#### The Electricity Year 2013

Diagram from the publication



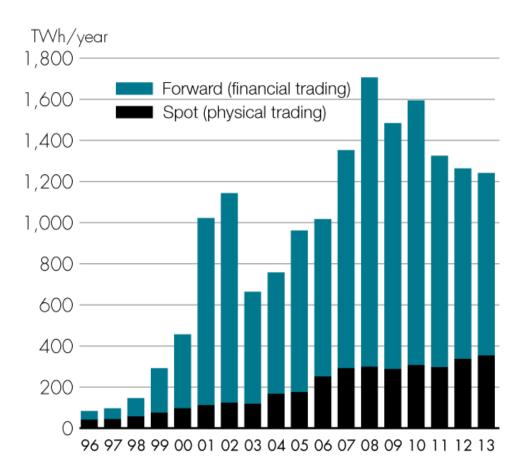


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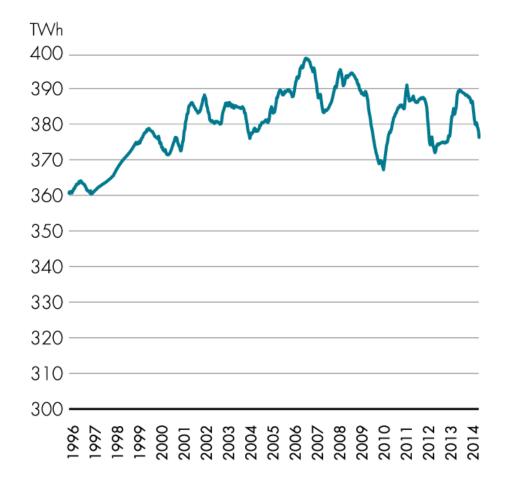
## Trading on the spot and forward markets





Source: Nord Pool Spot

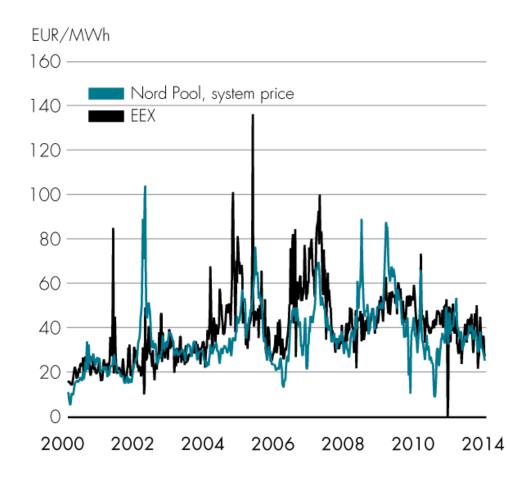
## Electricity usage in the Nordic region since 1996, TWh



Source: Nord Pool Spot



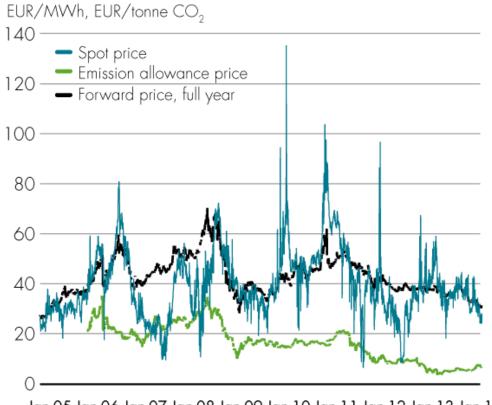
### Electricity spot prices on Nord Pool Spot and EEX (German electricity price)





