

## 5 MR AGREEMENT

Date: SEPTEMBER 2, 2010

Contract No. 3825

THIS AGREEMENT (5 MR Agreement) is made and entered into by and among the following parties:

**COMPANY: MURRAY STATE UNIVERSITY**

Legal Status: an agent of the Commonwealth of Kentucky created and existing under and by virtue of the laws of said Commonwealth

Mail Notices

to: Central Plant Foreman  
 at: Murray State University  
 615 Gilbert Graves Drive  
 Murray, Kentucky 42071

Telephone numbers for suspension notices: (270) 809-3805 is the number of the dedicated line designated in accordance with subsection 3.6.3 below.

If no one is reached at the dedicated line, TVA may (without obligation) also provide suspension notices at the following number(s): (270) 809-2222 and (270) 873-7199.

**DISTRIBUTOR: ELECTRIC PLANT BOARD OF THE CITY OF MURRAY, KENTUCKY**

Legal Status: a municipal corporation created and existing under and by virtue of the laws of the Commonwealth of Kentucky

Mail Notices

to: General Manager  
 at: Murray Electric System  
 Post Office Box 1095  
 Murray, Kentucky 42071-1095

**TVA: TENNESSEE VALLEY AUTHORITY**

Legal Status: a corporation created and existing under and by virtue of the Tennessee Valley Authority Act of 1933, as amended (TVA Act)

Mail Notices

to: Executive Vice President, Customer Relations  
 at: Tennessee Valley Authority  
 Post Office Box 292409  
 Nashville, Tennessee 37229-2409

### W I T N E S S E T H:

WHEREAS, Distributor purchases power from TVA for resale under Power Contract TV-59576A, dated April 22, 1982, as amended; and

WHEREAS, the power supply contract between Distributor and Company, of even date herewith (Company Contract), provides for a Contract Demand of 11,500 kW for a term of at least five years for the operation of Company's plant near Murray, Kentucky; and

WHEREAS, Distributor and Company wish to participate in TVA's 5 Minute Response (5 MR) Interruptible Program under which a portion of Company's Contract Demand will be designated as 5 MR interruptible power; and

WHEREAS, Company, Distributor, and TVA wish to supplement and amend the Company Contract in the respects necessary to provide for such participation during the term of this 5 MR Agreement;

NOW, THEREFORE, for and in consideration of the premises and of the mutual agreements set forth below, and subject to the provisions of the TVA Act, the parties enter into this 5 MR Agreement by agreeing as follows:

### **SECTION 1 - DEFINITIONS**

As used in this 5 MR Agreement:

- 1.1 "**5 MR Demand**" for any clock half-hour shall mean the amount (up to and including the 5 MR available in that half-hour), if any, by which the Total Demand for that half-hour exceeds the Protected Demand.
- 1.2 "**Billing Period**" shall mean the period of time from the Meter-Reading Time in one calendar month to the Meter-Reading Time in the next calendar month used to determine the power and energy amounts for which Company is to be billed.
- 1.3 "**Contract Demand**" shall mean the total kW amount of power made available under the Company Contract.
- 1.4 "**Demand Ratchet**" shall mean the exception language set out in the section headed "Determination of Demand" of the Rate Schedule which establishes the level below which billing demand cannot fall.
- 1.5 "**Effective Interruptible Demand**" shall mean the kW amount of 5 MR Demand that TVA, in its reasonable judgment, deems to be available for suspension at the time of the 200 highest hourly average kW amounts of TVA's system load each year.
- 1.6 "**Excess Demand**" for any clock half-hour shall mean the amount, if any, by which the Total Demand for that half-hour exceeds the aggregate amount of (a) the Protected Demand and (b) the 5 MR Demand for that clock half-hour.
- 1.7 "**Guidelines**" shall mean the Suspension Noncompliance Guidelines attached to and made a part of this 5 MR Agreement. The Guidelines may be changed or adjusted by TVA from time-to-time upon 60 days' notice; provided, however, that (a) any Credit Reduction Charge amount provided for by the Guidelines may only be changed or adjusted as provided for in 3.5 below and (b) with respect to Guideline 6 - Termination, no change or adjustment to the Guidelines shall reduce (i) the noncompliance threshold giving rise to TVA's termination right to an amount less than 10 percent or (ii) the notice period for any such termination to less than 60 days.
- 1.8 "**Load Factor**" for any Billing Period shall mean a percentage calculated by dividing the total metered energy for that Billing Period by the product of the Metered Demand for that Billing Period and the number of clock hours in that Billing Period.

