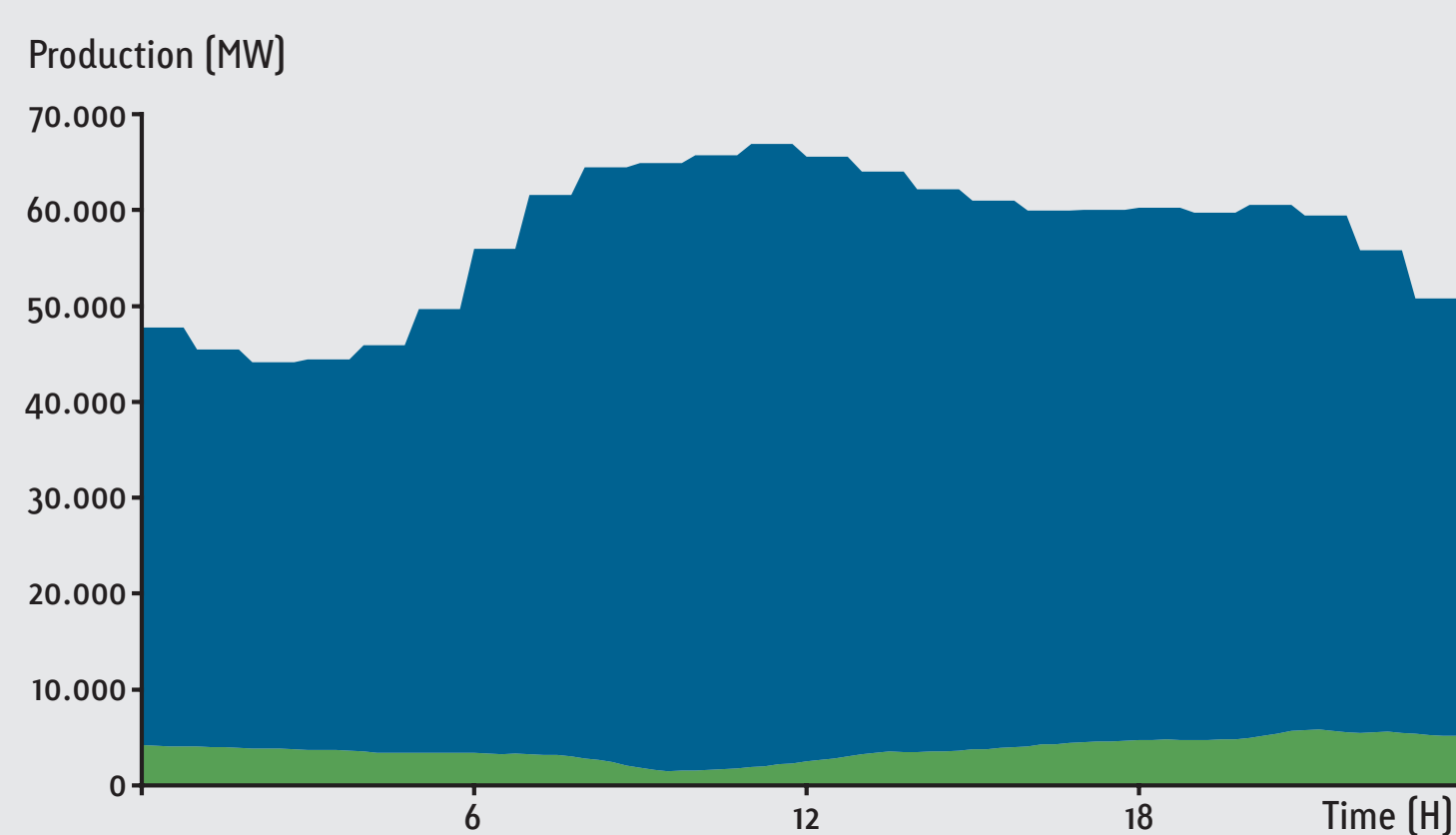


# Wind and Other Energy Supply

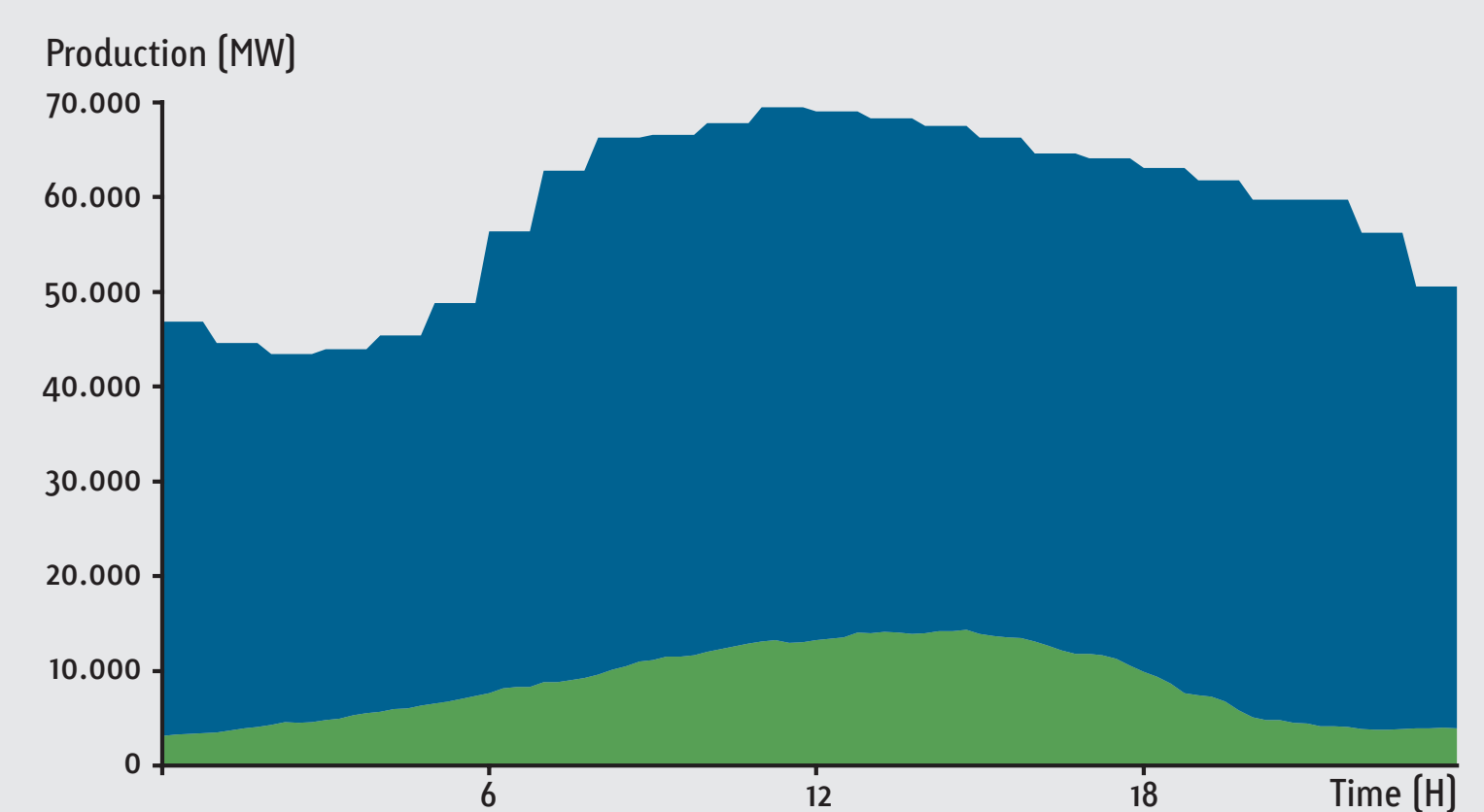
## Germany, 2007

### Typical Day, April 13th, 2007



On this graph, we can see that the input of wind energy is lower during the morning while it grows during the afternoon, the evening and finally decreases during the night. The rest of electricity supply is produced by other forms of electricity generation, closely following demand. This is a typical day for Germany during 2007.

