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THE CARLYLE GROUP

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# Carlyle Global Infrastructure Opportunity Fund

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# Carlyle's Global Investment Platform

## Corporate Private Equity

**\$84**  
billion

## Real Assets

**\$46**  
billion

**\$222 Billion  
Total AUM**

**\$46**  
billion

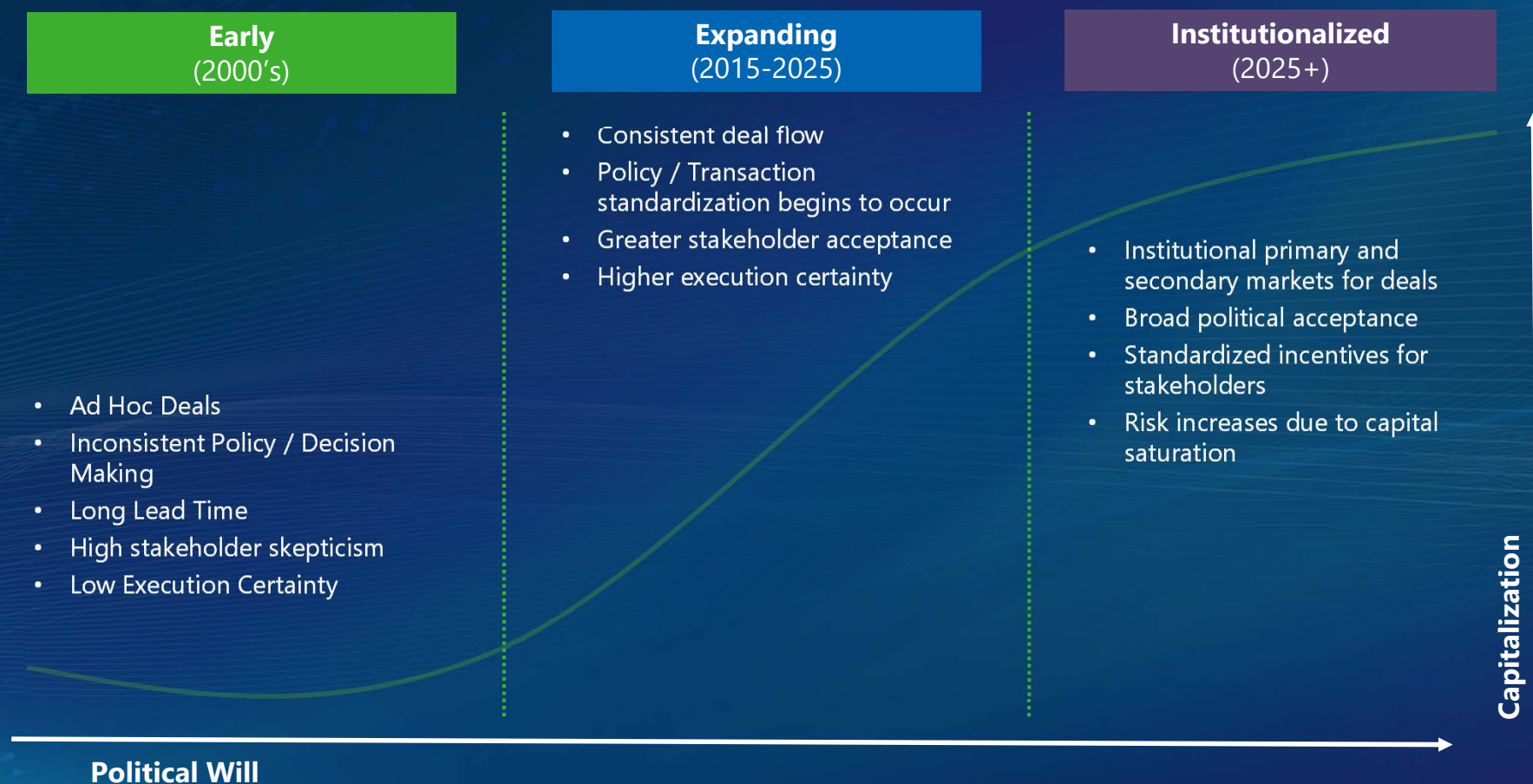
**\$45**  
billion

## Global Credit

## Investment Solutions

Note: As of March 31, 2019. Presented for illustrative purposes only.

# Evolution of the U.S. Public Infrastructure Market



Presented for illustrative purposes only. Based on Carlyle Analysis as of May 2017. The information above reflects Carlyle's views and may be subject to change based upon prevailing global market and economic conditions. There can be no guarantee that any forecasts will ultimately materialize.



