

An issue with some of the stakeholders is: **Firm purchases do not reduce an SC's obligation to provide or pay for Operating Reserves.**

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## **1. INTRODUCTION**

The Transmission Owners participating in the AZ ISA have all agreed to and signed the Southwest Reserve Sharing Group (SRSG) Participation Agreement. In addition SRSG membership includes several other non-AZ ISA members.

The SRSG Contingency Reserve obligations in accordance with WSCC Criteria shall be the greater of:

- a) The loss of generating Capacity due to **forced outage of generation or transmission equipment** that would result from the Most Severe Single Contingency of the SRSG (at least half of which must be Spinning Reserve); or
- b) The sum of five percent (5%) of the aggregate Firm Commitment responsibility served by the Parties with hydro generation, plus seven percent (7%) of the aggregate Firm Commitment responsibility served by the Parties with thermal generation (at least half of which must be Spinning Reserve).

During the previous year SRSG's reserves were due to the largest single hazard 86.2 % of the time and load based 13.8% of the time.

## **2. COMPARABILITY TO OTHER CAOs**

If an SC is allowed to reduce its reserve requirements with its firm purchases it will gain the benefits of the SRSG without contributing to the SRSG, in fact it will be to the detriment of the remaining CAOs. Reduction of firm commitments reduces a CAO's Reserve Requirement Ratio (RRR). The firm purchases do not reduce the reserve requirement of the SRSG. When the CAOs RRR goes down the remaining CAOs, within the SRSG, reserve obligations increase for periods when reserves are based on largest single hazard. Eighty six percent of the time SRSG reserves are based on the largest single hazard of the SRSG, this implies that the remaining CAOs are carrying more of the reserves due to the actions of an entity that is not even an SRSG member.

## **3. LARGEST SINGLE HAZARD**

In accordance with section A-4.2.1 of the SRSG Agreement the largest single hazard can be either generation or transmission. What this means is that an SC that has a 25 MW firm purchase with only one transmission path for the 25 MW has to carry at least 25 MW of reserves at another location, with another transmission path, to cover for the largest single contingency, the transmission path. There are entities that disagree with this. Their argument is that until schedules are cut due to the loss of the transmission path there are no reserve problems, this is wrong. WSCC's Minimum Operating Reliability Criteria (MORC)s does not allow scheduling across an open path. The SRSG Agreement says nothing about schedules it only addresses equipment availability. Entities using this argument are purposing gaming of the agreement, at the expense of others, which should not be allowed. In addition this begs the answer to the question, if there is only one transmission path, once the schedules are cut where is the SC obtaining its reserve requirements?

## **4. OTHER**

- a) The Standard Offer SC will be under the same obligations as the other SCs.

- b) CAO SRSG Reserve Responsibilities are based on the CAOs loads and largest single hazard. Not individual SCs loads.
- c) Reserve requirements for the SC are in accordance with the CAO OATT, which is a flat percentage of load and is established by FERC. There is no consideration for largest single hazard.
- d) SRSG members have a minimum contingency reserve obligation of 5 MW at all times regardless of what their loads or largest single hazards are.

## **5. CONCLUSION**

In order to prevent unfairly shifting an obligation to other CAOs that are members of the SRSG and to insure that the SC has met its reserve obligation SCs should not be allowed to purchase reserves from outside of the host control area.

**ATTACHED IS SERVICE SCHEDULE A OF THE SRSG AGREEMENT**

**SERVICE SCHEDULE A**  
**RESERVE OBLIGATIONS**

A-1. PARTIES:

This Service Schedule A is agreed upon as part of the Agreement.

A-2. GENERAL:

A-2.1 The purpose of this Service Schedule A is to define the aggregate reserve requirements of the SRSG and to specify the apportionment thereof among the Parties. Specific reserve requirements of the individual Parties are described and settlement provisions for reserve deficiencies are also established herein.

A-2.2 All reserve requirement calculations derived herein shall be rounded up to the nearest whole Megawatt.

A-2.3 It is the intent of the Parties to meet or exceed the WSCC Minimum Operating Reliability Criteria, and the NERC control performance and disturbance control standards, as they may be adopted, modified, or revised.

