

CLRTPG MEETING

January 29, 2008

Meeting Minutes

Attendees:

Physical

Mike Mendelson – Western Resource Advoc.

Inez Dominguez

Joe Taylor

Andy Leoni

Morey Wolfson

David Gustad

Ron Lehr

Tom Green

Brent Vossler

Gerry Stellern

Mark Graham

Via Conference Call

Jeff Hine?

Eric John - Sky Fuel

Chuck Sisk – CSU

Dan Lyons – Aquila

Billy Cutsor – MEAN

Eric Egge – BHP

Shawn Carlson – Basin

Wes Wingen – BHP

Matt Stoltz – Basin

Jared Griffiths – Western

Bob Easton – Western

John Collins - Western

Shane Gutierrez - Xcel

TJ Deora - Horizon Wind

AL Previous meetings policy

MM Update request

RL & MG gave 2 minute summary

Matt Stoltz PF looking at capacity, clarify between energy & capacity

PF study - no economics

Instantaneous wind, peaking in Autumn and Spring,

economics - can decrease generation efficiency

Experience: February 8, 2006 PSCo had counted on 100% wind,

400 MW load was shed

“wind diversity would not have made up for this deficiency”

Combustion turbines are inefficient at minimum power

Suggested including 0% wind output sensitivity scenarios

Where is the replacement capacity [MG note: @load, @gen, or remote?]

Asked: Can we make the system work?

JT Other problems contributed

MM Expansion of pumped-storage

MG/MS What if no wind? Full & light

EJ Solar thermal as a thermal resource 100's MWh storage with S.T.

DJ Demand response planning such as cycling A.C.

MS “Pay” to load amount, if carve out same capacity

DJ Different from efficiency

How much potential

RL “Indicted by this presentation”

Stakeholders are to add new ideas

See Power & Energy IEEE Nov/Dec issue

Additional savings operating Mt. Elbert to follow wind

Should be able to set up reasonable scenarios

JT Resource scenarios including renewables

Received all energy numbers so may be full picture now

1. Colorado Resource Plan/Xcel;

2. Other utilities back calc. wind spec. in HB12B1 for 2013 and 2018
 25% credit for in-Colorado wind projects
 Reviewed analysis results for PSCo

RL Ace diversity interchange
 JT Max regulation of 25 MW each participant
 RL Not planning for the tail of the generation probability
 JT Req. txm for
 JC Planning reserve margin?
 JT 16%
 JC Loveland <40,000 meters, this will be less
 BC Reduce for Nebraska contrib., etc.
 MM Expanding Cabin Creek P.S.
 GS (2) 162 at cabin Creek
 JT Increase in txm cap. Would require environmental
 RL Debbie Lew has MISO model data available
 TG Low load ACE control – something would back down
 GS 2013 devel. Status
 Bi-annual fining for SB100
 2-hour meeting on SB100 a.m./2-hour meeting in p.m.

ID 2013 case devel, for Pawnee Study
 TG/GS Yes, but taking a fresh approach
 RL Can we unify the SB100 and CLRTPG processes?
 GS 4 zone txm. Plans
 TG More detail in CPCN
 RL Relationship between the two. Also, 2 non-connected plans
 MG?/GS Not prepared to discuss data status for base case devel.
 2018 benchmark case
 MW IGCC WIA rejected IGCC in Wyoming

MG Where should renewables go? Need up to 5 alternatives, capacity and injection points
 Schedule start studies by mid-Feb.
 RL Exercise in futility to which things are compared = benchmark case
 MM Pro/con of various resources at various injection points
 Group may be limited

WRA Energy Resource Group
 SW Wyoming – 100’s of people turned out to support wind
 Access to “environmental throw weight”
 Trying to develop a different kind of constituency

MW First cut suggestions for wind solar
2018

GDA 1	250	GDA S1	1000
2	375	S2	1000
3	500		
4	250		
5	750		
6	1000	Total	5525
7	250		
8	190		

These values are for the export case scenario

Carbon-constrained high not gas cost

This could be baseline or scenario
Object is ultimate system capability

Values are based on % of total ~5%

Action Items

Review JT wind capacity calcs, check for errors in assumptions
Joe to compile locations for wind in coordination with utilities
Ask power resources for more wind gen, hour and corresponding load scale factor
DG to send infrastructure to MM and BE
TG define "benchmark case"
RL/JT/MW develop up to 5 resource scenarios
Input on major infrastructure list by Friday, Feb. 1

Next Meeting

Resource plan alternatives