

An Introduction to Trans Bay Cable

February 2011



Jason Boyle Partner SteelRiver Infrastructure Partners

Confidential Presentation

Important Notice

The information contained in this presentation is given without any liability whatsoever to SteelRiver Infrastructure Partners LP, or any of its related entities (collectively "SteelRiver") or their respective directors or officers, and is not intended to constitute legal, tax or accounting advice or opinion. No representation or warranty, expressed or implied, is made as to the accuracy, completeness or thoroughness of the content of the information. The recipient should consult with its own legal, tax or accounting advisers as to the accuracy and application of the information contained herein and should conduct its own due diligence and other enquiries in relation to such information.

The information in this presentation has not been independently verified by SteelRiver. SteelRiver disclaims any responsibility for any errors or omissions in such information, including the financial calculations, projections and forecasts set forth herein. No representation or warranty is made by or on behalf of SteelRiver that any projection, forecast, calculation, forward-looking statement, assumption or estimate contained in this presentation should or will be achieved.

Please note that, in providing this presentation, SteelRiver has not considered the objectives, financial position or needs of the recipient. The recipient should obtain and rely on its own professional advice from its tax, legal, accounting and other professional advisers in respect of the addressee's objectives, financial position or needs.

This presentation does not confer any right of publication on the recipient. Neither this presentation nor any of its contents may be reproduced or used for any other purpose without the prior written consent of SteelRiver.

© 2011 SteelRiver Infrastructure Partners LP







SteelRiver Infrastructure Partners

Trans Bay Cable

Construction

Financing





SteelRiver Infrastructure Partners

Dedicated, Long-Term Sponsor Focused on Infrastructure Investments

Key Characteristics	 Manages Core Infrastructure Fund for US and Canada 20-year term from final closing with 3-year initial investment period Focus on controlling positions
Fundraising	 First close in October 2007 and final close completed in October 2008 \$1.9 billion raised
Investments	 65% of total capital invested and approximately 70% committed Investments include 80% interest in Natural Gas Pipeline Co of America⁽¹⁾,100% interest in Peoples Natural Gas Company, 100% interest (pending) in TW Phillips Gas and Oil Co. and 100% interest in ICS Logistics
Investment Profile	 Core infrastructure assets for the long term that provide essential services, exhibit stable cash flows, present and are often regulated Target sectors include gas and electricity, transport, rail, water, ports and other concession-based assets
Management	 Experienced management team, focused on proactive asset management, achieved through constant strategic dialogue with portfolio companies Established by the former management team of Babcock & Brown Infrastructure Fund North America ("BBIFNA") SteelRiver partnered with John Hancock Life Insurance Company to execute a management buyout of B&B's LP and GP interest in BBIFNA in May of 2009

1. SteelRiver manages co-investment consortium.





ENERGY	PORTS / RAIL	WATER	ROADS / SOCIAL
INVESTMENT NEEDS	INVESTMENT NEEDS	INVESTMENT NEEDS	INVESTMENT NEEDS
 Approximately \$75bn annually of new investment required Aging infrastructure, bottlenecks, demand growth, environmental standards 	 Approximately \$16bn annually of new investment required Limited public funding, increased demand for lower cost capital in the private sector. Development of intermodal traffic 	 Approximately \$150bn annually of new investment required Very old infrastructure, urban and suburban population growth out-pacing capacity growth, migration 	 Approximately \$75bn annually of new investment required Limited public funding, high profile private transactions in the form of concessions
OPPORTUNITIES	OPPORTUNITIES	OPPORTUNITIES	OPPORTUNITIES
 M&A activity due to legislative changes and refocus of existing companies on core businesses Opportunities to develop in contracted generation and transmission 	 Acquisition of ports and related assets Development of existing ports Intermodal related investments and upgrades Short-line railroads consolidation and organic growth 	 Existing private companies present opportunities for acquisition Privatization believed to be increasingly likely as municipal systems cannot supply required capital Development projects of water treatment systems 	 Private investment through PPP contracts for roads and bridges Acquisition and enhancement of existing infrastructure



SteelRiver Infrastructure Partners

Trans Bay Cable		
Construction		
Financing		





Trans Bay Cable Project Overview

- Project consists of a 400 MW HVDC and HVAC point-to-point transmission system
 - > 53-mile submarine and onshore HVDC cable
 - > 2 converter stations located in San Francisco and Pittsburg connected to grid via HVAC cables
 - Right to collect revenue from Transmission System Rights ("TSR")
- 100% of revenue regulated under FERC cost-of-service ratemaking principles
- Participating Transmission Owner ("PTO") in the California Independent System Operator ("CAISO") managed grid
- Final testing completed on November 3, 2010
- Substantial Completion achieved on November 10, 2010 and Commercial Operations Date ("COD") on November 23, 2010



