to Phase I at ~$3/lb of annual production (assuming 25 million lbs. annual production) – likely efficiency gains offset by anticipated inflation
- Separate asphalt product R&D remains underway and exciting with earliest potential commercialization in 2026

Illustrative Red River GAC Buildout

Assumes Phases I & II are built ~1-year apart; potential of 125 million lbs.



Key Near Term Objectives

1 PAC Optimization

- Drive additional market penetration (i.e. adjacent sectors)
- Continue improving foundational PAC business
- Improve product mix and drive higher ASP

2 GAC Customers

- Continue active dialogue with new and existing GAC customers
- Contract 25 million lbs of nameplate capacity by initial run-rate production

3 Corbin Facility

- Run at steady-state capacity
- Stockpile bituminous waste feedstock
- Deliver feedstock to Red River GAC facility upon commissioning

4 Red River GAC Facility

- Achieve first GAC deliveries in Q1 2025
- Achieve nameplate capacity and upsize potential
- Explore potential for expanding Red River nameplate capacity further

Financial Detail

Condensed Consolidated Balance Sheet[1]

(in thousands, except share data)	As of September 30, 2024	As of December 31, 2023
ASSETS		
Current assets:		
Cash	$ 48,662	$ 45,361
Receivables, net	16,590	16,192
Inventories, net	18,487	19,693
Prepaid expenses and other current assets	3,530	5,215
Total current assets	87,269	86,461
Restricted cash, long-term	8,718	8,792
Property, plant and equipment, net of accumulated depreciation of $25,146 and $19,293, respectively	139,137	94,649
Other long-term assets, net	44,841	45,600
Total Assets	$ 279,965	$ 235,502
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and accrued expenses	$ 20,191	$ 14,603
Current portion of debt obligations	2,324	2,653
Other current liabilities	7,671	5,792
Total current liabilities	30,186	23,048
Long-term debt obligations, net of current portion	17,634	18,274
Other long-term liabilities	14,029	15,780
Total Liabilities	61,849	57,102
Commitments and contingencies		
Stockholders' equity:		
Preferred stock: par value of $0.001 per share, 50,000,000 shares authorized, none issued or outstanding	—	—
Common stock: par value of $0.001 per share, 100,000,000 shares authorized, 46,652,061 and 37,791,084 shares issued, and 42,033,915 and 33,172,938 shares outstanding at September 30, 2024 and December 31, 2023, respectively	47	38
Treasury stock, at cost: 4,618,146 and 4,618,146 shares as of September 30, 2024 and December 31, 2023, respectively	(47,692)	(47,692)
Additional paid-in capital	197,988	154,511
Retained earnings	67,773	71,543
Total Stockholders' Equity	218,116	178,400
Total Liabilities and Stockholders' Equity	$ 279,965	$ 235,502

(1) See complete, unaudited Condensed Consolidated Financial Statements and Notes related thereto within the Quarterly Report on Form 10-Q for the period ended September 30, 2024.

Condensed Consolidated Statements of Operations[1]

	Three Months Ended September 30,		Nine Months Ended September 30,	
(in thousands, except per share data)	2024	2023	2024	2023
Revenue	$ 34,774	$ 29,829	$ 81,919	$ 71,079
Cost of revenue, exclusive of depreciation and amortization	21,339	20,707	52,279	53,218
Operating expenses:				
Selling, general and administrative	8,058	8,297	22,735	27,574
Research and development	787	639	3,341	2,145
Depreciation, amortization, depletion and accretion	2,716	2,711	6,090	7,276
Gain on sale of assets	(154)	—	(154)	(2,695)
Total operating expenses	11,407	11,647	32,012	34,300
Operating income (loss)	2,028	(2,525)	(2,372)	(16,439)
Other (expense) income:				
Earnings from equity method investments	127	412	127	1,512
Interest expense	(806)	(787)	(2,426)	(2,155)
Other	268	725	931	1,510
Total other (expense) income	(411)	350	(1,368)	867
Income (loss) before income taxes	1,617	(2,175)	(3,740)	(15,572)
Income tax (expense) benefit	—	—	(30)	33
Net income (loss)	$ 1,617	$ (2,175)	$ (3,770)	$ (15,539)
Income (loss) per common share:				
Basic	$ 0.04	$ (0.07)	$ (0.11)	$ (0.56)
Diluted	$ 0.04	$ (0.07)	$ (0.11)	$ (0.56)
Weighted-average number of common shares outstanding:				
Basic	36,124	31,807	34,085	27,894
Diluted	37,442	31,807	34,085	27,894

(1) See complete, unaudited Condensed Consolidated Financial Statements and Notes related thereto within the Quarterly Report on Form 10-Q for the period ended September 30, 2024.

