Exhibit M - Revised 7/15/08

SLICE COMUPTER APPLICATION

In the event Exhibit O, Interim Slice Implementation Procedures, is implemented pursuant to section 5.12 of this Agreement, only sections 3.5 and 5 of this Exhibit M shall be in effect as long as Exhibit O remains in effect.

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1. SLICE COMPUTER APPLICATION – GENERAL DESCRIPTION

The Slice Computer Application is a proprietary BPA computer application developed and maintained by BPA in consultation with «Customer Name» and other SIG members. The Slice Computer Application consists of the Slice Water Routing Simulator, the Balance of Slice System Module, the Default User Interface, and other related processes used for scheduling, tagging, and accounting of Slice Output and communication of information, all as described below.

2. DEFINITIONS

The following definitions apply only to this Exhibit M and Exhibit N, Slice Implementation Procedures.

2.1 "Absolute Operating Constraint" means an Operating Constraint that cannot be exceeded under any condition.

2.3 "Actual Slice System Generation" or "ASSG" means the actual generation produced by the Slice System, or any Slice Subsystem, as adjusted to reflect energy received or delivered as System Obligations, as applicable, during a given period of time.

2.4 "Algorithm Tuning Parameters" means factors, coefficients, or variables that are embedded within Simulator algorithms or formulas and are adjusted by BPA as necessary to maintain Simulator outputs that are in compliance with the accuracy criteria defined in section 3.5.3 of this Exhibit M.

2.5 "BOSS Base" means the forecast generation amounts available from the BOSS Complex, as adjusted by BPA for forecast energy amounts associated with System Obligations, Existing Public Augmentation, and Other Augmentation, during a given period of time.

2.6 "BOSS Deviation Account" means the account BPA maintains that quantifies the cumulative amount, expressed in MWd, by which «Customer Name»'s hourly BOSS Base schedules deviate from the amount determined by multiplying «Customer Name»'s Slice Percentage by the hourly BOSS Complex ASSG.

2.x "BOSS Deviation Return" means the energy amounts associated with the reduction of «Customer Name»'s BOSS Deviation Account balance.

2.7 "BOSS Flex" means the amount by which the BOSS Base can reasonably be reshaped within a given calendar day by utilizing the flexibility available in the Lower Snake Complex.

2.x "Bypass Spill" means Spill that occurs at a hydroelectric Project associated with lock operations, leakage and fish bypass systems.

2.8 "Calibrated Simulator Discharge" means, for each Simulator Project, «Customer Name»'s simulated discharge as adjusted to reflect such Project's actual H/K, actual Bypass Spill, and actual required Fish Spill, pursuant to section 3.6 below.

2.x "Customer Inputs" means the Simulator Project discharge, elevation, or generation requests «Customer Name» develops as inputs to the Simulator pursuant section 3.3 below.

2.9 "Delivery Request" means the amount of Slice Output «Customer Name» requests that BPA make available for delivery for any given hour, and shall be equal to the sum of «Customer Name»'s Simulated Output Energy Schedules, BOSS Base schedule, BOSS Flex schedule, (BOSS Deviation schedule) and Additional Energy schedule for each such hour.

2.10 "Elective Spill" means Spill other than Fish Spill that occurs at a hydroelectric Project when such Project has available turbine capacity such that the Spill could be utilized to produce energy.

2.xx "Fish Spill" means Spill that occurs at a hydroelectric Project in order to maintain compliance with established fish passage criteria.

2.11 "Forced Spill", means Spill other than Fish Spill that occurs at a hydroelectric Project in order to maintain compliance with Operating Constraints.

2.12 "H/K" means, prospectively, a hydroelectric Project's water-to-energy conversion factor used to forecast such Project's potential energy production, expressed in MW, per unit of turbine discharge, expressed in kcfs, or retrospectively, for any given period of time, the value equal to a hydroelectric Project's average Net Generation, expressed in MW, divided by such Project's average turbine discharge, expressed in kcfs.