Trans Bay Cable Route (53 mile Cable)







General Schematic of TBC project







Converter Station Layout



Imagery Date: 9/10/2010 🕗 1946

37°45'17.17" N 122°23'09.22" W elev 23 ft

Eye alt 362 ft 🔘







Trans Bay Cable Project 83 km, 400MW HVDC





1 – Stranded copper conductor, longitudinally sealed

- 2 Semiconducting tape+extruded layer
- 3 XLPE based special insulation compound
- 4 Semiconducting layer + Longitudinal water penetration barrier
- 5 Lead alloy sheath
- 6 Polyethylene sheath
- 7 Polypropylene bedding
- 8 Galvanised steel wires armour
- 9 Polypropylene serving

Cable Cross Section of Prysmian's HVDC Cable



The cables were simultaneously installed in a Bundle configuration, fastened together with ropes and straps applied before approaching the laying sheave. The bundle is approximately <u>10 inches</u> in diameter

INFRASTRUCTURE PARTNERS



B004

Trans Bay Cable Project - Cable Laying Vessels

Ship: Giulio Verne (Deep Water Cable Installer)



Barge (Shallow Water Cable Installer)



Hydroplow









Positive Regulatory Regime

TBC is a FERC-regulated business that earns a return through low-risk, cost-of-service, methodology

- FERC regulates the Project's revenue under cost-of-service rate-making principles under which the Project revenue is, prima facie, not a function of availability
 - TBC can recover prudently incurred expenses as well as earn a return on and of invested capital ("Rate Base")
 - Rates charged to customers are composed of two components
 - i. Cost of the services that TBC provides, and
 - ii. Return that the FERC allows TBC to earn as determined by the TBC Rate Base and TBC's weighted average cost of capital



Rate Case Details

Rate Principles				
Post-tax ROE:	13.5%			
Capital Structure:	50% Debt, 50% Equity			
Depreciation of Capital:	30-years			
Expense Recoupment:	Prudently incurred operating and maintenance expenses			
Rate Filing (12/17/2009) (1)				
Rate Base:	\$571.9 million			
Initial TRR:	\$149.3 million			
Updated Rate Filing (1/11/2011)				
Rate Base:	\$541.9 million			
Initial TRR:	\$140.4 million			

1. Docket number ER10-116-000.





California ISO Overview

Substantially all Project revenue is derived from investment-grade counterparties



14



SteelRiver Infrastructure Partners

Trans Bay Cable

Construction

Financing





Construction Process

- Project construction started in October 2007
- Cable installation and connection was completed on December 3, 2009
- Ready for High Voltage Energization achieved on December 4, 2009
- 5 days preliminary run test commenced on January 15, 2010
 - 400 MW successfully transmitted and supplied to SF Grid
- However, testing revealed abnormally high failure rates of power modules
- Each converter module arm has embedded in-built redundancy (~8%)
 - However, failures were occurring at a rate above this redundancy





- Enormous forensic analysis by contractor technical and expert teams
- Enhanced multi-phase, extended duration, testing program
- Additional minor commissioning "bugs" worked through before Substantial Completion
- Simplified and enhanced several important commercial relationships:
 - Siemens/Prysmian EPC Contract
 - Extended Warranties
 - Spare part certainty, priority procurement, and price certainty
 - Siemens O&M "Umbrella"
 - O&M Supervision
 - Cost-plus contract
 - Experienced operator of Neptune and proposed Hudson projects
- Commercial Operations successfully achieved in Nov 2010





SteelRiver Infrastructure Partners

Trans Bay Cable

Construction

Financing





- Initial financing package (3 + 30 year monoline wrapped bank loan) put in place in August 2007 (at the onset of the financial crisis)
- "Top of the market terms" meant financiers were continually under pressure and "under water" versus present market offerings
- Monoline credit downgrades resulted in benefit of insurance "wrap" falling away within 18 months of Financial Close
- Consequent refinancing completed upon achievement of Substantial Completion in Nov 2010:
 - s144a note issuance (augmented with bank provided Project facilities eg. LCs)
 - Multiple investment grade ratings
 - Independent Engineer sign-off on technology
 - Heavily over-subscribed issuance





SteelRiver Infrastructure Partners

Trans Bay Cable

Construction

Financing



