

First six months of 2009 - the Nordic market from a Norwegian perspective

Summary

The inflow in Norway through Week 25 amounted to 51 TWh, more than 5 TWh lower than normal and fully 14 TWh less than in the same period in 2008. The main reason for this is less snow in the mountains this year.

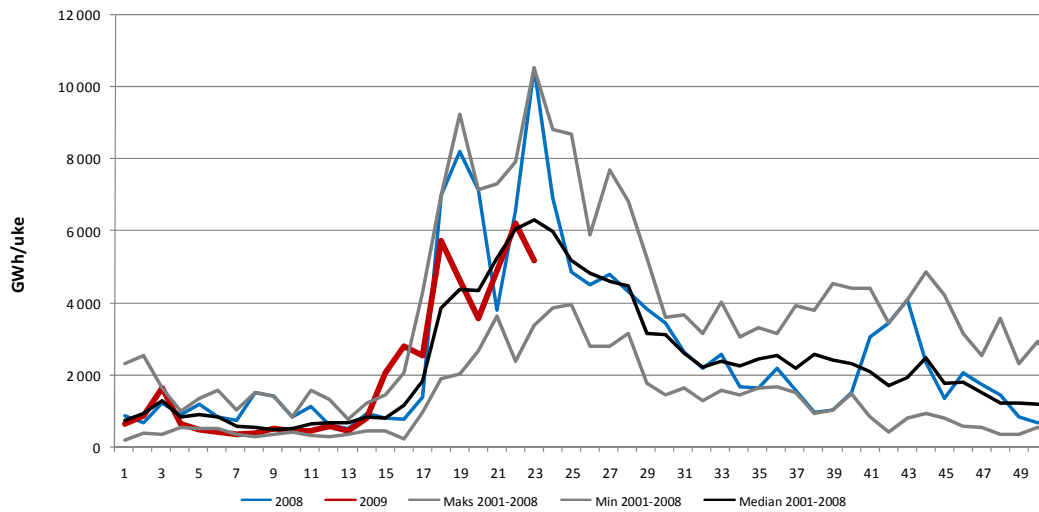
Total Norwegian production in the first 25 weeks of 2009 was 63.1 TWh, 10 per cent lower than for the same period last year. The reduction is mainly attributed to extraordinarily high production in 2008.

During the first 25 weeks of the year, total consumption in Norway has been 61.6 TWh, 5 per cent lower than for the same period last year. The financial crisis has curbed consumption, particularly in energy-intensive industry. A Norsk Industri forecast from June estimates that industrial power consumption in Norway in 2009 will be 7 TWh lower than in 2008.

Due to repairs on the Oslofjord cables, the exchange capacity between Elspot Area NO1 and Sweden has only been about one-quarter of normal capacity so far this year. However, this has not resulted in significant bottlenecks between Norway and Sweden.

Both Nordic and Continental power prices have followed the downward trend in fuel prices since the impact of the financial crisis became apparent from the autumn of 2008. Reduced consumption has also put pressure on prices, resulting in generally low price levels so far this year. Only minor price differences have been recorded between the Nordic price areas to date.

1 Hydrology



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GWh/week

Max.

Min.

Median

Figure 1: Inflow in Norway (Source: NordPool)

The inflow in Norway through Week 25 amounted to 51 TWh, more than 5 TWh lower than normal and fully 14 TWh less than in the same period in 2008. The main reason for this is less snow in the mountains this year, which has meant lower inflow from snow melt. Lower than normal inflow is also expected for the remainder of this year's melt period, assuming normal precipitation.

The snow melt started early this year, with reservoirs in Norway starting to fill as early as Week 14. This helped alleviate the pressured situation in Central Norway, with the water level starting to increase from 16 per cent.

The water level in recent months has coincided with the median value, but distance to the median has increased in the past week. At the end of Week 25, reservoir levels were 55.9 per cent, about 6 per cent lower than the median.

2 Production and consumption

Total Norwegian production through Week 25 amounted to 63.1 TWh, 10 per cent lower than at the same time last year.

