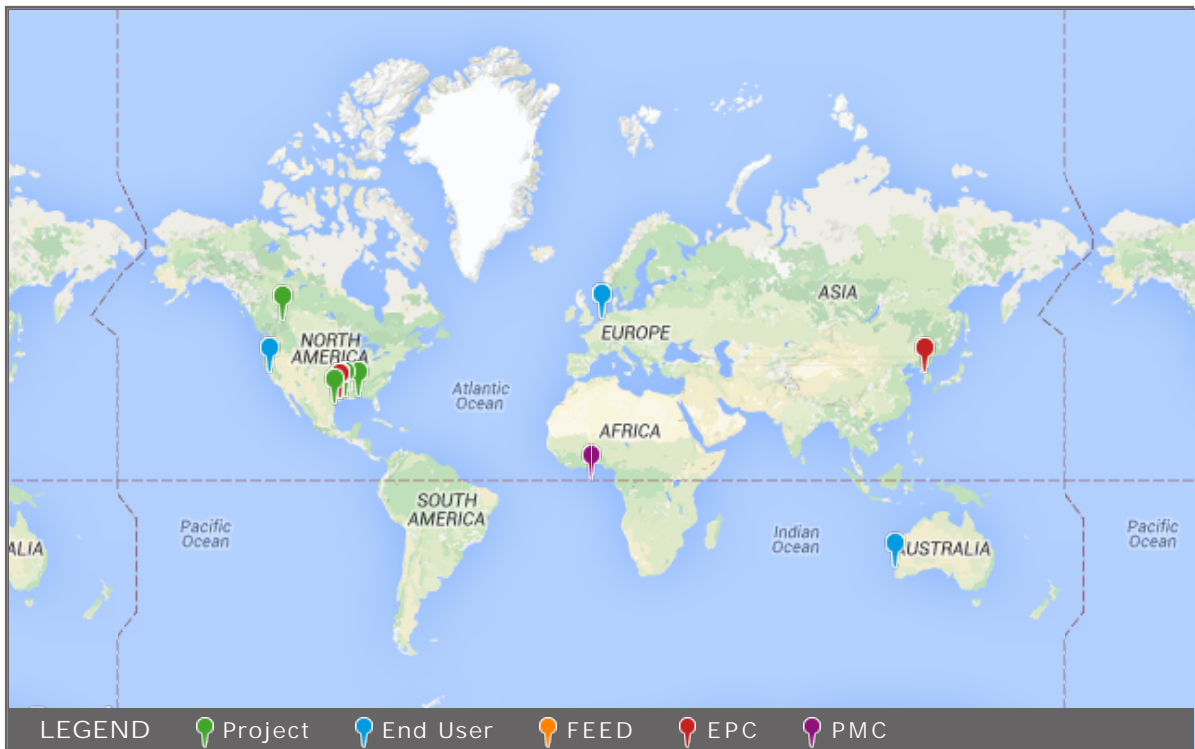




Report Name: KBR Contractors EPC All awarded Report June 14th 2015 ; Project Status : Active ; Company : KBR ; Type of plant : FLNG,FPSO,LNG Train, Gas Pipeline, Oil Terminal, Clean Fuels - DHDS -DeHydroDeSulfurization, Ethylene Cracker (PolyEthylene HDPE LDPE LLDPE Ethanol EO EG EA PVC), Methanol ; EPC : All awarded ; Packages: E-Buildings (Compact Substations), I-Buildings (Containerized Main Automation Contract), T-Buildings (Containerized Main Telecommunication Contract), Shelters, Installation Contracting Electricity, Installation Contracting Automation, Installation Contracting Telecommunication





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 SIRET : 540040086 00014 - Intra-community VAT Number : FR 80 540040086 - SAS CAPITAL : 50000 € - Code APE : 7022Z

Document reference |

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EU VAT Number	

Project Status : Active ; Company : KBR ; Type of plant : FLNG,FPSO,LNG Train,Gas Pipeline,Oil Terminal,Clean Fuels - DHDS -DeHydroDeSulfurization,Ethylene Cracker (PolyEthylene HDPE LDPE LLDPE Ethanol EO EG EA PVC),Methanol ; EPC : All awarded ; Packages: E-Buildings (Compact Substations), I-Buildings (Containerized Main Automation Contract), T-Buildings (Containerized Main Telecommunication Contract), Shelters, Installation Contracting Electricity, Installation Contracting Automation, Installation Contracting Telecommunication

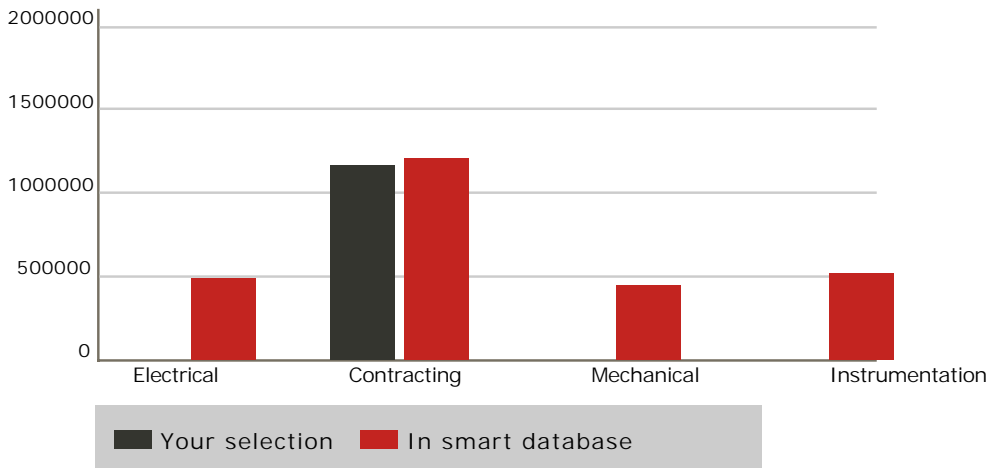
MARKET DATA	
Number of projects	5
Number of countries per project site location	2
Number of countries per engineering companies location	2
Number of FEED : <i>(Front End Engineering & Design)</i>	5
Number of PMC : <i>(Projet Manager Consultant)</i>	5
Number of EPC : <i>(Engineering, Procurement & Construction)</i>	1



