

Aspects of the SWT situation in Denmark

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Background

- Within three years, 2009 to 2012, the promotion of small size wind turbines have re-created broad public interest in land-based wind power, awareness of the importance of renewable energy and enabled citizens to make energy self-supply a life-style issue.
- The Small Wind Turbine Association, SWTA, had a leading role in the launch of small scale wind power at the political and general public level.
- The SWTA was founded in June 2009 to promote the interest of wind power for the supply of individual homes, SMEs and the smaller farms with a capacity up to 25 kW.
- Is a manufacturers association that represents and promotes small size wind power in Denmark.

Members

Victor Energy ApS
HSWind ApS
Olsen Wings A/S
Vindby Energi
Beck-Ballum I/S
Thy Windpower ApS
LS Stoker-Vindmøller
Nordisk Folkecenter for VE
Gaia-Wind A/S
DVE Technologies ApS
TRE-FOR Energi A/S
Easy Wind GmbH
Solar Danmark A/S

Denmark

Danish small windturbines: Appx. 500 units (one year after new legislation)

Danish small windturbine manufacturers and suppliers: 18



Achievements of the Small Wind Turbine Association

- Develop new industrial sector
- Creates new jobs in
 - Manufacturing
 - Installation
 - Approval
 - Testing
 - Maintenance
 - Export
 - Benefitting of Danish wind turbines' favorable reputation for quality

Background of Danish legislation in 2010 of household supply with solar, wind and biomass

- Main principle is family self-supply for the rural population as a compensation to obtain energy services at costs similar to urban residents that are supplied by cheap and efficient CHP and district heating (62% of population)
- Max 6 kW rule applies to Wind, Solar and Biomass as single source of supply or with a combined capacity of max 6 kW
- Installations larger than 6 kW are considered as production units.

New Incentive: Net Metering

- 4 June, 2010 Danish parliament passed *Net Metering Legislation*
- Net metering – meter runs backwards; RE production has the value of power purchase prices, inclusive taxes and VAT
- Less than 6 kW
- Applies to wind, solar and biomass
- No bureaucracy
- No government subsidy or spending

Permit from municipality for installation in proximity of existing buildings

The right to connect to the grid and to deliver power from the household to the grid according to the net-metering principle (max 6 kW; value per kWh is 28 € cents). (Law of 4. June 2010)

The option of tax deduction of 25 %/year of the net value of the investment combined with income taxation.

The individual motivation to buy a small wind turbine

- Renewable Energy Self-Supply (not being supplied from coal, oil, atomic energy)
- Preferred investment in stead of boat, 2nd car, new kitchen etc.
- Resident in rural area; ecological lifestyle
- Interest in innovative technology
- Reasonable economy – 6 to 10 years pay-back time

Danish Institutional Framework for Small Wind Power

1. Danish Small Wind Turbine Association
2. State Approval Office (Danish Energy Agency)
3. Accredited inspectors for approval (private companies)
4. Secretarial activities by the DS Trade and Industry
5. Test facilities for small windmills at the Folkecenter for Renewable Energy by up-grading of existing and establishing of new test platforms.
6. Information and demonstration: Provided by Folkecenter; 20 -100 personal visits per week; 4.000 daily webpage visits.

The initial Market Potential

Denmark:

With small windmills installed at 3% of the 100.000 homes in the open land the Danish market potential is 3.000 small windmills.

FUTURE

Red government has said goodbye to netmetering on a yearly basis and want to make Feed In Tariffs for all swt up to 25kW. FIT for 2,5 mW, so it is a limited market.

Since nov. 19th 2012 all sales has been out of order, no new legislation has been carried through, and old legislation is out of order.

Centralized solutions instead of decentralized solutions.

Strong Influence from powersuppliers, not their cup of tea with selfsuppliance.

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