

Statistics and forecast

This is quarterly edition of statistics and forecasts for the Wind Power Market, covering data from turbine manufacturers and wind power developers acting on the Swedish market (estimated coverage is 100 percent respectively 95 percent of the total Swedish market)

Q4 2017

Svensk Vindenergi – Swedish Energy Association, SWEA

The statistics and forecast

- **The statistics** are based on the order books of the turbine manufacturers and project portfolios of the wind power developers presented at aggregated level
- **The forecast** consists of three future scenarios (low, base, high). They are based on assumptions regarding which projects will be realized - considering today's market situation and the future's.
- **Low case:** Only projects where turbine contracts (firm and unconditional) have been signed will be realized. In this scenario no further investment decisions are made, hence this scenario defines the lower limit of wind power growth in Sweden.
- **Base case:** Projects with signed turbine contracts, approximately 25 percent of permitted projects and 5 percent of projects under permission process will be realized. This is the most realistic scenario and is the official forecast.
- **High case:** Projects with signed turbine contracts, around 35 percent of permitted projects and 10 percent of projects under permission process will be realized. This scenario may be relevant in circumstances leading to higher electricity and green certificate prices and sets the ceiling for growth of wind power in Sweden.

Last year

Total by the end of 2016

Turbines: 3 378

Capacity: 6 495 MW

Actual production: 15,4 TWh *

Annual production (estimated): 16,7 TWh **

Added capacity in 2017

1st quarter: 23,1 MW

2nd quarter: 0,0 MW

3rd quarter: 77,2 MW

4th quarter: 98,8 MW

Total: 199,1 MW

Decommissioned capacity during 2017

- 3,4 MW

Total by the end of 2017

Turbines: 3 437

Capacity: 6 691 MW

Actual production: 17,6 TWh *

Annual production (estimated): 17,2 TWh **



** Actual production is the real production and depends on wind conditions and when installations are made during the year.*

*** Estimated annual production is the annual production the turbines are expected to produce when in operation during a whole year with normal wind conditions.*

Installations in 2018

Total by the end of 2017

Turbines: 3 437

Capacity: 6 691 MW

Actual production: 17,6 TWh *

Annual production (estimated): 17,2 TWh **

Added capacity in 2018 (forecast)

1st quarter: 217,9 MW

2nd quarter: 141,3 MW

3rd quarter: 189,3 MW

4th quarter: 245,5 MW

Total: 794 MW



Total by the end of 2018 (forecast)

Turbines: 3 680

Capacity: 7 482 MW

Actual production: 18,3 TWh *

Annual production (estimated): 19,8 TWh **

** Actual production is the real production and depends on wind conditions and when installations are made during the year.*

*** Estimated annual production is the annual production the turbines are expected to produce when in operation during a whole year with normal wind conditions.*

