



California ISO
Your Link to Power

Draft Final Proposal

Standard Resource Adequacy Capacity Product

**ISO Draft Final Proposal
January 8, 2008**

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1 EXECUTIVE SUMMARY

The purpose of this document is to present the ISO's draft final design proposal for a Standard Resource Adequacy Capacity Product (SCP). This draft final proposal represents the culmination of a stakeholder process on SCP that was started in Summer 2008, and is the proposal which the ISO expects at this time to present to its Board of Governors for approval at the February 2009 Board meeting and, if approved, to file at FERC shortly thereafter. The term "draft final" means that the ISO will still consider possible modifications to this proposal based on submitted stakeholder comments received no later than January 14, 2009, but fully expects that any such modifications would not affect the fundamental structure of the proposed SCP design. The final ISO proposal on SCP will be published in conjunction with the documentation prepared for the February Board meeting.

In initiating the SCP effort the ISO did not have to start from scratch to create the SCP. Currently (and in MRTU) there is a process defined for the RA program which has been functioning since 2006. The ISO intends to maintain that same process when SCP is implemented and is only recommending a few key enhancements at this time. Also, a broad coalition of stakeholders had already spent a lot of time preparing elements of a standard capacity product prior to the ISO stakeholder process, which has been valuable in enabling the SCP effort to arrive at this draft final proposal in just a few months.

The key enhancements to the existing RA program that would result from the SCP proposal are:

- Implementation of an availability standard in the ISO tariff. If a resource receives payments for providing RA capacity, there is an expectation that the full RA capacity of that resource will be available to the ISO, i.e., the resource is not on a forced equipment outage or derate that diminishes its ability to provide the full amount of its RA capacity. Under the SCP, resource availability will be measured on a monthly basis and compared against a single availability standard or target based on the historic performance of the RA resource fleet during the peak hours of each month of the previous year.
- Implementation of availability incentives. The SCP proposal will provide incentives for each resource to meet or exceed the target availability standard. On a monthly basis the ISO will assess financial penalties to resources whose availability falls short of the target, and will provide bonus payments to resources whose availability exceeds the target. Bonus payments will be funded through the financial penalty revenues so that this mechanism is financially neutral on a monthly basis.

Other important elements of the ISO's SCP proposal include:

- Unit Substitution. A resource owner will be able to substitute a non-RA resource for an RA resource on forced outage in order to avoid the outage being counted against the RA resource's availability. A pre-approval process will be required to ensure that the replacement capacity is comparable to the original RA capacity in an operational sense.

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- Transition to SCP. There are provisions for transitional grandfathering of existing RA contracts that have availability standards and incentives comparable to those specified in the SCP tariff language. Such grandfathered contracts would be exempt from the ISO-enforced availability standards and incentives under the SCP. These transitional provisions would expire with the expiration of such contracts.
- Deferment of SCP availability standards and incentives for certain RA resource types. The ISO proposal would not initially apply the SCP availability provisions to intermittent renewable generation (wind and solar), Qualifying Facilities (QFs), and demand response resources. The ISO intends to revisit the applicability of the SCP provisions to these resource types at a later date.

Finally, in conjunction with the SCP effort the ISO and stakeholders have discussed an enhancement to the existing Resource Adequacy Must Offer Obligation (RA MOO) that would enable the ISO markets to utilize both the energy supply and ancillary services capabilities of RA capacity in an optimal manner. Accordingly this draft final proposal also includes provisions for an Ancillary Services Must Offer Obligation (AS MOO), which the ISO intends to include in bringing its SCP proposal to the Board and filing at FERC. The AS MOO as described in this proposal would not alter the applicability of RA MOO as defined today, nor would it be dependent on whether or not the RA capacity is subject to the SCP availability provisions. Rather, the AS MOO would simply allow the ISO to utilize the certified AS capability of RA capacity that is already subject to RA MOO or that has offered to supply energy in the ISO markets.

The ISO is requesting that stakeholders submit their comments on this draft final proposal to SCPM@caiso.com by January 14, 2009.

2 INTRODUCTION

This paper addresses two enhancements to the RA program – the Standard Capacity Product and the addition of an Ancillary Services Must Offer Obligation (AS MOO) to enhance effectiveness of the Resource Adequacy Must Offer Obligation (RA MOO)

The implementation of a Standard Capacity Product (SCP) is a step forward in streamlining California's Resource Adequacy (RA) program. The RA program was implemented to ensure that adequate resources would be available to serve load. As the RA program evolved over the years, participants identified a need to develop a standardized capacity product to facilitate the selling, buying and trading of capacity to meet RA requirements. Stakeholders have affirmed to the ISO that their ability to efficiently transact RA contracts is hindered by the current method of negotiating agreements between parties without a standard product definition for trade. The need for resolution was highlighted during the ISO's Market Initiatives Roadmap process where the Standard RA Capacity Product was ranked highest priority out of a list of over 70 initiatives.¹ Stakeholders have expressed their desire to have this product implemented in the ISO Tariff as soon as possible so that it may be used as the basis for capacity contracting during 2009 for the 2010 delivery year. As a result, in 2008, the ISO began the stakeholder process for designing the SCP.

¹ *Market Initiatives Roadmap Process, Final Report on Ranking of High Priority Market Initiatives 7/7/2008* <http://caiso.com/1ff9/1ff9aee434530.pdf>

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In parallel, the California Public Utilities Commission (CPUC) is also conducting proceedings to further the development of California's Resource Adequacy Program. Currently the CPUC is engaged in Phase 2 of R.08-01-025², the "Order Instituting Rulemaking to Consider Annual Revisions to Local Procurement Obligations and Refinements to the Resource Adequacy Program." In its Scoping Memo, the CPUC references SCP as a topic for parties' consideration and requests that:

In conjunction with the CAISO Stakeholder processes, [parties] review the Calpine Proposal and any other proposals for a standardized resource adequacy contract and associated resource obligations.

The Scoping Memo also includes Ancillary Services Must Offer Obligation (AS MOO) as a topic for discussion and the ISO proposal also incorporates this concept.

Clearly, the ISO, the CPUC and market participants are all seeking to accomplish the same goal – enhance the current RA program for the State of California. This proposal is intended to bring us closer to that objective.

3 IMPLEMENTING RESOURCE ADEQUACY WITH SCP AND AS MOO

3.1 IMPLEMENTING THE STANDARD CAPACITY PRODUCT

In the course of the ISO's stakeholder process on the SCP, it became clear that two elements were key to the SCP design:

- Specification of availability standards for RA capacity and associated incentives for suppliers of such capacity to comply with those standards, both of which would be incorporated into the ISO tariff; and
- Clear specification of the applicability of the SCP standards and incentives, including potential exemption or transitional "grandfathering" of certain types of RA capacity.

As a result the ISO proposal in this document focuses on these key elements.

In addition, in stakeholders' submitted comments there was broad (but not total) consensus on some issues regarding the changes to the RA framework under SCP:

- The current RA process should be changed as little as possible.
- The LSEs responsibility should end with the submission of their RA plans.

This section of the paper outlines the proposed changes to the current RA program that would result from adoption of the proposed SCP. It provides a summary of the updated resource adequacy framework. It is based on the Business Practice Manual (BPM) for Reliability Requirements and Tariff Section 40 regarding Resource Adequacy. Figure 1 displays the process flow.

Each year the ISO's RA process begins with the publication of the Local Capacity Study and the Deliverability Study. The purpose of the Local Capacity Study is 'to determine

² *Order Instituting Rulemaking to Consider Annual Revisions to Local Procurement Obligations and Refinements to the Resource Adequacy Program*, Assigned Commissioner's Ruling and Scoping Memo, 9/15/2008 <http://docs.cpuc.ca.gov/efile/RULC/90797.pdf>

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the minimum capacity needed in each identified transmission constrained “load pocket” or Local Capacity Area to ensure reliable grid operations’.³ The Deliverability study establishes the deliverability of generation in the ISO in the balancing area. It also establishes the total import capability for each import path allocated to each LSE. The information contained in these reports along with generator data is used to compile the annual Net Qualifying Capacity (NQC) Report which is a listing of the NQC of “all Participating Generators and other Generating Units that request inclusion”⁴ for the next compliance year.

