



Decision on the 2014-2015 Transmission Plan

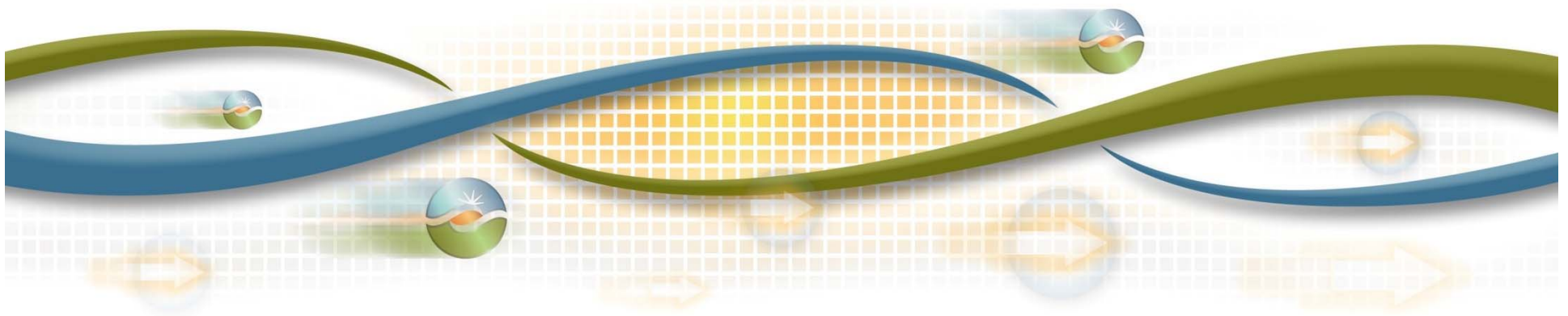
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Board of Governors Meeting