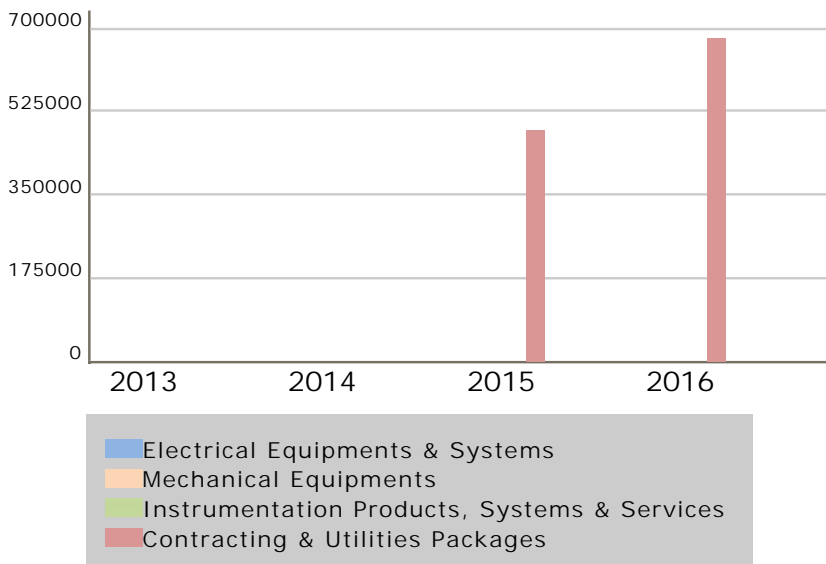
Document reference |

Project Status : Active ; Company : KBR ; Type of plant : FLNG,FPSO,LNG Train,Gas Pipeline,Oil Terminal,Clean Fuels - DHDS -DeHydroDeSulfurization,Ethylene Cracker (PolyEthylene HDPE LDPE LLDPE Ethanol EO EG EA PVC),Methanol ; EPC : All awarded ; Packages: E-Buildings (Compact Substations), I-Buildings (Containerized Main Automation Contract), T-Buildings (Containerized Main Telecommunication Contract), Shelters, Installation Contracting Electricity, Installation Contracting Automation, Installation Contracting Telecommunication

Your Selection (in KUSD)



Business Pipeline (in KUSD)



		Business Pipeline in KUSD				
		Smart Data	2013	2014	2015	2016
Packages in KUSD	Electrical Equipments & Systems	0	0	0	0	0
	Mechanical Equipments	0	0	0	0	0
	Instrumentation Products, Systems & Services	0	0	0	0	0
	Contracting & Utilities Packages	1 167 500	0	0	486 400	681 100
	Total of all the Packages	1 167 500	0	0	486 400	681 100



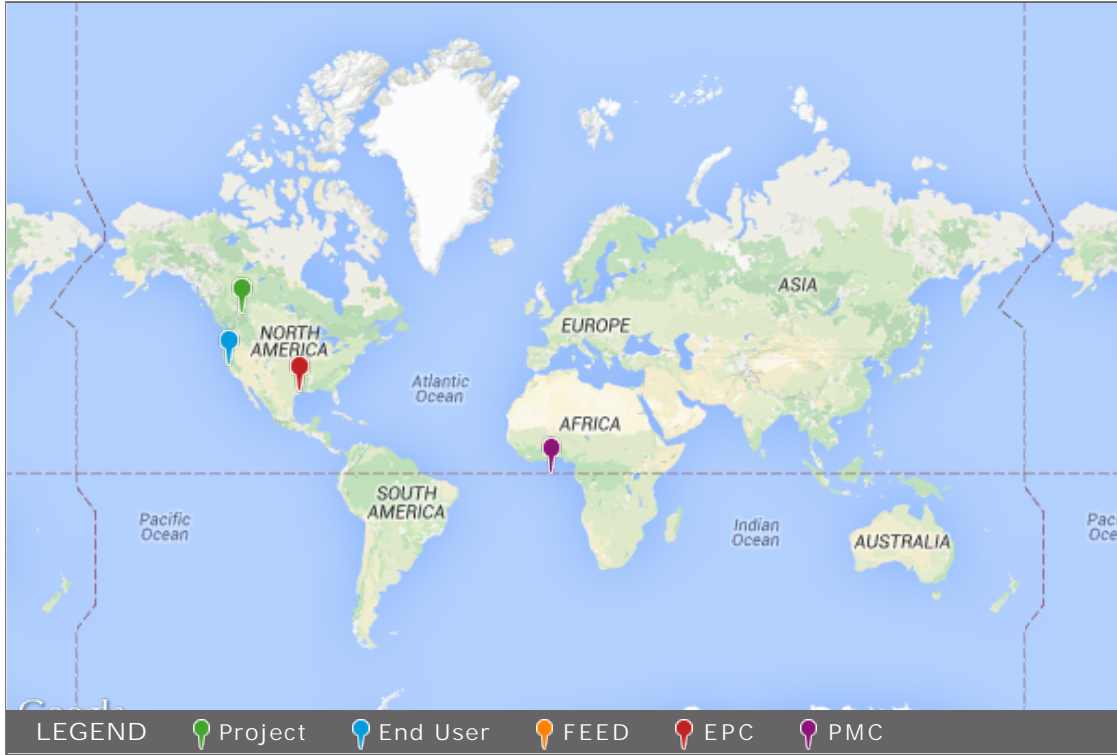
Document reference |

Generic name	End User Name	Country of project site location	Capital expenditure MUS\$	Business Opportunities according to your selection KUSD	FEED Year	EPC Year	Expected year of completion	Page
Chevron Kitimat LNG	Chevron	Canada	5 000	340 800	2013	2015	2018	6
Kinder Morgan Gulf LNG Export Terminal	Kinder Morgan Inc.	USA	6 000	456 300	2014	2016	2019	9
LNG Magnolia LNG Lake Charles	LNG Ltd	USA	4 000	224 800	2015	2016	2019	12
LyondellBasell Channelview Ethylene Second Expansion	Lyondellbasell	USA	200	61 600	2014	2015	2017	16
LyondellBasell Corpus Christi Ethylene Expansion	Lyondellbasell	USA	430	84 000	2014	2015	2016	19

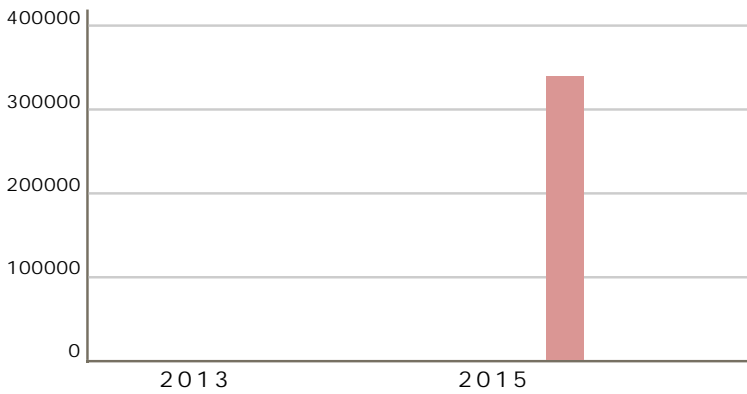


Document reference |

CHEVRON KITIMAT LNG



Business Pipeline (in KUSD)