A-2.4 The SRSG has been formed for the purpose of sharing Contingency Reserves only. Any reserve obligation necessary to meet NERC and WSCC criteria for regulation, interruptible imports, and on-demand contracts will continue to be the responsibility of each Party.

A.3. TERM:

This Service Schedule A shall continue in effect concurrently with the Agreement unless and until terminated by the Parties in accordance with the provisions of Section 5 of the Agreement.

A-4. SRSG CONTINGENCY RESERVE REQUIREMENT:

A-4.1 Consistent with this Agreement, the Parties shall ensure the proper level and location of the Contingency Reserves. The scheduling of these Contingency Reserves shall be in accordance with Operating Procedures established by the

Operating Committee.

A-4.2 The amount of Contingency Reserve to be maintained jointly for the SRSG shall be the greater of either:

A-4.2.1 The loss of generating Capacity due to forced outage of generation or transmission equipment that would result from the Most Severe Single Contingency of the SRSG (at least half of which must be Spinning Reserve); or

A-4.2.2 The sum of five percent (5%) of the aggregate Firm Commitment responsibility served by the Parties with hydro generation, plus seven percent (7%) of the aggregate Firm Commitment responsibility served by the Parties with thermal generation (at least half of which must be Spinning Reserve).

*A graphic representation of the SRSG Contingency Reserve calculation is depicted in Attachment 1 to this Service Schedule A.*

A-5. SRSG SPINNING RESERVE REQUIREMENT:

The amount of Spinning Reserve to be maintained jointly for the SRSG shall be equal to fifty percent (50%) of the SRSG Contingency Reserve requirement determined in accordance with Section A-4.2 herein. All SRSG Spinning Reserve shall be responsive to WSCC frequency deviations.

A-6. RESERVE RESPONSIBILITY VALUE/RESERVE RESPONSIBILITY RATIO:

A-6.1 Reserve Responsibility Value (RRV)

A Party's RRV is equal to twenty-five percent (25%) of its Firm Commitment, plus one-hundred percent (100%) of the number of megawatts associated with its Most Severe Single Contingency.

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A-6.2 Reserve Responsibility Ratio (RRR)

A Party's RRR is equal to its RRV divided by the sum of the RRV's for each Party.

*Graphic representations of the Reserve Responsibility Value and Reserve Responsibility Ratio calculations are depicted in Attachment 2 to this Service Schedule A.*

A-7. PARTY RESERVE QUOTAS:

Each Party is responsible for supplying its quota for Contingency Reserve, which is made up of Spinning Reserve and Non-Spinning Reserve, for all hours based on the following reserve quotas. Contingency Reserves activated due to the occurrence of any event shall be restored by the affected Party or Parties in as short a period of time as possible, but not longer than sixty (60) minutes from the start of the event, unless and until the Operating Committee shall establish a different time period.

A-7.1 Contingency Reserve -The hourly Contingency Reserve quota for a Party shall be equal to the product of the SRSG Contingency Reserve requirement for that hour, as determined in accordance with Section A-4.2 herein, multiplied by its RRR, as determined in accordance with Section A-6.2 herein; provided, however, each Party shall maintain at least 5 MW of Contingency Reserve at all times.

A-7.2 Spinning Reserve - The hourly Spinning Reserve quota for a Party shall be equal to fifty percent (50%) of its hourly Contingency Reserve quota, as determined in accordance with Section A-7.1 herein; provided, however, each Party shall maintain at least 3 MW of Spinning Reserve at all times.

*Graphic representations of the Party's Contingency Reserve and Spinning Reserve calculations are depicted in Attachment 3 to this Service Schedule A.*

A-8. PENALTIES:

A-8.1 At the end of each hour, the SRSG Administrator shall compare the actual amount of Contingency Reserve and Spinning Reserve carried by each Party