2.13 "Hard Operating Constraint" means an Operating Constraint that may not be exceeded without express consent from Project operators, owners, or other federal agencies responsible for establishing such Operating Constraints.

2.14 "Hydraulic Link Adjustment" means the adjustment to «Customer Name»'s simulated McNary inflow that is equal to the difference between «Customer Name»'s Calibrated Simulator Discharge for Chief Joseph and the measured Chief Joseph discharge, pursuant to section 3.7 below.

2.17 "Logic Control Parameters" means flags or toggles that are embedded within the Slice Computer Application logic and are set by BPA as needed to appropriately implement provisions of this Agreement.

2.18 "Lower Snake Complex" or "LSN Complex" means the four hydroelectric Projects located on the lower reach of the Snake River, consisting of Lower Granite, Little Goose, Lower Monumental, and Ice Harbor.

2.19 "Megawatt-day" or "MWd" means a unit of electrical energy equal to 24 megawatt-hours.

2.20 "Multiyear Hydroregulation Study" means a hydroregulation study that simulates the prospective monthly operation of the Slice System, typically for a 12 month period, given a range of stream flow sequences.

2.21 "Net Generation" means the total electric energy produced at a hydroelectric Project as reduced by the electric energy consumed by such Project for station service purposes.

2.22 "Operating Rule Curves" or "ORC" means the forebay operating limits established for a reservoir pursuant to operating agreements in effect, and as modified to reflect Operating Constraints, that are used to determine such reservoir's upper forebay operating limit (upper ORC) or the lower forebay operating limit (lower ORC).

2.23 "Power Services Slice Scheduler" or "PS Slice Scheduler" means the BPA Power Services employee who manages real-time Slice schedules and E-tag submittals, Simulator Parameters, and related Slice communications.

2.24 "Project(s)" means one or more of the Slice System generating resources.

2.25 "Project Storage Bounds" or "PSB" means the Storage Content amounts associated with the upper ORC and lower ORC in effect at any specified hydroelectric Project.

2.27 "Simulated Output Energy Schedule(s)" means the amount of energy that is calculated by the Simulator as «Customer Name»'s simulated generation amount associated with each Simulator Project.

2.xx "Simulator Parameters" means the Simulator Project operating parameters BPA develops as inputs to the Simulator, pursuant to section 3.2 below.

2.28 "Slice Storage Account" or "SSA" means the account maintained by BPA that records the sum of (1) «Customer Name»'s Grand Coulee Storage Offset Account balance, and (2) the product of «Customer Name»'s Slice Percentage and the Grand Coulee actual Storage Content.

2.29 "Slice Subsystem" means the Coulee-Chief Complex, the LCOL Complex, the LSN Complex, or the BOSS Complex.

2.30 "Soft Operating Constraint" means an Operating Constraint that is to be achieved on a day-ahead planning basis, but may be exceeded in real-time after coordinating with Project operators, owners, or other federal agencies responsible for establishing such Operating Constraints.

2.31 "Spill" means water that passes a hydroelectric Project without producing energy, including Bypass Spill, Elective Spill, Fish Spill, and Forced Spill.

2.32 "Storage Content" means the amount of water stored in a Project's reservoir, expressed in thousands of second-foot-days (ksfd). The Storage Content is typically calculated based on a conversion of such reservoir's measured forebay elevation, expressed in feet, accomplished through the use of an established elevation-to-content conversion table.

2.33 "Storage Offset Account" or "SOA" means the account BPA maintains that records the cumulative amount by which «Customer Name»'s simulated Storage Content associated with each Simulator Project deviates from the actual Storage Content for each such Simulator Project.

3. SLICE WATER ROUTING SIMULATOR

3.1 General Description

The Slice Water Routing Simulator (Simulator) is designed to determine «Customer Name»'s potential range of available Simulated Output Energy Schedules and Delivery Limits associated with the Simulator Projects. «Customer Name» shall utilize the Simulator to simulate the routing of available stream flow through the Simulator Projects in compliance with established Simulator Parameters similar to how BPA actually manages available stream flow through the Simulator Projects within established Operating Constraints. BPA is responsible for establishing and managing Simulator Parameters within the Simulator, pursuant to section 3.2 below, and «Customer Name» is responsible for establishing and managing Customer Inputs within the Simulator, pursuant to section 3.3 below.

