3-fold initiative for energy planning and sustainable development at local level (3-NITY)

Hans Jacob Mydske
New Energy Performance AS – NEPAS
Norway
mydske@nepas.no

Kari Aamodt Espegren
Institute for Energy Technology – IFE
Norway
kari.espegren@ife.no

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Abstract
The project demonstrates how the concept of "Sustainable Energy Communities" can become a reality without much additional efforts in terms of costs and human resources. 3-NITY includes 28 communities in nine European countries.

The 3-fold initiative engages local stakeholders such as politicians, planners, citizens and local energy actors to take part in local energy planning and implementation of sustainable energy measures, as well as adopting a working methodology for continuous improvement. This is achieved through the development, testing and demonstration of a comprehensive set of tools, quality systems and sustainable best practices that cover the following three main areas:

- Sustainable Planning
- Sustainable Measures and Activities
- Sustainable Excellence

"Sustainable Planning" aims to develop a modern planning and investment decision tool for local energy planning which is prepared to engage several levels in the local community i.e. politicians, planners, energy market actors as well as the citizens. The new model is based on the existing KRAM model. The KRAM model is a simulation tool suited for sustainable energy planning in a municipality, a part of a city or in a region. Both energy for heating purposes and electricity for light and equipment can be analysed with the KRAM model. In addition, the model can be used to analyse the implementation of energy efficiency measures.

"Sustainable Measures and Activities" aims to engage local politicians, planners and energy actors as well as the citizens to actively participate in local energy planning and implementation of sustainable energy measures.

"Sustainable Excellence" will make use of the existing tool for monitoring and measuring qualitative results achieved by an organisation, i.e. the EFQM-excellence model for local governments and municipalities. The Excellence Model of the European Foundation for Quality Management (EFQM) is based on the premise that excellent results in organisational performance, citizens/costumers, people and society are achieved through leadership driving strategy and planning, people, partnerships and resources and processes. It looks at the organisation from different angles at the same time, the holistic approach of organisation performance analysis.

The model is a result of co-operation among the EU Ministers responsible for Public Administration. It is jointly developed under the aegis of the Innovative Public Services Group (IPSG), a working group of national experts set up by the Directors-General (DG) in order to promote exchanges and co-operation where it concerned innovative ways of modernizing government and public service delivery in EU Member States.

Moreover, the idea is to make use of the already existing framework of Communities of Practice (CoPs); which is operated by EFQM, and to establish a new group called "Sustainable Energy Communities".Such a group will be an informal network or a discussion forum for 5–15 Sustainable Energy Communities, where they can discuss issues of common interest.

Summary/Conclusions

The overall objective of the 3-NITY project is to demonstrate that "Sustainable Energy Communities" can become a reality without too much additional effort in terms of costs and human resources. The project will generate both short-term results and, more importantly, longer-term impacts. In order to make this difference between expected results, which are of more qualitative character, and the more qualitative, long-term impacts more clear, the 3-NITY project has divided the overall objective further into quantitative and qualitative objectives.

- **The quantitative objective** for 3-NITY is to improve the level of consistency and security throughout the planning and decision-making processes at local level. Consistency with respect to meeting international and national regulations and standards regarding energy policy objectives, planning and target setting requirements as well as reporting procedures is important in this respect. Security for investments and future allocations of public resources is of critical importance for politicians and planners at local level.
- **The qualitative objective** of the 3-NITY project is to involve all the relevant stakeholders in local energy planning processes, and thereby improve their joint ability to make better decisions with respect to local sustainability, and related effects e.g. job creation, social cohesion etc. A key issue of the EFQM excellence model is that such qualitative improvements should be possible to measure, and this will be a key issues also for the 3-NITY project. If successfully implemented, the Sustainable Excellence will secure a long-term engagement and continuity of the 3-NITY activities within the SECs.

At this moment, the 3-NITY project is half way though the contract period, and the 3-NITY methodology seems to be gaining credibility alongside the progress of the project. From the practical implementation of the methodology in some of the Sustainable Energy Communities taking part in the 3-NITY project, the potential impact already seems to be greater than expected, and the approach of combining the traditional planning with practical measures and activities as well as the element of continuous improvement of the way a sustainable energy community is organised seems to be a good one!

Just the fact that a Sustainable Energy Community has to state its ambitions, integrate energy and climate into its normal policies and not least initiate a process in order to define relevant measures and activities seems to have an immediate effect. Not only within the municipal administration, but also among local stakeholders, businesses and organisations, as well as the citizens.

