



Greengate LLC

Global LNG Project Experience

June 2016



Contents

1. Introduction to Greengate
2. Transaction Experience
3. Biographies of Key Personnel

1. Introduction to Greengate

Introduction to Greengate

Who We Are

Greengate LLC (“Greengate”) is an independent financial advisory firm that specializes in complex debt financings for energy and infrastructure projects around the globe.

- Our clients include sponsors and borrowers, governmental/agency and commercial financing institutions, public-sector / state-owned enterprises and institutional investors.
- Greengate’s team has an extensive and successful track record across a range of sectors including: oil and gas, LNG, petrochemicals, metals, mining and process industries, power (renewable energy, conventional power, nuclear energy), pipelines, and other infrastructure.
- We have closed some of the largest and most complex project financings in the industry.
- Project Finance International ranks Greengate as one of the leading global advisory firms in closing project finance transactions.
- Please visit www.greengatellc.com for additional information on our firm.

Introduction to Greengate

Our Services

For Sponsors and Investors:

- Project development assistance
- Due diligence and valuation
- Financial modeling
- Capital structure optimization
- Debt structuring
- Financial structuring
- Capital raising from diverse sources
- Negotiation of financing documents

For Lenders:

- Due diligence
- Rigorous quantitative risk analysis
- Business plan evaluation
- Debt capacity analysis
- Negotiation of financial structure and financing documents
- Closing support
- Portfolio transactions and restructuring advice

Our experience in advising on all sides of project finance transactions provides the insight, creativity and practical experience to achieve our client's objectives

Introduction to Greengate

Why Greengate?

LNG Project Expertise:

- We have a long and successful track record in advising on LNG projects around the globe, including Qatargas II and Qatargas 3, Papua New Guinea LNG, Australia Pacific LNG, Yamal LNG, Peru LNG and Mozambique LNG. Accordingly, we are very familiar with the challenges private and public sponsors and lenders face in structuring LNG projects in the context of uncertain commodity price, operational environments and evolving market dynamics. Our experience encompasses:
 - integrated and non-integrated LNG projects
 - unincorporated and incorporated borrowing structures
 - the entire value chain including upstream onshore/offshore production, liquefaction, transportation, regasification and downstream marketing
 - first-time features including coal seam gas and seller diversion rights
 - commercial structuring to facilitate financing of regasification terminals
 - assessing and negotiating complex host government arrangements to structure bankable projects

Introduction to Greengate

Why Greengate? (continued)

Project Structuring and Implementation:

- Greengate has many years of experience in successfully structuring of projects located in challenging country environments. Our process is highly structured; working with legal counsel and market and technical consultants, we carefully consider and synthesize the full range of issues including:
 - client's objective(s) and constraints
 - sponsor/bidder objectives and considerations
 - host country environment
 - offtaker credit issues and credit enhancement structures
 - key commercial, technical, financial and legal risks and appropriate/available mitigants
 - commercial terms for key project agreements
 - availability and terms of likely debt financing sources
 - project economic analysis
 - bankability ratios and risk adjusted sponsor investment returns
- We provide our recommendations and provide the full range of support in the implementation phase including:
 - managing the financing process
 - developing scopes of the work for consultants
 - supporting the development of project agreements and bid documents as applicable
 - supporting the development of debt financing term sheet
 - preparing information memoranda for investors and lenders
 - supporting client/sponsor in meetings with prospective investors and debt providers
 - supporting development of financing documentation and support financing negotiations
 - financial closing support

Introduction to Greengate

Why Greengate? (continued)

Experience with Multi-Source Financings:

- Greengate has extensive experience in advising on multi-source financings for landmark transactions over a range of sectors for many years. We have successfully closed financings involving the participation of export credit agencies, multilateral and bilateral financing institutions, commercial banks, sponsor senior lenders, public bond and private placement investors.
- We have particular expertise and track record directly advising and working with export credit agencies around the globe, which are an essential source of long-term project finance for projects located in developing and emerging countries.

