Cameron LNG

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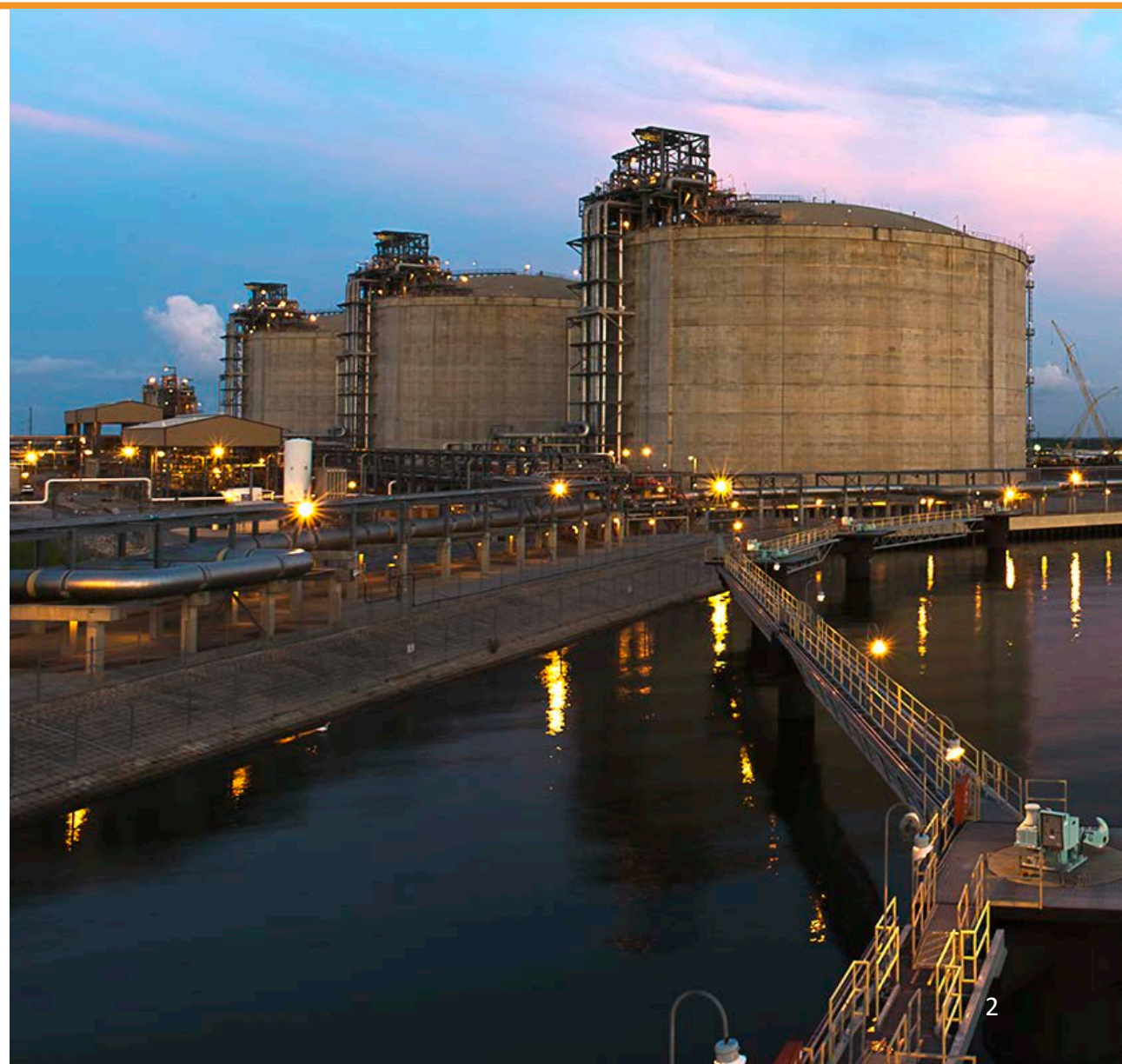
Cameron LNG

- Liquefied Natural Gas (LNG) terminal near the Gulf of Mexico, in Hackberry, Louisiana
- Adding natural gas liquefaction and export facilities to the existing regasification terminal
- Once the liquefaction project is completed, the terminal will:
  - liquefy domestically-produced natural gas for export
  - import LNG and re-gasify it for delivery to domestic markets, or
  - re-export foreign-sourced LNG



Who is Cameron LNG?