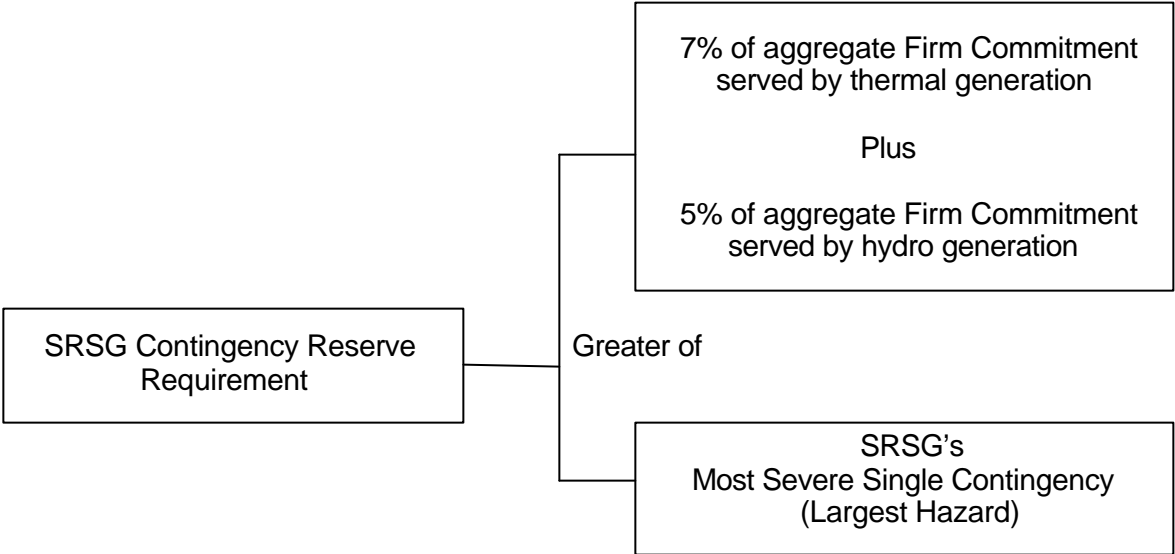
to that Party's respective reserve quotas. A Party shall be deficient in Contingency Reserve if the actual amount of reserve carried by the Party is less than that Party's respective reserve quotas. If a Party is deficient in the amount of Contingency Reserve, the deficient Party shall be assessed a penalty as set forth in the applicable Operating Procedure(s).

A-8.2 Penalties imposed by NERC or WSCC on the SRSG for failure to carry required Contingency Reserves shall be applied only to the Party(ies) that caused the Contingency Reserve deficiency in proportion to which such Party(ies) contributed to the Contingency Reserve deficiency.

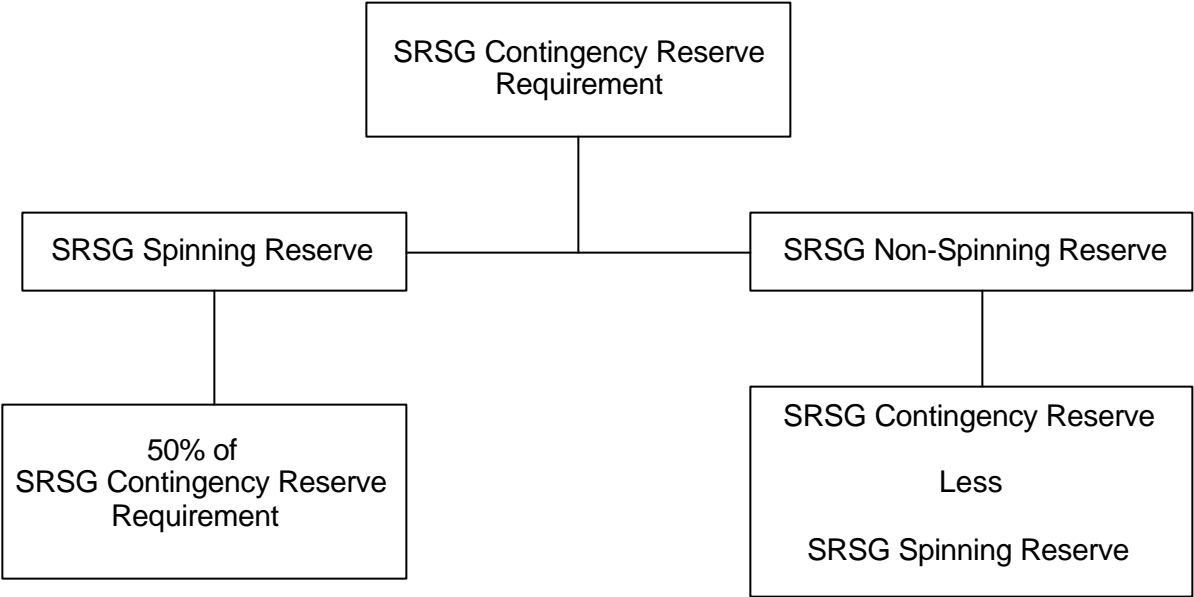
A-9. BILLING AND PAYMENT

All billings and payments associated with this Service Schedule A shall be made in accordance with Section 13 of the Agreement.

