

USCCG

When It Comes  
To Energy And  
Power Generation,  
We Can Give  
You A Boost

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*USC Consulting Group:  
An Experienced Professional  
Resource for Energy and  
Power Producers*



# power generation

## Energy and Power Generation Experience

USCCG is very experienced with energy and power generation environments. We can help companies to:

- Eliminate waste
- Improve capacity
- Improve maintenance effectiveness
- Improve real time data reporting
- Improve utilization of existing facilities & technology
- Increase labor productivity
- Increase unit availability
- Reduce outage cycle time
- Reduce overtime

## Processes Worked

We've improved nearly every process, including:

- Maintenance
- Outage planning and management
- Power generation and delivery
- Procurement

## Industry Experience

In addition, USCCG has been involved with different

types of electric generating facilities, including:

- Coal-fired, steam turbine powered
- Gas-fired

## Totally Customized Approach

Our approach is totally customized for each client and situation but will typically include some or all of the following components and/or methodologies:

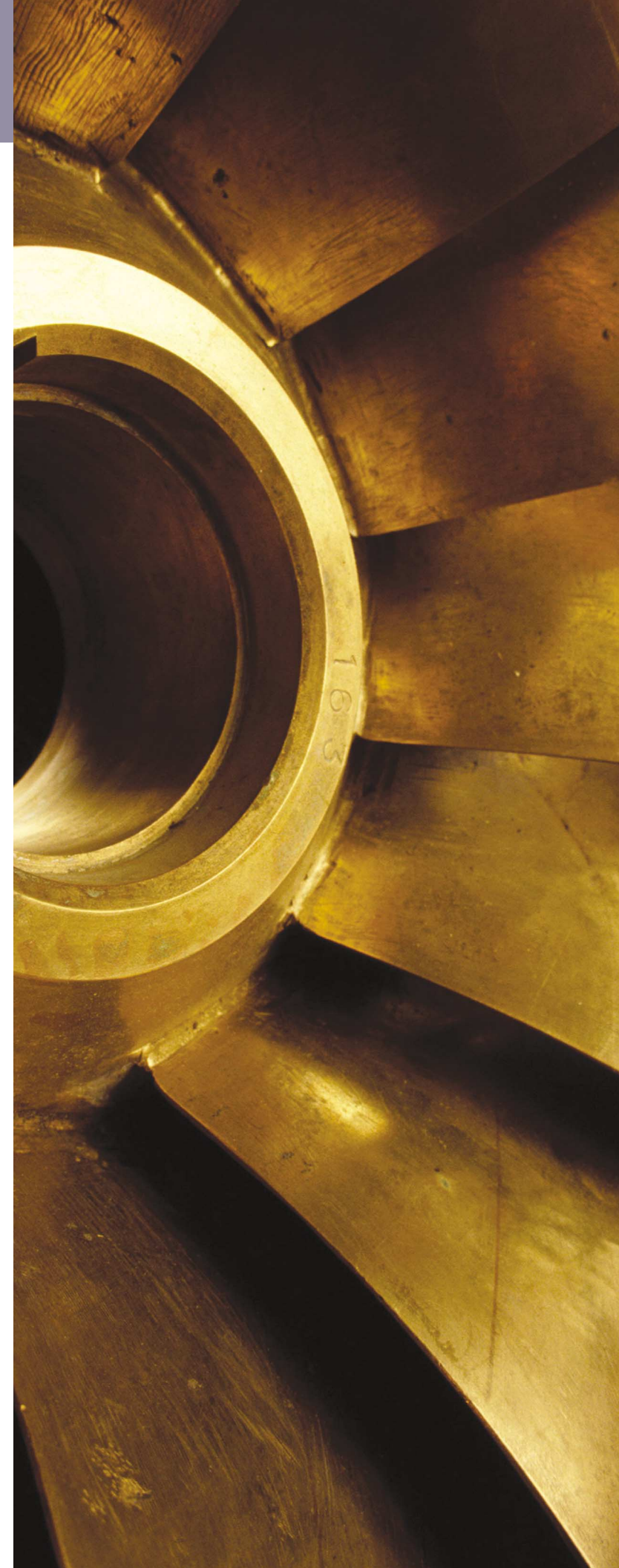
- Employee involvement prototyping
- Installation of world class maintenance management practices
- Inventory and physical asset management
- Management/supervisory effectiveness
- Outage planning and control systems
- Problem identification and resolution
- Process/equipment control and calibration
- Process mapping and optimization
- Program management
- Resource and demand planning

