

# **The process of modern energy planning in Sweden**

How to organize the work?

**Per-Johan Wik**  
**Energikontoret Skåne**

## **The law of energy plan**

- From 1977, descends from energy crize
- States that each municipality should have a plan for production, distribution and use of energy
- In reality the law is edgeless, nothing happens if a municipality doesn't have a plan

## **The plans**

- Lots of plans from late 70's to mid 80's
- Usually a heat map, showing which fuel used for heating would be preferable in different areas in the municipality
- Very few plans produced between mid 80's to mid 90's
- With climate change the plans were again seen as a useful tool and quite a lot of plans are produced after 2000

## Modern energy planning

- Not only heat maps and not focusing too much on energy production and distribution
  
- Instead focusing on the use of energy and how to reduce the emissions of greenhouse gases

## Modern energy planning

- **A strategic level**

- A description of present energy situation in the municipality and the emission of greenhouse gases
- Set relevant targets for energy efficiency, renewable energy, reduction of emissions of greenhouse gases
- Define the follow up of the plan

- **A detailed project level**

- Action plan

## **Modern energy planning**

- One important and difficult issue is to prioritize which measures are to be taken and which of them are getting the most effect
- One way to do that is to a strategical analysis with take-off point from the description of present energy situation

## Working process

- Gaining support for the process
- Description of the present situation
- Strategical analysis
- Setting targets
- Initiate project and set up an action plan
- Decision of plan and define the follow-up

## **Gaining support for the process**

- Desirable that so many as possible of concerned stakeholders take part of the process
- Establish a work organization and time schedule as soon as possible

## **Gaining support for the process**

### **Example of important stakeholders:**

1. Politicians
2. Planning manager
3. Civil servants from relevant municipality administrations
4. Energy companies in the municipality
5. Regional and local energy agencies
6. Industrial energy experts
7. Representatives from cooperations and foundations
8. Representatives from relevant interest organizations
9. Consultants

If someone is having responsibility in the action plan, they should also be part of the planning process

## Gaining support for the process

### How to structurize the working organization?

- **Steering group:** Responsible for the strategical directives, make sure the planning is getting political support
- **Working group:** Execute the work with the project and reports continuously to the other groups
- **Referensgrupp:** Reflects over the process, gives advises and could be a good knowledge base for the working group

## **Gaining support for the process**

### **Members of each group?**

- **Steering group:** Politicians (planning manager as well)
- **Working group:** Planning manager, key persons from administrations, cooperations and foundations, energy companies, energy agencies, energy experts
- **Reference group:** University experts, other energy experts, energy companies, interest organizations, business organizations

## **Gaining support for the process**

**A suggestion is:**

- Gather to a few meetings with concerned stakeholders early in the process and thereby get the process started
- Do have a prepared material to get relevant discussions at this meetings

## Working process

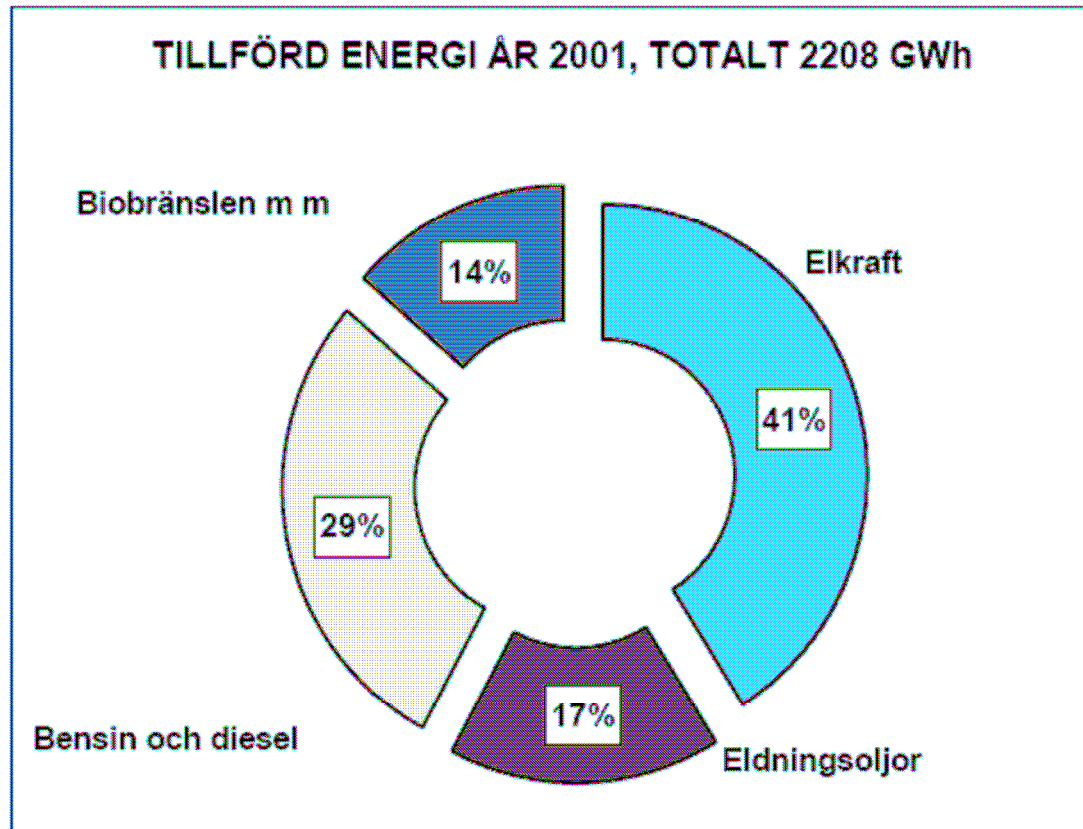
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## **Describing the present situation**

