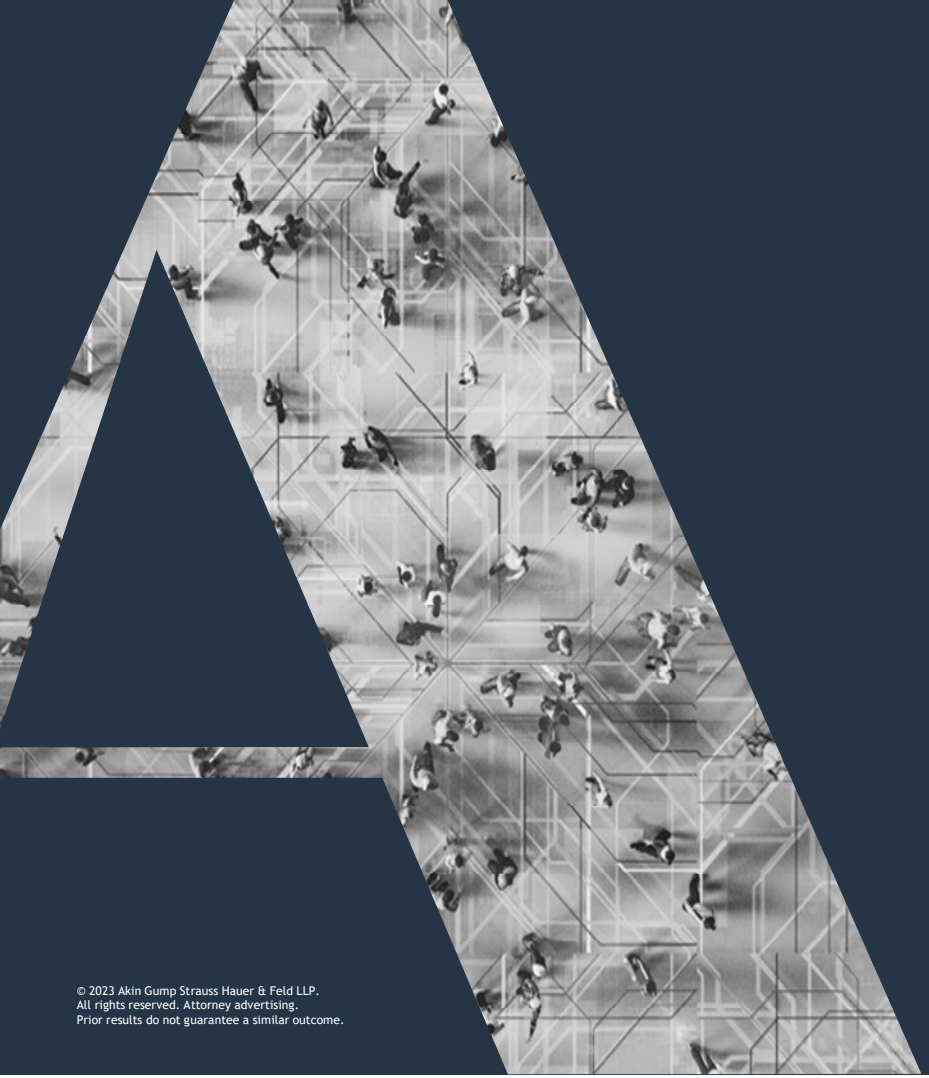

Deal Maker's Boot Camp:
The Energy Transition & Tax Credit Transferability

November 29, 2023

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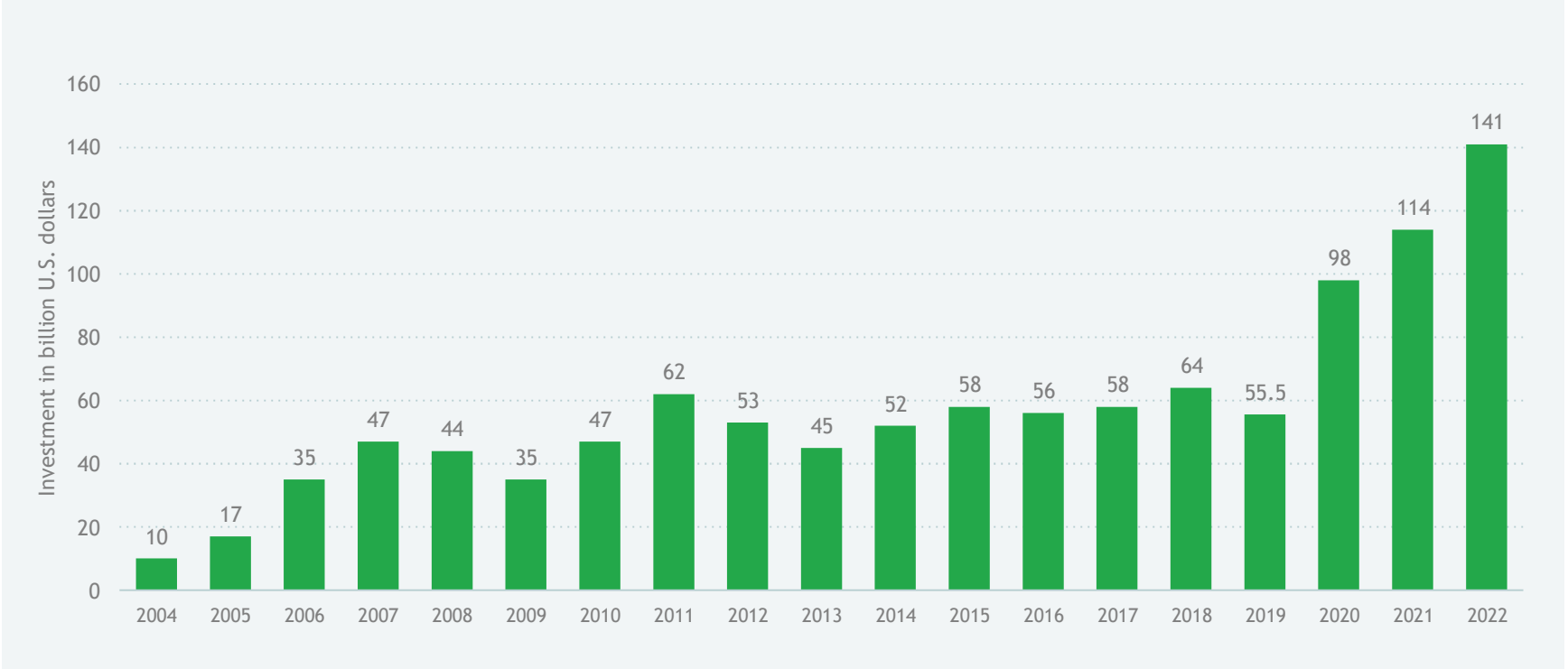
Agenda

