



Reliable Sustainable Connected

# Nordic Winter Power Balance 2011-2012

November 25, 2011

# POWER BALANCE 2011-2012

With estimated power exchange [MW] \*\*\*

Cold winter day in 1 of 10 winters

NORDIC MARKET	TOTAL
P = Available capacity TSO reserves excluded	72 800
C = Peak demand	*) 72 400
B = Balance without power exchange	400
R = Reserves available for the TSOs	4 850

SWEDEN	
P	27 800
C	28 100
B	-300
R	1 400

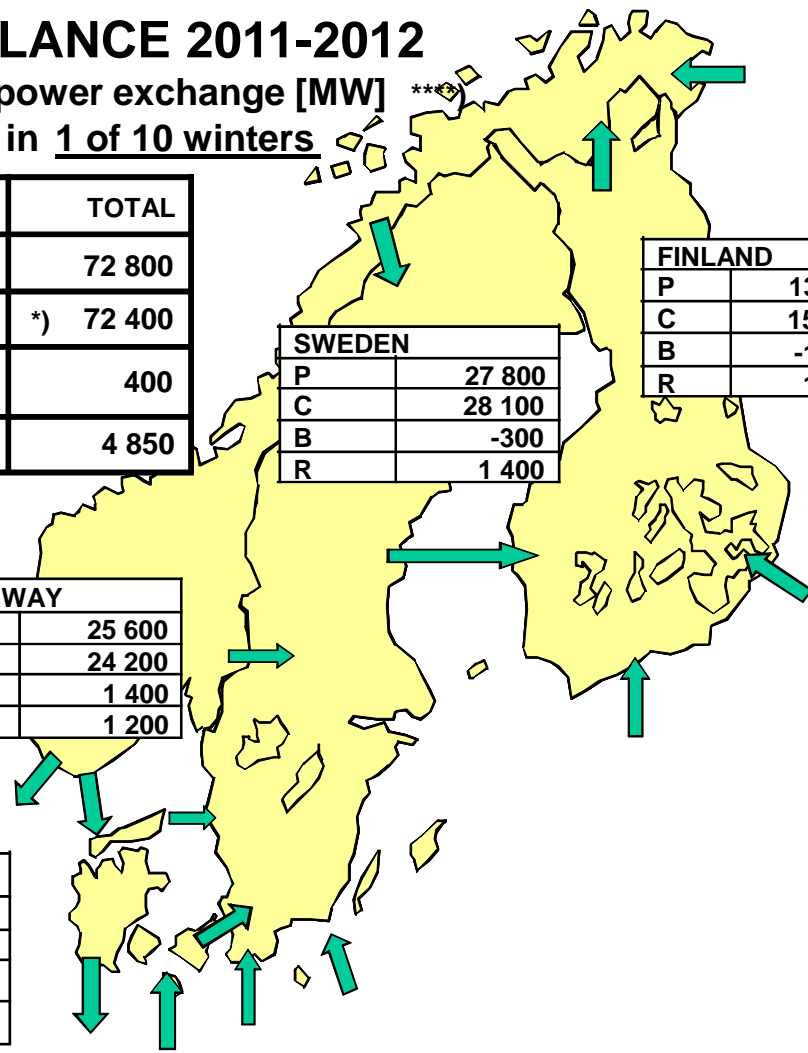
FINLAND	
P	13 300
C	15 000
B	-1 700
R	1 200

NORWAY	
P	25 600
C	24 200
B	1 400
R	1 200

DENMARK	
P	6 100
C	6 600
B	-500
R	1 050

\*) 2 % lower than sum of national peaks.

Arrows between and to/from the Nordic countries indicate the most probable power flow direction during peak hours.



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## Comments

### Denmark

- The winter 2011/2012 is expected to be normal with no particular problems, even if Denmark is a deficit area in severe winter conditions. The critical point in the Danish system is the power balance in Denmark East, which is weaker compared with Denmark West. The balance on Denmark East is dependent on interconnectors to Denmark West, Sweden, and Germany.

### Finland

- Finland is a deficit area in the power balance during peak hours. The balance is expected to be met with import from neighbouring systems with no major difficulty.
- The power balance in Finland is estimated to be roughly the same as the actual situation last winter.

### Norway

- The power balance in Norway is expected to be positive during peak hours, with export to Denmark, Sweden and the Netherlands. The export capacity to Sweden from Southern Norway is expected to be low or zero on a cold winter day.

### Sweden

- Sweden is a deficit area in the power balance during peak hours. The balance is expected to be met with import from neighbouring systems with no major difficulty.
- All nuclear reactors are expected to be in operation after December 18.

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## Summary

- The total Nordic power system is for the winter 2011-2012 expected to have a positive power balance in peak hours, both in a normal and severe winter situation, given that production units are available as predicted. The transmission grids are expected to be intact, with possibility to transfer power to deficit areas although the trade capacity may be reduced to keep the transmission system within agreed limits for operational security. The situation is expected to be better compared to the actual situation last winter. All nuclear reactors in Sweden are expected to be in operation after December 18.
- Under severe conditions, occurring 1 out of 10 winters:
  - Norway has a positive power balance  
Norway 1 400 MW
  - Denmark, Finland and Sweden have negative power balances  
Denmark -500 MW, Finland -1700 MW, Sweden -300 MW
- During high-price periods, the price elasticity of consumption might reduce the peak demand compared to the presented values. This will improve the power balance.