

CALIFORNIA  
TRANSMISSION  
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GROUP



# Technical Steering Committee Report

CTPG Executive Committee Meeting  
May 5, 2011

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# AGENDA

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- General Update – Mo Beshir
- Stakeholder Comments – Jan Strack
- 2011 Work Plan, Upcoming Stakeholder Meeting – Mike Deis
- Path Flow Assumptions/ Generation Re-dispatch Methodology – Jan Strack
- Next Steps – Mo Beshir

# GENERAL UPDATE

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- TSC conducted two conference calls in April:
  - Reviewed 2011 Phase I Work Plan and status
  - Reviewed proposed 2011 Phase II/Phase II Work Plan Schedule
  - Planned for May 19<sup>th</sup> Stakeholder Meeting
  - Reviewed status of Phase I Deliverables
  - Discussed proposed Path Flow Assumptions and Generation Re-dispatch Methodology

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# 2011 STAKEHOLD COMMENTS – JAN STRACK

# 2011 STAKEHOLDER COMMENTS

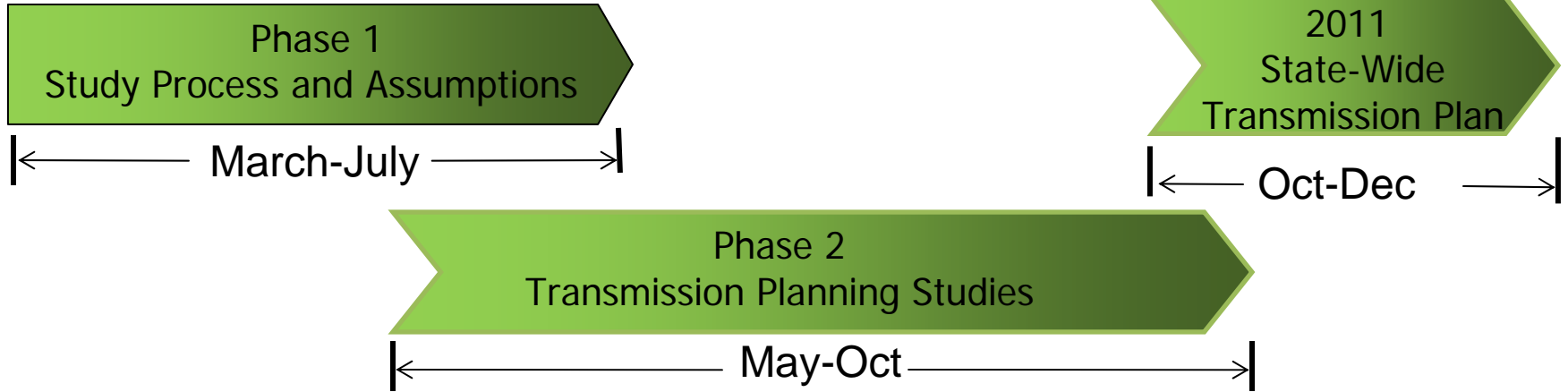
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- By March 15, 2011 received 5 comments on proposed 2011 Phase 1 Work Plan
- Draft responses prepared by March 22, 2011
- Review by Technical Steering Committee on March 31, 2011
  - ✓directed that some revisions be made
  - ✓decided Executive Committee should review revised responses
- Reviewed by CTPG Executive Committee on April 7, 2011
- Final responses posted to website on about April 20, 2011

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# 2011 CTPG WORK PLAN – MIKE DEIS

