

Geospatial Products in the Registration of Photovoltaic Installations and Their Parameters

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Key words: Cadastre; Geoinformation/GI; Land management; Real estate development; Spatial planning; Keyword 1; Keyword 2; Keyword 3

SUMMARY

The global trends and activities of individual countries in the promotion of renewable energy sources, as well as the development of geographic information systems bring demand for new opportunities in the field of creating databases related to their attributes, including their spatial location. For example, more and more often data on already implemented photovoltaic installations are registered and made available in public registers or open access Geographic Information System (GIS) tools. Such portals often enable to provide information on the location of existing installations, their peak power and productivity, predict areas that would be suitable for situating newly planned installations. In turn, modern surveying and photogrammetry provide products to quickly and efficiently record the location of panels and allow one to determine their parameters. There is widespread recognition that effective control over future photovoltaic installations requires proper knowledge about the remaining technical potential and the local demand to use the generated electricity. Recording the location of existing installations can constitute an important activity in the process of comparison of the capacities of newly designed installations with the remaining regional potential, as extensive and uncontrolled installation of photovoltaic plants can lead to problems with the electricity grid, including grid failures.

For the purposes of the presentation, the results of the research of the authors on the subject of recording the location of photovoltaic installations in public databases from selected countries will be listed in order to develop standards and to specify good practices in the field. Moreover, the usefulness of geospatial products, gathered on the basis of modern surveying and photogrammetric methods, in the process of the acquisition of the aforementioned data will be analysed.