Sources: Nord Pool Spot, EEX

# Electricity spot price, forward price and price of emission allowances

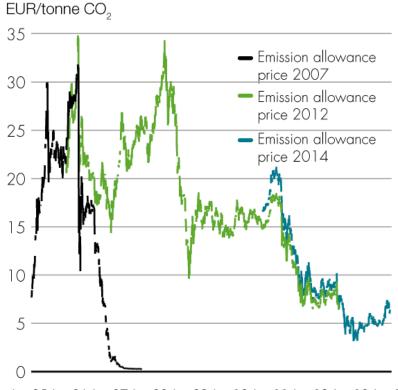


Jan-05 Jan-06 Jan-07 Jan-08 Jan-09 Jan-10 Jan-11 Jan-12 Jan-13 Jan-14



Source: Nord Pool Spot

## Price of emission allowances on NASDAQ OMX commodities

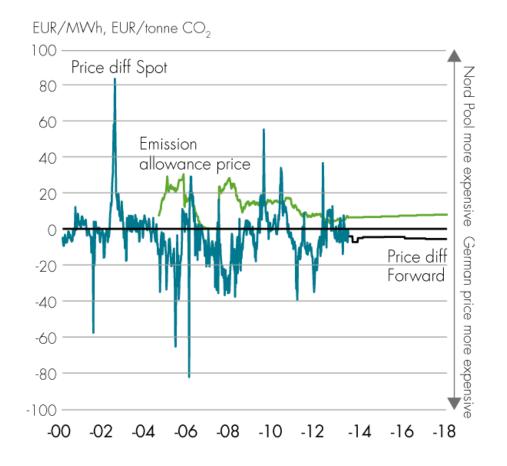


Jan-05 Jan-06 Jan-07 Jan-08 Jan-09 Jan-10 Jan-11 Jan-12 Jan-13 Jan-14



Source: Nord Pool Spot

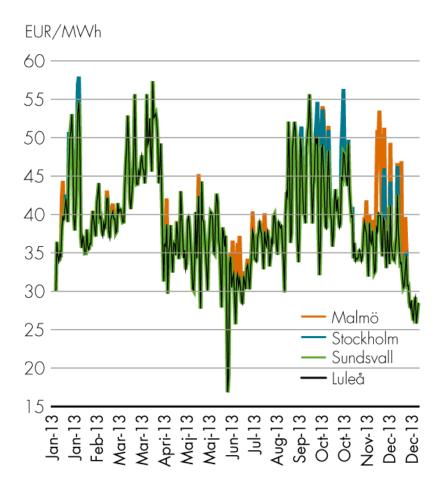
# Price of emission allowances and price differences between the Nordic region and Germany





Sources: Nord Pool Spot, EEX

#### Hourly area prices in Sweden



Source: Nord Pool Spot

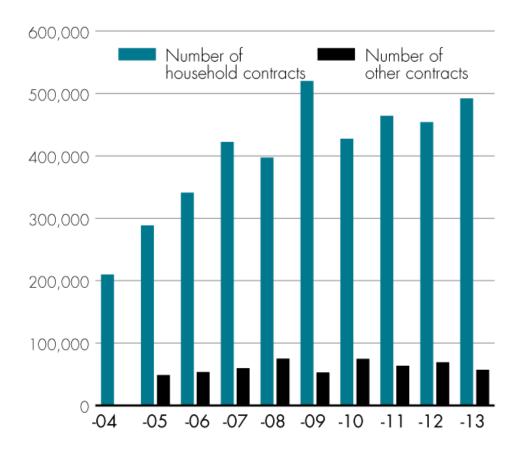


Installed capacity by bidding area on 1 january 2014, MWel					
	Luleå		Stockholm	Malmö	Sweden
	SE1	SE2	SE3	SE4	SE
Hydropower	5,177	8,033	2,593	347	16,150
Nuclear power			9,531		9,531
Wind power	387	1,047	1,620	1,416	4,470
Other thermal power	282	586	4,314	2,891	8,073
CHP, district heating system	160	270	2,227	974	3,631
CHP, industrial	122	316	602	335	1,375
Condensing power			493	1,005	1,498
Gas turbines			992	577	1,569
Solar power	n.d	n.d	n.d	n.d	43
Other	1	1	1	2	6
Entire country	5,847	9,667	18,059	4,656	38,273