Evaluation of Business Plans and Models:

- We use a rigorous and structured approach to analyzing the reasonableness of sponsor business plans, including for dozens of projects exposed to market price risk in dynamic markets and environments with high political risk. We perform a detailed review of the assumptions underlying the financial projections in conjunction with independent consultants where appropriate to ensure they are supportable and achievable.

Commodity Price Risk Analysis and Financial Structuring:

- Greengate is a leader in applying a range of quantitative methods to analyzing market price risk, including the use of probabilistic methods. We have successfully used such techniques to structure and negotiate a range of financial mitigants to address price risk for project financings, including principal deferrals, target/mandatory amortization structures, targeted cash sweeps/prepayments and liquidity facilities.

Introduction to Greengate

League Tables



PROJECT
FINANCE
INTERNATIONAL

2014 LEAGUE TABLES

GLOBAL ADVISORIES CLOSED

	Advisor	Volume (US\$m)
1	Macquarie	23,667
2	BNP Paribas	19,538
3	HSBC	17,052
4	Royal Bank of Scotland	14,700
5	PwC	10,933
6	KPMG	7,441
7	NAB	7,200
8	Societe Generale	6,460
9	Ernst & Young	4,743
10	SBI Capital	4,418
11	Greengate	4,374
12	Unicredit	4,080
13	Green Giraffe Energy Bankers	3,839
14	Credit Agricole	3,504
15	Mizuho	2,480

2013 LEAGUE TABLES

GLOBAL ADVISORIES CLOSED

	Advisor	Volume (US\$m)
1	NM Rothschild	20,297
2	Royal Bank of Scotland	19,286
3	Greengate	13,200
4	Societe Generale	11,680
5	PwC	11,303
6	HSBC	9,335
7	Citigroup	9,047
8	ING	7,700
9	BNP Paribas	7,363
10	Ernst & Young	7,306
11	Macquarie	6,973
12	BTMU	6,766
13	SBI Capital	4,743
14	Deutsche	4,486
15	Standard Chartered	3,448



2. Transaction Experience

Transaction Experience

- Oil & Gas
- Renewables
- Conventional Power
- Advanced Fossil
- Nuclear Energy
- Satellites & Telecom
- Infrastructure
- Chemical & Industrial



NORTH AMERICA

Alaska LNG Project (USA)
 South Texas Project Units 3 and 4 (USA)
 Vogtle Electric Generation Plant Expansion (USA)
 Calvert Cliffs 3 Nuclear Power Project (USA)
 Texas Clean Energy Project (USA)
 Christian County Gasification (USA)
 Taylorville Energy Center IGCC Project (USA)
 Desert Sunlight Project (USA)
 Topaz Solar Project (USA)
 Indiana Gasification (USA)
 Kemper County IGCC (USA)
 Cape Wind Season A (USA)
 Ivanpah Solar Electric Generating System (USA)
 Caithness Shepherds Flat (USA)
 Mississippi IGCC (USA)
 New England Electric System Acquisition (USA)
 California Valley Solar Ranch (USA)
 Medicine Bow Fuel and Power (USA)
 Project Amp (USA)
 AV Solar Ranch One (USA)
 Genesis Solar Project (USA)
 Alaska Coal-to-Liquids (USA)
 Faustina Hydrogen Products (USA)
 Bridgepoint Hospital Development Project (Canada)

Blackspring Ridge I (Canada)
 Ormat OFC 2 Geothermal Project (USA)
 Transform Solar (USA)
 Bishops Hill Wind (USA)
 Red River Environmental Products (USA)
 Hudson Ranch Geothermal (USA)
 Spring Valley Wind (USA)
 Blue Mountain Geothermal Project (USA)
 Block Island Wind Farm & Transmission Cable (USA)
 Granite Reliable Power Windpark (USA)
 North Dakota Wind Project (USA)
 Omni Ethanol (USA)
 Apex Solar PV Project (USA)
 Omni Biodiesel (USA)
 Advanced Centrifuge Project (USA)
 Eagle Rock Enrichment Facility (USA)
 EPPS Portfolio (USA)
 Liberty Point LNG Regasification (USA)
 Regasification Terminal Equity Investment (USA)
 Solar PV Manufacturing Project (USA)
 U.S. Power CLO (USA)
 U.S. Power Loan Securitization (USA)
EUROPE
 Euro-Asia Oil Transport Corridor (Eastern/Central Europe)
 Yamal LNG (Russia)

