

## Communications Requirements for Grid Automation

	Service Requirements	Communications Requirements	Availability and Resilience	Communications Technology
>138kV	All operational and management services	High data rate, very low latency	99.94% 72hr Mains autonomy	Fibre / MPLS
13-138kV	SCADA	Low data rate, very low latency	99.9% 12hr Mains autonomy	Fibre / MPLS
4-13kV	Voice / CCTV	Medium data rate, low latency	Limited autonomy, non-critical	Wimax / LTE
240V/400V Consumers	Distribution Automation and voice	Low data rate, average latency	Limited autonomy	Narrowband radio
	AMI	Unqualified	Unqualified resilience	Zigbee / BPL / Fibre / ...