CLIMATE TECH INSIGHTS

NOVEMBER 2024

CITIZENS UPDATE

CITIZENS CLIMATE TECH INSIGHTS – NOVEMBER 2024

We are pleased to share the latest edition of our Climate Tech Insights. Notable market developments herein:

- Deceleration in M&A and private market fundraising activity witnessed in 2023 has continued into 2024, with growth fundraising declining 41% 1H 2024 compared to 2H of 2023
  - Inflation and interest rate worries, combined with a challenging fundraising environment, have driven a “flight to quality” across the venture capital market
- U.S. election uncertainty remains top-of-mind with investors, though many believe that the incentives and grants enacted as part of the 2022 Inflation Reduction Act are likely to persist, even in the event of a political shift
- Nearly 100,000 investors, policy makers, executives, and tech innovators attended this year’s New York Climate Week, with an increased presence of private equity, infrastructure, and banking professionals

This edition also features an overview of the voluntary carbon market, which we believe will be a helpful primer for both our corporate clients and investors focused on reducing their carbon footprints. ~50% of North America’s largest corporations have adopted climate targets[1] - voluntary carbon offsets have emerged as an important part of these commitments. There is a broad range of market participants providing carbon reduction solutions, which we’ve profiled on pages 6, 7, and 8

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CORPORATE FINANCE | CAPITAL MARKETS & ADVISORY | TREASURY & RISK MANAGEMENT

1) Source: Net Zero Tracker

2024 CAPITAL MARKETS REVIEW: NOTABLE M&A TRANSACTIONS

eugenie.ai
ACQUIRED BY
fractal
JUNE 2024

CLIMATE MANAGEMENT

Acquisition enhances Fractal's commitment to harnessing the power of AI to address global challenges and underscores its dedication to sustainability and innovation

SUSTAIN LIFE
ACQUIRED BY
workiva
JUNE 2024

CLIMATE MANAGEMENT

Empowers organizations with digital tools to measure, manage and report their emissions with transparency

energetics Clean Energy Consulting
ACQUIRED BY
ERM
JUNE 2024

CLIMATE MANAGEMENT

Acquisition of Australia's leading climate risk and energy transition consultancy adds significant depth to ERM's decarbonization strategy and reporting services

wevo
ACQUIRED BY
solaredge
APRIL 2024

TRANSPORTATION

Continuation of SolarEdge's strategy to enhance its battery storage and EV charging software for the commercial and industrial segment

IES
ACQUIRED BY
Apax
FEBRUARY 2024

BUILT ENVIRONMENT

Apax's first climate-focused investment, a provider of Innovative technology and consultancy services helping decarbonize buildings, communities and cities

Atmos
ACQUIRED BY
WAP SUSTAINABILITY CONSULTING
FEBRUARY 2024

CLIMATE MANAGEMENT

Collaboration combines Atmos' innovative technology with WAP's expertise in sustainability services

Source: Company press releases and filings, Pitchbook and CapitalIQ

CLIMATE TECH INSIGHTS

NOVEMBER 2024

Citizens | JMP

2024 CAPITAL MARKETS REVIEW: VENTURE FUNDING SPOTLIGHT

Per the Wall Street Journal, global venture capital fundraising for climate tech startups declined 20% and 41% compared to the 1H and 2H of 2023, respectively. A combination of high interest rates, the upcoming U.S. presidential election (and its impact on the passage of climate-related legislation and regulation) and the overall capital intensity of climate tech investing have led VC investors to rethink their strategy in the industry

Despite the overall decline in VC activity, climate tech software platforms are still seeing fundraising activity and have proven more resilient to broader industry headwinds than more capital-intensive hardware and asset-heavy sub-sectors

