

October 1, 2008

OC and PCC Representatives for WECC organizations
that operate a control area

AESO	AVA	AZPS	BCTC	BPAT	CFE	CISO	DEAA
EPE	GRMA	HGMA	IID	IPCO	LDWP	NEVP	NWMT
PACE	PACW	PGE	PNM	PSCO	PSEI	CHPD	DOPD
GCPD	SCL	SMUD	SPP	SRP	TEPC	TIDC	TPWR
WACM	WALC	WAUW					

Subject: NERC Winter Assessment

The North American Electric Reliability Council (NERC) has requested that each regional council provide an assessment of reliability and adequacy for the anticipated 2008-2009 winter operating period. The information that is required is discussed below. Narrative responses are requested from OC Representatives of WECC organizations that operate a control area external to the Northwest Power Pool. Please send the narrative responses directly to the WECC Staff. The narrative portion of the assessment response for control areas within the Northwest Power Pool (including IPCO, NWMT, PACE, and SPP) will be prepared by the Northwest Power Pool staff. We request that the OC Representatives for WECC organizations that operate a control area external to the NWPP, and the NWPP staff, provide their responses to the WECC staff by October 10, 2008.

PCC Representatives are responsible for the pre-season assessment data. The forecast data, that was submitted earlier this year, was used in populating the attached ERO-2008-09W_XXX excel spreadsheet. That spreadsheet includes the following tabs: 1) Projected Demands & Capacity, 2) EGData, 3) GADData, and 4) PKData. The "Projected Demands & Capacity" tab is an example of the NERC form, populated with data from the PKData tab and is for information only and does not need to be updated for WECC. The EGData, GADData and PKData tabs contain the loads and resources data that was used by WECC in preparing NERC's Long Term Reliability Assessment (LTRA) and WECC's Power Supply Assessment (PSA) and is where the data is to be updated. All of the data (loads (firm and nonfirm), resources, transfers, derates, outages, etc..) that pertains to the actual January and February 2008 data and the forecast data for December 2008 through February 2009 need to be reviewed and updated on these tabs. If you are not familiar with the resource coding definitions, please refer to pages 18 through 46 in the WECC Reporting Process for the collection of Loads and Resources Data manual at the following link <http://www.wecc.biz/documents/library/LRS/larcontl2007.pdf>. The future generation facilities are found in the GADData and PKdata tabs of ERO-2008-09_XXX.xls. The PKdata tab has a

filter applied to column A that filters the data to only show the years 2007 through 2009 and hides the rest of the years for convenience. WECC has classified the future generation projects as classes 1 through 5 based upon criteria set forth by the Loads and Resources Subcommittee. The descriptions of those future generation classes are listed in section 8 near the back of this document. The class that was previously assigned to these projects is recorded in column AD in the GAData tab and column V in the “PKData” tab. Please review the status codes, presented in column W of the “GAData” tab, and the assigned classes and update them if any have changed. For updating purchases and sales, please refer to Item 3 Purchases and Sales Remember you only have to update those records that go through February 2009. The transmission and other facilities are found in the Winter0809_trans.xls spreadsheet. Please provide any updates to projects that may have been put into service since the beginning of the year. Please fill in the status of all transmission projects listed with their current status i.e., under regulatory review, construction started, cancelled, delayed etc. in column T of the “Transmission” tab and column P of the “Other” tab.

Please provide the revisions to the WECC Staff and to your OC Representative prior to October 10, 2008. Also please review the PCC loads and resources data contacts as listed in win_cl_08.doc (attached) and provide any updates as needed.

Pre-Season Assessment Narrative

We request that the OC Representatives prepare the narrative portion of the assessment. Please provide a pre-season assessment narrative for your control area that addresses any situations that could affect reliability for the coming winter. The narrative should address system security procedures that are to be implemented should unusual operating conditions occur. The narrative should be as incisive as possible and should include comments regarding system security and the degree of exposure to voltage stability problems. In-house reports that provide additional information regarding expected conditions for the winter operating period should be made available to provide additional insight into possible areas of concern.

