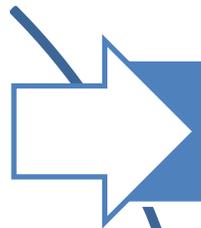


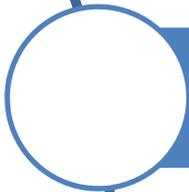
At-Berth Regulation webinar for Terminal and Vessel Plan Updates

April 29, 2013

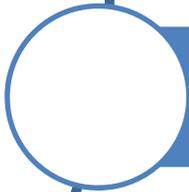
Agenda



Vessel Plan Overview



Terminal Plan Overview



Status of Terminal Upgrades



Questions & Answers

Vessel Plan Requirements

- Plan is due to ARB July 1, 2013
- Forms available at Shorepower page at arb.ca.gov
- Submit Plan to ShorePower@arb.ca.gov

Who is Affected

- Affects fleets making 25 or more visits annually to a California port
- What is affected fleet?
 - Vessels owned or chartered
 - Liner may have separate fleets for each port
 - Ports of Los Angeles and Long Beach considered one port

Example Fleet

Vessel	2014	2017	2020	MW
test 1	12	10	11	2
test 2	12	10	11	1.5
test 3	7	7	10	1.5
test 4	5	5	10	2
test 5	4	4	4	1.5
test 6	3	3	3	1.5
test 7	3	3	3	1.5
test 8	3	3	3	1.5
test 9	2	2	2	1.5
test 10		10	10	2
Total Visits	51	57	67	
	50%	70%	80%	
Percent visits to achieve minimum goal	25.5	39.9	53.6	
Total shore power visits	31	42	56	

Form 1 General Information

Table 1A

General Information		
Port <i>POLA</i>	Date <i>5-1-13</i>	
Vessel Fleet Operator <i>Test Group</i>		
Address <i>1234 Utah St</i>		
City <i>Los Angeles</i>	State <i>CA</i>	Zip <i>90012</i>
Contact Person <i>Jack Hill</i>		Title <i>Fleet Manager</i>
Phone <i>213-123-4567</i>	FAX <input type="text"/>	Email <i>jhill@testG</i>

Form 1 General Information

Table 1B

Fleet Summary	
Vessel Category	Check
Container	<input checked="" type="checkbox"/>
Refrigerated Cargo	<input type="checkbox"/>
Passenger	<input type="checkbox"/>
Number of ships visiting Port annually for most recent complete calendar year (list year)	<u>9 (2012)</u>
Number of ship calls to Port annually for most recent complete calendar year (list year)	<u>50 (2012)</u>
Terminals Visited	
1. <i>APM Terminals</i>	
2. <input type="text"/>	

Form 2 – Vessel Information Reduced Onboard Power Generation

Table 2A

2014 Provide the vessel name, Lloyd's number, number of ship visits to the Port annually, and maximum power that the vessel is expected to use while at berth for those vessels planning to use grid-based shore power by January 1, 2014. Attach any additional sheets and indicate reference to Table 2A.			
Vessel Name	Lloyd's Number	Number of ship visits to Port annually	Maximum Power of Vessel while at Berth (MW)
<i>Test 1</i>	<i>100001</i>	<i>12</i>	<i>2</i>
<i>Test 2</i>	<i>100002</i>	<i>12</i>	<i>2</i>
<i>Test 3</i>	<i>100003</i>	<i>7</i>	<i>1.5</i>
■	■	■	■

Form 2 – Vessel Information Reduced Onboard Power Generation

Table 2B

	2017	2020
Provide the number of vessels that will likely use shore power	<i>5</i>	<i>6</i>
Estimate the total number of annual visits expected to be made by these vessels	<i>42</i>	<i>56</i>
Estimate the maximum amount of power expected to be used by these vessels while at berth (MW)	<i>2</i>	<i>2</i>

Vessel Plan Summary

- Plan is due to ARB July 1, 2013
- Form is available online:
 - www.arb.ca.gov/ports/shorepower/forms/forms.htm
- Form can be submitted by either:

Mail:

California Air Resources Board
Stationary Source Division
Project Assessment Branch,
Energy Section
P.O Box 2815
Sacramento, CA 95812

E-Mail:

shorepower@arb.ca.gov

Include the following subject:
“Terminal Plan Update for
(Terminal Operator) at the Port
of (Port)” and fill in the
(parentheses)

Agenda



Vessel Plan Overview

Terminal Plan Overview

Status of Terminal Upgrades

Questions & Answers

Purpose of Terminal Plan

- Outlines the infrastructure required for fleets to comply
- Provides terminal operators an opportunity to coordinate effort with vessel operators.
- Ensures terminals understand the compliance needs of a fleet
- Update checks that the projects are on schedule.