NOTABLE VENTURE FUNDING AND PRIVATE PLACEMENT ACTIVITY

Company	Description	Vertical	Most Recent Funding[1]	Select Investors
MuonSpace	Satellite monitoring platform that enables organizations to proactively address climate uncertainty	CLIMATE MANAGEMENT	$55M (B)	• Activate Capital • ACME Capital • Costanoa • Radical Ventures • Congruent Ventures
osapiens	Corporate sustainability platform to enable companies to comply with regulations and mitigate risks	CLIMATE MANAGEMENT	$120M	• Goldman Sachs Asset Management • Armira Growth
Level10 Energy	Renewable energy platform connects corporate/ institutional power buyers to offsite projects	CARBON REMITTANCE	$65M (D)	• B Capital Group • Aster Capital • Alphabet • NGP • Prelude
prewave	Supply chain and logistics sustainability, risk, and compliance platform	CLIMATE MANAGEMENT	$68M (B)	• Hedosophia • Creandum • Ventech • Kompas VC • Speedinvest
Cloover	Platform that enables simple and affordable financing solutions for sustainable home upgrades	BUILT ENVIRONMENT	$114M (Seed)	• 9900 Capital • Lowercarbon Capital • QED Investors
reactive technologies	Grid-resilience technology helps renewable asset owners conserve electrical energy	ENERGY OPTIMIZATION	$31M (D)	• BGF • M&G’s Catalyst • Breakthrough Energy Ventures
kodelabs	Smart building software optimizes energy usage and equipment runtime	BUILT ENVIRONMENT	$30M (B)	• Maverix • TELUS Ventures • I Squared Capital
GridBeyond	AI platform delivers utility-scale renewable generation, battery storage, and grid enhancement	ENERGY OPTIMIZATION	$56M (C)	• Alantra Partners • Klimacal • Mirova • Energy Impact Partners

Sources: Sightline Climate, S&P Capital IQ, Pitchbook, Wall Street Journal, company press releases

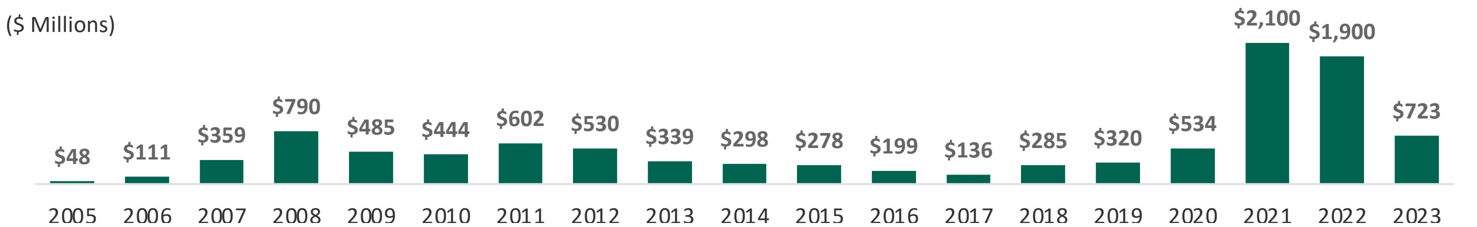
1) Letter in parenthetic represents most recently completed round of funding

ZOOM IN: VOLUNTARY CARBON MARKET

VOLUNTARY CARBON MARKET OVERVIEW

- The Voluntary Carbon Market ("VCM") plays an important role in the transition to a low carbon economy by making it financially attractive to implement technologies and projects that contribute to reducing and removing emissions now through the purchase of carbon credits
  - A carbon credit represents the avoidance or removal of 1 metric ton of greenhouse gas ("GHG") emissions resulting from the implementation of a project that would not have occurred otherwise
- Certain industries will face challenges to reducing their absolute carbon footprint to zero given limitations in technologies and solutions available today; however, through initiatives to reduce emissions and the creation and purchase of carbon credits these companies can make progress towards Net Zero GHG[1] emissions and drive positive climate impact
- In the years following the Paris Agreement, the Voluntary Carbon Market grew dramatically as more organizations made climate commitments
  - As the market has evolved, however, the integrity and impact of certain carbon credits has come under scrutiny, slowing market growth and highlighting the need for increased guidance
  - Addressing integrity concerns as well as significant investment and scaling is needed to generate the volume of removals needed to meet future climate commitments