- Trends in the Energy Transition
- Project Execution Risks
- Tax Incentives and IRA Impacts to Energy Transition Investments
- Tax Credit Monetization Options
- Other Potentially Applicable IRA Incentives
- Project Financing

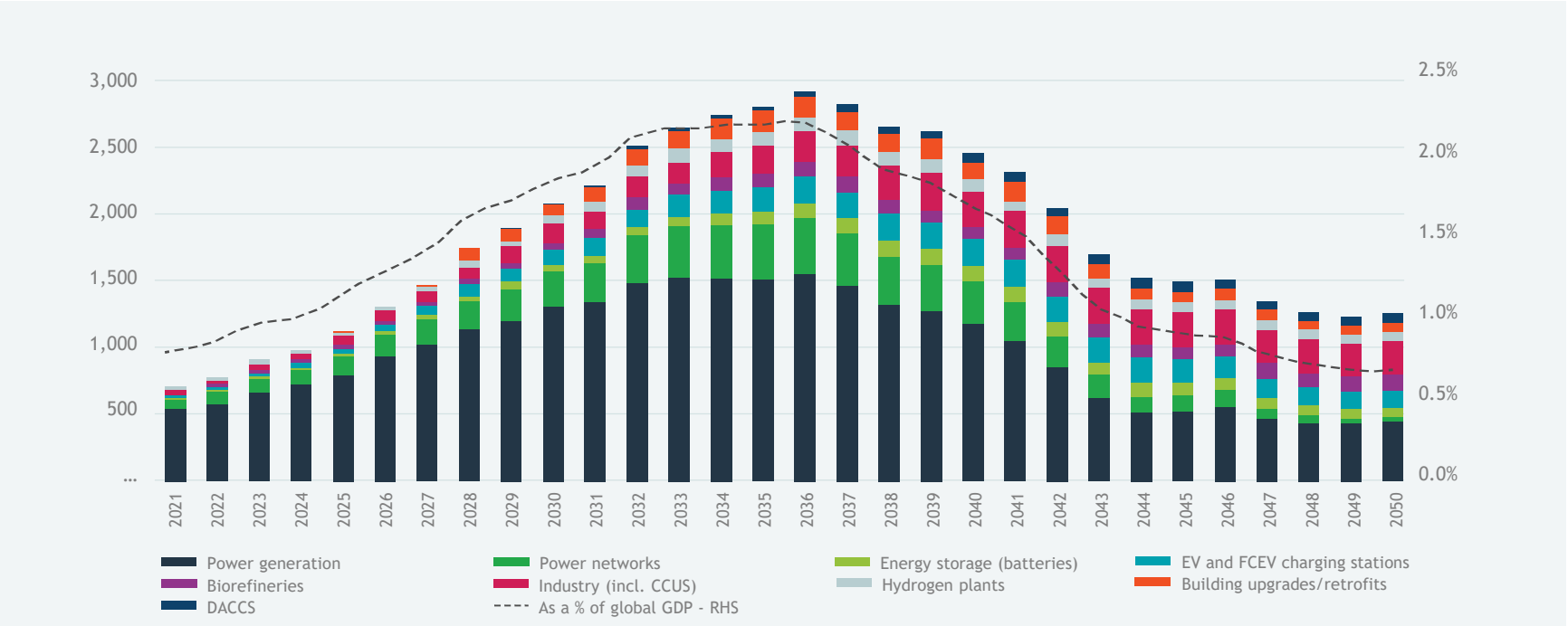
Trends in the Energy Transition

Investment in Clean Energy in the U.S. from 2004-2022 (US$B)



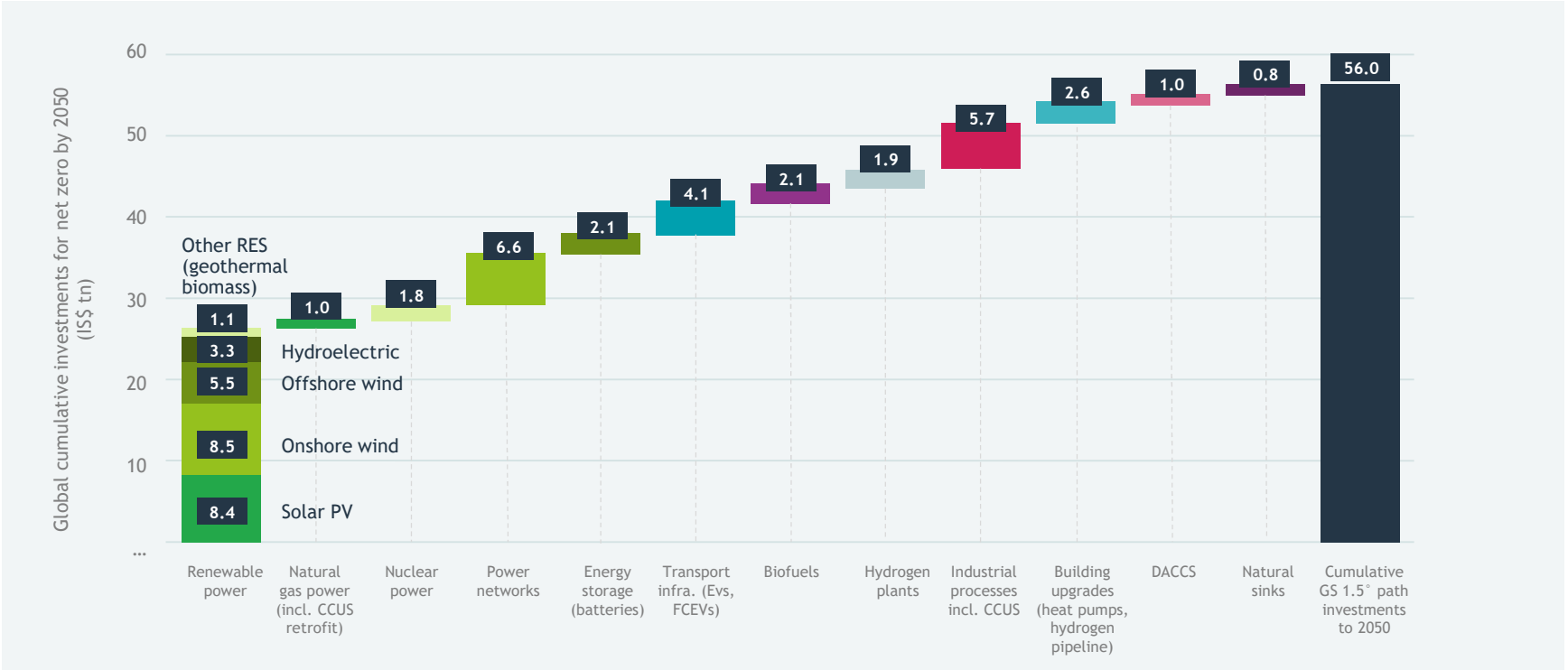
Source(s): BloombergNEF; BCSE; ID 499193