NizhnekamskNeftekhim (NKNK)
 Trans-Balkan Oil Pipeline
 Constanza-Trieste Oil Pipeline (Eastern Europe)
 SRS Winterthur CLO (Switzerland)
 Signet Solar (Germany)
 Iberfin Value Investments (Spain)
 North-West Thermal Power Plant (Russia)
 Patnow (Poland)
 Sant Pere (Spain)
 Torun (Poland)

LATIN AMERICA AND THE CARIBBEAN

Gasoducto Sur Peruano / GSP (Peru)
 Etileno XXI (Mexico)
 Peru LNG (Peru)
 Rio Polimeros Ethylene & Polyethylene (Brazil)
 OmniAgri Resources (Trinidad and Tobago)
 Altamira (Mexico)
 Termo Bajio Power Project (Mexico)
 Araucaria (Brazil)
 Eletrobolt Power Project (Brazil)
 TermoEmcali (Colombia)
 Marcona y Tres Hermanas (Peru)
 Tiete Hydropower Project (Brazil)
 Abengoa Solar Thermal (Mexico)
 Gas TransBoliviano (GTB) Pipeline (Brazil, Bolivia)
 Nevis Geothermal Project (St Kitts and Nevis)
 Avantel SA (Colombia)
 PriceSmart (Costa Rica)
 Emcali (Colombia)
 La Vueltoza Hydroelectric Project (Venezuela)
 Quito Airport (Ecuador)
 Seival Power Project (Brazil)
 Tucuman NCI Power Project (Argentina)
 Ultrapetrol (Brazil)

MENA

Barakah Nuclear Power Project (UAE)
 Sadara Chemical Company (Saudi Arabia)
 Red Sea (Yanbu) Refining Company (Saudi Arabia)
 Saudi Kayan (Saudi Arabia)
 Qatargas 2 LNG Project (Qatar)
 Al Karaana Petrochemicals Project (Qatar)
 Tahrir Petrochemicals Project (Egypt)
 Rabigh Phase 2 Project (Saudi Arabia)
 Socar Turcas Aegean (STAR) Refinery (Turkey)
 Qatargas 3 LNG Project
 EMAL Phase II (UAE)
 Qurayyah IPP 1 (Saudi Arabia)
 Al Dur IWPP Project (Bahrain)

Intergen-Enka Power Projects (Turkey)
 Riyadh IPP Dhuruma PP11 (Saudi Arabia)
 Alba (Bahrain)
 Q-Chem II (Qatar)
 RasGas LNG Train 3 (Qatar)
 Raytheon Aluminum (Kuwait)
 Muscat Waste Water (Oman)
 Saudi Aramco Cogeneration (Saudi Arabia)
 EMAL-EGA Interface Project (UAE)
 NFIL Biodiesel (Egypt, Senegal)
 Ankara BO Power Project (Turkey)
 Baymina Enerji (Turkey)
 Jorf Lasfar (Morocco)
 IEC Gas Transmission Project (Israel)
 Turgutlu Waste-to-Energy (Argentina)
 Adapazari (Turkey)
 Fujairah IWPP (UAE)
 Gebze (Turkey)
 Izmir (Turkey)
 Tahrir Mall and Car Park (Egypt)

ASIA AND OCEANIA

Australia Pacific LNG Project (Australia)
 Papua New Guinea LNG Project (PNG)
 TransCaspian Oil & Gas Pipelines (Central Asia)
 Baku-Tbilisi-Ceyhan Pipeline Project (Central Asia)
 TransCaspian Gas Pipeline Project (Central Asia)
 Paiton Energy (Indonesia)
 POSCO Power CCGT/Blast Furnace Gas-Fired Turbine (Korea)
 Navoiyazot Chemical Complex (Uzbekistan)
 Asia Broadcast Satellite (Hong Kong)
 Spice Cellular (India)
 Star Power (Pakistan)
 Sapphire Wind Power Plant (Pakistan)
 Millennium Synergy Gujarat Solar PV Project (India)
 Hughes Ispat (India)
 ReNew Jath II Wind Power Project (India)
 Valuation of Asian Power Portfolio (East Asia)