- 1.9 "**Metered Demand**" for any Billing Period shall mean the highest average amount during any clock half-hour of that Billing Period of Company's load measured in kW.
- 1.10 "**Meter-Reading Time**" for any calendar month shall mean 0000 hours Central Prevailing Time, on the first day of the following calendar month, except that Distributor, after first obtaining TVA's concurrence, may change the time and date of the meter reading upon notice to Company and TVA.
- 1.11 "**Proprietary Information**" shall mean any and all information related to projected forecasts of TVA's power system operations and other forecasts relative to potential suspensions of 5 MR disclosed by TVA to Company whether via the System or otherwise.
- 1.12 "**Protected Demand**" shall mean the portion of the Contract Demand specified in 3.1 below that is not subject to suspension of availability under 3.6 below.
- 1.13 "**Rate Schedule**" shall mean Distributor's rate schedule applicable for billing Company under the Company Contract, as it may be modified, changed, replaced, or adjusted from time to time as provided under contractual arrangements between Distributor and TVA (together with the currently effective Adjustment Addendum).
- 1.14 "**System**" shall mean the computer-based information system or other information system designated by TVA under 3.7 below.
- 1.15 "**Total Demand**" for each clock half-hour shall be the average amount during that half-hour of Company's load measured in kW.
- 1.16 "**Wholesale Rate Schedule**" shall mean the wholesale rate schedule contained in the Schedule of Rates and Charges to the Wholesale Power Contract between TVA and Distributor.

## SECTION 2 - TERM AND TERMINATION

- 2.1 **Effective Date and Term.** This 5 MR Agreement shall become effective as of 0000 hours Central Prevailing Time on SEPTEMBER 1, 2016 (Effective Date). Except as otherwise provided, it shall continue in effect through the first Meter-Reading Time that falls at least 5 years after the Effective Date of this 5 MR Agreement.
- 2.2 **Termination of 5 MR Agreement.** This 5 MR Agreement may be terminated:
- by any party effective on or after the 3<sup>rd</sup> anniversary of the Effective Date by such party giving at least 2 years' notice;
  - by Company in the event that any annual decrease in the 5 MR Credit Amount is more than 12 percent, upon at least 15 days' notice to TVA prior to the effective date of such decrease;
  - by Company in the event that any annual increase in the 5 MR Credit Reduction Charge is more than 12 percent, upon at least 15 days' notice to TVA prior to the effective date of such increase;

- (d) by TVA or Distributor in accordance with the Guidelines; or
- (e) by TVA or Distributor upon at least 60 days' notice if: (i) Company does not maintain a current Load Reduction Plan, (ii) Company's Effective Interruptible Demand drops below 500 kW, (iii) Company's average of the most recent 12 monthly Load Factors (Average Yearly Load Factor) drops below 40 percent, or (iv) Company fails to respond properly to a test of any system that would be utilized by TVA to suspend 5 MR in accordance with 3.6 below.

**2.3 Termination of Company Contract.** Notwithstanding anything in the Company Contract that may be construed to the contrary, except as otherwise provided below, the parties agree that during the term of this 5 MR Agreement, no notice by Company or Distributor to terminate the Company Contract shall be effective sooner than the date on which termination of this 5 MR Agreement can be achieved under 2.2 (a) above. It is expressly recognized that this 5 MR Agreement and the Company Contract may be terminated by Distributor, or power supply from Distributor under the Company Contract may be suspended, in accordance with the Rules and Regulations of Distributor.

### **SECTION 3 - 5 MR**

**3.1 Protected Demand and 5 MR Availability.** Subject to the other provisions of this 5 MR Agreement and the Company Contract, during the term of this 5 MR Agreement the provisions of the Company Contract providing for Company's Contract Demand shall be deemed amended in the respects necessary to provide:

- (a) that 0 kW of Company's Contract Demand is designated to be Protected Demand,
- (b) that 11,500 kW shall be the portion of Company's Contract Demand designated as 5 MR and subject to suspension of availability under 3.6 below, and
- (c) that Distributor shall make the 5 MR portion of Company's Contract Demand available, in such amounts as TVA, in its judgment, is able to supply, up to and including the kW amount of 5 MR specified in (b) above.