Who must submit the plan

- Terminals that receive 50 visits or more from any of the following:
 - Container
 - Passenger
 - Refrigerated-cargo
- Ports may submit the plan on behalf of the terminal

Confidentiality

Confidential

Yes

No

Confidentiality Agreement Form available online

www.arb.ca.gov/ports/shorepower/forms/forms.htm#terminal

Table 1 – General Information

Port <i>POLB</i>		Date
Terminal Name <i>Pier Z</i>		
Total Number of Berths <i>4</i>		
Address <i>1234 Z Lane</i>		
City <i>Long Beach</i>	State <i>CA</i>	Zip <i>90733</i>
Terminal Operator <i>ABC</i>		
Contact Person <i>George Jones</i>		Title <i>General Manager</i>
Phone <i>310-123-4567</i>	FAX	Email <i>gJones@TermZ.com</i>

Table 2 – Terminal Visits

<input type="checkbox"/> No changes since previous terminal plan (Attach copy of previous plan)			<input checked="" type="checkbox"/> Updated since previous terminal plan				
2014 Estimate the categories of Vessels and Operators that are anticipated to visit this Terminal, how often they may visit, those that will use shore power, the number of visits that will use shore power, the typical berthing times and annual power use							
Fleet Operator	Fleet Category	Number of Vessels	Number of Vessel Visits	Number of Vessels that Will Use Shore Power	Number of Vessel Visits That Will Use Shore Power	Average Berthing Time, Hr	Total Estimated Annual Power Use, MW-Hr
<i>Test Group</i>	<i>Container</i>	<i>9</i>	<i>51</i>	<i>3</i>	<i>31</i>	<i>40</i>	<i>2,200</i>
<i>Flying Fish</i>	<i>Container</i>	<i>same as 20109</i>					
<i>Zebra</i>	<i>Container</i>	<i>Same as 2009</i>					
Total							

Table 3 – Summary of 2009 Terminal Plan

<input type="checkbox"/> No changes since previous terminal plan (Attach copy of previous plan)	<input checked="" type="checkbox"/> Updated since previous terminal plan		
	2014	2017	2020
How many berths are anticipated to need modifications to meet the regulation requirements?	<i>4</i>	<i>0</i>	<i>0</i>
How many new berths are expected to be constructed and have shore power capability?	<i>0</i>	<i>0</i>	<i>0</i>
Estimate the maximum electrical capacity (MW) for each berth	<i>6.6</i>	<i>6.6</i>	<i>6.6</i>
Estimate the maximum electrical capacity (MW) for the Terminal	<i>30</i>	<i>30</i>	<i>30</i>
Is the power available now to the Terminal adequate to service the compliance requirements?		Yes	No
	2014	<i>X</i>	
	2017	<i>X</i>	
	2020	<i>X</i>	

Table 4 – Status of Shore Power Implementation

List the berths identified in the 2009 terminal plan to be equipped with shore power capability by December 31, 2013.	
Terminal & Berth	Will this berth be shore power capable by January 1, 2014? (yes/no)
<i>Pier Z – Berth 100</i>	<i>yes</i>
<i>Pier Z – Berth 200</i>	<i>yes</i>
<i>Pier Z – Berth 300</i>	<i>yes</i>
<i>Pier Z – Berth 400</i>	<i>yes</i>

Terminal Plan Summary

- Form is available online:
 - www.arb.ca.gov/ports/shorepower/forms/forms.htm
- Plan is due to ARB July 1, 2013
- Form can be submitted by either:

Mail:

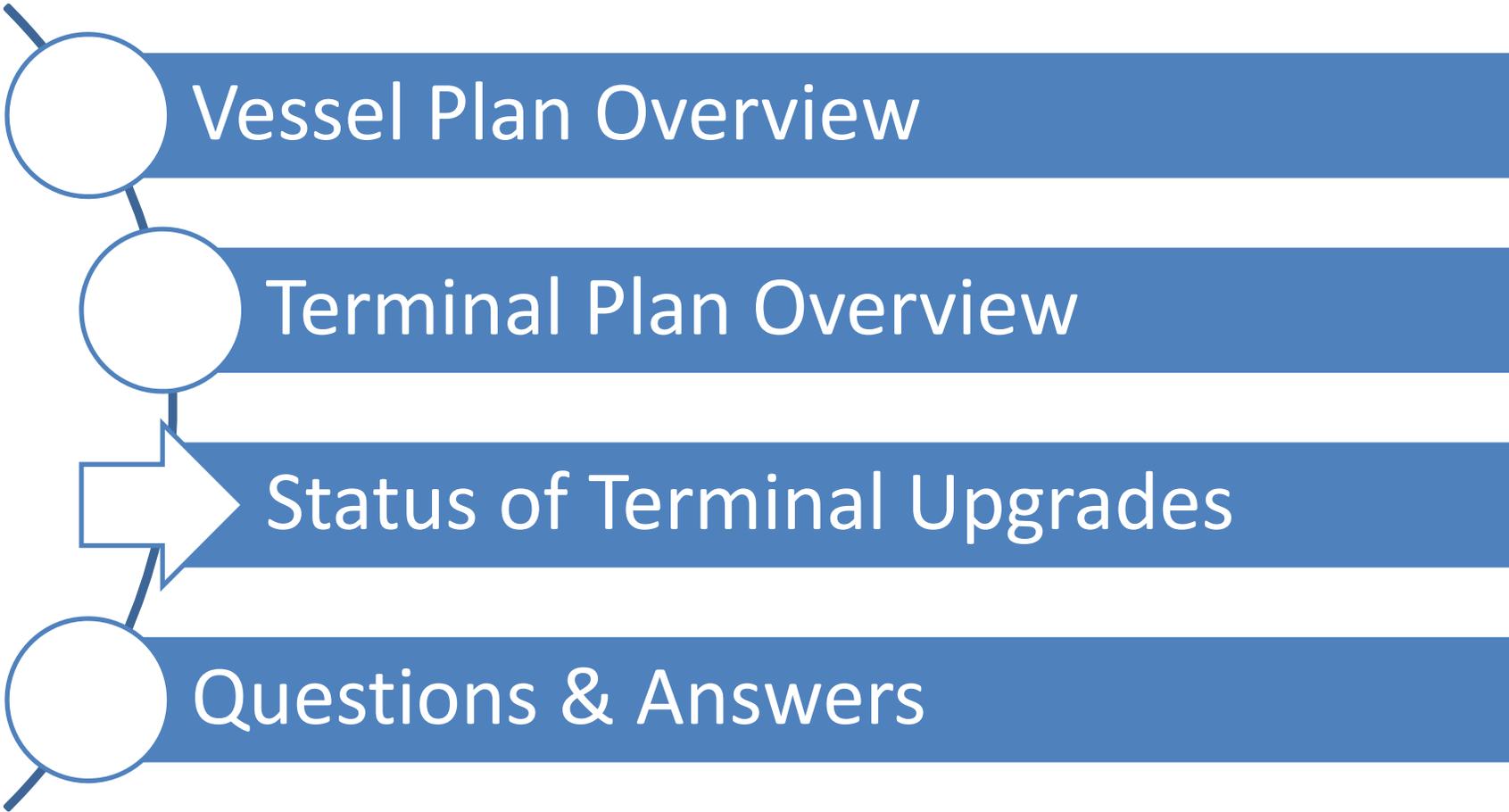
California Air Resources Board
Stationary Source Division
Project Assessment Branch,
Energy Section
P.O Box 2815
Sacramento, CA 95812

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shorepower@arb.ca.gov

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of (Port)” and fill in the
(parentheses)

Agenda



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Status of Terminal Upgrades

Questions & Answers

Shore Power Infrastructure

- Electrifies 3 berths on Wharf 1
- 2 Tenants share 3 berths
- \$11.7 million Project Cost
- Construction on Schedule