3.1.1 The official version of the Simulator will be managed and maintained by BPA and accessed by «Customer Name». «Customer Name» shall also have access to copies of the Simulator for the purpose of running various simulated operating scenarios.

3.1.2 The Simulator shall be designed to produce simulated Project operations in one-hour time increments for up to a 48-hour period, and multiple-hour increments for up to an additional 10 days. As an example, if the Simulator is initialized as of HE1400 of the current day it shall produce results in one-hour time increments beginning with HE1500 of the current day through and including no later than HE1400 of the second day following the current day, then shall produce simulated Project operations in multiple-hour increments,

such as 8-hour increments, for an additional 10 days beyond the one-hour time increments.

3.1.3 The Simulator shall incorporate approximate hydraulic time lags between Simulator Projects.

3.1.4 The Simulator shall reflect all applicable Operating Constraints in effect for each Simulator Project, including operating requirements necessary to satisfy Operating Constraints in effect at downstream Projects.

3.1.5 The Simulator shall calculate simulated inflows to Grand Coulee based upon measured discharges from upstream Projects plus forecast incremental side flows between those Projects and Grand Coulee, as adjusted for forecast Banks Lake irrigation pumping flows.

3.1.6 The Simulator shall compute the simulated Grand Coulee discharge, generation, and forebay elevation based on «Customer Name»'s Customer Inputs and shall use such computed discharge to establish «Customer Name»'s simulated Chief Joseph inflow as adjusted for forecast Chief Joseph incremental side flows.

3.1.7 The Simulator shall calculate simulated inflows to McNary based upon measured discharges from Priest Rapids and Ice Harbor after considering approximate hydraulic time lags between those Projects and McNary, as adjusted for forecast McNary incremental side flows. The Simulator shall also incorporate «Customer Name»'s Hydraulic Link Adjustment pursuant to section 3.7 below into «Customer Name»'s simulated McNary inflow.

3.1.8 The Simulator shall compute the simulated McNary discharge, generation, and forebay elevation based on «Customer Name»'s Customer Inputs and shall use such computed discharge to establish «Customer Name»'s simulated John Day inflow as adjusted for forecast John Day incremental side flows.

3.1.9 The Simulator will compute the simulated discharge, generation and forebay elevations for John Day, The Dalles and Bonneville, as well as simulated inflows into The Dalles and Bonneville for «Customer Name», in a like manner.

3.1.10 The Simulator will not be designed to accept aggregated Customer Inputs for the LCOL Complex or the Coulee-Chief Complex. «Customer Name» may develop aggregated Customer Inputs for use in their planning processes but must translate such aggregated Customer Inputs into individual Simulator Project Customer Inputs to enable the Slice Computer Application to validate «Customer Name»'s

simulated operation of individual Simulator Projects against Operating Constraints.

3.2 **Simulator Parameters**

BPA shall establish, monitor and update the Simulator Parameters specified in this section 3.2 for each Simulator Project for the duration of the Simulator modeling period, including forecasted stream flows and Operating Constraints that are in effect at any given time. BPA shall designate each Operating Constraint established as a Simulator Parameter as either an Absolute Operating Constraint, a Hard Operating Constraint, or a Soft Operating Constraint. The simulated operating capability available at the Simulator Projects resulting from the Simulator Parameters shall reasonably represent the actual operating capability available at the Simulator Projects resulting from the associated Operating Constraints. To the maximum extent practicable, the PS Slice Scheduler shall monitor the operating conditions that affect the Simulator Projects and shall make modifications to the Simulator Parameters as necessary to reflect changes.