Further, it is expressly recognized and agreed that the Protected Demand and the kW amount of 5 MR made available under this 5 MR Agreement may be adjusted by TVA in accordance with the Guidelines.

**3.2 Determination of Billing Amounts.** For purposes of determining the charges under the Rate Schedule, the following shall apply:

**3.2.1 Billing Demand.** The highest Total Demand in a Billing Period shall be the billing demand; provided, however, that the billing demand shall in no case be less than the amount calculated under the Demand Ratchet. Further, any time the billing demand is calculated under the Company Contract using the Demand Ratchet, then Company's bill shall be reduced by the amount by which

- (a) the amount calculated under Adjustment 3 of the Wholesale Rate Schedule following application of the Demand Ratchet as provided for in the "Determination of Demand" section of the Rate Schedule

exceeds

- (b) the amount that would be calculated under Adjustment 3 of the Wholesale Rate Schedule based on using Protected Demand instead of Contract Demand in the application of the Demand Ratchet;

where, for the sole purpose of calculating the amount described in (b) above, the words "the higher of the currently effective contract demand or the highest billing demand established in the preceding 12 months" used in the "Determination of Demand" section of the Rate Schedule shall be replaced by "the sum of the Protected Demand and any amount by which the highest billing demand established in the preceding 12 months exceeds the Contract Demand."

3.2.2 Excess Demand. For purposes of applying the charges set out in the section headed "Base Charges" of the Rate Schedule, if this section provides for an additional amount to be applied as a part of the demand charge to each kW "by which the customer's billing demand exceeds its contract demand," for purposes of this 5 MR Agreement, this additional amount shall be applied to each kW of Company's highest Excess Demand established during a Billing Period.

3.3 Conflicts. In the event of any conflict between the Rate Schedule and this 5 MR Agreement, this 5 MR Agreement shall control. In the event of any conflicts between the Company Contract and this 5 MR Agreement, this 5 MR Agreement shall control.

3.4 Administrative Costs Charge. To help recover administrative and other costs of making the 5 MR program available (Administrative Costs), Distributor's monthly power invoice to Company shall include, and Company shall pay, a monthly Administrative Costs Charge (currently \$700 for the first meter and \$50 for each additional meter at the delivery point identified in the Company Contract). This charge shall be due and payable each month on the due date for the monthly power invoice. Not more frequently than annually, by at least 60 days' notice to Company, TVA may increase or decrease the Administrative Costs Charge to reflect changes in TVA's or Distributor's Administrative Costs.

### 3.5 5 MR Credit.

3.5.1 Credit Amount. In each month that Company's Load Factor exceeds 50 percent, a credit of \$4.00 per kW (Credit Amount) of the highest 5 MR Demand established in that month shall be applied to Company's bill.

3.5.2 Credit Reduction Charge. In each Billing Period during which Company fails to suspend its 5 MR takings as required under 3.6 below, a charge (Credit Reduction Charge) shall be applied to Company's bill as set out in the Guidelines.

It is expressly recognized that application of the Credit Reduction Charge shall be without prejudice to any other rights of Distributor or TVA that may arise due to any failure by Company to comply with a 5 MR suspension.

3.5.3 Adjustments. Not more frequently than once in any 12-month period, by at least 60 days' notice to Company, TVA may change or adjust:

- (a) the Credit Amount provided for in 3.5.1 above, and/or

(b) any Credit Reduction Charge amount provided for in the Guidelines,

to assure TVA of such cost recovery as the TVA Board determines to be necessary to meet the then-existing circumstances; provided, however, that any such changed or adjusted amounts shall be applied to all customers to which 5 MR is made available.

### 3.6 Reliability Suspensions of Availability.

3.6.1 5 MR Subject to Suspension by Notice. TVA may suspend the availability of 5 MR upon 5 minutes' notice to Company. Such availability of 5 MR may be suspended at any time that TVA determines, in its sole judgment, that such a suspension is necessary or appropriate to address the reliability of the TVA system or the reliability of any portion of the TVA system.

Any such suspension shall become effective, and Company shall cease taking 5 MR, at the expiration of the 5-minute notice period. Notwithstanding anything that may be construed to the contrary, the availability of 5 MR remains at all times subject to the provisions of subsection 4.3 below covering interference with availability or use of power.