Introduction

"The Rio Summit established the concept of local sustainable development plans, known as AGENDA 21. In the context of EU energy policy and legal initiatives, and in line with our commitments, we need to support sustainable energy communities. These local energy communities can pioneer the application of the integrated measures required to attain our global commitments and can become showcases for the dissemination of such concepts around Europe. Given their showcase character, sustainable energy communities must aim to reach objectives beyond the global EU objectives.

Sustainable energy communities (SECs) can be defined as: Local communities in which politicians, planners, developers, market actors and citizens actively cooperate to demonstrate and develop a high degree of decentralised energy supply, favouring renewable energies as sources, together with a conscientious application of energy efficiency measures in all end-use sectors."

The above is from the Annual Work programme 2005[1] of the EU programme "Intelligent Energy – Europe". The IEE-programme includes a key- action that focuses on energy within society, and this is the framework within which the 3-NITY project was conceived.

The 3-NITY project was proposed under the IEE 2005 Call for proposals, and started in January 2006. The project is still ongoing and will be completed by June 2008. The project involves 16 partners from 9 European countries[2].

The 3-NITY project

The emergence of Sustainable Energy Communities (SECs) across Europe is important with respect to meeting the policy objectives within the areas increased energy efficiency, the uptake of renewable energy sources, better security of energy supply as well as the reduction of greenhouse gas emissions. The main reason being the decision-making authority that is placed with the local governments and municipalities in matters concerning long term planning, energy related infrastructure investments.

There are a few critical factors that seem to be of general relevance to all successful SECs and the 3-NITY project suggests that the following needs to be in place for successful emergence of Sustainable Energy Communities:

- There is still a need to increase the quality of decision-making support tools to provide security for investments
- Quality management philosophies that support constant improvement
- Citizen involvement that creates momentum in market development

THE 3-NITY VISION

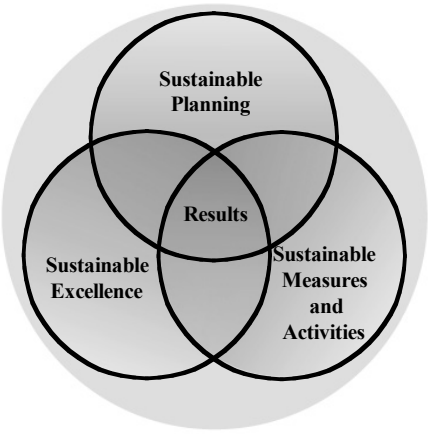
Any local community can become a Sustainable Energy Community by mobilising all stakeholders to contribute actively in a guided process where specially adapted support tools for decision-making are made available. Local politicians, municipal planners, market actors and citizens will play their specific roles in this process.

THE 3-NITY METHODOLOGY

The 3-fold initiative will engage local stakeholders such as politicians, planners, citizens and local energy actors to actively participate in local energy planning and implementation of sustainable energy measures, as well as adopting a work-

1. Call TREN/DIR D/SUB/05-2005
2. Contract EIE/05/188/SI2.419825 – 3-NITY

ing methodology for continuous improvement. This will be achieved through the development, testing and demonstration of a comprehensive set of tools, quality systems and sustainable best practices that cover the following 3 main areas as shown in the figure below:



Sustainable Planning
This area of the 3-NITY project will develop a modern planning and investment decision tool for local energy planning, prepared for active involvement by several levels in the local community i.e. politicians, planners, energy market actors as well as the citizens.

Sustainable Measures and Activities
This area of the 3-NITY project will engage local politicians, planners and energy actors as well as the citizens to actively participate in local energy planning and implementation of sustainable energy measures. This will be achieved by providing a series of local events, initiatives and methodologies at the disposal of the municipal administration, the commercial energy actors and the citizens.

Sustainable Excellence
The "Sustainable Excellence" part of the 3-NITY project will make use of the existing tool for monitoring and measuring qualitative results achieved by an organisation, i.e the EFQM-excellence model for local governments and municipalities. Specifically, the idea is to make use of the already existing framework of Communities of Practice (CoPs) which is operated by EFQM[3], and to establish a new group called "Sustainable Energy Communities".