# 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
- Develop an approach for Storage

- 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

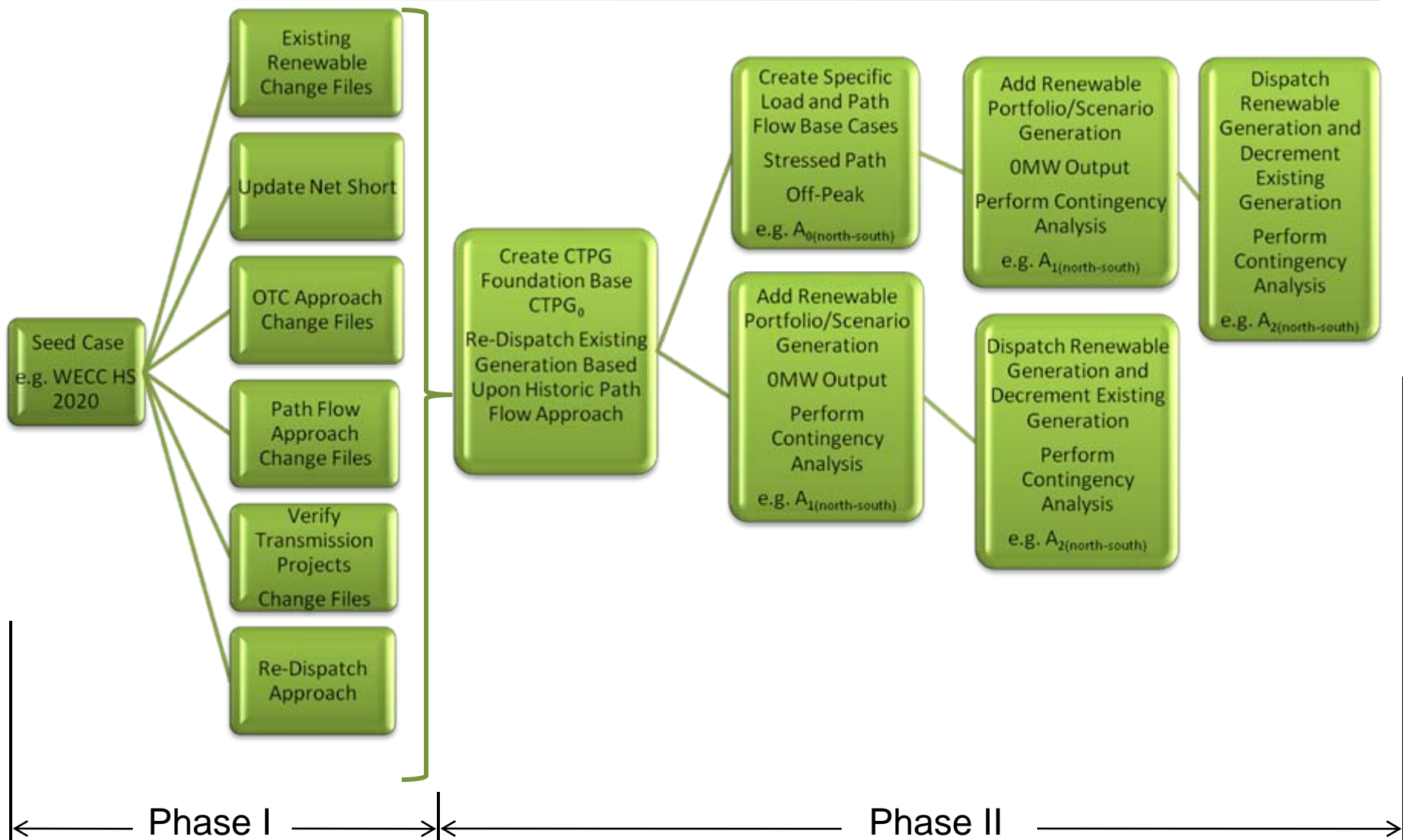
# 2011 CTPG WORK PLAN PHASE I

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- Phase I Deliverables:
  - Verify Modeling of Existing Renewables
  - Determine OTC Assumptions
  - Determine Re-dispatch Methodology
  - Determine Path Flow Assumptions
  - Update Net Short
  - Develop Foundation Base Case
  - Develop Dynamic Study Approach
  - Coordinate with TEPPC
  - Website Improvements



