

ProjectZero – Lessons learned in overcoming barriers



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IEA EGRD

THE TRANSITION TO A LOW-CARBON SOCIETY

SOCIO-ECONOMIC CONSIDERATIONS

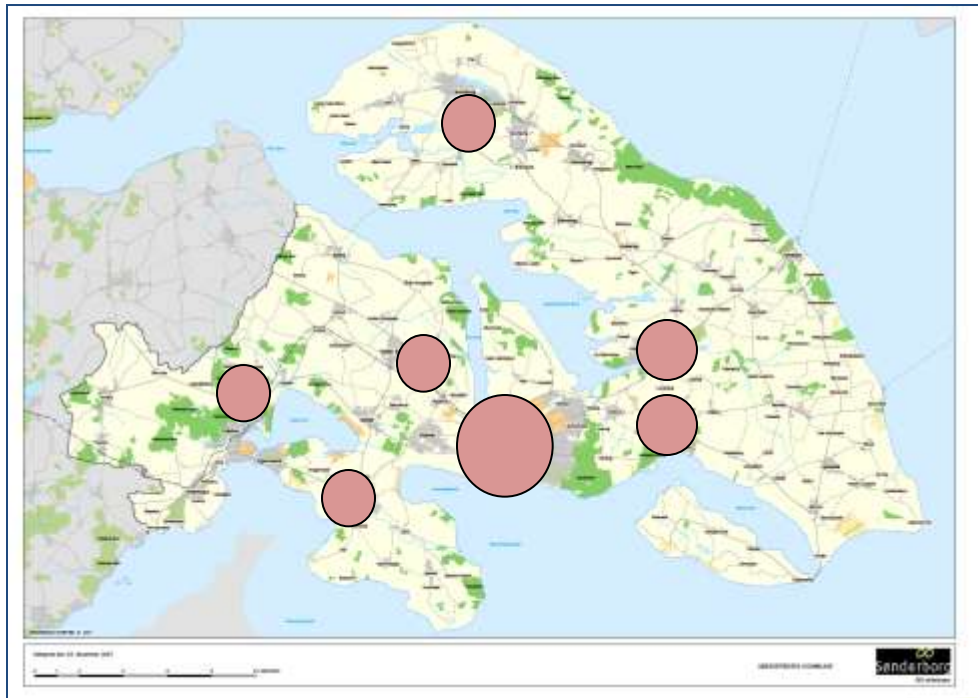
May 25th 2011

ProjectZero is the vision for turning
Sonderborg
into a vibrant **ZEROcarbon area** by 2029,
based on sustainable growth
and creating many new **Bright Green jobs**

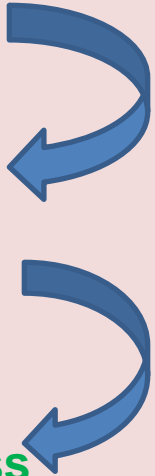
We have adopted a holistic approach:
Through a Public Private Partnership it includes
technology, business, participation, empowerment,
learning, research,

Transitioning Sonderborg

from farming, industry, knowledge to Bright Green Business



- fresh seawater
- great nature
- tourism
- **experience economy**
- farming
- industry
- knowledge
- **Bright Green Business**
- **Danfoss HQ**