LSEs utilize the NQC report to identify resources which are available to contract to provide capacity to satisfy their RA requirement. Currently, there are no standard provisions dealing with availability requirements and incentives for RA capacity, and consequently contracting parties must agree on such provisions themselves and the terms and conditions can vary among the contracts. The SCP will provide availability standards and incentives located in the ISO tariff, which contracting parties will be able to incorporate by reference into their bilateral RA contracts.

In the year ahead and month ahead timeframes, LSEs and Resources that supply RA capacity are required to provide information to the ISO demonstrating that the Resource Adequacy Requirements will be met for that period. LSEs submit Resource Adequacy Plans which identify specific resources that the LSE is relying on to satisfy its forecasted peak demand and reserve margin for the reporting period. SCs for the Resources are responsible for Supply Plans which are a verification and confirmation of the information contained in the LSEs Resource Adequacy Plan. Thus the Supply Plan “establishes a formal business commitment between the CAISO and Resource Adequacy Resources by confirming the status of the resource as [a] Resource Adequacy Resource.”⁵

The Resource Adequacy Plans and Supply Plans are cross-validated by the ISO. For CPUC jurisdictional entities, the CPUC ensures that LSEs are in compliance with their RA requirements through their RA Plans, while the ISO provides feedback on the physical generating units and system resources listed in their RA Plans to see if the SCs of those resources submitted a Supply Plan confirming that the RA capacity was sold in accordance. For Non-CPUC jurisdictional entities, the ISO reviews the RA Plans and Supply Plans in the same manner as for the CPUC jurisdictional entities and sends any discrepancies to the Local Regulatory Authority (LRA).

With the initial implementation of SCP, LSEs and suppliers of RA capacity who wish to be exempt from the ISO tariff-based availability standards and incentives in accordance with the grandfathering criteria outlined in Section 9 of this document will be required to submit a signed affidavit certifying that their contracts meet those criteria. Assuming the SCP proposal is approved by FERC some time in spring 2009, this certification document will be required prior to the 2010 annual showing for RA.

All RA capacity that is confirmed through the RA Plans and the Supply Plans and that is not exempt from the SCP provisions in accordance with the criteria outlined in Section 9 will then be subject to the ISO-tariff-based SCP availability standards and incentives.

³ 2010 Local Capacity Area Technical Study Manual pg 3

⁴ BPM for Reliability Requirements pg 34

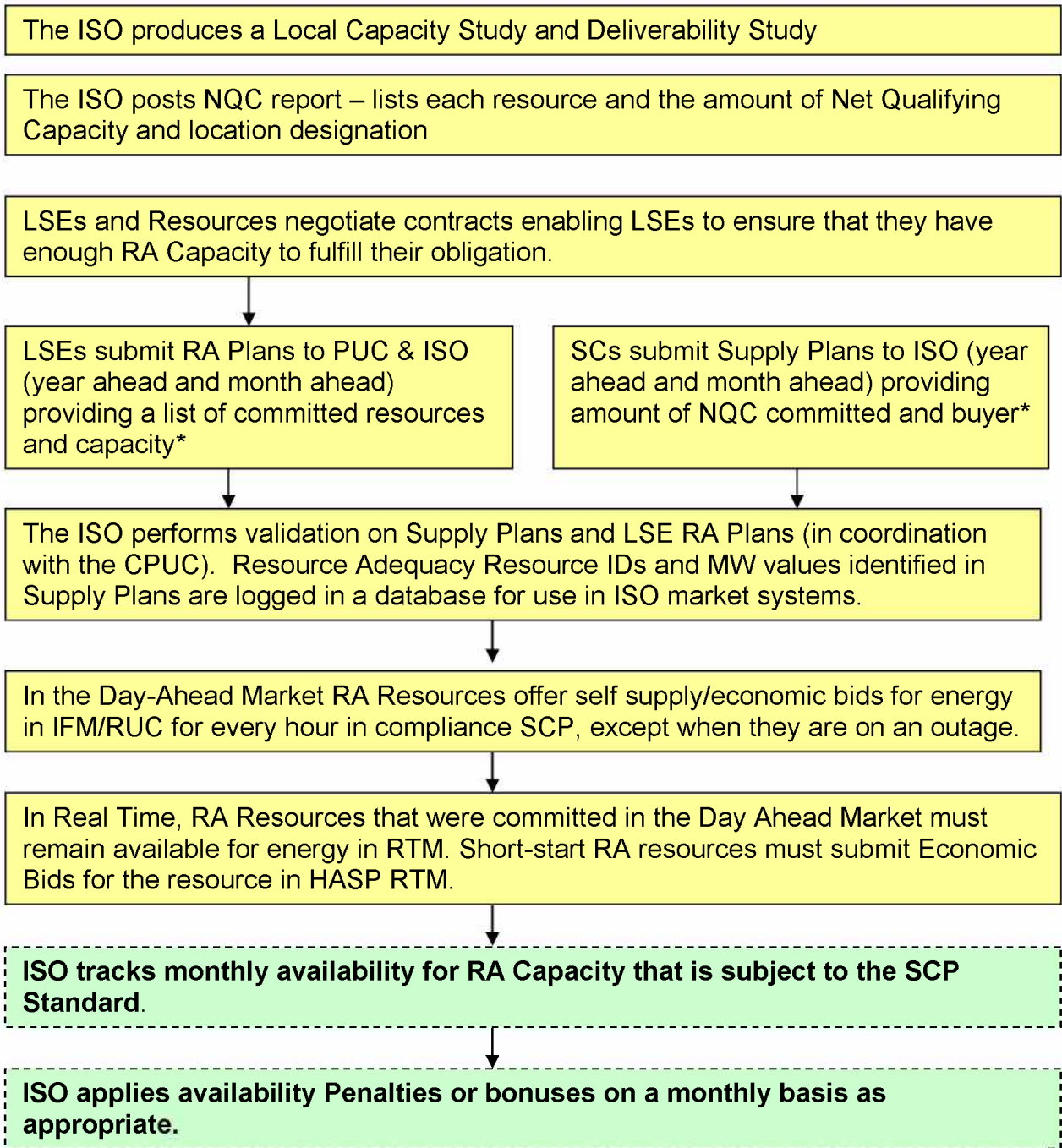
⁵ Id. At 22

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This means that such capacity will be tracked by the ISO for availability in the targeted compliance hours of each month (i.e., whether the full amount of RA capacity is available and not on a forced equipment outage or derate), and will be subject to a financial penalty or bonus payment depending on the extent to which its availability deviates from the SCP availability standard.

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1. Figure1 –ISO RA Process under MRTU



* For the initial implementation of SCP, Contract holders who wish to grandfather their contracts will be required to submit certifying documentation. See Section 9 for additional information.

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3.2 THE ANCILLARY SERVICES MUST OFFER OBLIGATION

SCs for RA resources are required to make their RA capacity available to the ISO in accordance with the RA-MOO provisions of Section 40 of the ISO tariff. In the Day-Ahead Market an RA resource that is subject to RA-MOO must submit economic bids or self schedules for their RA capacity in the IFM and RUC. Economic bids can be offers to supply energy or ancillary services or both. There are certain exceptions to this rule including Extremely Long Start Resources and Use Limited Resources.

RA resources that were committed in the IFM or RUC must remain available through Real-Time. Short Start Units and Dynamic System Resources that supply RA capacity subject to the RA-MOO and are not scheduled in either the IFM or RUC are still subject to the RA-MOO in the next day's Real Time Market and must submit Economic Bids or Self-Schedules into that market.

