

GETTING THE JOB DONE

Ian Graves, Power Director at Costain, looks at what it will take to secure a reliable electricity supply



With a quarter of the UK generation operating in 2010 due to close by 2020, all of us in the power sector are keenly aware of the challenges we face in replacing the existing power infrastructure. It is estimated that £100-110 billion capital investment will be required, of which £35 billion is needed to update electricity networks.

Networks underpin our ability to deliver the security of supply, low carbon generation and affordability that leads to economic growth. But rather than discuss the danger of the lights going out, let's look at what we need to do to ensure a secure and reliable electricity supply system.

Investment

Around 50% of the anticipated investment in the transmission networks is driven by the need to connect new generation. Due to uncertainty around UK energy policy, energy market reform and capital availability, investors have delayed decisions to invest in new power stations and wind farms. This, in combination with a review of transmission business plans and contracts at the start of the regulatory cycle, has resulted in deferment of investments over the past year.

This sets a challenge for the companies building new capacity. New lines and cables will have to be installed in a shorter time period, yet it is difficult to invest

in increased resources when current work volumes are at best, flat. What we need is a joined-up energy and infrastructure policy in which companies can make long-term investment decisions. In the short term, innovative ways to increase existing network capacity and quickly ramp up technical resources will be required.

Skills shortages

The transmission and distribution sector recruited heavily in the 1970s and 80s, providing resources predominantly to manage existing assets through the 1990s until now. Because of the resulting age profile, significant numbers of staff are expected to retire over the next ten years.

Apprenticeships and other schemes to develop the necessary skills are being put into place. But in the short term, UK companies will have to find alternatives if the programme is to be completed by 2020.

One solution being used by companies like Costain is to form collaborative working relationships with UK and European companies which can provide the mix of resources we need in terms of both equipment and people. This not only offers economies of scale but will help raise UK skill levels and capability in the longer-term.

Streamlining processes

We need early contractor involvement and to simplify the procurement and planning processes to improve the time to construction. Legal and contractual frameworks need to focus on the programme and the process for delivery instead of what happens if something goes wrong.

Design and engineering

We have introduced many onerous standards and construction requirements in the UK, so often we do not benefit from standard designs and materials used in countries where the volume of infrastructure growth is driving innovation and lower-cost supply chains. We need to reconsider whether all these standards adopted in the UK are really necessary.

Conclusion

For good reasons we have delayed investment decisions and developed complicated processes to be followed before we can build infrastructure in the UK. Now we need to start making decisions so we can put the resources in place, and focus on getting the job done.

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