NATIONAL INFRASTRUCTURE COMMISSION

Better infrastructure for all

Windsor House 50 Victoria Street London SW1H oTL

The Rt Hon Jeremy Hunt MP Chancellor of the Exchequer Via email

The Rt Hon Claire Coutinho MP Secretary of State for Energy Security and Net Zero Via email

20th February 2024

Dear Chancellor & Secretary of State,

Business models to support energy investment

Ahead of the Budget, I wanted to write to you about one of the key themes in the second National Infrastructure Assessment, namely supporting the increased levels of investment that are required to meet the UK's energy infrastructure needs.

Government has set a stretching target to decarbonise the power sector by 2035, subject to security of supply. Power sector emissions have come down by nearly three quarters since 1990, primarily driven by measures to bring coal off the system and deploy renewables. But the final quarter of emissions will be much more difficult, particularly replacing the flexibility role that unabated gas plays.

Meeting this target will require the delivery of significant amounts of new infrastructure at pace. In the second Assessment, the Commission recommended that government should support multiple large scale hydrogen and gas with carbon capture and storage (CCS) plants to deploy by 2030 and bring forward other sources of low carbon flexibility, in order to deliver 60GW of short duration flexibility and 30TWh of persistent flexible generation by 2035. The Commission also recommended that government develop core CCS and hydrogen networks, and at least 8TWh of hydrogen storage, by 2035.

These goals require policy mechanisms to support private sector investment. The Commission welcomes the recent consultations on support for long duration storage and hydrogen power generation. Announcements on CCS, hydrogen transport and hydrogen storage business models in December also offered more clarity to investors, especially about the timing of future decisions.

However, it is taking too long to make decisions on these policy mechanisms. There was a two and a half year gap between issuing a call for evidence on support for long duration storage and consulting on specific measures. And it took two years from the Net Zero Strategy commitment to make a decision on whether hydrogen power

generation would need financial support. In both cases, further design work and firm funding will be needed before the support is delivered.

Government needs to move faster to ensure that the necessary infrastructure can be delivered over the next decade. To meet the needs of the power sector, we should be deploying hydrogen and gas CCS generation at a pace equivalent to the 'dash for gas,' which reached a peak of 3GW per year. That will be stretching given there is no large scale deployment of hydrogen or gas CCS generation today.

Greater urgency is also required in relation to the development of hydrogen storage as salt cavern storage can take up to 10 years to develop. The current plan to support only two projects in the first allocation round means the vast majority of the 8TWh required will not be in operation until very close to the 2035 target.

The certainty provided by well-established business models like Contracts for Difference shows what can be achieved when the right mechanisms are in place. Similarly, the Spring Budget 2023 announcement of support for CCS provided evidence of government's ambition. Extending an appropriate level of financial backing to other areas, like hydrogen transport and storage, is now required.

Alongside this, government should provide development expenditure (DEVEX) support to enable front end engineering design studies to help projects to get to the stage where they could apply for a development consent order. Based on recommendations in the second Assessment, at least £40 million DEVEX support will be required each year to enable the delivery of new hydrogen and CCS pipelines and storage that will be required in 2035.

The Commission would welcome decisive action in the Budget to put firm funding behind business models that do not already have it and provide the DEVEX support needed to ensure there is a pipeline of projects. This, alongside speeding-up the consenting process for energy infrastructure, will ensure the UK remains on track to meet its decarbonisation targets and deliver the infrastructure needed to lower bills, increase energy security and support economic growth.

Best wishes,

SIR JOHN ARMITT