CEC IEPR Committee Workshop
Transmission Needed to Meet State Renewable Policy Mandates and Goals

11-IEP-1G
DOCKET
11-IEP-1E
DATE May 17 2011
RECD. May 18 2011

California Transmission Planning Group
2010 Statewide Transmission Plan

Dr. Mohammed Beshir, CTPG TSC Chair, May 17, 2011

CTPG: Who We Are

- CTPG is a coalition comprised of all the entities within California responsible for transmission planning for the intrastate and interstate grids:
  - Publicly Owned Utilities: IID, TID, SMUD and LADWP
  - California ISO
  - Investor Owned Utilities: PG&E, SCE, and SDG&E
  - Other planning organizations: WAPA, TANC, and SCPPA
- CTPG's role is to coordinate transmission planning studies:
  - NOT a decision-making or approval authority, or development group
- CTPG study process is open and transparent:
  - Assumptions, methods, and results are documented and publicly available (http://www.ctpg.us/public/index.php)
  - Conduct stakeholder meetings, and solicits and responds to written comments

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Coordinating Transmission Planning for all of California

- Identify transmission additions and upgrades needed to achieve 33% RPS for California by 2020
- Integrate the delivery of renewable energy to load centers with the reliability and operational needs of the grid
- Benefit from collaborative planning approach that could significantly reduce the economic and environmental costs of achieving a 33% RPS

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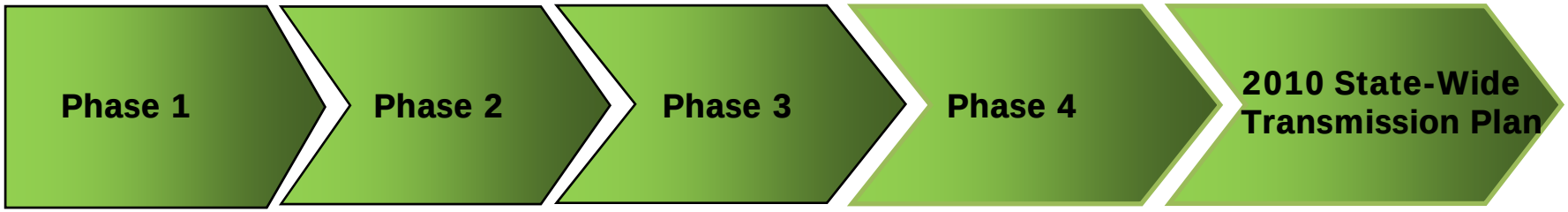
Study Objectives for the 2010 Statewide Transmission Plan

- Complete a statewide conceptual transmission plan by the end of 2010 and vet results with stakeholders
- Conceptual plan based on results of multiple scenarios runs with consideration of how likely each is
- Goal was to identify “high-potential” transmission needs for consideration by state Balancing Authority Areas in early 2011
- Remaining 33% RPS transmission needs subject to further study in 2011

CTPG 2010 Study Process



Phase 1

- Development of the CTPG membership
- Development of the CTPG 2010 Stakeholder and Study process
- Load Serving Entity Scenario

Phase 2

- Stakeholder recommended Generation Queue
- RETI recommended Heavy In State Scenario
- RETI Net Short
- Analysis of Stakeholder Alternatives
- Stakeholder recommended Northwest and Southwest Scenarios

Phase 3

- RETI Best CREZ Scenario
- Analysis of Stakeholder Alternatives
- Fall off-peak scenario
- Identification of High Ranked CREZs
- Identification of High and Medium Potential transmission elements

Phase 4

- Analysis of progress towards a 33% RPS
- Assess potential for increased out-of-state imports and potential impact on state-wide transmission plan
- Finalize 2010 Study High and Medium Potential transmission elements

2010 State-Wide Transmission Plan

- Identification of state-wide transmission plan elements
- 2010 Lessons Learned
- Begin preparation of 2011 Study Plan