Extremely Long Start Resources

Extremely Long Start (ELS) Resources are those resources that are flagged in the master file and have a start-up time that is greater than 18 hours. Such resources must be given start-up instructions prior to the publication of Day Ahead Market results in order to be available as needed during the next operating day. ELS resources can also be system resources that have contractual limitations that require the energy to be committed prior to the publishing of the Day-Ahead Market results. For these units a special Extremely Long Start Commitment process is used. This process is described in Section 6.8 of the BPM for Market Operations.

RA MOO for Energy and Ancillary Services

As noted above, the current RA MOO tariff language allows suppliers of RA capacity to meet their RA MOO by offering offer energy or ancillary services or a combination of both, but does not specifically require the supplier to offer both energy and ancillary services if the capacity is certified to provide ancillary services. This limits the ISO's ability to co-optimize the use of all the capabilities of RA capacity, and may thus increase the cost of scheduling energy and procuring ancillary services in the IFM. Under the proposed AS MOO a supplier of RA capacity that is already subject to the other RA MOO provisions would have to be available for the ISO to optimally utilize that capacity for either energy or AS, to the extent the capacity is certified to provide AS.

In implementing the AS MOO the ISO would still allow RA capacity to self-schedule energy in the IFM, and the market optimization would try to procure all required AS from resources that offer AS through their economic bids or AS self-provision. If the RA capacity offers economic bids for energy, however, the AS MOO would require that resource to offer economic bids for AS for the same capacity to the extent it is certified to provide AS, so that the market can schedule that capacity for energy or AS or a combination of both in the most optimal manner. In addition, in the event that the market cannot procure all required AS from economic AS bids and AS self-provision, the AS-MOO would allow the ISO to reduce the energy self-schedule of subject RA capacity to provide AS. In such instances the compensation for providing AS would be based on the Ancillary Services Marginal Prices as specified in the MRTU tariff. .

There are two key reasons why the AS-MOO is being proposed. First, upon MRTU start up the FERC MOO will no longer apply and the pool of resources that must offer into the

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market will be limited to RA resources. Second, in the IFM the ISO optimizes energy and ancillary services to meet 100 percent of its forecast AS requirements and there will need to be enough AS supply in the market to perform this optimization. This enhancement helps ensure supply sufficiency and market liquidity.

There has been considerable discussion regarding the AS MOO in the ISO's reserve scarcity pricing stakeholder process. In the final proposal for the reserve scarcity pricing design posted on ISO website on July 15, 2008, the following revisions were proposed:

- 1) All RA resources must submit AS bids for 100% of their AS certified RA capacity into the DAM, even if the RA capacity has been self-scheduled for energy. Otherwise, a zero (\$0/MW) bid will be inserted;
- 2) All RA resources with AS certified capacity, with the exceptions as discussed below, will always be considered for energy and AS in the DAM IFM energy and AS co-optimization.
- 3) The ISO will honor RA capacity energy self-schedules unless it is unable to procure 100% of its AS requirements in the DAM. In such case, the ISO would curtail the energy self-schedule, or portion thereof, to allow certified AS capacity to be used for AS.
- 4) Due to various restrictions of operating conditions, hydro RA resources that offer energy bids should submit AS bids, together with their energy bids, in the day-ahead market for all their available AS capacity based on the expected available energy.⁶ Hydro RA units submitting energy self-schedules will not be required to offer AS in the DAM for the RA capacity corresponding to their energy self-schedules.
- 5) Non-Dispatchable Use Limited RA Resources will be exempted from the DAM AS must-offer requirement.

4 MARKET DESIGN PRINCIPLES

The SCP was created based on the following market design principles:

1. The purpose of the SCP is to meet the RA Requirement. The SCP is being developed to streamline and improve the current RA process for market participants and the ISO. The SCP enhances the existing procedures by providing a device that facilitates capacity trading and establishes performance rules in the tariff.
2. The SCP is fungible and can be easily traded. By its very definition a standard capacity product should have an enduring nature and represent a set of similar attributes. The SCP utilizes the Net Qualifying Capacity (NQC) that has been set forth in Section 40.4.1 of the tariff and the imports that are reported by LSEs and the SC representing resources to determine the amount of SCP MWs that a resource will provide.
3. SCP MWs are bound by the availability standards and incentives in the tariff. Sections 6 of this proposal describe this process.

⁶ It is consistent with the MRTU Tariff Section 40.6.4.3.2.

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5 PRODUCT DEFINITION

The SCP is a set of attributes defined in the ISO MRTU tariff which specify the availability standards and incentives for RA capacity. There will be one availability standard that will be applicable to all RA resources each month during the upcoming compliance year, which will be based on the historic availability of the RA resource fleet during a pre-defined set of peak hours during a previous three-year period. Financial penalties will be applied on a monthly basis to RA resources that fail to achieve the target availability value during that month. RA resources that exceed the target availability value during the month may receive a bonus payment to the extent such funds are available from the collection of financial penalties for that month.

6 AVAILABILITY STANDARD AND INCENTIVES

The current RA programs of the CPUC and LRAs do not differentiate among RA capacity in terms of the forced outage rate of the procured RA resources. Parties procure RA capacity under bilateral arrangements and a price is paid for the capacity. The bilateral arrangements may have availability requirements and incentives to encourage performance. Stakeholders have asked the ISO, as part of the SCP, to incorporate resource availability standards and incentives into the ISO Tariff to facilitate contracting. Stakeholders envision that, with resource availability standards and incentives in the ISO Tariff, parties can refer in their contracts to the ISO Tariff provisions thereby simplifying and improving contracting.

Stakeholders have suggested that there be a standard that considers the forced outage rates of RA resources, rewards RA resources that have low forced outage rates by providing additional compensation and penalizes RA resources that have high forced outage rates by applying a financial penalty. A system such as this during the compliance year would recognize and differentiate among RA resources that experience low forced outages compared to RA resources with high forced outages.

To address this aspect of the SCP, the ISO has developed an “availability” standard and incentives. There will be one availability standard, an “annual target availability” value, based on the historic availability of the RA resource fleet during a pre-defined set of peak hours during a previous three-year period. This standard will be applicable to all RA resources each month during the upcoming compliance year. “Availability” will be defined as not being on a Forced Outage, as currently defined in the ISO Tariff, to an extent that would prevent the RA resource from offering to the ISO markets and providing the full MW value of the RA capacity that the resource has sold to an entity for RA purposes and provided to the ISO in an RA showing. Financial penalties will be applied to RA resources that fail to achieve the annual target availability value, and RA resources that have exceeded the annual target availability value may receive a bonus payment to the extent such funds are available from the collection of financial penalties in that month. The tariff provisions described below are intended to provide incentives for each resource that has sold RA capacity to be available to provide that capacity to the ISO.

The availability standard and incentives will be subject to review and potential modification in subsequent years, and any multi-year RA contracts signed after these initial SCP provisions have been approved by FERC will continue to be subject to any changes made in the SCP and RA obligations incorporated in the ISO Tariff.

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Outages under the ISO Tariff

The ISO Tariff defines several types of outages. To provide context for the discussion in this paper, relevant definitions from Appendix A of the current ISO Tariff are provided below.

Outage: Disconnection, separation or reduction in capacity, planned or forced, of one or more elements of an electric system.

Forced Outage: An Outage for which sufficient notice cannot be given to allow the Outage to be factored into the Day-Ahead Market or Hour-Ahead Market scheduling processes.

When the ISO implemented its current outage reporting penalties in 2007 the ISO interpreted variations of output of wind generators and Qualifying Facilities (QF) not to be reductions in capacity but reductions in output. The following guidance was provided to market participants:

Question/Comment 5:

“As available” Qualifying Facilities, which supply energy with a profile that resembles a wind Generating Unit should not have to report availability as the output of these Generating Units is constantly changing, making the availability report of little value.

