



# Financing US LNG Import Terminals and Infrastructure

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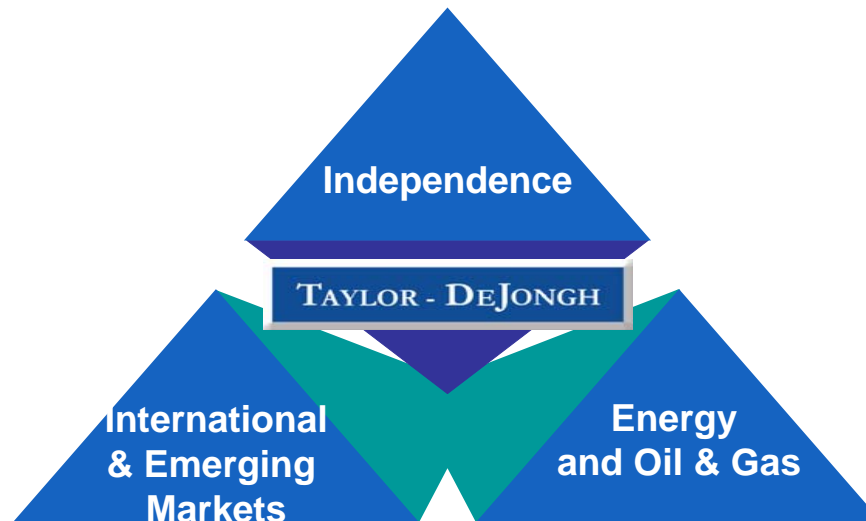
# Taylor-DeJongh: Global Financial Structuring

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# Taylor De-Jongh – Financial Advisor

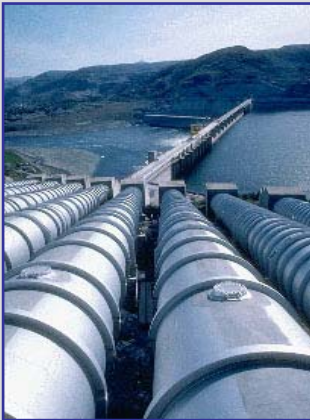
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- TDJ is an independent, specialist merchant banking firm that focuses on providing creative, objective capital solutions to its energy, oil & gas and infrastructure clients globally
- With a track record of over 24 years of success, TDJ's seasoned professionals bring the highest quality of independent, objective service to meeting its clients' capital needs in some of the world's most challenging environments



# Taylor De-Jongh – Industry Focus

## Core Expertise



- Oil & Gas
- LNG
- GTL
- Petrochemicals and Refineries



- Pipelines
- Power Generation
- Metals & Mining

## Other Sectors



- Telecommunications
- Water & Wastewater
- Industrial / Infrastructure
- Offset Programs

# Services

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- Debt and Equity raising.
- Complex structured finance transactions.
- Strategic acquisition advisory.
- International project development/ investment structuring.
- Financial restructurings and workouts.
- Privatizations: buy-side, sell-side.

- Propose the capital structure.
- Assist with project development & commercial negotiations.
- Sell projects to lenders and investors.
- Manage financing bids in a competitive manner to obtain optimal terms.
- Negotiate the financing terms.

# Track Record Highlights

- Developed, structured, negotiated and financed **US\$50 billion** of international capital placements in **100 countries**.
- TDJ principals have placed over **US\$50 billion** in debt.
- Advisor on **12 Deals of the Year** in the Past 6 years:



# LNG Experience

## Atlantic Basin

**Qatargas II  
LNG Qatar**



FA to Lenders  
US\$5 bn

**Equatorial  
Guinea LNG**



FA to Sponsors  
US\$1.7 bn

**Sonatrach,  
Skikda Trains  
4,5,6  
Algeria**



FA and Debt  
Arranger  
US\$250 mm

**Atlantic LNG  
Train 1  
Trinidad**



FA to Sponsor  
US\$1 bn

## Pacific Basin

**Alaska LNG  
and Pipeline  
USA**



FA to Sponsor  
US\$12 bn

**RasGas  
LNG Train 3 Qatar**



FA to Sponsors  
US\$1.4 bn

**Jamaica LNG  
Jamaica**



FA to Sponsor  
Confidential

**Angola LNG  
Angola**



FA for Project  
Company  
US\$1.5 bn

**Tambeyneftegaz  
Russia**



FA to Sponsor  
Confidential

**Qatargas  
Upstream  
LNG Qatar**



FA to Lenders  
US\$600 mm



# Financing US LNG Import Terminals and Infrastructure

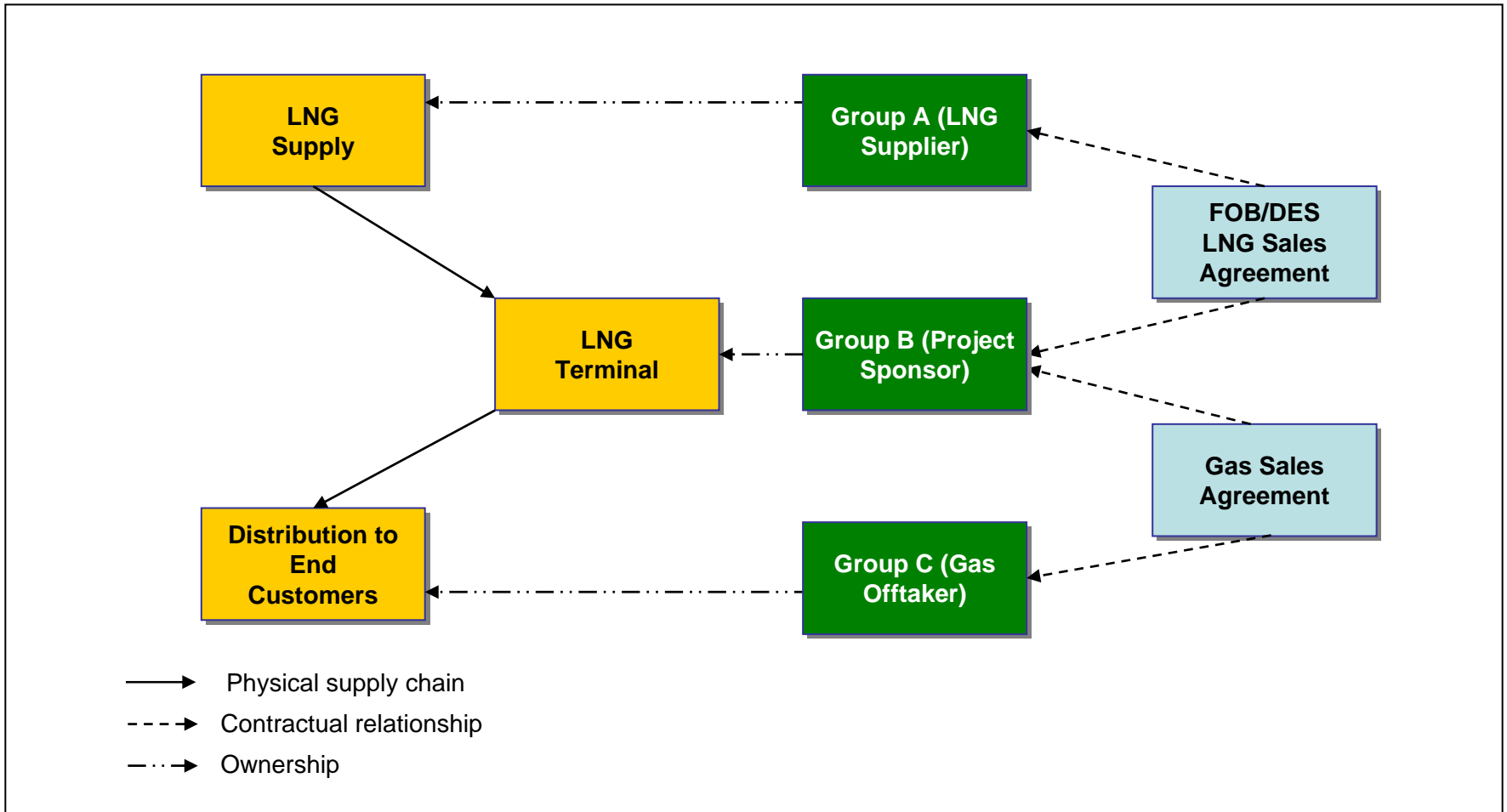
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# Commercial Structures