ANNUAL VALUE OF THE VOLUNTARY CARBON OFFSET MARKET



TYPES OF CARBON CREDITS

CARBON REMOVAL CREDITS

- Requires the permanent removal of GHGs (the most prevalent being carbon dioxide) from the atmosphere
- Can be achieved via natural processes (e.g., planting trees and vegetation) or technological processes (e.g., carbon capture and storage)

CARBON AVOIDANCE CREDITS

- Projects that result in a reduction of GHGs relative to what would have been emitted otherwise
- Does not reduce the absolute amount of GHGs in the atmosphere
- Higher degree of scrutiny due to high profile instances of over-crediting and fraud across a subset of project types

WHY IT MATTERS?

- Participating in the VCM enables companies to make progress towards their sustainability strategy and impact, which is increasingly important to all stakeholders. By taking voluntary action, companies can strengthen their brand value and demonstrate a corporate vision that prioritizes impact:

6,364
Companies worldwide have set science-based climate targets

3,610
Companies worldwide have set net-zero GHG emissions commitments

85%
Global consumers said they consider the environment more when shopping vs. 5 years ago

1/3
Global consumers said they are willing to spend more on green products

Sources: Statista, Net Zero Tracker, S&P Global, Simon-Kucher & Partners, Science Based Targets Initiative
1) Net Zero defined by Science Based Targets Initiative

ZOOM IN: VOLUNTARY CARBON MARKET

ENSURING INTEGRITY WHEN ACCESSING THE VOLUNTARY CARBON MARKET

- Greenwashing, a term coined in 1986, is the act of providing misleading or false information about the environmental impact of a company's products or operations – this could be intentional or unintentional on the part of the company
- Greenwashing practices have become more sophisticated and harder to differentiate from genuine initiatives – common practices include environmental buzzwords, ambitious climate pledges that lack plans to implement and misleading packaging, amongst others
- Today, greenwashing can affect companies participating in the Voluntary Carbon Market in two main ways:
    - Reputational and Strategic-Level Risks: an overstatement of the positive impacts of voluntary carbon credits and/or an organization's ability to meet its climate commitments
        - Examples include duplicative usage of credits (same credit claimed by multiple entities) or double issuance of credits for the same underlying activity
    - Credit-Level Risks: an overstatement by carbon credit project developers in the true impact of the underlying activities as basis for an individual carbon credit; as a result, companies may be inadvertently overstating their impact through the purchase of inaccurate or fraudulent credits
        - One of the most prominent examples of credit-level risk came in 2023, when reports alleged that >90% of rainforest offset credits issued by leading carbon credit firm Verra did not represent legitimate carbon reductions; these credits were purchased by worldwide enterprises such as Disney, Shell and Gucci

In order to ensure high-integrity projects across the VCM landscape, Citizens recommends:

Monitoring guidance provided by leading organizations

- Last year, The Integrity Council for the Voluntary Carbon Markets (ICVCM), a non-profit, independent governance body formed in 2021, established its Core Carbon Principle labelling standards, which includes affirming crediting programs and project methodologies which meet required standards
- In May, the U.S. government also published a joint policy statement and principles which provides guidance for all participants in the VCM

Choosing projects that are highly-rated by independent, third-party ratings providers

- All projects issued through major registries are third-party verified for compliance with the applicable methodology. However, third-party raters go beyond the minimum standard to assess the likely impact of the project. A handful of independent organizations perform these independent reviews, observing scientific standards and ensuring a data-based affirmation of each project's environmental impact
- While project pricing is still largely driven by project type, highly rated projects typically command a price premium compared to their un-rated counterparts