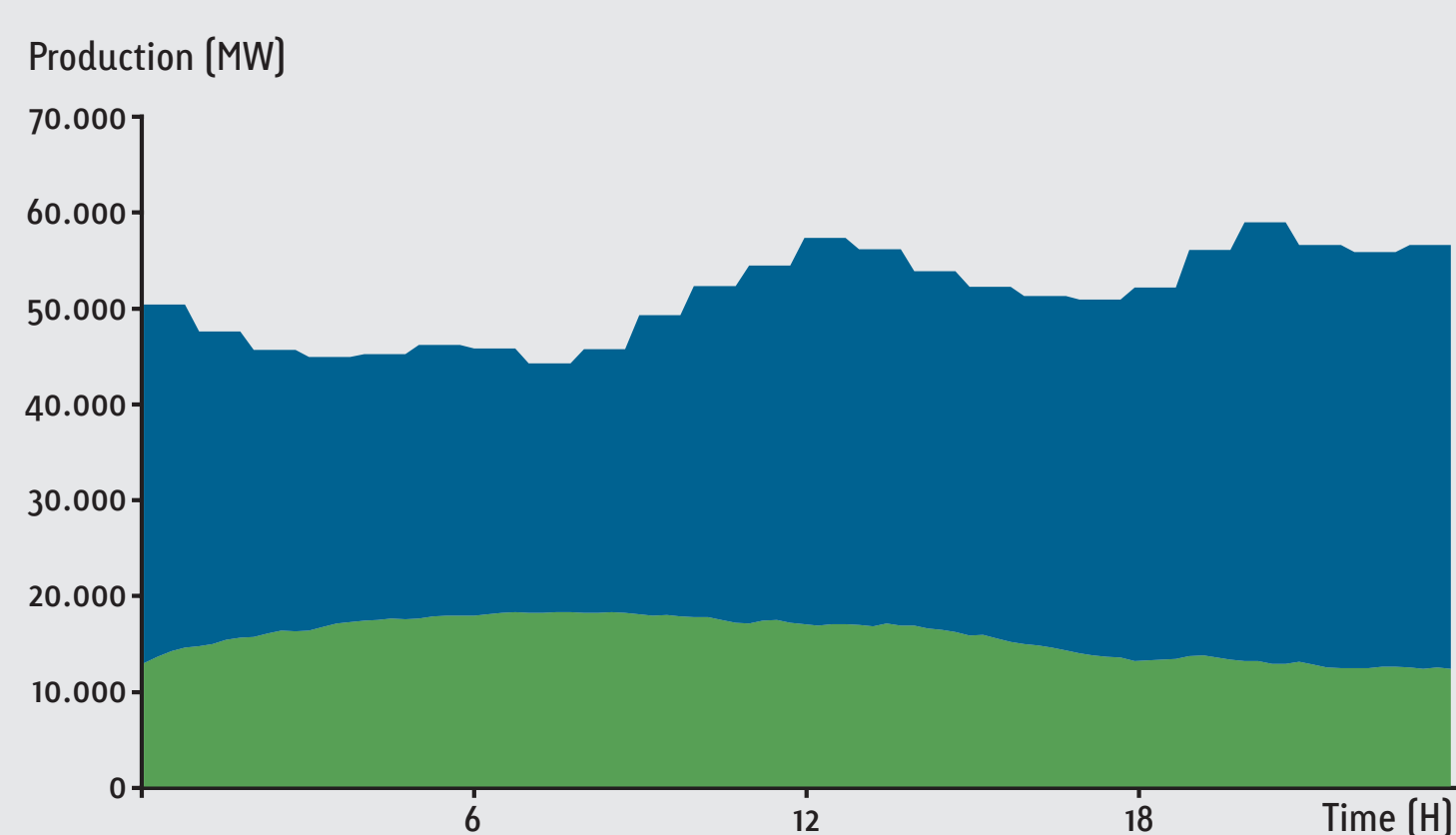
### Biggest Span in Wind Sup- ply, May 10th, 2007



The graph shown here represents May 10th, the day of the year with the quickest and biggest variation in wind energy supply. During the morning, the wind blew with force, but not increasing rapidly enough to follow the demand increase.

