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The electricity market is becoming a hub for the direct marketing of wind energy. In order to be successful at this complex interface between the energy industry and meteorology, the knowledge of specialists from both fields is required. This insight motivated us to combine the many years of experience of enervis and anemos. With our cooperation we set standards with innovative products and offer advice of outstanding quality.

**enervis energy advisors GmbH**  
enervis is an energy management consultancy with more than 15 years of experience in consulting for the European power and gas markets as well as conventional and renewable power plant and storage investments. For the market analysis and energy optimization enervis uses proprietary computer-aided market models.

**anemos Gesellschaft für Umweltmeteorologie mbH**  
anemos is an international independent service bureau in the field of wind energy utilization. For over 25 years, anemos has been supporting its customers through research, development and consulting in all meteorological aspects of wind energy.

## MARKET VALUE ATLAS (FRANCE)

Optimization of direct marketing and targeted competition analysis



weitere Infos unter: [www.enervis.de](http://www.enervis.de)





OPTIMIZATION OF DIRECT MARKETING AND TARGETED COMPETITION ANALYSIS

## Market value atlas for France

At the beginning of 2017, mandatory direct marketing similar to the German model was introduced in France for new wind turbines. In addition, a voluntary change of existing WTGs is planned. For the economic optimization of projects a knowledge of the deviations from the monthly market value „MO“ is important - both in the optimal marketing of electricity production by a direct marketer and in the investment decision for project developers and plant operators. The excess or reduced revenue for every location in France can be determined interactively and online with our new market value atlas.

### Direct marketing in France

The French model is similar to the German market premium model. A monthly variable market premium is paid out to the plant operator, which is calculated as the difference between the assessment base (feed-in tariff or auction surcharge) and the average market value of onshore wind energy „MO“. In the case of the feed-in tariff, additional revenues from the capacity market (CM) will be deducted from the market premium. Plant operators also receive a management premium (MP), the amount of which is set by the legislator for the entire funding period.

From this logic, deviations in total revenues result for the individual wind energy projects, since the magnitude of the electricity market revenues of these projects mostly deviates from the average market value of the entire national wind onshore portfolio. Depending on the plant location and technology, this may result in market value differences of the order of magnitude of a few € / MWh. Figure 1 illustrates the scheme of the French model of direct marketing and its components.

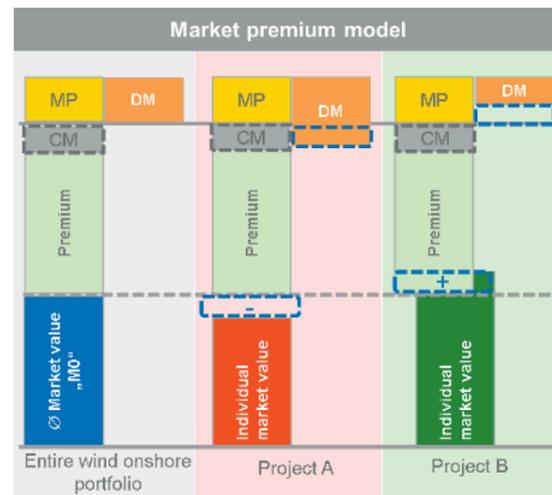


Fig. 1: Direct-Marketing in France

### What is a market value atlas?

A market value atlas visualizes in the form of a map where and to what extent additional or lower revenues occur in the direct marketing of electricity from WTGs compared to the monthly market value „MO“ for wind energy. This market value is mainly influenced by location and the technology used. This can be seen in Figure 2, which shows, the market value deviations of a WTG type in in France in an exemplary historical year.



MARKET VALUE ATLAS FOR FRANCE - THE MUST-HAVE

## For direct marketers, operators + manufacturers

### Standard catalogue or individual market value atlas

The online market value atlas contains maps with market value differences for each historical year 2014-2017. The market value differences for each completed calendar year are added in each new calendar year. A differentiation of the map representation according to further characteristics (WEA type and hub height) in further maps can be carried out by the user. There are currently more than 100 individual maps available. Individual market value atlases complete this evaluation for special system configurations (other types of wind turbine and hub heights) or a higher spatial-temporal resolution. Both products are available in online access.

### Typical users of the market value atlas

The market value atlas France offers a simple and rapid

optimization aid - for direct marketers a „must-have“ for the determination of competitive direct marketing conditions. For project developers and plant operators, the market value atlas is the basis for determining the market value of their own portfolio as well as for the assessment of location or technology.

### Methodology for creating market value atlases

Market value atlases are formed by the analysis of the (spatially and temporally) high resolved simulated power generation from wind with the simultaneous electricity market prices. For this purpose, ener-vis and anemos pool their expertise and bring together their high-resolution wind and electricity market models for Germany and neighbouring European countries. Energy industry and meteorology find each other here.

### Scope of the market value atlas

The Onshore Market Value Atlas France provides you with the information you need quickly and cost-effective, based on current calculations to assess wind energy projects in France. We offer maps and data on the market value differences of wind energy for selected wind turbine types and hub heights.

### Get in touch with our experts!

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We looking forward to hearing from you!

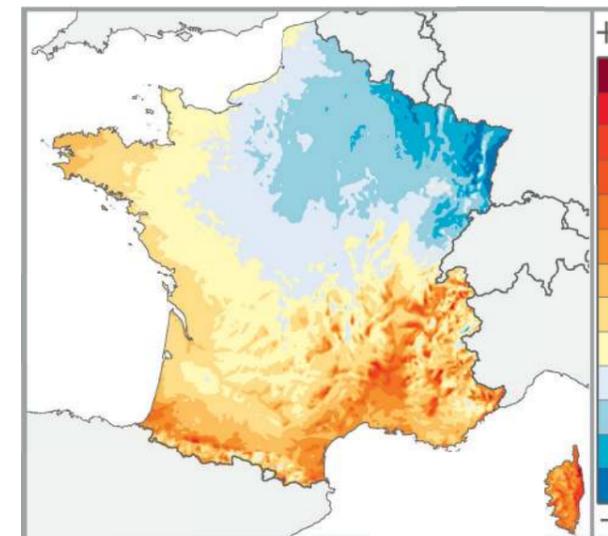


Fig. 2: Market value atlases - More and less revenue (in € / MWh) distributed across France for wind turbine technology and hub height (historical example year)