Sustainable Planning

Local energy planning requires a broad perspective on energy policy by focusing on all forms of energy carriers and on energy consumption in all end-use sectors. Sustainable energy planning is an important activity in the 3-NITY project, and the aim is to demonstrate how the concept of Sustainable Energy Communities can become a reality without too much additional effort in terms of costs and human resources. However, becoming a Sustainable Energy Community requires Commitment, Engagement and Interest in making necessary adjustments in the way of running the planning, implementation and quality improvement processes at municipal level.

Energy planning is a process that aims to give an overview and to analyse a complex energy system. The process includes a large number of participants with different scopes and goals for the energy system. Thus, it is important to include all stakeholders in the process with energy planning work. The energy planning work should end up in an operative energy action plan.

As a support tool in the planning process a new model for sustainable energy planning, the existing KRAM model is used as a basis for a new model which is being developed in the 3-NITY project.[4] The new model will be ready for use in the beginning of 2007. This new model will be named REAM (Regional Energy Analysing Model), and is a modern planning- and investment decision tool for local energy planning. It is prepared for active involvement by several levels in the local community i.e. politicians, planners, energy market actors as well as the citizens.

The calculations in the model follow a cost-efficiency principle including e.g. energy prices, taxes and fees, investment costs and other variable costs. Results from the model are final energy use, selection of technologies, and use of boilers and/or district heat, emissions etc. A more detailed description of the REAM Model are given in the following.

The Reference Energy System (RES)

An effective way to present an energy system is to use a Reference-Energy-System (RES) methodology. This methodology is used in the REAM model analyses. Since real systems often have a large number of technologies the RES is often presented in two or more levels; e.g. the overall level and a detailed level such as households. The diagrams below only include supply technologies.

The energy planning model, REAM (Regional Energy Analysing Model), is a simulation tool suited for sustainable energy planning in a municipality, a part of a city or in a region. Both energy for heating and cooling purposes and electricity for light and equipment can be analysed with the REAM model. In addition, the model can be used to analyse the implementation of energy efficiency measures. The scope of the model is to analyse stationary energy systems in communities.

The community energy demand is divided into a number of different end use sectors, such as dwellings, service sector and industry. There are no limits with regard to how many end-use sectors the model can handle. However, the more sectors, the more detailed input data you need and the more detailed results will come out. It is important to find the right balance between the scope of the project and the need for detailed information in the energy planning process and the amount of work to gather input data.

When working with energy planning, it is necessary to decide in what time perspective to carry out the analysis. The time perspective can vary from community to community; a normal range will be 10 to 20 years.

