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Integrated Resource Plan

Generation Technology Reports

Rush Island Unit 3 Feasibility Study

Black & Veatch, October 2004

PUBLIC VERSION

Corporate Planning Department

December 2005

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Generation Technology Reports
for
AmerenUE Integrated Resource Planning

Summary:

These reports summarize the various analyses and studies that were completed to provide generation technology inputs for the AmerenUE integrated resource planning process. The studies included assessments of various potential generation technologies to supply capacity for AmerenUE. The assessments consisted of both "screening level" and, in some cases, detailed evaluations of different generation technologies. Several of the evaluations included a comparison of technical features, as well as a comparison of costs, performance and emissions.

The eight reports, in chronological order, are:

1. **Venice Combined Cycle Study** – Black & Veatch, December 2002
2. **Strategic Siting Study** – Burns & McDonnell, September 2004
3. **Missouri Pumped Storage Project Concept Study** – Montgomery Watson Harza, September 2004
4. **Rush Island Unit 3 Feasibility Study** – Black & Veatch, October 2004
5. **Rush Island Unit 3 Conceptual Cost & Performance Study** – Sargent & Lundy, October 2004
6. **Generation Technology Assessment** – Burns & McDonnell, November 2004
7. **Nuclear Industry Overview & IRP Analysis Parameters** – Navigant Consulting, June 2005
8. **IGCC Technology Assessment Report** – Sargent & Lundy, September 2005

Report Number: 4
Deliverable: Rush Island Unit 3 Feasibility Study
Date Completed: October 2004
Author: Black & Veatch

This report presents Black & Veatch's independent conceptual approach, all-in cost estimate and schedule for a new supercritical coal-fired unit at AmerenUE's Rush Island Station to support AmerenUE's resource planning processes. The results and recommendations are based upon both "bottom up" and "top down" evaluations considering current competitive market information for all engineering, equipment and construction estimates. The study provides results for the following parameters:

- Predicted net plant performance
- Predicted stack emissions
- All-in cost estimate
- Project schedule
- Plant conceptual configuration

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AmerenUE
Rush Island Unit 3

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B&V File 10.5000
BV/AUE-002
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AmerenUE
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Federal Express

Subject: Rush Island Unit 3
Feasibility Study

Attention: Mr. Scott J. Plocher, P.E.
Project Engineer, New Generation Projects

Mr. Richard D. Smith, P.E., PMP
Manager, New Generation & Environmental Projects

Gentlemen:

Black & Veatch is pleased to provide this Feasibility Study of our conceptual approach, all-in cost estimate, and schedule for a new 827 MW net output supercritical coal fired unit at Ameren's Rush Island Station. We have incorporated the comments received during our review of the Draft Feasibility Study with your team on Wednesday, September 22, 2004, at Ameren's headquarters. A copy of the action item list is enclosed, which indicates a few outstanding items that will be addressed next week.

We believe the conceptual approach offered is aggressive and achievable. The results and recommendations presented were developed applying a rigorous conceptual design process and then confirmed with a "top down" evaluation, both approaches utilizing current market information. A high estimate confidence level can be quickly achieved with a small number of additional activities described in the Executive Summary, such as labor survey and vendor quotes.

Black & Veatch appreciates the opportunity to support Ameren's strategic decision process for this important new generation opportunity.

Very truly yours,

BLACK & VEATCH

For Donald J. Knotts
Project Manager

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Enclosures (10 sets/Volumes 1 and 2 - Feasibility Study; Action Item List)