Condensed Consolidated Statements of Cash Flows[1]

	Nine Months Ended September 30,	
(in thousands)	**2024**	**2023**
Cash flows from operating activities		
Net loss	$ (3,770)	$ (15,539)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:		
Depreciation, amortization, depletion and accretion	6,090	7,276
Stock-based compensation expense	2,185	1,810
Operating lease expense	1,518	2,061
Amortization of debt discount and debt issuance costs	450	395
Gain on sale of assets	(154)	(2,695)
Earnings from equity method investments	(127)	(1,512)
Other non-cash items, net	(113)	—
Changes in operating assets and liabilities:		
Receivables and related party receivables	(399)	(359)
Prepaid expenses and other assets	1,812	3,595
Inventories, net	2,486	(811)
Other long-term assets, net	(1,366)	(3,646)
Accounts payable and accrued expenses	(2,611)	(12,033)
Other current liabilities	1,467	148
Operating lease liabilities	(1,255)	(140)
Other long-term liabilities	(945)	305
Net cash provided by (used in) operating activities	$ 5,268	$ (21,145)

(1) See complete, unaudited Condensed Consolidated Financial Statements and Notes related thereto within the Quarterly Report on Form 10-Q for the period ended September 30, 2024.

Condensed Consolidated Statements of Cash Flows[1] - Cont.

	Nine Months Ended September 30,	
(in thousands)	2024	2023
Cash flows from investing activities		
Acquisition of property, plant, equipment, and intangible assets, net	$ (42,210)	$ (17,008)
Acquisition of mine development costs	(167)	(1,856)
Proceeds from sale of property and equipment	150	—
Distributions from equity method investees in excess of cumulative earnings	127	1,512
Cash and restricted cash acquired in business acquisition	—	2,225
Payment for disposal of Marshall Mine, LLC	—	(2,177)
Net cash used in investing activities	(42,100)	(17,304)
Cash flows from financing activities		
Net proceeds from common stock issued in public offering	26,659	—
Net proceeds from common stock issued in private placement transactions	14,951	15,220
Repurchase of common stock to satisfy tax withholdings	(1,109)	(208)
Principal payments on finance lease obligations	(838)	(855)
Net proceeds from common stock issued to related party	800	1,000
Principal payments on notes payable	(404)	(341)
Net proceeds from CFG Loan, related party, net of discount and issuance costs	—	8,522
Net cash provided by financing activities	40,059	23,338
Increase (decrease) in Cash and Restricted Cash	3,227	(15,111)
Cash and Restricted Cash, beginning of period	54,153	76,432
Cash and Restricted Cash, end of period	57,380	61,321
Supplemental disclosure of non-cash investing and financing activities:		
Change in accrued purchases for property and equipment	8,199	255
Purchase of property and equipment through note payable	258	—
Equity issued as consideration for acquisition of business	—	31,206
Paid-in-kind dividend on Series A Preferred Stock	—	157

(1) See complete, unaudited Condensed Consolidated Financial Statements and Notes related thereto within the Quarterly Report on Form 10-Q for the period ended September 30, 2024.

Note on Non-GAAP Financial Measures

To supplement our financial information presented in accordance with U.S. Generally Accepted Accounting Principles ("U.S. GAAP"), we provide certain supplemental financial measures, including EBITDA and Adjusted EBITDA, which are measurements that are not calculated in accordance with U.S. GAAP. EBITDA is defined as earnings before interest, taxes, depreciation and amortization, and Adjusted EBITDA is defined as EBITDA reduced by the non-cash impact of equity earnings from equity method investments and other non-cash gains, increased by cash distributions from equity method investments and other non-cash losses. EBITDA and Adjusted EBITDA should be considered in addition to, and not as a substitute for, net income (loss) in accordance with U.S. GAAP as a measure of performance. See below for a reconciliation from net income (loss), the nearest U.S. GAAP financial measure, to EBITDA and Adjusted EBITDA.

We believe that the EBITDA and Adjusted EBITDA measures are less susceptible to variances that affect our operating performance. We include these non-GAAP measures because management uses them in the evaluation of our operating performance, and believe they help to facilitate comparison of operating results between periods. We believe the non-GAAP measures provide useful information to both management and users of the financial statements by excluding certain expenses, gains, and losses which can vary widely across different industries or among companies within the same industry and may not be indicative of core operating results and business outlook.

