

Life Is On

Schneider  
Electric

# Prevent plant shutdowns due to power outages

Intelligent load shedding with Schneider Electric  
Industrial Power Management

## Solution at a glance

Schneider Electric's Industrial Power Management system provides multiple applications that your facility will need to protect your vital assets and keep your plant running efficiently and safely. With our award winning software you will be able to modify any IED or substation component in seconds.

## Protection from power outages

While power may appear abundant across North America, millions of dollars are lost each year due to power outages at process plants. Schneider Electric's Industrial Power Management system efficiently controls all aspects of your plant's electrical load and monitors them to prevent a total plant shutdown upon loss of generation. Low cost of ownership is achieved when our Foxboro® SCADA system is integrated with other Schneider Electric systems. Foxboro SCADA can pull in data from IEDs using IEC 61850 technology to give you the greatest possible advantage to save costs on infrastructure.

## The problem

A specialty paper manufacturer lost approximately \$5-6M in February, 2012, due to drought conditions which left power line insulators dirty. A refinery in Baton Rouge,

# Prevent plant shutdowns due to power outages

## Intelligent load shedding with Schneider Electric Industrial Power Management

Louisiana experienced a partial power loss in July, 2012. A chemical plant in Geismar, Louisiana lost power injuring three workers and releasing chemicals in May, 2012. Continuing power problems in the Texas City area caused six plants to shut down because of power outages in April, 2011. The examples are endless.

Load shedding is a critical application in any industrial plant that has heavy electrical use. Managing incoming feeds or plant-generated power and the stepped down busses for plant usage is critical. How the load shedding matrices are conceived is just as important as how the power network is designed. One Gulf Coast chemical company spokesman noted after a power outage, "We now have limited power and are making plans for a safe, orderly start up of all units, although we do not yet have a specific time frame for returning to planned operating rates."

Intelligent load shedding intelligence can be as complex or as simple as needed. But intelligence is critical! In the Gulf Coast chemical plant example above, how was the limited power distributed around the company? Were revenue generating areas protected during the outage? Were areas in danger of a disorderly shutdown left to run? Intelligent load shedding means looking at the processes running in the plant and making decisions based on the state of the running processes, the value of the processes running, and the criticality of

the processes running. There may also be other qualitative and quantitative propositions that your company values as important to the decision matrix.

A load shedding strategy that Schneider Electric developed for a large refinery with 26 substations, for example, created a dedicated network between the master load shedding RTU and a local substation. The shutdown time was reduced to less than 100 milliseconds, preventing a total plant shutdown upon loss of generation. When the intelligent matrix is created in the master RTU, the load shedding can be defined for specific areas of the plant based on the qualitative and quantitative decisions that the corporate planners and process engineers at Schneider Electric can build.

Your company's engineers working with Schneider Electric subject matter experts can make a huge difference in maximizing safety and revenues. Additionally, Schneider Electric modernization consultants can work with you in advance to uncover strategies and additional solutions that will maximize your company's valuable resources. By intelligently shedding electrical load industrial operations can avoid plant shutdowns while also effectively meeting production targets. This is a great opportunity for profit improvements through increased agility.



Schneider Electric

70 Mechanic Street  
Foxborough, MA 02035 USA  
+1 877 342 5173

[schneider-electric.com/processautomation](http://schneider-electric.com/processautomation)

Life Is On

**Schneider**  
Electric