Joint venture between:

ENGIE

Mitsubishi Corporation

Sempra LNG

MITSUI & CO.

NYK LINE

Experienced JV partners

- Sempra developed the first LNG receipt terminal on the west coast of North America, Energía Costa Azul, in Mexico and a second terminal, Cameron LNG, in Louisiana near the Gulf of Mexico. Sempra LNG is also active in the sale and purchase of LNG worldwide

- ENGIE (formerly named GDF SUEZ) is the largest LNG importer in Europe. Its LNG portfolio, sourced from six countries, is the third largest in the world. It operates 17 LNG ships and has a significant presence in regasification terminals globally

- Mitsui has a significant global LNG portfolio and strong relationships with major LNG buyers spanning more than 40 years. The company holds equity interests in LNG production facilities that operate in seven countries

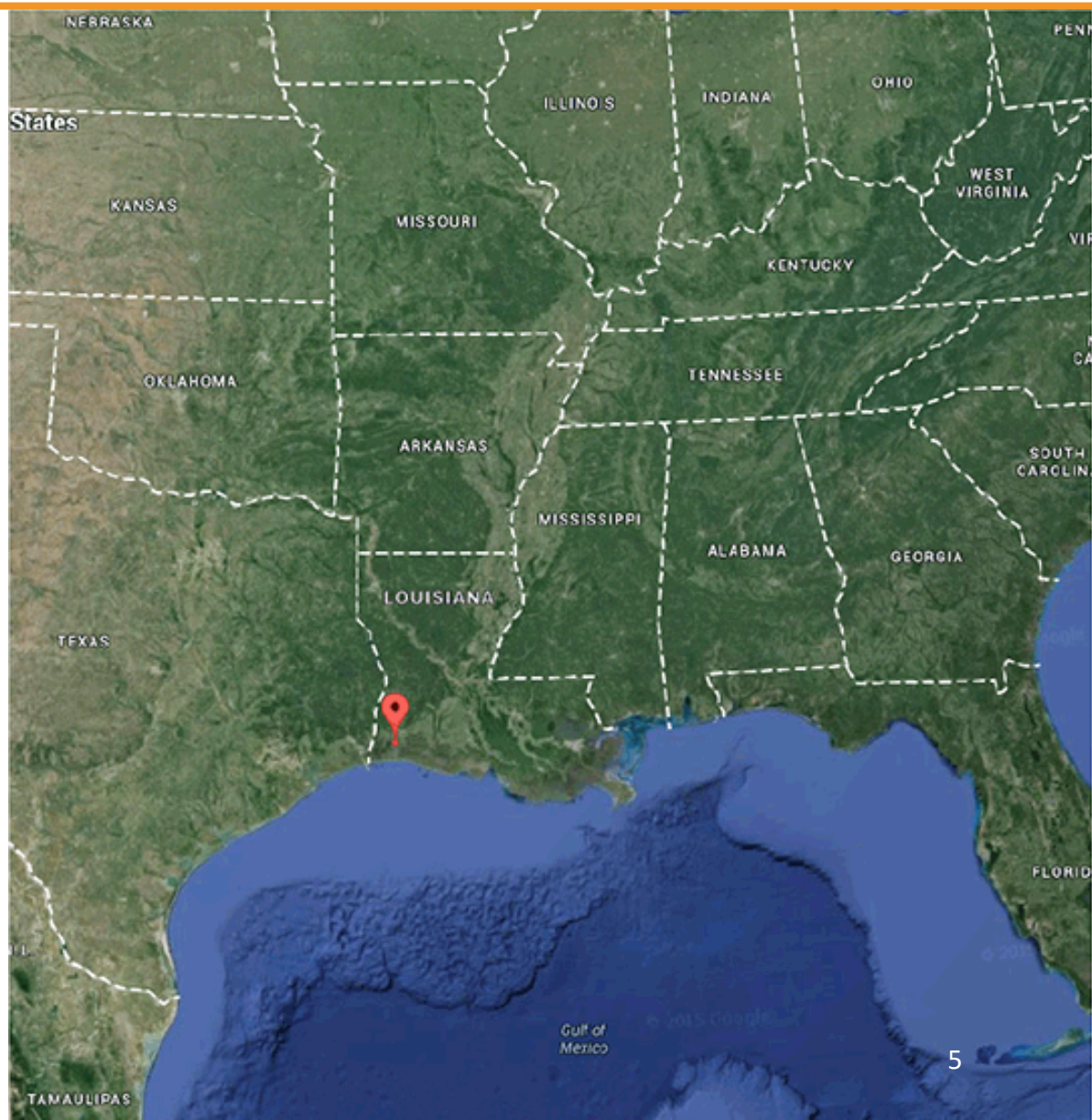
- Mitsubishi is a highly experienced LNG developer and investor and has a significant global LNG portfolio and strong relationships with major LNG buyers