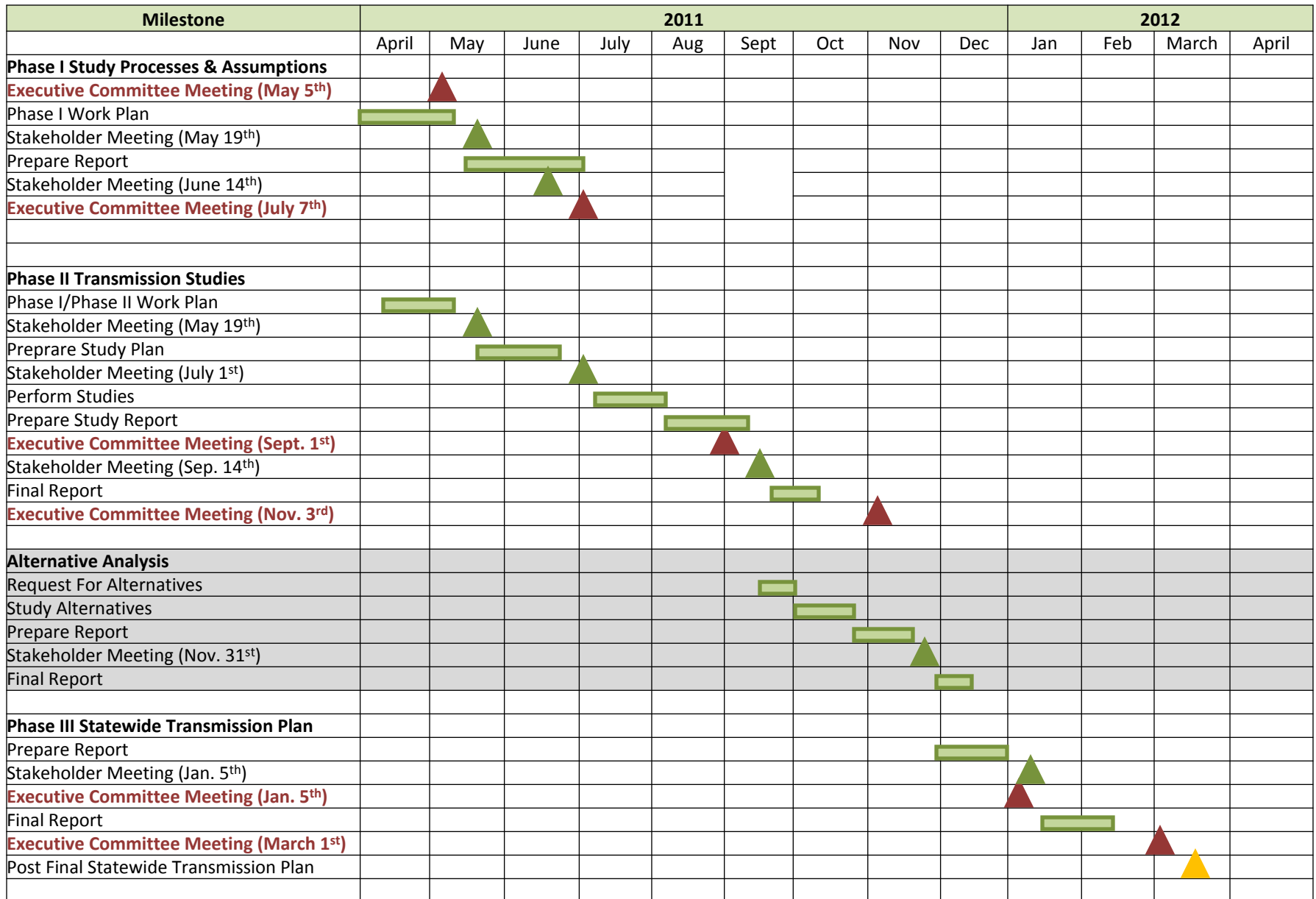
# CTPG STUDY CASE DEVELOPMENT



# 2011 WORK PLAN SCHEDULE OPTION 1

Milestone	2011									2012			
	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April
<b>Phase I Study Processes &amp; Assumptions</b>													
Executive Committee Meeting (May 5 <sup>th</sup> )		▲											
Phase I Work Plan	■	■											
Stakeholder Meeting (May 19 <sup>th</sup> )		▲											
Prepare Report		■	■	■									
Stakeholder Meeting (June 14 <sup>th</sup> )			▲										
Executive Committee Meeting (July 7 <sup>th</sup> )				▲									
<b>Phase II Transmission Studies</b>													
Phase I/Phase II Work Plan	■	■											
Stakeholder Meeting (May 19 <sup>th</sup> )		▲											
Prepare Study Plan		■	■	■									
Stakeholder Meeting (July 1 <sup>st</sup> )			▲										
Perform Studies				■	■								
Prepare Study Report					■	■							
Executive Committee Meeting (Sept. 1 <sup>st</sup> )						▲							