- Root cause analysis
- Statistical process control
- Structure and decision-making
- Supervisor and management skills development
- Visual management techniques

## Client Benefits

These tools and techniques enable us to deliver a wide range of benefits to our clients:

1. Better asset utilization
2. Improved communications skills at all levels
3. Improved customer service and satisfaction
4. Increased throughput
5. Lower operating costs
6. Outage cycle time improvement
7. Reduced maintenance and inventory cost per KWH



## Our Work

Let's take a look at some of our work. Each of the following solutions was totally customized and implemented by USCCG professionals using proprietary techniques and methodologies to meet the unique needs of individual clients. Here are some highlights from three real engagements.

### Case History # 1

Coal-fired, steam turbine powered electric generating plant wanted to reduce the calendar time of planned outages.

**Our Assignment:** Reduce length of planned outages and develop a formal shutdown (outage) scheduling methodology.

#### Our Approach:

1. Identified opportunities for improvement in execution of daily maintenance.
2. Developed an outage operating system complete with new management controls and documented procedures.
3. Developed new computerized scheduling system.
4. Melded operations and construction units into one cohesive team to better manage outages.
5. Streamlined and standardized procedures for conducting outages across multiple plants.
6. Improved management and supervisory skills.
7. Improved planning, staging and follow up of work in progress.

#### The Results:

1. Labor costs for authorized projects at one facility were reduced 19%
2. Labor costs at a second facility were reduced 20%
3. Availability improved when outage-related work activities were completed seven days ahead of schedule

### Case History # 2

Developer, owner, operator and constructor of geothermal and gas-fired power generation facilities wanted to leverage centralized maintenance function.

**Our Assignment:** Improve the effectiveness of the central operations group (COG) and its centralized maintenance management system.

#### Our Approach:

1. Conducted systems reviews to understand how COG currently operates.
2. Prototyped integrated maintenance planning, assignment, follow up and review process at designated facility.
3. Developed and prototyped KPI and management action item review processes.
4. Enhanced inventory management process to make more effective use of shared and excess MRO inventory.
5. Developed and implemented capacity planning process for training.

#### The Results:

1. Inventory reduced 18%
2. Shared warehouse strategy contributed \$1MM savings
3. Labor costs reduced through COG reorganizations totaled \$500M

### Case History # 3

Major state-owned utility wanted to roll out best maintenance and inventory management practices across its fleet of power plants.

**Our Assignment:** Train selected personnel in the application of centralized maintenance management system and procedures.

#### Our Approach:

1. Improved predictive and preventive maintenance programs.
2. Enhanced inventory control parameters.
3. Instituted daily and project (outage) planning disciplines.

4. Strengthened labor estimating process.
5. Established formal process by which MRO inventory was directed to plants in need from those with excesses.

#### The Results:

1. Fleet-wide MRO inventory reduced by nearly 15%
2. Standard maintenance methodology implemented fleet-wide
3. Shared database now used to leverage purchasing power and minimize inventory
4. Reliability improved through better analysis of plant and component trends and enhancement of fleet processes and equipment performance

These results are fairly typical of what we've been able to accomplish in the energy and power generation industry. You can review other case histories by visiting our web site.

For more information, contact us at **800-888-8872** or [www.usccg.com](http://www.usccg.com).



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