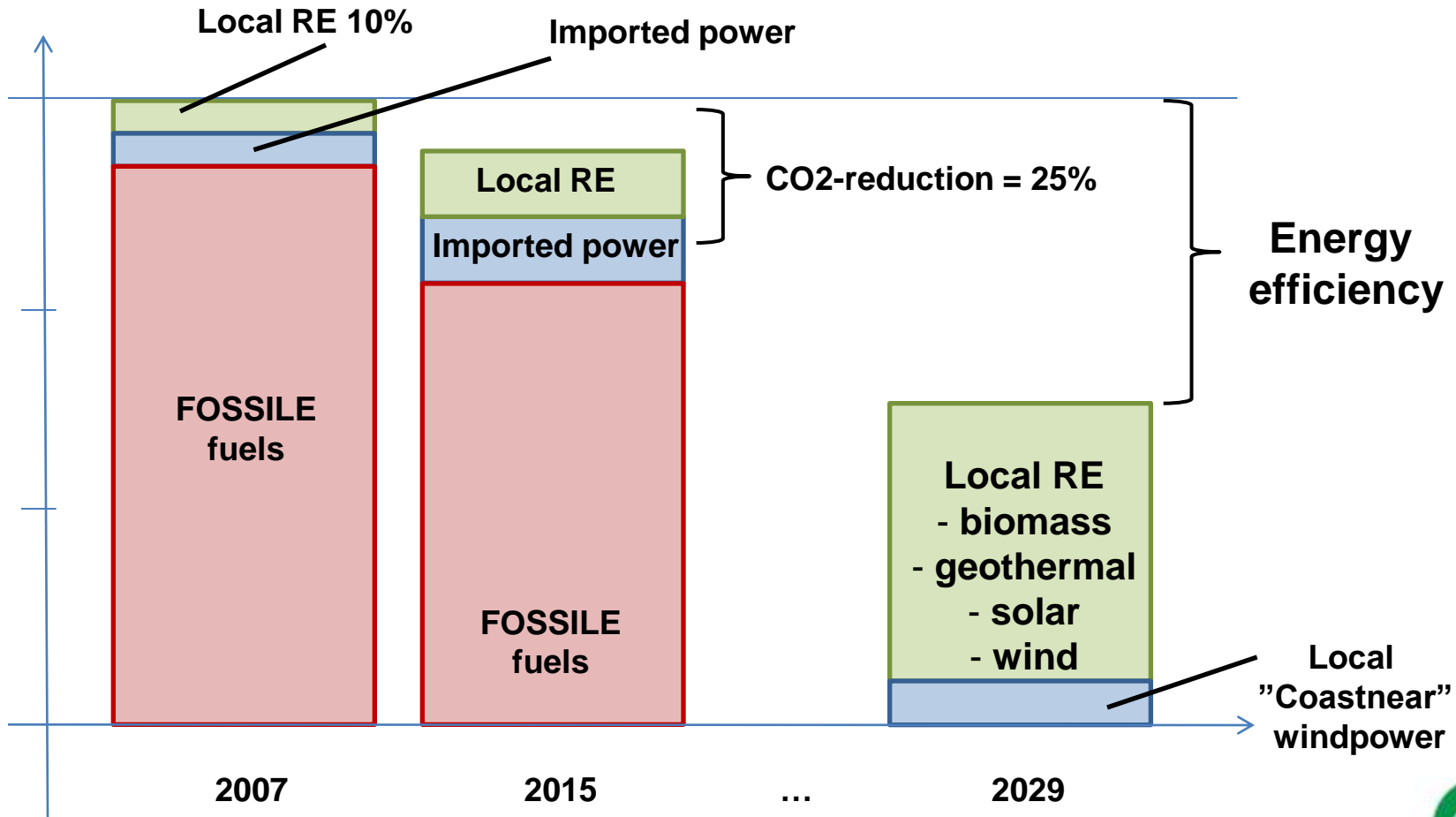
- 77.000 citizens
- 440.000 pigs, 250.000 hens
- 500 km² area
- District heating networks
- Natural Gas pipeline



**875.000 tons
of emissions**



Modeling our 2029-solution



Based on the areas own renewable resources



How to achieve a 25% carbon reduction by 2015

- **Intelligent Heat pumps** in rural areas
- **Green District heating** in the urban areas
- **Retrofit of buildings**
- **Biogas plant(s)**
- **Wind turbines**
- **Electrical cars** as a demonstration project
- **A Dynamic Energy system**
- **Learning and Competencies**
- **Research**
 - **NCoE NORD-STAR** – Nordic Strategic Adaptation Research
 - Low City Carbon Development in cooperation with WWF
 - ISSP/SDU – The Initiative for Science, Society and Policy

nord-star*



Challenges, barriers and how we deal with them

Challenges and barriers

Project/Technology	Policy/Planning	Economic	Consumer Adoption	Other	Solution
Electrical Cars		(V)	V		(V)
Biogas plants	V	(V)	V		
Wind Turbines	V		V		V
Green District Heating			V	V	V
Heat pumps in rural areas		(V)	V		V
Energy-retrofit of private housing		(V)	V	V	V