EBITDA and Adjusted EBITDA:

The following table reconciles net income (loss), our most directly comparable as-reported financial measure calculated in accordance with U.S. GAAP, to EBITDA (loss) and Adjusted EBITDA (loss).

Adjusted EBITDA (Loss) Reconciliation to Net Loss

	Three Months Ended September 30,		Nine Months Ended September 30,	
(in thousands)	**2024**	**2023**	**2024**	**2023**
Net income (loss) [1]	$ 1,617	$ (2,175)	$ (3,770)	$ (15,539)
Depreciation, amortization, depletion and accretion	2,716	2,711	6,090	7,276
Amortization of Upfront Customer Consideration	127	127	381	381
Interest expense, net	600	224	1,638	822
Income tax expense (benefit)	—	—	30	(33)
EBITDA (loss)	5,060	887	4,369	(7,093)
Cash distributions from equity method investees	127	412	127	1,512
Equity earnings	(127)	(412)	(127)	(1,512)
Gain on sale of assets	(154)	—	(154)	(2,695)
Financing costs	228	—	228	—
Adjusted EBITDA (loss)	$ 5,134	$ 887	$ 4,443	$ (9,788)

[1] Included in Net loss for the three and nine months ended September 30, 2023 are zero and $4.9 million, respectively of transaction and integration costs incurred related to the Arq Acquisition. Additionally, for the three and nine months ended September 30, 2023, Net loss included $2.5 million and $4.2 million of Legacy Arq payroll and benefit costs. Further included in Net Loss for the three and nine months ended September 30, 2023 is $1.3 million of severance expense related to two executive employees.

Appendix

Company Overview

Arq is a diversified, environmental technology company producing activated carbon products which reduce or reverse environmental liabilities, including PFAS or “forever chemicals”. Our products enable a cleaner and safer planet.

General applications of our products

Note: PFAS: Per- or poly-fluorinated alkyl substances (PFAS) are a group of industrial chemicals used in everyday products and are often referred to as ‘Forever Chemicals’ because of their extreme persistence in the environment

What is Activated Carbon?

- Also known as activated charcoal
- Activated carbons are largely engineered sorbent materials which purify, filter and remove pollutants from air, water and soil
- When activated, able to "adsorb" a wide range of harmful compounds from air, gas & liquids
- "Activation" process makes product more porous (e.g. think kernel of corn and popcorn kernel)

2 Major Types of Activated Carbon

Powder Activated Carbon (PAC)	Granular Activated Carbon (GAC)

Products & Market Applications

GAC from bituminous coal best at remediating PFAS and forever chemicals

Applications

- Potable Water
- PFAS Remediation
- Wastewater Treatment
- Biogas
- Mercury Emissions
- Pharma
- Specialty
- Automotive
- Food & Beverage
- Soil & Groundwater Remediation

Market Focus

Growth Business	Granular Activated Carbon **(GAC)**	**Municipal water, PFAS remediation, soil & groundwater remediation, specialty gas purification**
Foundation Business	Powder Activated Carbon **(PAC)**	**Power generation, industrial and municipal water**

Our Key GAC Differentiators

Activated carbon is a <u>technical sale</u> – our unique products, process and supply chain are key differentiators

We will be the only GAC producer:

…with a vertically integrated domestic supply chain…

…using bituminous coal waste feedstock, enabling significant environmental benefits…

