ProfitAbility
BUSINESS SIMULATIONS

experience your business future

Business Simulations in the Energy Sector

ProfitAbility has had a long association with the energy and utilities sector, starting in the late 90s when North American power utilities were facing deregulation. Then, as today, change was a great driver of learning.

The American utility companies needed managers to understand what constituted good decision making under regulation. The principle that you should spend as much as you can on capital projects, because you will get a guaranteed rate of return on every dollar, for example, would not make good business sense in a free market, deregulated industry. In this scenario, cash flow needs to be tightly managed, and both capital and operating expenses need to be minimised. Managers and leaders had to know enough about the business to see what *would* make sense, so that they could manage through the transition to success on the other side.

Some utility companies trained every manager. Some such as **Ontario Power Generation** and **BC Hydro** went further and trained the entire staff (600 at BC Hydro, 10,000 at OPG). They hoped that with a better business understanding, decisions would be made which would help the business run smoothly through the troubled waters of deregulation. This theory became reality, and for most, paid off handsomely.

An electrician in British Columbia was due to take down one of the generators on the dam he looked after for routine maintenance. But he had heard on the news that California was experiencing a heat-wave, and realised they might be paying far more than usual for electricity bought from neighbouring generators, to keep their air conditioning running at full speed. So he phoned up the HQ of BC Hydro, and asked to talk to the head of power sales. This rather senior manager was taken aback to get a call from a lowly technician at a far-flung dam, but listened to his story, as the electrician explained that he could easily delay the routine maintenance for a couple of weeks, and that would enable them to sell as much power as needed while the prices were at a high. The extra revenue generated by that one turbine in the next two weeks was over $70,000 (which incidentally more than covered the cost of training all 600 employees in business basics).

How simulations made a difference at American Electric Power

The original learning programmes designed for power utilities were used by a number of generation companies, and several of them asked us to tailor the design to their particular needs. **American Electric Power**, for instance, wanted people to understand why it could make perfect business sense to keep an older power station going with chewing gum and string, while a newer (and more efficient) one was having yet more investment poured in to increase its capacity and productivity. So we built a simulation with both stations depicted, and let the managers find out from personal experience what the results are if you spend on one (and hardly use it) compared with the other (which was in constant use providing base-load power). One of the great things about learning from experience with simulations is that you don't need anyone to convince you about what you have learnt. People don't argue with their own experience; they remember it for years, and use it as the basis for future decisions and actions.

A complex end-to-end system:from generation to retail

A fully integrated company, with generation, retail, trading and hedging operations, has a complex structure. There is a lot to learn, which is mostly invisible for anyone working within any one part of the organisation. Simulations are a particularly good way to help people understand the linkages within energy companies. **RWE nPower** wanted senior managers in retail and generation to senior level. On the generation side, there are decisions to be made about maintenance and ongoing investment in coal- and gas-fired plants, as well as renewables, hedging through forward purchases of coal and gas, and forward sales of electricity. The retail business is driven by the quality of customer service (which in turn depends on staff churn and training); advertising and sponsorships; and the number, quality and motivation of sales agents. Getting your head round the interactions of all these operating issues, and seeing how they build the big picture of the company's success or failure, is and to easy task, but it can be managed in just a couple of days with a simulation.

ProfitAbility Business Simulations Ltd

The Wooden Barn, Little Baldon
Oxford
Oxfordshire OX44 9PU
United Kingdom

info@profitability.com

ProfitAbility (M) Sdn Bhd

A-5-10, Empire Tower
Jalan SS16 / 1
47550 Subang Jaya
Malaysia
info@profitability.my