



**Technical Specifications
Of Telecommunications
Equipment for RES & CHP Plants
connected or connecting to the
HEDN with installed capacity
exceeding
four hundred kilowatts (400 KW)**

12/6/2024

	Notes
Telecommunications equipment required	
<p>Omni antennas (if there is no visual contact with the base station), with the following technical characteristics:</p> <ul style="list-style-type: none"> • Suitable for outdoor installation • Omni-directional Gain of at least 3.5dB and VSWR value of less than 2 at 4G/5G network operating frequencies. • They must feature an RF cable of at least 2.5m in length and a suitable wall mount and SMA or N-Type RF connectors for interfacing with antennas and equipment. • The antennas must be accompanied by lightning protection and the necessary interconnection cables with the appropriate connectors, for compatibility with RF cables. 	<p>Procurement is undertaken by the producer</p>
<p>Directional antennas (if there is visual contact with the base station) with the following technical characteristics:</p> <ul style="list-style-type: none"> • Suitable for outdoor installation • Directional Gain of at least 9dB and VSWR value of less than 1.5 at 4G/5G network operating frequencies. • They must feature an RF cable of at least 5m and a suitable wall mount base and SMA or N-Type RF connectors to interface with the offered antennas and equipment. • The antennas must be accompanied by lightning protection and the necessary interconnection cables with the appropriate connectors, for compatibility with RF cables. 	<p>Procurement is undertaken by the producer</p>
<p>SIM card (4G/5G) to connect the equipment to the mobile telephony network, with the following features:</p> <ul style="list-style-type: none"> • Minimum data 3GB per month • Data retention time at 10 years • At least 5 years lifetime, • 500.000 update cycles (recording-reading) • Safe operation at temperatures of -25°C with +85°C • Seamless operation at natural environment humidity levels • Contact protection from oxidation 	<p>Procurement is undertaken by the producer</p>
Router equipment and arrangement for the interconnection with other equipment.	To be provided by HEDNO*

* Instructions on the procedure for receiving the router will be provided at a later stage.