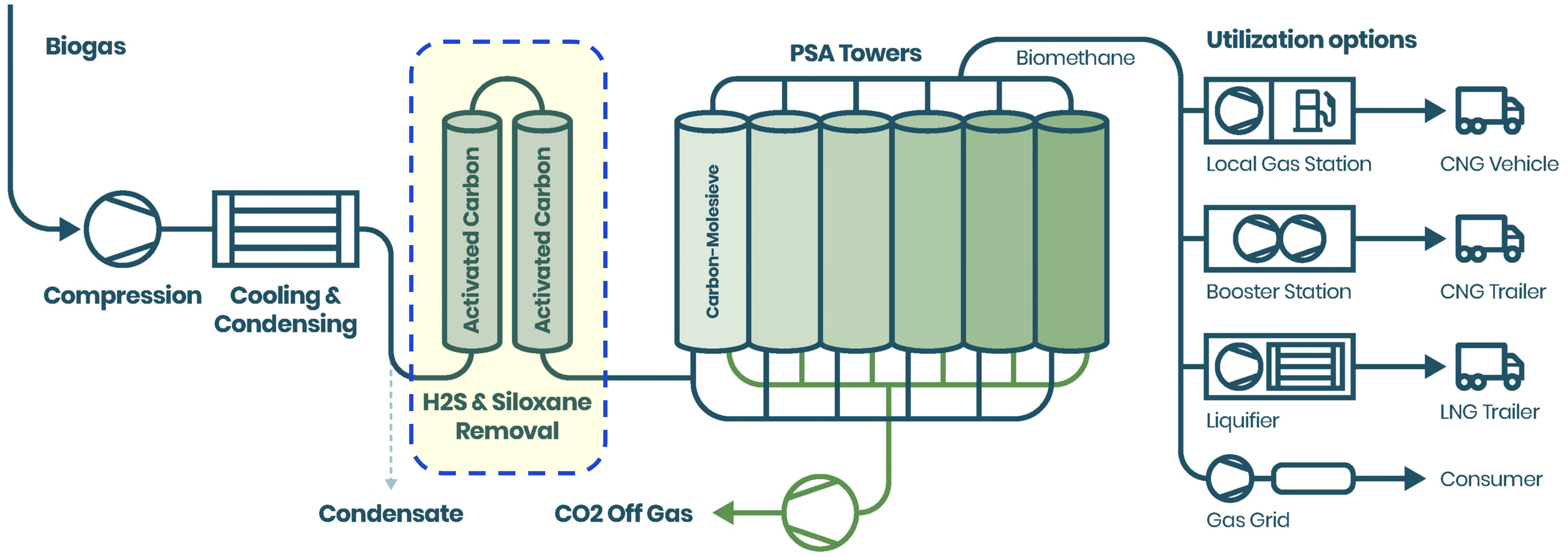
…and with estimated lower Scope 1 & 2 CO2e emissions (vs virgin coal-based GAC)

<u>Financial advantages</u> to our approach:

- ✓ ***Arq's own bituminous coal waste used as feedstock supply***
- ✓ ***Drives competitive sourcing vs. traditionally mined coal***
- ✓ ***Lowers operating costs by generating net positive power***
- ✓ ***Avoids negative import factors (freight, tariffs and duties)***

Biogas & Renewable Natural Gas Purification

- Biogas is produced when organic material decomposes in anaerobic conditions. Biogas can be processed to remove impurities – such as CO_2, H_2S and Siloxane – to produce high-quality Renewable Natural Gas (RNG)
- Sources of biogas for potential RNG production include landfill wastes, animal manure, separated organic waste, and wastewater treatment sludge
- GAC's role is as part of a larger biogas treatment system for purifying RNG by removing carbon dioxide, hydrogen sulfide, nitrogen, VOC and moisture
- The RNG is passed directly through a GAC column to achieve this purification
- System typically located near or on the RNG production site
- Arq has agreed to conduct real-world testing programs at multiple RNG sites once in commercial production in 2025
- RNG applications for GAC provide two benefits to Arq: diversification of GAC revenue stream; a natural hedge against the coal-fired power focus of the PAC portfolio
- GAC pricing for RNG applications is typically more attractive than many other GAC applications



EPA Releases Critical PFAS Regulations

On April 10, 2024, EPA announced new National Primary Drinking Water Regulations to reduce PFAS in municipal drinking water over the next 5 years