Answer 5:

The CAISO does not consider normal variations in the output of Qualifying Facilities for which the output depends on a process separate from the production of electricity to represent changes in the unit’s maximum output capability. As such, these normal variations are not required to be reported. Aside from these normal variations in output, participants are required to report reductions in the maximum output capability of a Qualifying Facility if a Participating Generation Agreement (PGA) for the unit has been entered into with the CAISO (or if the unit is a Resource Adequacy Resource) and the reduction meets the reporting threshold.

The threshold for reporting outages that is specified in the ISO Tariff section 9.3.10.3.1 is as follows: *“Report a Generating Unit’s Availability after it is reduced (from the value registered in SLIC) by at least 10 MW or 5 percent of the Generating Unit’s PMax, whichever is greater, for an outage that lasts 15 minutes or longer.”*

Penalties specified in the ISO Tariff for not reporting forced outages range up to \$5,000 per unreported or late reported outage, depending on the number of violations. Penalties in the ISO Tariff for reporting false information range up to \$10,000, depending on the number of violations. In addition, egregious violations will be referred to FERC, which has a number of sanctions available to it, including \$1 million per day penalty authority.

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Any gaming consisting of reporting inaccurate availability data will be referred to FERC which has \$1 million per day penalty authority.

Peak Hours Availability Assessment

The availability standard and incentives are focused on the actual MW of capacity that has been sold and provided to the ISO. During the course of this stakeholder process the ISO considered whether the availability standard should be established by assessing Forced Outages during all hours of the month versus assessing Forced Outages during the peak-hours of the month. The ISO proposes that the assessment will look at performance during a pre-defined set of peak hours in the month. The ISO proposes to define the RA peak hours based on the operating periods when high demand conditions are likely to occur and therefore resource performance is most critical to maintaining system reliability. The proposed peak-hours are shown in the table below. The five hours of each day have been chosen because, based on actual data, the ISO has found that the peak load hour always falls within that five-hour range. These hours are when the ISO has typically experienced the coincident peak demand during each of the months. By assessing performance during the hours when the system is most likely to be capacity-constrained, this approach provides appropriate incentives for resources to take actions to improve peak-period availability.

Month	Hour-Ending	Exclusions
Apr - Oct	14:00 - 18:00	Saturday, Sunday and federal holiday
Jan - Mar, Nov & Dec	17:00 - 21:00	

The ISO will monitor the results of using only a peak hour assessment. If refinement is needed of the defined peak hours, or some alternative form of metric such as an all-hours metric is needed, the ISO will consider that as a future enhancement.

Source of Outage Data

The ISO considered using either data from its scheduling and outage logging system ("SLIC") or data reported to NERC using the Generator Availability Data System ("GADS") protocol. The ISO proposes to use data from its SLIC system for outage data. Using SLIC data will allow for implementation of SCP for compliance year 2010. It is not feasible to implement a NERC GADS approach for compliance year 2010. Although the ISO proposes to use SLIC data; it is willing to consider moving to NERC GADS data in the future if warranted.

To determine the availability of RA resources greater than 10 MW the ISO will use data from the ISO SLIC system to assess the availability of RA resources.

Because the requirement in the ISO Tariff is for all resources to only report de-rates that exceed the greater of 10 MW or 5% of the resource's capacity, resources that are less than 10 MW in size are not required to submit outage data to the SLIC system. However, a new requirement will be established under the SCP where resources that are less than 10 MW will be required each month to submit outage data separate from SLIC that is equivalent to outage data submitted by resources greater than 10 MW.

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Thus, for RA Resources less than 10 MW in size, the ISO will use the outage data provided by the resource to determine the availability of those RA resources.

The ISO will develop a template that such resources will use each month to submit their outage data to the ISO. The data that will be submitted will identify all Outages that have occurred over the previous calendar month, including Maintenance Outages, Scheduled Maintenance and Forced Outages. The data will include start and end times, MW availability and cause of Outage. The template would be submitted shortly after the end of each month, accompanied by a sworn affidavit by one of the executives of the company (similar as to what is done for the submission of Congestion Revenue Rights eligibility data).

There will be a minimum size threshold of 1.00 MW for this requirement, i.e., resources less than 1.00 MW do not have to submit outage data each month and will not be subject to the availability standard and incentives.

SLIC data will be used for the initial implementation of the SCP; however, it is recognized that the ISO Tariff does not require that resources report every MW of Outages and it may be desirably to develop more detailed reporting requirements at a later date, perhaps including a more detailed monthly submission from all RA resources.

Annual Target Availability Value

There will be one availability standard, an annual target availability value, that will be applicable to all RA resources each month during the upcoming compliance year based on the historic availability of the RA resource fleet during a pre-defined set of peak hours during a previous three-year period of compliance years⁷. A single value will be established before the start of the upcoming compliance year that will be applicable to RA resources each month during the upcoming compliance year. This concept is supported by a majority of the stakeholders.

The target availability value will be established well before the applicable compliance year and will be updated each year. The value will be posted by the ISO by June 1 of each year to be factored into procurement for the subsequent compliance year. The timeline for development of the target availability value is shown below (using the 2015 compliance year as an example).

- Data from January through December for 2011, 2012 and 2013 will be used for determining the value that would be in effect for compliance year 2015.
- The ISO will assess the 2011-2013 data in early 2014.
- The ISO will publish a single value in June 2014.
- The ISO will assess the actual availability of RA resources each month during 2015.

The formula for the annual target availability value will use three years of data. However, in the first year of SCP (compliance year 2010) it will be necessary to use two years of historical data in the formula because that is all of the full-year data that is available as the RA program did not start until June 2006 – we only have 2007 and 2008

⁷ The compliance year for RA is currently established as a calendar year.

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as full years of data). Starting with compliance year 2011 and beyond, three years of historical data will be used.

The ISO will use only data from its SLIC system to calculate the annual target availability value in the first year of the SCP. In subsequent years (when data from resources less than 10 MW is available) the ISO will use both data from its SLIC system and the outage data that is submitted by resources that are less than 10 MW in size to calculate the annual target availability.

Only resources that have been provided as RA resources, have an ISO Resource ID, submit outage data, and have the availability standard and incentives applicable to them will be used to calculate the annual target availability value. Resources that are not subject to the availability standard and incentives because applicability has been deferred, or resources that have been exempted from the provisions will not be included in the calculation.⁸

Since each month can have a unique set of RA resources, and each RA resource may offer different amounts of RA capacity, the annual target availability value will be calculated by summing the total **available** RA capacity MW across all compliance hours of the year and all RA resources subject to the SCP, then divided by the total **sold** RA capacity MW for the same set of hours and resources. The criteria for Forced Outages to be included in the calculation are described in the next section (Monthly Assessment of Actual Availability).

An example of how the annual target availability value will be calculated is provided below. The example uses a simplified model where:

- There are only two RA resources in the RA fleet;
- The “month” consists of only six hours;
- The “year” consists of only three months (January through March); and
- The calculation is made using just one year of data (note that the methodology proposed by the ISO uses three years of historical data for the annual target availability value).

Example of Calculation of Annual Target Availability Value

Assumes for simplicity just one year of data, two RA resources, a six-compliance-hour month and a three-month year.

	Jan	Feb	Mar		
Unit A					
MW Sold as RA				Reference Period	
	100	90	100	Totals	
Actual MW				MW Available	MW Sold
Hour 1	100	90	100	290	290
Hour 2	90	90	100	290	290

⁸ Resources less than 10 MW in size will not be included in the calculation for determining the annual target availability value until the ISO has received one full year of outage data from these resources.