AFRICA

Mozambique LNG (Mozambique)
 Tasiast Mine Expansion Project (Mauritania)
 NFIL Senegal Ethanol & Power (Senegal)
 Cenpower Independent Power Project (Ghana)
 Geometric Power Aba (Nigeria)
 Kabompo Gorge Hydroelectric Project (Zambia)
 Namibia Water (Namibia)
 AfricaOne (Africa)
 Angola LNG (Angola)



Transaction Experience

By Sector

Our team has advised on nearly \$400 billion in project finance transactions, covering all major industry sectors:

LNG, Oil & Gas, Refining	
Project Cost	\$131 billion

Petrochemicals and Related	
Project Cost	\$64 billion

Pipelines	
Project Cost	\$37 billion

Metals, Mining and Process Industries	
Project Cost	\$23 billion

Gas-Fired and Cogen Power	
Project Cost	\$18 billion
Capacity	17,000 MW

Solar (PV & CSP)	
Project Cost	\$15 billion
Capacity	3,100 MW

Nuclear Power	
Project Cost	\$70 billion
Capacity	12,000 MW

Wind (Onshore and Offshore)	
Project Cost	\$7 billion
Capacity	2,300 MW

Satellites, Telecommunications	
Project Cost	\$9 billion

Geothermal and Hydro	
Project Cost	\$2 billion
Capacity	2,900 MW

Transportation	
Project Cost	\$3 billion

Transaction Experience

Deal Awards / Notable Transactions

Deal of the Year Awards	
Petro Rabigh 2	<i>PFI (2015)</i>
Cenpower	<i>PFI (2014)</i>
Star Rafineri	<i>PFI (2014)</i>
Sadara	<i>PFI (2013)</i>
EMAL 2	<i>PFI (2013)</i>
Australia Pacific LNG	<i>PFI (2012)</i>
Etileno XXI	<i>PFI (2012)</i>
BrightSource Ivanpah	<i>USC CMAA Green Symposium Energy Project of the Year (2012)</i> <i>Solar Power Generation USA CSP Project of the Year (2012)</i>
Qurayyah IPP	<i>Project Finance (2011)</i>
Desert Sunlight	<i>Project Finance North America Solar Deal of the Year (2011)</i>
Caithness Shepherd's Flat	<i>Power Finance & Risk Best Renewables Deal (2010)</i>
Al Dur IWPP	<i>Global Trade Review (2009)</i>
Papua New Guinea LNG	<i>PFI, Project Finance, Trade Finance (2009)</i>
Peru LNG	<i>PFI, Global Trade Review and others (2008)</i>
Q-Chem II	<i>Project Finance (2005)</i>
Qatargas II	<i>Project Finance (2004)</i>
Baku-Tbilisi-Ceyhan Pipeline	<i>Infrastructure Journal Deal of the Decade (2000-2010)</i>
Ibiritermo	<i>Project Finance (2003)</i>
Tiete	<i>Project Finance (2001)</i>
Intergen/Enka	<i>Project Finance (2000)</i>
Bajio Power	<i>Project Finance (2000)</i>

Transaction Experience

Selected Multi-Source Financings

Project	ECAs	IFIs / DFIs	Commercial Banks
Mozambique LNG (Area 1)	✓	--	✓
Yamal LNG	✓	✓	✓
Australia Pacific LNG	✓	--	✓
Papua New Guinea LNG	✓	--	✓
Peru LNG	✓	✓	✓
Qatargas 3 LNG	✓	--	✓
Qatargas II LNG	✓	--	✓
Barakah Nuclear Power Project	✓	--	✓
Petro Rabigh 2	✓	✓	✓
Sadara Chemical Company	✓	✓	✓
Baku-Tbilisi-Ceyhan Pipeline (BTC)	✓	✓	✓
Socar Turcas Aegean Refinery (STAR)	✓	--	✓
Etileno XXI	✓	✓	✓
EMAL Phase II	✓	--	✓
Gas TransBoliviano Pipeline Expansion	✓	✓	✓
Al Dur IWPP	✓	--	✓
Qurayyah IPP 1	✓	--	✓
Marcona and Tres Hermanas Wind Farms	✓	✓	✓
Rio Polimeros Petrochemicals	✓	✓	✓