3.6.2 Suspension Periods. For billing purposes, each period of suspension shall begin when the suspension becomes effective and shall end at the time notice is given of the restoration of the availability of 5 MR; provided, however, that if such notice is not given before the end of the Billing Period in which a period of suspension begins, that period of suspension shall be deemed to end at the end of the Billing Period and a new period of suspension shall be deemed to begin at the start of the next Billing Period and continue until the time notice is given of the restoration of the availability of 5 MR.

3.6.3 Telephone Line for Suspension Notices. Company shall at all times maintain, in accordance with guidelines furnished or approved by TVA, a telephone line (or an alternative system approved by TVA) dedicated to the receipt of notices under this paragraph.

3.6.4 Load Reduction Plan. It is recognized that prior to the Effective Date of this agreement Company provided Distributor a plan certified by its authorized representative (Load Reduction Plan) describing the actions that will be taken by Company to suspend its 5 MR takings as required under this subsection 3.6. Company shall update the Load Reduction Plan annually and provide Distributor with the updated plan by March 1 of each year. Annual updates of the Load Reduction Plan, acceptable to Distributor and TVA, shall be certified by an authorized representative of Company. Within 24 months of the Effective Date of this agreement, Company shall demonstrate its Load Reduction Plan by completing a Load Demonstration in accordance with the Guidelines.

### 3.7 Power System Information.

(a) For Company's convenience, TVA may from time to time provide Company with information related to projected forecasts of TVA's power system operations and other forecasts relative to potential suspensions of 5 MR availability via a System designated by TVA for obtaining access to such information or via other means. All such forecast information shall be deemed to be Proprietary Information and it is expressly recognized and agreed that Company's obligations with respect to such Proprietary Information

provided during the term of this agreement shall survive its termination or expiration. The System will be owned, operated, and maintained by TVA.

As a condition of access to the System and in consideration of TVA's making Proprietary Information available to Company, (i) Company agrees not to divulge Proprietary Information to third parties without the written consent of TVA, and (ii) Company further agrees not to use the Proprietary Information disclosed to it by TVA to compete with TVA or for any purpose other than those set forth in this section 3. Nothing in this paragraph shall prevent Company from making disclosures to other parties that are required by law; provided, however, Company shall endeavor to secure the agreement of such other party to maintain the information in confidence. In the event that Company is unable to secure such agreement, Company shall notify TVA with reasonable promptness so that TVA may join Company in the pursuit of such an agreement of confidence, or take any other action it deems appropriate.

- (b) For Company's access to the System, Company shall provide, at its expense, such software, hardware, or other equipment as may be necessary. In addition, Company shall be responsible for any telephone or other communications charges incurred in connecting to the System in the manner designated by TVA. Company shall access the System only in accordance with guidelines furnished or approved by TVA and shall use the System only in connection with obtaining information about 5 MR under this 5 MR Agreement.
- (c) Nothing in this subsection 3.7 shall restrict or limit TVA's right to suspend 5 MR provided for in subsection 3.6 above and TVA may suspend 5 MR under said subsection 3.6 without regard to whether or not a potential suspension has been projected. Further, the failure or inability for any reason of Company to access information about a potential suspension, through the System or otherwise, shall not alter Company's obligation to comply with any suspension of 5 MR.
- (d) TVA makes no statement, representation, claim, guarantee, assurance, or warranty of any kind whatsoever, including, but not limited to, representations or warranties, express or implied, of merchantability, fitness for a particular use or purpose, accuracy, or completeness, of any estimates, information, service, or equipment furnished or made available to Company under this subsection 3.7. Company hereby waives, and releases the United States of America, TVA, and their directors, officers, agents, and employees from any and all claims, demands, or causes of action, including, without limitation, consequential damages, arising out of or in any way connected with any estimates, information, service, or equipment furnished or made available under this section.

## **SECTION 4 - MISCELLANEOUS PROVISIONS**

### **4.1 Notices.**

4.1.1 Notice. Any notice required by this 5 MR Agreement shall be deemed properly given if posted by TVA electronically on the System as defined under 3.7 above or delivered in writing to the address specified by this 5 MR Agreement: (a) personally, (b) by recognized overnight courier service, or (c) by United States Mail, postage prepaid.