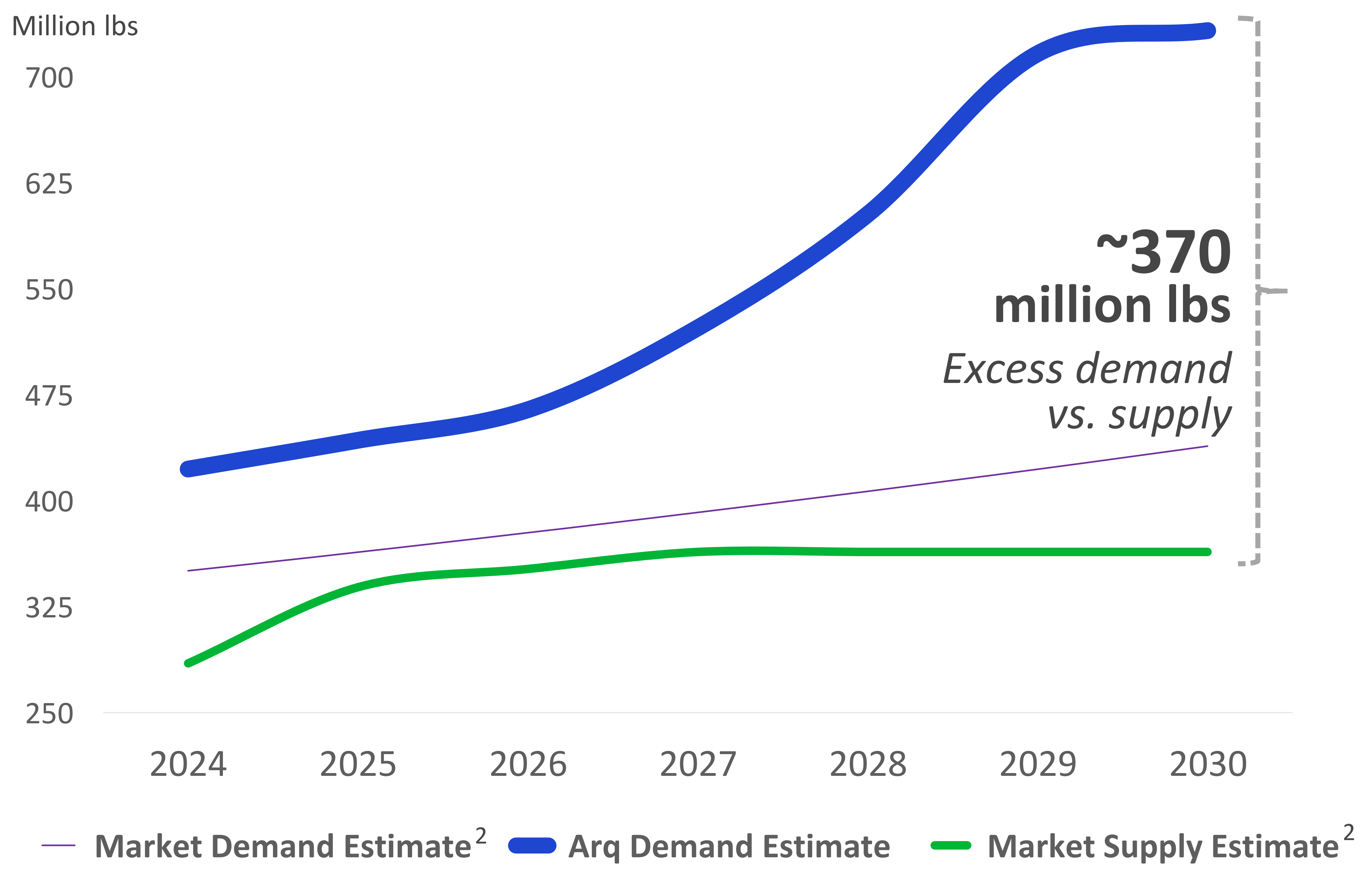
- **Arq estimates EPA's regulations potentially increases municipal water market demand by 3-5x vs. existing ~170 million pound per year**
- **Expected to serve as significant catalyst for greater demand of Arq products and potentially exacerbating shortages of supply**
- PFAS regulations set at a 4 parts per trillion ("ppt") Maximum Contaminant Level ("MCL"), for certain PFAS compounds
- Allowable levels down from previous advisory limit of 70ppt[1]
- 4 ppt is approximately equivalent to 4 grains of sand in an Olympic-size swimming pool
- Other jurisdictions, including the EU, are expected to pursue a similar path, serving as further global macro tailwind
- $1bn is available to assist public water utility companies to meet the new drinking water standards; a total of $9bn is authorized under the 2021 Bipartisan Infrastructure Law (BIL) to assist communities impacted by PFAS Contamination; an additional $12bn funding is available in the BIL to improve public water infrastructure

[1] https://www.epa.gov/sdwa/questions-and-answers-drinking-water-health-advisories-pfoa-pfos-genx-chemicals-and-pfbs

Strong North American GAC Market Fundamentals

Data suggest demand outpacing supply – Arq anticipates a 3-5x increase in demand over next 5 years not accounting for potential incremental demand growth from other sectors (e.g., biogas)

- **Arq expects annual GAC market to grow ~75% to >700mm lbs[1]**
- **Would result in ~370mm lbs supply shortfall by 2030[1]**
- **New supply limited by capital, feedstock, permits**



~35%

Of the ~153,000 public water systems in the U.S. estimated to require PFAS treatment facilities by 2030 (vs. 10% in 2023) [3]

$2 billion

Estimated market size of U.S. drinking water PFAS treatment market by 2030 (~10x growth vs. 2023) [3]