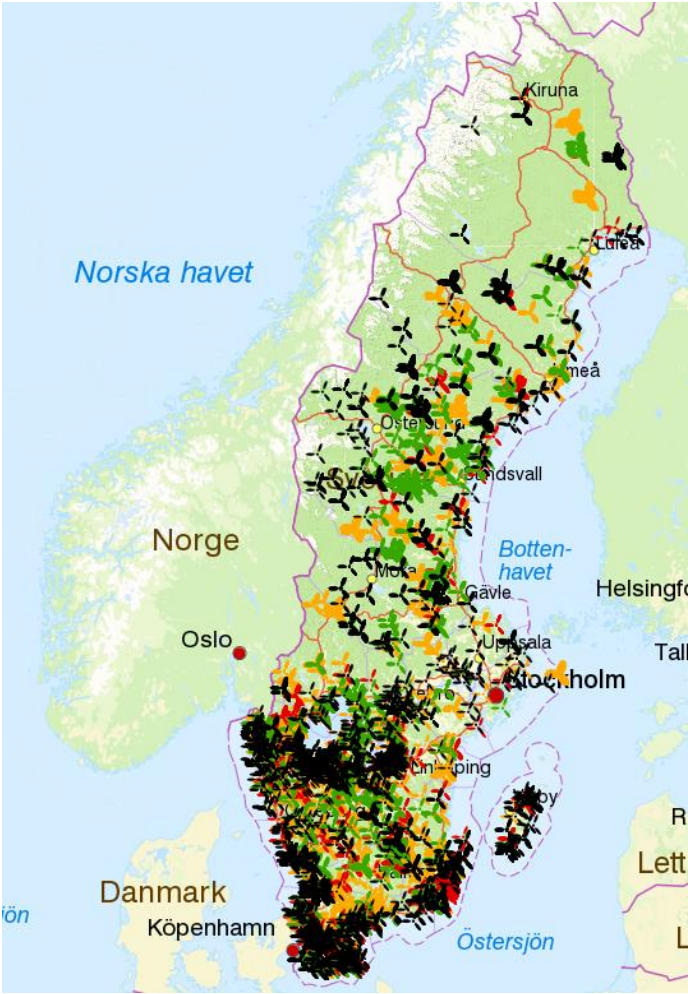
Project portfolio, status by 2017-12-31

In operation	Onshore	Offshore	Total	<i>Change Q3</i>
Windturbines	3 363	74	3 437	(24)
Capacity (MW)	6 501	190	6 691	(95)
* Under construction	Onshore	Offshore	Total	
Windturbines	670		670	(340)
Capacity (MW)	2 395		2 395	(1318)
** Permitted	Onshore	Offshore	Total	
Windturbines	2 401	453	2 854	
Capacity (MW)	7 817	2 017	9 834	
** In permission process	Onshore	Offshore	Total	
Windturbines	2 796	275	3 071	
Capacity (MW)	8 811	925	9 736	