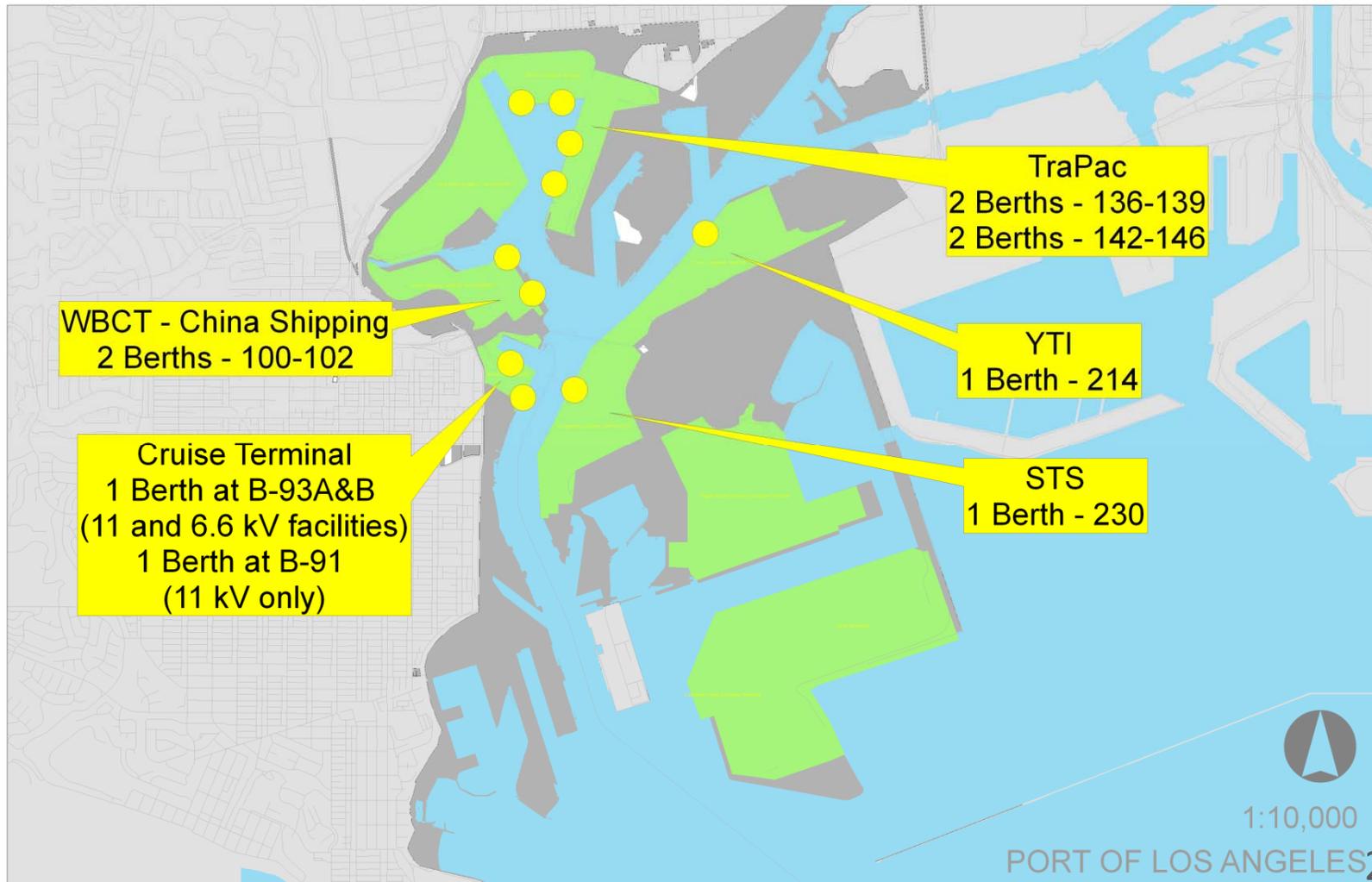


Shore Power Construction Schedule

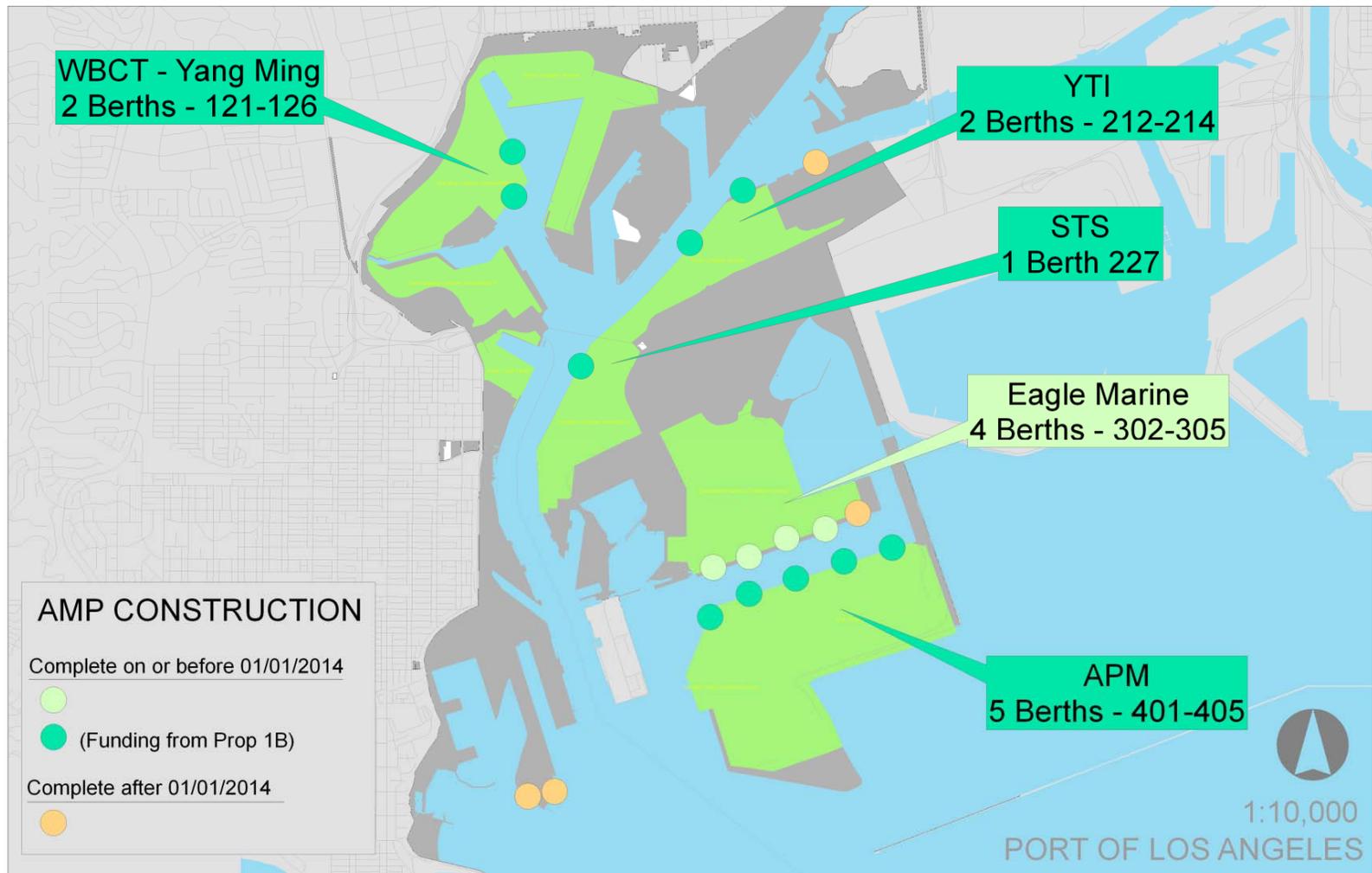
Project Schedule

January 2013	Start of Construction
July 2013	Switchgear delivery and installation
October 2013	Finish Construction
November 2013	Load Bank Testing
December 2013	Project Completed

