ProjectZero – Lessons learned in overcoming barriers



Christian Eriksen, M.Sc. – ProjectZero 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 <u>ZEROcarbon</u> 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



Natural Gas pipeline

Modeling our 2029-solution



Based on the areas own renewable resources ProjectZero

How to achieve a 25% carbon reduction by 2015

Augustenborg

VEJEN MOD NULLET

- 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

nord star

- Low City Carbon Development in cooperation with WWF
- ISSP/SDU The Initiative for Science, Society and Policy

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

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	ZEROCARBON MASTERPLAN IN ENGLISH ZEROCARBON MASTERPLAN IN CHINESE	THE EUROPEAN COMMISSION AWARDED PROJECTZERO, SONDERBORG/DENMARK, THE SUSTAINABLE ENERGY COMMUNITIES AWARD 2010 For the first time ever, a Danish project has won the European Commission prestigious award for the best sustainable energy solution
	PROJECTZERO NEWS ENERGI NEWS 23.03.2010 The European Commission awarded ProjectZero	The winner was the ProjectZero vision, turning Sonderborg into a sustainable ZEROcarbon growth area by 2029. For more information I took here