General Session

March 26-27, 2015



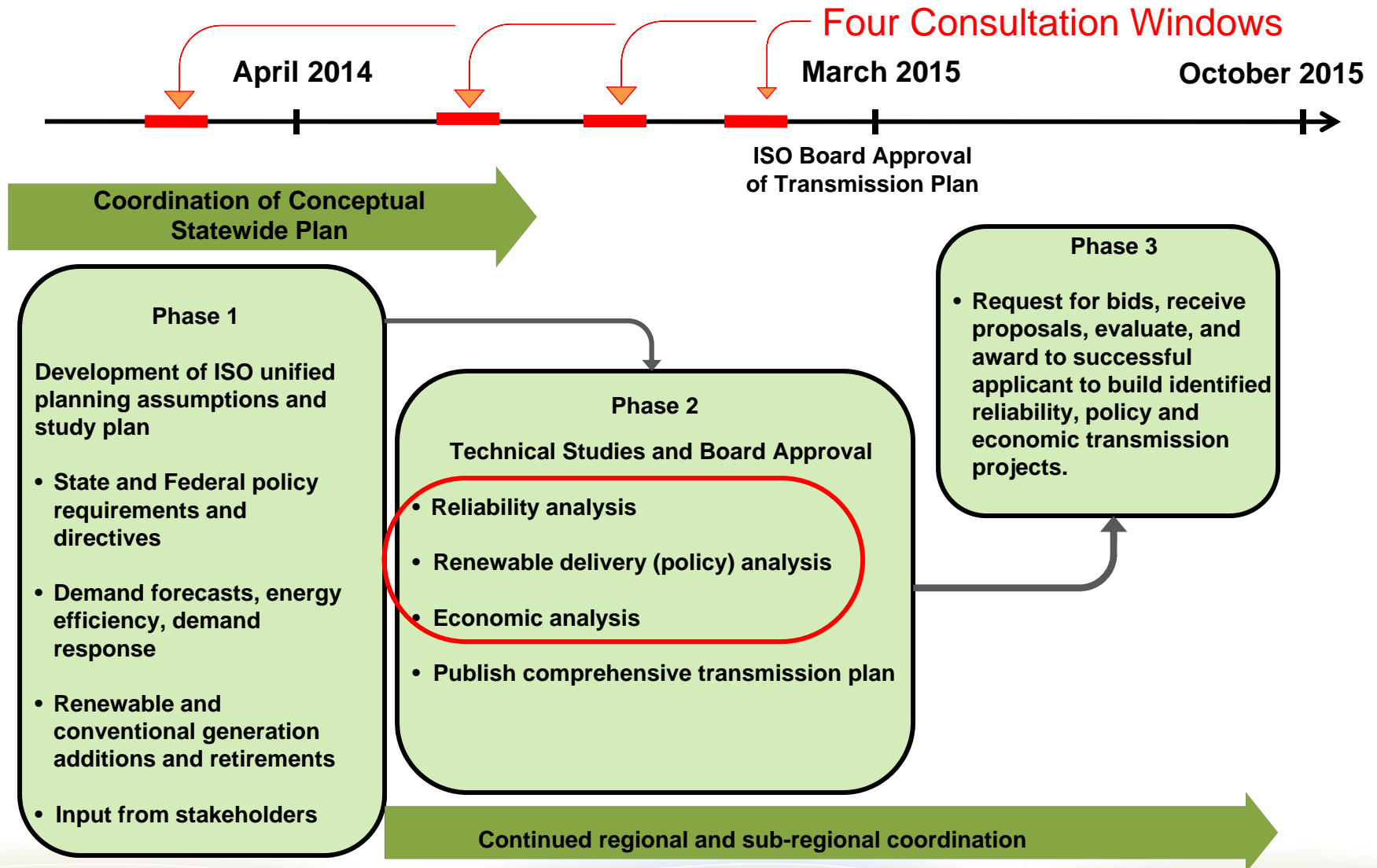


Approving the plan means approving determinations and recommendations contained in the plan.

- Eight transmission projects:
 - 2 new reliability projects each of which is over \$50 million
 - no policy driven projects
 - 1 economically driven project
 - 5 new reliability projects less than \$50 million are described in the plan that have been previously approved by Management

No regional transmission solutions found to be needed are eligible for competitive solicitation

The 2014-2015 Transmission Planning Process



The new reliability needs are reduced from prior cycles.

\$ millions

	2010-11		2011-12		2012-13		2013-14		2014-15	
	#	Cost	#	Cost	#	Cost	#	Cost	#	Cost
PG&E	23	\$683	22	\$610	31	\$1,168	15	\$536.4	2	\$254
SCE.	0	\$0	3	\$25	0	0	2	\$712.0	1	\$5
SDG&E	9	\$515	5	\$56	5	\$175	11	\$584.0	4	\$93
VEA							1	0.1	0	0
Totals	32	\$1,198	30	\$691	36	\$1,343	29	\$1,832.5	7	\$352

Management is recommending approval of 2 reliability driven projects more than \$50 million.

No.	Project Name	Project Cost
1	<p>North East Kern 70 to 115 kV Voltage Conversion to improve local area reliability – thermal area overloads:</p> <ul style="list-style-type: none"> • Converting two existing 70 kV circuits in the area to 115 kV • Reconductoring an existing 115 kV line with larger conductor • Upgrading an existing substation to breaker-and-a-half configuration. 	\$85-125M
2	<p>Martin 230 kV Bus Extension Project:</p> <ul style="list-style-type: none"> • Reconfiguring the existing 230 kV transmission terminating at Martin to provide one 230 kV path bypassing the Martin substation. • Support PG&E modernization of 230 kV buses and 115 kV cables inside the Peninsula – capital maintenance which does not require ISO approval (cost not shown) 	\$85-129M

Five of the seven reliability-driven projects are less than \$50 million.

- These projects were reviewed individually at the November 19-20 stakeholder meeting
- Management's approval took effect after the December 17-18 Board of Governors meeting

No.	Project Name
1	2nd Pomerado - Poway 69kV Circuit
2	Mission-Penasquitos 230 kV Circuit
3	Reconductor TL692: Japanese Mesa - Las Pulgas
4	TL632 Granite Loop-In and TL6914 Reconfiguration
5	Laguna Bell Corridor Upgrade

The LA Basin/San Diego area was studied to determine the effectiveness of previously approved mitigations.

- No resource deficiencies were identified if all authorized resources, all approved transmission solutions, and all forecast demand side preferred resources materialize
- Resource deficiencies exist in studying contingency conditions if any of the above fail to materialize
- Transmission mitigations were studied for informational purposes in case they are needed in the future:
 - involve challenging rights of way and lengthy permitting and construction timelines
 - other short term mitigations plans would need to be considered