In preparing the winter assessment narrative, it is requested that OC Representatives specifically address the following items:

1. Demand (previously titled Peak Demand)

- a. PRPA: Discuss weather and economic assumptions upon which the forecast is based. Platte River utilizes a multiple regression econometric model to develop our demand forecasts. A historical population and labor base is established using past data drawn from the Colorado Economic and Demographic Information System. A growth rate for forecasting purposes is applied to this base; this growth rate is provided annually by Woods & Poole, an independent, economic forecasting firm. The population and labor figures are two of the independent variable incorporated into the forecasting model. BHE: Normal weather and economic conditions were assumed.

To forecast the independent weather variables used in peak demand projections, average weather conditions between 1991 and 2008 are applied. While this long-term average should reflect “normal” weather conditions, weather variability in any given year may be higher or lower than the long-term average. Weather data incorporated into the forecast is provided by Day Weather, Inc., who provides daily meteorological data specific to the city of Fort Collins. Weather statistics used to forecast the winter demand are Heating Degree Days (HDD) on the peak day. This methodology and independent weather variable selection is based on past recommendations by Utility Financial Solutions, a consulting firm that assisted with the development of past Official Forecasts for Platte River Power Authority. PSCo: For the demand forecast weather was assumed to be the 30 year average temperature on the December peak day.

b. Provide last year’s 2007-2008 winter actual demand. Compare last year’s 2007-2008 winter actual and this year’s 2008-2009 winter peak demand forecast. Explain any significant differences. PRPA: The 2007-2008 winter peak demand for Platte River’s municipalities was 484.6 MW, occurring in January 2008. For the 2008-2009 winter season, the projected demand is 500.6 MW. The projected demand equates to approximately a 3.2% increase over the previous year. This increase corresponds in part to projected growth of our system. Also the 2007-2008 winter season was warmer the average winters, thus producing a lower demand for that particular year, which could lead to a perceived overstating of the increased forecast BHE: Peak load for Winter 2007-2008 was 305 MW on Jan 16, 2007 @ 1900 Hrs. Forecasted peak for Winter 2008-2009 is 315 MW (estimated by Gary S). PSCo Response:

PSCo only	Projected	Actual
MW	Peak	Peak
2007-08	5,747	5,822
2008-09	5,790	
PSCo CA	Projected	Actual
MW	Peak	Peak
2007-08	6545	6714
2008-09	6606	

The winter peak for the 2007-2008 season occurred during colder than normal weather on a day with 54 HDD rather than the normal 50

- c. What method is used to aggregate internal peak demands of individual load serving entity actual loads for use in the forecast? PRPA: As the load serving entity, Platte River sums the coincidental peak of its respective owner municipalities to aggregate the system demand. BHE: No “individual load serving entities”. PSCo: Load Research data collected at the actual system coincident peak is used to develop the demand forecast.
- d. Describe the current and forecasted demand response programs in your area that reduce peak demand – i.e. interruptible demand; direct control load management; critical peak pricing with control; load as a capacity resource, etc. PRPA: Currently Platte River’s system contains one large industrial customer with an interruptible load of 14.6 MW that

may be shed in times of need. Over the 2008-2009 winter season it is anticipated that this interruptible load will increase to approximately 15.1 MW. In addition, demand side management programs (DSM) are forecasted to decrease peak demand during the 2008-2009 winter season by approximately 0.5%. **BHE: Only demand response program is Holcim Cement Plant, which typically runs at 33 MW (loaded), can be curtailed to 25 MW with a phone call (same as last winter).** **PSCo:** Public Service Company of Colorado (PSCo) has two direct control load management programs available. Residential air conditioning customers may participate in a “Saver’s Switch” program that offers an annual incentive in return for allowing the Company to cycle the customer’s air conditioner compressor. In addition to the Saver’s Switch program, PSCo also offers the Interruptible Service Option Credit (ISOC) tariff for Commercial and Industrial customers. The ISOC program offers a direct load control option where PSCo has physical control over the customers load with less than 10 minutes notice prior to interruptions. There is also additional interruptible load available under the ISOC tariff, however this load is not under PSCo’s direct control.

