Investor site visit, 30 September 2014

Story of the day

The presentation from the day can be viewed here

Key headline messages

1. Innovation and efficiency driving healthy total expenditure ("Totex") incentive performance
2. Scope to sustain a good return performance across the RIIO-T1 price control
3. Asset growth remains strong despite some delays in generation investment

John Pettigrew, UK Executive Director, introduced the purpose of the day and the role of the capital delivery team. He reminded the audience of the changes to the UK business that we laid out at the August 2013 investor day in London for the materials associated with last year's investor day please click here. These changes are designed to drive improvements in customer service, end to end planning and financial performance and also deliver environmental benefits.

John re-iterated the focus on safety as our number-one priority in managing our networks and delivering our extensive capital programme and highlighted some of the assets delivered under that programme last year. He detailed the financial investment in each of our UK businesses for 2013/14 and how each of the businesses performed on a regulatory return on equity basis. He discussed his views on the performance achieved in 2013/14 compared to the opportunities in the future.

In keeping with the theme of the day of capital project delivery, Andy Agg (UK CFO) then discussed in more detail the efficiency of our capital investment activities in 2013/14. He compared the efficiencies achieved to the efficiency targets that have been set by the regulator under the new RIIO price control arrangements. He noted the adjustments that need to be made to the regulator's original forecast of cost allowances to more accurately reflect performance in any one year and clarified for the audience the fact that several different definitions of the cost allowance exist, each used for different purposes. In addition, he detailed some specifics of performance in 2013/14 that might help to understand the drivers of future performance. All of these are detailed in our year end results statement, released in May. Andy reminded the audience of the increased incentives around capital efficiencies that exist under our new price controls and then handed back to John Pettigrew.

David Wright, head of Electricity Transmission Asset Management, stressed the importance that our stakeholders place on the reliability of the Transmission system. He described the role of his team in maintaining the reliability of system and the challenge of finding new ways of doing this at lower cost. David explained how our regulator has developed a measure of "network risk" for our six main asset categories in electricity transmission and set us targets for the RIIO price control. The target we have been set is to maintain the network risk across each of these six asset categories, when measured in March 2021, at the March 2013 level. Our investment in 2013/14 keeps us on track to deliver those targets.

David then set out some of the strategies used to deliver these targets at lower cost, including enhanced condition monitoring and innovative recovery techniques. He gave some more detail on one of these strategies, the refurbishment of air insulated switchgear.

David summarised that we expect to continue delivering excellent reliability and also that there is potential for further cost savings in our asset health programme.

John Pettigrew then returned to the theme of the day, our capital delivery programme. John highlighted the fact that National Grid was due to publish stakeholder documents for Gas and Electricity Transmission, and Gas Distribution that day. He noted that they included ranges for future capital spend based on the scenarios from our Future Energy Scenarios work. In December 2012, in their Final Proposals "best view" case, Ofgem included a forecast of £26bn of National Grid UK capex over eight years. The stakeholder documents presented a range of capex scenarios varying between approximately £16bn and £20bn reflecting updated views of UK generation connections over the period and also material capital efficiencies that the business hopes to achieve.

John noted that these capital efficiencies should come, in part from the Capital Delivery team under the leadership of Ian Galloway. This team expect to have to deliver significant capital works under any of the scenarios envisaged.

Ian Galloway reminded the audience of the six strategies to deliver lower unit costs that he had introduced to investors in August 2013 - Watch Ian Galloway's video from August 2013 here

1. Alliance realignment
2. Contract management
3. Competitive contracting
4. Rigorous project development
5. Performance management
6. Procurement efficiencies

Ian explained that we had completed the realignment of the Alliances, introduced competitive contracting and trained all of our relevant managers in advanced contract management techniques. He asked the audience to look out for examples of these new approaches in their interactions later in the day. He also explained that we have started to implement more rigorous project development and performance management techniques and that we have also started delivering procurement efficiencies but that there was potential for further improvement in these areas.

We then split into four groups to take part in breakout sessions. These gave attendees the opportunity to learn about some of National Grid's completed and on-going projects directly from the engineers that implement them. The four interactive sessions covered themes including project management, contracting and innovation that the company believes can provide value across National Grid's entire project portfolio.

In the electricity transmission session, attendees heard about how improvements to planning and contracting processes have driven innovation and should continue to allow the company to deliver outputs in shorter timeframes, at a lower cost and with less development risk. In one example, competitive tendering led to the use of smaller equipment, reducing the size of site's footprint. This innovation should improve carbon impact and reduce civil works and on-going operation

costs. Along similar lines, the use of Building Information Modelling (BIM) technology on another project has enabled offsite modular build, which should reduce costs and enhance safety while providing environmental benefits. The National Grid team also demonstrated its approach of finding the most appropriate solution for each project which has led to reductions in scope, time and cost.

Two more sessions each featured individual electricity transmission projects of significant scale and complexity. The London Power Tunnels project, which is well underway, and the Hinkley Point C connection, which is in the application stage, are major National Grid infrastructure projects, each with spend estimated to be around £1 billion.

The London Power Tunnels project is a significant engineering challenge requiring National Grid to construct 3-4m diameter tunnels 30m below the capital to upgrade transmission infrastructure while minimising disruption to the population above. In addition to the challenging tunnelling operation itself, National Grid has incorporated innovative solutions, both to reduce costs and provide benefits to the community.

At the session covering the Hinkley Pont C Connection project, National Grid's first 'Strategic Wider Works' project, the team showed attendees how National Grid is meeting the challenges of gaining planning approval for large, nationally important infrastructure projects. They detailed how extensive engagement activity has developed into a proposal incorporating multiple tailored solutions. In this example, planning consultation led to the development of innovative "T-pylons" and the proposed use of existing line routes to help resolve visual amenity concerns.

The gas transmission session demonstrated how the company is applying experience from past projects as well as utilising new techniques. One project plans to use National Grid's tunnelling expertise to replace a critical pipeline underneath the Humber River. A second project described how the company plans to comply with new environmental standards by assessing equipment needs on a case by case basis to implement the most appropriate solution, in this case, the use of catalysts to mitigate compressor emissions. The final project of the session served as a reminder that customer focus is critical to National Grid's operations. National Grid developed an innovative solution to allow a new road development and avoid re-routing a major pipeline. This allowed the company to maintain supplies throughout the road works and resulted in substantial scope, cost and time savings, all of which directly benefitted the customer compared to a traditional diversion solution

Through each of the four sessions, attendees of the site visit were able to see first-hand, the level of expertise that National Grid brings to its projects. The day highlighted a broad sample of projects and National Grid emphasised that it approaches all of its projects with the same level of planning, skill and innovative thinking which should drive programme benefits across the portfolio.