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The optimal number of installed PMUs depends on the task being solved and on the method of connecting wind farms to the power grid.

If we are talking about the tasks of controlling the operating mode of the power system, then to monitor the parameters of the mode, it is enough to install a PMU on one feeder connecting the wind farm to the power system. If we are talking about monitoring subsynchronous oscillations, then it is necessary to install a PMU on each wind generator. But in this case, the question arises of the sufficiency of the PMU's technical capabilities, since now standard PMUs are not able to measure the parameters of subsynchronous oscillations.

The best scenario is to make PMUs cheap and affordable to remove the financial constraints on their installation.

At present time according to the requirements of the national standards PMU are installed on power stations (P ≥ 500 MW), substations (U ≥ 500 кV) in:

- transmission lines (U ≥ 330 kV);
- transmission lines and autotransformers in control sections U ≥ 220 kV;
- generators (more than 200 MW) and hydrogenators (more than 100 MW).