

彩茶茶》《《》》》》《《

COUNTRY POLICY PROFILE Sweden

October 2014

LOG FILE OF CHANGES IN SUPPORT POLICIES AS COMPARED TO LATEST MEMBER STATE PROGRESS REPORT



The EurObserv'ER project

The EurObserv'ER Barometers monitor the renewable energy progress in each Member State of the European Union. Every two months a barometer dedicated to one particular renewable energy technology is published. Moreover, once a year a EurObserv'ER Overview Barometer¹ collects the main indicators published during the year and completes these with additional renewable sectors which have not been detailed in the individual Barometers. Finally, the Overview Barometer also reports on socio-economic aspects: employment and turnover in the field of renewables, and the renewable energy investment climate. The country policy reports monitor policy developments by providing an overview of policy changes compared to the Member State Progress Reports.

All Barometers are available for download at <u>http://www.eurobserv-er.org/</u>. An overview of direct links to Barometers is available in Annex A.

New Barometer releases are announced on Twitter (<u>https://twitter.com/eurobserv_er</u>).



Co-funded by the Intelligent Energy Europe Programme of the European Union

The EurObserv'ER barometer is a project supported by the European Commission within the DG Energy "Intelligent Energy Europe" programme. It is also supported by Ademe, the French Environment and Energy management Agency, and Caisse des Dépôts.

¹ Free download at <u>http://www.eurobserv-er.org/pdf/bilan13-gb.asp</u>, latest edition is 2013.

The sole responsibility for the content of this publication lies with the authors. It does not necessarily reflect the opinion of the European Union. Neither the EASME nor the European Commission are responsible for any use that may be made of the information contained therein.

Abstract

The main support mechanism for electricity from RES is a quota system that is based on a certificate trading system. Furthermore, tax incentives are in place and PV installations are subsidised with grants. Promotion of heating from RES is mainly promoted through tax exemptions. Households may deduct investments of renewable energy heating installations replacing heating systems based on fossil fuels from tax. Heating from RES further benefits from an exemption of various taxes, as carbon dioxide taxes on supply, import and production of fossil fuels for heating purposes, which apply for fossil fuels (Source, RES LEGAL Europe, <u>www.res-legal.eu/search-by-country/sweden/</u>).

Abbreviations

| BTL | Biomass-to-Liquids |
|-------|---|
| СНР | Combined heat and power plant |
| EEAG | Environmental and energy aid guidelines |
| EU-27 | European Union, 27 Member States (excludes Croatia) |
| EU-28 | European Union, 28 Member States (includes Croatia) |
| FiP | Feed-in premium (scheme) |
| FiT | Feed-in tariff (scheme) |
| GHG | Greenhouse gas(es) |
| GHG | Greenhouse gas |
| ktoe | Kiloton oil equivalent |
| MSW | Municipal solid waste |
| NREAP | National Renewable Energy Action Plan |
| PV | Photovoltaic energy |
| RE | Renewable energy |
| RED | Renewable Energy Directive |
| RES | Renewable energy sources |
| RMSW | Renewable Municipal solid waste (renewable fraction in MSW) |
| RQS | Renewable quota scheme |
| TSO | Transmission system operator |

Renewable energy mix and 2020 target

The 2012 share of renewable energy in Sweden amounted to 52.4%; the target for 2020 has been defined as 49% (source: EurObserv'ER report 'The State of Renewable Energies in Europe'²). The table below shows EurObserv'ER data on renewable energy production in Sweden and the European Union (EU-27). The by far most important source for renewable energy in Sweden is solid biomass with 8,827 ktoe, accounting for 50% of the total renewable energy production in 2012. With 5,898 ktoe, hydropower has the second largest production output. Comparing the Swedish energy production from hydro to all other Member States' production reveals that Sweden adds a remarkable share of 20.1% to the renewable energy production from hydropower in the EU-27. This observation also applies, although to lesser extent, to MSW, geothermal, and solid biomass. Renewable energy production in the EU-27 from the respective source. With respect to total renewable production, Sweden has the 3rd highest production in the EU-27, amounting to 17,646 ktoe in 2012 as shown in the figure below (source: EurObserv'ER, 2014, www.eurobserv-er.org).