Annual Infrastructure Investments for Path Consistent with Global Net Zero by 2050 (US$B)



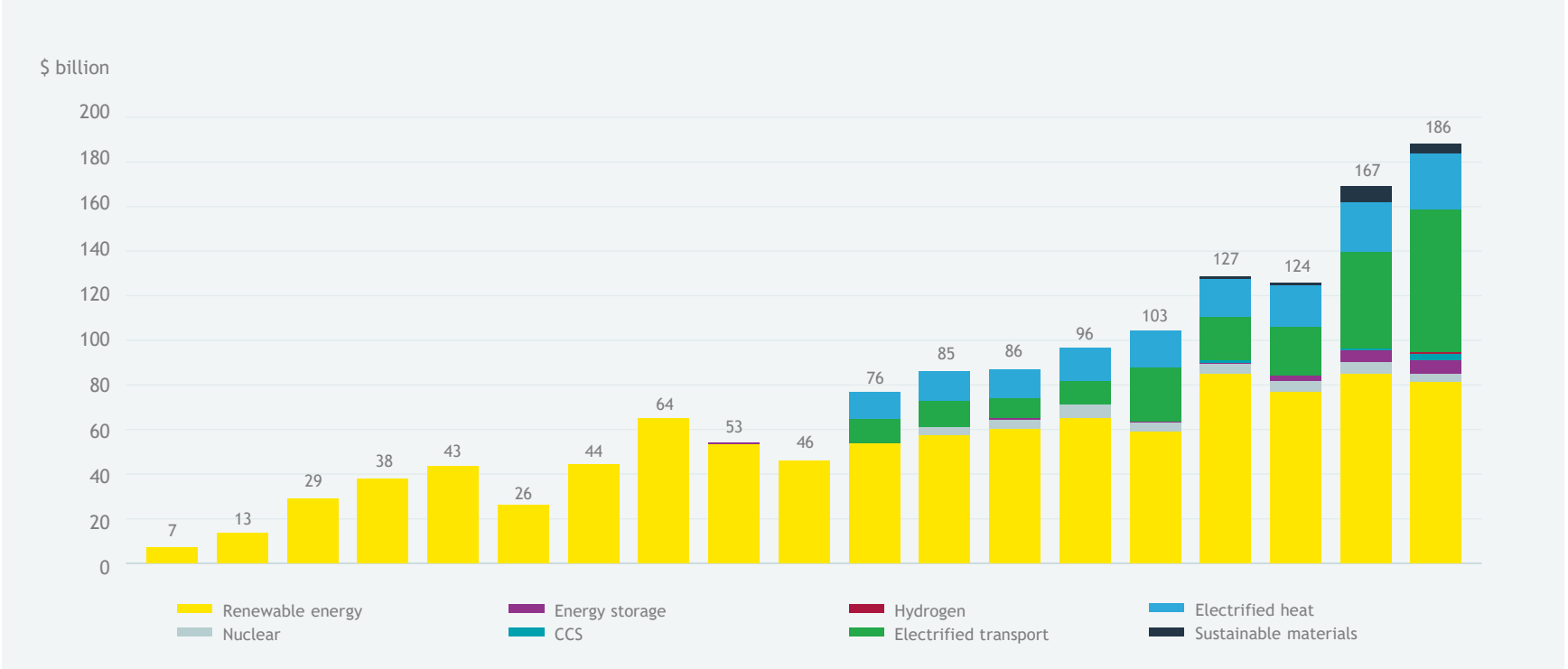
Source: "Carbonomics: Introducing the GS Net Zero Carbon Models and Sector Frameworks," June 23,2021