3.2.1 BPA shall have the right to change Simulator Parameters affecting HE(X) up to one hour prior to the beginning of HE(X-1). For example, BPA shall have the right to change Simulator Parameters affecting HE 1300 up until 11:00 a.m.

3.2.2 The Simulator Parameters shall include, but are not limited to:

- Hourly regulated inflows (Grand Coulee and McNary only);
- Hourly incremental stream flows;
- Initial forebay elevations;
- Water to energy conversion factors (H/Ks);
- Content to elevation conversion tables;
- Project turbine capacities;
- Spill limitations and requirements, including bypass Spill quantities;
- Generation limitations and requirements;
- Discharge limitations and requirements as needed to meet both discharge and tailwater elevation requirements;
- Forebay limitations and requirements;

- System wide requirements that affect the Simulator Projects (e.g. Vernita Bar, Chum, Reserves, Regulating room above minimum generation);

- Algorithm Tuning Parameters; and

- Logic Control Parameters that affect the Simulator Projects (e.g. CGS Displacement election, PSB enforcement flag, etc.).

3.3 **«Customer Name»'s Customer Inputs and Use of the Simulator**
«Customer Name» shall be responsible for accessing the Simulator and submitting at least one Customer Input for each of the Simulator Projects for each one-hour and multiple-hour time increment for the duration of the Simulator modeling period.

3.3.1 Customer Inputs shall include, but are not limited to the following:

- Generation requests;

- Elevation requests; or,

- Discharge requests.

3.3.2 Generation requests shall be stated in terms of «Customer Name»'s Slice Percentage of the available Project generation, rounded to the nearest whole number. Elevation and discharge requests shall be in terms of Project elevation and discharge values, rather than «Customer Name»'s Slice Percentage of Project elevation and discharge values.

3.3.3 Based on prioritization rules, once established, «Customer Name»'s Customer Inputs submitted to the Simulator shall be used to produce a simulated operational scenario. A simulated operational scenario produces simulated discharges, elevations, and generation values for each Simulator Project in accordance with applicable Simulator Parameters.

3.3.4 The resulting simulated generation values shall provide to «Customer Name» a potential Simulated Output Energy Schedule for each Simulator Project.

3.3.5 «Customer Name» shall have access to input fields within the Simulator that allow «Customer Name» to test various operational scenarios for the purpose of determining if Delivery Limits are exceeded, prior to «Customer Name»'s submittal of its official Customer Inputs to BPA.

3.3.6 «Customer Name»'s Customer Inputs and associated Simulated Output Energy Schedules shall be revised and submitted to BPA by «Customer Name» within scheduling timelines established in section 4.1 of Exhibit F, Scheduling.

3.3.7 In the event «Customer Name» submits a Customer Input that is in violation of an Absolute or Hard Operating Constraint the Simulator shall create and return to «Customer Name» an error message. The Simulator shall attempt to meet such Customer Input to the extent Operating Constraints are not violated.

3.3.8 At least once per day, «Customer Name» shall be required to produce an official Simulator run that demonstrates all Simulator Projects are in compliance with all applicable Operating Constraints for the duration of the Simulator modeling period.

3.4 **Simulator Output and Feedback**

Based on the Simulator Parameters set by BPA and Customer Inputs set by «Customer Name» the Simulator shall produce the following results for each one-hour and multiple-hour time increment for the entire Simulator modeling period:

3.4.1 «Customer Name»'s Simulated Output Energy Schedules, simulated discharge, and simulated forebay elevation associated with each Simulator Project. The Simulated Output Energy Schedules shall be in terms of «Customer Name»'s Slice Percentage of the available project generation, rounded to the nearest whole number, whereas the simulated discharge and forebay values shall be normalized.

3.4.2 A list of Customer Inputs submitted by «Customer Name» that were in violation of Operating Constraints pursuant to section 3.3.7 above, or that were not achieved by the Simulator, for each Simulator Project.

3.4.3 A list of Operating Constraints that were not achieved within «Customer Name»'s simulated operation for each Simulator Project.