| | European Union | | Contribution of |
|------------------|----------------|--------|-----------------|
| [ktoe, 2012] | (27 countries) | Sweden | Sweden to EU-27 |
| Hydro* | 29408 | 5898 | 20.1% |
| Wind* | 17089 | 632 | 3.7% |
| Solar PV | 5732 | 2 | 0.0% |
| Solar thermal** | 2116 | 11 | 0.5% |
| Solid Biomass*** | 74804 | 8827 | 11.8% |
| Biogas | 6212 | 115 | 1.8% |
| MSW**** | 4426 | 652 | 14.7% |
| Geothermal | 7825 | 973 | 12.4% |
| Biofuels | 11711 | 536 | 4.6% |
| Ocean energy | 44 | 0 | 0.0% |

Table *Renewable energy production in the 27 Member States of the European Union (EU-27) and the corresponding figures for Sweden. Data have been expressed in ktoe and refer to the year 2012*

* Normalised electricity generation

** Including electricity generation from Concentrated Solar Power

*** Including liquid biomass

**** Municipal Solid Waste only regards the renewable fraction in the waste Source: EurObserv'ER, 2014 (<u>www.eurobserv-er.org</u>)

² Free download at <u>http://www.eurobserv-er.org/pdf/bilan13-gb.asp</u>, latest edition is 2013.



Figure *Renewable energy production in the European Union Member States. Data have been expressed in ktoe and refer to the year 2012. Source: EurObserv'ER, 2014 (<u>www.eurobserv-er.org</u>)*

Recent RES Policy Developments

The current EurObserv'ER policy profile is listing recent policy changes in the EU Member States. Starting point for this monitoring is the situation as it has been described in the country's Progress Report (which were due end of 2013). All Renewable Energy Progress Reports are available in English language from <u>www.eurobserv-er.org</u> (translated versions).

| Date | Technology | Policy change |
|--------------|--|--|
| January 2014 | All RES | The Swedish Renewable Energy Progress Report 2013 was released by the European Commission in January 2014. An overview of policies and measures for Renewable Energy up to the end of 2013 can be found in Section 2 to 4 (pp. 9 – 32) in the Progress Report. |
| March 2014 | Renewable electricity (micro installations) | On 6 March 2014 the Government decided on the Government Bill "Tax reduction for micro production of renewable electricity" (2013/14:151). The Bill proposes the introduction of a tax reduction for micro production of renewable electricity. The tax reduction applies to producers of renewable electricity and is given to private individuals and companies. The basis for the tax reduction consists of the kilowatt hours of renewable electricity fed into the access point during the calendar year, with a maximum of as many kilowatt hours of electricity withdrawn in the access point during the year. The basis for the tax reduction may not exceed 30 000 kilowatt hours and amounts to the basis multiplied by 60 öre. It is suggested that the proposed legislation come into effect on 1 July 2014. |
| March 2014 | All renewable electricity | On 6 March 2014 the Government decided on the Government Bill "Threshold effects and Renewable Energy" (2013/14:156). The threshold effect describes the costs for grid reinforcement, if such is needed to connect a new electricity generating plant to the grid (e.g. wind park). Currently, the full costs of such grid reinforcement are born by the investor of the first generation plant to be connected. The Government Bill states that the Swedish TSO (Svenska kraftnät) pays for the initial grid reinforcement costs for of renewable energy sources and companies will subsequently pay for their share as they are |

| | connected to the reinforced grid. The |
|----------------|--|
| | government expects that the fair allocation |
| | of costs for grid reinforcement will lead to a |
| | more rational and effective deployment of |
| | renewable electricity and ultimately lower |
| | costs for electricity consumers. The interim |
| | solution is expected to come into force on 1 |
| | August 2014. The Government's ambition is |
| | to replace the transitional solution with a |
| | long-term market solution in 2016 where |
| | the state, who is the owner of the TSO, |
| | does not need to take any financial risk for |
| | this type of reinforcements. The Swedish |
| | Energy Market Inspectorate |
| | (Energimarknadsinspektionen) was asked |
| | to investigate how such a long-term market |
| | solution might be designed. |
| May 2014 | <no be="" change="" reported="" to=""></no> |
| July 2014 | <no be="" change="" reported="" to=""></no> |
| September 2014 | <no be="" change="" reported="" to=""></no> |
| November 2014 | <yet come="" to=""></yet> |