n.d.= no data available

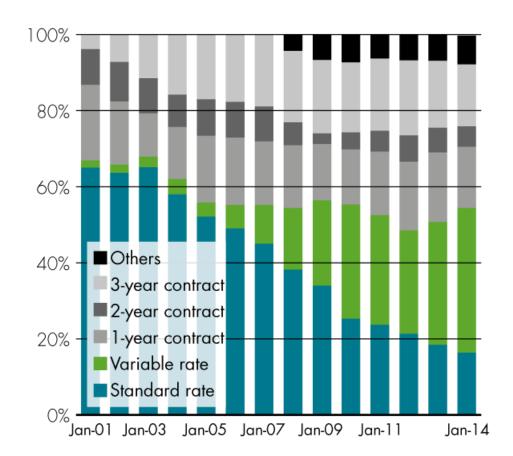


### Number of supplier switches per year



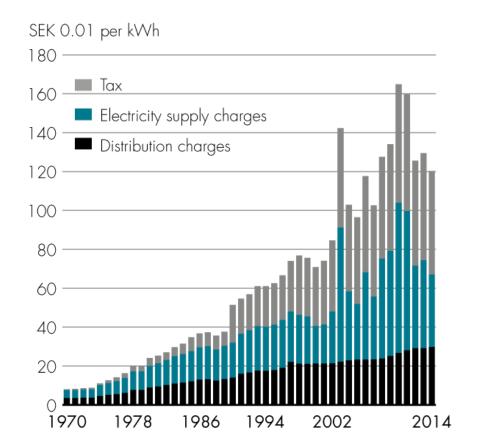


### Customer mobility, January 2001–2014





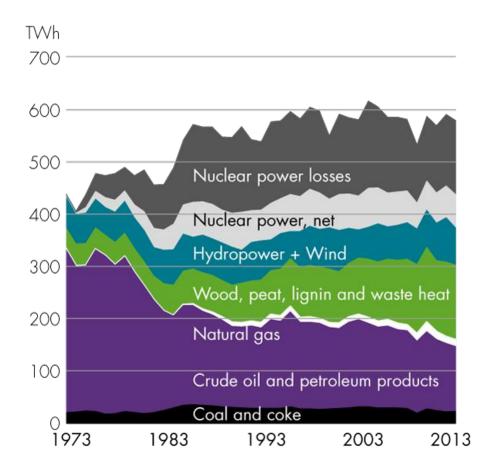
Breakdown of total electricity price for a singlefamily home with electrical heating and a variable rate contract, current prices, in January of each year



Sources: Swedish Energy Agency, Statistics Sweden

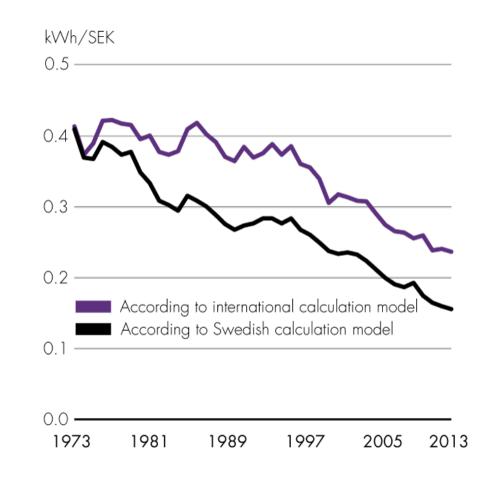


### Total energy supply in Sweden 1973–2013



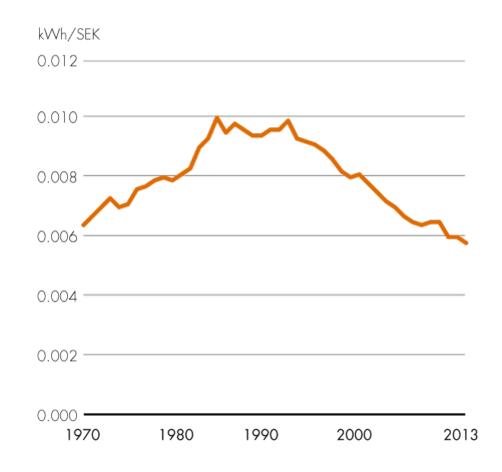
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## Total supplied energy in relation to GNP 1973–2013 (1995 prices)



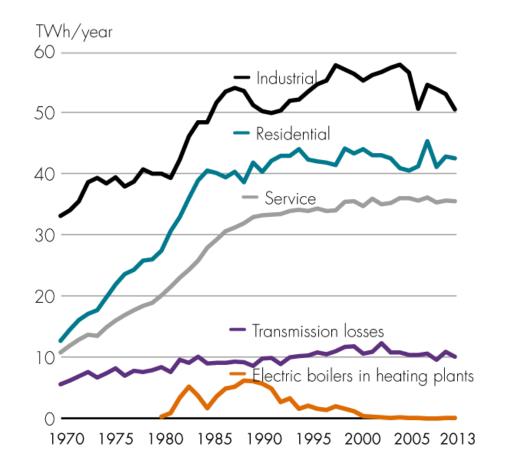
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#### Electricity usage per GNP SEK 1970–2013 (1995 prices)



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#### Breakdown of electricity usage by sector 1970–2013



