

Thursday 12 February 2009

Report reveals overhead lines more suitable technology for North East power projects

A STUDY conducted by independent experts has confirmed overhead power lines are the cheapest and most secure option for the planned power lines in the north east.

EirGrid has retained independent, industry renowned experts, Parsons Brinckerhoff (PB Power) to examine issues allowing a comparison of overhead and underground options.

PB Power has spent the last year conducting a comprehensive and site specific underground cable study for the proposed Meath-Cavan and Cavan-Tyrone projects.

Tomás Mahony, EirGrid project engineer, says: "Based on the requirements to provide transmission infrastructure that is safe, secure, reliable, economic, efficient and that has due regard for the environment, overhead lines emerged as a preferred option for the projects."

Mark Winfield of Parsons Brinckerhoff, a high voltage transmission expert and author of the report, says: "The Report found that the cost estimate for an underground cable option is seven times more expensive than going overhead - €588 million compared with €81 million. It also found that underground cables would be more expensive to operate."

Based on the expected usage over its life time, it is estimated that the operating cost of the underground cable option would be €73 million underground compared with €44 million for overhead lines.

From the Report it can be seen that for these projects, over their lifetimes, underground cable could be out of service for repairs for a combined period that is fifty times longer than that of the proposed overhead lines.

This is because, while underground cables rarely fail, when they do, they will almost always require substantial repair work. In the case of a 400kV underground cable experience has shown that these repairs can take many weeks to complete, during which time the cable will be out of service.

In comparison, most faults on high voltage overhead lines are caused by the weather and damage is rarely sustained. On the few occasions that such a circuit is damaged the overhead line can usually be repaired, and returned to service, in a matter of hours.

The electrical and magnetic fields (EMF) from the proposed overhead line and the underground cable alternatives would comply with all national and EU guidelines on EMF, according to the Report.

Parsons Brinckerhoff (PB Power) also confirmed that there is no underground cable circuit, of the kind and length required for these projects, anywhere in the world.

Over 98 per cent of the onshore electricity network in Europe is overhead line, with the remaining being underground cable. Underground cables are mainly used over short distances, in areas where overhead lines are inappropriate or impossible to use. This trend, the Report states, is not likely to change in the foreseeable future.

Tomás Mahony, EirGrid project engineer, says: "In developing these major pieces of infrastructure EirGrid must examine every reasonable option to determine the best option. Any decision must strike a balance between competing priorities and must be safe, secure, reliable, economic, efficient and have due regard for the environment.

"To fulfil our role, EirGrid must proceed with the option which we feel provides electricity customers with the best value for money and provides the residents of the north east with a good quality supply of electricity that will promote the continued growth and development of the region. The findings by Parsons Brinckerhoff (PB Power) show that to put the projects overhead is the best option, both technically and economically."

A Non-Technical Summary and the full Report will be available from EirGrid's Information Centres in Navan and Carrickmacross, which will both have specially extended opening hours in EirGrid's Centres over the coming month. People can also lo-call 1890.25.26.90 to request further information or log-on to www.eirgrid.com

ENDS

Notes to editors

- Parsons Brinckerhoff (PB Power) is a leader in the development of infrastructure to meet the needs of communities around the world. It was founded in 1885. It has over 150

offices in 25 countries, with its headquarters in New York City. It employs over 12,000 people around the world.