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- Commercial structuring is key to successful financing of LNG terminals
- A terminal's commercial structure generally takes one of three forms:
  - Merchant Structure
  - Integrated Structure
  - Tolling Structure

# The Merchant (Sale & Purchase) Model

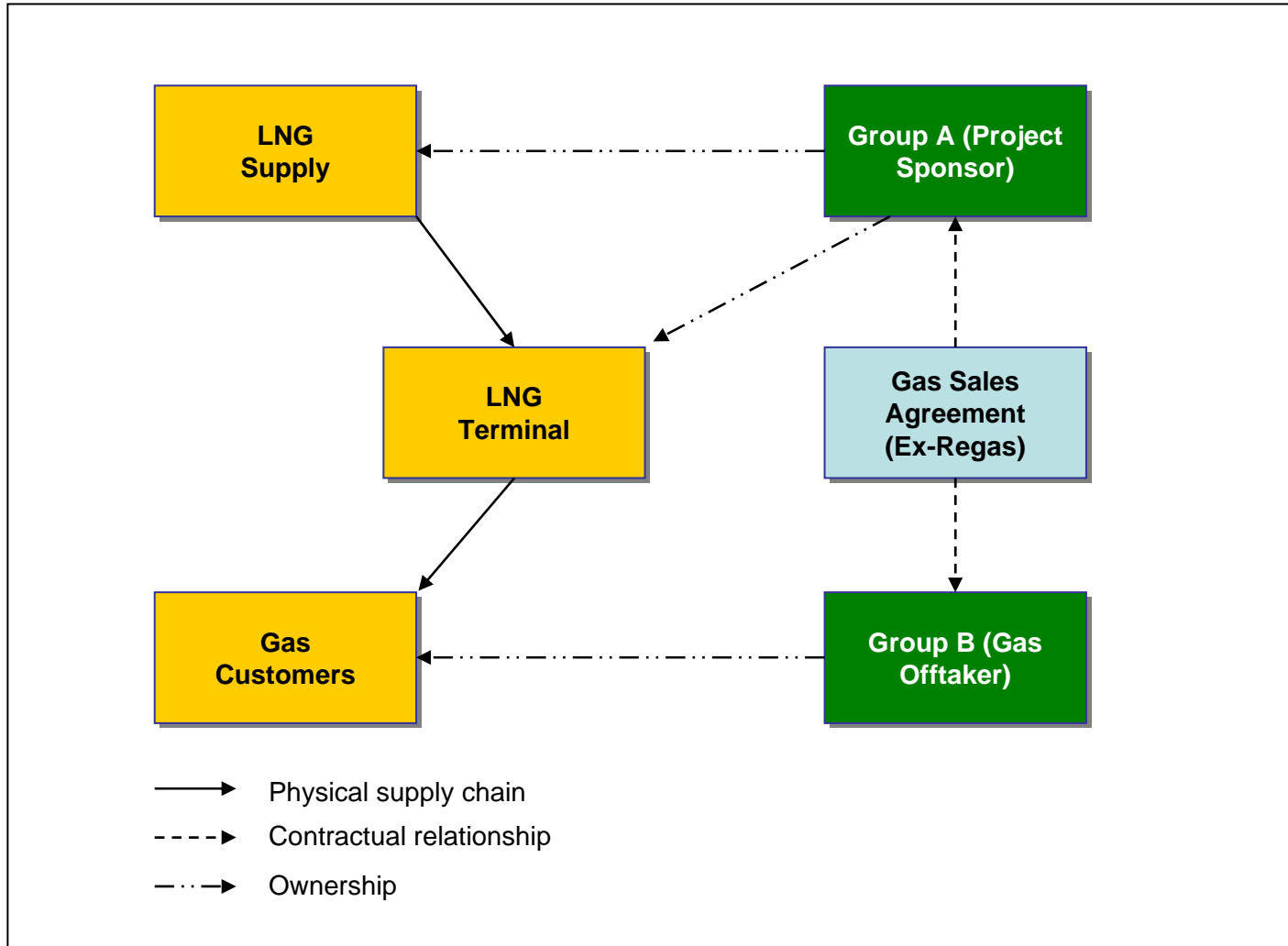


## The Merchant (Sale & Purchase) Model

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- Terminal Sponsor buys LNG from third party supplier and sells gas to third party consumer. Revenues earned by:
  - Gas marketing
  - Gas storage
  - Peaking Services
  - Trading
- Price/market risk and revenue volatility make project finance option limited in the current environment.