3.4.4 An explanation for each occurrence from section 3.4.2 and 3.4.3 above.

3.4.5 «Customer Name»'s Hydraulic Link Adjustment amounts as established pursuant to section 3.7 below.

3.5 **Simulator Documentation, Performance Test, Accuracy, and Upgrades**

3.5.1 **Simulator Documentation**

BPA, with «Customer Name»'s input, shall develop a manual with specifications describing the Simulator computations, processes and

algorithms in sufficient detail to permit «Customer Name» to understand and verify the Simulator computations and accuracy of the Simulator outputs. The Simulator specification manual shall include the following:

- A list of specific BPA databases or other sources that are accessed by the Simulator to automatically import data;
- Full documentation, excluding computer code, of the processes by which the Simulator computes and produces output values;
- Full documentation, excluding computer code, of the Simulator functions available to «Customer Name», including access and controls of the Simulator; and
- Full documentation of the data output/display processes and communication protocols associated with «Customer Name»'s computer systems.

3.5.2 If requested, BPA may also provide «Customer Name» assistance in developing an operational manual to explain how the Simulator is to be operated by «Customer Name» and other Slice customers.

3.5.3 **Simulator Performance Test**
BPA shall conduct the following Simulator Performance Test pursuant to section 26.3.3 of this Agreement, and as described in section 3.5.4.3 below.

3.5.3.1 **Energy Test**
Using actual stream flows, operating constraints, initial project elevations, and project generation values for the months of January through September, 2010, as input parameters, a separate Simulator run shall be performed for each month of that period. The energy test will be deemed to have passed for a specific project and month if the month-end simulated project storage content deviates from the actual project storage content by no more than 2 percent of the total available storage for such project. The energy test will be deemed to have failed if one or more of the following occurs:

- Grand Coulee fails to meet the 2 percent storage content deviation test in any single month;
- More than 25 percent of the combined 54 monthly tests (six projects over 9 months) fail to meet the 2 percent storage content deviation test;

- There is any single month in which four or more of the projects fail to meet the 2 percent storage content deviation test; or
- Any of the six projects fails to meet the 2 percent storage content deviation test in all 9 months of the test period.

3.5.3.2 **Peaking Test**

Separate Simulator runs shall be performed as specified below for the following two 3-day periods; the hottest consecutive 3-day period and the coldest consecutive 3-day period that occurred during the period January through September 2010.

Each 3-day test period will be selected using the weighted-average temperatures for three major load centers: Portland, Seattle, and Spokane. The weighted-average temperatures for these load centers will be determined as follows:

- Each city's daily maximum and daily minimum temperature will be averaged;
- The resulting day-average temperature from each city will be weighted by applying load center percentage weightings, which will be determined by BPA and will sum to 100 percent for the three cities; and
- The resulting weighted day-average temperatures for each city will then be combined to determine each day's weighted-average load center temperature.

The daily weighted-average load center temperatures will be averaged for each consecutive 3-day period for the January through September 2010 period. The lowest such average will establish the coldest 3-day period and the highest such average will establish the hottest 3-day period.

The Simulator will be run using actual stream flows, operating constraints, and initial project elevations from the representative test periods as input parameters. Each project's hourly generation request will be set equal to the actual project generation values from the representative test period. The Simulator will compute the resulting hourly simulated discharge and forebay elevation for each project. The peaking test will be deemed to have failed if either of the following occurs:

- the Simulator forebay elevation for any project exceeds the project's elevation limit (either upper or lower) on any hour for either test period; or
- the sum of the generation values produced by the Simulator deviates from the sum of the requested generation values by more than 100 MW on any of the 6 peak hours on any of the test days. The 6 peak hours are the 6 hours with the highest total generation request each day, regardless of whether the hours are consecutive or not.