Stakeholder Meeting (Sept. 14 <sup>th</sup> )						▲							
Final Report							■						
Executive Committee Meeting (Nov. 3 <sup>rd</sup> )								▲					
<b>Phase III Statewide Transmission Plan</b>													
Prepare Report							■	■					
Stakeholder Meeting (Nov. 3 <sup>rd</sup> )								▲					
Final Report									■	■			
Executive Committee Meeting (Jan. 5 <sup>th</sup> )											▲		
Post Final Statewide Transmission Plan												▲	

# 2011 WORK PLAN SCHEDULE OPTION 2



# MAY 19<sup>TH</sup> STAKEHOLDER MEETING

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- Review Phase I Work Plan
- Review Phase II/Phase III Work Plan and Schedule
- Request Stakeholder Proposed Renewable Generation Scenarios/Portfolios

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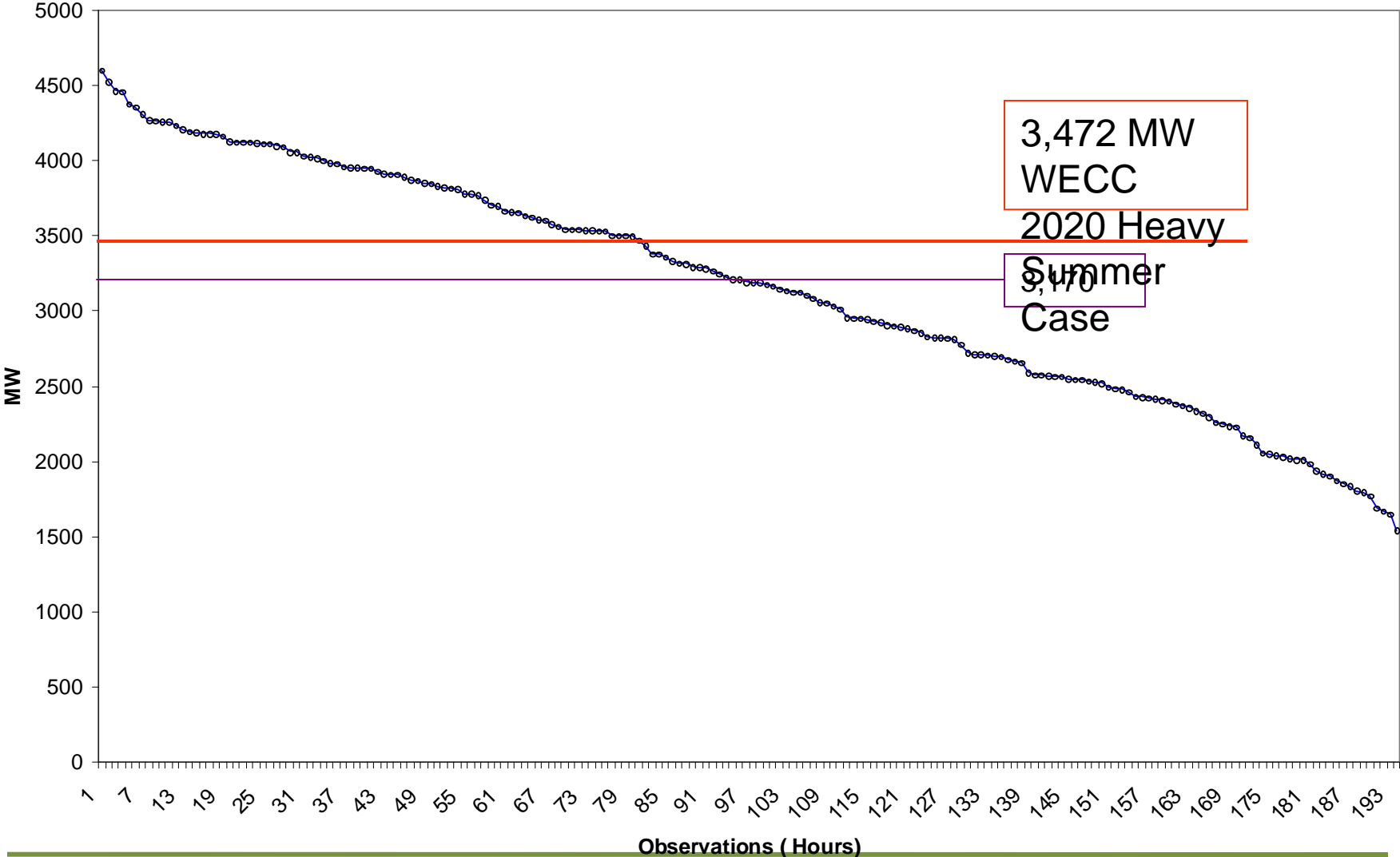
# **PATH FLOW ASSUMPTIONS/GENERATION REDISPATCH METHODOLOGY – JAN STRACK**