- Electrical Equipments & Systems
- Mechanical Equipments
- Instrumentation Products, Systems & Services
- Contracting & Utilities Packages

		Business Pipeline in KUSD		
		Smart Data	2013	2015
Packages in KUSD	Electrical Equipments & Systems	0	0	0
	Mechanical Equipments	0	0	0
	Instrumentation Products, Systems & Services	0	0	0
	Contracting & Utilities Packages	340 800	0	340 800
	Total of all the Packages	340 800	0	340 800



Document reference |

CHEVRON KITIMAT LNG

	Last up date	Date	29/12/2014		
	Last up date year			2014	
	Status			Active	
	Project Names	Chevron Kitimat LNG	Apache LNG	KMLNG	
	Project Site Country			Canada	
End User	Project End user Name	Chevron			
	End Users & Stakeholders	Chevron	Woodside Petroleum		
	End Users Countries	USA	Australia		
	Key Stakeholders	Operational Leader	Financial Minority		
	Expected year of Completion	2018			
"Feed Engineering Company (Front End Engineering & Design)"	Bidders				
	Awarded	KBR			
	FEED Companies Country	USA			
	FEED Stage year	2013			
"PMC or EPCM Company Engineering Company (Project manager Consultant or EPC Manager) if appointed"	Name				
	PMC or EPCM Country				
	Year of appointment	0			
"EPC Company (Engineering, Procurement & Construction)"	Bidders				
	Awarded	Fluor - JGC			
	EPC Company Country	USA			
	EPC Stage year	2015			
Main Standards	ANSI/NEMA				
Sourcing Strategy	Global				
Project Market Data	General Information about the project				
	Liard Basin tops best shale gas fields in North America				
	The Houston, Texas-based, Apache Corporation (Apache) announced the shale gas Liard Basin in British Columbia (BC), Canada, to contain 48 trillion cf of marketable natural gas.				
	Apache estimates that the Liard Basin field may contain up to 210 trillion cf (tcf) of natural gas out of which 48 tcf may be extracted and monetized. By way of comparison, all companies active in the Horn River Basin, have a total of marketable natural gas of 78 trillion cubic feet.				
	With 48 tcf, Apache would then own more than two-thirds the size of the entire Horn Basin.				
	The other two wells drilled since the first tests produced at the same level in quantity and quality as the first one.				
	Actually the natural gas from the Liard wells is already being sold by Apache through a pipeline connecting them to Fort Nelson.				
	Apache to convince Encana and EOR to double Kitimat LNG				
	A fourth well is on going considering that each well in the shale gas Liard Basin costs \$35 million capital expenditure until completion for natural gas production. Despite this high cost, Apache made the calculation of a break-even price for the natural gas at the wellhead around \$2.57 per thousand cf.				
	Thus the Liard Basin should be competitive compared with actual market conditions where natural gas is traded at \$1.78 per thousand cf at the Alberta hub, below the U.S prices at \$2.60 a thousand cf.				
	The find by Apache Corp., one of three partners with Encana and EOG Resources in the \$4.5 billion Kitimat LNG terminal and pipeline proposal, is estimated to contain enough natural gas in itself to justify doubling the size of the Kitimat LNG terminal.				
	Apache and its partners plan a five-million-tonne-a-year LNG plant and export terminal in Kitimat which, if supply and demand warrant it, could be doubled to 10 million tonnes a year.				
	The Liard Basin alone could provide that additional five million tonnes of LNG for many years.				
	Considering that the LNG is contracted in Asia around \$16 per thousand cf, Apache should not have too much difficulties to convince his partners, Encana and EOG Resources, to double capital expenditure in Kitimat LNG after the shale gas Liard Basin discovery.				
	January 2013				
Chevron takes over EOR and Encana interests in Kitimat LNG and Apache buys 10% stakes to Chevron so that Chevron and Apache hold 50% each of the joint venture.					
in opposite way, Chevron pays \$550 million to Apache to take 50% shares in the Horn River and Liard basins.					
With this new financial set up, Chevron will also take 50% interests in the Pacific Trail Pipeline.					
Chevron Canada will assume operatorship of the LNG plant and the pipeline. Apache Canada increased its ownership in the LNG plant and pipeline from 40 percent and will operate the upstream assets.					
The Kitimat LNG trains will be located at Bish Cove, 650 kilometers north of Vancouver.					
-- October 2013 -- Chevron's plans for a Kitimat liquefied natural gas terminal will only be finalized if the company finds tax certainty in B.C., and workable Asian contracts for the \$4.5-billion project,					
-- January 2014 -- Fluor, in joint venture with JGC, was awarded the EPC contract for the proposed Kitimat LNG project in Bish Cove, British Columbia, Canada.					
The project scope includes completion of the existing FEED package by finalizing value-improving concepts for the proposed LNG facility.					
The scope of work also includes detailed engineering and procurement services for the initial phases of the project.					
The project will be performed by Fluor and its joint venture partner, JGC, leveraging the global capabilities and expertise from both companies with project work to be executed from their North America and Asia Pacific offices.					
-- August 2014 -- Apache announced to be willing to sell its 50% stake in Kitimat LNG, putting the project on hold.					
-- December 2014 -- Apache has sold off its interest in the Kitimat liquefied natural gas project in northern British Columbia to an Australian company, Woodside Petroleum Ltd.					
Woodside bought the Kitimat project and Apache interest in the Wheatstone LNG terminal in Western Australia, as well as accompanying upstream oil and gas reserves, for \$2.75 billion US					