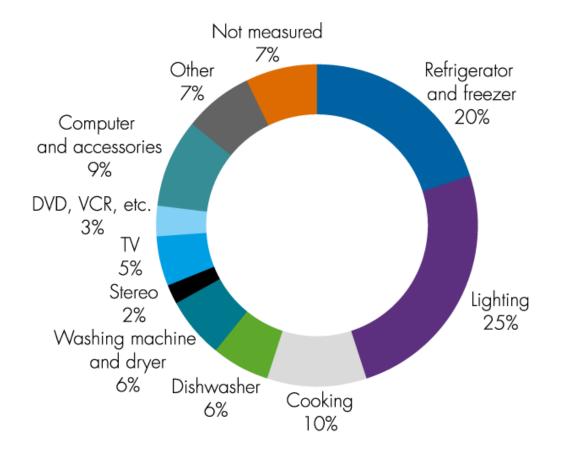
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## Industrial electricity usage in relation to value added 1970–2013 (1991 års priser)



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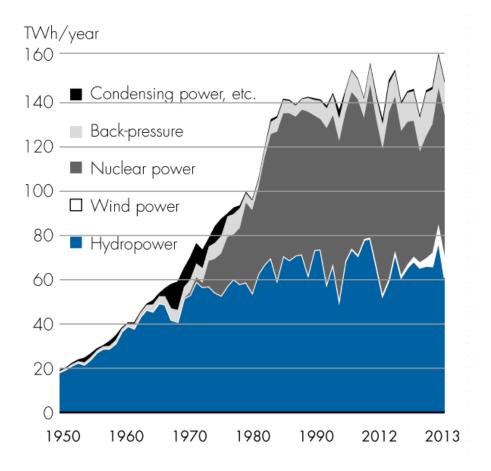
# Household electricity usage by application (results for 2007)



Source: Swedish Energy Agency

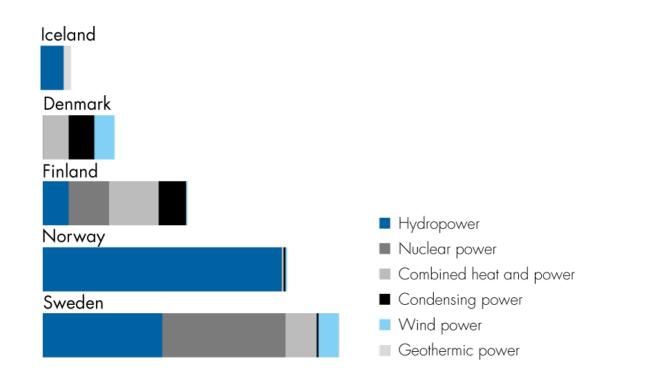


## Total electricity supply in Sweden 1950–2013



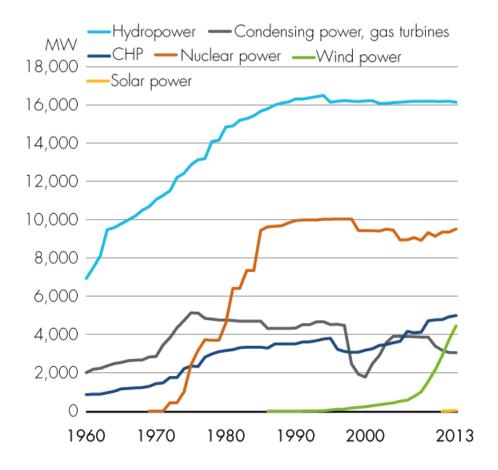
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# Normalized electricity production mix in the Nordic region