# The U.S. Infrastructure Opportunity

**Bi-partisan support exists for infrastructure in the United States, but with 80%+ of public infrastructure owned by states and municipalities, the role of the federal government is limited.**

We are seeing an increase in federal and local support for public-private partnerships and believe the U.S. remains the world's most attractive emerging infrastructure market.

We believe three key trends are driving the emergence of the U.S. opportunity, including:

1. Largest opportunity set globally is in the US; significant need for infrastructure updates, and specifically in lower risk, core infrastructure assets
2. Accommodative regulatory environment
3. Distinct transaction environment that favors trusted local partners

**While the U.S. market has evolved as the most attractive place to invest, it is not an 'open' market.**

**To succeed, investors must be U.S.-based, have a credible local presence and track record of delivering on stakeholder outcomes.**

# Key Themes



## Transport

- Over \$100 billion required in airport infrastructure over next 5 years<sup>1</sup>



## Energy

- US energy export revolution changing global energy market dynamics
- Crude exports have grown from 0 to 2.2 mmbbls/d in three years<sup>3</sup>



## Electric Infrastructure

- 3500 power outages in 2017 impacting 36 million people<sup>2</sup>



## Water

- 2,000+ medium / large water systems in the US are out of EPA compliance<sup>4</sup>

**Over \$2 trillion required to be invested in US infrastructure through the next decade**

<sup>1</sup> Airport Council International.

<sup>2</sup> ECMAG Article. "36.7 Million Affected by Power Outages in 2017, Per Eaton Study" (March 2018).

<sup>3</sup> EIA (October 2018).

<sup>4</sup> Natural Resources Research Institute (2017).

## Transport: Private Investment in Airports through P3 Pillars



**Major Opportunity to Improve Outcomes for All Stakeholders of US Airports**



# Transport Case Study: Terminal One at JFK Airport



# 1 Community Engagement

- 30% MWBE Commitment
- Partnering with Labor
- Sustainability, including 50 – 100% Renewable Energy Target
- JFK Redevelopment Community Advisory Council
- Education & Career Development Opportunities through the JFK Airport Academy



**Unprecedented Commitment to Diversity, Inclusion & the Local Community**



## 2 Customer Outcomes

### The Port Authority of New York & New Jersey

- Ownership & control of JFK
- Governance & oversight
- Transfer of project delivery risk
- Increased sustainability
- Expedited timeline

### TOGA Airlines; Reach Airports

- World-class operations & efficiency
- Munich Airport expertise
- Competitive cost base
- Performance measurement & reporting schemes

### Terminal One Passengers

- World-class facilities
- Quality of space & product offerings
- Seamless passenger journey
- Safety & security
- Terminal integration
- Easy access

**Successful Navigation through Complex Stakeholder Environment**

Note: For illustrative purposes only.

### 3 Commercial Outcomes

- Material equity contribution to create alignment with minimal impact on PANYNJ cost of capital
- Positive impact on credit rating
- Strategic balance of public & private financing alternatives
- Alignment of stakeholder interests
- Ability to leverage private sector networks, resources & expertise



**Commercial Optimization through Partnership & Alignment**

# Bringing to Bear a Full Complement of Resources

## 1 Bid Phase and Design Development

### 580+ Total Professionals

- 20+ Investment Professionals
- 25+ Financial Advisors
- 40+ Lawyers
- 50+ Airline Professionals and Advisors
- 15+ Airport Operations Professionals
- 20+ Commercial Consultants
- 10+ Community Development and Government Relations Experts
- 30+ Environmental and Technical Advisors
- 300+ Design and Engineering Professionals
- 50+ Project Management and Delivery Experts
- 20+ Pre-Construction Professionals

## 2 Construction Phase

- 5,000+ Construction & Related Services professionals

## 3 Operational Phase

- Up to ~15,000 badged employees



# Forecasted Job Creation at Terminal One

The New Terminal One is forecasted to create over 8,000 new permanent jobs

Total Number of Badged Employees\*

Current Terminal One

New Terminal One



*Training and career development opportunities in collaboration with local organizations such as the Council for Airport Opportunity to attract and develop future local workforce*