3. European Foundation for Quality Management, www.efqm.org

4. John Johnsson, PROFU AB, www.profu.se

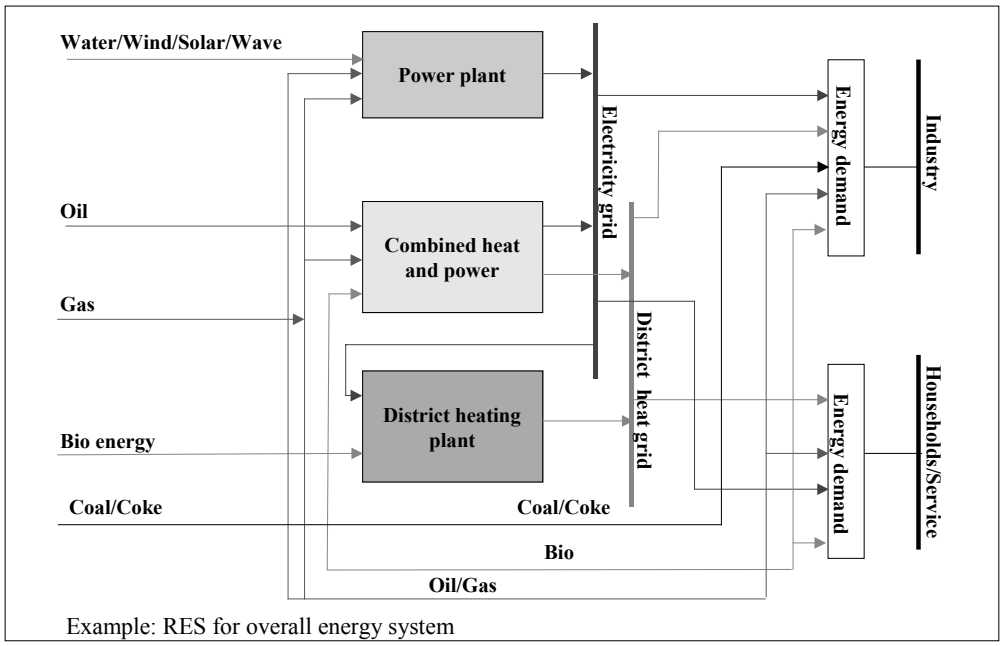


Figure 1. The Reference Energy System

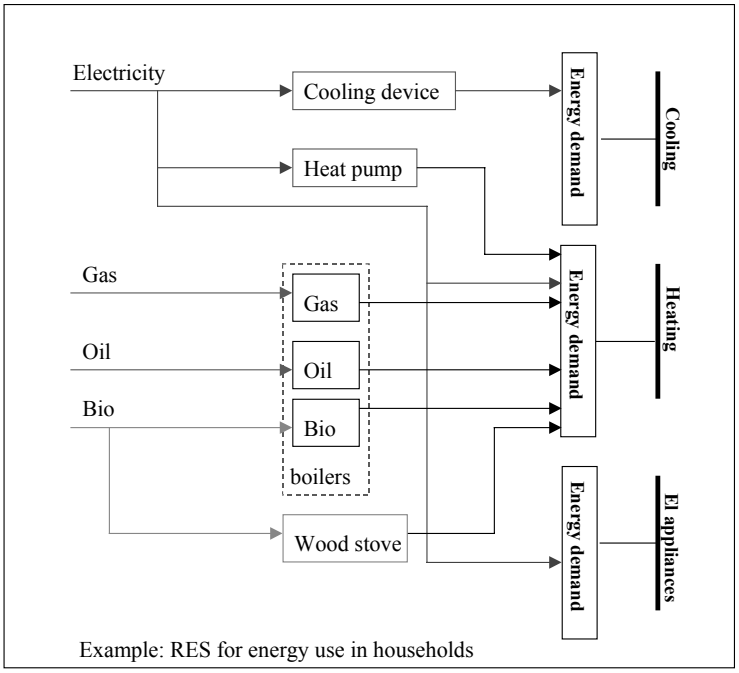


Figure 2. The REAM model

Input data

The net energy demand of each sector should be forecasted in the analysing period. The energy demand in each sector must be divided between heating/cooling demand and electricity specific demand. Different energy carriers, such as oil, bio energy, gas, district heat and electricity can meet the demand for heat. Only electricity can meet the demand for light and electrical appliances.

In addition, the potential for energy efficiency measures in each sector can be included. When the model chooses to implement some of the energy efficiency measures in a sector, the energy demand in the sector is reduced correspondingly.

The different energy carriers are described with energy and power price, availability and taxes. The most common energy carriers are electricity, fuel-oil, gas, kerosene, wood and wood pellets. A set of different technologies for heat and cooling production should be described with investment cost, operation cost, and efficiency. Possible technologies are boilers (such as oil, gas, el and bio), direct electricity, solar collectors and district heating. Central energy production, such as production of heat for district heat and local electricity production are also described with installed capacity, costs, efficiency etc in the model. The infrastructure for heating/cooling and electricity has to be described with possible limitations, investment costs for new capacity etc.

Finding input data that describe the energy system is a time-consuming effort that has to be done for a successful project. It is important to make use of available knowledge about the energy system, and information should be gathered from the utilities, the community, the energy actors, the real estate companies, the industry, and official statistics on local, regional and national level.

The model is flexible for energy and monetary units. The available energy units are GJ or MWh, and the monetary unit to be used is defined by the user.

Model results

The results from the energy planning model are for instance emissions, production of cooling or heating divided between the different technologies, such as electric boiler, oil boiler, electric resistance heating, if/when technologies will be implemented and costs of the total energy system.

Techno- economic models such as KRAM/REAM are not designed to take into account the qualitative criteria that affects the development of the energy systems (lack of knowledge, lack of investment desicions, lack of policies etc.), therefore these models tend to over-estimate the realistic development