# PRE-RENEWABLE PATH FLOW ASSUMPTIONS

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- Start with 2020 Heavy Summer seed case (a “typical” summer day)
- Include proposed transmission that has received Balancing Authority approval
- Incorporate assumptions regarding expected disposition of OTC units
  - ✓ Retirements
  - ✓ Repowering
  - ✓ On-site Replacements
- Set up two sets of pre-renewable power flow cases:
  1. Selected paths “stressed” at or near existing ratings; other paths and inerties at levels in the 2020 Heavy Summer seed case
  2. All paths and inerties at levels in the 2020 Heavy Summer seed case
- Perform analysis of Summer peak condition and Fall off-peak condition
- In parallel, gather historical flow data for major paths and inerties (sample in subsequent slides)

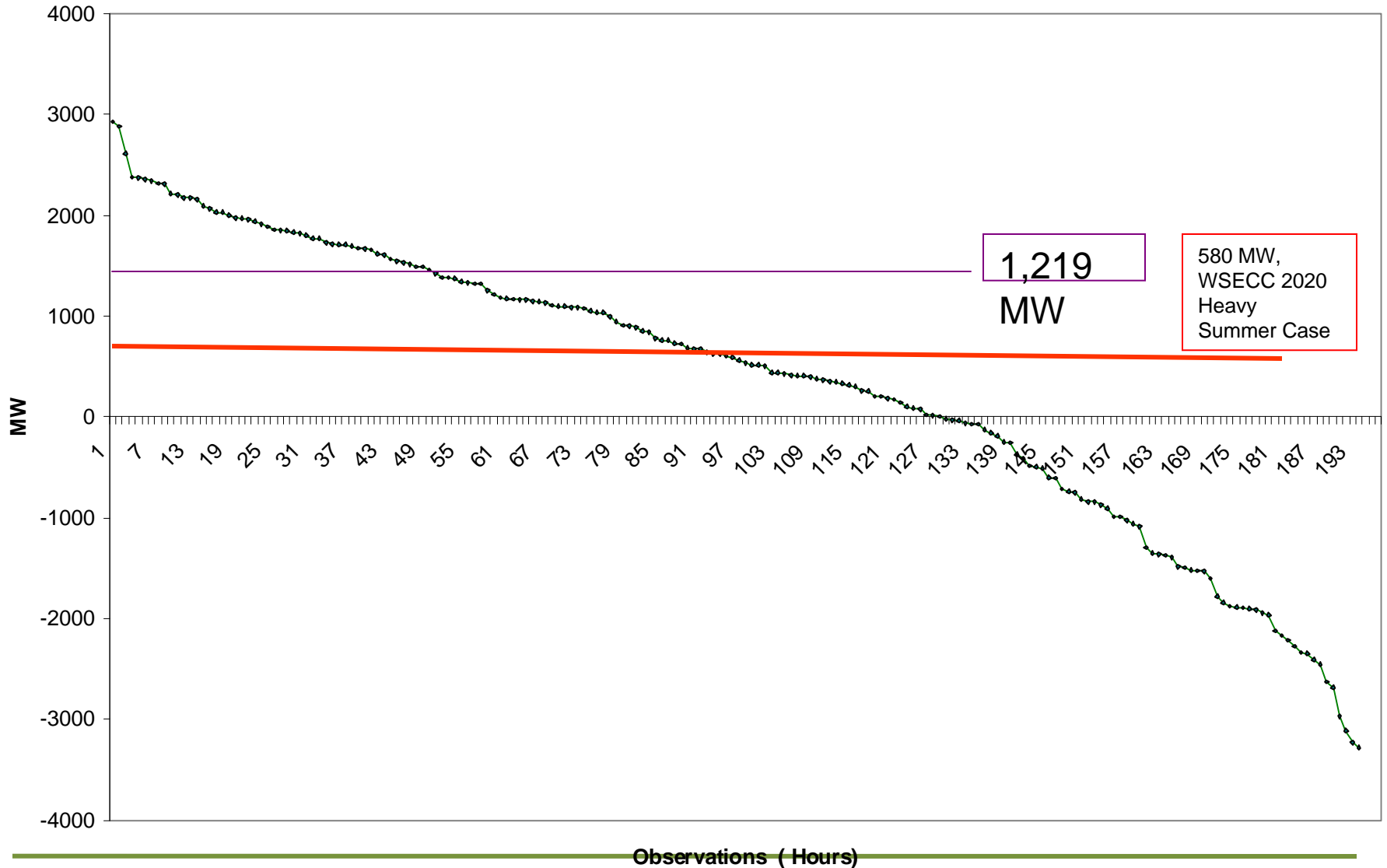
COI Sample N -> S



COI Sample: 2008 – 2010, June 15 – Sep 15, weekdays ( no holidays ) at 4 p.m.