A $56 Trillion Global Investment Opportunity



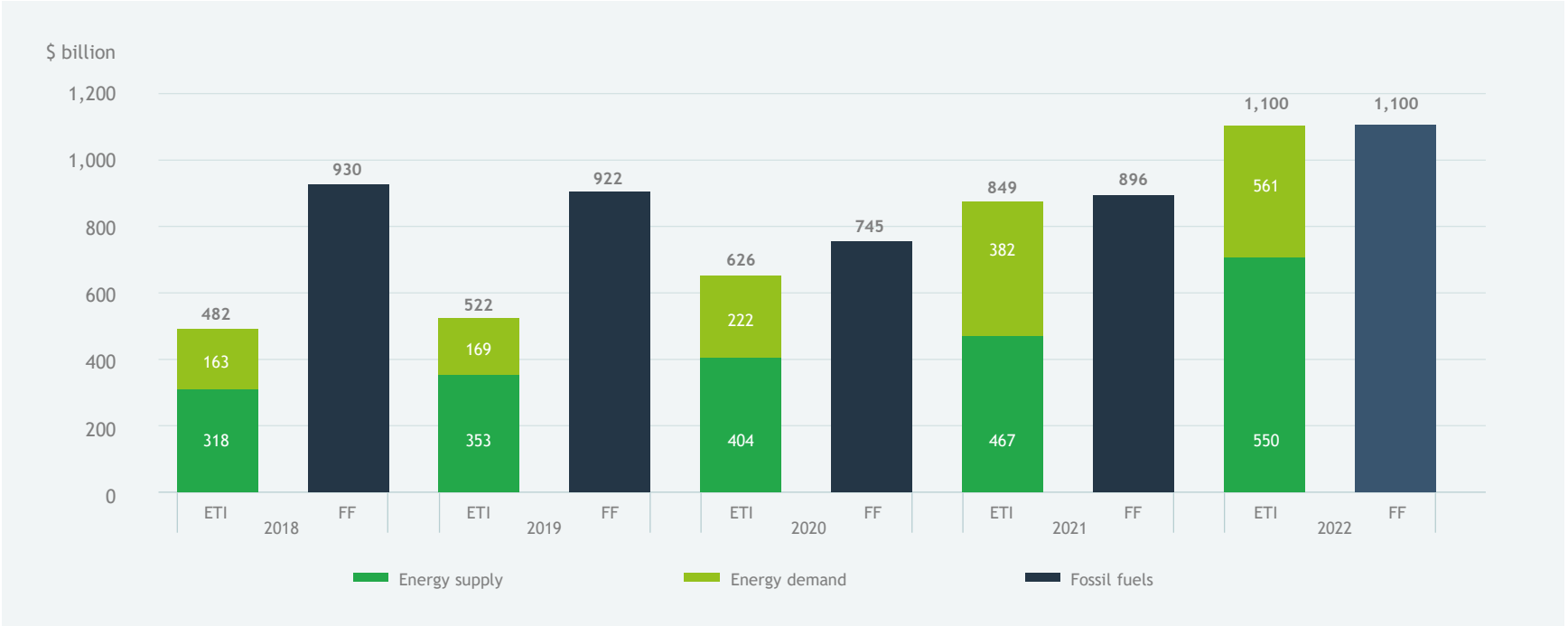
Source: Goldman Sachs

Americas is the Smallest Region for Investment, but Growing Steadily



Source: BloombergNEF. Note: start-years differ by sector.

Global Energy Transition Investment Has Matched Fossil Fuels for the First Time



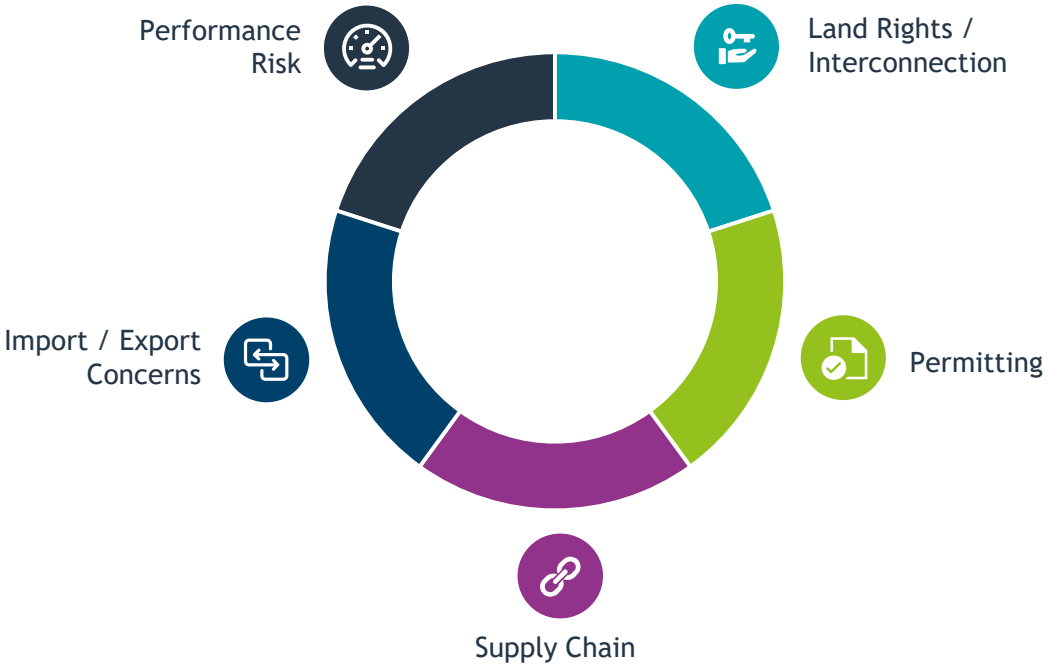
Source: BloombergNEF, IEA. Note: ETI stands for Energy transition investment. FF stands for Fossil fuels. 2018-21 FF values were derived from IEA World Energy Investment 2022 report. 2022 fossil fuel investments are BNEF estimates, and include upstream, midstream, downstream sectors and unabated fossil power generation.

Project Execution Risks

Energy Transition Relevant Technologies

- Onshore and offshore wind
- Solar power
- Hydrogen and ammonia
- Lithium extraction
- Transmission
- Carbon capture, utilization and storage
- Battery storage
- Hydroelectric energy
- Geothermal energy
- Liquefied Natural Gas

Project Execution Risks



Project Execution Risks

Land Rights / Interconnection

Land

- No different than any other project
- Lease or own?
- One Phase or multiple phases/expansion possibilities
- Footprint of projects
- NIMBY

Interconnection / Connection to Market

- Transmission constraints
- Shared facilities
- Local utilities
- Credit support, deadlines, queues