Export Credit Agency Experience and Relationships



- Greengate has extensive relationships and transactional experience working with export credit agencies over many years on LNG and other projects.
- We have detailed and current knowledge of each institution's risk appetite, commercial requirements, internal approval processes, and ability to execute on a timely basis.

Transaction Experience

Selected LNG Financings

Project	Key Transaction Features
Mozambique (Area 1) LNG (Mozambique) Advising six export credit agencies on the \$25 billion, 12 million ton per year, two train LNG project sponsored by Anadarko, Mitsui & Co., ENH and other sponsors.	<ul style="list-style-type: none">▪ Integrated project, including offshore production wells, onshore liquefaction complex, shared facilities, transportation and marketing▪ Complex financing structure▪ Dynamic and challenging market conditions▪ Extensive analysis of project debt capacity▪ Complex web of existing petroleum laws and project specific laws▪ Challenging country environment
Yamal LNG (Russia) Advised 11 export credit agencies and a Russian development bank on the \$27+ billion, 15 million ton per year, three-train LNG project sponsored by Novatek OAO, Total S.A. and CNPC.	<ul style="list-style-type: none">▪ Challenging environment for construction and operations▪ Innovative LNG carriers and transportation arrangements▪ Extensive analysis of project debt capacity▪ Application of stress tests and probabilistic analysis to assess market price risk on project economic▪ Complex equity funding arrangements

Transaction Experience

Selected LNG Financings (continued)

Project	Key Transaction Features
Australia Pacific LNG (Australia) Advised US Exim Bank and China Exim Bank on the financing of the \$20+ billion Australia Pacific LNG Project sponsored by Origin Energy Limited, ConocoPhillips and China Petrochemical Corporation.	<ul style="list-style-type: none">▪ First LNG project to use coal seam gas▪ Complex upstream development program continuing throughout repayment term▪ CSG gas reserves/production risk mitigation structuring▪ Extensive analysis of project debt capacity▪ Application of stress tests and probabilistic analysis to assess market price risk on project economics
PNG LNG (Papua New Guinea) Advised US Exim Bank, JBIC, NEXI, SACE, EFIC, and China Exim Bank on the financing of the \$16.5+ billion project sponsored by Exxon Mobil, Oil Search, Santos, Nippon Oil, the Papua New Guinea government and entities representing landowner interests.	<ul style="list-style-type: none">▪ Integrated project including upstream, midstream/processing, transportation, marketing and sales▪ ECAs, commercial banks and sponsor senior lenders▪ Complex financing structure▪ Multiple sponsors including the Government and landowner trusts▪ Two train project with ramp-up of production▪ Extensive analysis of project debt capacity▪ Application of stress tests and probabilistic analysis to assess market price risk on project economics

Transaction Experience

Selected LNG Financings (continued)

Project	Key Transaction Features
Peru LNG (Peru) Advised SACE, IDB, IFC and US Exim Bank on the financing of the \$3.9 billion Peru LNG project sponsored by Hunt Oil, Repsol YPF, SK Energy, and Marubeni Corporation.	<ul style="list-style-type: none">▪ First LNG project in Latin America▪ Financing closed during the unfolding of the financial crisis▪ Non-integrated project structure, involving feedgas supply arrangements with the Camisea basin participants▪ Contentions issues with the government involving the exploitation of natural resources for domestic market versus export▪ Complex arrangements between the LNG project and upstream participants▪ Financing included the issuance of public bonds in the local market
Qatargas 3 (Qatar) Advised US Exim Bank and JBIC on the financing of the \$5.8 billion, 7.8 mtpa, single-train Qatargas 3 LNG project sponsored by Qatar Petroleum and ConocoPhillips Company.	<ul style="list-style-type: none">▪ One of the first projects targeting the U.S. (Henry Hub) market▪ Complex operational arrangements with Qatargas 4▪ Application of stress tests and probabilistic analysis to assess market price risk on project economics▪ Extensive analysis of project debt capacity