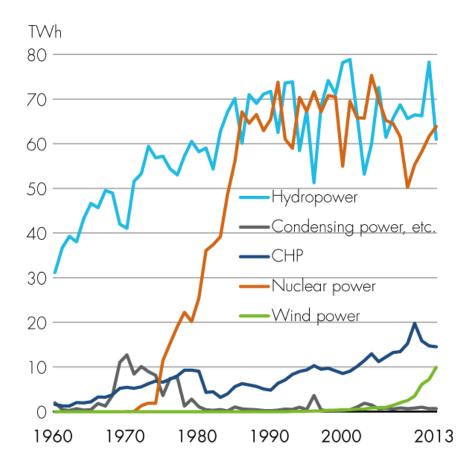


### Development of different power types in Sweden (capacity)



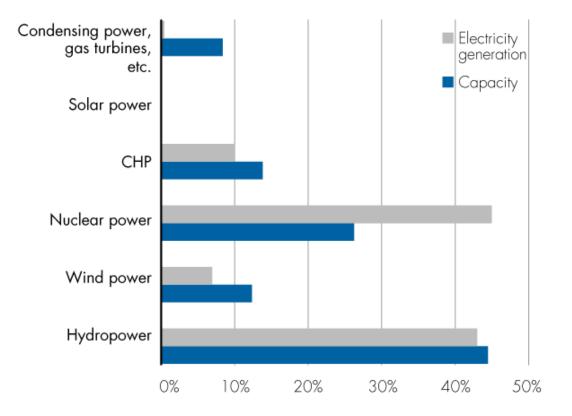


### Development of different power types in Sweden (electricity generation)



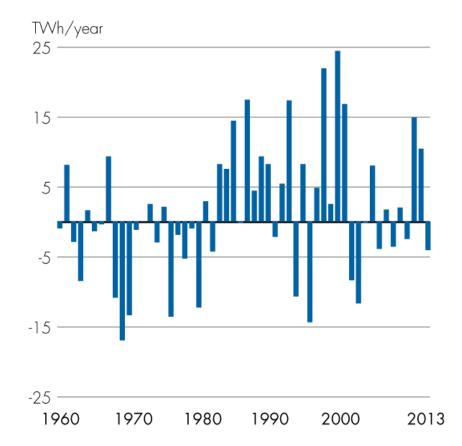


# Breakdown of installed power capacity and annual electricity production for different power types 2013



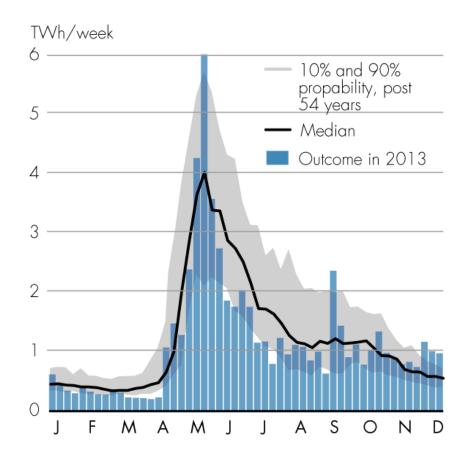


## Runoff variations in relation to median value 1960–2013



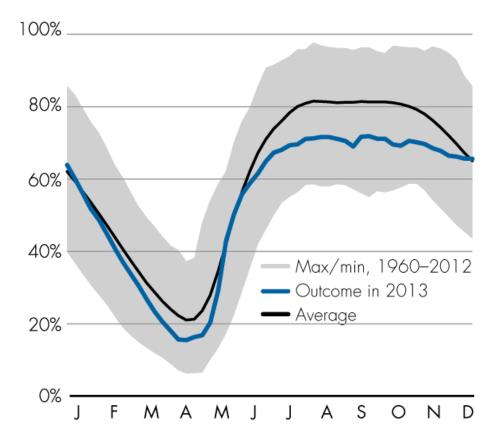


## Runoff variations in the power-generating rivers



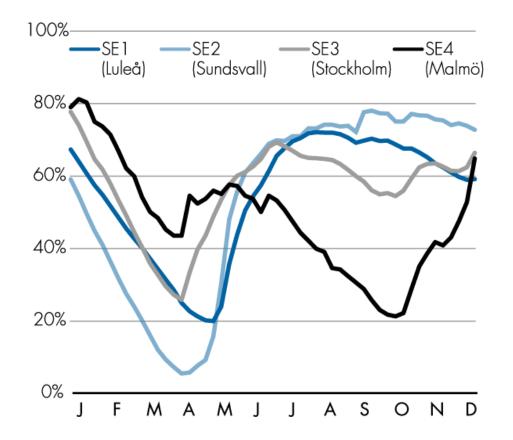


#### Storage levels in the regulating reservoirs



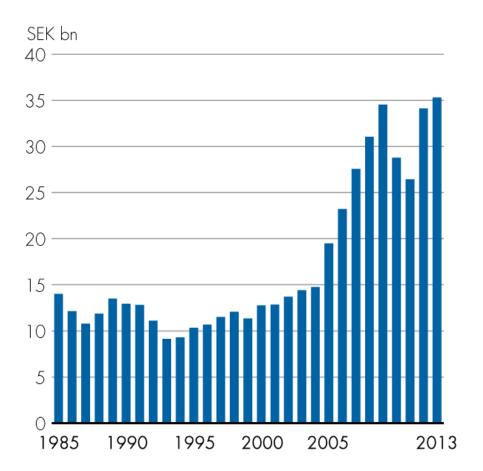


