

The development of the “Real Asset” module enables PMS to capture and value real asset contracts such as investments in power plant projects, renewable energies and also real estates.

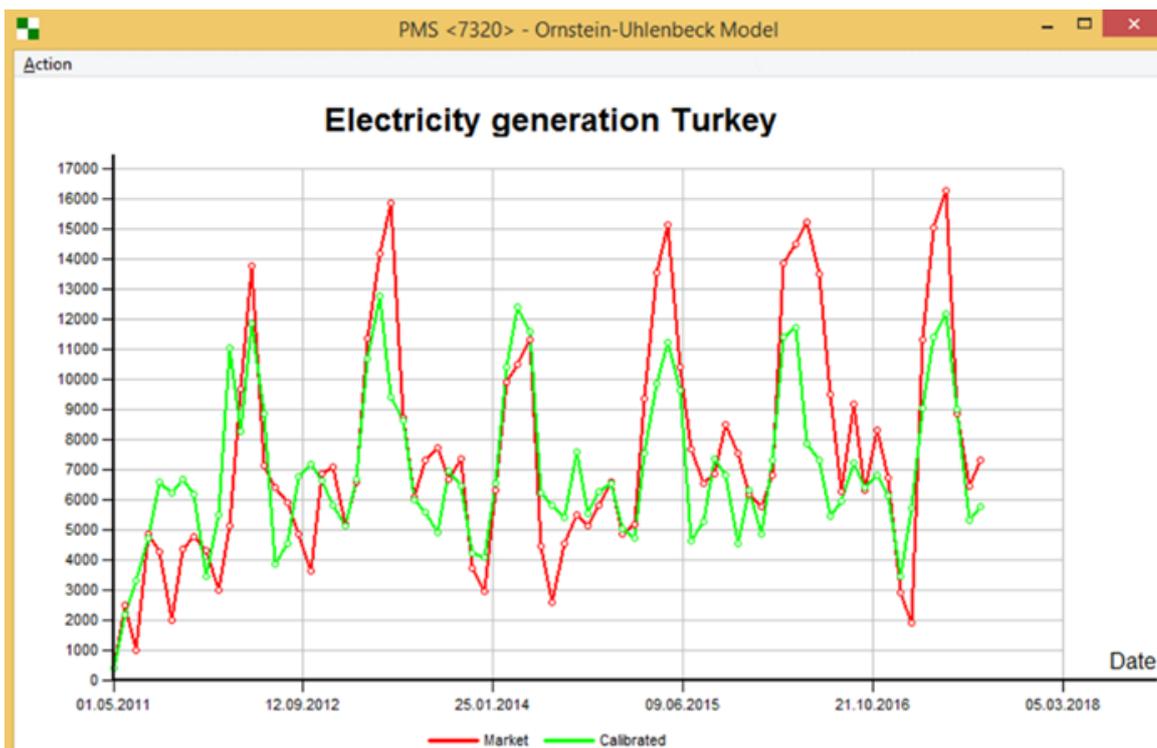
These contracts can be modelled in PMS using the EOT Tool Box, which offers a high degree of flexibility when capturing the position and allows for an integration in all PMS analyses.

A new mathematical model has been developed for the valuation of a real asset, simulating the electricity rates of the energy source (e.g. solar, wind, water, biogas) and production volumes (with regard to a power plant or country for example) in the future based on historical price/rate time series.

Use commodity indices to create these electricity rate time series in PMS to define for instance which unit the rates refer to or whether a seasonality dependence can be observed for the time series. A new index type (Production Volume Index) has been implement-

ed for the production volumes, for which it is also possible to define whether a seasonality should be taken into account or not. It is also possible to define whether the production volume of solar plants should take degradation (wear and tear) of the energy converter should be taken into account or not. If a seasonality can be observed among the price/rate data, a Fourier series can be found by means of the corresponding time series to reproduce the given seasonality. Based on this, the model parameters can be determined using the historical time series adjusted for the seasonality fluctuations. Outliers can be discarded via Winsorizing, which results in a smoothing of the price/rate time series to be calibrated and therefore in more stable model parameters. If no complete time series is available, you can specify a proxy index (including weather data, rainfall, wind force etc.) for production volume indices, where the proxy time series can be used for the model parameter calibration.

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Exemplary production volume graphic