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Special Session – Energy Bridge™ LNG Projects Overview

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Introduction

Energy Bridge™ is the proprietary offshore LNG regasification and delivery system developed by Excelerate Energy. This system involves the use of purpose built LNG tankers for the transportation and vaporization of LNG through specially designed offshore receiving facilities.

Energy Bridge™ is a combination of proven technologies and equipment in a new application, and represents an innovative step forward in LNG importation technology.

The Energy Bridge™ system was developed to provide delivery of natural gas to markets in a safe, efficient and reliable manner using Energy Bridge™ Regasification Vessels (EBRV's) for the transportation and vaporization of LNG. These EBRV's deliver natural gas through a specially designed offshore receiving facility. The offshore facility, called an Energy Bridge™ deepwater port (EB Port), consists of:

- A Submerged Turret Loading™ buoy (STL Buoy) developed by Advanced Production and Loading AS (APL) that connects to EBRV.
- Anchor lines used to secure the STL Buoy to the seabed.
- A flexible riser designed to connect the STL Buoy to a subsea manifold.
- A subsea manifold that incorporates necessary control and related valving.
- An interconnecting subsea pipeline to tie into downstream delivery infrastructure.

Background

The evolution of the Energy Bridge™ technology began in 1999 at El Paso Corporation. At that time, LNG deliveries to the United States were negligible, and Henry Hub price levels for both current and future deliveries were in the low $2.00 range. Convential wisdom was that Canadian and domestic supplies were abundant, and plenty of natural gas was available to serve the North American market at moderate prices for many years to come.

The underlying reality of the supply/demand balance in North America was more difficult to discern, and created quite a different picture for the future. Mexican demand for natural gas was rising at a rate that exceeded domestic Mexican production increases. Canadian supplies were increasingly needed for domestic uses (including tar sands operations) in Canada, and reserves were in decline. Perhaps most fundamental was the natural gas "bubble" that the United States had enjoyed for the previous decade had burst. Demand for gas was beginning to grow, especially due to substantial increases in gas fired generation capacity (generally built with a low gas price assumption). At the same time, domestic production of natural gas was undergoing substantial change. Well decline rates were increasing and finding and development costs were up substantially also.

Globally, natural gas in the form of LNG was an established industry with a robust growth rate and an excellent safety record. Producers of LNG were largely focused on the "traditional" LNG customers in Asia and Europe, but new notice was being taken of the United States East Coast as an attractive home for long term LNG supplies. The opening of Atlantic LNG in Trinidad essentially created this new focus, as the transportation distance between Trinidad and the US East Coast is less than half that from some of the LNG supplies from Africa.

Trinidadian LNG from Train 1 provides base load supplies to the Everett facility near Boston and Trains 2 and 3 largely supported the reactivation of El Paso Corporation's Elba Island facility.

Early in this decade, the appetite for LNG market access to North America began in earnest. Companies including El Paso Corporation reactivated decades old existing receiving terminals as a result, but sensed the appetite would be larger than these facilities could accommodate. New land base