# Integrated Model

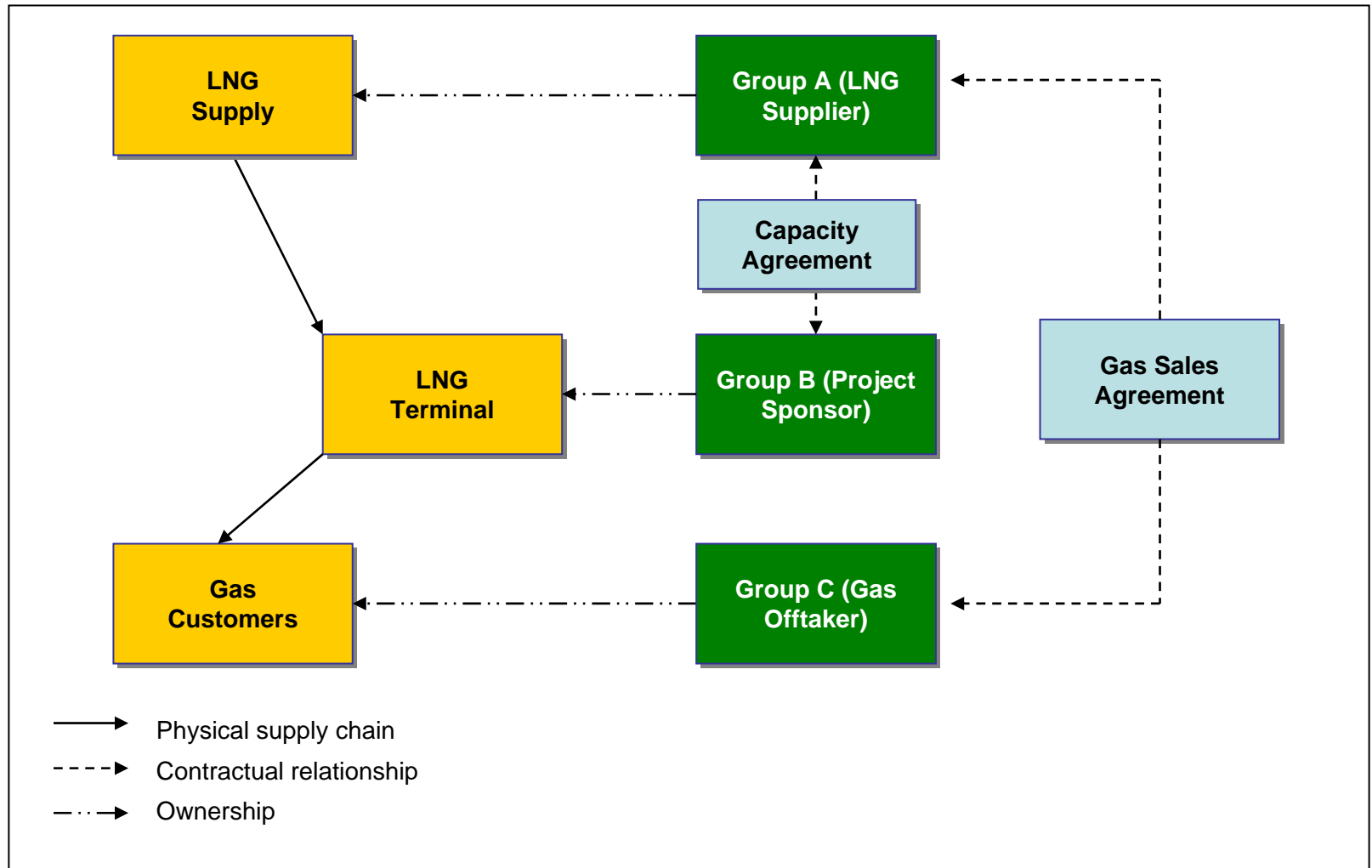


# Integrated Model

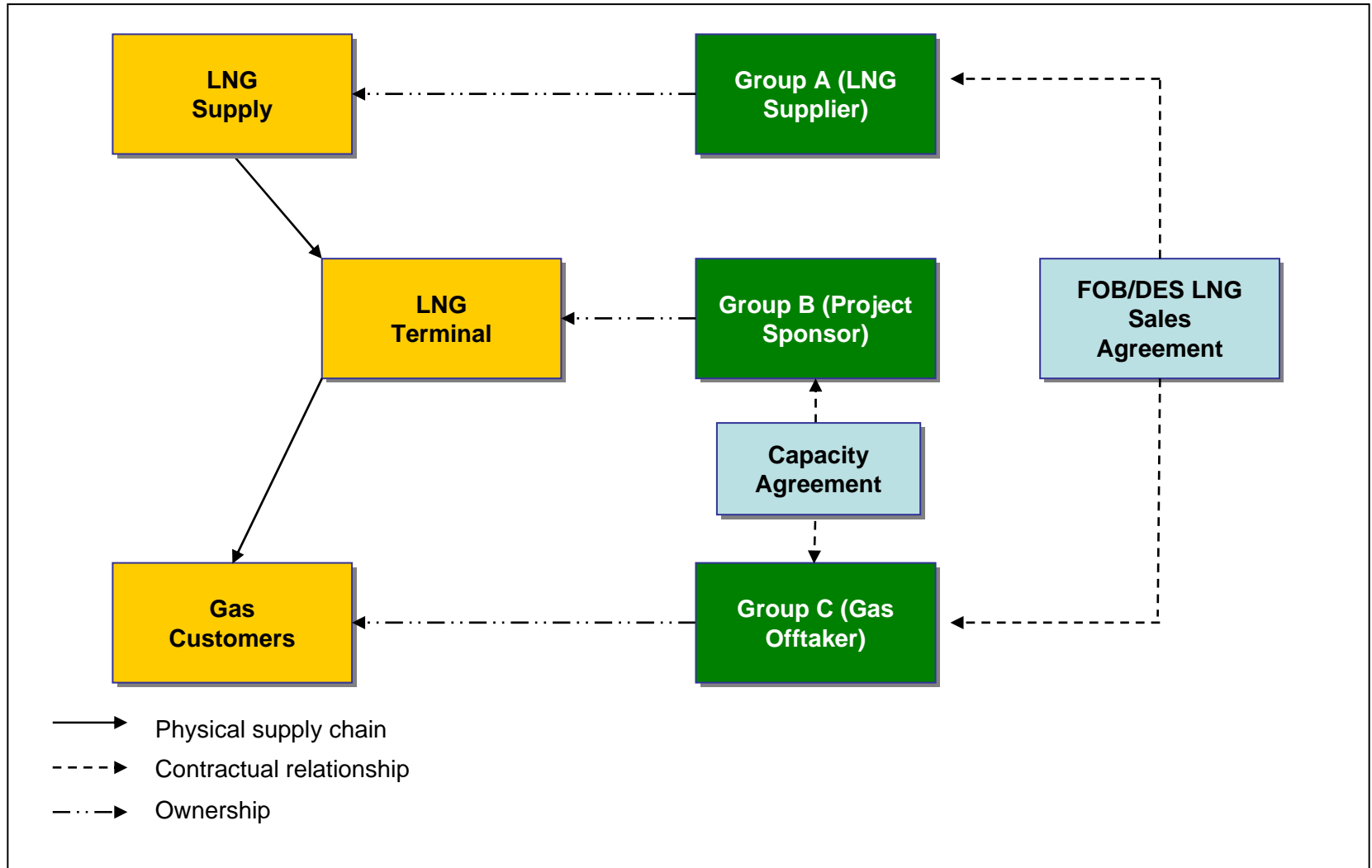
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- Well suited to an International Oil Company (IOC) that already controls LNG value chain.
- Allows firm to create efficiencies, maximize delivery options and optimize returns.
- Integrated terminals most likely will utilize corporate financing, given the current strength of the IOCs' balance sheets.