BeZero | Calyx Global | MSCI | RENOSTER | Sylvera

Consider incorporating new technologies and insurance products

- The climate tech industry continues to introduce innovative new tools to ensure the integrity of climate projects, including solutions such as satellite monitoring of projects and developments and block-chain ledgers that validate and expire credits
- Insurance solutions, such as those provided by CarbonPool or Oka, provide credit purchasers with financial compensation in the event of unforeseeable or unavoidable risks, such as lower-than-expected yields, unintended emissions or credit reversals or invalidations

ZOOM IN: VOLUNTARY CARBON MARKET

VCM LANDSCAPE: WIDE RANGE OF SOLUTIONS

- A wide range of companies and intermediaries offer carbon offset solutions, spanning direct investment in specific projects or procuring credits through financial exchanges
- Three approaches to participating in the VCM are outlined below, including select merits and considerations sustainability professionals should consider when evaluating each alternative. Notable project developers, intermediaries and carbon offset platforms are profiled on the subsequent pages

	A Project Development / Cultivation	B Carbon Credit Intermediaries	C Carbon Credit Exchanges
Description	Enables corporate and institutional investors to directly invest in climate projects	Connect buyers directly to projects	Commodity trading-like platforms which connect buyers and sellers to trade voluntary carbon credits
Merits	✓ Portfolio of projects to choose from – can include global footprints which may span multiple solutions (carbon reduction, water restoration, DAC, etc.) ✓ Ability to select projects with localized impact potential or business-relevant outcomes and make a direct investment ✓ Many project providers offer project measurement / monitoring solutions, ensuring credit integrity	✓ Access to a wide variety of developers and project types ✓ Facilitates the purchase, registration and retirement of carbon credits ✓ Enables buyers to manage portfolios, access market insights and track pricing ✓ May include additional value-added services such as credit tracking, project monitoring and analytics ✓ Provides more direct visibility into climate impact	✓ Higher and more dynamic carbon offset price transparency ✓ Ease of use / procurement ✓ Ability to purchase offset credits originating from a certain region or source ✓ Some companies provide real-time data verification which can minimize fraudulent activity and boost market integrity
Considerations	– Investment costs (per unit of GHG removal) vary by project – Some services a “DIY” model; others include project tracking and scoring, which typically entails pricing premium – Specific project opportunities subject to timing and/or availability restrictions	– Potentially limited visibility on project credit pricing / commission markups – Potentially limited transparency on how much of the credit purchase price is actually received by the project developer	– Generally viewed as more commoditized solution, which limits ability to deliver localized impact to stakeholders – Less direct visibility into decarbonization impact

Relevant Citizens M&A Experience

GreenPrint

Acquisition by

PDI

A Portfolio Company of

GENSTAR INSIGHT PARTNERS TA ASSOCIATES

Sell-Side Financial Advisor

GreenPrint implements patent-protected programs for environmental impact and bottom-line results, including carbon offsetting solutions, to a growing base of fuel providers, fleet operators, consumer goods manufacturers, payment grocery retailers

EVOLUTION MARKETS

Acquisition by

Xpansiv Blackstone

Sell-Side Financial Advisor

Evolution Markets is a leading intermediary and advisor in the global environmental and energy markets, providing strategic and financial transactional services to 2,000+ customers across six continents