Document reference |

CHEVRON KITIMAT LNG

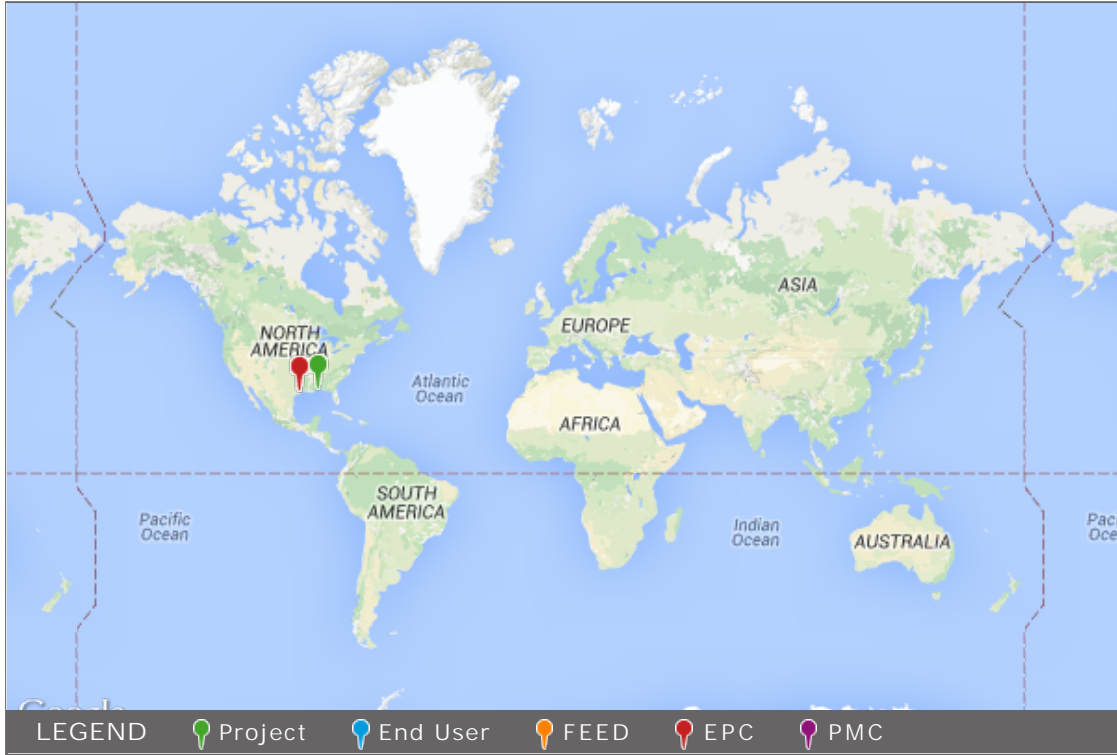
PACKAGES SUMMARY

Packages Family	Packages Names	Packages Descriptions	Year of award	Business Opportunities
Copyright 2B1st Consulting				KUSD
Contracting & Utilities Packages	Contracting & Utilities Packages			340 800
	Contracting Packages			340 800
	E-Buildings (Compact Substations)	Containerized or Prefabricated, factory assembled and pretested CSS in concrete or metal housing, comprising integrated distribution transformer, medium voltage and low voltage switchgear, UPS and batteries, including pad-mount assemblies and mobile substations. This package includes also engineering, design, assembling, testing, commissioning and start up operations.	2015	153 500
	I-Buildings (Containerized Main Automation Contract)	Containerized or Prefabricated, factory assembled and pretested modules in concrete or metal housing, comprising Automation or Instrumentation Control System (ICSS), including pad-mount assemblies and mobile containers. This package includes also engineering, design, assembling, testing, commissioning and start up operations.	2015	84 000
	Installation Contracting Automation	Contract for the installation of the Automation and instrumentation on site. It covers the installation of the instrumentation and automation equipment in the field or in the control rooms. This package DOES NOT include the equipment, the commissioning and start-up	2015	39 700
	Installation Contracting Electricity	"Contract for the installation of the Electricity on site. It covers the installation of the electrical power cables in the ground or in air lines, the connection of the panels and the installation of the lighting This package DOES NOT include the equipment, the commissioning and start-up"	2015	35 300
	Installation Contracting Telecommunication	Contract for the installation of the Telecommunication on site. It covers the installation of the Communication System, Data System, Protection System, Security System, PA/GA. This package DOES NOT include the equipment, the commissioning and start-up.	2015	4 500
	Shelters	Containerized or Prefabricated, factory assembled and pretested modules in concrete or metal housing, comprising Analyzers, related Instrumentation and Data System, including pad-mount assemblies and mobile containers. This package includes also engineering, design, assembling, testing, commissioning and start up operations.	2015	4 200
T-Buildings (Containerized Main Telecommunication Contract)	Containerized or Prefabricated, factory assembled and pretested modules in concrete or metal housing, comprising Communication System, Data Transmission System, PA/GA, Protection System, Security System, including pad-mount assemblies and mobile containers. This package includes also engineering, design, assembling, testing, commissioning and start up operations.	2015	19 600	

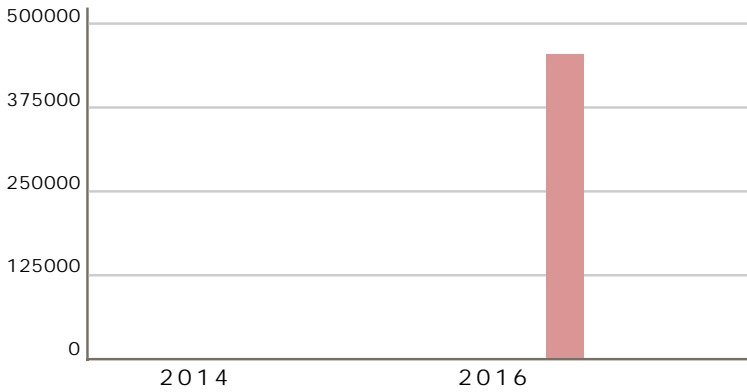


Document reference |

KINDER MORGAN GULF LNG EXPORT TERMINAL



Business Pipeline (in KUSD)



- Electrical Equipments & Systems
- Mechanical Equipments
- Instrumentation Products, Systems & Services
- Contracting & Utilities Packages

		Business Pipeline in KUSD		
		Smart Data	2014	2016
Packages in KUSD	Electrical Equipments & Systems	0	0	0
	Mechanical Equipments	0	0	0
	Instrumentation Products, Systems & Services	0	0	0
	Contracting & Utilities Packages	456 300	0	456 300
	Total of all the Packages	456 300	0	456 300



Document reference |

KINDER MORGAN GULF LNG EXPORT TERMINAL

Project Market Data	Last up date		Date	28/12/2014			
	Last up date year		2014				
	Status		Active				
	Project Names		Kinder Morgan Gulf LNG Export Terminal				
	Project Site Country		USA				
	End User	Project End user Name		Kinder Morgan Inc.			
		End Users & Stakeholders		Kinder Morgan Inc.	GE		
		End Users Countries		USA	USA		
		Key Stakeholders		Operational Leader	Financial Minority		
		Expected year of Completion		2019			
	"Feed Engineering Company (Front End Engineering & Design)"	Bidders					
		Awarded		KBR			
		FEED Companies Country		USA			
		FEED Stage year		2014			
	"PMC or EPCM Company Engineering Company (Project manager Consultant or EPC Manager) if appointed"	Name					
		PMC or EPCM Country					
		Year of appointment					
	"EPC Company (Engineering, Procurement & Construction)"	Bidders					
		Awarded		KBR			
		EPC Company Country		USA			
		EPC Stage year		2016			
	Main Standards		ANSI/NEMA				
	Sourcing Strategy		Global				
	General Information about the project						
	<p>May 2nd 2012, Gulf LNG Liquefaction Company,LLC (GLLC) filled an application to export up to 11.5 million t/y of LNG. This LNG plant should be built in the actual import LNG terminal located in Pascagoula, Mississippi, USA. Gulf LNG is a 50/50 joint venture of El Paso, since acquired in May 25th by Kinder Morgan, and GE Financial Services. El Paso (Kinder Morgan) is the operator through its wholly owned subsidiary Southern Gulf LNG.</p> <p>-- May 2014 -- KBR was contracted to do the front-end design work on the Gulf LNG Liquefaction Project " which is 50 percent-owned Kinder Morgan. The deal will provide engineering work to the LNG export project prior to the project undergoing Federal Energy Regulatory Commission (FERC) review. The project is meant to support the addition of 10 million metric tons per year of liquefaction and export capabilities to the existing import terminal. Under the terms of the contract, KBR will perform engineering for two LNG trains " each five million metric tons per year " and associated facilities based on KBR reference design using its APCI C3MR Technology. Additionally, KBR will provide the technical documentation required by FERC during the pre-filing process. These facilities will allow the terminal to liquefy domestic natural gas delivered by pipeline, store the LNG in the terminal's existing LNG storage tanks, and load it into LNG vessels via the terminal's existing marine jetty.</p> <p>-- December 2014 -- Kinder Morgan is estimating beginning construction on the LNG export project in 2016 with the two LNG trains coming online in 2019 and 2020.</p>						