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Hour 3	90	90	0		180	290
Hour 4	70	70	0		140	290
Hour 5	80	80	100		260	290
Hour 6	100	90	100		290	290
	530	510	400		1440	1740

Unit B

MW Sold as RA	50	60	50			
Actual MW					150	160
Available: Hour 1	50	50	50			
Hour 2	30	0	50		80	160
Hour 3	30	0	50		80	160
Hour 4	40	50	50		140	160
Hour 5	50	50	50		150	160
Hour 6	50	50	50		150	160
	250	200	300		750	960

All RA Resources

2190 2700

The calculation demonstrated above allows us to determine the annual target availability value in a manner that weights the availability of each resource by the amount of RA capacity MW sold by that resource. The formula that reflects the RA MW of each resource is shown below:

X = total of all RA capacity MW **available** over all compliance hours of the reference period and all resources subject to the SCP

Y = total of all RA capacity MW **sold** over all compliance hours of the reference period and all resources subject to the SCP.

Then the annual target availability rate is X/Y (or 100 * X/Y as a percent).

Based on the example above:

$$X = 530 + 510 + 400 + 250 + 200 + 300 = 2190$$

$$Y = 600 + 540 + 600 + 300 + 360 + 300 = 2700$$

$$\text{Then } X/Y = 2190 / 2700 = 0.8111 \text{ or } 81.1\%.$$

Thus, the annual target availability value in this example is 81.1%.

Monthly Assessment of Actual Availability

An assessment of each resource's availability during the applicable peak hour period against the annual target availability standard will be done each month. The assessment will look at each RA resource's availability during the RA peak hours in the month using either

- SLIC data (for resources 10 MW or greater), or
- Data submitted by the resource (for resources less than 10 MW)

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“Available” will be defined as not being on a Forced Outage during the applicable peak hour period to an extent that would prevent the resource from providing its full RA capacity value if called upon by the ISO. The formula for determining “availability” will use the MW value for each RA resource of the RA capacity that has been sold. The formula does not use the nameplate capacity, Pmax capacity, Qualifying Capacity, or Net Qualifying Capacity value.

Availability for each RA resource for each month will be determined by calculating: (a) the total RA capacity MW available over all compliance hours of the month, divided by (b) the total RA capacity MW designated in the RA plan for the same hours. Thus a resource is considered 100% available if it has no Forced Outages during the defined peak hours in a month. Any Forced Outages during peak hours during a month will decrease the resource’s availability from 100% available. Maintenance Outages and Scheduled Maintenance taken in a month will not decrease the resource’s availability from 100% available.

Stakeholders have asked the ISO to provide additional detail regarding how Outages are treated in SLIC, and, in particular, how Forced Outages are determined versus “non-Forced Outages” for purposes of the SCP availability standard. For example, stakeholders are concerned with whether Outages submitted in SLIC for ambient de-rates or to inform the ISO of “forbidden ranges” after startup of MRTU will be treated as Forced Outages under the SCP availability standard. Stakeholders also have asked if the ISO believes that SLIC needs to be modified to implement the availability standards. To address these topics, the ISO provides the information below.

First, the ISO does not think that SLIC needs to be modified to implement the availability standard. The current SLIC functionality is sufficiently robust to handle the proposed SCP availability standard methodology.

Second, currently, Outages submitted using “Normal Cards” and “Ambient Cards” when submitted in SLIC are not classified as Forced Outages. This functionality will not change under MRTU. Outages submitted in SLIC using the Normal Card (for example, to inform the ISO of “forbidden ranges” under MRTU) will not be classified in SLIC as Forced Outages, nor will those Outages be counted against the hourly availability of the resource under the SCP availability standard (see the discussion below). Normal Cards are used to document holding points when a resource cannot be dispatched due to engineered holding points. Normal Cards are each good for only a four-hour period. Normal cards are used to work around the limitation of the ISO system that cannot recognize things such as forbidden ranges and ramping constraints. The Net Dependable Capacity as defined by NERC is still available to the ISO.

However, although Outages submitted using Ambient Cards will not be classified in SLIC as Forced Outages, these Outages will be counted against the hourly availability of the resource under the SCP availability standard (see the discussion below). In contrast to the submission of Normal Cards where the Net Dependable Capacity is still available to the ISO, in the case of ambient de-rates the capacity is not fully available to the ISO. The NERC definition of Net Dependable Capacity specifically includes the ambient limitations. NERC Definitions (from Generating Unit Statistical Brochure dated October 2008):

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Net Maximum Capacity - NMC

Capacity a unit can sustain over a specified period when not restricted by ambient conditions or equipment deratings, minus the losses associated with station service or auxiliary loads.

Net Dependable Capacity - NDC

NMC modified for ambient limitations.

There are two ways that an Outage can be classified as a Forced Outage.

- If the Outage is not submitted 72 hours or more in advance of an Outage that Outage is considered to be a Forced Outage. In other words, there is a timeline basis to determining whether an Outage is a Forced Outage or not a Forced Outage.⁹
- A resource might request an Outage 72 hours or more in advance of a requested Outage, but, if the ISO does not approve the Outage (this could occur if system conditions will not allow the ISO to reliably operate the system if the Outage were to be taken) than, if the resource goes out on an Outage less than 72 hours in advance of the Outage, that Outage is classified as a Forced Outage.

As discussed above, the key determinant of whether an Outage is a Forced Outage is timing (the 72 hours threshold). The ISO protocol for Outages, including the timeline, is described in Procedure T-113¹⁰ If an Outage occurs and the resource operator is not able to provide the 72-hour notice to the ISO, and a resource operator is entering the Outage in SLIC, the SLIC application will display a popup message that notified the resource operator that the Outage will be considered to be a Forced Outage and will ask if the resource operator wants to continue with the data entry (i.e., there is no ambiguity about whether any Outage submitted is a Forced Outage, or is not a Forced Outage – the resource operator knows as the data is being submitted how the Outage will be classified).

The ISO has designed SLIC to include functionality that will not classify certain types of Outages as Forced Outages, regardless of the time when the Outage is submitted, provided that the resource operator codes the data correctly when it is entered.¹¹ This functionality has been in place for a number of years. This functionality is described below.

- Normal Cards: “Normal Cards” are provided to recognize engineered limits on resources. The Normal Card was designed and has been in place for years to allow “hold points” for designed engineered limitations in a resource. Therefore, if a resource operator submits a Normal Card the Outage is not classified as a Forced Outage. The Outage will look like a Forced Outage at first when the data is being submitted to SLIC due to the timeline, but by using the proper code on the drop down list of the Normal Card, the Outage will not be recorded in SLIC as a Forced Outage. Instead, the Outage will be shown as a Normal Card, and

⁹ The specific language regarding timing from section 3.4 of Procedure T-113 is as follows: “submit the request for CAISO approval no later than 1130 hours at least three (3) working days prior to the starting date of the Outage.”

¹⁰ Procedure T-113 can be found at the following link:
<http://www.aiso.com/docs/2002/01/29/2002012913333822467.pdf>

¹¹ The ISO for years has offered and conducted extensive training to plant operators on how to use SLIC and submit Outages, including the types of coding described in this proposal.

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Outages associated with a Normal Card will not count against a resource's availability relative to the availability standard. Normal Cards can be used by resources such as combined cycle resources that want to enter data into SLIC relative to forbidden ranges after startup of MRTU.¹²

- Ambient Card: Ambient Cards are used for situations where the Outage is outside of the control of the resource operator. The Ambient Card is intended for limitations on the resource, such as those caused by temperature, weather and lack of fuel. If the Ambient Card is submitted with the proper codes, even if not 72-hour notice has been provided to the ISO, that Outage will not be recorded in SLIC as a Forced Outage. The Outage will be recorded as an Ambient Card. As was discussed further above, Outages associated with an Ambient Card will count against a resource's availability relative to the SCP availability standard.