* Firm and unconditional turbine order based on investment decisions

** Estimations

Geographical spread

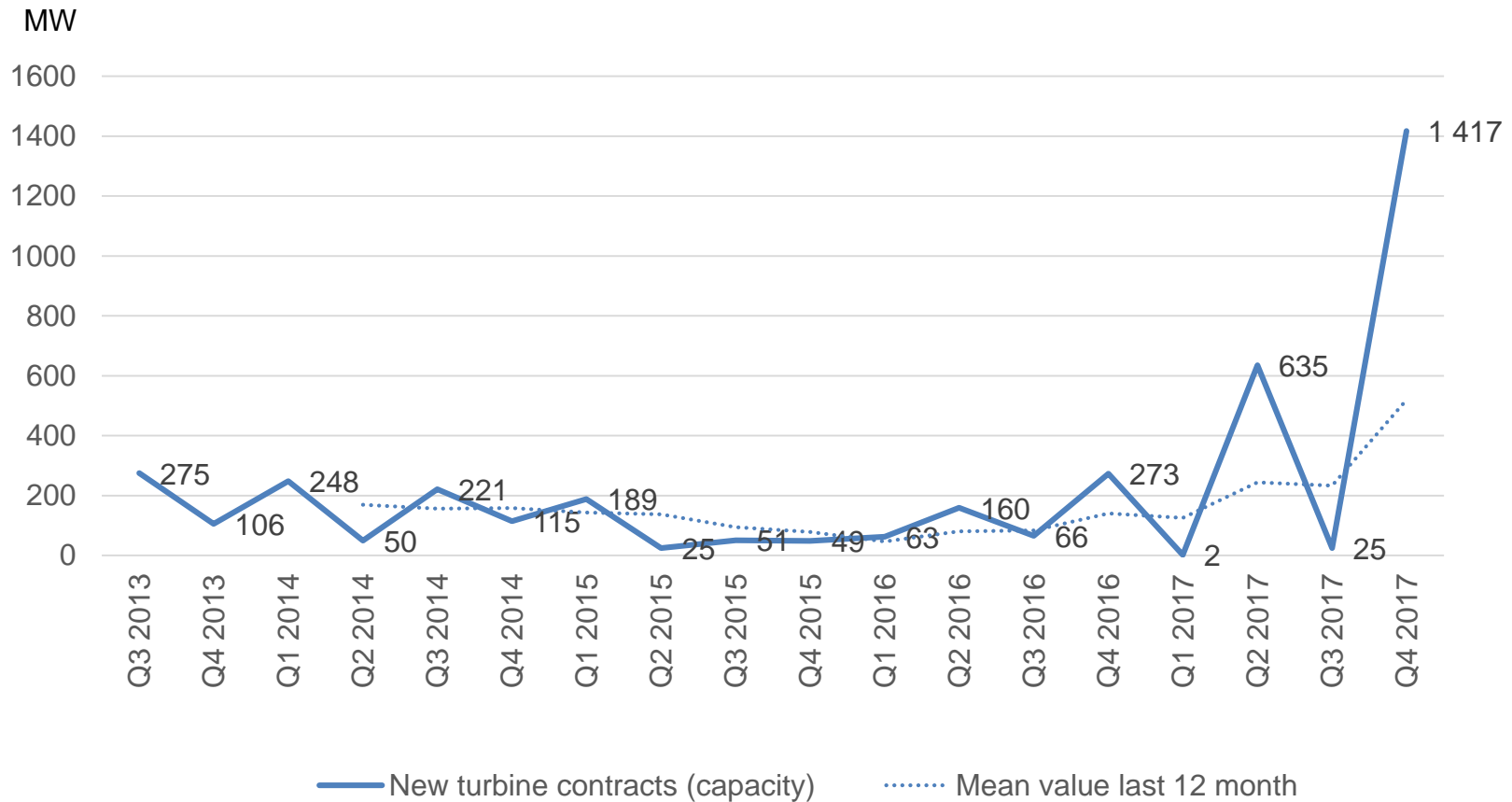


Project status

-  In operation
-  Permitted
-  Rejected
-  In permitting process

Source: Vindbrukskollen.se

New turbine contracts (firm and binding)



* Figures from all turbine manufacturers acting on the Swedish market

Order books

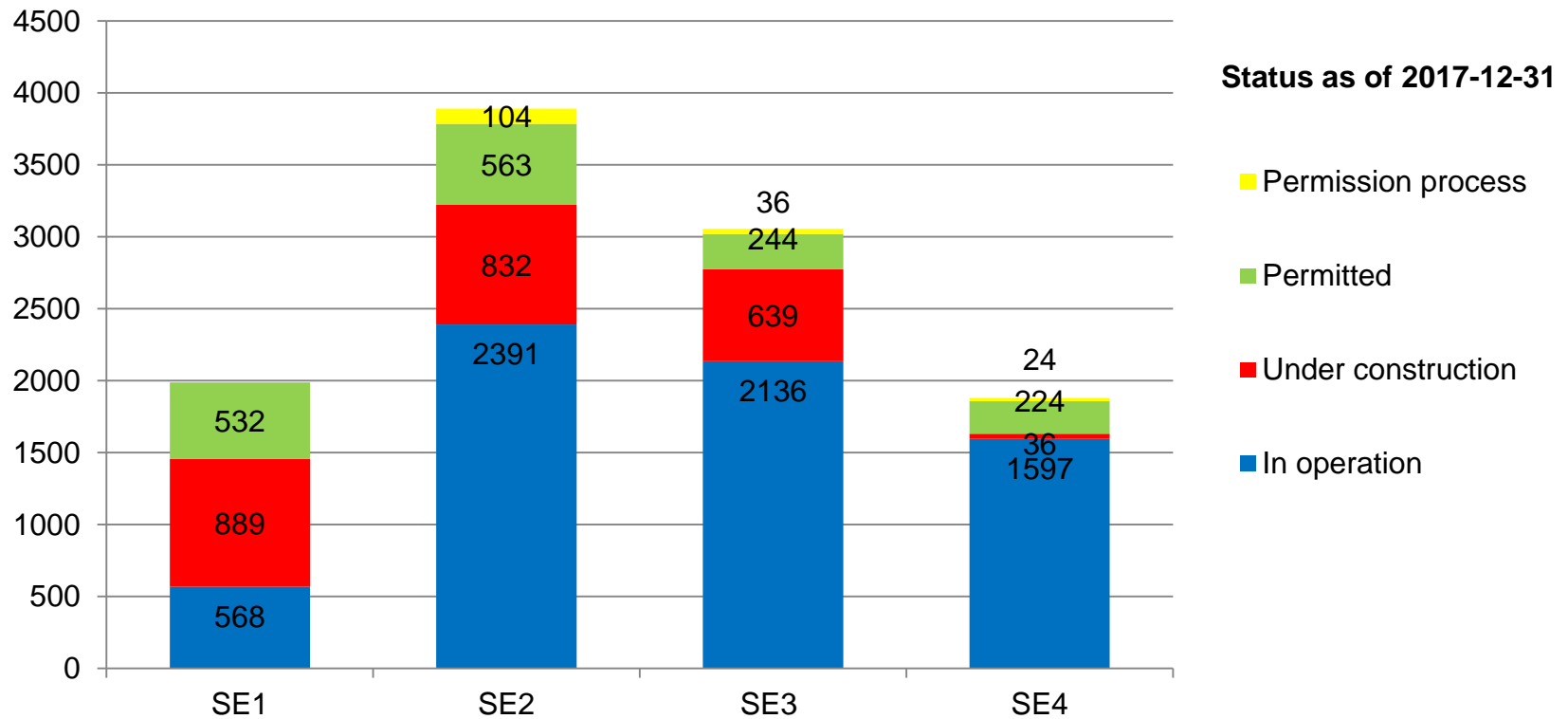
Time plan according to turbine manufacturers for wind power installations during year (MW) *