# Storage levels in the regulating reservoirs in 2013 by bidding areas



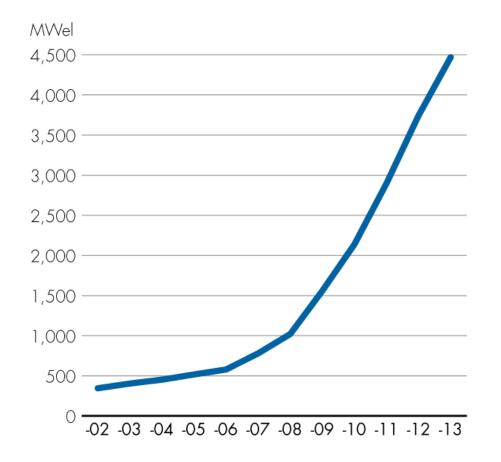


### Energy industry gross investment in current prices



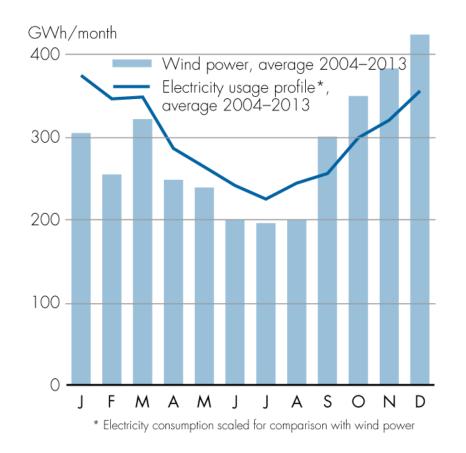
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## Installed wind power capacity in MW for the past 12 years



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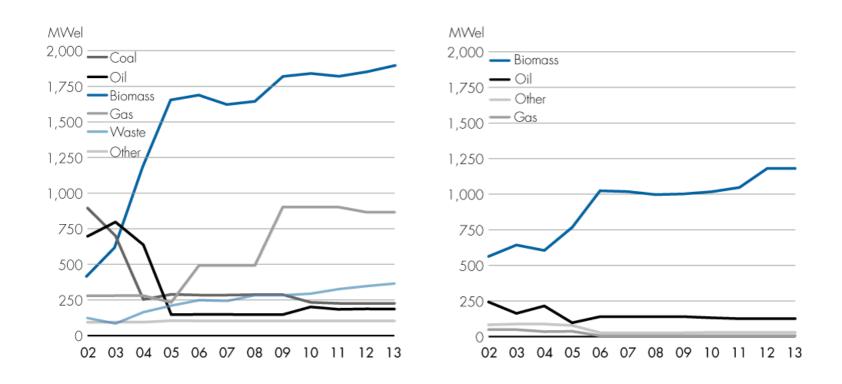
Average monthly generation of wind power for the past ten years in relation to the annual electricity usage profile





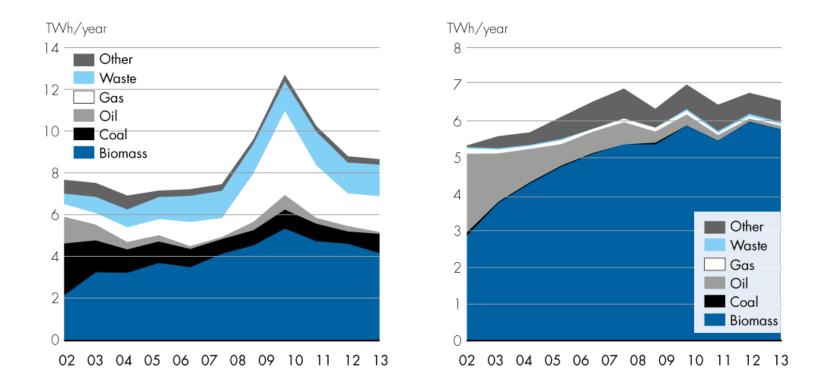


Installed power generation capacity in cogeneration district heating (at left) and industrial back-pressure plants 2002–2013