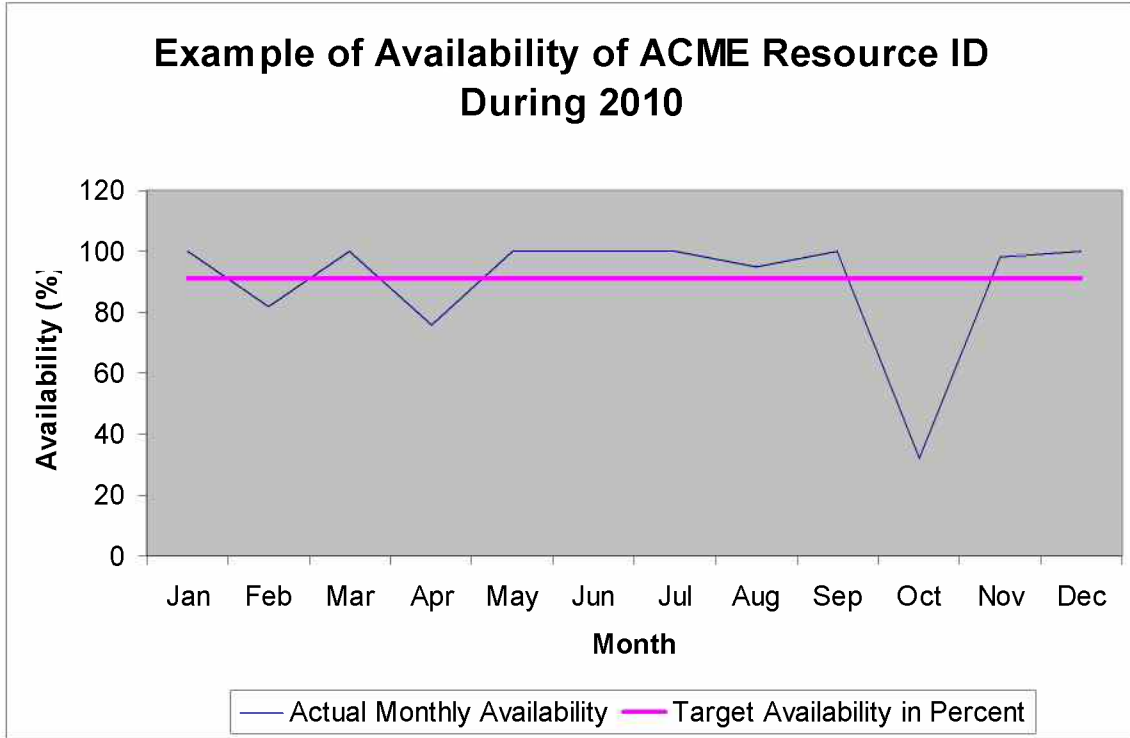
The actual availability of each RA resource each month will be calculated as described below.

- The ISO will assess each resource's operational status during the applicable peak hour period for each month using the Outage data provided by the resource's Scheduling Coordinator to the ISO through the SLIC system. Each hour during the applicable peak hour period that the resource has no Forced Outages that impair its contracted RA value will be counted as the resource having a 100% availability for that hour.
- For each hour during the applicable peak hour period that the resource is partially or fully curtailed a pro-rated percentage will be calculated. For example, a 100 MW resource that is available for 50 MW for the hour during an applicable peak hour period will be counted as 50% available, or the same resource curtailed to 0 MW for 30 minutes will also be counted as 50% available.
- The ISO will calculate a monthly average availability for each resource during the applicable peak hour period. The calculation will be based on the actual hours that the resource was available during the applicable peak hour period compared to the target available hours during the applicable peak hour period for that month.

The actual availability of each resource each month during the applicable peak hour period will be calculated and compared to the target availability. In months where there are no Forced Outages, the actual availability of the resource would be above the target availability. In months where a Forced Outage occurs during the applicable peak hour period, the actual availability would be less than 100%. The graph below shows this relationship (shown in percentage terms to easily convey the concept - actual operational status during the applicable peak hour period would be based on hours in the applicable month, not percentage).

¹² Normal Cards are described in the ISO SLIC Web Client document posted on the ISO web site at the following link: <http://www.caiso.com/docs/2004/01/28/2004012807111918934.pdf>

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The formula for determining the availability of a resource during the applicable peak hour period in any given month will be as follows:

$$A_{jn} = \frac{\sum \text{Hourly RA MW Available from Resource } j \text{ in month } n}{(\text{RA MW Capacity of Resource } j) \times (\text{Total Compliance Hours of Month})}$$

Where A_{jn} = Availability Percentage of Resource j in Month n during the applicable peak hour period.

As only peak hours will be used in the assessment, the Hourly RA MW Available from Resource and Total Compliance Hours of Month will only include peak hours. In essence, the ISO will sum the MW that were available in the month for only the defined peak hours.

An example of the monthly assessment is provided below.

Example of Monthly Assessment of Actual Availability

Assumes a six-hour month.

Assumes Unit A sold 100 MW as RA.

Unit A

Hour 1	100	
Hour 2	90	90MW for full hour
Hour 3	100	
Hour 4	70	▶ 100MW for 42min / 0 MW for 18min = 70MW
Hour 5	80	▶ 100MW for 35min / 50MW for 14min / 0 MW for 11min = 80MW
Hour 6	100	

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530/600

88.3% Monthly Availability

Performance Incentives

During the course of this stakeholder process the ISO considered both financial and physical penalties. The two approaches are summarized below.

Penalty	Description
Financial Penalty	Charge assessed during compliance period or just after its conclusion for not meeting the standard within the compliance period
Physical Penalty	Adjustment to Net Qualifying Capacity for subsequent compliance period for not meeting the standard within the current compliance period

The ISO proposes to add a financial penalty to the ISO Tariff as a performance incentive. A financial penalty is supported by a majority of stakeholders, who believe it provides the correct incentive to be available. There is very little support among stakeholders for a physical penalty. Failure to achieve the target availability value in any month during the compliance year will result in a financial penalty from the ISO to the Scheduling Coordinator. Each RA resource will have an incentive to ensure that it performs to limit its exposure to the financial penalty

The proposals for a financial penalty that were provided by stakeholders in previous rounds of stakeholder comments on the SCP included the following elements:

- Each resource's availability should be compared to actual fleet availability;
- Resources with lower-than-standard availability during peak load periods should receive penalty charges, while resources with higher-than-standard availability should receive credits; and
- Resources with availability of less than 50% should have a penalty applied to entire RA capacity; those with availability of greater than 50% but less than the target should have a penalty applied to a portion of their RA capacity.

The ISO has used many of these principles in developing its proposed availability standard and performance incentives.

A financial penalty, or potentially a bonus payment, will be applied to Scheduling Coordinators of RA resources. A financial penalty will be applied each month to the SCs of resources that do not meet the target availability, as part of the first feasible settlement statement after the conclusion of the applicable month. A potential bonus payment will be made each month (to the extent that penalty funds are available) to resources that exceed the target availability. The payment will be made as part of the first feasible settlement statement after the ISO has received payment on the assessed penalties. Because the bonus payment program is to be self-financing, the ISO will wait until it has received the penalty funds before paying out those funds to eligible resources (to the extent such funds are available).

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The intent for the financial penalty charge funds and potential bonus payments is that each month would be treated separately from other months, with its own “account” of financial penalty funds collected and potential bonus payments going out (to the extent such funds are available) to the RA resources that exceed the target availability. The “account” for each month would either be paid out to RA resources that have exceeded the target availability or put it into the RT neutrality and paid back to measured demand, i.e., any excess not paid out to resources that exceed the target availability will be paid out to measured demand.

A dead band of 5% will be used around the target availability (2.5% on either side of the target availability value) to limit the amount of penalty and bonus payment assessments. The dead band provides for penalties and bonus payments to only be assessed when resources perform significantly better or worse compared to the established availability standard.

The “price” value in the financial penalty formula will be the replacement cost (or ISO “backstop” cost) of capacity that is established in the ISO Tariff. That value is currently \$41/kW-year, as established in the Interim Capacity Procurement Mechanism (“ICPM”) provisions.¹³ The ISO intends that the price value of the successor to the ICPM would be used in the SCP financial penalty formula.