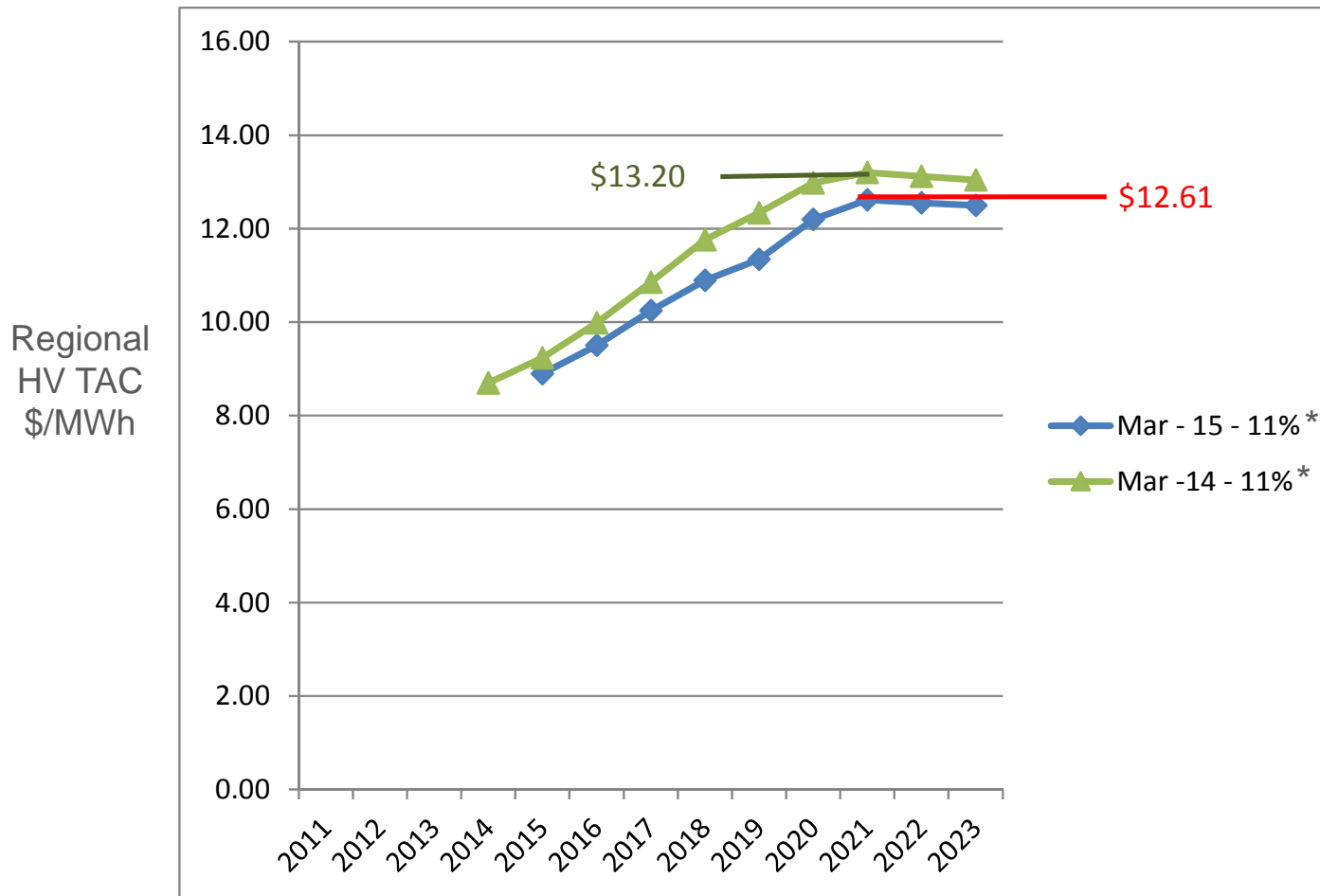
The ISO's policy-driven analysis focused on the 33% Renewables Portfolio Standard and further study of the Imperial area.

- No policy-driven requirements were identified to achieve the 33%
- Forecast deliverability from the Imperial area restored to pre-SONGS-retirement levels:
 - Enables more than 1700 MW of new generation to receive deliverability
 - After taking into account projects already moving forward, approximately 500 to 750 MW is available for additional generation.

Economic driven solutions were also explored in the planning process focusing on areas of congestion.

- Consistent with past findings, most congestion was not sufficient to warrant capital upgrades
- Lodi-Eight Mile 230 kV line reconductoring was identified as economically driven:
 - \$7 million capital cost
 - Economic benefits from alleviating thermal generation congestion
 - Benefit to cost ratio of greater than 4 to 1
- Management is continuing its review of the Buck-Colorado River-Julian Hinds proposal

The regional high voltage transmission access charge has been projected based on the recommended plan.



* Existing returns are maintained for existing PTO rate base, and 11% return on equity is assumed for new transmission capital.

Stakeholder feedback provided a wide range of views:

- Concerns about specific projects, and the ISO's basis for moving forward
 - San Francisco Peninsula
 - North East Kern Voltage Conversion
 - Buck Lake Colorado River-Julian Hinds proposal
 - San Luis Transmission Project
 - Lake Elsinore Advanced Pumped Storage project
- ISO analysis of the LA Basin and San Diego area needs
- The continued analysis of preferred resources



Management recommends the Board approve the 2014-2015 ISO Transmission Plan.

- Continues to pursue low emissions strategies in addressing reliability needs of the ISO controlled grid
- Enables the state's 33% RPS goals and sets a foundation for higher renewable energy goals
- Provides for prudent and economic development of the transmission system