Over the years of its existence, ENOR has earned its name of the specialist in the realmof wind measurement and associated issues. Until now, we have installed several of wind measuring masts all over Poland.

ENOR has continuously been developing and strengthening its position on the market of Renewable Energy Sources.

Our company owes its success to our considerable knowledge and also perpetual willingness to self-improvement.

Having taken a new direction for ENOR's development, we considered not only future utilization of wind measurement in order to create a professional documentation of a wind farm, but the developmental progress of wind turbines manufacturers and also solicitude for market value of projects led by our Investor at every stage of their execution.

ENOR company specializes in issues connected with efficient and effective utilization of Renewable Energy Sources and matters related to wind, in particular.

For this purpose, we have broadened the range of our activities following directions:



- 1. Acquiring of land for the construction of wind farms and on behalf of the Investor:
- 2. Conducting administrative procedures associated with building both measuring masts and also wind power;
- 3. Sales, installation and service of measuring masts and measuring devices;
- 4. Transmission and measurement data monitoring;
- 5. Conducting analyzes and reports related to the construction of wind turbines;



- 6. Performing maintenance and repair works of wind turbines in accordance with the regulations of the energy law and conducting the necessary documentation;
- Performing noise measurement in the environment (noise generated by installation, devices or machines);
- 8. Services, exploitation of single wind turbines, as well as wind farms.





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All measurement campaigns conducted by ENOR are held in accordance with operative IEC norms, GL GH guidelines and also current market standards.

Due to cooperating partnerships, ENOR is able to conduct various investments beginning with administrative matters through issues related to a scheme, sale of devices, realization of an investment and ending with performing an analysis using, among others, WindPro software and DECIBEL or METEO modules.

ENOR offers measuring masts (meteorological masts), which are manufactured according to Eurocodes and under the directives of the Council of Europe. In our range of products we offer measuring masts which are from 50 to 120 meters in height.

All the elements in which a measuring mast is equipped are certified and also hold a CE certificate. Each mast is covered by a warranty.

Besides, we have enriched our portfolio by adding reference masts (permanent masts) to our offer, which are installed on a newly created wind farm. The durability of such masts is estimated at 20 to 25 years.

Each reference mast (a permanent mast) is equipped with a safety rail as a standard, thanks to which a mast is safe to be exploited and serviced. Reference masts (permanent masts) meet all the requirements imposed by PN and Occupational Health and Safety regulations. Still on sale we have measuring devices manufactured by Thies Clima, Ammonit, NRG System, Second Wind, Wilmers and Young.

Measuring devices are calibrated according to the guidelines of Measuring Network of Wind Energy Institutes (MEASNET). The booms on which the measuring devices are installed fulfill all the requirements defined by IEC norms as well as GL GH.

ENOR also offers obstruction lighting which contains self-sufficient power supply and, more importantly, meets the requirements imposed by ICAO.









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Online wind measurement — a system of measurement data monitoring and visualization.

Online wind measurement is an internet platform with the help of which a user gets access to measurement data gathered from measuring devices making measurements of wind (speed and direction of wind) and atmospheric conditions (temperature and atmospheric pressure). The main task of the platform is to monitor, visualize and archive the measurement data with the possibility of 24/7 availability, using the internet browser.

Access to the application is possible after logging in, using previously pre-assigned username and password.



- visualization of measuring devices and various diagrammatic presentations of measurement data, including histograms, frequency scales, speed and direction of wind, potential production of electrical energy,
- application available both in Polish and English,
- data is stored on dedicated web servers WWW,

Login details are provided by the application administrator while applying the time limit in order to provide management and control over availability of data, that are the importance of investments.

Main objectives:

- online access from any place in the world by means of encrypted connection (HTTPS) and any internet browser,
- automatic data archiving and its storage in the database and on FTP server in the form of raw measurement files, directly coming from a device which registers certain measurement data,
- data quality assurance (information about correctness of data gathering or detection of ice accretion of a measuring device or its damage),
- automatic warnings in the form of self-generated e-mails or text messages, informing about technical breaks due to the lack of data transmission,



the application enables users to monitor
and visualize unlimited number of measurement locations.