- Gather and present information about the local energy system

### Exampel

- Supplied energy in the municipality seen to different fuels
  - Energy use per capita in the municipality
- Identify relevant on-going and planned energy projects, to integrate in the action plan



Trollhättans energy plan, 2003

## Working process

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- **Strategical analysis**
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## **Strategical analysis**

- Perform an analysis with take-off point from the description of the present situation and if possible expected development
- Prioritize in which areas/sectors further discussions is appropriate to consider more serious measures to be taken

## **Strategical analysis**

### **How could it be done?**

- Analysis of the present energy system to find possibilities and obstacles in the development of the energy system
- Analysis of the expected development
  - Activities that affect the future energy situation in the municipality, e.g. new planned areas, decided energy projects
  - Expected demands and incentives, e.g. laws and subsidies
  - Expected development of energy markets
  - etc.

## **Strategisk analys**

### **How to prioritize?**

- Base for prioritation could be:
  - Implementation possibility
  - Profitability
  - Environmental gain
  - etc.

## Strategical analysis

- *Think about the municipalities possibilities regarding the work with the energy system as:*
  - *authority*
  - *information body*
  - *role model (owner/buyer)*

## **Strategical analysis**

**Example of different roles the municipality have regarding energy matters**

- Planning authority
- Owner of property (buys a lot of energy)
- Environmental authority
- Opinion-maker
- Coordinator of work regarding climate change
- Catalyzer in the change to renewable fuels

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- **Setting targets**
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## Setting targets

- Set the targets in the energy plan so they correspond to other targets concerning energy matters that already been set
- Make sure the targets are discussed with the politicians in the steering group

## Working process

- Gaining support for the process
- Description of the present situation
- Strategical analysis
- Setting targets
- [Initiate project and set up an action plan](#)
- Decision of plan and define the follow-up

## **Initiate projects and set up an action plan**

- Identify projects with take-off point from the strategical analysis and make sure to gain support for them with concerned stakeholders
- Build a good structure of managing the projects (how, who, when)
- Put new, planned and relevant on-going projects in an *action plan*
- Perform relevant applications for projects

## **Action plan**

**Could contain for each project:**

- Short description of the project
- Time frame
- Who is responsible for carrying out the project
- How it should be reported
- Economical consequences
- Environmental consequences

## **Action plan**

### **Example of projects in Swedish action plans:**

- District heating produced by nearby industry
- Make road and street lighting more effective
- Production of biogas for use in vehicles
- Upprättandet av en policy för vedeldning
- Installation of solar photo voltaic systems
- Convert oil burner to bio fuel

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## **Decision of plan and define follow-up**

- Energy planning is a continuous work. Structure frames for:
  - Follow-up
  - Revision
  
- The energy plan should be decided on by the city council

## **Key success factors**

- **Engagement**
- **Want to do energy planning (working group)**
- **Political support**