



CREPC Meeting

Western Gas/Electric Interface Issues

by

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Today's Discussion

- Present summary of issues
- Initiate discussion
- Goal: closer integration of gas and electric system planning, analysis, and action
- Perspective from a “gas guy”
- Seek insights from CREPC



Summary of Issues

1. Volatile PP fuel demand impacts on NG system
2. NG/Electric system ops communication—normal basis
3. NG/Electric system ops coordination—extreme stress
4. Firm fuel delivery for firm electric supply



Summary of Issues

5. Limits to NG/electric regional “fungibility”
6. Impact of LNG quality on PP operations
7. Dependence of NG and TL system analysis on future PP assumptions



Issue 1: Volatile PP fuel demand impacts on NG system

- System design vs. new demands
- Old demand stable/predictable
- New demand volatile, less predictable
- System operation problems already observed
- Does this have a potential for more widespread impacts?



Issue 2: NG/Electric system ops communication—normal basis

- Nomination and commitment schedules
- Time difference between gas and electric
- Mitigated in part by Western time zones
- NAESB is investigating issue—“Energy Day” proposal
- Is additional action needed in the West?



Issue 3: NG/Electric system ops coordination—extreme stress

- 2004 Northeast experience raised issue
- Extreme temperature pushed NG and electric systems to brink of collapse
- System response collapsed due to:
 - Communication issues
 - Coordination issues
 - Market rule issues
- Can this happen here?



Issue 4: Firm fuel delivery for firm electric supply

- Obligation to supply may not be backed up by firm fuel supply
- Electric procurement proceedings may be missing this issue
- Electric procurement now relies on gas market mechanisms (financial instruments)
- Is there a need to ensure physical delivery of fuel?



Issue 5: Limits to NG/electric regional “fungibility”

- Pipe vs. wire issue on a regional basis
 - Eg., Power plants in Arizona vs. So. Cal to meet a LA electric demand
- Pipes and wires have limited capacity
- Regional shifts often occur
- How much can be shifted?
- How much should be shifted?



Issue 6: Impact of LNG quality on PP operations

- Many potential supply sources are “hotter” gas
- US and California NG quality standards are more restrictive than rest of world
- “Hot” gas might damage power plants
- California is investigating this issue
- Can the standards be modified without damaging power plants?
- Should they be changed?



Issue 7: Dependence of NG and TL system analysis on future PP assumptions

- Planning and analysis is driven by assumptions
- Future power plant additions and operations are critical and still highly uncertain
- NG and TL planning depends upon PP assumptions
- Is consensus needed on assumptions?



- Questions?
- Suggestions?
- Next steps?