

Scale back compute when electricity produced from gas

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In view of the particular gas shortage in Germany, we propose a method to scale back HEP computing usage at times where the electricity production mix has an increased gas component. The predicted gas component is dependent on weather and demand forecasts. It is freely available and has very pronounced peaks due to the merit-order model. A compute site could use this to minimize consumption at times where gas would be needed to produce that electricity. This could be by stopping new jobs, to drain nodes, perhaps combined with suspending running jobs. A typical 2 socket server uses 250W loaded, but only 50W idle. Even at the LHC computing scale, this would be a very small load reduction, but raises awareness and brings outreach potential. For example, by publicizing times to avoid, other consumers could voluntarily reduce usage.

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Session Classification: Input and Discussion