AMP Berths Currently Operational



Berths to be Constructed

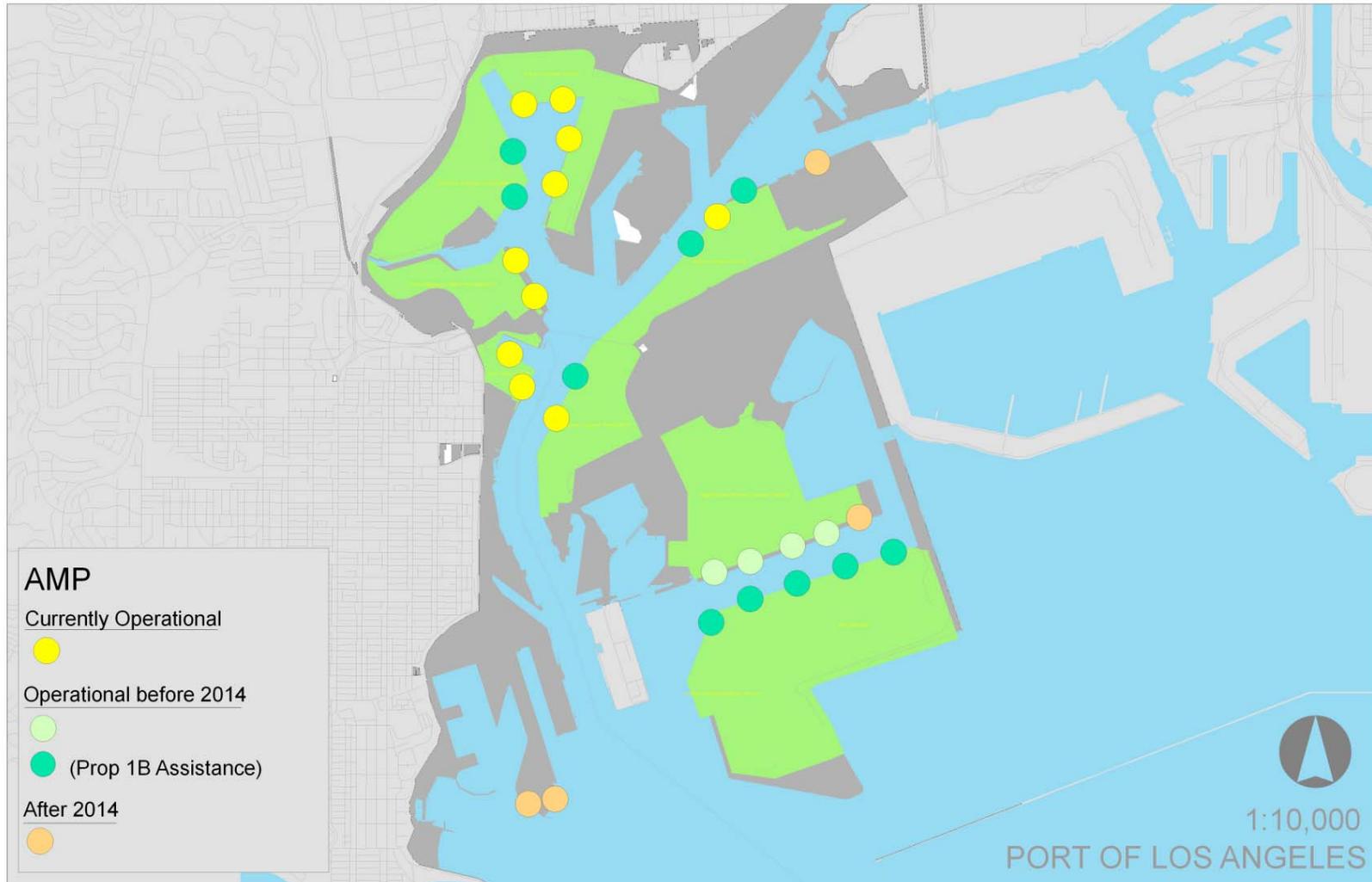




AMP Construction Schedule

Terminal	Berth	Start Construction	End Construction	Commissioning	Fully Operational
WBCT – Yang Ming	121	October 2012	November 2013	December 2013	December 31, 2013
WBCT – Yang Ming	126	October 2012	November 2013	December 2013	December 31, 2013
YTI	212	October 2012	November 2013	December 2013	December 31, 2013
YTI	216	October 2012	November 2013	December 2013	December 31, 2013
STS	227	November 2012	November 2013	December 2013	December 31, 2013
Eagle Marine	302	June 2012	November 2013	December 2013	December 31, 2013
Eagle Marine	303	June 2012	November 2013	December 2013	December 31, 2013
Eagle Marine	304	June 2012	November 2013	December 2013	December 31, 2013
Eagle Marine	305	June 2012	November 2013	December 2013	December 31, 2013
APM	401	November 2012	November 2013	December 2013	December 31, 2013
APM	402	November 2012	November 2013	December 2013	December 31, 2013
APM	403	November 2012	November 2013	December 2013	December 31, 2013
APM	404	November 2012	November 2013	December 2013	December 31, 2013
APM	405	November 2012	November 2013	December 2013	December 31, 2013

Total AMP Berths





The Port of
LONG BEACH

Shore Power Schedule

Terminal	Berth	Ready for Commissioning*
Pier A – SSA Marine	A90	October 2013
	A92	October 2013
	A94	October 2013
Pier G – ITS	G236	August 2013
Pier J – Pacific Container Terminal	J245	December 2013
	J247	December 2013
	J266	November 2013
	J270	November 2013
Pier T – Total Terminals International	T132/134	December 2013
	T136	December 2013
	T138	September 2013
	T140	September 2013

*All shore power infrastructure and acceptance testing complete, including load bank testing



PORT OF OAKLAND

Shore Power Program



Phase 1
 Berths: 56, 57, 58
 Construction Period:
 March 2011 – June 2012