3.5.3.3 **Ramp Down Test**

Using actual stream flows, operating constraints, initial project elevations, and project generation values from the dates specified below as input parameters, separate Simulator runs shall be performed for each specified date. Each Simulator run will test the simulated hourly ramp down capability for Grand Coulee and Chief Joseph combined for each two consecutive hours between HE 2000 and HE 0200. The ramp down test will be deemed to have failed if one or more of the following occurs:

- The combined simulated generation values for Grand Coulee and Chief Joseph deviates from the combined actual generation values for Grand Coulee and Chief Joseph by more than 100 MW on any hour, including HE 2100 through HE 0200 on any study day;
- The 6-hour average of the combined simulated generation values for Grand Coulee and Chief Joseph deviates from the 6-hour average of the combined actual generation values for Grand Coulee and Chief Joseph by more than 25 aMW for HE 2100 through 0200 on any given study day.
- The down ramp test dates will be:
  January 7-8 (W-Th) and 16-17 (F-Sa), 2010,
  February 4-5 (W-Th) and 24-25 (Tu-W), 2010,
  March 10-11 (Tu-W) and 22-23 (Su-M), 2010,
  April 2-3 (Th-F) and 19-20 (Su-M), 2010,
  May 6-7 (W-Th) and 27-28 (W-Th), 2010,
  June 9-10 (Tu-W) and 21-22 (Su-M), 2010,
  July 1-2 (W-Th) and 30-31 (Th-F), 2010,
  August 12-13 (W-Th) and 20-21 (Th-F), 2010,
  September 6-7 (Tu-W) and 16-17 (Th-F), 2010.

3.5.4 **Simulator Accuracy**

In any model process, there are two predominant sources of error. These are input accuracy errors and model process errors.

3.5.4.1 To minimize such errors BPA shall ensure Simulator Parameters established for the Simulator reflect the correct values for forecasted inflows and Operating Constraints and that the Simulator reasonably represents the operational attributes of the Simulator Projects. BPA shall develop a process to account and correct for differences between forecasted and measured inflows and H/K values reflected in the Simulator in an effort to minimize cumulative deviations. «Customer Name» shall accept such inputs and corrections, and shall ensure that Customer Inputs established for the Simulator reasonably reflect «Customer Name»'s intended use of hourly scheduling flexibility within the established Delivery Limits.

3.5.4.2 «Customer Name» and BPA acknowledge that model errors are inevitable, and the consequences from such errors can be either beneficial or detrimental and will likely be inconsequential. No cumulative accounting of model error impacts shall be required or established. The Parties may consider such impacts on a case-by-case basis.

3.5.4.3 As an ongoing check of the Simulator's accuracy, BPA shall run a retrospective Simulator Performance Test as described in section 2.1.5.3 above, by October 15 of each year calendar during the term of this agreement, beginning with calendar year 2012. The Simulator accuracy criteria for each Simulator Performance Test shall be set equal to actual Simulator accuracy associated with the preceding Simulator Performance Test results. The specific study dates for each Simulator Performance test shall be as agreed by the Parties. Additional study criteria may be added to the annual Simulator Performance Test as agreed by the Parties. The results of each such test shall be made available to «Customer Name» by November 15 of each calendar year. The frequency of such tests may be modified by agreement of the Parties through the SIG process.

3.5.4.4 If any annual Simulator Performance Test results are not within the established accuracy criteria, BPA, with input from «Customer Name» and other members of the SIG, shall establish upgrades necessary to bring the Simulator output in compliance with such established accuracy criteria.

3.5.5 **Simulator Upgrades**

Updates, upgrades, or replacements to the Simulator shall be proposed, developed, and tested by BPA, with input from «Customer

Name» and other members of the SIG. Any such updates, upgrades, or replacements to the Simulator shall be reviewed by the SIG in a process set out in section 5.14 of this Agreement prior to their implementation. At least 30 days prior to BPA implementing any updates, upgrades, or replacements to the Simulator, the Simulator specifications manual described in section 3.5.1 above shall be revised by BPA and distributed to «Customer Name»'s SIG representative.

3.6 Calculation and Application of the Calibrated Simulator Discharge

3.6.1 BPA shall calculate «Customer Name»'s Calibrated Simulator Discharge for each Simulator Project by summing the following components for each hour.