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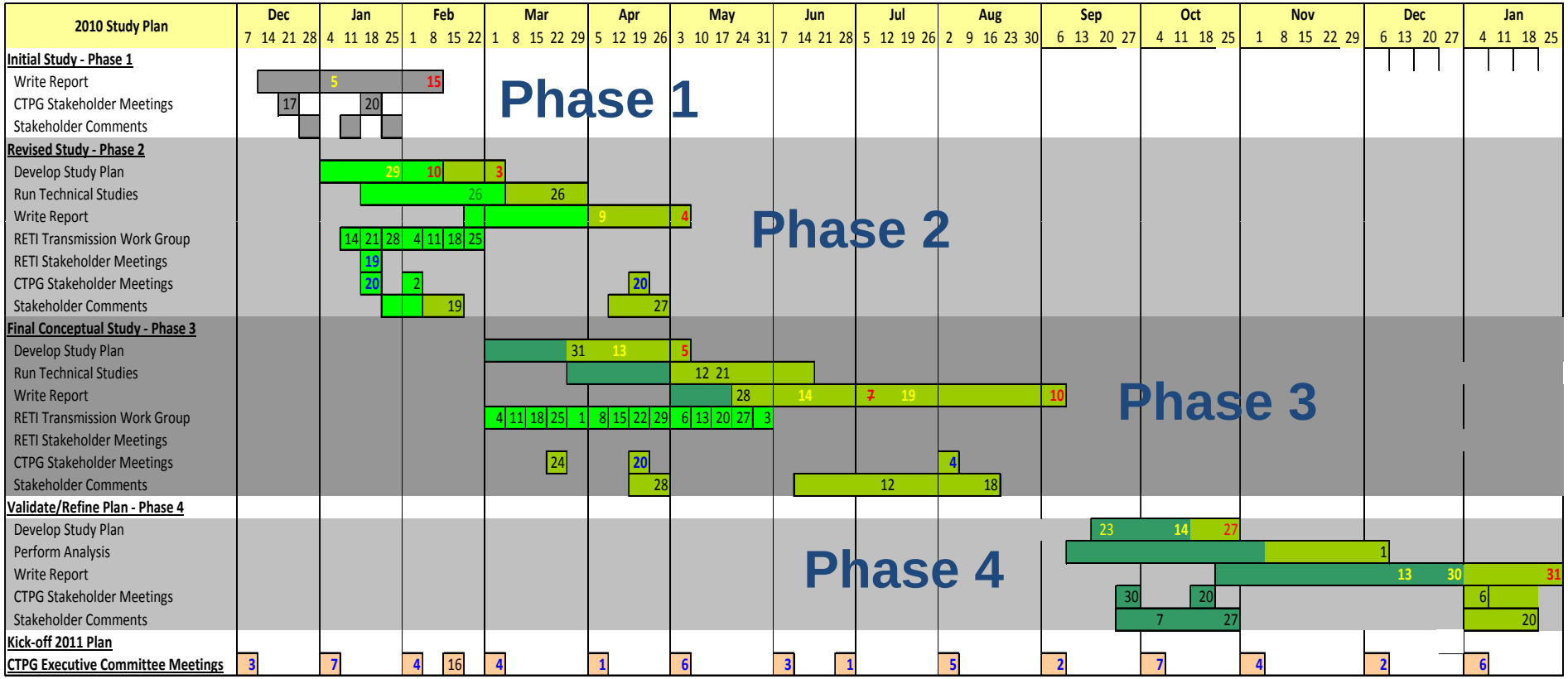
CTPG 2010 Four-phase Timeline Supported Active Stakeholder Participation



