Bright Green Island projects

- renewable energy from the Danish perspective

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The Bright Green Island Vision since 2008

100 % sustainable and CO2neutral society in 2025



Bright Green Island – results the last 10 years

Green infrastructure

- 100 % of electricity produced on Bornholm comes from wind, solar or biomass
- I 2019 we expect to produce 75 % of our consumption needs, the rest 25 % we import from Sweden via sea-cable
- 100 % of the heat productions comes from renewables and mostly local resources





Bright Green Island - results the last 10 years

Green infrastructure

- 32 % of all waste goes into heat production. Only 7 % end as landfill waste. The rest is re-used
- Local food industry and municipality formed a common strategy for a greener future
- Green Solution House, 25 % of craftmen trained sustainable building solutions
- Many national and international research and innovations projects



FOODSTUFFS STRATEGY FOR BORNHOLM 2017-2025

Bornholm is the guiding light in Denmark's foodstuffs landscape, and the island should grow and flourish as a logical benefit of this.



NOVEMBER 2017 / VERSION 1.0







Status CO2 emission 2017

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2017 - revision of the Bright Green Island vision







BornholmerGoals – towards 2035



#1. Business - To make sustainability a good business

#2. Fact-based sustainability -To document and keep track of our green transmission/conversion process

#3. Carbon neutrality - To be a model, climate-friendly community at all times: : CO2 neutral 2025, towards zero emission 2035

#4. Mobility -To make all land-based transportation green

#5. Housing -To make sustainable housing part of our cultural identity

#6. Food products -To be a pioneer within sustainable Danish food products

#7. Nature -To make the protection of our natural resources vital to everyone's bottom line

#8. Inclusion - To ensure that everyone on Bornholm is part of Bright Green Island







Production on Bornholm:

- Biomass CHP
- Decentral district heat production on woodchips and straw
- Biogas production, heat and power
- Waste to heat
- Photo Voltaics
- Windturbines
- Seacable to Sweden
- Diesel/oil and coal genetation as strategic reserve
- Watersupply
- Wastewater

2018 EXPECTED TOTAL ENERGYPRODUCTION ON BORNHOLM – HEAT & POWER

It has been a **journey**

Power production 1979



Coals Heavy Oil Diesel Oil

2013 total energyproduction on bornholm







Green Energy must be both sustainable, and affordable

Cost efficient development demands:

- -> continous insight in new technology,
- -> optimizing exsisting infrastructure,
- -> consumer behaviour as it changes from consumer to prosumer
- -> Robust and payable system



To get **brighter** we engage in national and international R&D projects in close cooperation with:

- EcoGrid Municipalities & Government Private Companies Universities • ACES V2G BOSS Geothermal energ NISSAN Panasonic **PowerLa** ENERGINET DK IBM SIEMENS Powerlab DK InsulaE SEVENTH FRAMEWO **()** SINTEF tecnalia) inspiring elia EnCT Forschungsgruppe Energie- B TAMPERE UNIVERSITY OF TECHNOLOGY **PV Island Bornholm** Wasteplan 2032 BioWaste2Gas DANSK ENERGI RWTHAACHEN Universidad Carlos III de Madrid Landis |Gyr<mark>+</mark> a2a Reti Elettriche **IREC**⁹ Schneider TELVENT aasNatura manage energy bette fenosa Hydrogen Storage **PV** Net
 - Smart Planning

Thank You