2017	2018 Q1	2018 Q2	2018 Q3	2018 Q4	2018 (Tot)	2019
199	2	157	231	404	794	1601

* Figures from all turbine manufacturers acting on the Swedish market

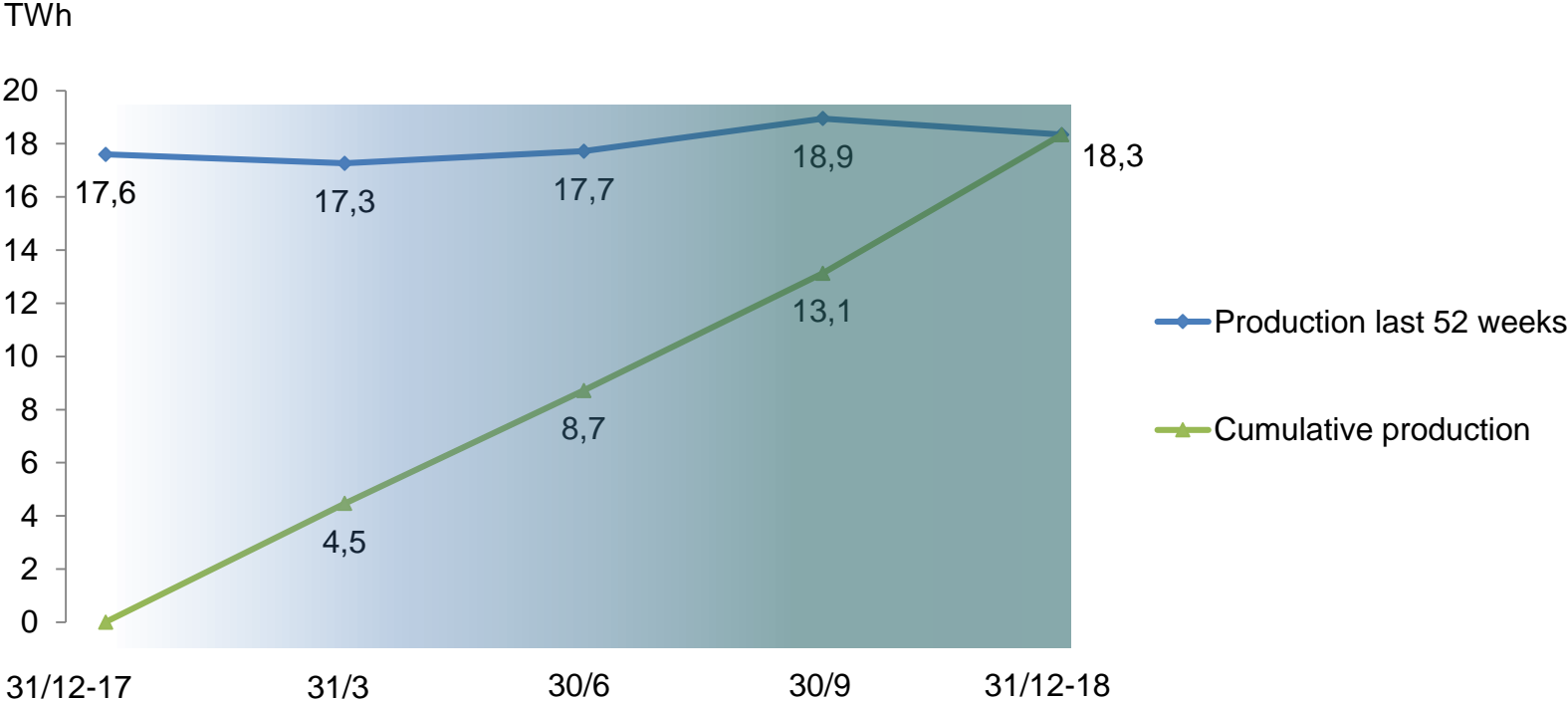
Installed capacity by price area 2021-12-31 (base case)