Sources: S&P Global

ZOOM IN: VOLUNTARY CARBON MARKET

A VCM LANDSCAPE: SELECT CARBON PROJECT DEVELOPERS

Company	HQ	Project Portfolio	Project Tracking	Scope 1-3 Calculations	Strategy Implementation	Comments
anew	Houston, TX	• 400+ projects globally spanning both environmental products and low carbon fuels	✓	✓		• Employs satellite monitoring, AI, and ground-level data collection for project tracking
Ecologi	Hampshire, England	• 40+ projects, primarily within emerging markets	✓	✓		• SMB-focused solution with 24,000 customers • Public ledger records restoration efforts
greencollar	The Rocks, Australia	• 220+ projects (focused in Australia) across a diverse portfolio of carbon, water quality, nature, and plastic projects	✓			• Complete services for the design, registration, and ongoing support of projects
NCX	San Francisco, CA	• Project developer that helps landowners identify and implement a variety of carbon credit and revenue generating projects based on land use and geography	✓		✓	• U.S. focus • Current projects span 34M acres, 22,000 landowners and 48 states
Pachama	San Francisco, CA	• Satellite data and AI-based portfolio of projects focused on forest restoration across the globe	✓			• Core technologies include estimating carbon, monitoring forest cover change, and assessing the baseline for credits
Rebellion Energy Solutions	Tulsa, OK	• Portfolio of projects across the US that protect against dangerous methane pollutant leaks and mitigate environmental harm	✓		✓	• Bringing energy, environment, and markets together to drive responsible completion of the oil and gas well lifecycle
reseed	Topanga, CA	• South-American based projects focused on farming ecosystems	✓			• End-to-end solution for environmental impact projects in agriculture • Public ledger records restoration efforts
Tradewater	Chicago, IL	• Global projects dedicated to preventing greenhouse and ozone-depleting gases from releasing into the atmosphere	✓		✓	• Tradewater set a goal to prevent at least 22 million tons of CO2 from being released into the atmosphere by 2027

ZOOM IN: VOLUNTARY CARBON MARKET

B CARBON PROJECT INTERMEDIARIES

Company	Headquarters	Description
Cø c/naught	San Francisco, CA	Science-backed portfolio of global high-integrity carbon credits that are diversified across project type and geography
CLIMATE TRADE	Valencia, Spain	Extensive global portfolio of nearly 200 sustainable projects including carbon offsets, biodiversity credits, and green energy certificates
cloverly	Atlanta, GA	Broad range portfolio of projects spans 6 continents and scales impact by empowering the ecosystem
RUBICON CARBON	Marina del Ray, CA	Global portfolio of projects over a variety of project types including emission reduction and direct carbon removal
Patch	San Francisco, CA	Customized carbon credit strategies with data-driven insights across more than 275 projects globally

C CARBON PROJECT EXCHANGES

Company	Headquarters	Description
Xpansiv	New York, NY	ESG spot exchange facilitating secure and seamless trading of products in in the environmental commodity marketplace
acx	Singapore, Singapore	Leading global exchange bringing traditional commodities trading infrastructure to the carbon markets
carbonplace	London, United Kingdom	Trading platform developed by leading European financial institutions enabling secure and scalable transfer and settlement of voluntary carbon credits
Carbon TradeXchange Access the world's carbon markets	London, United Kingdom	World's first digital carbon offsetting exchange for voluntary carbon credit trading

CLIMATE AND ESG REPORTS REINFORCE CITIZENS' POSITION AS TRUSTED ADVISOR

Citizens is committed to driving positive climate impact by reducing our operational emissions, supporting our clients, empowering people and communities and disclosing our progress along the way. This commitment is a reinforcement of our company's values, which motivates us to serve our customers, colleagues, communities and shareholders with integrity. The energy transition presents business opportunities. We are building capabilities to support our clients with advice, products and solutions as they navigate toward a more sustainable future and to support emerging growth sectors that are critical to a lower-carbon economy.

Citizens shared an update on its commitment to driving positive climate impact through the release of its 2024 Climate Report and its 2023 Environmental Social Governance Report, outlined below. Full Reports can be found here

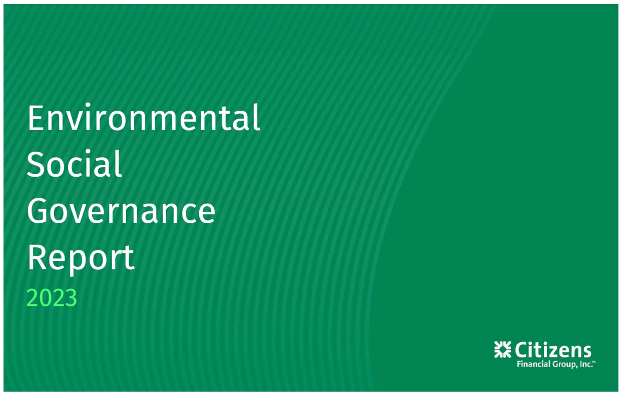
- Impacts of climate change pose important risks and opportunities for businesses, stakeholders, and the wider economy
- Citizens maintains its commitment to positive environmental impact through its climate strategy, made up of three pillars:

1 **Partnering with our clients to prepare for and finance the transition to a lower -carbon economy**

2 **Understanding and managing climate – related risks**

3 **Reducing our operational emissions**

- Citizens aims to commit $5 billion in financing and facilitation for green initiatives such as renewable energy, clean technologies and green buildings by 2030
- Our annual Climate Report details our work in each of these areas and also covers our overall approach to climate-related risks and opportunities



- Citizens seventh consecutive ESG Report highlights progress against the **four pillars of the Sustainability and Impact Strategy**:

Leading With Robust Corporate Governance

- Strong governance and focus on ethical cultures led Citizens to be named **2023 Top Public Company Board of the Year**

Driving Positive Climate Impact

- Citizens announced a **$50 billion sustainable finance target** in support of green and social initiatives, including a **$5 billion green sub-target**

Building the Workforce of the Future

- Nearly **$6 million invested** in organizations that promote the diverse talent base and foster inclusion and belonging

Fostering Strong Communities

- Provided **$8 billion** towards affordable housing to impact over **565,00 individuals**
- Provided **millions in capital since 2021** to aspiring entrepreneurs

CITIZENS M&A ADVISORY

Citizens JMP supports clients across a focused set of industry sectors. Our investment bankers thrive on delivering keen market insights that are both strategic and thoughtful, while driving extraordinary outcomes for our clients

Team
350+ investment bankers specialized across 9 focus industries

Services
M&A advisory, equity & debt capital markets and equity research coverage

Tailored Solutions
Engagements tailored to clients' specific objectives and relevant market dynamics

M&A Advisory
250+ M&A transactions in the last 5 years totaling **$55B** in value

Capital Markets
370+ bond & equity transactions in 2023

Sponsor Coverage
230+ Covered financial sponsors

28 SENIOR TECHNOLOGY INVESTMENT BANKERS FOCUSED ACROSS THESE CORE INDUSTRIES

APPLICATION SOFTWARE
- Climate Tech
- ERP / Office of CFO
- Human Resources
- Industrial Tech / Supply Chain
- Sales & Marketing
- Vertical SaaS

OTHER TECHNOLOGY INDUSTRIES
- Consumer / Internet
- Financial Technology
- Healthcare IT
- Infrastructure & Networking
- Technology Services

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CITIZENS OVERVIEW

CITIZENS FINANCIAL GROUP[1]

We are one of the oldest and largest financial institutions in the U.S. and currently ranked the 13th largest bank.

CAPITAL MARKETS & ADVISORY[2]

Our Capital Markets & Advisory division is a fast-growing full-service investment banking platform that gives capital market access, M&A and valuation advisory

$220B
Total Assets
as of 3/31/24

$19.0B
Market Cap
as of 9/4/24

10.6%
Tier 1 Capital Ratio
as of 3/31/23

3000+
Corporate & Investment Banking Clients

A-/Baa1/BBB+
L-T Issuer Rating
Tier 1 Capital Ratio

Citizens

4
Divisions

370+
Bond and Equity Transactions in 2023

14
Industries Covered

Top 10
Middle-Market M&A Advisor

230+
Covered Financial Sponsors

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Source: Thomson Reuters LPC and Citizens as of March 31, 2024, Deposits exclude repurchase agreements. Colleague, ATM and branch totals are rounded. Commercial loans figure include total commercial loans & leases. Market Cap as of September 4, 2024

Source: Thomson Reuters LPC and Citizens as of March 31, 2024