

Expert solutions for lightning safety and lightning protection challenges

As we move into or towards the lightning season in many parts of the world, lightning safety and lightning protection moves to “front of mind”. Numerous recent events internationally, including many associated deaths and injuries, have also highlighted the safety risks associated with lightning. Many applications, such as those in mining, oil & gas (petrochemical), airports/aviation and other transportation systems (such as railways), renewable energy (such as PV and wind plants), as well as large conventional power and industrial plants and outdoor sporting and recreational facilities, all present particular lightning-related challenges as “complex applications”.

This was noted by **Ian McKechnie**, CEO of project and engineering advisors and solutions provider **Engenamic**, who commented that “the complexity of these applications, insofar as lightning safety and lightning protection is concerned, arises from a combination of particular factors. These include, for example, that such sites typically have relatively exposed persons, infrastructure, equipment and systems, often over an extended area. They also typically include a diverse and complex range of people, systems, technologies and interfaces in a dynamic and constantly changing environment, as well as application and site specific factors such as possible presence of hazardous locations and particular site conditions”.

He added that “these are some examples of factors that impact directly on the risks associated with lightning safety and lightning protection, and which require careful consideration in developing solutions”. He also noted that their team members’ professional expert consultation in various matters, including in investigative, forensic, remedial and mediation roles, had highlighted many shortcomings in both engineering approach and in the addressing of application specifics.

Ian Jandrell, CTO of **Engenamic**, added that a well-structured and engineered solution can nevertheless manage the lightning safety and lightning protection risks for these applications. He cautioned however that it was important that appropriate expertise and experience be applied in addressing challenges and developing solutions.

“At **Engenamic**, our team is lead by reputable engineering professionals who are not only recognised as experts in lightning protection and lightning safety, but who also have broad-based experience in engineering management and project management, as well as in forensic and remedial engineering. This provides them with the insights, experience and expertise to appreciate the broader implications and to address the complexities associated with both ‘greenfield’ and ‘brownfield’ applications”.

McKechnie concluded that the **Engenamic** team members had extensive and international experience in lightning safety and lightning protection (including through sister company Innopro, now part of the Engenamic family) and that their services are offered on a world-wide basis.