MW



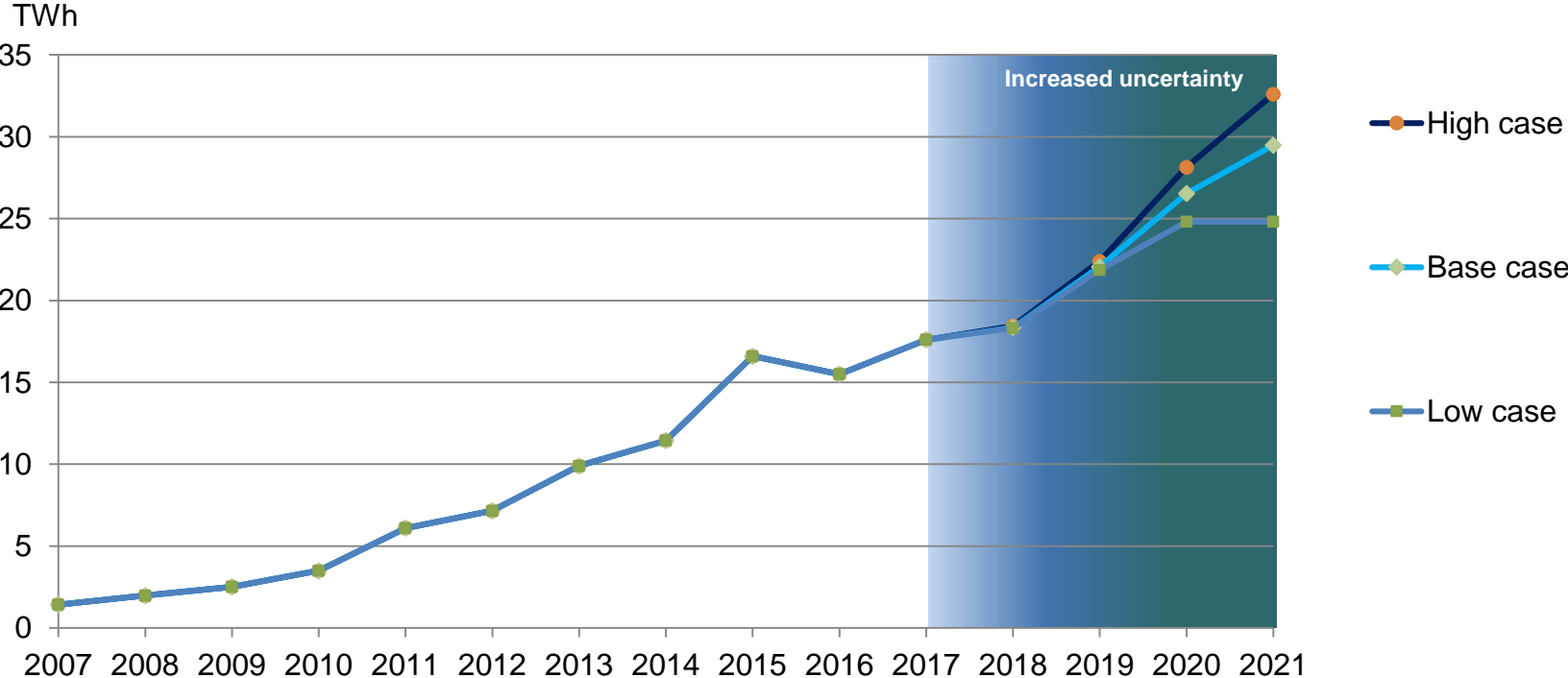
Wind power production 2018 (forecast)