Yellow = Draft
Red = Final
Blue = In person

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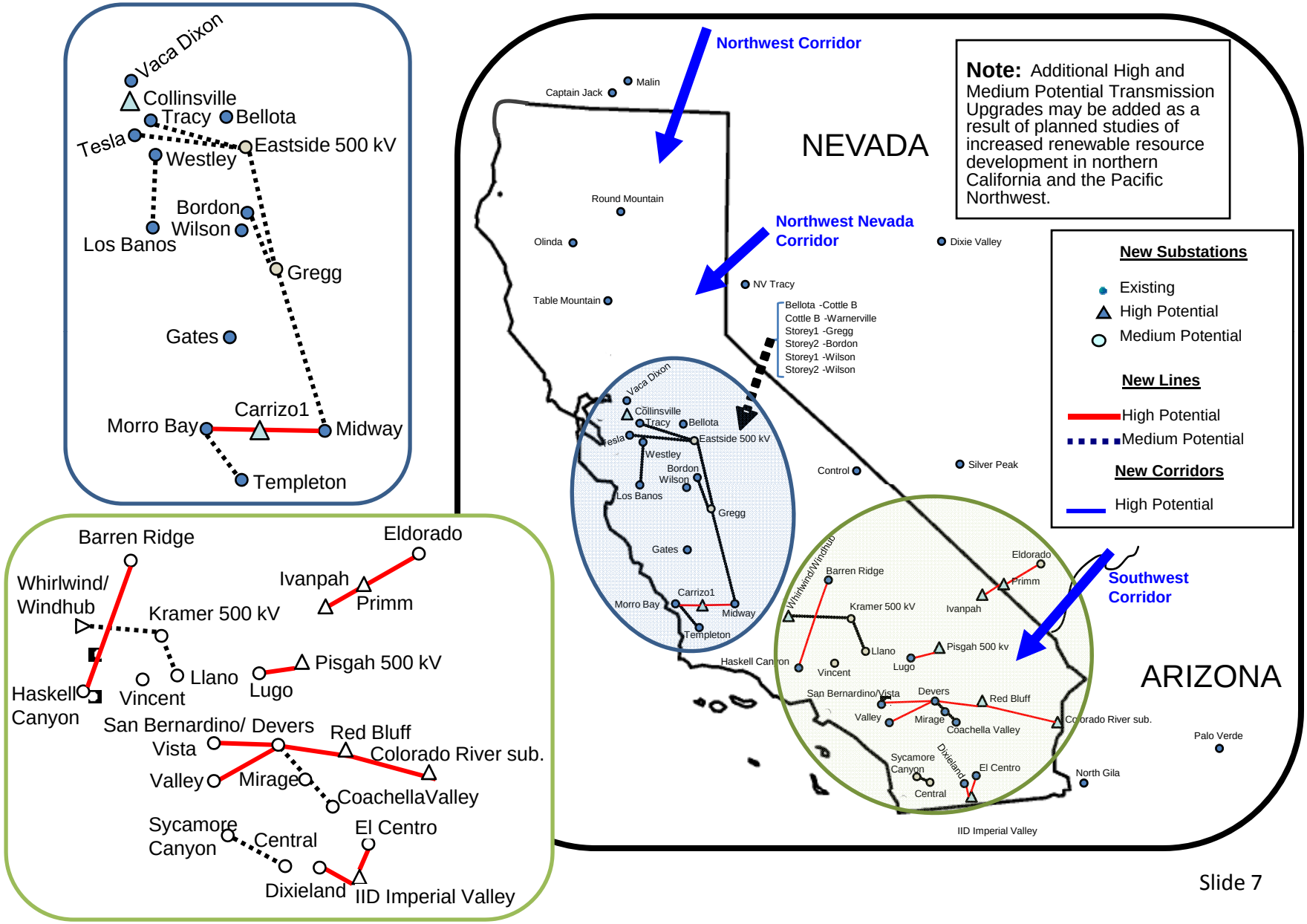
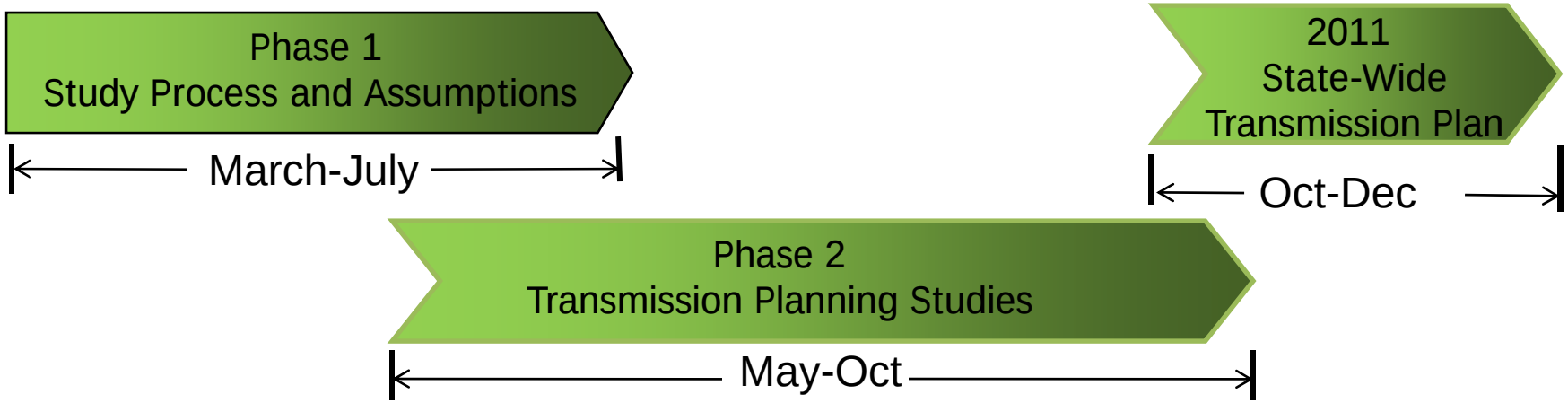
2010 CTPG Statewide Transmission Plan
High and Medium Potential Transmission Upgrades and Corridors



CTPG 2010 Statewide Transmission Plan Recommendations

- High Potential Transmission Needs:
  - 26 transmission items
  - Should be focus for transmission project developers, balancing authorities, regulatory bodies, and state agencies
  - Solutions to Needs should be submitted for regulatory approval and environmental authorizations
- Medium Potential Transmission Needs:
  - 34 transmission items
  - Study further in the ongoing transmission planning processes
- High Potential Transmission Corridors:
  - 3 transmission corridors identified
  - Warrant further study by the CTPG in 2011

CTPG 2011 Work Plan



- Prepare Phase I Work Plan
- Determine Base Case Approach
- Verify Existing Renewables
- Incorporate OTC Assumptions
- Review Path Flow Assumptions Prior To Dispatch of Renewables

- Update Net Short
- Review Re-dispatch Methodology
- Review Dynamic Stability Study Approach
- Coordinate with TEPPC

- Prepare Phase II Work Plan
- Develop Renewable Portfolios/Scenarios
- Prepare Study Plan(s)
- Update Renewable Development Information
- Perform Studies
- Refine the Determination of the High and Medium Potential Transmission Needs and Corridors

- Identify 2011 State-Wide Transmission Plan Elements
- Identify 2011 Lessons Learned
- Begin Preparation of 2012 Work Plan

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Thank you!