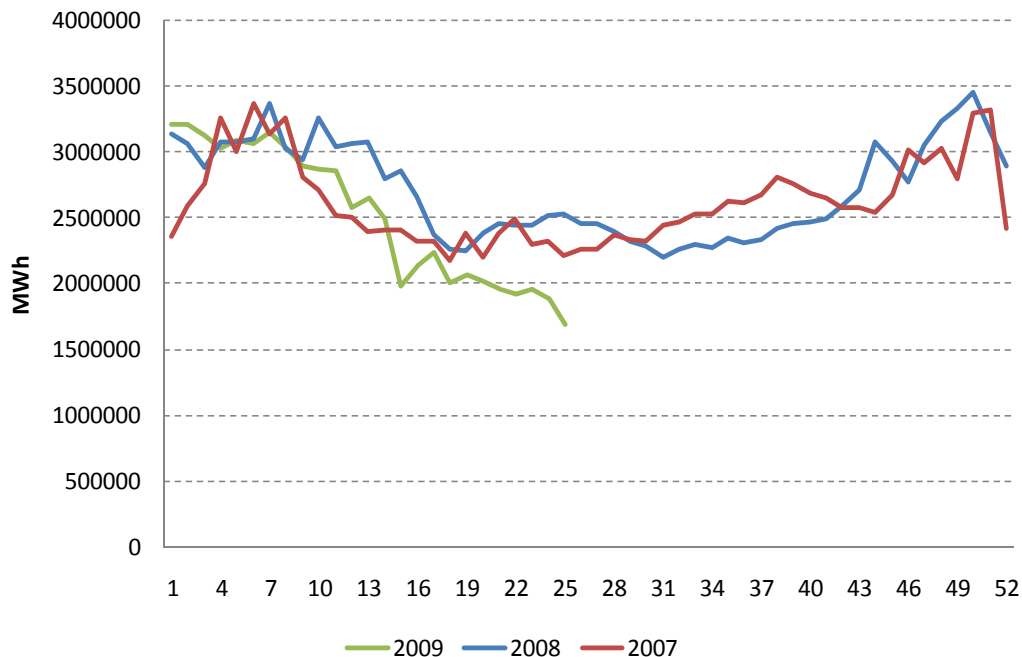


Figure 2: Production in Norway 2007-2009 (Source: NordPool)

There are several reasons for the lower hydropower production this year. The main explanation lies in the fact that an extraordinary volume of power was produced in 2008, as much as 10 TWh more than the record-breaking inflow. This resulted in a reduction of nine percentage points in overall reservoir levels for Norway from the turn of the year 2007/2008 to 2008/2009. As inflow so far this year has been relatively normal, and the price level relatively low, power producers have generated less this year.

Production in the Nordic countries has been about 8 per cent lower so far this year compared with last year, in part due to lower consumption.