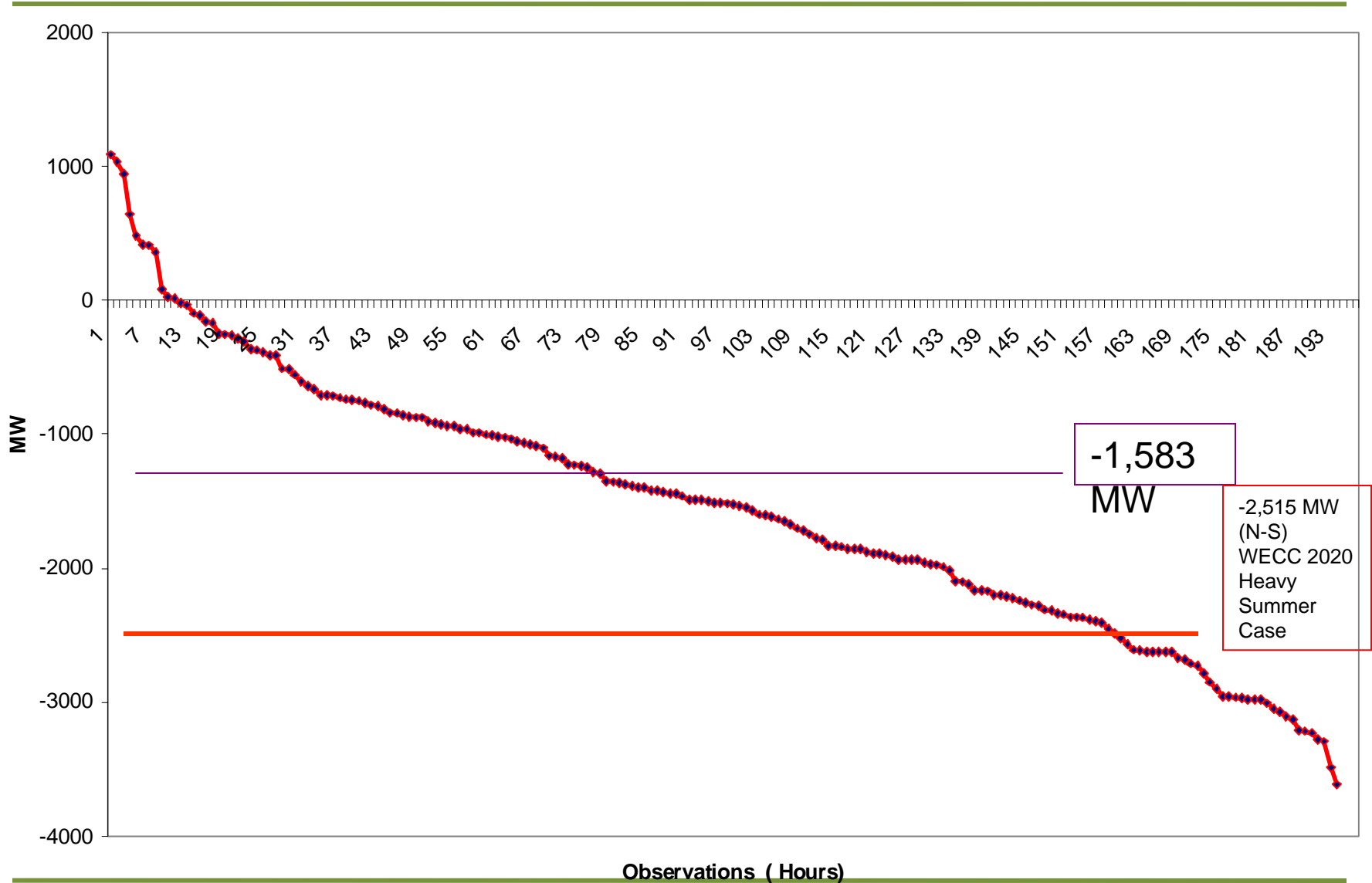


# P15 sample S -> N





# P26 sample S -> N



# FOSSIL GENERATION DECREMENTING ASSUMPTIONS

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- To each set of pre-renewable power flow cases, add renewables to reach 33% RPS
- Decrement corresponding amount of WECC fossil-fired generation
  - ✓Decrement only *dispatchable* fossil-fired generation
  - ✓Most QFs assumed non-dispatchable
- Decrement in economic merit-order WECC wide, subject to:
  - ✓Known constraints that require specific generators to be on-line under specific conditions (e.g., San Diego Area Unit Commitment Requirement for Voltage Stability)
  - ✓Minimum output of dispatchable units
- Drop the 70%/30% in-state/out-of-state constraint used in 2010 studies
- Survey transmission planning entities throughout WECC (**survey has been drafted**)
  - ✓Identify dispatchable generators (**preliminary list prepared**)
  - ✓Obtain minimum output of dispatchable units (**preliminary numbers available**)
  - ✓Describe constraints requiring specific dispatchable units to be on line
- Default approach: Decrement in economic merit-order WECC wide

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# **2011 PHASE II SCENARIO, WRITING, AND TECHNICAL TEAMS – MO BESHIR**

# TECHNICAL STEERING COMMITTEE TEAMS

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- Scenario Team
  - Garry Chinn (SCE) (Team Lead)
  - Kevin O'Beirne (SDG&E)
  - Phil Sanchez (WAPA)
  - Mike Deis (SMUD)
  
- Writing Team
  - Jan Strack (SDG&E) (Team Lead)
  
- Technical Team
  - Team Lead ?

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# NEXT STEPS – MO BESHIR

# NEXT STEPS

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- Post 2011 Phase 1 Work Plan
- Complete Draft of Phase I White Papers
- Prepare Phase I Draft Report
- Notice and Conduct CTPG Stakeholder Meeting May 19<sup>th</sup>
- Complete team assignments

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Thank you!

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