4.1.2 Certain Notices May Be Oral. Notices between the authorized operating representatives of the parties may be oral, except for notice of termination under section 2 of this 5 MR Agreement, which must be in writing. Notices that may be oral shall be confirmed as provided by one of the methods in 4.1.1 above. Notwithstanding anything else in this subsection 4.1, notices of suspension under subsection 3.6 may be oral and shall not require confirmation by TVA consistent with subsection 4.1.1 above.

4.1.3 Changes in Persons to Receive Notice. The designation of the person to be so notified, or the address of such person, may be changed at any time and from time to time by either party by similar notice.

#### 4.2 Relationship of Distributor, Company, and TVA.

4.2.1 Company to Remain a Customer of Distributor. It is expressly recognized that Company remains a customer of Distributor and is not a directly served customer of TVA. TVA is a party to this 5 MR Agreement only because of the unique nature of 5 MR. Distributor retains responsibility for all power service and customer relations matters except as provided otherwise with respect to 5 MR. TVA and Company may at any time communicate directly concerning matters relating to 5 MR; further TVA shall have sole responsibility for

- (a) requiring reductions in availability of 5 MR, and
- (b) maintenance of records of the status of the availability of 5 MR.

4.2.2 Additional Contract Amendments. No assignment of Company Contract or amendments of Company Contract relating to Contract Demand or term, shall be effective unless they are approved by TVA.


4.3 Interference With Availability of Power. The term "force majeure" shall be deemed to be a cause reasonably beyond the control of Distributor or TVA, such as, but without limitation to, injunction, administrative order, strike of employees, war, invasion, fire, accident, floods, backwater caused by floods, acts of God, or inability to obtain or ship essential services, materials, or equipment because of the effect of similar causes on suppliers or carriers. Acts of God shall include without limitation the effects of drought if the drought is of such severity as to have a probability of occurrence not more often than an average of once in 40 years.

It is recognized by the parties that the availability of power to Company may be interrupted or curtailed from time to time during the term of this contract because of force majeure or otherwise. Company shall be solely responsible for providing and maintaining such equipment in its plant and such emergency operating procedures as may be required to safeguard persons on its property, its property, and its operations from the effects of such interruptions or curtailments. Company assumes all risk of loss, injury, or damage to Company resulting from such interruptions or curtailments.

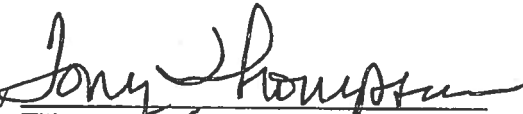


IN WITNESS WHEREOF, the parties have caused this 5 MR Agreement to be executed by their duly authorized representatives, as of the day and year first above written.


**MURRAY STATE UNIVERSITY**

By   
Title: VP - Gen & Admin Svcs

**ELECTRIC PLANT BOARD OF THE CITY OF MURRAY, KENTUCKY**

By   
Title: Gen. Mgr.

**TENNESSEE VALLEY AUTHORITY**

By   
Senior Vice President  
Commercial Operations and Pricing

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## Suspension Noncompliance Guidelines

### Guideline 1 - Definition of terms:

5-Minute Period: For any clock hour, the first 5-consecutive-minute clock interval measured from the beginning of that hour and each 5-consecutive-minute clock interval thereafter in that hour.

Average Noncompliant Load: During any suspension of the availability of 5 MR, the average kW amount by which Company's average load during each 5-Minute Period of the suspension period exceeds its Protected Demand, up to and including the amount of 5 MR available under subsection 3.1 of the Overlay.

Credit Reduction Charge: The charge that shall apply to Company in the event of a Noncompliance situation.

Company: Shall have the same definition as in the Overlay.

Guidelines: Shall have the same definition as in the Overlay.

Load Demonstration: A live test of Company's ability to achieve its Protected Demand level within 5 minutes' notice. If such live test is not an actual TVA suspension, Company shall provide Distributor and TVA at least 48 hours' notice of such Load Demonstration. If TVA calls for a suspension of the availability of 5 MR, and if Company is successful in achieving its Protected Demand level within 5 minutes' notice, such successful suspension shall count as Company's Load Demonstration. A Load Demonstration shall be completed within 24 months of the beginning of the Overlay.

Maximum Noncompliant Load: During any suspension of the availability of 5 MR, the maximum kW amount by which Company's average load in any 5-Minute Period of the suspension period exceeds the Protected Demand, up to and including the amount of 5 MR available under subsection 3.1 of the Overlay.

