

September 2014 Update

Building Information Modelling (BIM) Phase 2 is funded through the Network Innovation Allowance (NIA) scheme.

Rhead Group are developing the Sharepoint based BIM Bank. We identified a typical 25% reduction in CAD time and cost by providing models rather than designers digesting specifications and modelling from first principles. The BIM Bank should encourage optioneering at the conceptual phase. An "Introduction to the BIM Bank" has been prepared to engage the energy industry.

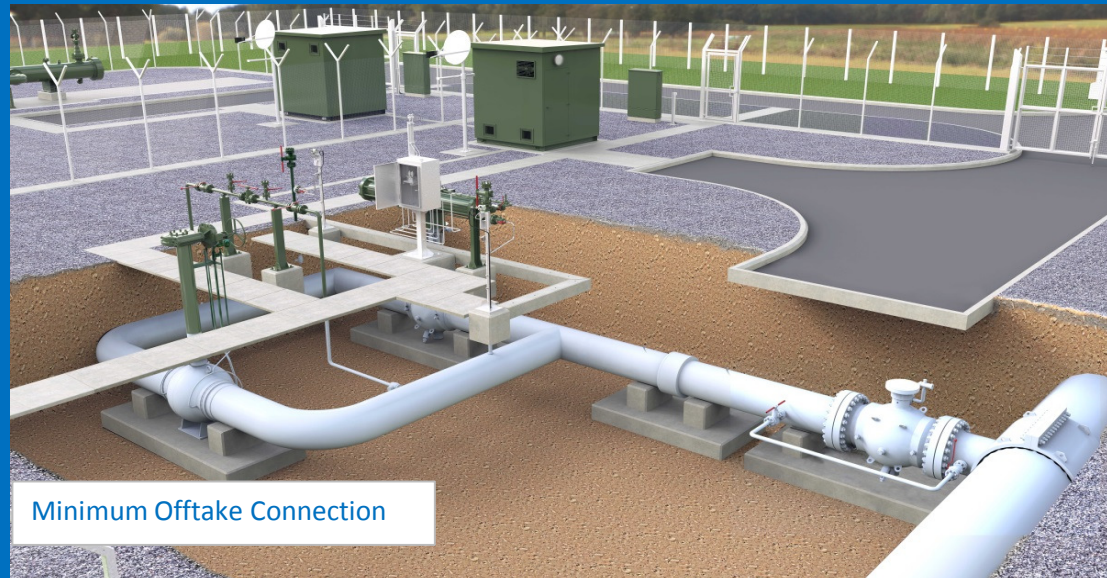
SkyQuad demonstrated industry best practice survey techniques using Unmanned Aerial Vehicles (UAV's) to capture photographic imagery and generate 3D point clouds of above ground features. This process has been used to capture a recompression unit arrangement which is being developed for Non Routine Operations (NRO) training with PMC Ambergate.

BIM Phase 1 recommendations continue to be tested and embedded on Feeder 9. Oculus Rift (very low cost virtual reality technology) shall be utilised at the Engineering Challenge and Review to engage project stakeholders and enhance the traditional design review process.

The benefits that low cost, games engine technology can bring to the industry has also taken a significant step forward, demonstrating simple exe. files to GTAM which can provide interactive client reviews on a standard National Grid laptop without the need for specialist hardware or software.

Monthly Lookahead - October 2014

1. Issue of final imagery and animations for the Minimum Offtake Connection scheme team.
2. Demonstration of Virtual Reality technology (Oculus Rift) for design and client reviews, using engineering 3D models .
3. Commence workflows for BIM with CADline.
4. Live testing of the BIM Bank with uploaded models.
5. Continued development of 3D hazardous areas and BIM tools for Safety Engineering.
6. Develop parametric modelling for stopping operations.



Minimum Offtake Connection



UAV Survey Recommendations

Stakeholder Engagement and Collaborative Working

1. Exhibited at the Capital Delivery Expo at the Ricoh Arena in Coventry on the 8th and 9th September.
2. Presented at BIM Roundtable event in London on 18th September, including attendees from IGEM, APM, RICS, Distribution Networks and the Water Industry.
3. Supported the HSE BIM Steering Group on the 26th September
4. Development of BIM Works Information (Employer's Information Requirements) and developing in conjunction with contractors.
5. Presentation to IGEM North East Region arranged for 16th October 2014.
6. Presentation at Low Carbon Network + Innovation Conference, Aberdeen 20th - 22nd October.

September Key Outputs

1. Generation of the BIM Bank Q & A information sheet.
2. Demonstration of parametric modelling techniques and the efficiency benefits to the Minimum Offtake Connection Steering Group.
3. Demonstrated BIM processes at the Capital Delivery Expo in the Ricoh Arena.
4. Production of Unity powered executable files (exe.) enabling external client engagement and design reviews without the need for specialist programmes or tools.

Building Information Modelling (BIM) is a digital representation of physical and functional characteristics of a facility. A BIM is a shared knowledge resource for information about a facility forming a reliable basis for decisions during its life-cycle; defined as existing from earliest conception to demolition.

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BIM Bank - Website Demonstration



Interactive Client Engagement - 3D Immersive Environment