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### CRITICAL ENERGY INFRASTRUCTURE INFORMATION HAS BEEN REMOVED FROM THIS SUBMITTAL FOR PRIVILEGED TREATMENT

September 8, 2005

Lawrence Mansueti Office of Electricity Delivery and Energy Reliability U.S. Department of Energy Rm. 8H-033 1000 Independence Avenue Washington, D.C. 20585

Re: Potomac River Generating Station Dept. of Energy Case No. EO-05-01

Dear Mr. Mansueti:

PJM Interconnection, L.L.C. and PEPCO Holdings, Inc. is hereby providing you with additional information concerning reliability impacts under various system conditions associated with the unavailability of the Potomac River Generating Station to serve load in the D.C. area. Also enclosed as part of this submittal is material provided by PEPCO (**balance of sentence redacted**) In addition, there is a discussion concerning the impacts of demand side response in addressing this situation.

PJM and PEPCO request that this information remain confidential pursuant to 10 CFR section 205.9 (f) and a Confidentiality Agreement executed among PJM, PEPCO Holdings and the Department. The information contained herein should be kept confidential as such information constitutes Critical Energy Infrastructure Information the release of which could adversely impact national security. A redacted version of this document will be prepared and provided to you under separate cover.

If you have any questions, please contact me at 202-423-4743 or Glen Timmons of PEPCO at 202-872-4292.

Very truly yours,

Craig Glazer

Cc: Glen Timmons, PEPCO Holdings, Inc.
Jack Strausman, Associate General Counsel, PEPCO Holdings, Inc.
Michael Kormos, PJM Interconnection, L.L.C.
Steven Herling, PJM Interconnection, L.L.C.

# POTOMAC RIVER SCENARIOS

The "scenarios" described below have been analyzed jointly by PEPCO and PJM and are intended to capture conditions where some or all of the load in downtown Washington, D.C. (the "Potomac River area") could face interruption of electric service if generating units at the Potomac River station are not operating. These scenarios are not intended to represent alternative scenarios. Rather, Scenarios 2 and 3 describes the need for units at the Potomac River generating station to be *available* to serve load during scheduled maintenance of electrical supply facilities (Scenario 2) or in response to a forced outage of one of the supply circuits (Scenario 3). Mirant will need to detail the particular operating condition of the individual units including minimum times needed to start-up and load Potomac River units in order to meet the circumstances outlined in Scenarios 2 and 3. Scenario 1 details the need for certain units at the plant to actually serve load (as opposed to being available to serve load) during high load conditions.

#### Scenario 1—REDACTED

<u>Description:</u> With all facilities in-service, the system must be operated so that no transmission facilities exceed their normal ratings and so that for the loss of any single facility (single contingency) no remaining facilities exceed their emergency ratings. **REDACTED** 

Load conditions in the area served by Potomac River vary widely based on weather conditions and business activities. A load profile for period from December 1, 2004 through August 31, 2005 is included as Exhibit 2. Summer loads in the Potomac River area for 2005 totaled approximately 544 MW.

#### Impact: REDACTED

<u>Proposed Risk Mitigation:</u> PJM will provide notice to Mirant of the amount of Potomac River generation required to maintain the transmission system within the

limits outlined above based on forecast load within the Potomac River area. **REDACTED** The specific start times needed by Mirant to operate those units safely and consistent with good operating practice will be specified by the plant operators. Mirant will provide this information to PJM and PJM will make its load forecast and other pertinent information available to Mirant and all market participants. PJM will provide advanced notice of generation requirements taking into account the operating restraints Mirant places on the Potomac River units.

## Scenario 2—REDACTED

<u>Description:</u> Maintenance outages are not normally scheduled during summer peak load conditions. **REDACTED** 

#### Impact: REDACTED

<u>Proposed Risk Mitigation</u>: **REDACTED** PJM will provide notice to Mirant of the amount of Potomac River generation required to support the entire Potomac River area load **REDACTED** Mirant will operate Potomac River units in response to PJM dispatcher instructions **REDACTED**. The specific start times needed by Mirant to operate those units safely and consistent with good operating practice will be specified by the plant operators. Mirant will provide this information to PJM and PJM will make its load forecast and other pertinent information available to Mirant and all market participants. PJM will provide advanced notice of unit requirements taking into account the operating restraints Mirant places on the Potomac River units.

#### Scenario 3 — REDACTED

Description: **REDACTED** 

Impact: REDACTED

<u>Proposed Risk Mitigation</u>: **REDACTED** The total amount of generation required will depend on forecast load within the area and will vary as noted on Exhibit "2". PJM will provide notice to Mirant of the amount of Potomac River generation required to maintain the transmission system within the limits outlined above **REDACTED**. Mirant will operate Potomac River units in response to PJM dispatcher instructions when **REDACTED**. The specific start times needed by Mirant to operate those units safely and consistent with good operating practice will be specified by the plant operators. Mirant will provide this information to PJM and PJM will make its load forecast and other pertinent information available to Mirant and all market participants. PJM will provide advanced notice of unit requirements taking into account the operating restraints Mirant places on the Potomac River units.

## REDACTED

## **REDACTED IMPACT OF DEMAND SIDE RESPONSE**

### REDACTED

## **REDACTED**.

## **REDACTED**.

The potential for demand side management to mitigate the reliability effects of losing Potomac River generation is limited at this point since only those customers served from the Potomac River substation would have any effect on this particular reliability issue. The programs currently available are voluntary load curtailment and the PJM Emergency Load Response Program under the PJM Tariff. Typically, these programs would have a minimal impact on load, and such curtailments are of a limited duration.

#### REDACTED

#### **RISK OF EXPERIENCING A LOSS OF LOAD**

#### **REDACTED**.

**REDACTED** The attached Exhibits 2 and 3 illustrates the actual and forecast peak loads served from the Potomac River substation, the historical and scheduled transmission outages, and the actual hourly loads for recent months.

#### CONCLUSION

The fact remains that there is a need to balance the operational requirement for this plant with the environmental impact on the surrounding community. There should be a solution that allows the plant to be ready for operation on short notice as well as actually operating during periods **REDACTED**. In this way the additional risk will be minimized until such time that additional transmission facilities can be constructed and placed into service.

## Exhibit 1

EXHIBIT 2

EXHIBIT 3