~80%

Estimated market penetration rate of GAC for PFAS treatment by 2030, driven by GAC advantages vs. alternative solutions [3]

2-4x increase

Replacement cycle for PFAS removal equipment estimated to increase ~2x (groundwater) and 4x (surface water) vs. historic usage [3]

~5% per year

Estimated annual increase in GAC prices (2025-2027) [3]

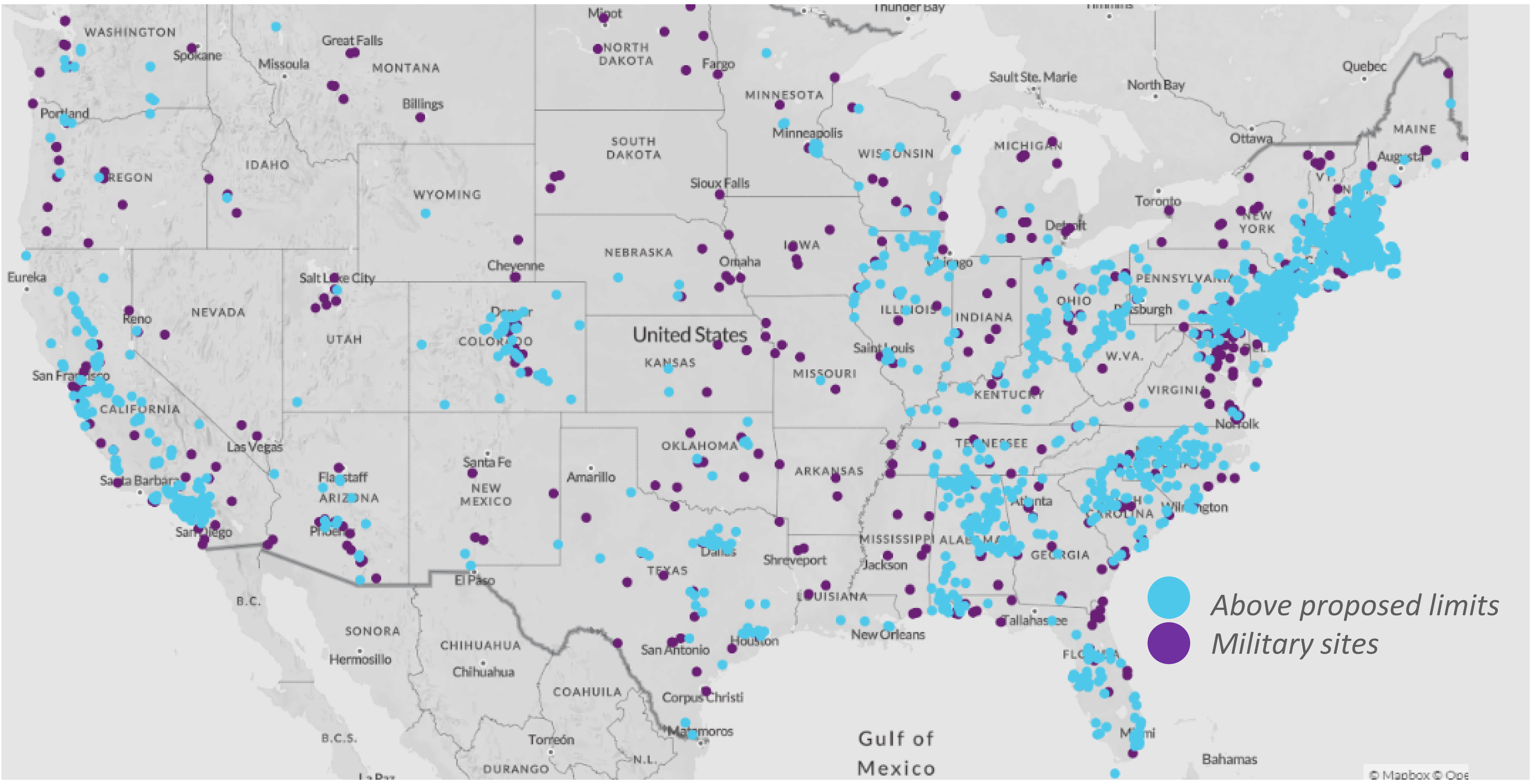
[1] Reflects company estimates. Note: Arq estimates 10% increase on previous market data in 2024 & YoY through 2026; a 50% increase YoY in 2027 through 2029 – i.e. accelerating into final stages of compliance with new EPA regulations. Excludes any new entrants.
[2] Source: IHS. Note: Estimates based on 2022 data, and therefore compiled prior to latest EPA regulatory changes.
[3] Goldman Sachs Research published on July 31, 2024.

