

Standardisation (Call 2015) - Projects

An overview of the funded projects from the Targeted Programme Pre- and Co- Normative research

Super-sensitive emissions monitoring (15NRM01)

Validation of sulphur dioxide measurement methods will lay the foundation for future-proof emissions monitoring

The EU Industrial Emissions Directive (IED) places stringent limits on emissions of sulphur dioxide, produced during the combustion of solid fuels, and is projected to prevent 13 000 premature deaths per year. This project will assess the performance of sulphur dioxide measurement methods, putting in place the foundation needed to develop a new Standard Reference Method for robust regulatory monitoring.



Ultra-high voltage measurement techniques (15NRM02)

New research will underpin testing of ultra-high voltage equipment used across a range of industries

This project will support the standardisation of ultra-high voltage measurement techniques, focussing on the needs of three different industrial sectors. The capabilities developed will help ensure better control of the dose delivered by medical X-ray units, improve the reliability of power supply from high-voltage power transmission lines, and support the use of fast transient sensors in the electrical power industry.



Quality-assured fuel for hydrogen cars (15NRM03)

Improved hydrogen purity measurements will support the rollout of reliable fossil-free transport

Hydrogen-powered vehicles produce no harmful emissions and are completely carbon free if the hydrogen is generated from renewable energy sources. However, the fuel cells that power hydrogen vehicles can degrade quickly if impurities are present in the hydrogen supply. This project will develop improved hydrogen quality specifications and traceable techniques to measure hydrogen impurities, which will be used to revise two ISO standards.



Supporting smart, stable grids (15NRM04)

Improved measurements of rate-of-change of frequency will provide vital support to the smart grids of the future

Future electricity grids incorporating high proportions of renewable energy will require new control systems that can balance supply and demand to prevent blackouts. Rate-of-change of frequency (ROCOF) is an essential measurement these systems depend upon to ensure power quality. Following ENG04 and ENG52 Smart Grid I and II, this project will develop methods to measure ROCOF under typical network conditions and support development of the first ROCOF standard.



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