Actual and forecast



Wind power production – different scenarios

Actual and forecast

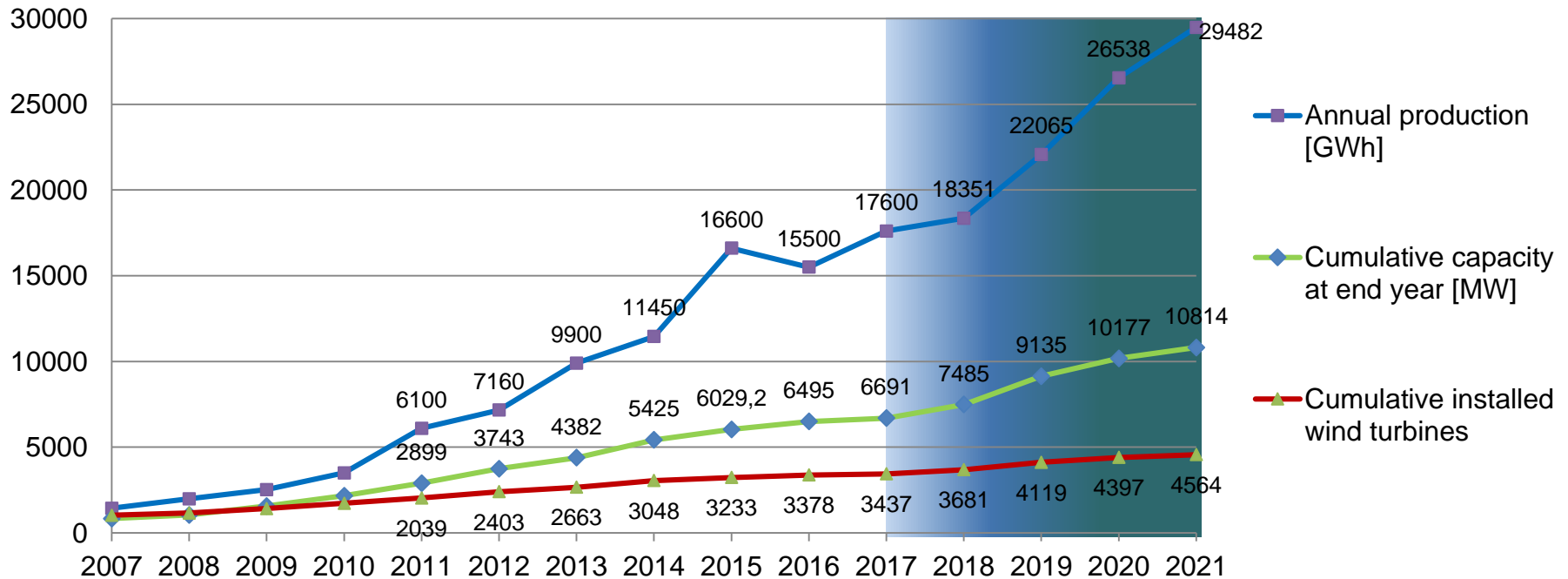


As of 31/12

Base case

This scenario is the most realistic and official forecast of Svensk Vindenergi

Actual and forecast



As of 31/12

Assumptions

Part of wind power project portfolio capacity expected to be realized within given time frame depending on scenario (approximate figures)