The penalty formula will work as shown below. It will be a monthly charge (and will recognize the dead band).

Actual Availability	Formula ¹
For resources with availability of 50% and up to the target availability percent, recognizing the dead band	$(\text{Target Availability} - \text{Dead Band} - A_{jn}) \times (\text{RA capacity in kW}) \times (\text{ISO backstop replacement cost of capacity})$
For resources with availability less than 50%	$(\text{RA capacity in kW}) \times (\text{ISO backstop replacement cost of capacity})$

Where A_{jn} = Availability of Resource j in Month n

The funds collected from the application of penalty charges will be allocated to RA resources that exceed the dead band for target availability. The funds will be distributed by calculating a monthly bonus rate and applying it to the amount of capacity that exceeded dead band above the target availability standard (i.e., a 90% target and with 5% dead band will provide a potential bonus to those RA resources that exceeded a 92.5% availability rate). The monthly bonus rate will be determined by dividing the total monthly penalty dollars by the sum of MW of all resources that exceeded the target plus dead band. Resource bonus payments will equal the monthly bonus rate times the MW availability above the target plus dead band level and calculated as shown below.

A monthly bonus rate will be determined by dividing total monthly penalty dollars by the sum of all MW exceeding target plus dead band of all RA resources.

- $\text{Rate} = \text{Total Revenue } \$ / \sum_j [((\text{Target} + \text{Dead Band}) - A_{jn}) \times \text{RA MW}_j]$
- $\text{Payment}_i = \text{Rate} \times ((A_{jn} - (\text{Target} + \text{Dead Band})) \times \text{RA MW}_j)$

Where A_{jn} = Availability of Resource j in Month n

¹³ The ICPM tariff, including the pricing provisions, sunset on December 31, 2010.

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Example

- A 90% target with a 5% dead band will provide a potential bonus payment to RA resources that exceed a 92.5% availability rate (90% plus 2.5% means resources that achieve greater than 92.5% are eligible to receive a bonus payment)
- 500 MW resource available 100% of time during a month would receive a bonus payment = Monthly Bonus Rate \times (100%-92.5%)*500

The ISO desires to provide an incentive to RA resources to strive to achieve an availability level greater than the target availability, and hence be eligible to receive potential bonus payments. The ISO also recognizes that there could be instances where in a particular month many RA resources have been assessed a financial penalty and there are just a few RA resources that have exceeded the target availability. This situation could lead to a potential windfall to these few RA resources. Therefore, the ISO proposes to “cap” the potential bonus payment each month so there is not a windfall to just a few entities that are above the target availability value and return any excess financial penalty funds by putting those funds into RT neutrality and paying the funds back to measured demand. The ISO also recognizes that it should be careful not to establish incentives for LSEs to procure poor quality resources for RA purposes that may trigger very large financial penalty charge proceeds, a portion of which may flow back to the LSE under the “cap” approach described above. To provide a strong incentive to RA resources to strive to exceed the target availability, while at the same time balancing the amount that might be returned to measured demand, the ISO proposes to use three times the penalty rate that is charged to RA resources that fail to meet the target availability as the maximum rate to pay the RA resources that exceed the target availability. Thus RA resources that exceed the target availability never get paid more per MW than three times the penalty rate, but may get less if not enough financial penalty charge funds are collected. If there is any remaining surplus, then that surplus would be put it into the RT neutrality and paid back to measured demand. The use of three times the penalty rate as a cap should provide a strong incentive for RA resources to shoot for, and should, in most cases, mitigate any large windfall amount that might accrue and be paid back to LSEs.

In the case of a month where there are financial penalty funds, but no RA resource has exceeded the target availability, then those funds will be placed into RT neutrality and paid back to measured demand.

Reporting

The ISO proposes to include the following information in an annual report that will be posted by June 1 of each year:

- Annual target availability value; and
- Information on the average availability of the RA fleet, total financial penalties assessed; and total bonus payments paid out.

Deferral for Wind, Solar, QF and Demand Response Resources

There are several types of RA resources whose QC value is calculated each year based on historical actual hourly output data, which, by its nature, may include some outage hours that occur during the period during which actual output is measured in determining

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the QC. These RA resources include wind, solar and Qualifying Facility resources. Therefore, if the availability standard discussed herein were to be applied to these types of resources, then those resources may be put in a position where outages may be double-counted. The ISO supports a uniform standard that will apply to all RA resources, but recognizes that some changes may need to be made to the CPUC and LRA counting procedures to reflect that the QC of these types of resources is already de-rated to reflect actual output and may include some level of outages. Therefore, the ISO proposes that the availability standard and incentives initially will not apply to RA resources whose QC value is calculated each year based on historical actual hourly output data that may include some outage hours that occur during the period during which actual output is measured. This means that wind, solar and Qualifying Facility RA resources initially will not be subject to these the availability standard and incentives of the SCP. The deferral of these provisions to these types of RA resources is temporary, and in the future the ISO will revisit the applicability of these provisions to wind, solar and Qualifying Facility RA resources. The ISO will coordinate with the CPUC and LRAs on changes that may be made in the future to prevent double-counting of outages.

Several types of DR resources currently count for RA. Some of the RA DR resources have an ISO Resource ID, but most of the RA DR resources do not have an ISO Resource ID nor do they report outage data to the ISO. Rather than have some portion of RA DR resources be subject to the availability standard and incentives at implementation of the SCP and have other DR resources that are not subject to these provisions because of factors such as some DR resources do not have a Resource ID and some do not report outage data, the ISO proposes to defer applicability of these provisions to RA DR resources until the time when dispatchable DR functionality has been implemented under MAP after MRTU startup. The ISO will revisit applicability of these provisions to RA DR resources in the context of, or in parallel with the DR proceeding, as well as the timing of implementation of dispatchable DR functionality.

Exemption for Liquidated Damages Energy Contracts

Liquidated damages energy (“LD”) contracts are financial contracts and are not physical contracts tied to a specific resource. Energy from LD contracts is delivered internal to the ISO and the ISO does not know where the LD contract was sourced from. Furthermore, this type of RA capacity is not subject to outage reporting requirements and does not have associated outage data upon which to measure availability and apply the financial incentives. The ISO supports a uniform standard that will apply to all RA resources, but recognizes that since these type of RA resources are not represented by a physical resource, it is not possible to apply the availability standard and incentives to LD contracts. The ISO notes that the quantity of such RA capacity has decreased each year over the last three years and the use of LD contracts for RA purposes has been phased out by the CPUC as of 2008, i.e., 2008 was the last year that these types of resources were allowed to count for RA by the CPUC (there is one exception, for CDWR contracts). The ISO strongly encourages LSEs to not procure these contracts for RA purposes.

Different Approach for Non-Resource-Specific Imports

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Non-resource-specific imports that are not tied to a specific resource pose a dilemma for the ISO¹⁴. The root of the dilemma is that such RA capacity is not subject to outage reporting requirements and does not have associated outage data upon which to measure availability and apply the financial incentives. At the same time, the quantity of this type of RA capacity is significant enough that the ISO is reluctant to simply waive the availability standard and financial incentives for this capacity. The ISO would therefore like to determine a way to measure availability for this type of import capacity in a manner that is meaningful and reasonable given the absence of an associated physical supply resource, and that will provide appropriate financial incentives to maximize availability.

The ISO proposes to measure availability for non-resource-specific RA resources based on the offer of the capacity into the ISO markets. Under MRTU, RA imports must offer into the Day-Ahead market the full amount of their RA capacity and will have to establish a Resource ID to be able to conduct these transactions. Since imports have to schedule with a Resource ID under MRTU, the ISO could track the extent to which each RA import resource offers into the Day-Ahead market the full amount of its RA capacity. Thus non-resource-specific RA imports could be held to an annual target availability value and the ISO could apply penalties and allow these resources to be eligible for potential bonus payments. The ISO proposes using an annual target availability value of 100% of RA hours for this type of RA resource. If there is a path or branch group de-rate during a month, it will not be counted against the non-resource-specific RA import resource's availability in that month.