- e. Please describe any quantitative analyses done in your area or subregion assessing the variability in projected peak demand due to weather, the economy, and/or other factors. Does the area/subregion explicitly address extreme winter conditions; e.g., by using a 90/10 forecast? **PRPA: Currently Platte River does not perform any quantitative analysis beyond the standard forecasting methodology regarding variability in winter demand due to outside factors.** **BHE: None.** **PSCo:** Forecasting recognizes that there is a great deal of uncertainty and variability in peak demand. In response to this, Forecasting has developed a range of demand forecasts based on Monte Carlo simulation methodology. Probability distributions are developed for peak day weather and other input variables, such as monthly energy. This methodology produces a set of forecasts, each associated with a probability of occurrence.

2. Generation

A vital metric used by NERC in its reliability assessment compares resources and projected peak internal demand. To increase the visibility and transparency of supply-side resource options being considered by regions/subregions and areas for this seasonal assessment, NERC requires additional information regarding projected resources.

- a. What are anticipated hydro conditions for the winter? **PRPA: Platte River does not own or operate hydro resources. All hydro is owned and operated by the Bureau of Reclamation and all hydro energy is distributed by Western Area Power Administration.—See the following for PSCo.**
 - i. Are the reservoir levels sufficient to meet both peak demand and the daily energy demand throughout the winter? **PSCo: The reservoirs are full, so expecting average winter generation. Shoshone has returned to normal operations. All other units are fully available.**
 - ii. Explain the basis for the answer to this question. **See above.**
- b. Is your area currently experiencing or expecting conditions that would create capacity reductions (e.g. continued effects of a drought)? If so, discuss any plans to mitigate their effects on capacity margins. **No. BHE: No**

- c. Have studied any fuel supply vulnerability in your area or subregion? **BHE: Canyon City Coal Generation = 42 MW, retains 28 days supply on the ground. The Pueblo Units 5 & 6 (9 and 20 MW, dual fuel, normally gas), on cold standby which can come online in 10 and 12 hrs respectively. Same as last winter. No fuel supply vulnerability.**

PSCo:

Coal

The main coal supply vulnerability facing PSCO involves a Force Majeure event of a major Colorado coal producer and on-going production issues, limiting coal deliveries to PSCO generating facilities. At this time, coal inventories at the three impacted generating stations are not expected to reach emergency levels, but the situation is being monitored closely.

Natural Gas

The main fuel supply vulnerability would be a Force Majeure event and due to the nature of these types of events they are not predictable. Although the likelihood of a significant Force Majeure event (ie: pipeline rupture) is relatively low there are mitigations efforts that can be undertaken including but not limited to market purchases of electricity, switching to fuel oil at plants with dual fuel capabilities and demand side management programs.

- ii. If not, explain why this study was not conducted.

3. Purchases and Sales on Peak

PRPA: Platte River does not make any purchases and sales that qualify under this specification, therefore this section is not applicable.

a. Purchases on Peak

- i. Identify and quantify any purchases from other regions and also those purchases between subregions or areas that affect regional/subregional/or area capacity margins. Categorize them as:
- (i) Firm – contract signed. (PCC rep. use code 50, 53 – 63 on PKData tab to update the data)PSCo:

All expected purchases are backed by firm contracts for generation. PSCo plans to have sufficient firm generation resources to meet its projected winter peak firm load obligation plus a 16% reserve margin target. The full or partial output of these resources are committed to the Company through ownership or power purchase contracts.

In addition to the 16% reserve margin target, PSCo estimates that it will be able to access approximately 200 MW of power supplies from the larger interconnected system (both WECC and SPP) if needed. These power supplies would be imported across one or more of the following transmission paths; TOT3, TOT 5 or the 210 MW PSC-SPS Tieline. This 200 MW estimate represents transmission import capability above and beyond the amount of transmission that would be used by PSCo to import firm power supplies during peak periods from committed resources.

No changes to PKData needed. Rebecca G

Joe T:

PSCo purchases capacity and energy from other utilities both within and outside of Colorado. The purchases listed below are sourced from non-PSCo control areas.