- The value produced by dividing «Customer Name»'s Simulated Output Energy Schedule by «Customer Name»'s Slice Percentage, then dividing the result by the actual H/K associated with each such Simulator Project (previous day average or hourly?);
- The actual Bypass Spill associated with each such Simulator Project;
- The actual required Fish Spill associated with each such Simulator Project;
- «Customer Name»'s simulated Elective Spill associated with each such Simulator Project, and;
- «Customer Name»'s simulated Forced Spill associated with each such Simulator Project

3.6.2 «Customer Name»'s Calibrated Simulator Discharge for each Simulator Project shall be entered into the Simulator as «Customer Name»'s established simulated hourly discharge.

3.7 Calculation and Application of the Hydraulic Link Adjustment

3.7.1 «Customer Name»'s Hydraulic Link Adjustment values shall be determined for the following periods of each day of this Agreement, beginning October 1, 2011.

- The period including hours ending 2300 through 0600;
- The period including hours ending 0700 through 1400; and
- The period including hours ending 1500 through 2200.

3.7.2 «Customer Name»'s Hydraulic Link Adjustment values shall be equal to «Customer Name»'s average Chief Joseph Calibrated Simulator Discharge for each period above, minus the average Chief Joseph measured discharge for the same period.

3.7.3 «Customer Name»'s Hydraulic Link Adjustment values shall be applied as an adjustment to «Customer Name»'s simulated inflow to McNary in an equivalent amount for each hour of the same period for the following day.

4. BALANCE OF SLICE SYSTEM MODULE

The BOSS Module will include processes that compute (1) the BOSS Base amounts, (2) the BOSS Flex amounts, (3) «Customer Name»'s BOSS Deviation Return amounts, and (4) «Customer Name»'s Additional Energy amounts, all as specified below.

4.1 BOSS Base Amount

Consistent with the following provisions, the BOSS Base amount shall be determined by BPA and made available to «Customer Name».

4.1.1 The BOSS Base amount, for each hour, shall be equal to the sum of (1) BPA's latest planned or scheduled generation amounts associated with the BOSS Complex Projects, (2) the amount of Elective Spill BPA implements on the BOSS Complex Projects, (3) the energy associated with Total Augemtation, as described in Exhibit L, Slice System Resources, and (4) the forecast amount of energy associated with System Obligations. System Obligation commitments will be netted against BOSS Complex generation and System Obligation resources will be added to BOSS Complex generation. Energy associated with Total Augmentation included in the BOSS Base amount shall be applied in equal amounts each hour of each FY.

4.1.2 «Customer Name»'s hourly BOSS Base schedules shall be equal to the hourly BOSS Base amounts multiplied by «Customer Name»'s Slice Percentage, after rounding the result to the nearest integer.

4.2 BOSS Flex Amount

Consistent with the following provisions, the BOSS Flex amount shall be determined by BPA and made available to «Customer Name» on an as available basis.

4.2.1 The BOSS Module will (1) determine if there is sufficient flexibility to reshape the hourly generation associated with the Lower Snake Complex that is included in the BOSS Base amount, and if so, (2) provide as output the resulting amount by which the BOSS Base amount can be increased or decreased on any given hour. The BOSS

Module will specify the BOSS Flex amounts that are available for preschedule as well as adjusted BOSS Flex amounts that are available for real-time.

4.2.2 Such BOSS Flex amounts shall reflect, in the judgment of BPA, the amount by which the BOSS Base amount can reasonably be reshaped using the within-day flexibility available in the Lower Snake Complex, taking into account the Operating Constraints and stream flow conditions.

4.2.3 «Customer Name» shall determine its planned hourly use of the BOSS Flex and submit to BPA as part of the preschedule process, positive and negative hourly BOSS Flex schedules that sum to zero for each day. A positive hourly BOSS Flex schedule shall reflect an increase relative to the BOSS Base amount and a negative hourly schedule shall reflect a decrease relative to the BOSS Base amount.

