Concept Paper for a Virtual Tour of the

Lakeside Power Plant

*Presented by:*

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In conjunction with the San Diego Energy Foundation (SDEF), we propose to provide interested community members the opportunity to learn about the Lakeside Power Plant by creating a Web site that contains a combination of diagrams, still images, video and audio clips, and background information. The Web site would provide a virtual tour of the facility.

Visitors to the Web site would be able to read about the plant and learn how it works by viewing a diagram of the electricity generation process that contains links to images of what that part of the process looks like at the plant. The parts of the process that would be illustrated with pictures, video and/or audio clips would be:

* Coal, the source of energy for the plant—this page would describe how the Lakeside plant mixes coal from various sources to meet emission standards and it would show a coal train being dumped and also show the coal pile
* Grinders—pictures of the coal mills and audio clips of the noise
* Boiler—diagrams of a water tube boiler and a picture of the video monitor showing the fire within the boiler
* Turbine/Generator—diagrams and a picture of one of the turbine/generators
* Transformers—a diagram and picture of a transformer including an audio clip of the hum and an explanation of what causes the hum
* Transmission towers—a picture and safety warning
* Cooling—picture from the roof of the plant showing the path of the water flow from the river, through the plant, and out to the lake. Pictures of the heat exchangers when they are open for maintenance and some pictures of the zebra mussels
* Environmental controls—pictures and diagrams of the precipitators, fly-ash disposal pond, and boiler wastewater tank
* Data Page—this page would contain information about how much electric energy is provided by the plant and how many thousands of wind generators or square miles of photocells it would take to replace the energy it provides by alternative means

The final product would be provided on CD in html format so that it could be edited by SDEF personnel and placed on a server of SDEF's choice.