

## Case Study

# Media City Manchester

Bovis Lend Lease, on behalf of Peel Holdings, chose Energetics to complete the most significant electrical infrastructure project in the UK at Media City, Manchester.



## Project: Media City, Manchester

Client: Bovis on behalf of Peel Holdings



CGI of completed project - evening view

### Project Overview

Energetics has been appointed by Bovis to complete what is arguably the most significant electrical infrastructure project in the UK.

The UK's first purpose-built city providing an internationally significant hub for the media and creative industries is being built at Salford Quays in Manchester. Forming an iconic architectural trio with The Lowry and the Imperial War Museum North, Media City will provide an environment where creative and media industries can thrive in a highly attractive waterside location.

Media City will provide a new UK broadcasting centre with leading media and technology brands at its heart. Covering 200 acres, the site will include business and studio space, residential development, public facilities, retail and education space. The core of the development will house several BBC departments re-located from London and the corporation's existing Manchester facilities. Along with the media zone the site will become the new home to Salford University campus. In total, Media City: UK will deliver 700,000 square meters of new and refurbished floorspace for business, retail and residential property.

### Background & Approach

The client Peel Holdings, through its main contractor Bovis Lend Lease, were looking for a utility installation partner to work alongside their consultant and construction teams to not only deliver the utility infrastructure for Media City, but to add value, design innovation and ultimately ownership and operation of what would be a complex and demanding scheme.

The design criteria for this project is to the highest specification to ensure maximum built-in resilience and reliability of the power supply to this high profile development. This is a significant project which is the first of its kind in the UK and is being undertaken by an organisation with a significant track record in delivery of important infrastructure projects.

Peel Holdings and Bovis Lend Lease approached Energetics to create a scheme which would challenge those offerings that had previously been submitted. They were looking for an organisation who could deliver against very tight timescales set against a backdrop of very complex design criteria in an already congested urban environment.

Working closely with the client's design team, Energetics engineers created a design to establish a Primary Sub Station within the energy centre under confined spatial conditions that ensures maximum benefit to the client. Based on a competitive price and with significant

commercial advantages to the customer, Peel Holdings chose Energetics to deliver the power requirements for Media City by summer 2009.

Work is well underway on site including the Primary Sub Station and associated off site cable installation. Our unique innovative style and approach against incumbent organisation requirements have allowed us to secure an alternative cable route which significantly adds value to the delivery and cost to the customer. No other organisation was able to commit to these challenges in the program delivery and this has allowed the customer to conclude this very important initial stage on schedule.



## Solution

Our proposal for the electrical infrastructure incorporated the engineering design, specification, installation and commissioning of an electrical distribution system capable of supporting a total loading of approximately 32MVA. Complete with a new twin transformer Primary Sub Station

incorporating a 33kV intake point and multiple panel 6.6kV distribution switchboard serving the overall development with the adoption of some 18km of associated 6.6kV cabling works and 36 secondary sub stations including the low voltage distribution, street and architectural lighting requirements.

The cable works required the installation of circa 6km of 33kV cables and associated control cabling along what is a formidable route through a very busy part of Manchester. There are many challenges associated with installation of the cables which will require significant traffic management and the installation of an underground drill crossing of the Manchester Ship Canal. Our experience in ducted installation systems will aid the delivery timescales and the overall management of the traffic off site, together with the on site works coordinated to enable uninterrupted ground works and piling.

Working closely with the client and their consultants, and through our knowledge and experience of complex distribution networks, Energetics offered a solution which brought value and tangible cost savings to the overall installation and design of the project. With such high profile customers as the BBC connected to an independent network designed and installed by the Energetics Design and Build team **“It was critical that the overall design criteria could accommodate the highest levels of resilience whilst offering the best value for money”**. David Thomson, Senior Projects Manager, Energetics.

Our extensive industry and technical knowledge has enabled us to challenge the historic arrangements of incumbent interconnection and indeed we have been instrumental in designing a fully automated back up system to further enhance the overall system resilience to fault interruption. This has been achieved through working closely with our stakeholders including the client, M&E consultants, high voltage switchgear manufacturers, and driving change with United Utilities.

In summary our unique organisational structure has enabled us to offer best value solutions to what is a very complex electrical infrastructure installation.

Energetics – connected thinking at its best.



CGI of the new BBC building interior

## Case Study: Media City, Manchester



### Key Facts

- **Commercially Attractive**

Our unique business model and our willingness to negotiate the correct mutually beneficial terms and conditions has allowed a more flexible and attractive financial arrangement between Energetics and Peel Holdings.

- **Added Value**

Our approach to completing advanced works both on and off site has enabled the client to complete other program activities to schedule. Delays in these activities would have had a significant impact on cost and timescales. By designing a footprint for the Primary Sub Station within the energy centre we have provided the client with significant additional space within the development plan.

- **Network Flexibility**

The flexible approach in our design will accommodate a mixed use development and accommodate connection activities in line with the customer build out schedule. Significant work and understanding of the complex nature of the network configuration and required resilience to serve such a high profile project were a pre-requisite to our selection. Our design activity at an early stage, working with stakeholders, has ensured a reliable and highly resilient network installation providing the client with the confidence and ability to attract high profile customers to their development.

- **Regulatory Management**

Our understanding of incumbent organisation rules and regulations has enabled us to assist the client in challenging the cost and design criteria for non-contestable works which have brought significant savings to the project.

- **Accreditation, Design and Build**

Through our own in-house designers and construction management team we have successfully achieved Lloyds accreditation to enable works associated with 33kV design and installation for Primary Sub Stations and associated infrastructures.