A showcase of six shortlisted designs

Pylon Design Competition

Shortlisted designs:

Plexus
AL_A
Arup

T-Pylon
Bystrup – Architecture, Design & Engineering

Y Pylon
Knight Architects
Roughan & O'Donovan
ESB International in association with MEGA

Silhouette
Ian Ritchie Architects
Jane Wernick Associates

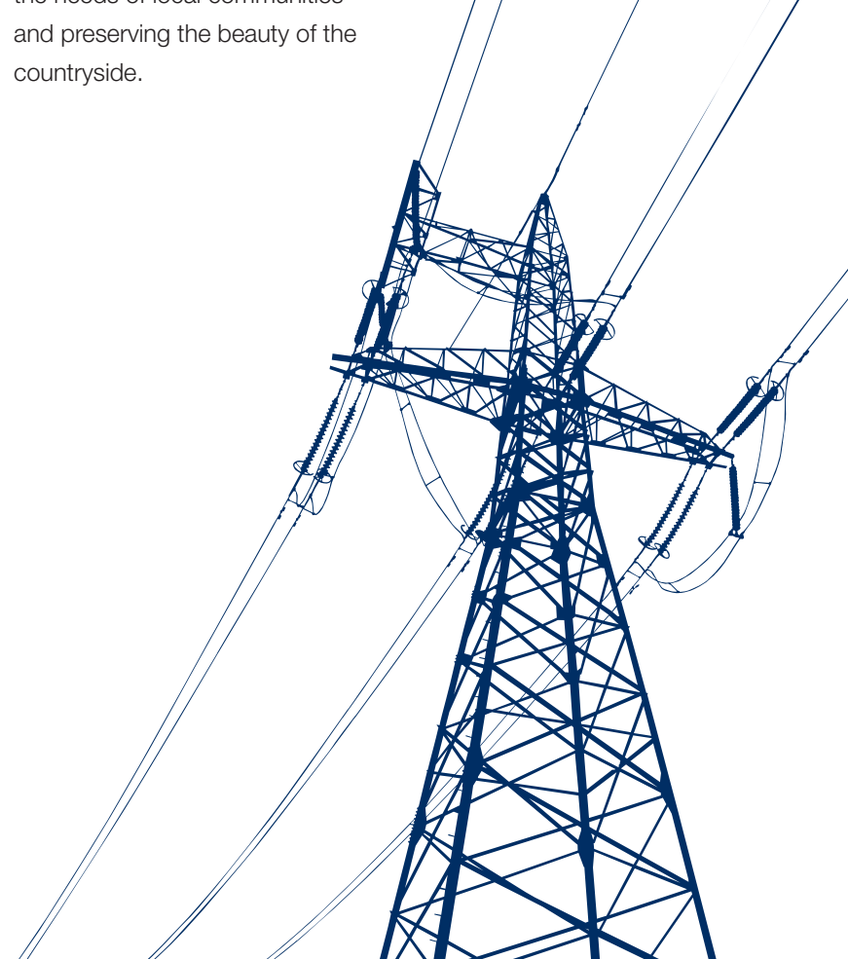
Flower Tower
Gustafson Porter
Atelier One
Pfisterer

Totem
New Town Studio
Structure Workshop

INTRODUCTION

Architects, designers, engineers and students of these disciplines have been challenged to rethink one of the most crucial but controversial features of modern Britain: the electricity pylon.

There are more than 88,000 pylons in the UK, including 22,000 on National Grid's main transmission network in England and Wales but the familiar steel lattice tower has barely changed since the 1920s. This competition (run by the Royal Institute of British Architects (RIBA) for the Department of Energy and Climate Change (DECC) and National Grid) called for designs for a new generation of pylon; setting a challenge to design a pylon that has the potential to deliver for future generations, whilst balancing the needs of local communities and preserving the beauty of the countryside.



