



Managing risk through effective team-based decision making

Types of problem-solving



Business problem-solving typically fits into three main categories:

1. Deviation problems

This is where a business is falling short of its expected targets. For example, a power plant is contracted to supply 2,000,000 kilowatts of power to the national grid and is falling short of this by 5%. The problem-solving involves getting capacity back up to the required level.

2. An improvement problem

The business is doing well but wants to do better. For example, are there more efficient ways of generating electricity or producing electricity from alternative fuels?

3. An open-ended problem

There are no textbook answers to these problems. We use the term 'thinking outside the box' to describe the ways of thinking that are required here.

The 'box' refers to thinking in standard ways. So thinking outside the box involves looking for alternative ways that involve new solutions and ways of tackling problems. This is where creative thinking is required. Modern engineers need to show imagination.

An imaginative idea can save a company millions of pounds and lead to better solutions for customers.

At RWE npower, engineers at all levels are expected to handle these three types of problems every day of their working lives. For deviation problems and improvement problems there will often be tried and tested techniques. Typically these techniques involve teamwork.

Using skills in teamwork

Teamwork is essential for effective decision-making. Groups of engineers with different skills come together to shed light on problems and issues and to come up with improvements. In a team there will be engineers with different technical

knowledge and experience. These will include mechanical, electrical and civil engineers, and computer specialists.

Teamwork involves good communication skills, particularly the ability to listen to others' ideas. Being able to identify the root cause of the problem and understand the symptoms is essential. Working in teams creates a buzz of excitement.

Engineers enjoy solving problems. They like to be creative. Working together allows them to bounce ideas off each other. Some of the solutions RWE npower engineers have come up with have saved the company millions of pounds.