Project Execution Risks

Permitting / Regulatory

Environmental

- ESA / Phase 1
- Class II v. Class VI Well Permits

Federal Regulatory/FERC

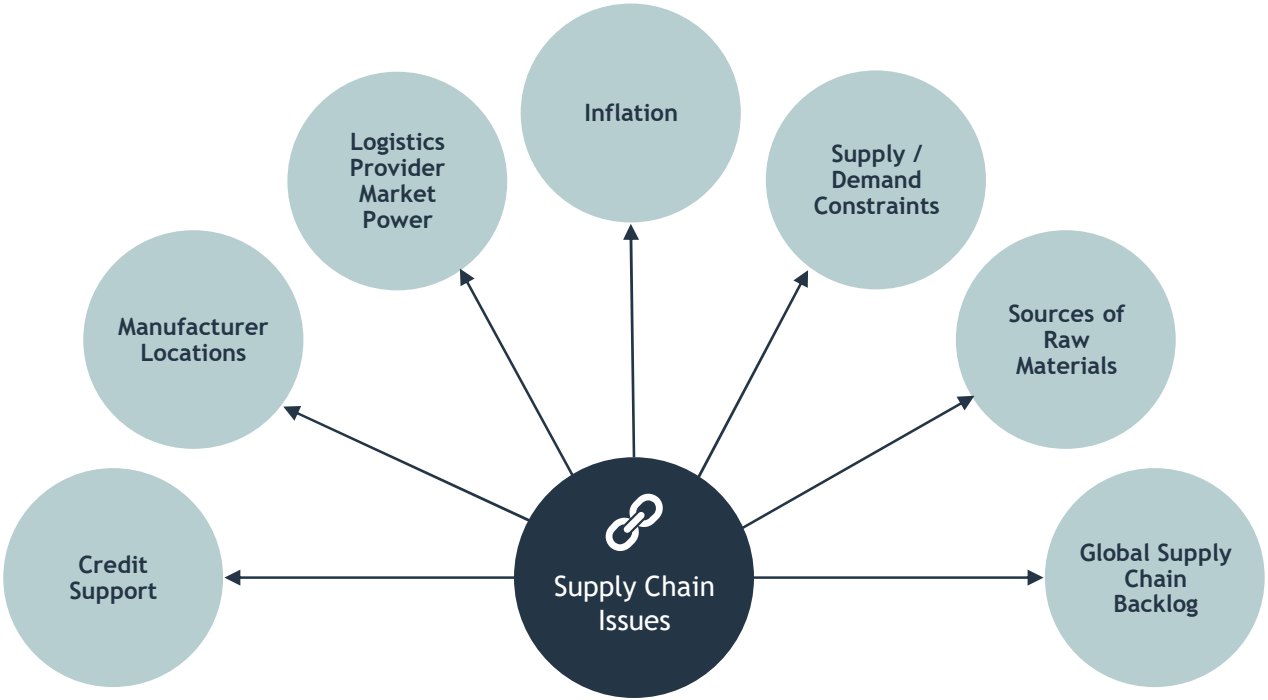
- Market based rate authority
- PUC approval
- Interconnection Rights
- Import/Export Considerations

IRA and EU Compliance

PUC

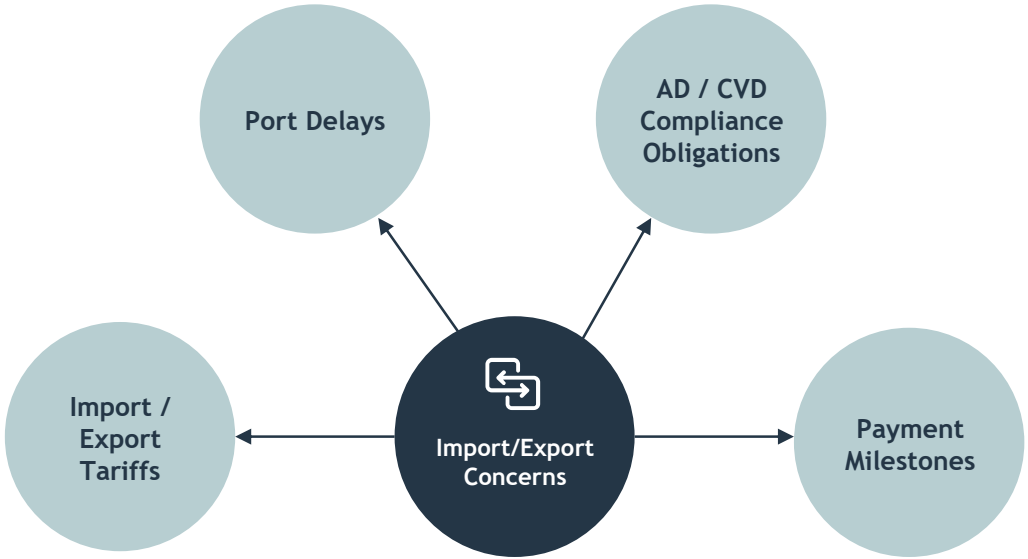
Conditional Use Permits

Supply Chain



Project Execution Risks

Import / Export



Performance Risk

Delays

- **Shipping Delays**
  - Shipping Terms
  - Delay Liquidated Damages
- **Performance Delays**
  - Schedule Recovery Rights
  - Delay Liquidated Damages
  - Force Majeure
  - ITC / PTC Tax Risk

Scope

- Completion of the Project
- ***Technology Risk – Does it work?***

Warranties

- **Defects**
  - Construction
  - Materials / Owner-Supplied Equipment
  - Serial Defects
- **Guarantees**
  - Pre-COD
    - Capacity
    - Price Reduction / Remedial Plan
  - Post-COD
    - Efficiency
    - Availability
    - Warranty Claims / Price Reduction

Technology Specific Execution Risks

	Land Rights	Permitting	Supply Chain	Import / Export	Performance Risk	Market Development Risk
Solar	• Footprint • NIMBY	• ESA / Phase I • IRA Compliance • CUP	• Manufacturer Locations • Required Credit Support • Global Supply Chain Backlog • Logistics Provider Market Power • Supply/Demand Constraints • Sources of Raw Materials	• Import / Export Tariffs • Port Delays • AD/CVD Compliance Obligations • Payment Milestones	• Project Delays • Tax Risk • Defects • Guarantees • Technology	• US v. International Market • Green v. Blue v. Gray Product (Hydrogen only) • Merchant Offtake Risk
Wind	• Footprint • NIMBY	• ESA / Phase I • IRA Compliance • CUP		• Import / Export Tariffs • Port Delays • Payment Milestones	• Project Delays • Tax Risk • Defects • Guarantees • Technology	
CCS	• Easements • Subsurface Leases	• ESA / Phase I • Class II vs. Class VI Well Permits • IRA Compliance • CUP		• Import / Export Tariffs • Port Delays • Payment Milestones	• Project Delays • Tax Risk • Defects • Guarantees • Technology	
Hydrogen/ Ammonia	• Typical Project	• ESA / Phase I • IRA Compliance • CUP		• Import / Export Tariffs • Port Delays • Payment Milestones	• Project Delays • Tax Risk • Defects • Guarantees • Technology	

Carbon Capture Process Segments

CO_2 Source

- Ethanol
- Methanol
- Coal
- Natural Gas
- Waste-to-fuel
- Etc.

