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# Nordic Winter Power Balance Forecast 2012-2013

November 1, 2012

# POWER BALANCE 2012-2013

With estimated power exchange [MW]

Cold winter day in 1 of 10 winters

NORDIC MARKET	TOTAL
P = Available capacity TSO reserves excluded	72 930
C = Peak demand	*) 71 640
B = Balance without power exchange	1 290
R = Reserves available for the TSOs	4 750

FINLAND	
P	13 300
C	15 000
B	-1 700
R	1 100

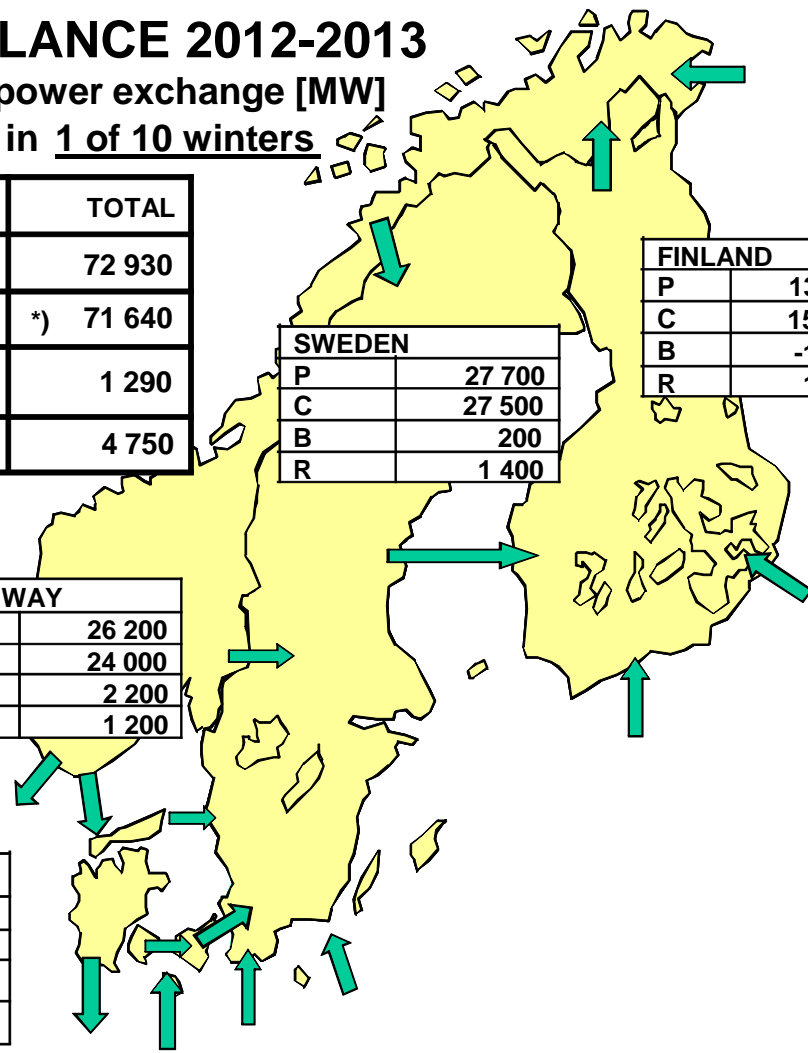
SWEDEN	
P	27 700
C	27 500
B	200
R	1 400

NORWAY	
P	26 200
C	24 000
B	2 200
R	1 200

DENMARK	
P	5 730
C	6 600
B	-870
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 2012/2013 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. The wind power in Denmark is not taken into account, but there might be some amount depending on wind conditions.

### 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. There is some uncertainty about how much import volume can be expected from Russia due to capacity tariff on their market.
- 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 expected to have a positive power balance during peak hours.
- Outdoor temperatures and availability of the Swedish nuclear power are the main factors impacting on the balance. If nuclear availability is above 80 % then Sweden will probably be self-supporting.
- All Swedish nuclear reactors are expected to be in operation during the entire winter. 6 % of wind power in Sweden has been taken into account.

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## Summary

- The total Nordic power system is for the winter 2012-2013 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, except Fenno-Skan 1 outage end of the year 2012. It is expected to be possible to transfer power to deficit areas, although the trade capacity may be reduced to keep the transmission system within agreed limits for operational security.
- Under severe conditions, occurring 1 out of 10 winters:
  - Norway and Sweden have a positive power balance  
Norway 2 200 MW, Sweden 200 MW
  - Denmark and Finland have negative power balances  
Denmark -870 MW, Finland -1700 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.