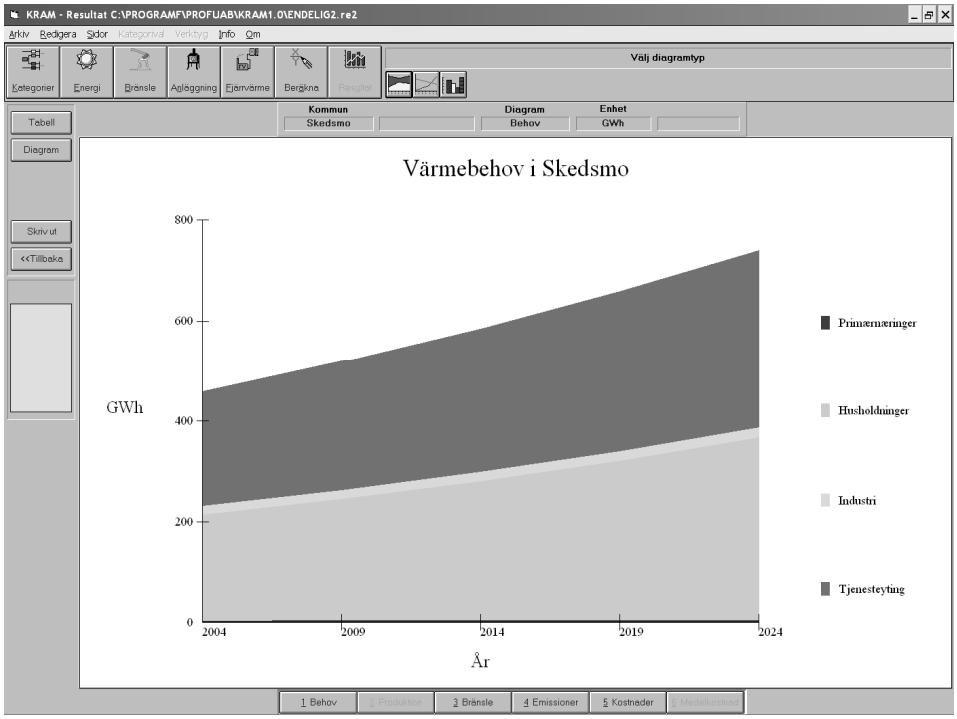


Figure 3: Forecasted Heat demand in Skedsmo, by end use sector

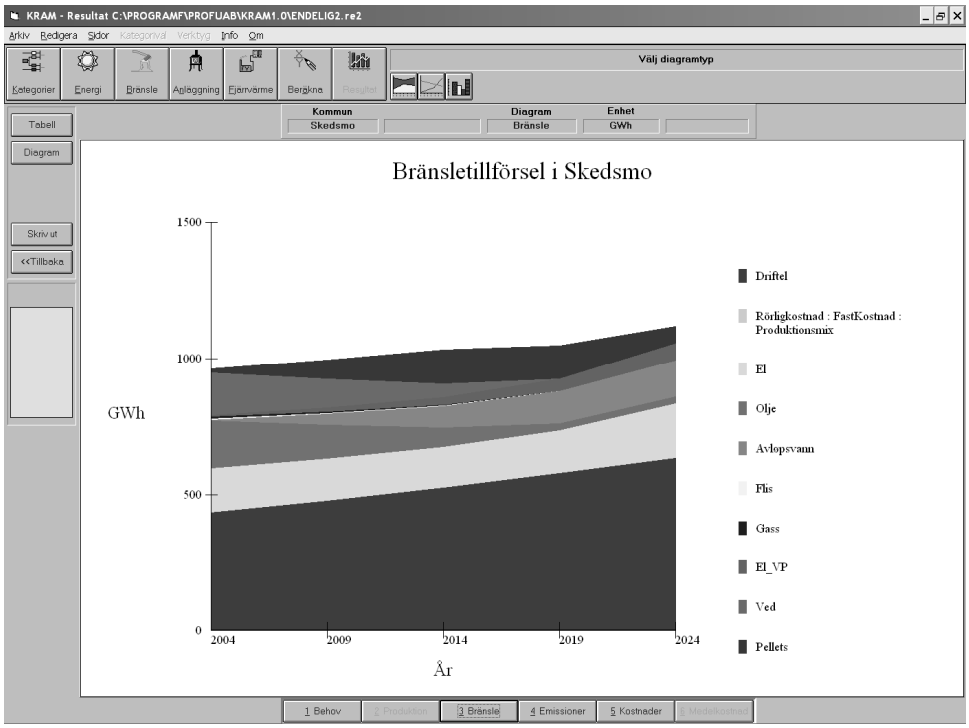


Figure 4: Forecasted Fuel mix in Skedsmo, by source

of the energy system. For an in-depth description of how the quantitative model results are used a basis for identifying more qualitative activities and measures, it is referred to the chapter "Case studies" where the municipality of Skedsmo is used as an example

The figures below are examples of the quantitative output results from Skedsmo. [5]