Heat pumps in rural areas

- **Goal:** Replace electric resistance heaters, oil and gas boilers with heat pumps in rural areas
- **Challenge:** Consumer adoption, high initial investment compared to e.g. oil boilers, regulatory framework
- **Solution:** Fast case processing at municipality, heat pumps as integral part of planning effort, government subsidy of ~2.700 € when scrapping oil boiler + massive local information campaign, road shows and effort to involve stakeholders
- **Results:** Country's highest conversion rate*, market has more than tripled, survey shows 40+ % has converted and another 30 % "en-route"



Energy-retrofit of private households

- **Goal:** Energy retrofits of 19.000 private households
- **Challenge:** Initial investment barrier, consumer adoption, lack of contractor competencies, financial crisis etc.
- **Solution:** “ZEROhousing” program - Broad cooperation and stakeholder involvement, massive information campaigns, special “ZEROhousing” loans, free energy adviser visits, municipality implements higher demands on new buildings and leads by example
- **Results:**
 - Huge citizen uptake, stakeholder buy-in
 - 65+ % of visited households take action, 50+ % of contractors trained as Energy Advisers
 - New jobs in construction, banking, energy consultancies etc.
 - National campaign “Good Energy” takes lessons learned in ZEROhousing to a national scale



In a “perfect world” ...

- Regulatory frameworks for infrastructure is a must:
 - Biogas,
 - “Coastal-near” wind turbines
 - Placement of land based wind turbines:
 - Proximity of wind turbines to... roads, neighbors, coastlines, Natura 2000 etc.
- Better frameworks for PPPs
- Regulations on privately owned RE installations
- Further incentivize energy efficiency in industry, private housing, etc.

Mission possible

- **To get started**
 - Mayors + large industry commitment
 - An ambitious Masterplan
- **To be successful**
 - Leadership & Communication
 - Integrate the business dimension
 - Make it the areas DNA
 - get everyone **on board**
 - Show short term results
 - with respect for the long term goals
 - Stay ambitious!



Download the ProjectZero Masterplan

The image shows a screenshot of the ProjectZero website. At the top left, there is a language selector with 'EN' selected. At the top right, there is a search bar. The main header features the ProjectZero logo (a green circle with a white swirl) and the text 'Bright Green Business ProjectZero'. Below the logo is a navigation menu with the following items: PRIVATE, PUBLIC, INDUSTRY, AGRICULTURE, TRADE & SERVICES, EDUCATION, PROJECTS, TOPICS, PRESS, ABOUT PROJECTZERO, and SEARCH. A large red URL 'http://www.uk.brightgreenbusiness.com/' is overlaid across the middle of the page. The main content area has a breadcrumb trail 'Frontpage > ProjectZ...' and a sub-header 'ProjectZero in'. Below this, there are two green boxes with white text: 'DOWNLOAD THE MASTERPLAN FOR A ZEROCARBON SONDERBORG IN ENGLISH AND CHINESE LANGUAGE'. To the right of these boxes is a photo of three people on a stage, with the caption 'EU Sustainable Energy Week, Austria, Copenhagen 2010'. Below the photo is a text block: 'THE EUROPEAN COMMISSION AWARDED PROJECTZERO, SONDERBORG/DENMARK, THE SUSTAINABLE ENERGY COMMUNITIES AWARD 2010'. Further down, there is a paragraph: 'For the first time ever, a Danish project has won the European Commission prestigious award for the best sustainable energy solution. The winner was the ProjectZero vision, turning Sonderborg into a sustainable ZEROcarbon growth area by 2029.' Below this is a link: 'For more information look here'. At the bottom left, there are two news sections: 'PROJECTZERO NEWS' and 'ENERGI NEWS'. The date '23.03.2010' and a news item 'The European Commission awarded ProjectZero' are visible. The bottom of the page shows a taskbar with 'Internet' and '100%'.