- NYK is one of the largest shipping companies in the world. It operates 846 major ocean vessels, as well as fleets of planes, trains, and trucks, including 28 LNG ships

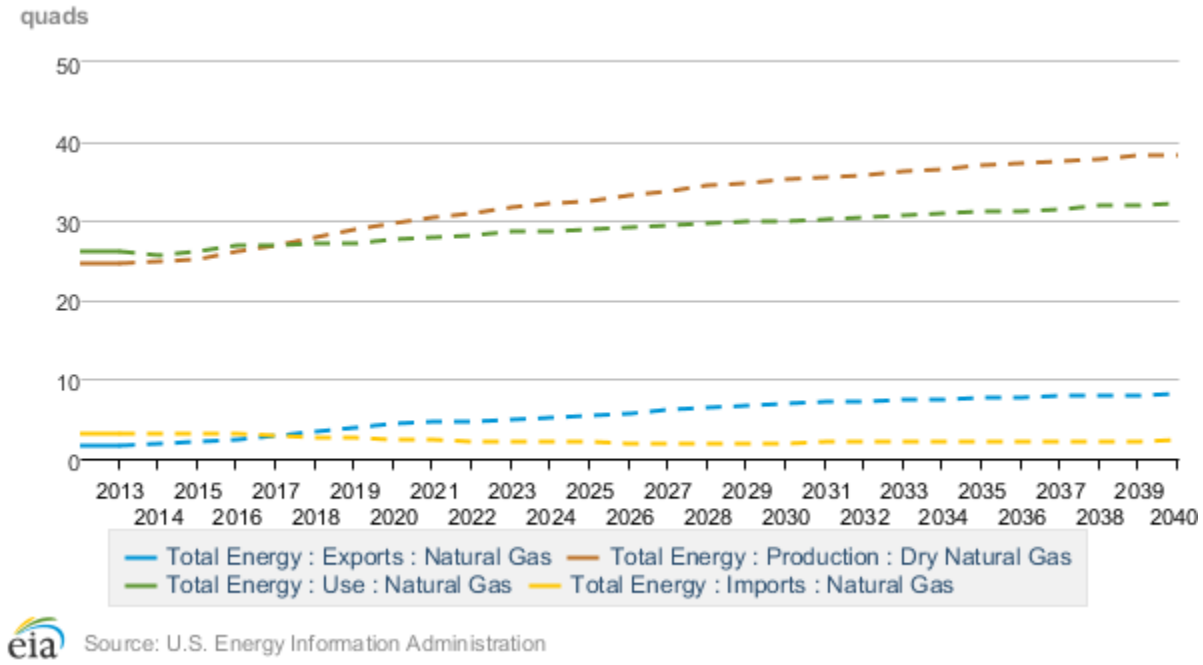
Overview

- Located along the Calcasieu Ship Channel that connects to the Gulf of Mexico
- Site is 18 miles from Gulf of Mexico and 36 miles from major interstate gas pipelines
- Critical LNG equipment is elevated above 500-year flood plain level for protection from hurricanes