Document reference |

KINDER MORGAN GULF LNG EXPORT TERMINAL

PACKAGES SUMMARY

Packages Family	Packages Names	Packages Descriptions	Year of award	Business Opportunities
Copyright 2B1st Consulting				KUSD
Contracting & Utilities Packages	Contracting & Utilities Packages			456 300
	Contracting Packages			456 300
	E-Buildings (Compact Substations)	Containerized or Prefabricated, factory assembled and pretested CSS in concrete or metal housing, comprising integrated distribution transformer, medium voltage and low voltage switchgear, UPS and batteries, including pad-mount assemblies and mobile substations. This package includes also engineering, design, assembling, testing, commissioning and start up operations.	2016	208 400
	I-Buildings (Containerized Main Automation Contract)	Containerized or Prefabricated, factory assembled and pretested modules in concrete or metal housing, comprising Automation or Instrumentation Control System (ICSS), including pad-mount assemblies and mobile containers. This package includes also engineering, design, assembling, testing, commissioning and start up operations.	2016	110 400
	Installation Contracting Automation	Contract for the installation of the Automation and instrumentation on site. It covers the installation of the instrumentation and automation equipment in the field or in the control rooms. This package DOES NOT include the equipment, the commissioning and start-up	2016	52 500
	Installation Contracting Electricity	"Contract for the installation of the Electricity on site. It covers the installation of the electrical power cables in the ground or in air lines, the connection of the panels and the installation of the lighting This package DOES NOT include the equipment, the commissioning and start-up"	2016	48 400
	Installation Contracting Telecommunication	Contract for the installation of the Telecommunication on site. It covers the installation of the Communication System, Data System, Protection System, Security System, PA/GA. This package DOES NOT include the equipment, the commissioning and start-up.	2016	5 800
	Shelters	Containerized or Prefabricated, factory assembled and pretested modules in concrete or metal housing, comprising Analyzers, related Instrumentation and Data System, including pad-mount assemblies and mobile containers. This package includes also engineering, design, assembling, testing, commissioning and start up operations.	2016	5 500
T-Buildings (Containerized Main Telecommunication Contract)	Containerized or Prefabricated, factory assembled and pretested modules in concrete or metal housing, comprising Communication System, Data Transmission System, PA/GA, Protection System, Security System, including pad-mount assemblies and mobile containers. This package includes also engineering, design, assembling, testing, commissioning and start up operations.	2016	25 300	

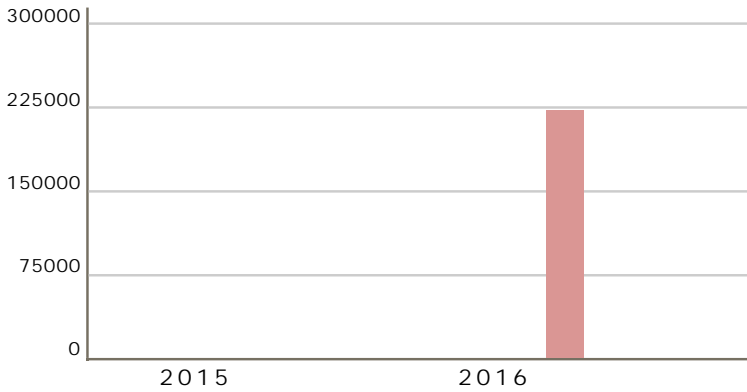


Document reference |

LNG MAGNOLIA LNG LAKE CHARLES



Business Pipeline (in KUSD)



		Business Pipeline in KUSD		
		Smart Data	2015	2016
Packages in KUSD	Electrical Equipments & Systems	0	0	0
	Mechanical Equipments	0	0	0
	Instrumentation Products, Systems & Services	0	0	0
	Contracting & Utilities Packages	224 800	0	224 800
	Total of all the Packages	224 800	0	224 800