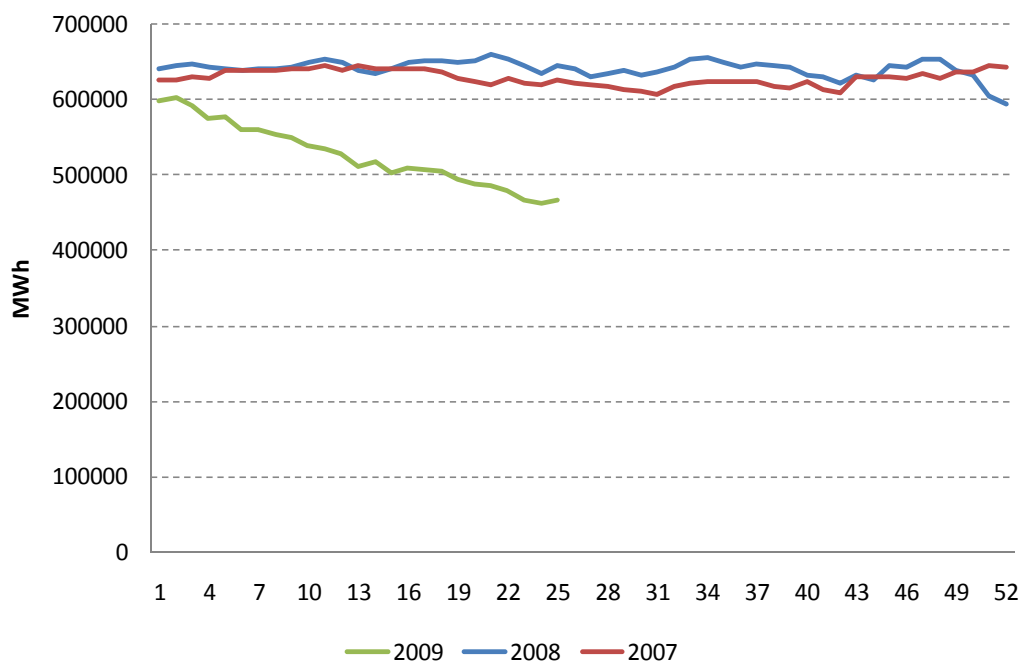


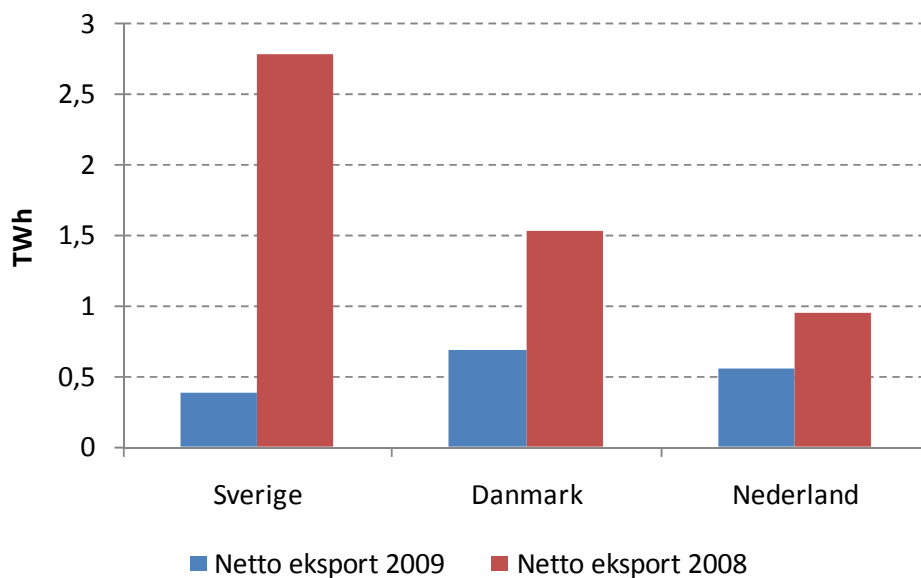
Figure 3: Consumption in energy-intensive industry in Norway 2007-2009 (Source: NordPool)

Consumption in Norway in the first 25 weeks of 2009 was 61.6 TWh, 5 per cent lower than for the same period last year. The financial crisis has led to lower consumption, both in Norway and the Nordic countries. The energy-intensive industry is responsible for two-thirds of the decline in consumption in Norway, with both temporary and permanent plant closures contributing. Examples include Hydro, which has shut down its Söderberg smelters on Karmøy and temporarily shut down SU3 at Sunndalsøra. These two plants alone account for a reduction of 400 MW, and about 3.5 TWh on an annual basis.

In early June, Norsk Industri issued a forecast of 32 TWh for Norwegian industrial consumption in 2009, a decline of 7 TWh from 2008 and the lowest level since 1981.

3 Exchange and transmission capacity

Net exports from Norway through Week 25 amounted to 1.6 TWh, compared with 4.8 TWh at the same time last year. So far, exports have been relatively evenly distributed between Sweden, Denmark and the Netherlands. In Week 22, for the first time in NorNed's history, there was a net import from the Netherlands to Norway.