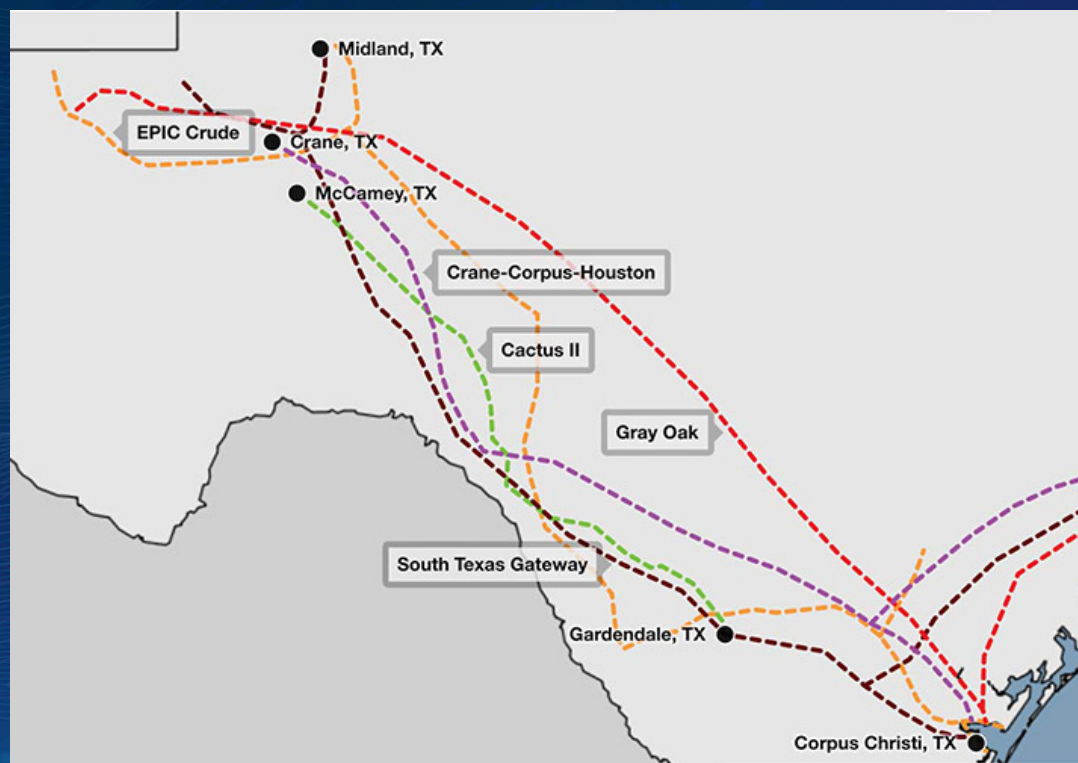
Job Categories

- Terminal Management
- Security (incl. TSA)
- Customs
- Administrative
- Maintenance
- Wheelchair Assistance
- Janitorial
- Airline Staff
- Lounge Staff
- Logistics
- Ramp Operations
- Baggage Handling
- Retail Staff
- Restaurant Staff
- Airline Marketing

Source: Carlyle analysis. For illustrative purposes only.

\*Badged employees represents all employees at Terminal One including TSA, CBP, Airlines, service providers etc.

