

DOCKETED

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Renewable Energy Transmission Initiative 2.0

Plenary Group

Preliminary Work Plan

December 18, 2015



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Today's Agenda

- Review RETI 2.0 Objectives, Structure, and Overall Work Plan
- Plenary Group Overview
- Relationship to Environmental/Land Use and Transmission Technical Input Work Groups
- Detailed Plenary Group Work Plan
- Questions for Stakeholders
- Public comment

Public Comment

- ***Oral comments:*** Participants in person and by webinar are encouraged to provide comment during and after workshop. Comments may be limited to three minutes and will become part of the public record for this stakeholder process.
- ***Written comments:*** Written comments on today's workshop are encouraged. **Written comments should be submitted by 4:00 p.m. on January 7, 2015.**

Please submit comments to the Energy Commission using the Energy Commission's e-commenting feature by going to the RETI 2.0 webpage <http://www.energy.ca.gov/reti/> and click on the "Submit eComment" link. A full name, e-mail address, comment title, and either a comment or an attached document (.doc, docx., or .pdf format) is mandatory. Please note that written comments, attachments, and associated contact information included within the written comments and attachments (e.g., your address, phone, email, etc.) become part of the viewable public record.

RETI 2.0 and Plenary Group Overview



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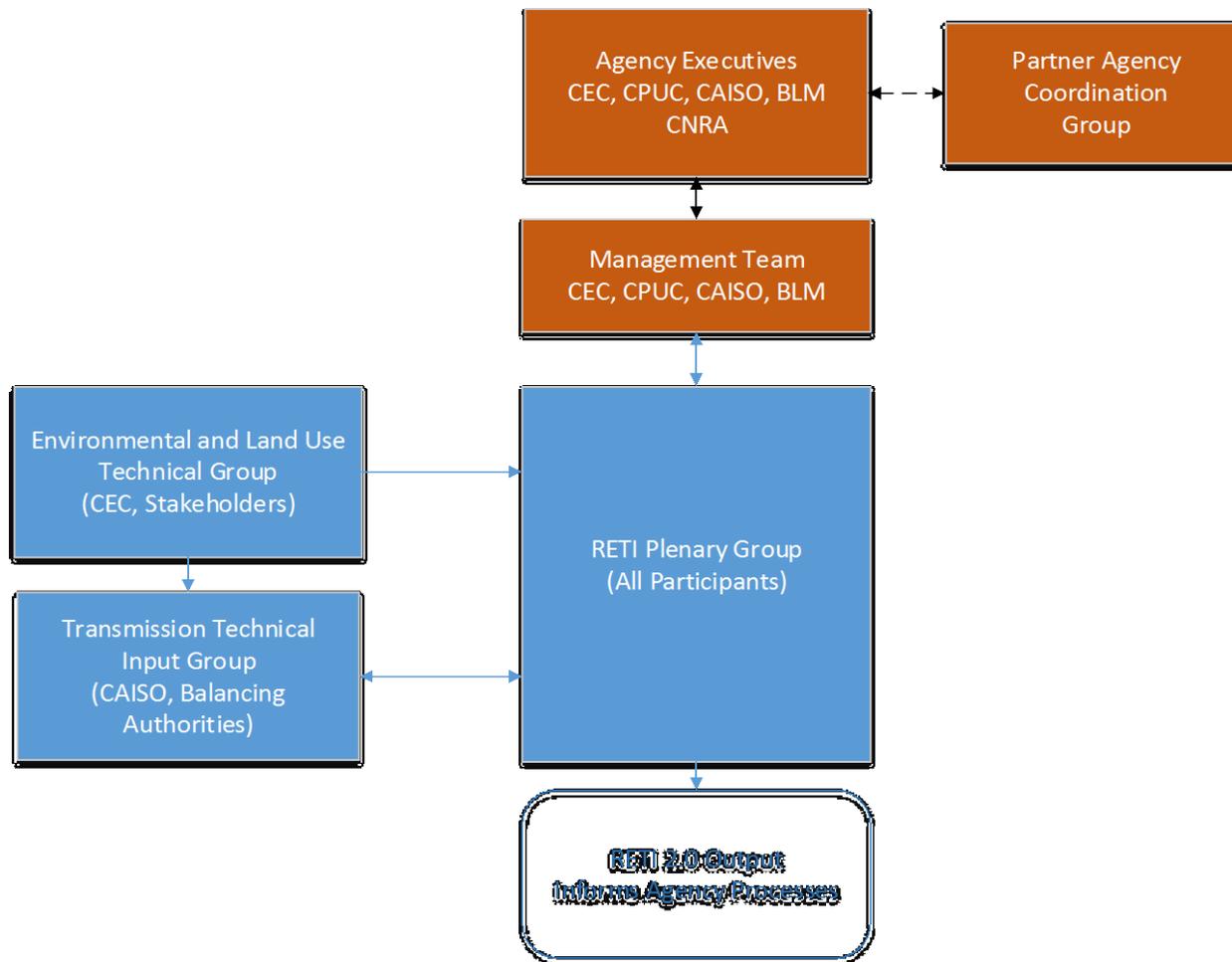


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RETI 2.0 Objectives

- Statewide, non-regulatory planning effort to help meet statewide GHG and renewable energy goals.
- Explore combinations of renewable generation resources in California and throughout the West that can best meet goals
- Identify land use and environmental opportunities and constraints to accessing these resources
- Build understanding of transmission implications of renewable scenarios, and identify common transmission elements
- Inform future planning and regulatory proceedings

Organizational Structure



RETI 2.0 Plenary Group

Objectives:

- Identify plausible scenarios of renewable resources and transmission
- Integrate environmental/land use and transmission implications
- Identify common transmission elements
- Recommend next steps

Methodology:

- Staff discussion papers and stakeholder comments
- Monthly Workshops (or more often as necessary)
- Quarterly Agency Executive Meetings

RETI 2.0 Plenary Group

Key Stakeholders

Convening agencies

California Natural Resources Agency
CEC, CPUC, ISO
BLM California

Other government jurisdictions

Tribal governments
County and local governments
Federal government agencies –
Department of Energy, Interior (BLM,
USFWS, NPS), USDA (USFS)

Intergovernmental organizations

Western Electricity Coordinating Council
Western Interstate Energy Board

Interest groups

Consumer/ratepayer
Environmental
Agriculture
Labor

Transmission operators/owners (NERC-registered planners)

CAISO, SCPPA, TANC, IID, WAPA, etc
PG&E, SCE, and SDG&E, LADWP, SMUD

Industry

Transmission owners and developers
Independent power producers
Renewable industry associations

Plenary Group

Conceptual Process Timeline

Timeframe	Goal
First Quarter 2016	Define goals Gather background data, studies Recommend approach
Second Quarter 2016	Propose resource combinations Review and refine Construct system scenarios
Third Quarter 2016	Compare scenarios Identify common solutions Identify follow-on tasks

Technical Group Contributions

Transmission and Environmental/Land
Use Technical Groups and their
interaction with Plenary Group



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Technical Group Contributions

Environmental and Land Use Group

- Identify, compile, document, and make available state-wide data (and west-wide to the extent feasible) relevant to renewable energy planning.
- Discuss, and recommend methodologies, to use the assembled data to assess areas and combinations of areas to evaluate environmental sensitivities and land use considerations.
- Work interactively with RETI Plenary Group to evaluate conceptual-level combinations of potential renewable energy generation areas, transmission and potential transmission corridors.

Technical Group Contributions

Transmission Technical Input

- Characterize existing transmission system capacity and planned improvements/changes and their implications for accessing additional renewable resources
- Provide initial transmission input on likely in-state developments necessary to access potential renewable generation and refine the data as combinations of renewable resources are developed through other RETI groups' activities.
- Provide planning level transmission cost estimates and any available information on environmental and other permitting issues for in-state requirements, using existing data to the greatest extent possible
- Compile transmission planning information on potential WECC-wide system reinforcements that may provide or improve access to renewable generation or to integration resources
- Work interactively with RETI Plenary Group to evaluate transmission implications for accessing potential renewable energy generation areas

Plenary Group

Detailed work plan



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Plenary Group

Month-by-month Timeline

Month	Objectives
January	Explore planning goals (GHG, renewables, and system)
February	Gather renewable resource information, studies of combined value
March	Understand environmental, land use, and transmission constraints and opportunities; Recommend scenario approach
April	Gather/build conceptual resource combinations; Engage local communities
May	Explore environmental and transmission implications
June	Propose draft scenarios of renewables and transmission
July	Analyze scenarios for common elements and solutions
August	Review and refine solutions; develop recommendations
September	Release draft report

January: Planning Goals

Questions to explore:

- What are the targets (GHG, renewables, system) for which RETI 2.0 is planning?
- What are the “rest-of-the-system” parameters we should plan for?

Conceptual workshop agenda:

- CEC: Electricity demand forecast
- CPUC: Long-Term Procurement (LTPP) Assumptions and Scenarios
- E3 Pathways study: GHG scenarios for electricity sector
- Other study(ies)?

February: Resource Values

Questions to explore:

- What do we know about the capacity, energy, ancillary service, and system value, and development cost, of individual resource areas and technologies?
- What do we know about how different resources complement each other to provide system value?
- What do we know about building resource combinations?
- What do we know about evaluating different resource combinations?

Conceptual workshop agenda

- CPUC: RPS Calculator values
- CAISO experience/studies on resource diversity
- Utility (IOU and/or POU) assessment of resources for PPA purposes
- Various advocates/proponents present studies on resource combinations

March: Agency Executives Workshop

Plenary Group Report-Out

Plenary group recommendations for considering energy and ancillary values and costs of renewable resources and recommendations for assembling combinations of resources

Environmental and Land Use Report-Out

Technical Group recommendations on incorporating previously-identified constraints and opportunities and recommendations for evaluating environmental/land use implications of resource combinations

Transmission Group Report-Out

Technical Group recommendations on known constraints and opportunities in the transmission system, and recommendations on evaluating the transmission implications of resource combinations, including “tinker-toy” level identification of infrastructure, costs, and impacts



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Second Quarter 2016: Engage and construct

Tasks/Activities

- Engage local communities and western states
- Propose resource combinations
- Identify transmission implications
- Identify environmental/land use implications

Methodology/Deliverables

- Local and regional meetings
- Resource combination workshop
- Transmission and Enviro/Land Use Groups review
- Agency Executives Workshop

Third Quarter: Refine and recommend

Tasks/Activities

- Refine system scenarios
- Compare scenarios to identify common elements
- Identify next steps and follow-on projects

Methodology/Deliverables

- Scenarios and common elements workshop (July)
- Issue Draft Report (September)
- Agency Executives Workshop (September/October)

Questions for Stakeholders

Planning goals

1. What are the right resource metrics and quantities for RETI 2.0 to plan toward?
2. What are the rest-of-the-system parameters that make a meaningful difference on these metrics?
3. What data sources or analyses should we include?

Resource Values

1. How should we measure the system value and costs of individual resources?
2. How should we measure the system value of resource combinations?
3. How can we assemble conceptual resource combinations?
4. What are the best examples of assembling resource combinations?

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