4.2.4 In real-time, «Customer Name» shall update its hourly BOSS Flex schedules to comply with revised BOSS Flex amounts. If a mid-day change to the BOSS Flex amounts prohibits «Customer Name» from scheduling its net day-total BOSS Flex energy to equal zero, then «Customer Name» shall adjust its BOSS Flex schedules to bring its net day total BOSS Flex schedule as close to zero as possible within the revised BOSS Flex amounts. Any non-zero day-total BOSS Flex scheduled for any calendar day shall be added to «Customer Name»'s BOSS Deviation Account balance.

4.2.5 The BOSS Flex available to «Customer Name» shall be equal to the BOSS Flex determined pursuant to sections 4.2.2 and 4.2.3 above multiplied by «Customer Name»'s Slice Percentage, after rounding the result to the nearest integer.

4.2.6 If «Customer Name» determines it has a significant risk of not meeting its firm load service at any time, «Customer Name» may request that the PS Slice Scheduler, as time permits and based on his/her professional judgment, assess the ability to modify the established BOSS Flex amounts within applicable Operating Constraints. If the PS Slice Scheduler alters such BOSS Flex amounts, such updated values shall apply to all purchasers of the Slice Product. «Customer Name» acknowledges such assessment by the PS Slice Scheduler may result in an increase, decrease or no change to any of the remaining hourly BOSS Flex amounts.

4.3 **BOSS Deviation Return Amounts**

The BOSS Module will compute and establish «Customer Name»'s BOSS Deviation Return amounts as established in section 3.4.1 of Exhibit N.

4.4 **Additional Energy Amounts**
The BOSS Module will compute and establish «Customer Name»'s Additional Energy schedules as established in sections 9.2 and 9.3 of Exhibit N.

5. DEFAULT USER INTERFACE

BPA shall develop and maintain a Default User Interface (DUI) for «Customer Name»'s use in interacting with the Slice Computer Application. «Customer Name» may utilize the DUI as its primary interface, but shall be required maintain back-up functionality through the DUI in the event «Customer Name»'s in-house interface, should it choose to develop one, is unavailable. The DUI shall include the functional capabilities listed below.

5.1 Provide «Customer Name» access to the Simulator for submittal of Customer Inputs and to run simulator studies.

5.2 Provide «Customer Name» feedback from the Simulator and BOSS Module.

5.3 Provide «Customer Name» input/output displays related to the Simulator and BOSS Module.

6. SCA Reports

6.1 No later than 5 minutes following the end of each delivery hour, the SCA shall provide «Customer Name» a detailed report that specifies (1) «Customer Name»'s Calibrated Simulator Discharges as specified in section 3.6 of this Exhibit M, (2) «Customer Name»'s SOA balances as specified in section 3 of Exhibit N, (3) «Customer Name»'s adjusted forebay elevations for the Simulator Projects as specified in section 3.3 of this Exhibit M, and (4) the after-the-fact Project data «Customer Name» shall use to verify its hourly SOA balances.

2.2 BPA shall make available an automated report «Customer Name» may access upon remote request, which shall present all changes to Simulator Parameters that have been made by BPA since the time of «Customer Name»'s previous remote request. BPA shall include brief, concise explanatory statements coincidental with significant Simulator Parameter changes.

7. TOTAL SLICE OUTPUT AMOUNTS

«Customer Name»'s total Slice Output amount for any given hour shall be equal to the sum of «Customer Name»'s total Simulated Output Energy Schedule and «Customer Name»'s total BOSS schedule for each such hour. «Customer Name»'s total Simulated Output Energy Schedule shall be equal to the sum of «Customer Name»'s Simulated Output Energy Schedules for each of the Simulator Projects. «Customer Name»'s total BOSS schedule shall be equal to the sum of «Customer Name»'s BOSS Base amount, BOSS Flex schedule, BOSS Deviation Return amount, and Additional Energy amount.

8. REVISIONS

To be completed.