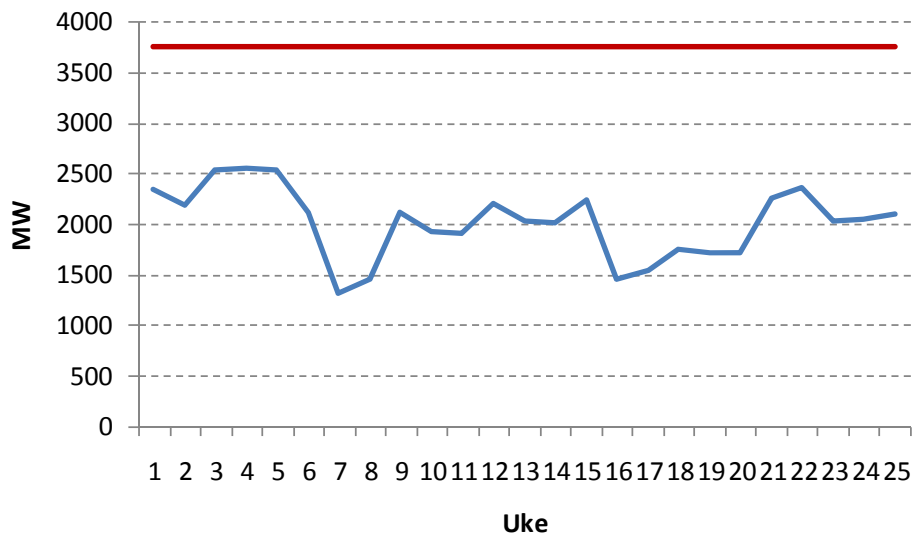


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Sweden Denmark The Netherlands
 Net export 2009 Net export 2008

Figure 4: Net exchange out of Norway in the first half of 2008 and 2009 (Source: NordPool)

There have been significant reductions in the capacity out of Norway for quite some time. The Oslofjord cables, which have been out of operation since March 2008, were scheduled to resume operation on 1 June, but this was delayed due to an explosion on Bastøy during testing. Capacity to the Netherlands was also reduced this spring, with a cable fault causing two weeks without operation, and a fire in Eemshaven in the Netherlands putting the cable out of commission for five weeks. Overall export capacity from Southern Norway to Sweden, Denmark and the Netherlands has been about 50 per cent of potential capacity so far this year.



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Week

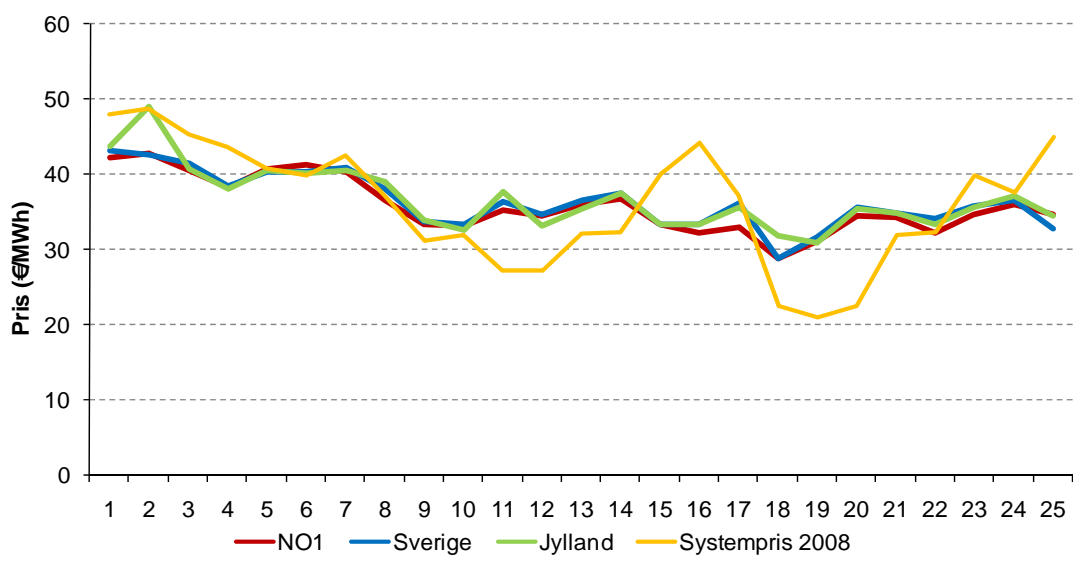
Figure 5: Capacity out of Southern Norway in 2009 with intact grid (red line) and actual capacity (blue line)

However, the low exchange capacity between Elspot Area NO1 and Sweden has not resulted in significant bottlenecks, in sharp contrast to the same period last year when capacity constraints resulted in substantial price differences.

