**Overview**

This case is based on an actual sourcing decision that the utility company must make on a regular basis. You should conduct your analysis by following the steps we have discussed as part of our structured decision modeling process:

* Framing a problem
* Building a model
* Analyzing the results of the model and testing alternatives
* Communicating the results of your analysis and making a recommendation

**Approach**

For the purposes of this problem you can assume that the total BTU demand of the various plants only includes the forecast demand for the next month, and that there is already sufficient safety stock available.

1. Identify the issues Buckeye P&L is facing.
2. Develop an LP model to help Peters with the November coal-procurement decision.
3. Were any suppliers not included in the procurement decision? Why?
4. Which constraints were binding, and what would be the value of relaxing those constraints?
5. Does your model help Peters address the issues of long-term contracts and safety stock levels? What recommendations would you make regarding these issues?
   1. Are there any economic incentives to revise the current long-term contracts?
   2. What are the economic advantages/disadvantages of reducing safety stock?

**Communicating**

Your case analysis should include the following:

Summary

* Frame the problem you are analyzing, including the answers to the first question
* Briefly describe the model(s) you used for your analysis
* State your conclusions/ recommendations

Analysis

* Describe which models you developed for the coal procurement decision.
* Summarize the results of at least 2 different models (base case and alternative(s)) in a table that includes all important parameters and objective values.
* Provide your answers to questions 3, and 4

Recommendation

* Clearly state your recommendation(s) for what Peters should do based on your answer to question 5. How will he know if your recommendations are successful? What metrics would you track to determine this?
* Provide an economic evaluation of your recommendation, if applicable.

Appendix

* Include the optimization model you used to analyze the problem and any other data as either tables or exhibits that you referenced in your analysis.