# Tolling Model – Push Tolling



# Tolling Model – Pull Tolling



# Tolling Model

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- Revenues generated through a capacity agreement
  - Fixed capacity charge creates a stable, sustainable cash flow that allows terminal to achieve strong leverage and longer tenors through a project financing.
- Counterparty is often either an owner of LNG supply “pushing” LNG into domestic market or a utility or other domestic gas consumer that “pulls” LNG into the market.
- Tolling structure shield project’s lenders from majority of supply, market and price risk. Major risk is counterparty credit risk.

# Sources of Financing

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- Commercial Banks
  - Banks have returned to the project finance market.
  - Cheniere's Sabine Pass project financing raised \$822 million and was syndicated among 47 banks.
  - As long-term investors become more comfortable we will see increased market liquidity.

# Sources of Financing

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- Private Placement
  - Over \$2.5 billion in PF deals already placed in 2005.<sup>1</sup>
  - Freeport LNG financed \$325 million in private placement market for its Freeport, Texas terminal.
    - 14 year average life maturity
    - 210 bps over the Actual 14 year benchmark
    - Transaction rated BBB- by Fitch
    - 9 buy-side firms reported to have participated
  - Advantages – Longer tenor and fixed rate locks in current low rates and provides certainty.
  - Disadvantage – Less flexibility, especially during construction period.

<sup>1</sup> *Private Placement Letter*, September 2005

# Sources of Financing

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- Term B Loans
  - Recently become more popular as another resource for project finance debt.
  - Advantages
    - Low amortization provides greater flexibility at beginning of a project – cash flows can be a little less robust
  - Disadvantages
    - Shorter Maturities
    - Term B lenders look not only on default risk but also on a probability of recovery in case of default.
  - Term B debt may become less popular as the project finance market becomes more competitive.

# Addressing the End Customer Risk

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- Long-term project financing requires:
  - Tolling agreement with a creditworthy third party, or
  - Sponsor group should include a utility that will sell offtake into its established customer base.
- Merchant terminals without long-term offtake agreements will require significant greater equity as part of debt financing.
  - Offtake agreement must reach end customer.

# Pipelines and Interconnects

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- U.S. LNG terminal capacity estimate for 2014<sup>2</sup>
  - Gulf Coast – 3 to 5 new Terminals – 8.5 Bcf/day
  - East Coast – 1 to 3 new Terminals – 4.6 Bcf/day
  - West Coast – 1 to 2 new Terminals – 1.8 Bcf/day
  - Expansions to existing Terminals – 2.0 Bcf/day
  - Total – 15 to 17 Bcf/day, 15% to 20% of total gas supply
- Adequacy of capacity in lateral pipelines, lateral connects to interstate pipelines often built along with terminals.
- Potential bottleneck in interstate pipelines.
  - Expanded capacity needed to support terminals (pipeline capacity must be demonstrated for regas permit)

<sup>2</sup> Marron, Jessica. Inside F.E.R.C.'s Gas Market Report, "Gulf Coast to lead the charge for LNG, but officials fear infrastructure shortfall." Jun 17, 2005. pg. 6.