Capture Equipment

- Power: Amine
- Power: Allam Cycle
- Industrial: Compression
- Industrial: Syngas cleanup

Transport

- Pipeline

CO_2 Sink

- Contracted Off-take
- New EOR Opportunity
- Depleted Oil & Gas Wells
- Saline Formation

Project Finance Model as a Vehicle for Assessing Energy Transition Risk

Project finance is a method of financing long-term infrastructure using a non-recourse or (increasingly) limited recourse with repayment based on project cash flows.

The financing is based on the expectation of revenue and not on the credit support of the project sponsor:
- Non-recourse/limited recourse (the lenders will have limited remedies in the case of a default)
- Off balance sheet

Project sponsor would typically create a single purpose vehicle (a “SPV”) or other entity to develop, own and operate the Project.

Bankruptcy remoteness – SPV structure insulates the SPVs (and the Project) from insolvency of the Sponsor.

Project Execution Risks

Typical Project Lifecycle

M&A — Construction and Term (Operations) Financing

Development

- Site Control
- Permitting
- Interconnection
- Offtake?

Construction

- Construction and Procurement Agreements
- Offtake?

Operations

- Maintenance
- Asset Management

Tax Incentives and IRA Impacts to Energy Transition Investments

IRA and Energy Tax Incentives

- Largest U.S. investment in climate solutions ever – part of overall goal to reduce emissions 40% from 2005 levels by 2030 and net-zero by 2050.
- Will invest approximately $369 billion in Energy Security and Climate Change programs over the next ten years.
  - The funds will be delivered through a mix of tax incentives, grants, and loan guarantees.
  - Clean electricity and transmission receive the biggest slice , followed by clean transportation, including electric-vehicle (EV) incentives.
- The U.S. Department of Energy's Loan Program Office will receive roughly $12 billion to expand its existing loan authority and create a new loan program capped at $250 billion to upgrade, repurpose, or replace energy infrastructure.
- The Bipartisan Infrastructure Law (BIL), the CHIPS & Science Act, and IRA together introduce $2 trillion in new federal spending over the next ten years.
- IRA touches four main sectors:
  - Renewable Energy
  - Transportation and fuels (EV, charging infrastructure, sustainable fuels)
  - Carbon Capture and Hydrogen
  - Advanced Manufacturing

IRA and Energy Tax Incentives, cont.

- Production Tax Credits (PTC) (45)
- Investment Tax Credits (ITC) (48)
- Clean Energy Production Credit (45Y)
- Clean Electricity Investment Credit (48E)
- Zero Emission Nuclear Power Production Credit (45U)
- Carbon Capture Credit (45Q)
- Clean Hydrogen ITC or PTC (45V)
- Advanced Manufacturing Production Credit (45X)
- Advanced Energy Project Credit (48C)
- Clean Vehicle Credit (30D)
- Previously-Owned Clean Vehicles Credit (25E)
- Qualified Commercial Clean Vehicles Credit (45W)
- Alternative Fuel Refueling Property (30C)
- Biodiesel and Renewable Diesel (40A, 6426 and 6427)
- Alternative Fuels and Alternative Fuel Mixtures (6426)
- Second Generation Biofuel (40)
- Sustainable Aviation Fuel (40B)
- Clean Fuel Production Credit (45Z)
- Home Improvement Credit (25C)
- Residential Energy Credit (25D)

- Many credits are now subject to reduction unless prevailing wage and apprenticeship requirements are not satisfied.
- Some credits have “adders” for domestic content, certain locations (“energy communities”) and/or low-income benefit.
- Many tax credits are now transferrable or subject to “direct pay” options.

IRA and Energy Tax Incentives, cont.

- Onshore and offshore wind
- Solar power
- Hydrogen and ammonia
- Lithium extraction
- Green liquefied natural gas (LNG)
- Electric vehicles
- Carbon capture, utilization and storage
- Battery storage
- Hydroelectric energy
- Geothermal energy
- Decommissioning oil & gas assets
- Manufacturing

Tax Credit Types: Current Market

Production Tax Credits (PTC) (45)

- 10-year credit period, claimed annually.
- $28/MWh produced and sold to an unrelated party.
- Wind, biomass, geothermal, waste-to-power, ocean energy.
- No recapture.

Investment Tax Credits (ITC) (48)

- Immediate credit available when project is “placed into service.”
- Credit equal to a percentage of cost or fair market value. Base rate is 30% of cost basis.
  - Various structures used to “step up” cost basis to fair market value.
- Solar, wind, battery storage, renewable natural gas.
- Does not require sale of electricity or gas to a third party.
- Recapture if project is taken out of service or disposed of during first five years.

“Adders”

- Credit rates increased if sufficient “domestic content” is included (+10%), projects are in “energy communities” (+10%), or projects are awarded “low-income community” status (+10-20%). More powerful for ITC than PTC.
- Credit rate decreased if labor requirements are not satisfied (80% reduction).

Tax Credit Types: Future Opportunities

New Production Tax Credits (45V; 45X; 45Z)

- **45V:** 10-year production tax credit for clean hydrogen production. Credit rate scales based on carbon intensity of the production process. No recapture. Awaiting IRS guidance; guidance imminent.
- **45X:** Production tax credit for manufacturing of solar, wind and battery components. Phases out 2029-2033. No recapture. Awaiting IRS guidance; guidance imminent.
- **45Z:** 3-year credit period (2025-2027) for clean transportation fuel production. Credit rate scales based on carbon intensity of the production process. No recapture. Awaiting IRS guidance.

Carbon Capture and Sequestration Credits (45Q)

- 12-year credit based on metric tons of carbon oxides captured and permanently sequestered.
- Credit rate varies based on the emitter type and method of sequestration.
- Recapture if leakage occurs during 3 years after sequestration. Limited exceptions.

Direct Pay

- Note that 45Q (carbon capture and sequestration), 45V (clean hydrogen production) and 45X (manufacturing) are eligible for “direct pay” for up to five years that end before 2033. Competition for tax credit buyers.