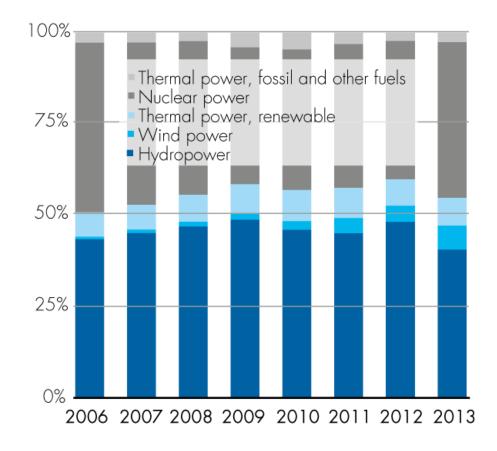


### Power production by fuel type in cogeneration district heating and industrial back-pressure plants 2002–2013



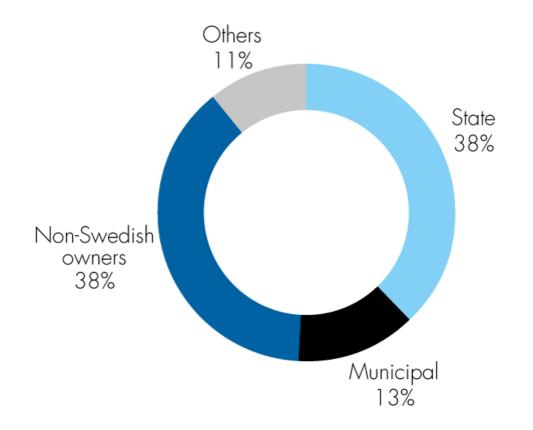


# Development of renewable electricity generation 2006–2013



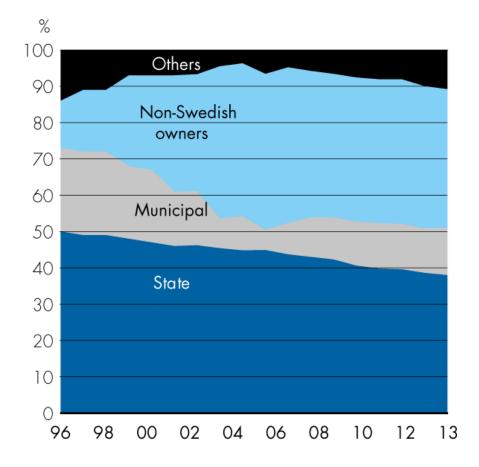


## Ownership of generation capacity, values for 2013



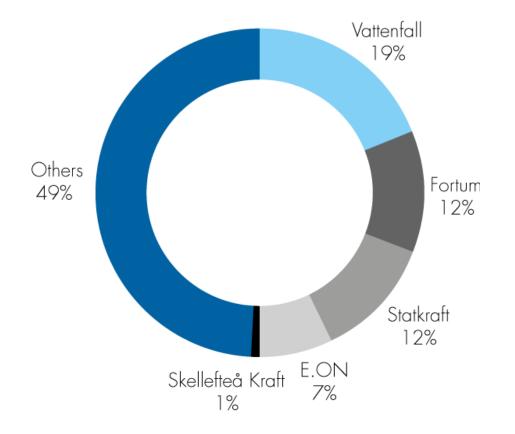


# Changes in ownership of electricity generation 1996–2013



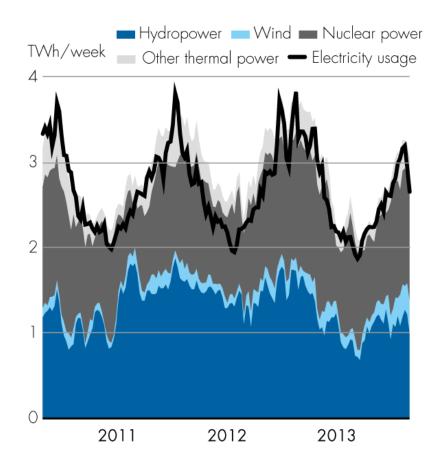


## Five largest electricity producers in Sweden – production in Nordic region in 2013



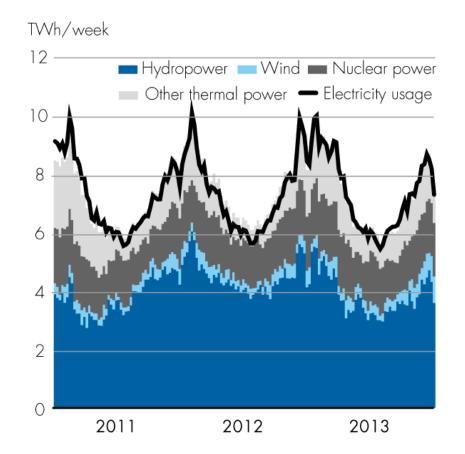


# Electricity generation and usage in Sweden 2011–2013, TWh per week





# Electricity generation and usage in Nordic region 2011–2013, TWh per week





Source: Nord Pool

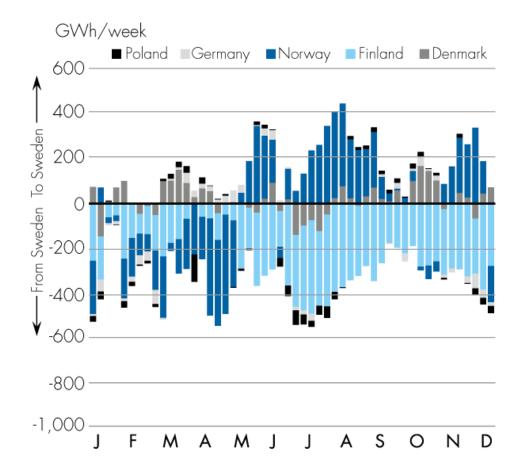
### Hourly load profile for electricity usage with peak demand in 2013 and typical 24-hour period in winter and summer