Note to the reader: the above overview had been compiled with care. However, in case you miss recent developments please be invited to inform EurObserv'ER on policy changes in a Member State. For communication use e-mail (policy@eurobserv-er.org CHECK), Twitter (<u>https://twitter.com/eurobserv_er</u>) or LinkedIn (CHECK).

Glossary

Text to be finalised by ECN. Below an overview is provided of the instruments intended for considering, please adapt to this terminology as much as possible in the country reports.

Fixed feed-in-tariff

A feed-in-tariffs promotes renewable energy by obliging grid operators to purchase renewable electricity always at the same price for a certain period of time. The measure is guaranteed to renewable energy producers via long-term purchase agreements under a 10 to 25 years-period.

Feed-in premium

A feed-in- premium helps renewable electricity producers by means of a premium, a bonus, which is added to the market price. The measure is based on long-term purchase agreements under a 10 to 25 years-period.

A soft policy

A soft instrument is a persuasive and voluntary tool. For instance, soft transport measures in the field of transport can be workplace travel plans, adapted travel planning, marketing to promote public transport and transport awareness programs. Soft policies can also target awareness issues in other fields.

List of measures to be included:

- Grants
- Public procurement
- Quota mechanism
- RE certificates
- Tax credit
- Feed-in tariffs with and without degression
- Feed-in premium with and without degression
- Soft loans
- Funding for R&D&D
- Obligations
- Standardisation

References

EurObserv'ER, 2014, <u>www.eurobserv-er.org</u>

Government Bill 2013/14: 151, 2014, <u>www.riksdagen.se/sv/Dokument-Lagar/Forslag/Propositioner-och-skrivelser/Skattereduktion-for-mikroprodu_H103151/</u>

Government Bill 2013/14: 156, 2014, <u>www.riksdagen.se/sv/Dokument-Lagar/Forslag/Propositioner-och-skrivelser/Troskeleffekter-och-fornybar-e_H103156/</u>

RES LEGAL Europe, <u>www.res-legal.eu/search-by-country/sweden/</u>

'The State of Renewable Energies in Europe', 2013 edition

Annex

EurObserv'ER Barometers published are all available for download. Direct links to all EurObserv'ER publications:

Biofuels Barometer (July 2014, PDF, English language, 14 pages) http://www.eurobserv-er.org/pdf/baro222_en.asp

Solar Thermal Barometer (CSP and solar water heaters) (May 2014, PDF, 18 pages, English language, 3.6 MB) http://www.eurobserv-er.org/pdf/baro221_en.asp

Solar Photovoltaic Barometer (April 2014, PDF, 16 pages, English language, 2.9 MB) http://www.eurobserv-er.org/pdf/baro-jdp11_en.asp

Wind Power Barometer (February 2014, PDF, English, 14 pages, 2.8 MB) http://www.eurobserv-er.org/pdf/baro-jde14_en.asp

'The State of Renewable Energies in Europe', 2013 edition (January 2014, PDF, English language, 200 pages, 12 MB) <u>http://www.eurobserv-er.org/pdf/bilan13-gb.asp</u>

Solid Biomass Barometer (December 2013, PDF, English language, 14 pages, 2.9 MB) http://www.eurobserv-er.org/pdf/baro219_en.asp

Heat Pump Barometer (October 2013, PDF, English language, 18 pages, 2.5 MB) http://www.eurobserv-er.org/pdf/baro218.asp

Biogas Barometer (December 2012, PDF, English/French language, 14 pages, 2.0 MB) http://www.eurobserv-er.org/pdf/baro212biogasEu.asp

Renewable Municipal Waste Barometer (December 2012, PDF, English/French language, 12 pages, 1.9 MB) http://www.eurobserv-er.org/pdf/baro212mswEu.asp