Facts	Regasification Facilities	Liquefaction Facilities
Commercial operations	July 2009	Train 1, 2 and 3 in 2018
Capital expenditures	$1 billion	Approximately $10 billion (total)
Plant site	286 acres (existing regas site only)	502 acres (liquefaction site only)
Capacity	1.80 bcfd vaporization	13.5 mtpa liquefaction
Employees	62 personnel	An additional 140 personnel
Marine berths	2 berths suitable for Q-Flex sized (217,000 m^3) LNG ships	
LNG storage tanks	3 tanks each at 160,000 m^3	
Power supply	Purchased from Entergy (electric utility)	



Why US exports?



eia Source: U.S. Energy Information Administration

- US natural gas supply > US demand
- Increased international demand
- Price gap between US domestic price and international LNG price

Source: EIA Annual Energy Outlook 2015, www.eia.gov

Cameron Liquefaction project

- Brownfield project development using existing LNG terminal facilities (LNG tanks, marine berths and associated facilities)
- Liquefaction facilities
  - feed gas pre-treatment to remove water, carbon dioxide, hydrogen sulfide, mercury and pentanes-plus (C5+)
  - three 4.5 mtpa trains (13.5 mtpa of nominal capacity) to achieve an export of 12 mtpa (1.7 bcfd) of LNG*
  - APCI propane mixed refrigerant (C3MR) liquefaction process
  - GE Frame 7EA gas turbine mechanical drivers
- Modifications to existing power supply
  - Installation of two new 230-KV transmission lines and two new substations (under construction)

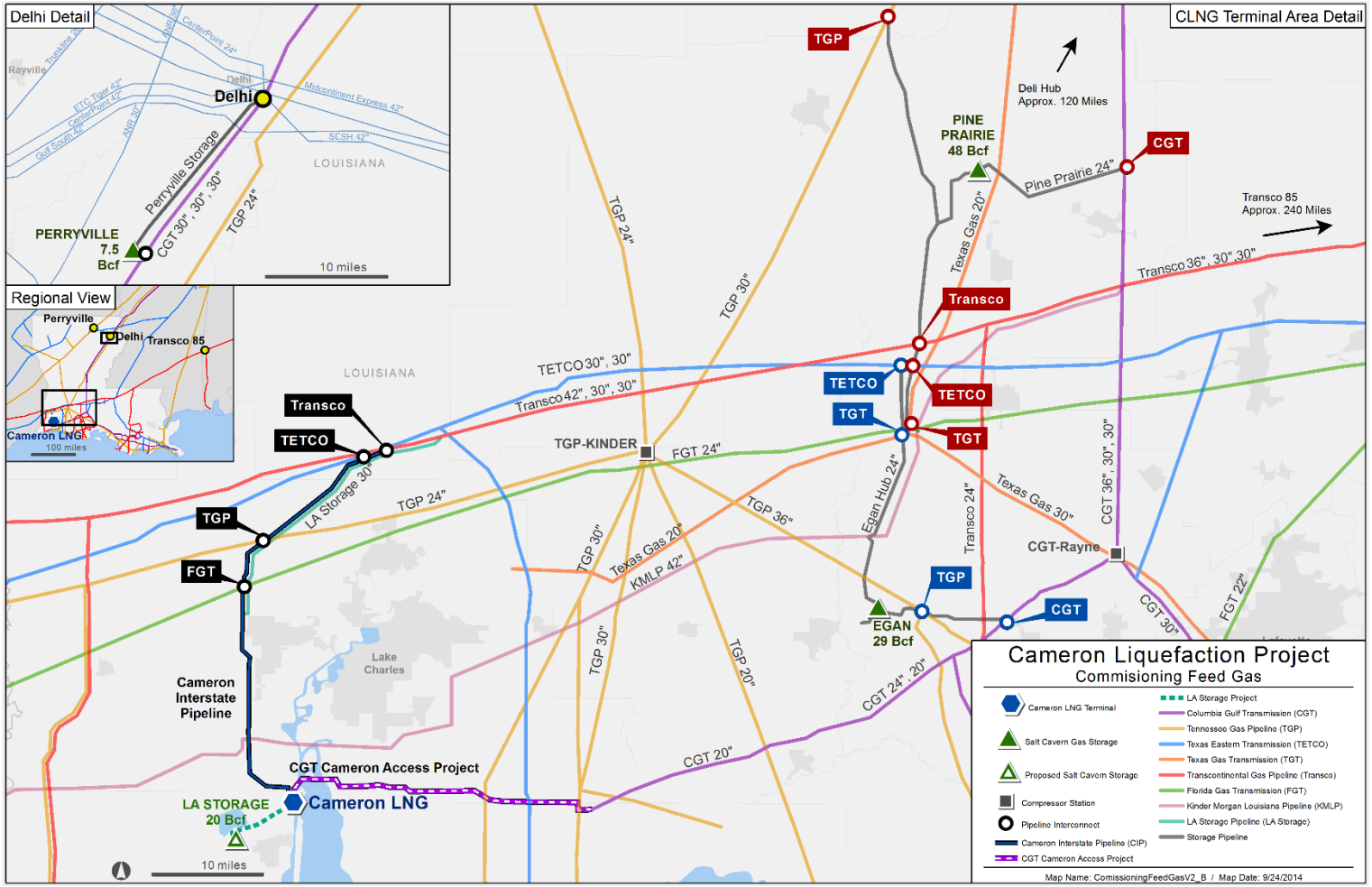
*FTA approval received April 2015 for incremental capacity of 2.95 mtpa to align with aggregate maximum liquefaction capacity as authorized by FERC of 14.95 mtpa