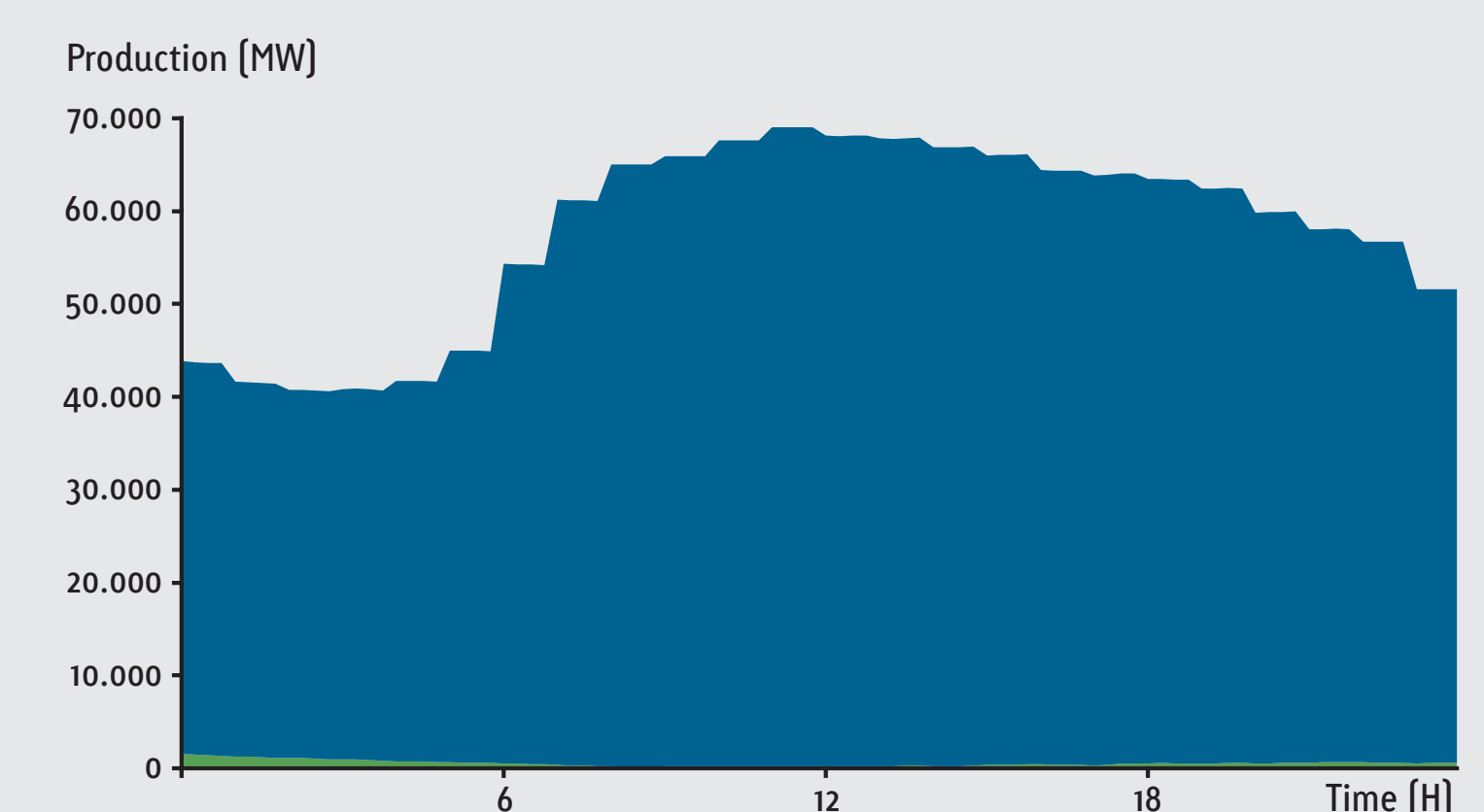
During the evening, the wind stopped to blow quickly, reducing the windmill's input more quickly than the demand decreased. In both cases, the other generation facilities had to increase their production to maintain the electric supply.

### Best Case Scenario, March 18th, 2007



March 18th, 2007 was the best day of 2007 for wind-based electricity. At 5 am, more than 40% of Germany was fed by wind energy and the supply remained very important and stable during the whole Sunday, reducing the need for other power plants.

### Worst Case Scenario, June 11th, 2007



On June 11th, the lack of wind, in contrast with situation on the left, produced a situation where during most of the day, less than 1% of the country could depend on wind energy. To maintain the constant electric supply, the other types of power plants had to increase their output to meet the high and variable demand.

The graphics above explain the input of both wind parks and other (Nuclear, Fossil Fuelled, Biomass and Hydroelectric) types of power plants on a particular day. Wind input is shown in green while the rest is shown in blue.

Germany was chosen because it is the first country of the world in terms of wind installed capacity. These data show the electricity input (MW) into the network at every moment of the day.

Peakload: 75.000 MW;  
Installed Wind Power: 22.000 MW

