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***California ISO
PwC report on the 2017
market controls audit***

December 14, 2017

Agenda

Background

Results of Market Controls Audit

Scope of Report

Looking Forward

Closing Thoughts

Background

- Purpose of report
 - To report on the ISO's internal controls relating primarily to its market operations and settlements activities
 - Reporting under the AT-C Section 320 - Reporting on an examination of controls at a service organization relevant to user entities' internal control over financial reporting (SSAE 18)
- Expected use of report
 - Provide assurance to market participants who rely on the ISO's controls related to the ISO's market settlements
 - The report is required by some market participants and their auditors to comply with Sarbanes-Oxley (404 Attest) requirements
- Reporting period
 - October 1, 2016 – September 30, 2017

Results of examination

- PwC opinion and report were issued to ISO management and market participants on December 8, 2017
- The opinion is unqualified
 - Management's system description is fairly stated
 - Controls were suitably designed to meet related control objectives
 - Controls were operating effectively

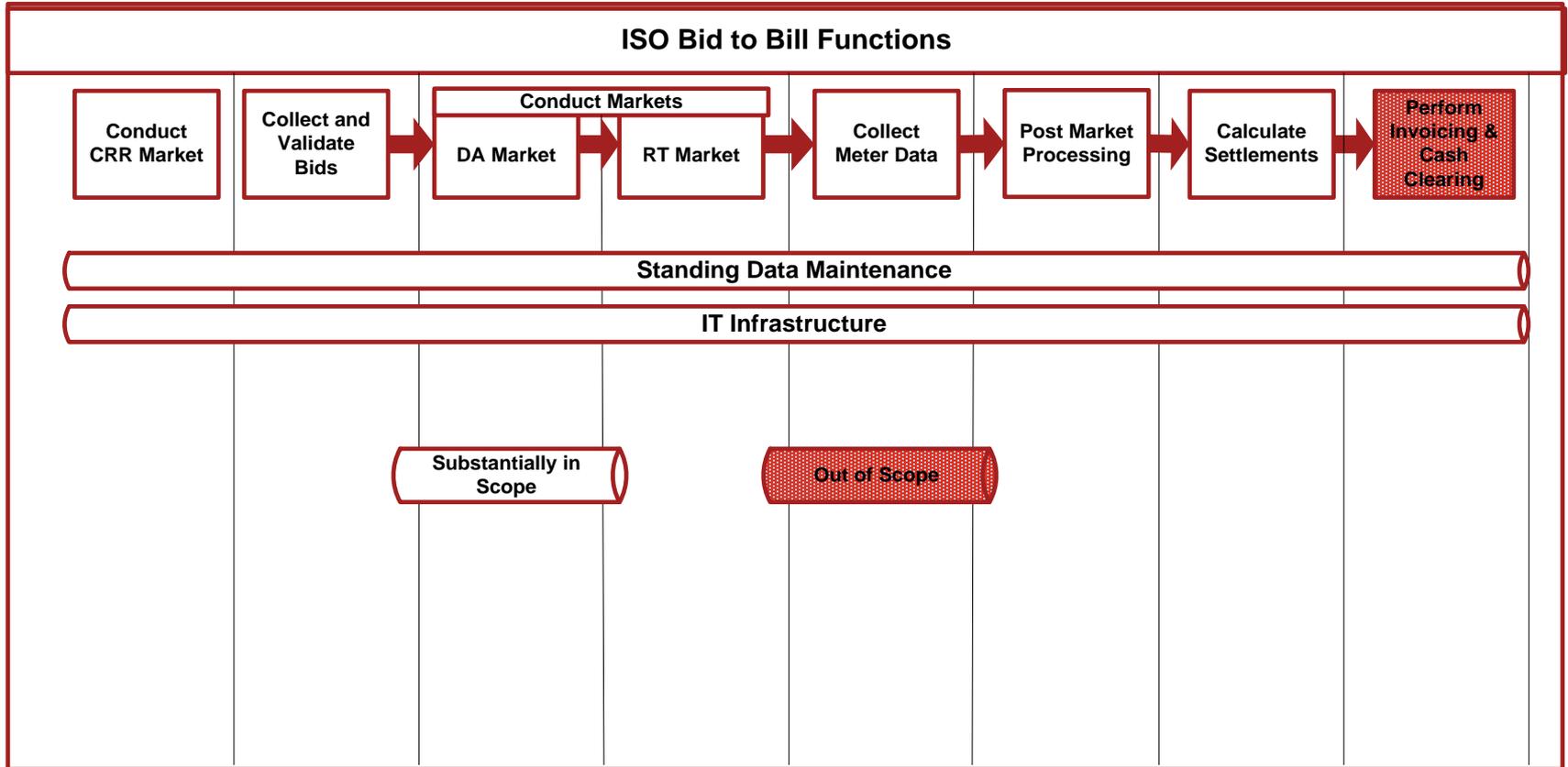
Results of examination (continued)

- Report disclosed testing exception for one control objective
 - One exception was identified in which evidence of review of the market quality system processing tracking sheet by the Market Quality System Analyst was not available.
 - Disclosed in the results section of the report
 - Expanded testing did not identify any additional exceptions
 - Tested compensating controls (data validations prior to settlement statement publication)
 - Concluded that exceptions did not impact the effectiveness of the control and the related control objective was met
 - Opinion was unqualified

Scope of report

- Scope is consistent with prior year market controls report issued in December 2016
- Processes not included in the scope of report
 - Control room and operational judgments and decisions
 - Processes after the settlement statement preparation (such as invoicing and market clearing)
 - Certain other functions that are transparent to the market
- Testing of controls
 - Covers 12 main areas (i.e., the 12 control objectives)
 - 57 different control activities tested
 - Over 1,400 transactions/items tested

Scope of processes covered



Looking forward

- The next attestation period has already begun – started on October 1, 2017
- PwC and ISO staff have begun planning for next year’s internal controls audit
 - Continuous process improvement cycle
 - Debrief on 2017 examination and lessons learned for 2017
 - Recommendations related to potential controls improvement were shared with management
 - No significant changes in control environment are anticipated by management in 2017

Closing thoughts

- The ISO continues to demonstrate a high level of ownership for the control environment and ownership of the controls report
- Benefits of the attestation include:
 - Direct assurance to market participants and their auditors
 - Internal assurance to ISO management related to market controls
 - Process improvement feedback from PwC
 - Governance coverage by ISO Board
- Questions?

Thank you