Team:

AL_A
Arup

Materials:

Steel or Composites

PLEXUS

Plexus creates a poetic dialogue between structure and landscape. Its shape responds to changes in topography, striding across the horizon in sequence with a lightness and grace. Although seemingly filigree in nature, these pylons have been designed for resilience, adapting to different site conditions by expansion and contraction of the arced form. The pylons fluctuate in size and profile, visibly mapping the terrain.

What the judges liked:

Tension and lightness are emphasized by this sophisticated design. Its design is very much of its time and the panel admired the grace of this visually dynamic proposal.

Team:

Bystrup – Architecture, Design & Engineering

Materials:

Hot dip galvanized steel with a paint finish and as alternatives Cor-Ten steel, stainless steel, and hot dip galvanized without paint.

T-PYLON

The T-pylon is designed as a slender and compact tower. The reduced visual impact makes it fit well into different settings as a no-nonsense icon. The conductors are arranged in a triangular configuration that minimizes the extent of the circuits and the magnetic fields. To adapt to the changing character and colours of the landscape as well as the aggressiveness of the local atmosphere the pylon is available as painted, hot dip galvanized, in Corten or stainless steel.

What the judges liked:

This proposal postulates simple vertical and horizontal members. It has a classic appearance and elegance, yet its starting point is a pure engineering response.

Team:

Knight Architects
Roughan & O'Donovan

ESB International in association with MEGA

Materials:

Carbon Steel

Fibre Reinforced Polymer (FRP)

Silicon Rubber

Y PYLON

The Y composition observes the geometric rules governing the safe spacing of conductive elements however a step change in design is achieved through the integration of modern insulating materials within the primary structure.

The use of twin silicon rubber sheathed FRP arms allows significant reductions in overall tower height and in visual 'clutter'. The result is a clean aesthetic which is distinctive, contemporary and elegant - an efficient new design for the 21st Century.

What the judges liked:

An extremely simple yet sophisticated idea, with a high degree of engineering innovation integrated into a coherent design.

Team:

Ian Ritchie Architects
Jane Wernick Associates

Materials:

Base: Exposed concrete

Structure: Mild Steel hot dip galvanized and painted

Exterior finish: Stainless Clad Steel plate (2mm thick)

SILHOUETTE

Producing a dynamic silhouette, the pylon exaggerates its reach to the sky, sometimes appearing as a full black lance and other times as a thin sliver, like a single brushstroke on a canvas. The pylon becomes an animated character in the landscape… part of a series or pattern… while the convex exterior skin reflects its surroundings. The landscape exists within the pylon as the pylon exists within the landscape.

What the judges liked:

This proposal is for the pylon as a sculptural object within the landscape. The overall effect and sophistication of the expression made this entry stand out aesthetically – particularly when considered in silhouette against the horizon.

Team:
Gustafson Porter
Atelier One
Pfisterer

Materials:
Painted Galvanised Steel

FLOWER TOWER

Flower Tower expresses the transmission of energy through forms associated with nature. In elevation, the Flower Tower reads like a bouquet of flowers or leaves. The bunching together of several ‘stems’ creates structural stiffness at the base. These stems are tied together by connecting plates and horizontal bridges which allow access to maintain the cables. Arcs defined by the cable clearance swings generate curving ‘leaves’, which splay out from the stem. The earth wire is held by a spike or ‘flower’ at the top of the tower.

What the judges liked:
The panel were impressed by the elegance of this submission which had been well developed into a contemporary, sculptural - yet technically inventive and feasible - option.

Team:

New Town Studio
Structure Workshop

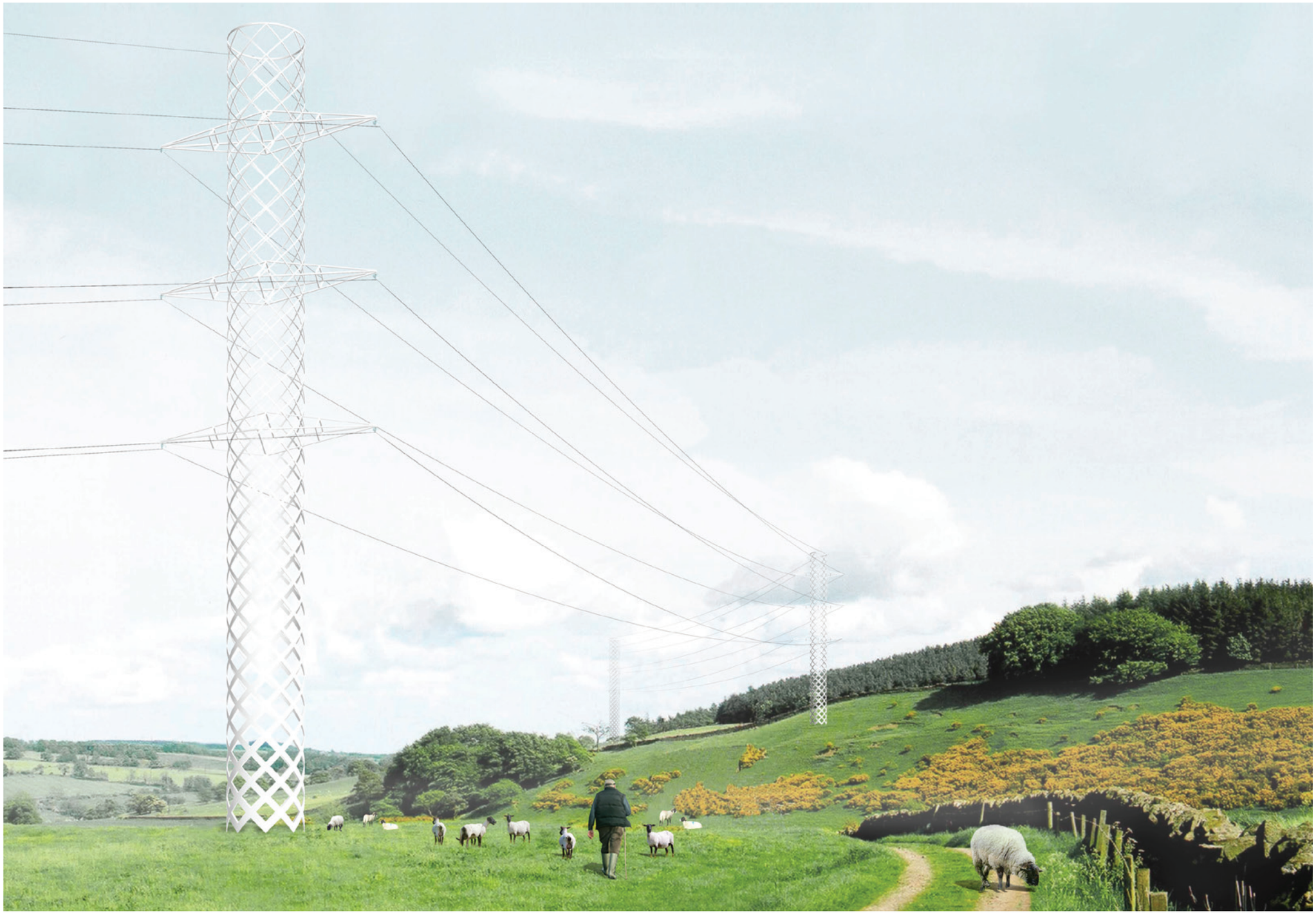
Materials:

Tower: Steel Painted

Arms: Electrically insulating composite material, painted to match tower

TOTEM

The existing lattice pylon is our inspiration. The deference to landscape and sky – look through me, not at me. The lightness, efficiency and ingenuity. Could the lattice become more open, more transparent as it rose? Could the form be simpler, more modest, a post rather than the 'bestriding' giant of Betjeman's 'Inexpensive Progress'? One can imagine this pylon seen alone in a field, diaphanous and calm, or as a whirr seen from a fast moving train.



What the judges liked:

The panel enjoyed the simplicity yet sophistication of this idea. The decreasing density of structure as the pylon ascended to the sky was both logical and enjoyable, the whole effect was one of disappearance and permeability.