5. Energy- and climate plan of Skedsmo, June 2006

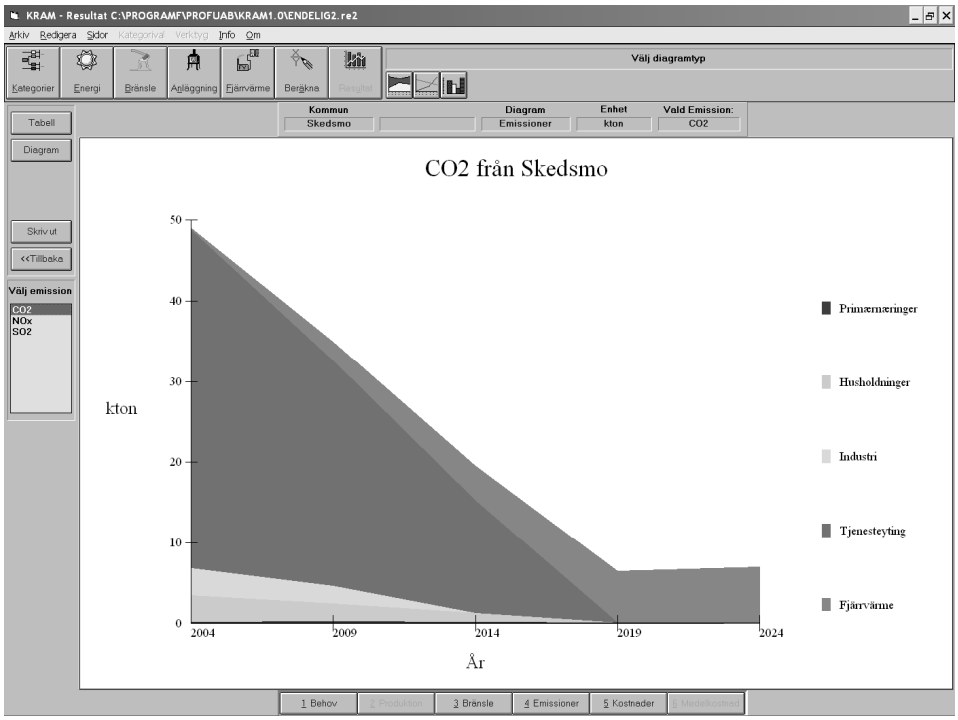
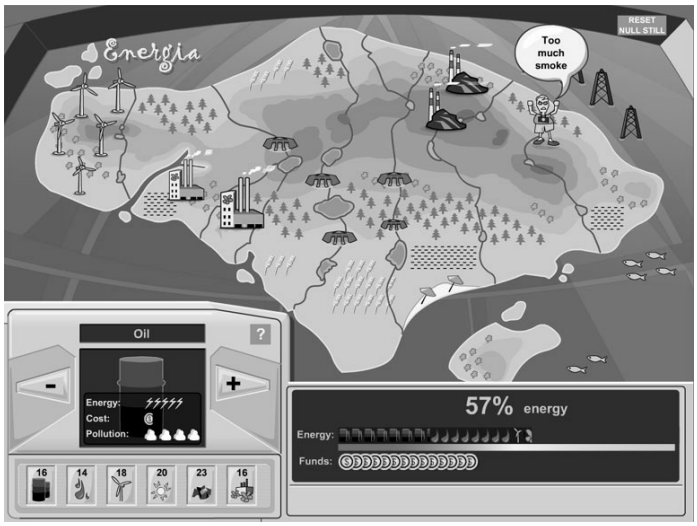


Figure 5: Forecasted development of CO2 emissions in Skedsmo, by end use sectora



The Energia-game

One of the main ideas of the project is to involve the citizens of the local communities. Therefore a simple model for the energy system has been developed for communication and educational purposes and will be a real-case illustration of each community's specific energy sources and energy use. The game is based on the very successful computer game "Energia"[6], which focuses both on land use as well as local emissions as well as overall cost of the energy system. The game is easy to use, and is based on real numbers and data from the communities, suitable to give indicative answers on cost and emissions of different alternatives to fulfil the energy demand in the region.

The "Energia-game" is intended to be a visualisation-tool for the SUSPLAN part of the 3-NITY project. The aim is to use this game to make the information in the techno/economic energy plans more popularised and available to the public. Based on one common template of the game, each of the communities participating in the 3-NITY project will make the necessary adaptations into local versions of the game, in their local languages. The picture below shows the original Energia screen interface.