# When Will the Market Know There Are “Enough”?

## ■ Liquefaction Projects Targeting the US Market

Project	Major Sponsors	Location	Start Up Date	US Volume (Mmcf/d)
ELNG Train 1	Egyptian LNG	Egypt	2005	230
NLNG Train 4	Nigeria LNG	Nigeria	2005	230
Skikda Train 7	Sonatrach	Algeria	2006	270
ELNG Train 2	Egyptian LNG	Egypt	2006	230
NLNG Train 5	Nigeria LNG	Nigeria	2006	230
ALNG Train 4	ALNG	Trinidad & Tobago	2006	670
EGLNG	Marathon	Equatorial Guinea	2007	440
NLNG Train 6	Nigeria LNG	Nigeria	2007	230
Snohvit	Statoil	Norway	2008	270
Sakhalin Train 2	Shell	Russia	2008	310
NWS Train 5	NWS LNG	Australia	2008	110
Tangguh Train 2	Shell	Indonesia	2008	500
Brass River LNG	Chevron, ConocoPhillips	Nigeria	2009	970
OK LNG	Chevron, BG, Shell	Nigeria	2009	1,070
QatarGas III	ConocoPhillips, QP	Qatar	2009	510
Yemen LNG	Total, Hunt, SK Corp	Yemen	2009	590
RasGas Train 6	EM and QP	Qatar	2009	1,010
Angola LNG	Chevron, Sonangol	Angola	2010	650
Pluto LNG	Woodside	Australia	2010	650
RasGas Train 7	EM and QP	Qatar	2010	1,010
Shtokman LNG	Gazprom	Russia	2011	1,940
Gorgon	Chevron, EM, Shell	Australia	2012	650

Total = 12,770 Bcf/d

# When Will the Market Know There Are “Enough”?

- Approved US & Canadian Regas Capacity

Project	Major Sponsors	Location	Start Up Date	Capacity (Mmcf/d)
Trunkline LNG Expansion	Southern Union	Lake Charles, LA	2005	580
Southern LNG Expansion	El Paso	Elba Island, GA	2006	540
Sabine Pass	Cheniere	Sabine, LA	2008	2,600
Cameron LNG	Sempra	Hackberry, LA	2008	1,500
Freeport LNG	Freeport LNG	Freeport, TX	2008	4,000
Vista del Sol LNG	ExxonMobil	Corpus Christi, TX	2008	1,100
Canaport LNG	Irving Oil	St. John, NB	2008	1,000
Corpus Christi LNG	Cheniere	Corpus Christi, TX	2009	2,600
Weaver's Cove LNG	Hess LNG	Fall River, MA	2009	400
Golden Pass LNG	ExxonMobil	Sabine, TX	2009	1,000
Ingleside LNG	Occidental	Corpus Christi, TX	2009	1,000
Bearhead LNG	Anadarko	Point Tupper, NS	2009	1,000

Total = 17,320 Bcf/d

## When Will the Market Know There Are “Enough”?

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- Integrated have greater flexibility;
- Regas terminals can operate at lower capacity (subject to prudent leverage)
- Great deal of upside to the incremental capex needed for expansion
- Still, must not let the race to get permitted overshadow the economics of the market, especially on Gulf Coast

# Conclusions

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- Market for financing LNG liquefaction and re-gas expected to be robust in coming years
- Servicing much needed natural gas capacity added to US market
- Potential for overbuild
- Lots of plans but not likely that all proposed re-gas terminals will be permitted or built.
- LNG spot market may emerge allowing for LNG to secure deliveries to secondary markets



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