Counterparty	Control Area	Winter Capacity 2008 (MW)	Winter Capacity 2009 (MW)	Firm Capacity	Firm Transmission
Basin (#1)	WACM	100	100	Yes	Yes
Basin (#2)	WACM	75	75	Yes	Yes
Tri-State (#2)	WACM	100	100	Yes	Yes
Tri-State (#3)	WACM	25	25	Yes	Yes
Tri-State (#5)	WACM	100	100	Yes	Yes
Tri-State (Limon)	WACM	66	0	Yes	Yes
PacifiCorp (Craig)	WACM	166	157	Yes	Yes
Front Range	WACM	133	103	Yes	Yes

In addition, PSCo estimates it will be able to access approximately 200 MW of power supplies from the larger interconnected system (both WECC and SPP) if needed. These power supplies would be imported across one or more transmission paths that include TOT3, TOT 5 and the 210 MW PSC-SPS Tieline. This 200 MW represents an estimate of the transmission import capability above and beyond the amount that would be used by PSCo to import firm power supplies on peak periods from committed resources. **BHE: The 270 MW firm purchased power contract from PSCo changes to 280 MW on Jan 1, 2009 (this is a purchase within the BA).**

- (ii) Non-Firm – contract signed.(PCC rep. use code 50n on PKData tab to update the data)
see (i) BHE:WAPA Displacement Energy (Approx 20 MW), contingent from WAPA-RMR. No change from last winter.
 - (iii) Expected – no contract executed, but in negotiation, projected, or other¹. (PCC rep. use code 51 On PKData tab to update the data)
see (i)
 - (iv) Provisional – transactions under study, but negotiations have not begun. (PCC rep. use code 51n on PKData tab to update the data)
see (i)
- ii. Identify and quantify any purchases (or external generation committed to an internal entity) from other regions and between subregions that affect regional/subregional or area capacity margins. Categorize them as in 3.a. above.**BHE: None**

¹ In dialog with other party.

PSCo: All expected purchases are backed by firm contracts for generation. PSCo plans to have sufficient firm generation resources to meet its projected winter peak firm load obligation plus a 16% reserve margin target. The full or partial output of these resources are committed to the Company through ownership or power purchase contracts.

In addition to the 16% reserve margin target, PSCo estimates that it will be able to access approximately 200 MW of power supplies from the larger interconnected system (both WECC and SPP) if needed. These power supplies would be imported across one or more of the following transmission paths; TOT3, TOT 5 or the 210 MW PSC-SPS Tieline. This 200 MW estimate represents transmission import capability above and beyond the amount of transmission that would be used by PSCo to import firm power supplies during peak periods from committed resources.

- (i) What portion of the purchases is backed by firm contracts for both generation (specific existing certain generation) and transmission? Clarify if purchase assumptions are based on partial path reservations. PSCo:

All expected purchases are backed by firm contracts for generation. PSCo plans to have sufficient firm generation resources to meet its projected summer peak firm load obligation plus a 16% reserve margin target. The full or partial output of these resources are committed to the Company through ownership or power purchase contracts.

In addition to the 16% reserve margin target, PSCo estimates that it will be able to access approximately 200 MW of power supplies from the larger interconnected system (both WECC and SPP) if needed. These power supplies would be imported across one or more of the following transmission paths; TOT3, TOT 5 or the 210 MW PSC-SPS Tieline. This 200 MW estimate represents transmission import capability above and beyond the amount of transmission that would be used by PSCo to import firm power supplies during peak periods from committed resources.

- (ii) What portion of the contracts are Liquidated Damages Contracts (LDCs)? Of these, what portion are “make-whole” contracts as defined by FERC in order #890?

PSCo’s PPAs generally contain liquidated damages for delay to achieve construction milestones and for replacement power costs. However, the PPAs with LD provisions also state that the any limitation of damages is inapplicable to various specified intentional acts including the sale of Contract Capacity and Energy to a third party or other diversion of capacity and energy. Subject to legal review, PSCo’s long-term PPAs are “make whole” contracts.

