



Adaptive Decisions' Resource Optimizer TM

- An optimization solution for the unit commitment problem in the electric generation industry.
- Use as a stand-alone decision support tool or integrate into existing applications.
- Unique object oriented design promotes ease of model maintenance and enhancement.
- Java based for flexibility to run on virtually any hardware platform.

Current Market Environment

The energy industry is changing at rapid pace with many electric power generation entities facing a variety of challenges that were unforeseen prior to deregulation. The challenges include enhancing system performance, maximizing asset utilization, and reducing operating costs to ensure success in a competitive market. To effectively address these challenges, energy industry participants are investing in innovative decision support technologies and tools that address existing and emerging business needs. The investment in technology permits industry participants to succeed in a dynamic and fast changing environment in lieu of increasing levels of complexity and risk.

The AEO Advantage

Adaptive Decisions' Resource Optimizer is built on our Adaptive Enterprise OptimizationTM (AEO) server technology. AEO doesn't use a fixed set of static models like other solutions, so it is a truly dynamic decision optimization solution. Adaptive Decisions understands that every time you must make a critical business decision, you want to base it on all of the most current factors and information available. Resource Optimizer is a real-time decision optimization engine that incorporates the complex interactions of diverse business resources, their specific factors and constraints, and dynamic market conditions. It has the ability to analyze a business situation and dynamically build an enterprise business model "at run-time". The recommendations produced by the system are based on the best and most current information available at the time of the decision. This can significantly improve the speed and accuracy of decision-making.

Key Benefits of Adaptive Decisions' Resource Optimizer

Adaptive Decisions is a leader in building enterprise optimization solutions. The Adaptive Decisions' Resource Optimizer can be used as a stand-alone tool or integrated into existing applications. The object-oriented design allows for implementation in a matter of weeks versus the months it would take to build the capability in-house. Our formulation and related solution methodology do not require the extensive parameter tuning of the Lagrangian relaxation techniques that are customarily used to solve unit commitment problems of this type.

Advanced Resource Scheduling

Our models provide advanced features that account for ramping costs, price tiers, flexible decision intervals, and multi-area load requirements. These features provide users with the tools needed to address the complex challenges associated with resource scheduling. The expanded modeling capability coupled with industry leading technology provides a flexible, high performing product that will help you stay ahead of the competition by optimizing the use of your assets.

Easily Integrates into existing applications

Resource Optimizer has an XML interface based on a well-defined data model that allows for easy integration with any existing user interface or application environment. The application is written in Java, which provides the flexibility to run on virtually any hardware platform.

Out-of-the Box Solution

The Adaptive Decisions' Resource Optimizer is offered as an out-of-the-box solution that can be used stand alone or integrated into another application. This predefined model does not prohibit users from easily making custom enhancements since the Resource Optimizer is built on our patent-pending AEO technology. Our unique object oriented design makes it easy to extend, modify or enhance any of the models, algorithms or data structures used in the out-of-the-box solution. Adaptive Decisions has developed an easy-to-use tool set named AEO Studio. The Studio provides developers with a mechanism for modifying and maintaining the Resource Optimizer based on the unique requirements of the end user.

Why Adaptive Decisions Can Help You

Adaptive Decisions designed Resource Optimizer to provide modeling efficiency and solution accuracy. Adaptive Decisions designed Resource Optimizer to permit rapid implementation with the following benefits:

- Robust solution that can integrate with existing applications or run stand-alone.
- AEO Studio provides a toolkit for developers to maintain and/or extend the model to capture the unique requirements of a specific application.
- Solution methodology based on state-of-the-art MIP techniques.

The program utilizes a state-of-the-art MIP solution technique that is designed to handle real problem instances for large-scale regional energy markets. The proprietary modeling environment provides a user-friendly environment for maintaining and enhancing models to meet the unique business requirements of a specific user. Call toll free at 1-866-836-1779, today, to schedule a demo and learn more about our decision optimization technology as it pertains to the unit commitment problem.