 Grants: TIGER, MSIF

Phase 2A
 Berths: 25, 35, 37, 55, 59, 68
 Construction Period:
 May 2012 – June 2013
 Grants: Prop 1B

Phase 2B
 Berths: 30, 32
 Construction Period:
 May 2012 – June 2013
 Grants: Prop 1B, MTC



PORT OF OAKLAND

Schedule of Key Activities – *As of 4/29/13*

Phase	Construction	Shore-Side Testing / Berth Commissioning	Vessel Commissioning Starts*
1 (B56-58)	Completed	Completed	Dec 2012
2A (B25, 35, 37, 55, 59, 68)	May 2012 – Jun 2013	Jun – Aug 2013	Aug – Sept 2013
2B (B30-32)	May 2012 – Jun 2013	Jun – Aug 2013	Aug – Sept 2013
Berths 61/62 (constructed by APL/EMS)	Completed	Completed	Completed
Berth 24 (constructed by Ports America)	In progress	TBD	TBD

* Depends on completion of berth commissioning and availability of vessels – could be earlier or later than shown here



Cruise Ship Terminal

- **Operational December 2010**
- **Provides 12MW of power at three ship berthing locations**
 - **B St. Pier – North**
 - **B St. Pier – South**
 - **Broadway Pier – North**



Tenth Avenue Marine Terminal

- **Provide 3500 kW Power to Berth 10-2 or 10-3**

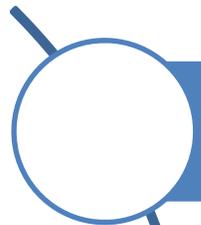
Project Schedule

Infrastructure Construction	December 2013
SDGE Service Construction	November 2013
Testing and Commissioning	December 2013
Project Completion	January 2014

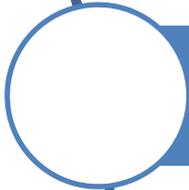
Tenth Avenue Marine Terminal



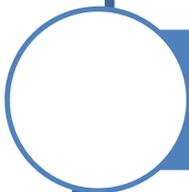
Agenda



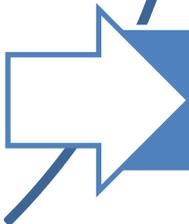
Vessel Plan Overview



Terminal Plan Overview



Status of Terminal Upgrades



Questions & Answers

Questions?

ARB: shorepower@arb.ca.gov or (916) 327-1512

Ports:

- Hueneme: kdecas@portofhueneme.org
- Los Angeles: CAtkins@portla.org or (310) 732.7649
- Long Beach: trade@polb.com or (562) 283-7750
- Oakland: Delphine Prévost (510) 627-1141
- San Diego: chooven@portofsandiego.org
- San Francisco: jay.ach@sfport.com