Do IoT Fieldlab
Innovation in Internet of Things

SMART ENERGY

TU Delft Campus

TU Delft Campus is a living smart energy environment. Test and validate your solution across multiple grid-connected buildings on a campus-wide 600 MHz 5G Standalone network, next to real energy research assets such as PowerWeb, the Control Room of the Future and The Green Village. The low band reaches deep into buildings, basements and substations, where energy equipment actually sits.

600 MHz 5G SA, band n71	**2 x 35 MHz** bandwidth, FDD	**2 sectors** mast at about 30 m	**Campus-wide** outdoor and deep indoor

Network specifications

Parameter	Specification
Environment	Campus-wide, multiple grid-connected buildings, outdoor and deep indoor
Technology	5G Standalone, FDD, split RAN
Licensed frequency	Downlink 617 to 652 MHz, uplink 663 to 698 MHz (band n71), experimental licence
Radio	2 x Nokia AirScale Dual RRH 4T4R on a mast at Watermanweg (about 30 m), 34.4 dBW e.i.r.p. output power per antenna
Compute	Low latency dark fibre connection to the TU Delft compute clusters
Programme	Future Network Services 6G programme (Grid Interactive Buildings)

Typical use cases

Grid-interactive buildings	Congestion management	EMS / BMS and smart metering
Vehicle-to-grid and charging	Power quality monitoring	Resilient grid communication