Noncompliance: The situation when TVA suspends the availability of 5 MR and Company does not suspend its entire 5 MR takings during any 5-Minute Period of a suspension in accordance with subsection 3.6 of the Overlay.

Noncompliance Percentage: The percentage calculated by dividing the Maximum Noncompliant Load by the kW amount of 5 MR made available under subsection 3.1 of the Overlay.

Overlay: The 5 MR Agreement (as it may be amended) to which these Guidelines are attached.

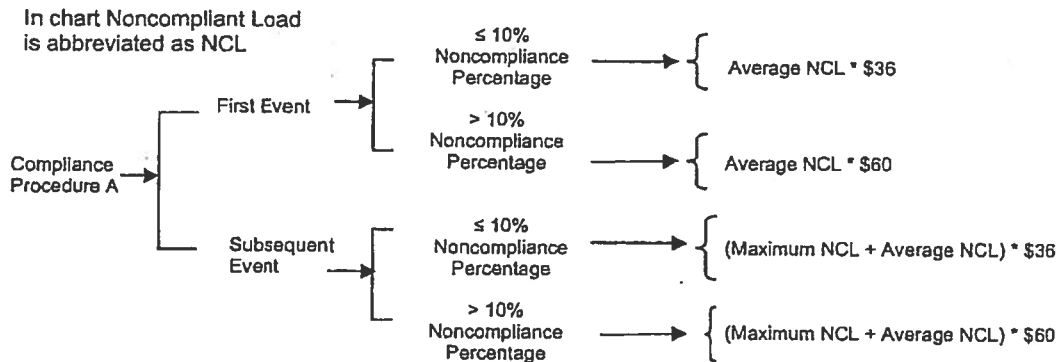
Protected Demand: Shall have the same definition as in the Overlay.

**Guideline 2 - Company has completed Load Demonstration:** In the event of a Noncompliance; if Company has completed its Load Demonstration or if it is in the first 24 months of the Overlay; a Credit Reduction Charge of:

- a) \$36 per kW if Company has a less than or equal to 10% Noncompliance Percentage during a suspension, or
- b) \$60 per kW if Company has a greater than 10% Noncompliance Percentage during a suspension

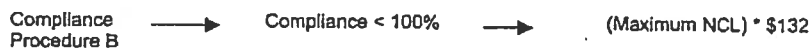
shall be applied (i) to the Average Noncompliant Load following the first Noncompliance and (ii) to the sum of the Maximum Noncompliant Load and the Average Noncompliant Load for any subsequent Noncompliance.

**GUIDELINE 2 CREDIT REDUCTION CHARGE CHART**



**Guideline 3 - Company has not completed Load Demonstration:** In the event of a Noncompliance, if Company has not completed its Load Demonstration within 24 months of the effective date of the Overlay, a Credit Reduction Charge of \$132 per kW shall be applied to Company's Maximum Noncompliant Load.

**GUIDELINE 3 CREDIT REDUCTION CHARGE CHART**



**Guideline 4 - Credit Reduction Charge cap:** Each Credit Reduction Charge shall be capped so that the maximum charge will not exceed the aggregate amount of 5 MR credits that Distributor has paid Company, during the most recent 12 months, by more than 20 percent. If Company has not been in the 5 MR program for 12 months, the Credit Reduction Charge would be capped at the amount of credits TVA calculates Company would receive over a year based on Company's average monthly credits plus 20 percent. If Company has a Noncompliance in the first month of the Overlay, then the Credit Reduction Charge would be capped at the amount of credits TVA calculates Company would receive over a year based on the 5 MR credit that Company receives in that first month plus 20 percent.

**Guideline 5 - Adjustment of Protected Demand:** TVA may increase the Protected Demand of Company by an amount equal to the Maximum Noncompliant Load upon at least 60 days' notice following any Noncompliance.

**Guideline 6 - Termination:** It is recognized that suspension compliance is the essence of the Overlay. Accordingly, it is expressly agreed that after the first Noncompliance under Guideline 2, on any subsequent Noncompliance, if such Noncompliance is over 10 percent, TVA or Distributor may terminate the Overlay upon not less than 60 days' notice. In the event of a Noncompliance under Guideline 3, TVA shall terminate the Overlay upon not less than 60 days' notice.