Sustainable Measures and Activities

Households and small businesses, at a local level, can affect the environment through both their day-to-day decisions on what goods (e.g. energy efficient appliances) and services to buy and the use they make of them, and their decisions on how much energy they consume (Tzanakaki, Andreossatos, 2006). Market and commercial actors can also play a key role and affect the environment as well as the consumers' (citizens) behaviour towards sustainability by being informed about technical issues regarding energy efficiency and renewable energy technologies and applications/measures as well as by supplying and selling energy efficient goods to consumers. Lack of awareness, information and motivation about environmental and sustainability issues for both citizens and market actors can result into a number of environmental problems, including high energy consumption and low efficiency, insufficient use of renewable energy sources as well as high-level of greenhouse gas emissions.

There is therefore a need for local action as a major element in achieving the overall energy and environmental objectives set by the European Member States. This action can be achieved by inducing a change in citizen's behaviour and by encouraging the use of efficient and renewable technologies as well as by

6. Energia is the property if Media Farm AS, Norway, www.mediafarm.no

adopting energy intelligent social patterns by local end-users, including municipalities and other decentralized authorities.

Citizens and market actors must be involved into more targeted measures and activities towards sustainability issues as well as to introduce targeted guidelines, depending on the sustainability level of each local community, in order to inform, guide and motivate citizens and market actors about energy efficiency measures, renewable energy sources/technologies, better security of supply as well as the reduction of greenhouse gas emissions.

In order to support the emergence of sustainable activities, the targeted measures and actions must be in line with each community's sustainability level. The support of communities in mobilizing local energy actors in planning and establishing favourable conditions for introducing sustainability measures can be achieved by introducing specific and targeted guidelines. These guidelines can be categorized, based on sustainability level, as follows[7]:

- Basic level

The sustainability level of SECs at this level is assumed to be minimal, it is necessary to inform (for example, addressing the energy behaviour of citizens), strengthen their attitude and motivate local actors (policy makers and local authorities, market actors, citizens), on simple and no/low cost measures that can be easily followed and implemented.

- Medium level

The sustainability level of SECs at this level is assumed to be moderate (local actors are informed and mobilized by the measures introduced in the "Basic level"), more detailed directions must be introduced in order to develop and apply sustainable energy technologies (by implementing large-scale sustainability measures based on their national legislative and financial framework) as well as to plan their short/long term vision actions towards the adoption of more concrete renewable energies and energy efficiency measures.

- Advanced level

The sustainability level of SECs at this level is assumed to be high. Based on the experiences gained by the application of targeted measures, SECs can then plan and implement large-scale RES & RUE applications as well as to commit themselves towards becoming intelligent energy communities.

Sustainable Excellence

The basic hypothesis for the "Sustainable Excellence" part of the 3-NITY project is that continuous improvements in the participating SECs will benefit from the European Foundation for Quality Management – EFQM, in terms of their experience and competence with regard to improving organisational performance. EFQM provides a range of networking and product/service development services to a growing community of Public Sector organisations. Many are users of the EFQM Excellence Model, a tailored version of which sets out guidelines for Public and Voluntary Sector organisations through a Self Assessment procedures.

7. Harris Andreosatos and Evi Tzanakaki, CRES, Greece, 2006

Self Assessment according to the EFQM Excellence Model

Before a self-assessment project is launched, the senior management of the organisation should discuss and agree on the arrangements for conducting the assessment. It should also discuss the perceived purpose of the assessment and the intended actions following completion of the assessment.

The usual arrangements for a self-assessment team involve an ad hoc group, which is as representative of the organisation as possible. It would be usual to include members from different sectors/levels within the organisation. The objective is to establish a group as small and effective as possible, but at the same time a group, which provides the most accurate and detailed internal perspective of the organisation. It is important to select participants on the basis of their personal (e.g. analytical and communicative skills) rather than professional skills.

The record of the self-assessment should be communicated to the organisation and carefully examined by senior management with a view to identifying the main findings of the self-assessment, the areas in which action is most needed, and the kind of action, which is called for. In preparing such a plan, the management might wish to consider the use of a structured approach, including the questions:

- Where do we want to be in 5 years (goal setting)?
- What actions need to be taken to reach these goals (strategy/task definition)?

The senior management may find it helpful to group the areas for improvement under common themes before deciding relative priorities.

Develop and implement an improvement plan

While a self-assessment is a start to a long-term improvement strategy, the assessment will inevitably throw up a few areas that can be addressed relatively quickly and easily. Acting on them will help with the credibility of the improvement programme and represent an immediate return on time and training investment.

