



## Increasing the load swing capacity of large coal fired steam generators by online coal mass flow measurement and DCS modifications

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The demand of load swing capacity of coal fired power plants increased with the amount of renewable energy producers over the last years. The MECONTROL Coal measurement system measures pulverized coal mass flow and transport velocity and is used to improve the performance of the main coal controller. Current control concepts are based on PI power correction controllers, simplified reference models and open control loops with constant parameters. They can't adapt automatically to changing boundary conditions as: new coal types, wear of the coal mill rollers or mill start and stop sequences. This leads to over shoots in the fuel injection and to fluctuations in the heat flux.

