

7 September 2016

Windar Photonics plc ("Windar" or the "Company")

Windar Photonics plc (AIM:WPHO) is pleased to announce new orders for Windar's 4-beam LiDAR device, the WindVISION™, from international wind turbine OEMs.

Windar has installed and tested one of its WindVISION™ LiDAR units on a Eleon 3.4M-118 wind turbine, at the new-build 100MW Aidu windfarm in northeastern Estonia for the wind turbine OEM, Eleon AS ("Eleon"). The Aidu wind farm, which is fully permitted – a project with a total budget of Euro 216M and to be completed by 2018 containing 30 Eleon 3.4M-118 wind turbines.

Windar has worked with Eleon since 2013, and the WindVISION™ installation is the first direct integration between a LiDAR wind sensor and the control system of a wind turbine at the design stage. Eleon selected Windar's 4-beam LiDAR, the WindVISION™, as their preferred LiDAR solution as part of the default anemometry for their state-of-the-art wind turbine, the Eleon 3.4M-118.

Eleon has spent more than nine years and 100,000 man-hours, involving more than 500 engineers, developing the Eleon 3.4M-118 wind turbine. The Eleon 3.4M-118 is an innovative direct drive turbine with a production capacity of 3.4MW and a rotor diameter of 118m designed to take advantage of the forward looking wind speed and wind direction information provided by the Windar WindVISION™ device. The Eleon 3.4M-118 has an estimated life span of 40 years, as the wind turbine has been designed to dramatically reduce damaging fatigue loads on the mechanical parts of the turbine. The integrated WindVISION™ device will provide critical operational data by measuring wind speed and direction before the wind reaches the turbine, enabling the wind turbine to dynamically minimize and reduce potentially damaging loads in demanding conditions, while improving turbine performance during normal conditions.

Martin Rambusch, CEO of Windar Photonics plc, commented on the orders:

“The direct integration of Windar's LIDAR technology into a new turbine, which is expected to be sold internationally for a number of years to come, represents a new era for our technology. We believe that Eleon will be one of a number of international OEMs which will integrate Windar's technology into their turbines where internationally thousands of turbines are forecast to be sold annually through to 2020. Besides the WindVISION™ LiDAR primarily being promoted towards the OEM market segment, we continue with our engagement with the retrofit market with our WindEYE™ units and look forward to providing further updates in due course”

Oleg Sõnajalg, CEO of Eleon AS, commented:

“We have chosen Windar Photonics as our preferred supplier of Lidar technology for our Eleon3.4M118 turbine, where the WindVISION™ will be part of the standard anemometry. We see great potential in Windar Photonics' LiDARs for providing operational data, which can be utilised for reducing damaging loads on the vital parts of the wind turbine”

Furthermore, Windar has received two additional orders for three WindVISION™ LiDAR units each from two Top Ten wind turbine OEMs. Both orders are intended for projects focused on Wind Turbine optimization including reducing damaging mechanical loads on the wind turbine

generators by using forward looking wind data information provided by the WindVISION™ LiDAR.

Finally, the Company expects to announce its interim results on 15<sup>th</sup> September 2016.

The information contained within this announcement is deemed by the Group to constitute inside information as stipulated under the Market Abuse Regulations (EU) No. 596/2014 ("MAR"). Upon the publication of this announcement via a Regulatory Information Service ("RIS"), this inside information is now considered to be in the public domain."

### **For further information:**

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### **About Eleon AS**

Eleon AS is an Estonian wind turbine OEM founded by the brothers Sõnajalg in 2007. Prior to founding Eleon AS, the brothers Sõnajalg were operating wind farms comprised of various wind turbine models from European wind turbine OEMs.

In 2007, the Sõnajalgs initiated the development of their patented Eleon 3.4M-118 wind turbine and appertaining wind parks. The first prototype of the Eleon 3.4M-118 direct drive wind turbine was commissioned in February 2014 on Saaremaa island in Estonia. Eleon AS expects to have commissioned 30 turbines by 2018.

### **About Windar**

Windar Photonics is a technology group that develops cost-efficient and innovative Light Detection and Ranging ("LiDAR") optimization systems for use on electricity generating wind turbines. LiDAR wind sensors in general are designed to remotely measure wind speed and direction.

### **About WindEYE™**

The Group's key product is the WindEye™ Sensor, which measures wind direction and wind speed by scanning a laser beam ahead of the wind turbine. The WindEye™ Sensor was designed for the general optimization of wind turbines.

Based on the Group's testing, it has proven possible for the WindEye™ Sensor to increase the power output of a wind turbine by approximately one to four per cent and further reduce strain on vital components of the wind turbine. The WindEye™ Sensor has been designed to have a multi-year lifecycle with limited maintenance other than the replacement of the light source every two years. Due to the use of a semi-conductor laser, the Directors believe that the Company is able to offer the WindEye™ Sensor at a lower cost compared to competing products whilst still retaining an attractive margin.

The Directors believe that the WindEye™ Sensor can be differentiated from comparable products currently available on the market by its lower price and durability, which typically enables the Company to provide its customers with a return on investment within one to four years.

<http://investor.windarphotonics.com>

### **About WindVISION™**

The WindVISION™ is a nacelle-mounted remote sensing LiDAR for wind turbine optimisation. The WindVISION™ utilises four measuring points, allowing the LiDAR to gather an exhaustive quantity of wind data, as the four measuring points enables the LiDAR to measure the wind in both the horizontal and the vertical planes.

The ability to measure in both planes provides data and information concerning wind shear, turbulence, gusts, wind wakes, and yaw misalignment, which can be applied operationally to substantially reduce damaging loads on the wind turbine generator.