## **HCWH** webinar

## Fossil free energy at hospitals in the Capital Region of Denmark

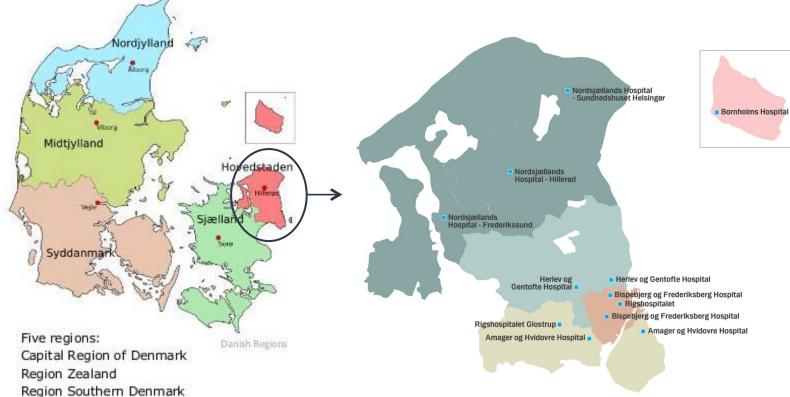
Ole Gerner Jacobsen / ogj@regionh.dk
Center for Facility Management

A PART OF

GREATER COPENHAGEN

#### **Regional Denmark**

## 7 Hospitals in the Capital Region of Denmark on 11 locations



98 municipalities

Central Denmark Region North Denmark Region





## New leadership in 2013 / 2014

# A joint cooporate approach to green transition at hospitals

## **Green Operation and Development**

## Three joint corporate thematic plans

Energy, waste resources and transport

## **Supporting themes**

- Green procurement
- Communication
- Green growth and innovation

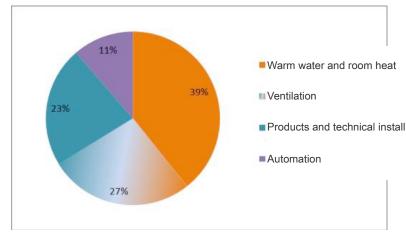
#### Governance

## Management system

## Energy plan 2025 – background

- Annual energy expenditure app. 70 mill. EUR
- Potential for further energy efficiency
  - Ventilation, lightning, products/ equipment, building automation/ CTS/smart building
- To much lesser extend local conversion to renewable energy (is happening centralized).

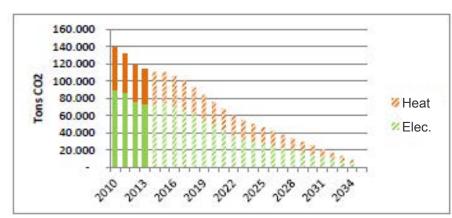
#### Energy consumption in main groups



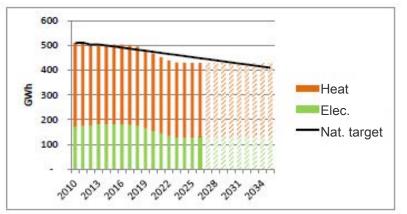
## **Energy plan 2025 – targets**

- 60 % CO<sub>2</sub>-reduction i 2025 (compared to 2013)
- 100 % RE in 2035
- 16-17 % reduction from improved energy efficiency at hospitals rest from public supply

#### Carbon emission



#### Energy consumption



## **Energy plan 2025 – main activities**

#### **ESCO 3.0**

- New concept for the realization of energy efficiency measures
- Expected investment of up to DKK 1 billion (Energy plan)
- Funded through Municipal leasing and EU programs (DKK 24 million)
- Expected completion: before 2025
- Approximately 1.2 mill. m2 included

Increased efforts for energy efficient procurement

Green growth and innovation



A PART OF

## **ESCO 3.0**

#### **Normal ESCO**

- Screening
- Design
- Implementation

No competition

- Financing
- Baseline
- Warranty

#### **Special**

- Hospitals constantly changing
- Running 24-7
- Size +1 mio. m<sub>2</sub>
- Speed

#### **ESCO 3.0**

- Screening
- Analysis
- Design

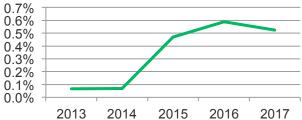
Tender (competition)

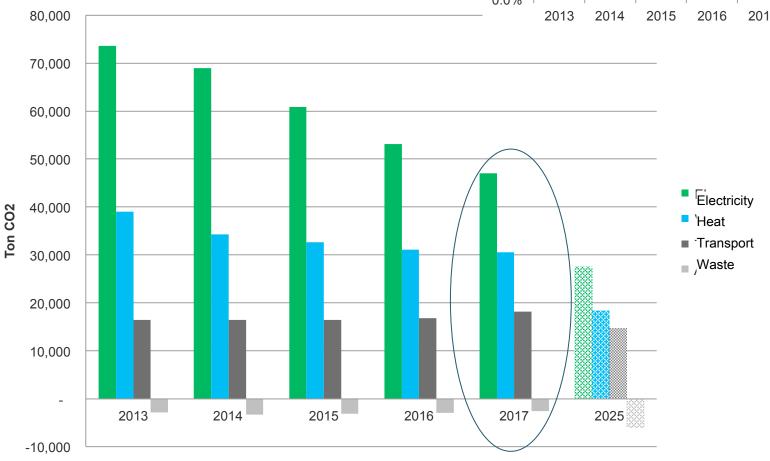
- Implementation
  - Project 1
  - Project 2
  - Project 3

Commissioning (instead of warranty)

## Local RE share of total electricity consumption (solar panels)

## How is it actually going?











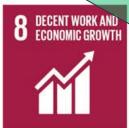
































12

A PART OF