4 Prices

Both Nordic and Continental power prices have followed the downward trends in fuel prices since the impact of the financial crisis became apparent from the autumn of 2008. Reduced consumption has also put pressure on prices, resulting in generally low price levels so far this year, as illustrated in Figure 6, and a comparable level compared with the same period last year when a strong hydrological balance and low exchange capacity kept the system price down.

Recently, the price has fluctuated around 30 øre/kWh.



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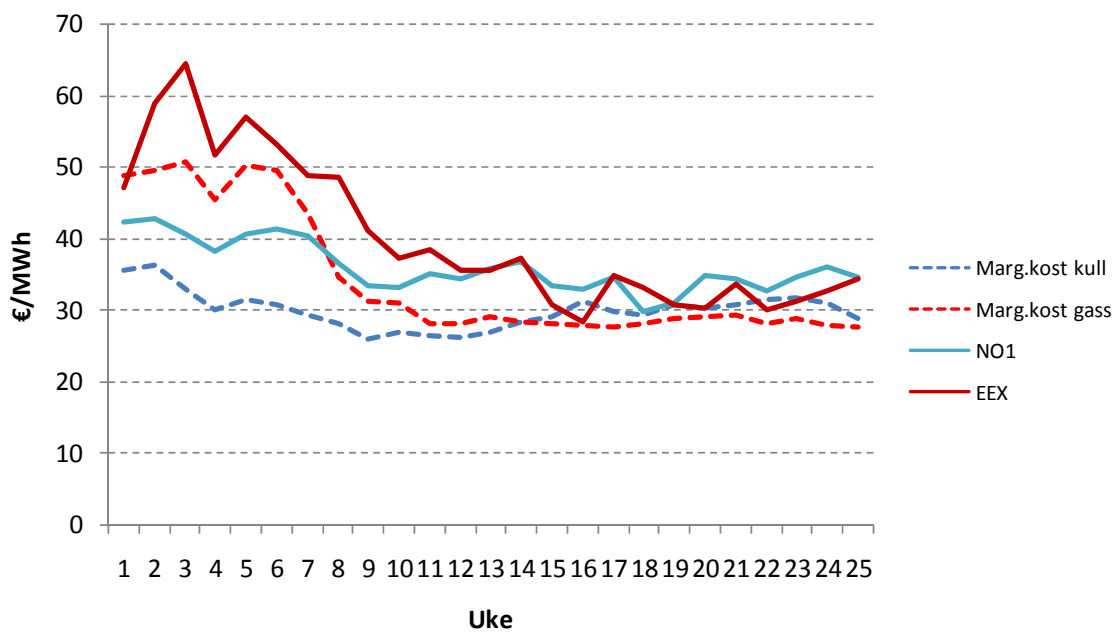
Price

Sweden Jutland System price 2008

Figure 6: Average weekly price in Southern Norway, Sweden and Jutland to date this year (Source: NordPool)

The curves in the figure show the small price differences between the Nordic price areas so far this year. The similar prices are primarily the result of reduced consumption, with resulting less pressure on the transmission system and less need to start up expensive production units.

From Week 16, three price areas were introduced in Norway: Elspot Area NO1, Elspot Area NO2 and Elspot Area NO3. Since then, there has been very little difference in price between Elspot Area NO2 and Elspot Area NO3. The prices have been the same during night-time hours, while for some peak hours the prices have been higher in Central Norway than in Northern Norway. The average price difference in the hours when a difference existed was around 0.3 øre/kWh.



<figure text>:

Week
 Marginal cost coal
 Marginal cost gas

Figure 7: Average weekly price in Elspot Area NO1 and EEX compared with marginal costs for coal and gas power plants (Source: NordPool, EEX and Syspower)

<figure text>:

Week
 Marginal cost coal
 Marginal cost gas

Figure 7 shows how the Nordic prices, illustrated by Elspot Area NO1 here, largely follow the marginal cost for coal power plants, while Continental prices, illustrated by EEX, largely follow the marginal costs for gas power plants. In the last six months, gas prices have fallen more than coal prices, and from Week 14 the marginal costs for gas power plants, including CO2 costs, have been lower than the comparable cost for coal power. This has in turn led to a lower average weekly price in Germany and the Netherlands than in the Nordic countries, and in the last few weeks we have had a net import from Germany to the Nordic countries.