Transaction Experience

Selected LNG Financings (continued)

Project	Key Transaction Features
Qatargas II (Qatar) Advised US Exim Bank and SACE on the financing of the \$8.7 billion, 15.6 mtpa, two train Qatargas II LNG project sponsored by Qatar Petroleum and Exxon Mobil Corporation.	<ul style="list-style-type: none">▪ Largest single trains at 7.8 mtpa every built▪ Complex offtake arrangements, including new features such as diversion flexibility▪ Integrated project, including offshore production platforms, onshore liquefaction complex, transportation, regasification, and downstream marketing▪ Complex financing structure involving many new features that were subsequently adopted by the industry
Angola LNG (Angola) Advised Sonagol, ChevronTexaco, Exxon Mobil, Total, and BP, on the bankability issues associated with the development of offshore gas processing and liquefaction facilities in Angola.	<ul style="list-style-type: none">▪ LNG production from associated gas produced from multiple offshore blocks owned by different companies;▪ Analysis of project economics▪ Analysis of unincorporated and incorporated joint venture ownership structures▪ Analysis of project debt capacity and potential funding sources
Regasification Terminal Equity Investment (USA) Advised a UK-based client on the acquisition of a majority interest in a LNG regasification terminal project based in North America.	<p>Advised on:</p> <ul style="list-style-type: none">▪ Commercial structure▪ Project development issues▪ Financing structure▪ Financing plan, valuation, and price negotiations

3. Biographies of Key Personnel

Key Personnel

Paul G. Ameer

Paul G. Ameer, *Managing Director*, has over 20 years of experience in international project and structured finance, and has closed transactions with an aggregate value of tens of billions of dollars, including some of the largest recent project financings in the industry. He has served as team leader on multiple financings in the oil and gas, petrochemical, metals, mining, process industry, conventional, renewable and nuclear power, pipeline, and infrastructure sectors.

Mr. Ameer has served in a leading role on a number of LNG project advisory assignments, including Mozambique LNG (Area 1), Yamal LNG, Australia Pacific LNG, Papua New Guinea LNG, Peru LNG, Qatargas 3, Qatargas II and other oil & gas projects. He has extensive experience in advising on project financings involving multiple lender groups, including export credit agencies, commercial banks, multilateral agencies, sponsor senior lenders and private placement and public bonds.

Mr. Ameer has a Masters of Public Policy from Harvard University and a B.S. in Mechanical and Aerospace Engineering from Cornell University. He is a CFA charterholder.

Contact information: +1.202.887.6822 (phone) / pameer@greengatellc.com (email)

Key Personnel

Radoslav Shipkoff

Radoslav Shipkoff, *Director*, has over has more than 15 years of transactional experience in international project and structured finance. He has worked extensively in the oil & gas, LNG, petrochemicals, power, renewables, industrial and infrastructure sectors, with closed transactions valued at tens of billions of dollars worldwide, including some of the largest recent project financings.

Mr. Shipkoff has advised on a number of LNG projects, including Australia Pacific LNG, Papua New Guinea LNG, Qatargas 3, RasGas II (Train 3) and other oil & gas projects. He has also served in a leading role in a number of high profile recent financings, including Sadara and Petro Rabigh 2. Mr. Shipkoff has extensive experience in advising on project financings involving multiple lender groups, including export credit agencies, commercial banks, multilateral agencies, and sponsor senior lenders.

Mr. Shipkoff has an M.S. from the School of Foreign Service at Georgetown University and a B.A. in History and Economics from Connecticut College, graduating *summa cum laude*.

Contact information: +1.202.887.6122 (phone) / rshipkoff@greengatelle.com (email)

Contact Information

Radoslav Shipkoff

Director

Telephone: +1.202.887.6122

Email: rshipkoff@greengatellc.com

Greengate LLC

1752 N Street, NW

8th Floor

Washington, DC 20036

U.S.A.