Tax Credit Monetization Options

New Transferability and "Direct Pay"

- Historically, all the major federal tax credits were non-transferrable and non-refundable.

The IRS blessed a number of leasing and joint venture structures to allow taxpayers with sufficient tax liability to enter into such a structure with a project owner and efficiently utilize the available tax incentives. These are generally known as "tax equity" as the tax-efficient participant usually must become an equity owner of the project (whether as a lessor or as a partner in a JV that gets allocated the credits).

This created significant bottlenecks as the complexity of these structures, IRS-required allocations of risk to the tax equity investor and financial accounting impacts keep most potential tax equity investors out of the market. While more participants have entered the market in recent years, the tax equity market remains dominated by a handful of large banks and conglomerates (*e.g.*, JP Morgan, Bank of America, Berkshire Hathaway, Wells Fargo). This is particularly true for production-based tax credits.

- The IRA seeks to change this situation. Included in the IRA is a provision allowing certain entities to obtain direct payments from the IRS for all credits, all entities to obtain direct payments from the IRS for certain credits including clean hydrogen and carbon capture (but only for a limited portion of the credit period), and all entities to transfer and sell tax credits.

“Direct Pay”

- “Direct pay” refers to an election that can be made by certain entities such that the credit is treated as a deemed payment made by such entity to the IRS. Thus, if this results in an overpayment as compared to such entity’s tax liability, the IRS would refund the excess just like any other overpayment.
- Under original legislation, this would only apply have applied to tax-exempt entities. As Build Back Better was negotiated, certain taxable entities were added to the list (such as Alaska Native Corporations). But for the most part, most taxpayers cannot access the direct pay election.
- Exceptions are included for a few credits, but only for the first five years of the credit period that end before 2033:

Section 45V credits for clean hydrogen production.

Section 45Q credits for carbon capture.

Section 45X credits for certain domestic manufacturing activities.

Transferability

- Most energy transition credits are now transferable. Previous to IRA, it was impermissible to transfer these credits.
- Transferability can considerably simplify monetization of credits. However, transfers are not a perfect solution or replacement for tax equity:
  - Credit transfers do not monetize depreciation. Consideration for transferred credits is non-deductible for the purchaser. Conceptually, one way to think about tax equity is that it makes payment of federal income taxes (through tax credits) wholly or partially deductible.
  - Credit transfers do not naturally allow for “step ups” in the tax basis of projects for purposes of calculating the ITC.

Other Potentially Applicable IRA Incentives

Other IRA Incentives

Extension of Incentives for Biodiesel, Renewable Diesel and Alternative Fuels

Extends the various existing income and excise tax credits in Section 40A(g) for biodiesel and renewable diesel, biodiesel mixtures, alternative fuels and alternative fuel mixtures until December 31, 2024. This extension applies to fuel sold or used after December 31, 2021.

Extension of Second Generation Biofuel Incentives

Extends the existing Section 40(b) credits for second-generation biofuels produced after December 31, 2021 and before January 1, 2025.

Sustainable Aviation Fuel Credit

Creates a new income and excise tax credit under Section 40B for qualified mixture of sustainable aviation fuel sold or used for the period between December 31, 2022 through December 31, 2024. In order to qualify, sustainable aviation fuel must result in at least 50 percent less greenhouse gas emissions than petroleum-based jet fuel. The base credit amount is $1.25 per gallon with a proportionate increase for additional emissions reductions up to $1.75 per gallon.

Project Financing

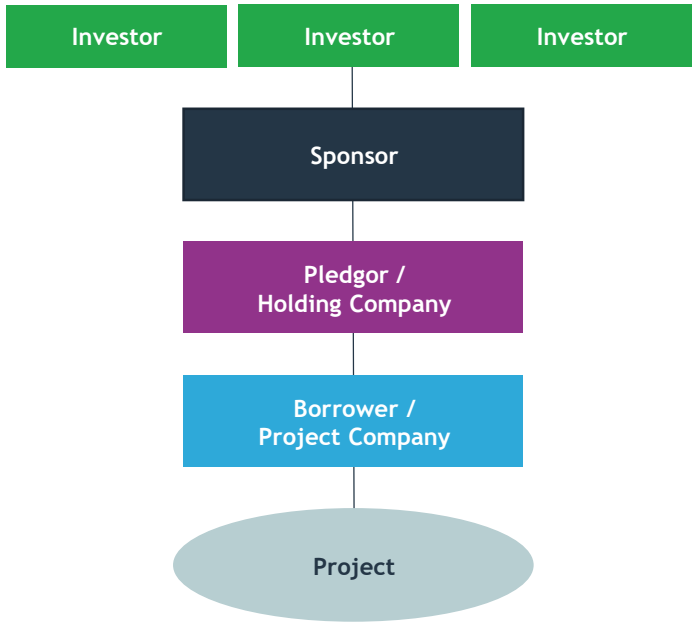
Parties Involved

Investor
Takes a direct or indirect common or preferred equity position in a Project; can be multiple investors that take control or non-controlling positions in the Sponsor.

Sponsor
Developer / ultimate owner of the Borrower and the Project.

Pledgor / Holding Company
Instead of direct ownership, Sponsor typically creates a shell company to own the Borrower.

Borrower / Project Company
Borrows funds under the Credit Agreement, and owns and operates the Project.



Common Debt Facilities

Pre-NTP Loans	Construction Loans	Term Loans	Working Capital / Revolving Loans	Letters of Credit
For the payment of development /pre-NTP costs; usually repaid at NTP.	For the payment of construction costs; usually repaid shortly following competition of Project unless converted to Term Loans (“Term Conversion”).	Longer term loans that are required to be repaid over time or in a single payment at the end of the term.	Additional liquidity for general working capital needs (usually not until operation of the projects).	Issued under credit agreement to allow a project owner to satisfy credit support requirements under its project and financing documents.