Ongoing GAC Contract Wins Validate Products and Strategy

Ongoing contract wins demonstrate

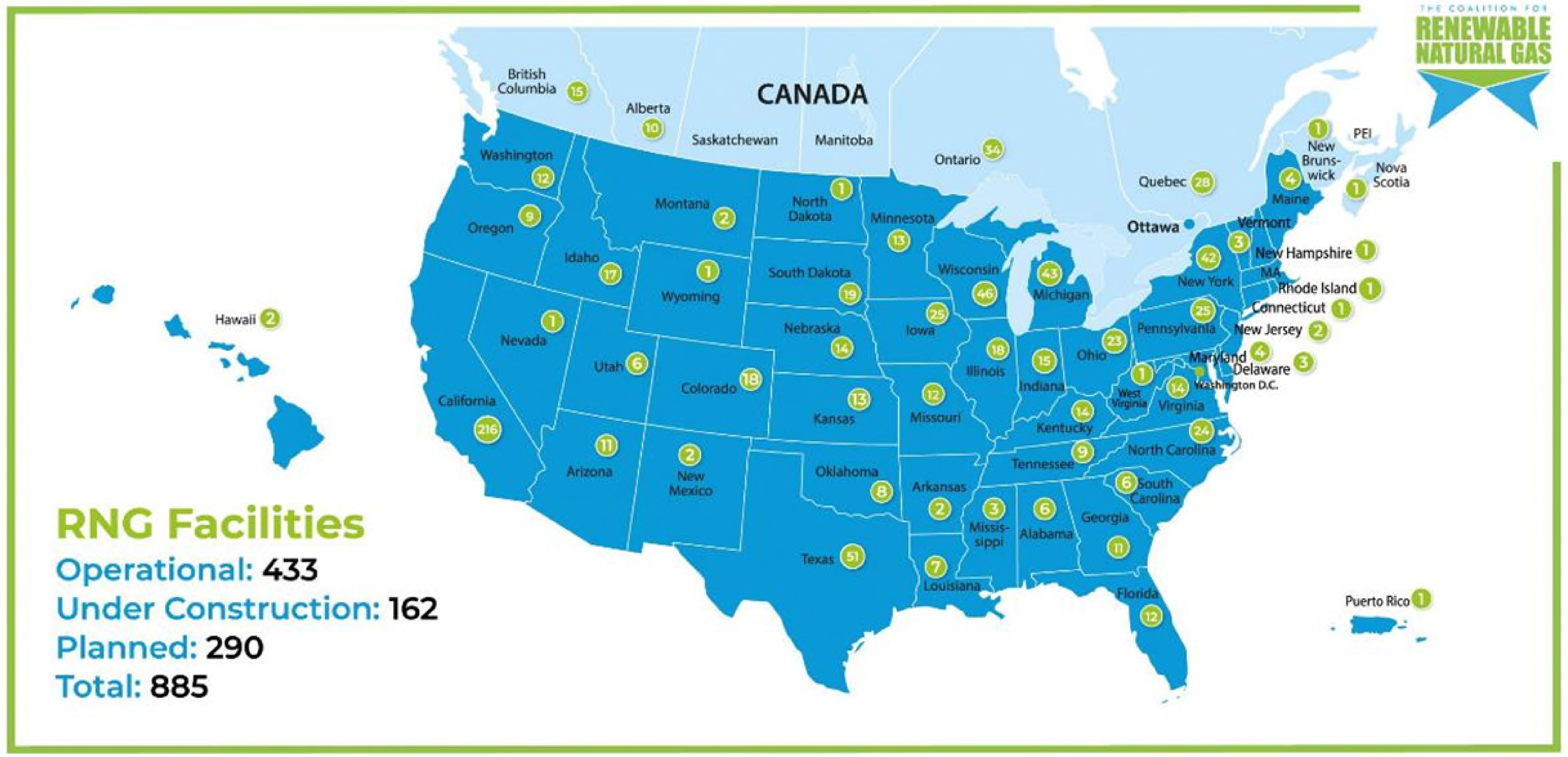
- **Technical viability of Arq products**
- **Robust, growing market, limited available supply**
- **Diverse end-market demand for GAC** *(water, PFAS, biogas, air filtration, etc.)*
- **Attractive economics of GAC products**
- **Validity of strategic investment in high-growth GAC sector**