Sources: Svenska kraftnät, Swedenergy

# Net flow of electricity to and from Sweden per country in 2013, GWh per week



Source: Svenska kraftnät



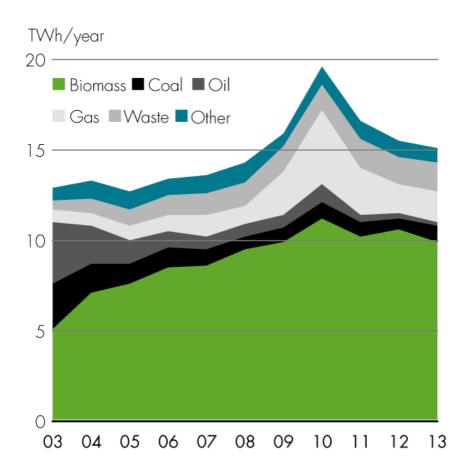
# Airborne emissions of $NO_x$ and $SO_2$ from electricity production 2000–2012, tonnes per year



Sources: Statistics Sweden, Swedish Environmental Protection Agency, Swedenergy



## Electricity production in CHP plants, TWh





# Airborne emissions of CO<sub>2</sub> from electricity production in 2001–2012

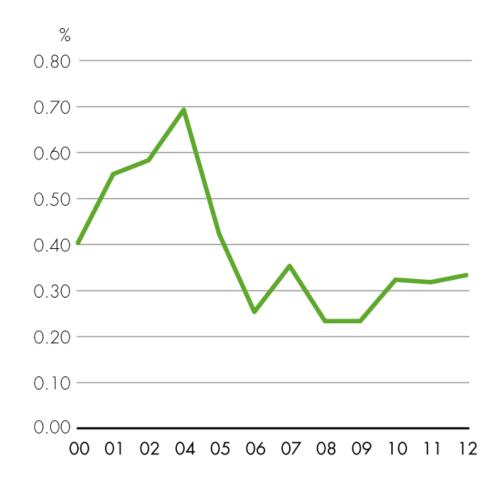
Millions of tonnes



Sources: Statistics Sweden, Swedish Environmental Protection Agency, Swedenergy

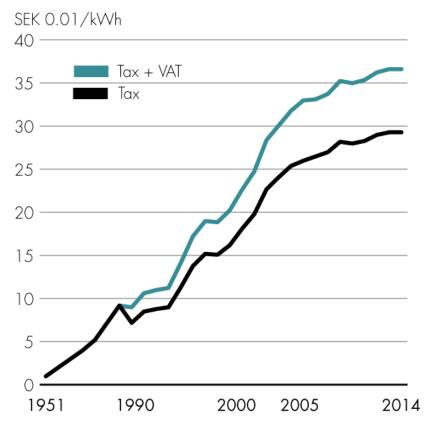


# SF6 leakage (% of total usage in production and transmission operations)





#### Development of electricity tax\* (energy tax on electricity) since 1951

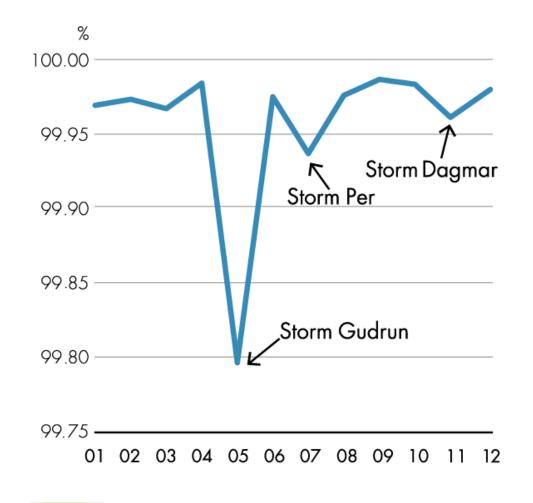


\*The energy tax is lower for certain municipalities in northern Sweden

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Sources: Statistics Sweden, Swedish Energy Agency

#### Delivery reliability in the Swedish electricity networks



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