Main Finance Documents

Facility Agreement/CTA

Shareholders Agreement

Security Documents

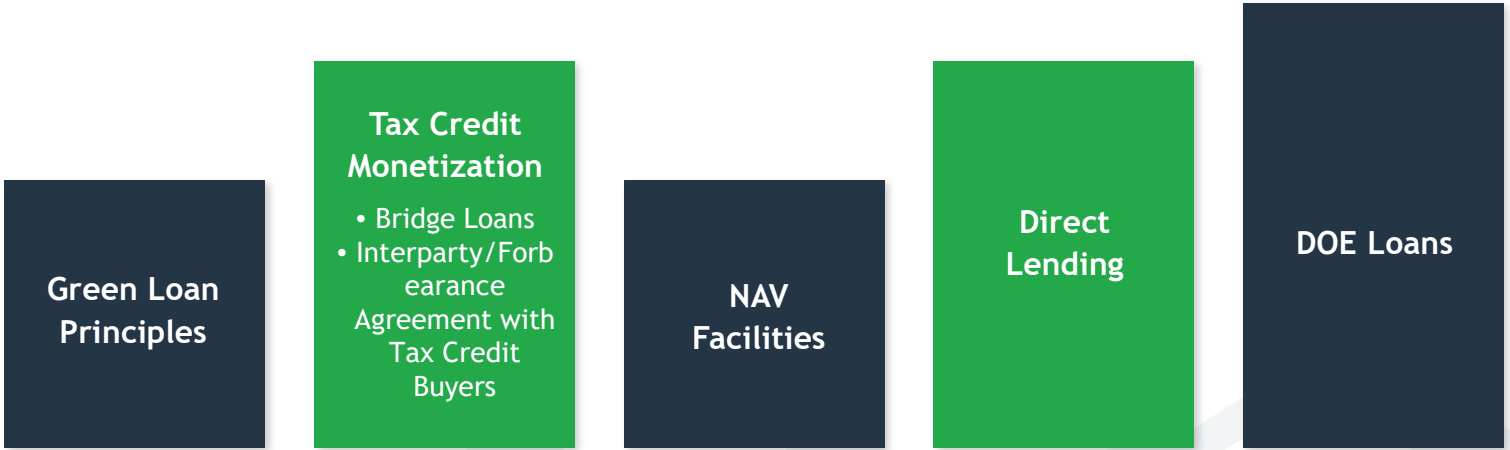
Hedging Agreements

Account Agreements

Security Trust and Intercreditor Deed

Equity Subscription Agreement

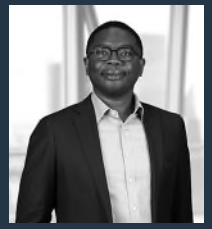
Trends in Project Finance



See you Soon!

December 14 – Regulatory ABCs of M&A

Questions?



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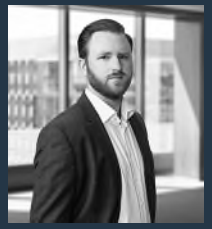

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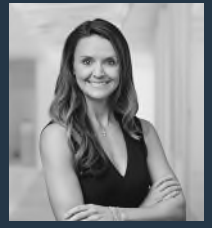

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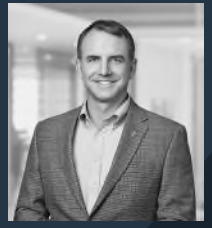

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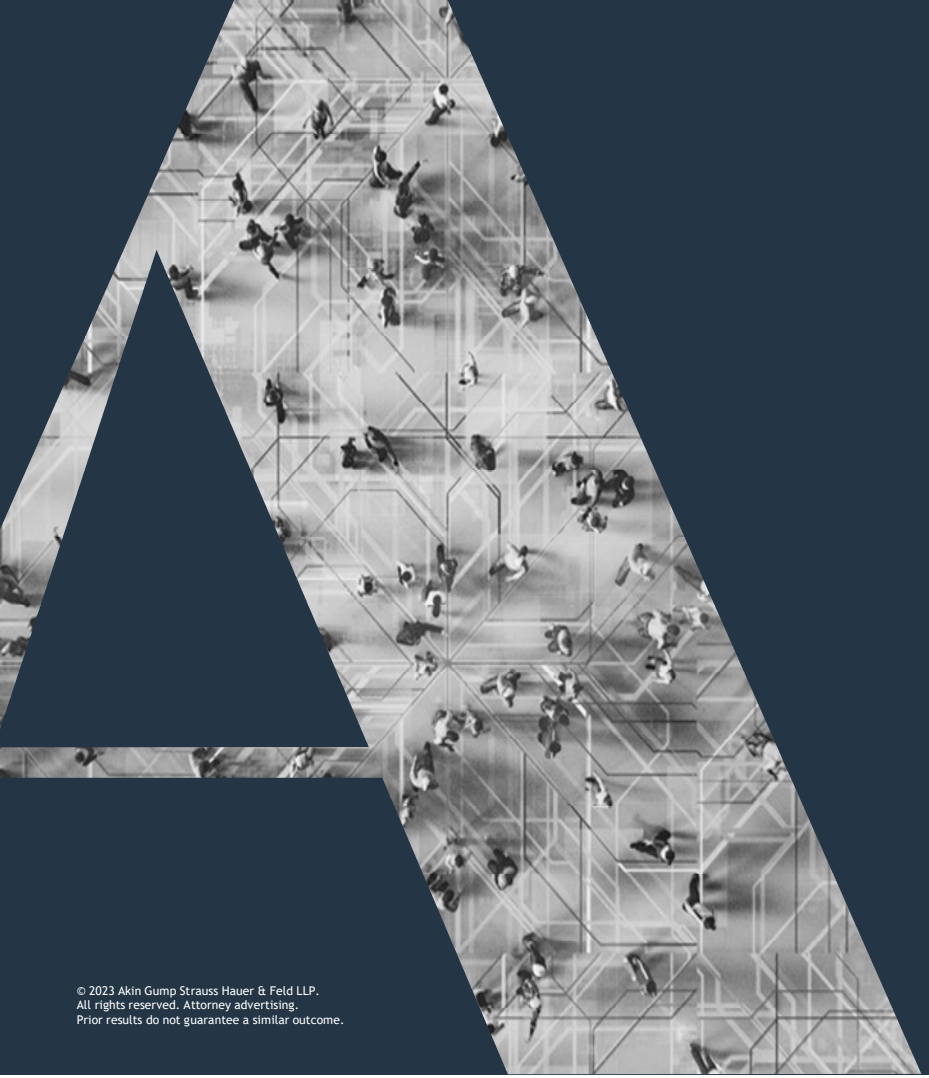

Thank you!

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