Liquefaction Project milestones

Dec 2010	Liquefaction concept is developed
Nov 2011	Filed Free Trade Agreement (FTA) application with the Department of Energy (DOE) and commenced Front End Engineering Design
Dec 2011	Filed Non-FTA application with DOE
Jan 2012	FTA permit is awarded by DOE
April 2012	June/July 2014 FERC permitting process
Feb 2014	DOE issues conditional non-FTA permit
Mar 2014	Engineering, procurement and construction contract (EPC) contract award to CCJV - joint venture of CB&I and Chiyoda International Corporation
Aug 2014	Final Investment decision
Sep 2014	Final non-FTA authorization from DOE
Oct 2014	Cameron LNG JV effective date
Oct 2014	Groundbreaking - Full construction commenced
2018	Commercial operations Trains 1-3
2019	First full year of operations

Pipeline access for gas supplies

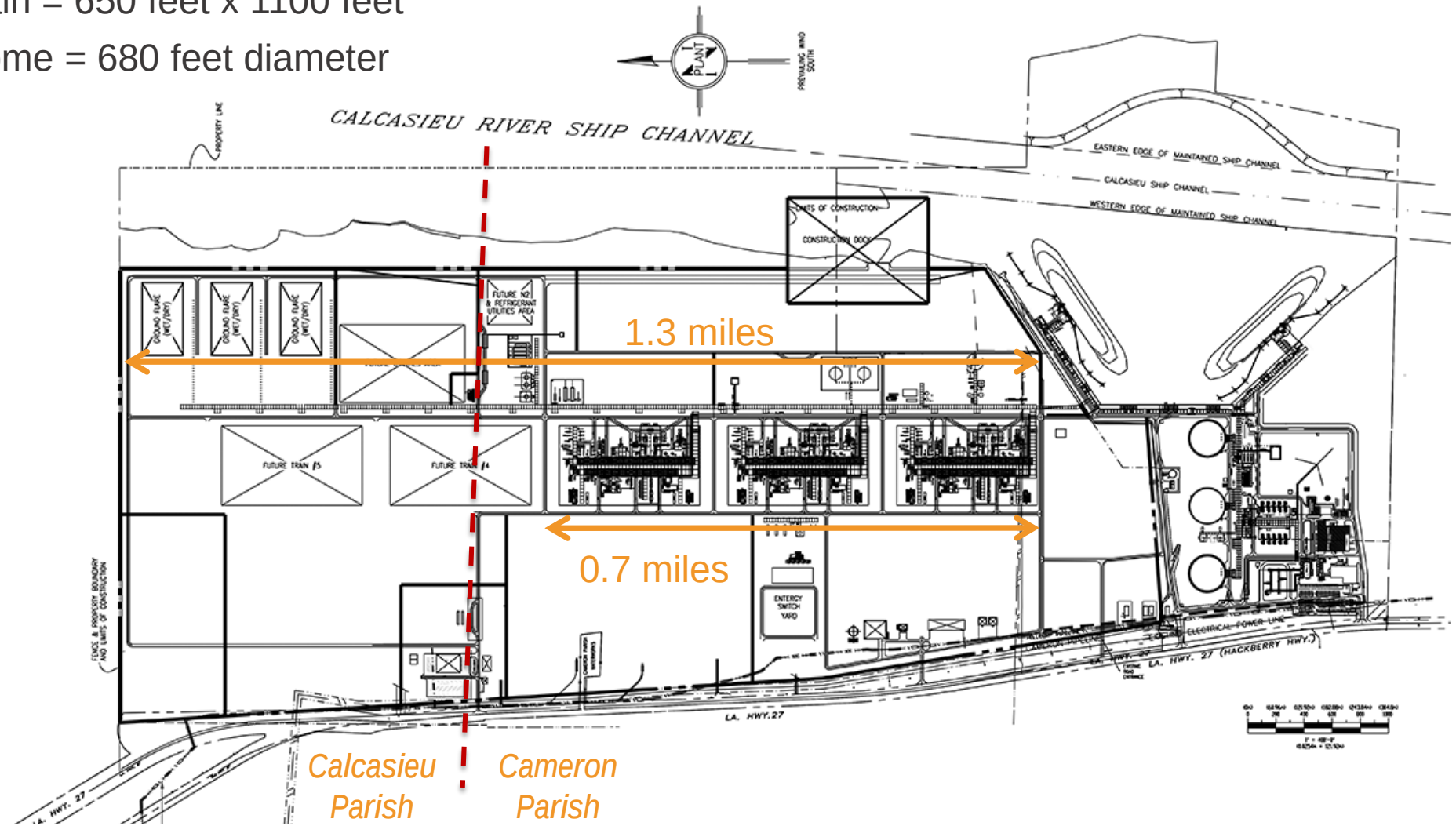
- Cameron Interstate Pipeline, an existing 42-inch diameter pipeline, will be reversed and expanded
- Columbia Gas Transmission will construct the “Cameron Access Project”, which will be a 36-inch diameter, 27-mile pipeline extension to the Cameron site



Cameron Liquefaction Project

How big is the Liquefaction Project?

- Each LNG train footprint is larger than the Superdome
- LNG Train = 650 feet x 1100 feet
- Superdome = 680 feet diameter



Project site

October 24, 2014

September 15, 2015

Under construction – September 2015

Drilling vs driving piles

- Project has over 20,000 piles
- Depths: 25, 40 and 80 feet
- No casing is required
- Cement mix is pumped into well bore as auger is removed
- 25” reinforcement rebar cage inserted once cement reaches ground level
- Benefits:
  - Dirt compressed into side walls not removed from well bore
  - No “driving” noises for surrounding community

Jobs and other economic benefits

- Committed to hiring locally
- The Liquefaction Project will
  - create more than triple the number of permanent jobs once fully constructed
  - create nearly 3,000 direct jobs during peak construction
  - support small businesses in southwest LA
- Exports of LNG have the potential to generate hundreds of millions of dollars in economic development and new tax revenue

Safety

- Safety is a top priority at Cameron LNG
- Sophisticated alarms and multiple back-up safety systems, which include emergency shutdown (ESD) systems, are core components of the facility
- Employees receive relevant training on safety policies and procedures, emergency response and also periodically participate in emergency drills
- The terminal meets and, in some cases, exceeds all industry safety requirements
- Terminal: 8+ years and over 925,000 man-hours without a lost time injury and only one recordable injury
- Liquefaction project – 2,400,000 man-hours and 1 year without a recordable incident as of 24 August 2015