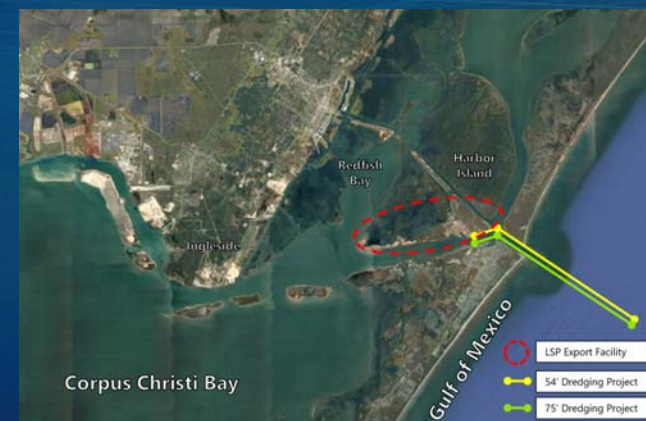
# Energy Case Study: Lone Star Ports



*Preliminary Harbor Island Dock Rendering*



*Dredging Project Map*

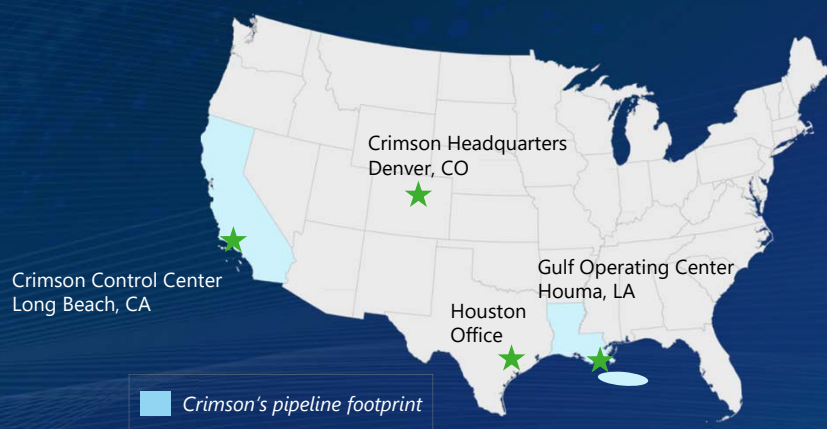


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# Crimson Midstream

## Acquisition of Midstream Crude Oil Pipeline Owner & Operator



# AlphaStruxure

## Deepening Partnership with Schneider Electric

- Carlyle: Ability to finance and own energy infrastructure removes funding roadblocks and accelerates deployment of distributed energy assets
- Schneider: Best-in-class low-and medium-voltage products and integrated digital solutions deliver the efficiency and reliability gains customers are seeking
- With current favorable market dynamics, the partnership has the potential to provide unrivaled energy solutions and value to customers
- AlphaStruxure is well positioned to capitalize on the large and growing market for microgrid and distributed energy solutions

Note: Crimson Midstream transaction closed on 1/11/19. For illustrative purposes only. References to strategic partnerships are not and should not be construed as a recommendation of any particular company or security. The information above reflects Carlyle's judgment & may be subject to change based upon prevailing global market & economic conditions. There is no guarantee that these trends will continue. There can be no guarantee that the fund will be able to consummate this transaction on the terms herein or at all.



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For purposes of this Presentation, the valuation of realized investments is based upon cash proceeds received and the value of in-kind distributions as of the distribution date. The valuation of each publicly-traded investment is based upon the closing market price of that stock as of the valuation date. Carlyle's valuation of unrealized non-publicly traded investments is based on assumptions that Carlyle believes are reasonable under the circumstances. The actual realized returns on unrealized investments will depend on, among other factors, future operating results, the value of the assets and market conditions at the time of disposition, any related transaction costs and the timing and manner of sale, all of which may differ from the assumptions on which the valuations used in the prior performance data contained herein are based. Accordingly, the actual realized return on any unrealized investments may differ materially from the results indicated herein. Each investment's equity valuation was used as the basis for calculating such investment's "Gross IRR."

"Gross IRR" means an aggregate, annual, compound, gross internal rate of return on investments. In the case of portfolios of realized and unrealized investments, the Gross IRRs are based on realizations and internal valuations as of the applicable date. Gross IRR is calculated based on the actual timing of investments, distributions, realized proceeds and remaining fair value for each of the investments. Transaction-specific Gross IRRs and composite Gross IRRs are calculated using internal valuations and on the basis of actual timing of portfolio company inflows and outflows through the valuation date, aggregated monthly, and the return is annualized.

Gross IRRs and Gross multiples of invested capital ("Gross MOICs") presented herein do not reflect management and advisory fees, carried interest, taxes, transaction costs in connection with the disposition of unrealized investments and other expenses that are borne by investors in Carlyle funds, which will reduce returns and in the aggregate are expected to be substantial; for a description of such fees, carried interest, and expenses, please see the Memorandum and Part 2A of Form ADV maintained by Carlyle's registered investment advisor, Carlyle Investment Management LLC. ("CIM"), a copy of which will be furnished to each investor prior to its admission to any Fund. Furthermore, a hypothetical illustration of the effect of carried interest, fees, expenses and other charges on the Gross IRRs for Carlyle is available upon request and for the International Energy Investment Team (defined below) are presented on page 38. "Net" IRRs reflect all management and advisory fees, carried interest, transaction costs, and other expenses (other than taxes borne or to be borne by investors). In considering any such hypothetical illustrations it should be borne in mind that no individual investor in fact received such net returns.

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The energy investment performance of Carlyle funds described herein is derived from funds having different strategies from that of the Fund. The Carlyle energy fund performance includes four funds co-managed through joint venture arrangements of Carlyle with Riverstone Holdings LLC and its affiliates. For such funds, both CIM and Riverstone Investment Group LLC act as investment advisers to each of such funds. Management of each of the Energy Funds is vested in committees with equal representation by Carlyle and Riverstone, with the consent of both Carlyle and Riverstone representatives required for investment decisions. The Carlyle energy fund performance does not include two successor funds where Carlyle representatives have solely a minority representation on the applicable management committees. In addition, recipients should be aware that NGP Energy Capital Management is operated separately from Carlyle, and Carlyle has not participated in the management of any NGP funds or investments.

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