Document reference |

LNG MAGNOLIA LNG LAKE CHARLES

Project Market Data	Last up date	Date	03/02/2015			
	Last up date year	2015				
	Status	Active				
	Project Names	LNG Magnolia LNG Lake Charles				
	Project Site Country	USA				
	End User	Project End user Name	LNG Ltd			
		End Users & Stakeholders	LNG Ltd			
		End Users Countries	Australia			
		Key Stakeholders	Operational Leader			
		Expected year of Completion	2019			
	"Feed Engineering Company (Front End Engineering & Design)"	Bidders				
		Awarded	KBR			
		FEED Companies Country	USA			
		FEED Stage year	2015			
	"PMC or EPCM Company Engineering Company (Project manager Consultant or EPC Manager) if appointed"	Name				
		PMC or EPCM Country				
		Year of appointment				
	"EPC Company (Engineering, Procurement & Construction)"	Bidders				
		Awarded	SK Engineering & Construction			
		EPC Company Country	South Korea			
EPC Stage year		2016				
Main Standards	ANSI/NEMA					
Sourcing Strategy	High Value or Low Costs Countries					
General Information about the project						
<p>Magnolia LNG, a newly formed, wholly-owned subsidiary of Liquefied Natural Gas Limited (LNG Ltd), is developing an up to 8 million tonne per annum (mtpa) mid-scale LNG facility in the Port of Lake Charles, Louisiana, USA using its highly efficient and patented OSM technology (Project). The Project will access approximately 90 acres of available land in Lake Charles, Industrial Canal South Shore PLC Tract 475, (Site) through a long-term lease with the Lake Charles Harbor & Terminal District.</p> <p>LNG Ltd's wholly owned OSMR's liquefaction technology and development methodology results in lower capital cost, lower operating cost, faster construction, and improved efficiency</p> <p>Feed gas for the Project will be sourced from the highly liquid US gas market via several gas suppliers. Gas will be delivered to the site via two existing underutilised pipeline infrastructure that traverses the Site. Two additional gas pipelines are located within 3 miles of the site. Consequently, very short interconnect pipelines will be required to tie-in to the existing pipeline(s).</p> <p>On 18 December 2012 Magnolia LNG filed an application with the U.S. Department of Energy, Office of Fossil Energy (DOE/FE) seeking long-term multi-contract authorization to export up to 4mtpa of liquefied natural gas (LNG) to Free Trade Agreement (FTA) countries. Authorisation is expected to be granted by DOE/FE in first quarter 2013. Authorisation is required by US law to be granted within 90 days of the filing date. Magnolia LNG will provide cost effective liquefaction services under an LNG Tolling Agreement enabling LNG sales to these FTA countries.</p> <p>Magnolia LNG has also commenced activities that relate to the Federal Energy Regulatory Commission's (FERC) authorization and other necessary environmental permits to site, construct, and operate the Project. Early preliminary activities include a Safety Assessment for the LNG facility, a Waterway Suitability Assessment (WSA), geotechnical studies, and studies required to ensure a timely and smooth approvals process.</p> <p>A detailed Permitting & Approvals Roadmap has also been prepared by a local US consultant that outlines the related tasks over the next 24 months. In accordance with the FERC approval process, Magnolia LNG is anticipating submitting its formal Pre-File application by March 2013.</p> <p>The five key early milestones targeted for the Project are:</p> <ul style="list-style-type: none"> • Receipt of DOE FTA Approval February 2013 • Submit Pre-Filing Application to FERC March 2013 • Selection of Project partners June 2013 • Submit Filing Application to FERC December 2013 • Final Investment Decision December 2014 (subject to FERC approvals) <p>The Project will comprise a full containment LNG tank of ~ 200,000 m3 in accordance with NFPA 59A and FERC guidelines. The industrial canal will enable LNG Carriers (up to 170,000 m3 Membrane) to access the Site using the existing swing basin. The Site is adjacent to the existing Trunkline LNG Terminal, and so LNG Carriers have been previously operational in the main Calcasieu Channel and Industrial Canal.</p> <p>The Project will largely benefit from the Front End Engineering Design (FEED) recently undertaken for the Fisherman's Landing LNG Project in Gladstone, Queensland, Australia. This will assist in expediting the permit approvals process.</p> <p>The indicative capital estimate is US\$2.2 billion for the Project (4 mtpa). The resulting cost of ~ US\$550 per LNG tonne would be the lowest export LNG capital cost in the US and one of the key success factors of the Project.</p> <ul style="list-style-type: none"> --February2014--Magnolia LNG signed MOU with SK Engineering and Construction (SK E&C) to provide : <ul style="list-style-type: none"> - Front-end engineering design (FEED) and open book costing - Engineering, procurement and construction (EPC) under a fixed-price <p>The initial price estimate for the work is \$1.57 billion, which is in-line with Magnolia LNG estimates.</p> <ul style="list-style-type: none"> -- March 2014 -- Magnolia LNG has received approval from the US Department of Energy (DOE) for the export of 8 million tonnes per year of LNG to free trade agreement (FTA) countries. <p>Authorisation for export is valid for first LNG sales expected to start within 10 years, and then for 25 years after that.</p> <ul style="list-style-type: none"> -- May 2014 -- LNG Magnolia received FERC approval -- February 2015 -- KBR and SKEC to execute EPC Joint Venture Agreement (JVA) on a 70/30 percent participation basis, respectively, to deliver the 8 mtpa four train Magnolia LNG Project <p>KBR will be the leader of the EPC Contract</p> <p>Magnolia LNG on schedule for Financial Close in mid-2015 and first LNG in fourth quarter 2018.</p> <p>Under the Technical Services Agreements the parties will complete all due diligence in relation to technical commercial and contractual matters that will enable the EPC JV to execute a lump sum, turnkey engineering procurement, construction, commissioning, start-up and performance testing EPC Contract for the LNG</p>						

plant.

Magnolia LNG has set the following milestone schedule:

- February 2015: JV Agreement between KBR and SKEC
- March 2015: Initialling EPC Contract between Magnolia LNG and the JV
- April 2015: EPC Contract signing between Magnolia LNG and JV



Document reference |

LNG MAGNOLIA LNG LAKE CHARLES

PACKAGES SUMMARY

Packages Family	Packages Names	Packages Descriptions	Year of award	Business Opportunities
Copyright 2B1st Consulting				KUSD
Contracting & Utilities Packages	Contracting & Utilities Packages			224 800
	Contracting Packages			224 800
	E-Buildings (Compact Substations)	Containerized or Prefabricated, factory assembled and pretested CSS in concrete or metal housing, comprising integrated distribution transformer, medium voltage and low voltage switchgear, UPS and batteries, including pad-mount assemblies and mobile substations. This package includes also engineering, design, assembling, testing, commissioning and start up operations.	2016	106 200
	I-Buildings (Containerized Main Automation Contract)	Containerized or Prefabricated, factory assembled and pretested modules in concrete or metal housing, comprising Automation or Instrumentation Control System (ICSS), including pad-mount assemblies and mobile containers. This package includes also engineering, design, assembling, testing, commissioning and start up operations.	2016	60 700
	Installation Contracting Automation	Contract for the installation of the Automation and instrumentation on site. It covers the installation of the instrumentation and automation equipment in the field or in the control rooms. This package DOES NOT include the equipment, the commissioning and start-up	2016	14 200
	Installation Contracting Electricity	"Contract for the installation of the Electricity on site. It covers the installation of the electrical power cables in the ground or in air lines, the connection of the panels and the installation of the lighting This package DOES NOT include the equipment, the commissioning and start-up"	2016	24 000
	Installation Contracting Telecommunication	Contract for the installation of the Telecommunication on site. It covers the installation of the Communication System, Data System, Protection System, Security System, PA/GA. This package DOES NOT include the equipment, the commissioning and start-up.	2016	2 200
	Shelters	Containerized or Prefabricated, factory assembled and pretested modules in concrete or metal housing, comprising Analyzers, related Instrumentation and Data System, including pad-mount assemblies and mobile containers. This package includes also engineering, design, assembling, testing, commissioning and start up operations.	2016	3 000
T-Buildings (Containerized Main Telecommunication Contract)	Containerized or Prefabricated, factory assembled and pretested modules in concrete or metal housing, comprising Communication System, Data Transmission System, PA/GA, Protection System, Security System, including pad-mount assemblies and mobile containers. This package includes also engineering, design, assembling, testing, commissioning and start up operations.	2016	14 500	