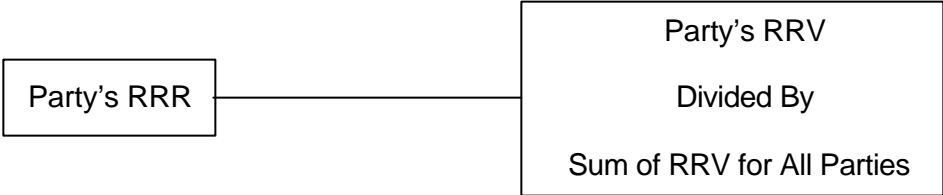
Calculation of  
SRSG Contingency Reserve Requirements



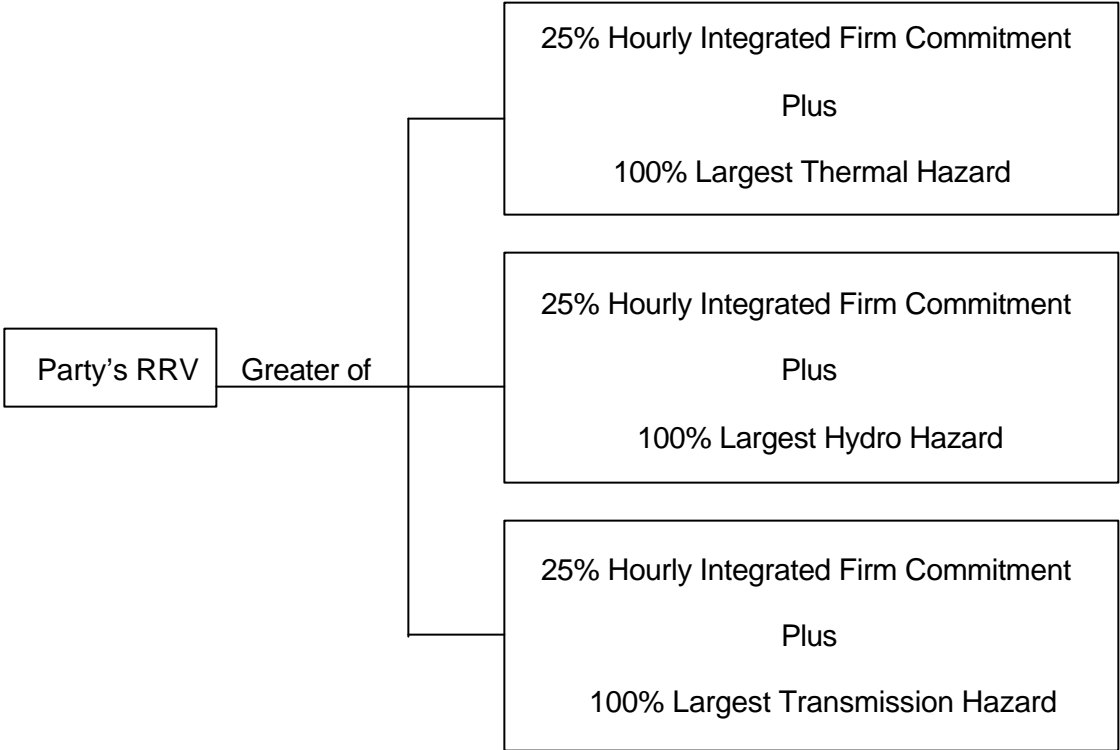
Where:



Calculation of  
Reserve Responsibility Ratio (RRR)  
and  
Reserve Responsibility Value (RRV)



Where:





Calculation of  
Party's Contingency and Spinning Reserve Requirements