b. Sales on Peak; **BHE: None**

- i. Identify and quantify any sales to other regions and also those sales between subregions or areas that affect regional/subregional/or area capacity margins. Categorize them as:
 - (i) Firm – contract signed. (PCC rep. use code 50, 53 – 63 on PKData tab to update the data) **PSCo: Over 99% of expected sales are backed by firm contracts. This portion includes both retail and wholesale customers. See PKData tab for data. No changes to the data were made. Rebecca G**
 - (ii) Non-Firm – contract signed. (PCC rep. use code 50n on PKData tab to update the data) **PSCo: The winter sales that are not backed by firm contracts are part of PSCo’s Interruptible Service Option Credit (ISOC) direct control load management program. ISOC is a demand reduction program with negligible associated energy and is for Commercial and Industrial customers. The ISOC program offers a direct load control option where PSCo has physical control over the customers load with less than 10 minutes notice prior to interruptions. There are approximately 126 MWs of direct load control available with less than 10 minutes notice.** (iii) Expected – no contract executed, but in negotiation, projected, or other². (PCC rep. use code 51 On PKData tab to update the data) – **N/A**
 - (iv) Provisional – transactions under study, but negotiations have not begun. (PCC rep. use code 51n on PKData tab to update the data) – **N/A**
- ii. Identify and quantify any sales (or internal generation committed to an external entity) from other regions and between subregions that affect regional/subregional or area capacity margins. Categorize them as in 3.a. above. **BHE: None**
 - What portion of the sales is backed by firm contracts for both generation (contract tied to a specific existing generator) and transmission? Clarify if sale assumptions are based on partial path reservations. **PSCo: Over 99% of expected sales are backed by firm contracts. This portion includes both retail and wholesale customers. The sales that are not backed by firm contracts are part of one of two of PSCo’s direct control load management programs: Saver’s Switch and ISOC. Both of these are demand reduction programs with negligible associated energy.**

Residential air conditioning customers may participate in a “Saver’s Switch” program that offers an annual incentive in return for allowing the Company to cycle the customer’s air conditioner compressor. There will be approximately 108 MWs of direct load control available in this program for the summer of 2008.

In addition to the Saver’s Switch program, PSCo also offers the Interruptible Service Option Credit (ISOC) tariff for Commercial and Industrial customers. The ISOC program offers a direct load control option where PSCo has physical control over the customers load with less than 10 minutes notice prior to interruptions. There are approximately 122 MWs of direct load control available with less than 10 minutes notice.

² In dialog with other party.

- (ii) See above bullet
- (ii) What portion of the contracts are Liquidated Damages Contracts (LDCs)? Of these, what portion are “make-whole” contracts as defined by FERC in order #890-? PSCo’s PPAs generally contain liquidated damages (LD) for delay to achieve construction milestones pre commercial operation. Upon commercial operation, the PPA’s generally contain default provisions, a limitation of damages clause and damages for replacement power costs. However, the PPA’s with LD provisions also state that any limitation of damages is inapplicable to various specified intentional acts including the sale of Contract Capacity and Energy to a third party or other diversion of capacity and energy. Subject to legal review, PSCo’s long-term PPAs are “make whole” contracts

No expected sales to our residential, industrial and commercial customers have liquidated damages contracts.

- c. Describe any reliance on outside assistance/external resources (clarify whether it is external to balancing area(s), subregion or the region) that your area counts on for emergency imports and reserve sharing.

Response: PSCo is a member of the Rocky Mountain Reserve Sharing Group and can call on the group for assistance for loss of a PSCo unit up to PSCo’s largest hazard of 505 MW. PSCo transmission reserves sufficient TRM across its system to import and export power for RMRG activations.

BHE is a member of RMRG and as such can call on 42 MW for loss of units. Also can call on emergency assistance.

4. Transmission—

- a. Describe any new bulk power system transmission anticipated to be in-service for the 2008-2009 winter that were added since the 2007-2008 winter. Platte River does not have any new bulk power system transmission anticipated to be in-service for the 2008-2009 winter that were added since the 2007-2008 winter. Same for PSCo
BHE :No planned additions or changes to be in-service during this period or that were added since last winter.

5. Operational Issues BHE :No for a, b, and c below.

- a. Are there any anticipated unit or transmission outages or other system conditions (e.g. variable generation integrates) that may impact bulk power system reliability during the

winter? If so, what are your operating measures used to mitigate their impact? **Platte River does not see any issues described in #5 that would cause any operational issues.**

At this time, Public Service is not aware of any unit outages, variable resource or transmission additions, or temporary operating measures that will impact reliability for the upcoming winter. Unit outages are scheduled in the fall and spring to avoid the heavy winter load periods.

- b. Are there any environmental and/or regulatory restrictions (e.g. EPA 316 (once through cooling), emissions) that could impact reliability? If so, explain, including the projected magnitude (in MW) of the restriction and its impact on operating margins.