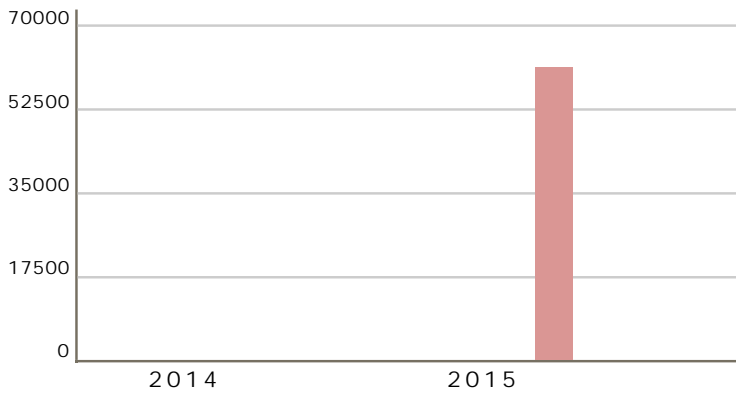


Document reference |

LYONDELLBASELL CHANNELVIEW ETHYLENE SECOND EXPANSION



Business Pipeline (in KUSD)



- Electrical Equipments & Systems
- Mechanical Equipments
- Instrumentation Products, Systems & Services
- Contracting & Utilities Packages

		Business Pipeline in KUSD		
		Smart Data	2014	2015
Packages in KUSD	Electrical Equipments & Systems	0	0	0
	Mechanical Equipments	0	0	0
	Instrumentation Products, Systems & Services	0	0	0
	Contracting & Utilities Packages	61 600	0	61 600
	Total of all the Packages	61 600	0	61 600



Document reference |

LYONDELLBASELL CHANNELVIEW ETHYLENE SECOND EXPANSION

Project Market Data	Last up date		Date	24/12/2014			
	Last up date year		2014				
	Status		Active				
	Project Names		LyondellBasell Channelview Ethylene Second Expansion				
	Project Site Country		USA				
	End User	Project End user Name		Lyondellbasell			
		End Users & Stakeholders		Lyondellbasell			
		End Users Countries		USA			
		Key Stakeholders		Operational Leader			
		Expected year of Completion		2017			
	"Feed Engineering Company (Front End Engineering & Design)	Bidders					
		Awarded		KBR			
		FEED Companies Country		USA			
		FEED Stage year		2014			
	"PMC or EPCM Company Engineering Company (Project manager Consultant oe EPC Manager) if appointed"	Name					
		PMC or EPCM Country					
		Year of appointment					
	"EPC Company (Engineering, Procurement & Construction)"	Bidders					
		Awarded		KBR			
		EPC Company Country		USA			
EPC Stage year		2015					
Main Standards		ANSI/NEMA					
Sourcing Strategy		Global					
General Information about the project							
<p>The global chemical and plastics manufacturer LyondellBasell is considering an additional expansion of the ethylene production on its Channelview facility in Texas USA.</p> <p>During the last twenty years, LyondellBasell has grown up pretty fast in Europe and North America mainly through acquisitions. The accumulation of debts to finance the acquisitions and the 2008 crisis led LyondellBasell to apply for the Chapter 11 protection in US in 2009. After cleaning its balance sheet and optimizing its diversified assets portfolio, LyondellBasell was well positioned to benefit from the shale gas development in the US to restore a competitive model of petrochemical activities.</p> <p>In this new context, LyondellBasell opted for organic growth in investing in series of debottlenecking projects in its existing chemical complexes in Channelview, Corpus Christi and La Porte, all in Texas USA.</p> <p>In a period when engineering and contracting resources are all absorb by the multiplication of projects in North America, LyondellBasell strategy, in proceeding by mid-sized investments, enable an implementation on fast track of these expansions.</p> <p>In Corpus Christi, LyondellBasell started up in 2013 in joint venture with TexStar a new natural gas liquids (NGL) plant in order to increase its supply capacities. From this first step, LyondellBasell is now working on a new ethylene cracker to add 360,000 tonnes per year (t/y) capacity expected to run into commercial operations in 2016.</p> <p>In parallel, LyondellBasell is currently completing in La Porte the 100,000 t/y polyethylene debottlenecking project and the 400,000 t/y ethylene cracker expansion.</p> <p>New LyondellBasell Channelview Ethylene Expansion</p> <p>Regarding Channelview, LyondellBasell restarted its 780,000 t/y methanol that was idled since 2004. This methanol facility is then supplying LyondellBasell acetic acid and methy terbutyl ether (MTBE) units on the same site in Channelview. As part of the debottlenecking program, LyondellBasell initiated the capacity increase of Channelview ethylene cracker by 113,000 t/y. To support this additional capacity, LyondellBasell is building two cracking furnaces in Channelview. LyondellBasell is planning to turn these new Channelview ethylene crackers by 2015.</p> <p>Since this small steps strategy of investment is proving to deliver the projects on time and at budgeted costs, LyondellBasell is encouraged to continue in the same way as long as the domestic demand and the existing sites are supporting these series of capacity increases. Taking the advantage of the modular design of these ethylene crackers, LyondellBasell has decided to repeat the successful experience and announced a new expansion at the Channelview ethylene plant.</p> <p>With this new investment, LyondellBasell is planning to increase capacity by 270,000 t/y of ethylene in Channelview.</p> <p>As this project will be executed in continuation of the on going cracker furnaces project, LyondellBasell expect this new Channelview Ethylene Expansion project to be in operation by 2017.</p>							



Document reference |

LYONDELLBASELL CHANNELVIEW ETHYLENE SECOND EXPANSION

PACKAGES SUMMARY

Packages Family	Packages Names	Packages Descriptions	Year of award	Business Opportunities
Copyright 2B1st Consulting				KUSD
Contracting & Utilities Packages	Contracting & Utilities Packages			61 600
	Contracting Packages			61 600
	E-Buildings (Compact Substations)	Containerized or Prefabricated, factory assembled and pretested CSS in concrete or metal housing, comprising integrated distribution transformer, medium voltage and low voltage switchgear, UPS and batteries, including pad-mount assemblies and mobile substations. This package includes also engineering, design, assembling, testing, commissioning and start up operations.	2015	16 300
	I-Buildings (Containerized Main Automation Contract)	Containerized or Prefabricated, factory assembled and pretested modules in concrete or metal housing, comprising Automation or Instrumentation Control System (ICSS), including pad-mount assemblies and mobile containers. This package includes also engineering, design, assembling, testing, commissioning and start up operations.	2015	22 400
	Installation Contracting Automation	Contract for the installation of the Automation and instrumentation on site. It covers the installation of the instrumentation and automation equipment in the field or in the control rooms. This package DOES NOT include the equipment, the commissioning and start-up	2015	10 100
	Installation Contracting Electricity	"Contract for the installation of the Electricity on site. It covers the installation of the electrical power cables in the ground or in air lines, the connection of the panels and the installation of the lighting This package DOES NOT include the equipment, the commissioning and start-up"	2015	3 700
	Installation Contracting Telecommunication	Contract for the installation of the Telecommunication on site. It covers the installation of the Communication System, Data System, Protection System, Security System, PA/GA. This package DOES NOT include the equipment, the commissioning and start-up.	2015	1 500
	Shelters	Containerized or Prefabricated, factory assembled and pretested modules in concrete or metal housing, comprising Analyzers, related Instrumentation and Data System, including pad-mount assemblies and mobile containers. This package includes also engineering, design, assembling, testing, commissioning and start up operations.	2015	1 100
T-Buildings (Containerized Main Telecommunication Contract)	Containerized or Prefabricated, factory assembled and pretested modules in concrete or metal housing, comprising Communication System, Data Transmission System, PA/GA, Protection System, Security System, including pad-mount assemblies and mobile containers. This package includes also engineering, design, assembling, testing, commissioning and start up operations.	2015	6 500	