Environmental protection and restoration

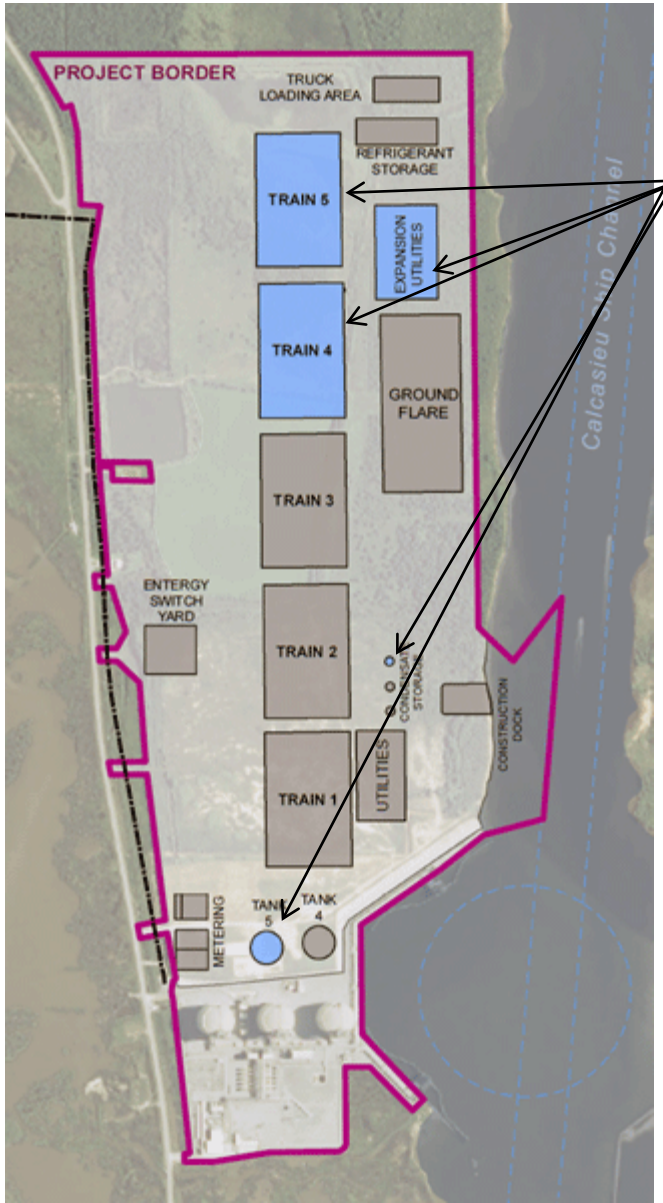
- Created more than 500 acres of new wetlands by relocating 4.5 million cubic yards of soil removed during the channel dredging process for the regasification terminal project
- Partnered with Ducks Unlimited (a world leader in wetlands conservation) to restore over 900 acres
  of eroded marshlands in Cameron Parish
- Cameron Liquefaction Project will create additional marsh wetlands before, during and after construction that will support the local plant and wildlife habitat
- Supporting the Louisiana Wildlife & Fisheries Foundation to reintroduce whooping cranes (an endangered species) into SW Louisiana

Community commitment

- Invests time, talent and financial resources to help improve the quality of life for our customers, neighbors and employees
- Partners with local organizations, such as schools, non-profit organizations and local leadership to support programs in the areas of health and safety, environment, education and economic development
- Donated more than $2 million in the region since 2003
- Community Advisory Council informs us about community concerns and helps us respond to community needs

Expansion project – Trains 4/5

- Add 2 liquefaction trains and 1 LNG storage tank
  - entirely within the existing Project footprint
  - duplicating the current train design
  - no interruption to ongoing construction
  - no changes to marine berth, and
  - no change in size or number of currently authorized vessels
- LNG production capacity will be increased from 14.95 mtpa (T1-3) to approximately 24.92 mtpa (total for 5 Trains)
- DOE FTA and non-FTA applications filed with DOE in Feb 2015 (FTA was approved July 2015, still awaiting non-FTA approval)
- Pre-filing application filed with FERC in Feb 2015
- If approved by FERC and JV partners, construction activities to start 2016 with expected in-service in 2019



Expansion Project facilities (shown in blue)

Current Liquefaction Project facilities (shown in gray)

Expansion 5 – Train project rendering

Cameron LNG

Questions?