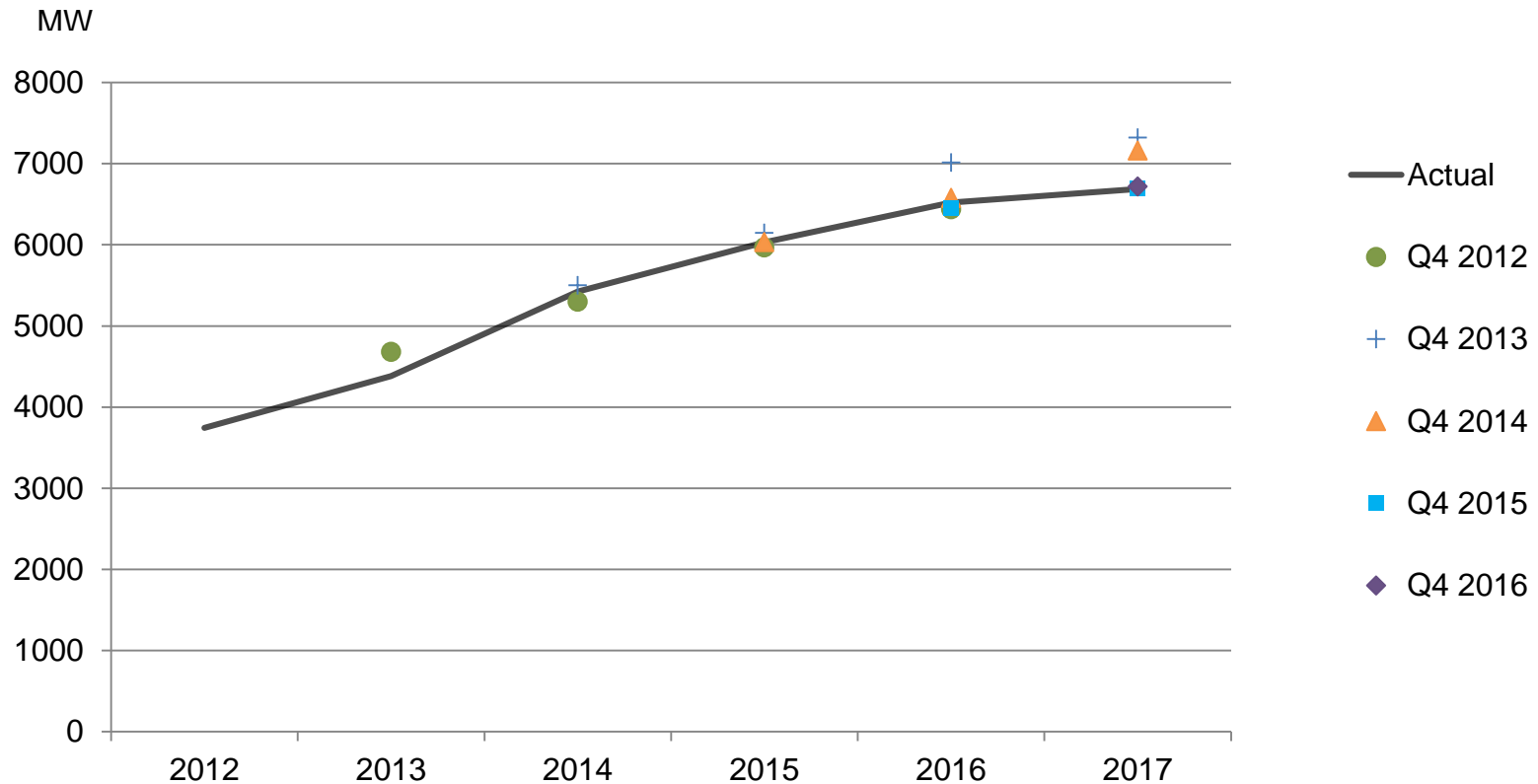
Status	High	Base **	Low
Under construction	100 %	100 %	95 %
Permitted *	35 %	25 %	0 %
In permission process *	10 %	5 %	0 %

* Only onshore wind power are expected to be built.

** The base case reflects a possible scenario based on an assessment of current and future market conditions.

Follow up

Previous forecasts and actual installed wind power capacity



Follow up

Previous forecasts and actual annual wind power production