7 UNIT SUBSTITUTION

The ISO proposes to adopt a provision to allow a supplier of RA capacity that is tied to a specific generating resource the ability to substitute an alternative resource in the event the RA resource is on an outage, and by means of such substitution to avoid counting the outage of the RA resource toward the monthly availability assessment. This provision will offer reliability benefits by encouraging the availability of otherwise non-RA capacity when RA resource outages occur, provided the substitute is comparable to the original RA resource. Comparability will be determined based on a pre-approval process by the ISO for potential replacement units. This will be done so that the ISO would not need to assess the acceptability of the substitute in real time. In addition, the ISO will allow such substitution only in the day-ahead time frame. As such the supplier would need to submit a request for substitution before the close of the IFM. The ISO would have the discretion of approving this request.

8 CREDIT REQUIREMENTS

Most stakeholders who commented did not see the need for credit requirements. A few agreed that credit requirements would be necessary if financial penalties were assessed and suggested they be netted with the SCs entire portfolio.

¹⁴ Note that resource-specific RA imports will be treated like other RA resources (such as thermal resources) and will be subject to the availability standard and incentives. Path or branch group de-rates in a month will not affect the availability calculation for resource-specific RA imports during that month.

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In the updated straw proposal the ISO suggested that since the penalties due to unavailability would not be used to fund the procurement of a backstop, no specific credit requirement should be necessary for Scheduling Coordinators (SCs). At the MSC/Stakeholder meeting the SCP team updated its proposal, indicating that SCs for capacity resources should be responsible for creditworthiness due to the obligation to pay the bonus incentive to SCs of resources to exceed the target availability metric.

Based on stakeholder comments and additional internal discussions, the ISO believes that there is no need for a “special” credit policy for SCP. The general credit policy, as described in Section 12 of the ISO tariff, should provide sufficient credit coverage. This is based on the following considerations:

- SCP performance penalty will appear as a new charge type on the monthly invoice, similar to the penalty for un-instruction generation deviation, and is part of the liability of each SCs portfolio.
- Most RA providers are creditors of the ISO. The penalty may be netted out with the provider’s credit on the same invoice on the same invoice.

Additional details about the general credit policy are provided in the Business Practice Manual for Credit Management.

9 TRANSITION ISSUES

LSEs sign bilateral contracts with resources to meet their RA obligations. While most stakeholders support the concept of SCP (which standardizes availability standards in the ISO tariff rather than requiring unique language in each RA contract), some parties are concerned that upon SCP implementation they will be exposed to conflicting or duplicate availability standards and incentives due to the provisions in their existing contracts. It is our understanding that some current contracts contain availability standards that may expose contracting parties to double penalties. In other contracts, SCs or LSEs may not be able to pass penalty assessments on to resource owners.

In our recent stakeholder forums, a number of stakeholders have expressed a desire to allow existing contracts a transition period before moving to SCP. To this end the ISO requested that stakeholders offer proposals describing more precisely how appropriate transitional arrangements might be structured to address these concerns, and in response received only one specific proposal (a set of joint comments by NRG Energy, Reliant and SDG&E in the last round of comments). On December 12th the ISO sent out a market notice with a questionnaire to gather information related to existing resource adequacy contracts that stakeholders felt would need grandfathering. The ISO received a total of 20 responses, 12 submitted by RA Resources and 9 from LSEs with RA contracts (one entity filled out both types of questionnaire).

Based on the data received the ISO has developed a proposed solution to the transition issue that enables parties to grandfather their contracts while still providing additional certainty that RA capacity will be available to the ISO. These are the elements of the ISO’s proposal:

Contracts signed:	Grandfathering Status
Before January 1, 2009	Exemptions will be provided to RA contracts for which the

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	contracting parties certify that the availability standards and incentives in their contracts are at least equal to the requirements set forth in the SCP tariff language. This exemption lasts for the life of the contract. The RA capacity in these contracts will not be tradable.
Between January 1, 2009 and FERC approval of SCP	Exemptions will be provided to RA contracts for which the contracting parties certify that the availability standards and incentives in their contracts are at least equal to the requirements set forth in the SCP tariff language. This exemption lasts for 5 years, until the 2014 annual RA showing. After that point the RA capacity from these contracts will be required to comply with the SCP tariff language. Until this time, the RA capacity in these contracts will not be tradable.
After FERC approval of SCP	No grandfathering will be available for these contracts.

Stakeholders who require a “transition period” from their existing RA contracts to the SCP will be able to exempt their contracts based on the timeframes and limitations provided in the table. The ISO will require a signed affidavit by an executive from each party to a contract certifying that the availability standards and incentives are at least as robust as those in the tariff provisions for SCP. These documents will be due to the ISO prior to the annual showing 2010, at which time the ISO will establish an expiration date for each contract. A market notice will provide the details of this schedule. This certification provides the ISO with assurance that a certain level of reliability will be maintained.

Contracts that were signed before January 1, 2009 and did not have an opportunity to consider the upcoming SCP availability standards when their contracts were signed, will be able to maintain their exemptions for the life of the contract. Once the contract expires, or parties decide to end their exemption, the RA capacity associated with that contract will be subject to the SCP tariff provisions.

Contracts that were signed prior to FERC approval of the SCP tariff provisions, but after January 1, 2009 will also have the benefit of grandfathering, although these contract holders will be limited to a 5 year exemption. Thus if such a contract is submitted in fulfillment of RA requirements for the 2014 delivery year, it will be subject to the SCP provisions.

10 OTHER ISSUES

Metered Subsystems (MSS)

The SCP availability standard and incentives cover Metered Subsystems the same as any other type of LSE. With regard to Load Following MSS the current BPM Section 6.3 and Tariff Section 40.2.4 explain that Load Following MSS must provide an annual RA Plan but no monthly submissions are required. Section 40.3 subjects Load Following MSS to Local Capacity Area RA requirements, whereas Section 40.6 of the tariff exempts Load Following MSS from the RA must offer requirement. The ISO expects therefore that the SCP availability standard and incentives would apply only to the Local Capacity Area RA capacity submitted by a Load Following MSS.

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RA less than Pmin

Section 40.4.3 of the MRTU tariff describes the general qualifications for supplying NQC. One situation that had not been contemplated when writing this section was when a resource is contracted for an RA amount that is less than the Pmin of the committed unit. In an upcoming MRTU 205 filing with FERC, the ISO remedies this omission by adding language that “For a resource with contractual Resource Adequacy capacity less than Pmin be available to the ISO for commitment or dispatch at Pmin subject to tariff provisions for Bid Cost Recovery so that the resource’s Resource Adequacy capacity can be utilized as required by this CAISO Tariff.”

RA Registry – This is an implementation feature that may be deferred for a future release.

Bulletin Board Feature – This is an implementation feature that may be deferred for a future release.

11 NEXT STEPS

Currently the market design process is on track to file the Standard Capacity Product tariff changes with FERC in February 2009. While some stakeholders, including AReM feel that this schedule is critical to meet in order to enable parties to use the product for the 2010 Annual RA showing, many others (including Dynegy, Calpine, Southern California Edison, Mirant, CFCMA) have expressed concern that the ISO should ensure that the product is thoroughly developed before filing it at FERC. Their sentiment is that they would rather get the filing done right the first time, rather than get it done quickly only to revisit and correct the product later. The ISO agrees with this sentiment and will assess the level of stakeholder support of the final proposal after the January 15th conference call to determine whether to continue under the current schedule or to extend the stakeholder process to further develop the SCP proposal.

This is the current schedule:

January 8 – Publish Final Draft Proposal
January 14 – Written comments due to SCPM@caiso.com
January 15 – Conference Call
February 10, 11 – Board of Governors Decision
February – File Tariff language.
