

# NORTH WALES WIND FARMS CONNECTION PROJECT



## How will the connection be made?



### Double Wood Poles

- Double wood poles average 15m in height and are spaced on average 100m apart.
- The poles carry three cables with an additional earth wire. The conductors are supported on a steel structure which sits on top of the double wood poles.
- This method of connection offers the greatest potential for sensitive routeing, in hilly, small scale landscapes.



### Steel Towers – L4

- L4 towers average 26m in height and are spaced on average 180m apart. The tower is slender in profile with a narrow base (4m x 4m). The towers can either be single circuit, carrying a 132kV line on one side, or double circuit, carrying two 132kV lines, one on either side.
- Steel towers offer less scope for sensitive routeing and are more suited to expansive, relatively flat landscapes. Their longer spans make them useful for crossing steep sided valleys which would be too steep for wood poles.



### Underground Cables

- The trench for an underground cable is approximately 1.5m wide. In agricultural land the overall working width would be approximately 15-20m. Cables can be laid in ducts in roads or across agricultural fields.
- Undergrounding may be appropriate where there are serious concerns about the potential adverse landscape and visual effects of an overhead line.

## The decision making process



The route corridors we are presenting in this exhibition allow for the connection to be made by overhead lines, underground cables or a combination of the two. The farmland through which we need to build is considered more suited to wood poles than steel towers. Steel towers may be considered in selected locations for example crossing steep sided river valleys. small scale landscapes.

- Being taller, steel towers are more visually intrusive and more likely to be seen on the skyline
- Steel towers are more urban in appearance
- Wood poles are more flexible for routeing and can provide a better landscape 'fit' with existing features
- Steel towers can be used to span steep sided valleys