No, there are no environmental/regulatory or permit limits that impact reliability or cause us to restrict MW production during the winter months. PSCo is required to operate in compliance with our permit limits, but does not anticipate any restrictions at this time. PSCo is permitted at the full operational capacity of the plants.

- c. Describe any anticipated unusual operating conditions that could impact reliability for the upcoming winter.

6. Reliability Assessment Analysis

a. – d. Platte River does not anticipate any problem meeting its forecasted peak demands. Fuel supply is projected to be adequate.

BHE:A Summer 2008 study showed minor areas where mitigation plans were required. The Summer period is the high load period for the Pueblo area. During winter the loads are reduced and no mitigations are required. No changes since Winter 2007-2008

Describe the assessment process used in your area. (*Cite reports documenting the studies in a footnote or reference*).

- a. Describe the 2008-2009 operational planning studies (including any extreme cold weather conditions and their impact on capacity) performed for your area and cite any unique operational problems observed.
- b. Describe the latest resource adequacy studies for the 2008-2009 winter:
- i. If applicable, what is the area capacity margin criteria or target margin level? PSCo's analyses indicate that a 16% reserve margin on the 50th percentile firm demand forecast equate to a LOLP of 1 day in 10 years for our system. The 16% reserve margin was approved on December 3, 2004 by the Colorado Public Utilities Commission (Colorado PUC) in the Comprehensive Settlement Agreement of PSCo's 2003 Least-Cost Resource Plan. The source of the 16% reserve margin is described in detail in PSCo's 2003 Least-Cost Plan.
- ii. Compare this winter's projected capacity margin to the projected margin for last winter.
The projected capacity margin is over 35%. Last year's projected margin was around 34%. The higher margin projected for this year is due to additional long-term capacity available in 2008 versus 2007 and slightly lower projected load.
- iii. Compare the project capacity margins to regional, subregional, state, or provincial requirements.

- c. Describe the latest generation deliverability (both internal and external) studies performed. Since Fall of 2007 700 MW of additional wind generation went into commercial operation (Peetz-Logan and Cedar Creek). In-service in May of 2008 was Plains End II the new 116MW gas fired plant (reciprocating units). These facilities are included in the approved WSCC Study Program base cases that are the basis for inter-area and intra-area transmission evaluations. Entities within the PSCo BA and the Rocky Mountain area further modify the cases to add local system details. Anticipated peak loads, and expected generation patterns are included in the analysis. The Operating Transfer Capability (OTC) limits are identified and operating procedures developed to safely operate within the constraints and meet all reliability criteria. The OTC limits are presented to the WECC OTC PC for approval. No deliverability concerns have been identified in the studies.

The new PSCo BA generation mentioned above (wind plants and Plains End II) and the other generation that came on line over the last several years in the Denver / Front Range area lies inside the TOT boundaries. This generation can be used offset imports from the north into or southwest into Colorado. PSCo participates in seasonal studies with the other utilities in the area to identify reliable operating levels. Although slightly different flow patterns from past years are expected on all the TOTs no significant change in flow patterns is expected. Each TOT has an independent limit and operator limits are in place to safely handle different flow patterns

- i. Explain and/or reference documentation, and provide the definition of deliverability used in your region/subregion. If there is no documentation, explain what is done to ensure that the resources that are being counted on to meet the resource margins are sufficient and deliverable to meet your load requirements at the time of region/subregion winter peak.

PSCo (BA and TP) and the other Transmission Providers in the area use the methodology and criteria contained in the appropriate WECC/NERC/FERC approved standards including WECC Standard TOP-STD-007-0 –Operating Transfer Capability and FAC-012-1-Transfer Capability Methodology.

- ii. If any deliverability concerns are identified, explain what mitigation procedures are in place to address them. PSCo: No deliverability concerns have been identified.
- iii. What analysis is done to ensure that internal and external resources needed for the 2008-2009 winter are available and deliverable? PSCo: See b., c(i) and iii-c above.
- d. How would the fuel supply for your area’s generating facilities be affected by extreme winter conditions during peak demand conditions, for example: storms, fuel transportation, frozen coal piles, and home heating versus generation?