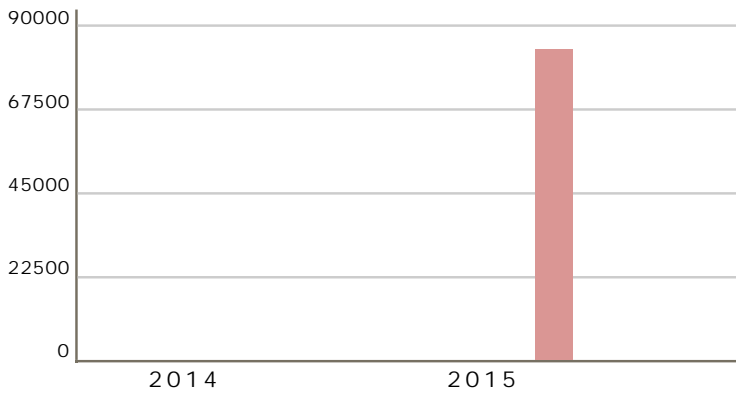


Document reference |

LYONDELLBASELL CORPUS CHRISTI ETHYLENE EXPANSION



Business Pipeline (in KUSD)



- Electrical Equipments & Systems
- Mechanical Equipments
- Instrumentation Products, Systems & Services
- Contracting & Utilities Packages

		Business Pipeline in KUSD		
		Smart Data	2014	2015
Packages in KUSD	Electrical Equipments & Systems	0	0	0
	Mechanical Equipments	0	0	0
	Instrumentation Products, Systems & Services	0	0	0
	Contracting & Utilities Packages	84 000	0	84 000
	Total of all the Packages	84 000	0	84 000



Document reference |

LYONDELLBASELL CORPUS CHRISTI ETHYLENE EXPANSION

Project Market Data	Last up date		Date	22/05/2014				
	Last up date year		2014					
	Status		Active					
	Project Names		LyondellBasell Corpus Christi Ethylene Expansion					
	Project Site Country		USA					
	End User	Project End user Name		Lyondellbasell				
		End Users & Stakeholders		Lyondellbasell				
		End Users Countries		Netherlands				
		Key Stakeholders		Operational Leader				
		Expected year of Completion		2016				
	"Feed Engineering Company (Front End Engineering & Design)	Bidders						
		Awarded		KBR				
		FEED Companies Country		USA				
		FEED Stage year		2014				
	"PMC or EPCM Company Engineering Company (Project manager Consultant or EPC Manager) if appointed"	Name						
		PMC or EPCM Country						
		Year of appointment						
	"EPC Company (Engineering, Procurement & Construction)"	Bidders						
		Awarded		KBR				
		EPC Company Country		USA				
		EPC Stage year		2015				
	Main Standards		ANSI/NEMA					
	Sourcing Strategy		Global					
	General Information about the project							
	<p>LyondellBasell plans to add an additional 800m lb/year (363,000 tonnes/year) of ethylene capacity at its cracker at Corpus Christi, Texas, by late 2015, a senior executive said on Wednesday.</p> <p>“This investment of around \$420m (€323m) could add \$250m-300m in annual potential growth value,” said Tim Roberts, senior vice president of olefins and polyolefins Americas.</p> <p>He spoke at the company’s annual investor day.</p> <p>It was the first time LyondellBasell announced planned additional capacity for its Corpus Christi expansion.</p> <p>Currently, LyondellBasell has an ethylene capacity of 771,000 tonnes/year at Corpus Christi</p> <p>--November2013-- The Corpus Christi expansion is still in the permitting phase, with construction slated to begin once permits are received. Projected start-up is expected on early 2016.</p>							



Document reference |

LYONDELLBASELL CORPUS CHRISTI ETHYLENE EXPANSION

PACKAGES SUMMARY

Packages Family	Packages Names	Packages Descriptions	Year of award	Business Opportunities
Copyright 2B1st Consulting				KUSD
Contracting & Utilities Packages	Contracting & Utilities Packages			84 000
	Contracting Packages			84 000
	E-Buildings (Compact Substations)	Containerized or Prefabricated, factory assembled and pretested CSS in concrete or metal housing, comprising integrated distribution transformer, medium voltage and low voltage switchgear, UPS and batteries, including pad-mount assemblies and mobile substations. This package includes also engineering, design, assembling, testing, commissioning and start up operations.	2015	26 100
	I-Buildings (Containerized Main Automation Contract)	Containerized or Prefabricated, factory assembled and pretested modules in concrete or metal housing, comprising Automation or Instrumentation Control System (ICSS), including pad-mount assemblies and mobile containers. This package includes also engineering, design, assembling, testing, commissioning and start up operations.	2015	28 000
	Installation Contracting Automation	Contract for the installation of the Automation and instrumentation on site. It covers the installation of the instrumentation and automation equipment in the field or in the control rooms. This package DOES NOT include the equipment, the commissioning and start-up	2015	12 600
	Installation Contracting Electricity	"Contract for the installation of the Electricity on site. It covers the installation of the electrical power cables in the ground or in air lines, the connection of the panels and the installation of the lighting This package DOES NOT include the equipment, the commissioning and start-up"	2015	6 400
	Installation Contracting Telecommunication	Contract for the installation of the Telecommunication on site. It covers the installation of the Communication System, Data System, Protection System, Security System, PA/GA. This package DOES NOT include the equipment, the commissioning and start-up.	2015	1 800
	Shelters	Containerized or Prefabricated, factory assembled and pretested modules in concrete or metal housing, comprising Analyzers, related Instrumentation and Data System, including pad-mount assemblies and mobile containers. This package includes also engineering, design, assembling, testing, commissioning and start up operations.	2015	1 300
T-Buildings (Containerized Main Telecommunication Contract)	Containerized or Prefabricated, factory assembled and pretested modules in concrete or metal housing, comprising Communication System, Data Transmission System, PA/GA, Protection System, Security System, including pad-mount assemblies and mobile containers. This package includes also engineering, design, assembling, testing, commissioning and start up operations.	2015	7 800	