PFAS Contamination in the U.S. (February 2024)



Source – The Environmental Working Group

Biogas/RNG Facilities in the U.S. (July 2024)



Source – The Coalition For Renewable Natural Gas

Advancing GAC Technology for Enhanced PFAS Removal Efficacy

Building Market Adoption

Advancing testing scale from lab to field

Increasing Treatment Capacity

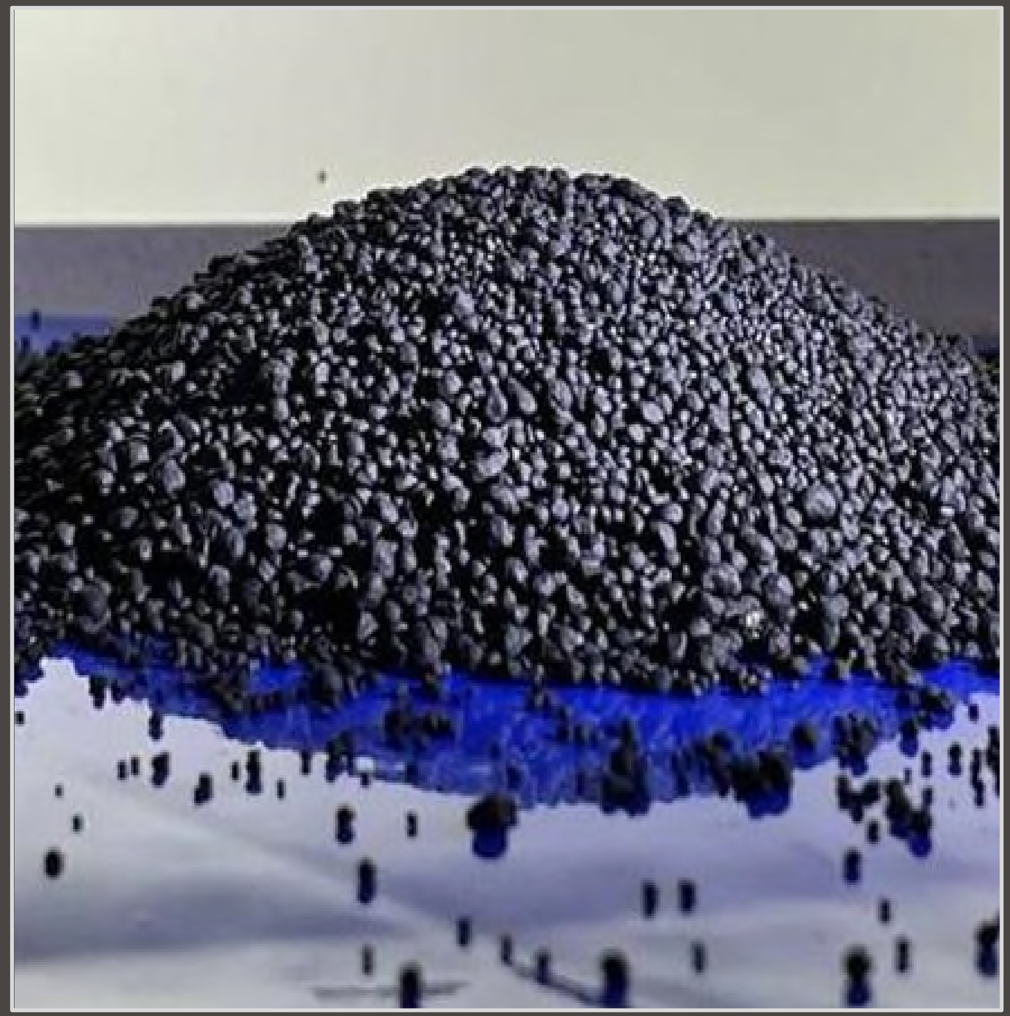
Improving water treatment volume up to 10x

Increasing Removal Speed

Decreasing equipment size or water treatment time

Enhancing GAC Purity

Reducing extractable arsenic levels



We continue to make prudent technology investments and collaborations, providing cost-effective solutions for the resolution of tough challenges in the PFAS markets that our customers face

Arq Investment Conclusions

Vertically Integrated
The only vertically integrated domestic activated carbon supply chain

Growth-Focused
Legacy PAC assets provide infrastructure for expansion to high-growth GAC

Environmentally Beneficial
Uniquely use waste to remediate other waste and lower overall carbon footprint

Competitively Advantaged
First-mover position combined with differentiated product quality, cost and CO2 advantage

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