PSCo:

Coal

Frozen coal and severe winter weather are concerns for coal supply to PSCo. To protect against these temporary supply disruptions or slow downs, coal inventory is relied upon. Coal inventory levels and railroad performance are closely monitored to quickly address any fuel supply interruptions. The company coordinates nominations and

deliveries with the suppliers and railroads. The Company does not expect the fuel supply infrastructure to be an issue during peak winter load conditions, unless the railroads were to experience a Force Majeure type event. In the event of Force Majeure, a number of options would be considered including switching to gas at the plants with dual fuel capabilities, market purchases of electricity from surrounding regions and demand side management programs or routing coal deliveries alternate ways.

Natural Gas

The biggest risk due to severe winter conditions are Force Majeure type events (i.e. supply disruptions due to well freeze offs), this is mitigated in a large part due to the diversity of our supply portfolio. However, in the event of wide spread supply disruptions mitigation efforts would include but are not limited to market purchases of electricity, switching to fuel oil at plants with dual fuel capabilities and demand side management programs. As a combination gas and electric utility we maintain separate supply and transportation portfolios for our gas and electric customers with enough firm resources to meet peak day demands of our LDC customers and forecasted peak electric demands plus contingencies.

- ii. Discuss how your area/subregion coordinates with the fuel industry to ensure that supplies are adequate and potential problems are communicated well in advance to enable adequate response time, etc. PSCo: Communication between the plants, the fuel supply departments (both gas and coal) and the commercials operations group occur at scheduled times three days a week to ensure all parties are informed of any problems or necessary operational changes. Additional communication occurs as needed to facilitate any response planning or activities
- e.

For the 2008-2009 winter season, if applicable, what are your area's interregional transmission transfer capabilities? Do they recognize transmission or generation constraints in systems external to the region? PSCo: Entities within the PSCo BA and the Rocky Mountain area use the latest WECC approved Base Case models and further modify the cases to add local system details. Anticipated peak loads, and expected generation patterns are included in the analysis. The Operating Transfer Capability (OTC) limits are identified and operating procedures developed to safely operate within the constraints and meet all reliability criteria. The OTC limits are presented to the WECC OTC PC for approval. No deliverability concerns have been identified in the studies. The As noted above entities within the PSCo BA and the Rocky Mountain area modify the appropriate seasonal base cases to add local system details. Anticipated peak loads, and expected generation patterns are included in the analysis. The Operating Transfer Capability (OTC) limits are identified and operating procedures developed to safely operate within the constraints and meet all reliability criteria. The OTC limits are presented to the WECC OTC PC for approval. The latest approved OTC limits (2008-9 Winter) are posted on the WECC Website.

The PSCo BA lies within the state of Colorado. Power flowing into Colorado must cross one of the major paths: TOTs 1A, 2A, and 3. Western Area Power is the path operator for these transmission paths. Each of these paths is evaluated and seasonal limits reviewed by the Colorado Coordinated Planning Group, and approved by the WECC Operational Transfer Capability Policy Committee. Studies for this summer are in progress with no significant changes in OTC limits expected. All of the major parties that are transmission path operators in the area are aware of the OTC studies and the seasonal capability of the regional transmission system. Therefore, no trouble is expected because the scheduling practices are conducted within the defined safe operating limits. The Rocky Mountain OTC studies are coordinated with the OTC path studies done by the Desert Southwest, California, and Northwest OTC study groups to properly recognize generation and transmission constraints outside of the Rocky Mountain region.

- f. For the 2008-2009 winter season, does your area/subregion have transmission constraints that could significantly impact your area's reliability and what are the plans to address these constraints? PSCo: See a. above. There are no unique operational problems that have been observed in the last several operating seasons. There is available capacity, under contract to PSCo, to move resources into the PSCo system should loads exceed demands. The projected reserves can be used to meet higher than projected demand.
- g. Have you investigated small signal damping? If so, please discuss the results. PSCo: System performance is continuously monitored to alert operations engineering as to the need for small signal damping improvements. No damping problems have been observed, either in studies or in real time system operation.
- h. Describe dynamic and static reactive power studies performed for the 2008-2009 winter. PSCo: Dynamic studies were done on the TOT paths mentioned above by the path operator for the 2008-9 winter season. The studies demonstrate compliance with all appropriate reliability criteria/standards at the established path limits. Reactive power

evaluations are included in the seasonal TOT studies as well to establish safe operating limits meeting all appropriate standards and criteria.

- i. If you have installed additional Under Voltage Load-Shedding (UVLS) in your area since winter of 2007-08? How much additional load (MW) is targeted by UVLS to protect against bulk electric system events and how is it being applied to meet the peak winter conditions? Also state specific reasons why UVLS is being used. **PSCo has no UVLS.**

7. Other area-specific issues that were not mentioned above?

PRPA: None. BHE: None PSCo: None

Discuss what your area is doing to minimize any other anticipated reliability concerns for the 2008-2009 winter conditions.

8. Clarification of future resource classes.

PRPA: N/A

As mentioned in earlier, WECC's LRS chose to classify the future capacity resources into five classes that help provide greater definition and granularity. The five class definitions were used in both WECC's Self-Assessment for this LTRA and the Power Supply Assessment (PSA) analyses. The class descriptions are:

Class 1: Under active construction and projected in service by Jan. 2012.

Class 2: All regulatory permits approved and Interconnection agreement signed and projected to be on-line by Jan. 2014.

Class 3: At least under regulatory review and at least facility study done and interconnection agreement in active negotiation and projected to be on-line by Jan. 2014.

Class 4: All other resources that meet NERC criteria for "Planned" resources. This is intended to capture those "Planned" resources that qualify only through meeting the management approval criterion, which LRS does not believe carries a similar degree of commitment or likely construction outcome as the other criteria in the "Planned" category (7,286 MW).

Class 5: All other resources that meet NERC criteria for "Proposed" resources.

Class 0 was used for existing generation in the PKData tab and in the GADData tabs.

Class 6 was used for projects with insufficient status data or identifying indefinitely postponed projects. (Not all areas may have items listed as Class 6.) There were also many projects that were classified as Class 4 or Class 5 that are short lead projects and possibly could now be classified as Class 1, 2 or 3 based upon progress with the project or, may be expected in-service during the Winter assessment period. Please review all Class 1 through Class 6 projects that have an expected in-service date prior to 2/28/2009 and update them to the appropriate class as appropriate.

Data Requirements

It is requested that OC Representatives coordinate any data presented in their narrative with the appropriate loads and resources data reporting contact(s). Please note that including data in the narrative assessments that conflicts with the loads and resources will significantly hamper the assessment reporting process.

Post-Season Assessment – 2007 Summer

NERC may request that WECC provide information concerning the actual in-service dates of transmission and generation projects originally reported in the pre-summer assessment. It is requested that OC Representatives provide the requested in-service date information for the transmission and generation facilities in their areas. The in-service dates may be reported by inserting the information, in red, in the attached winter0809_trans.xls and ERO-2008-09W_XXX.xls. If significant facilities entered service during the March - September period that are not listed in the attached documents, please add the appropriate information in red.

Pre-Season Assessment Data

PCC Representatives are requested to:

- Update the ERO-2008-09W_XXX.xls spreadsheet as discussed in the second paragraph of the first page of this document.
- Review and update the “GADData” and “PKData” tabs in the spreadsheet for projects with in-service dates between January 2008 and February 2009.
- Review and update the “Transmission” and “Other” tabs in the Winter0809_Trans.xls spreadsheet for projects with in-service dates between January 2008 and February 2009.

Please submit your response in electronic form via email to csmart@wecc.biz by October 10, 2008.

Our intent is to report the most current information available. Therefore, should significant changes occur following your submittal of this information (i.e., revised facility in-service dates, changes in peak demand forecasts, unexpected developments in the licensing of new generating units, etc.) please notify our office immediately.

As we will be preparing this information on a tight time schedule, your prompt response will be appreciated. If you have questions concerning this request, please call me at (801) 883-6865.

Thank you in advance for your cooperation.

Sincerely,
Chris Smart

Chris Smart

attachments

cc: OC Steering Committee
PCC Steering Committee
WECC's NERC RAS Representative and Alternate
WECC Reliability Center Managers
WECC Loads and Resources Subcommittee Chair

PCC's Loads and Resources Data Contacts
Jerry Rust, NWPP
w/attachments