It is a good idea to involve the people who carried out the self-assessment in the improvement activities.

Monitor progress and repeat the assessment

Once the improvement action plan is formulated and the implementation of changes has begun it is important to make sure that the changes have a positive effect and are not adversely affecting things the organisation was doing well to begin with. Some organisations have built regular self-assessment into their business planning process – their assessments are timed to inform the annual setting of objectives and bids for financial resources.

EFQM Approach

This section of the paper explains how to collect information from stakeholders taking part in the development of Sustainable Energy Communities. This information helps the 3-NITY team to understand what influences have led to successful developments, problems with development, and even failures. An interview/questionnaire scheme has been developed, which in principle follow the EFQM approach that was further developed by the IEE-project "ELVA".

Table 1: Overview of Sustainable Measures and Activities at different levels

	Basic	Medium	Advanced
A: Measures and activities to raise awareness and motivate citizens to engage in sustainability issues			
Press articles with respect to sustainability applications and projects at local and international level	✓		
Informative leaflets about sustainability issues • Simple examples of no-cost/low cost energy efficiency and renewable energy methodologies and technologies. • Inform about local community strategies and the relevance for local stakeholders and their involvement e.g. local market economy or reduction of hazardous emissions	✓		
Distribution of targeted questionnaires related to energy efficiency and renewable energy issues		✓	
Local campaigns/ events about technological issues and applications on RES & EE .		✓	
Active communication with citizens through e.g. citizen's groups, housing associations etc.			✓
B: Practical techniques and technologies available for energy efficiency and implementation of renewable energy			
Energy behaviour (no cost) • Apply simple building energy management procedures • Rational use of electric appliances and equipment • Use windows and building openings appropriately for winter solar access (insulation), summer night ventilation, yearly air quality • Use solar control systems for glare control and summer shading • Use rationally heating/cooling/ventilation systems, combined with maximum use of passive means	✓		
Design new buildings integrating appropriate energy systems (no cost - low cost) • Apply bioclimatic architecture, integrating passive heating and cooling components • Apply energy conservation measures and techniques (i.e. heat pumps, earth-to-air-heat exchangers)		✓	
Repairs/installations of energy consuming appliances (low cost) • Replace lightbulbs with energy efficient ones • Seal cracks for control of infiltration heat losses. • Install and/or replace lamps with compact fluorescent lamps (CFL – efficient lighting) • Install and/or replace domestic appliances with energy efficient ones (using energy labelling – grade A white goods) • Install ceiling fans instead of cooling systems • Install supply/exhaust fans wherever natural ventilation is limited. • Plant/use vegetation for climate control (thermal protection, shading/cooling, microclimate moderation)		✓	
Installations of energy saving systems(low cost – high cost) • Use and/or install control systems (i.e. programmer, room thermostats and TVRs for regulating the heating of building spaces) • Replace hot water boilers fired with liquid fuels by gas condensing boilers with radiators • Replace window systems with energy efficient ones (including double glazing and insulating frames) • Install appropriate external shading devices • Re-design of window systems and installation of glare-control and other daylighting systems • Use special glazing (i.e. low-e) wherever appropriate, mostly in tertiary sector buildings • Add insulation to the building shell • Redesign exterior spaces with bioclimatic criteria-control microclimate • Install energy management systems (in tertiary buildings) • Install use of hybrid cooling systems • Use district heating for apartment blocks or building complexes		✓	
Small scale RES applications in buildings (high-cost) • Installation of solar collectors on building roofs for domestic hot water in existing or new buildings • Integration of passive solar systems in new buildings • Installation of pellets-boilers or heat pumps • Use and/or install photovoltaic systems integrated on building roofs, walls, exterior spaces, etc. • Add/integrate passive solar systems onto existing buildings (sunspaces, Trombe walls, etc.)			✓
C: Community scale measures and policies			
Apply urban planning for energy conservation and RES integration	✓		
Set targets for local future sustainability measures and applications		✓	
Establish municipal energy coordination programme		✓	
Establish municipal subsidy programmes for different target groups			✓
D: Community scale energy infrastructure systems			
Apply district heating and cooling systems to all relevant building complexes and areas where this measure is considered to be economically viable			✓
Use seasonal storage for heating and cooling			✓
Complete retrofitting of all buildings and complexes with integrated energy design			✓
Achieve 100% RES coverage at neighborhood or municipal scale			✓

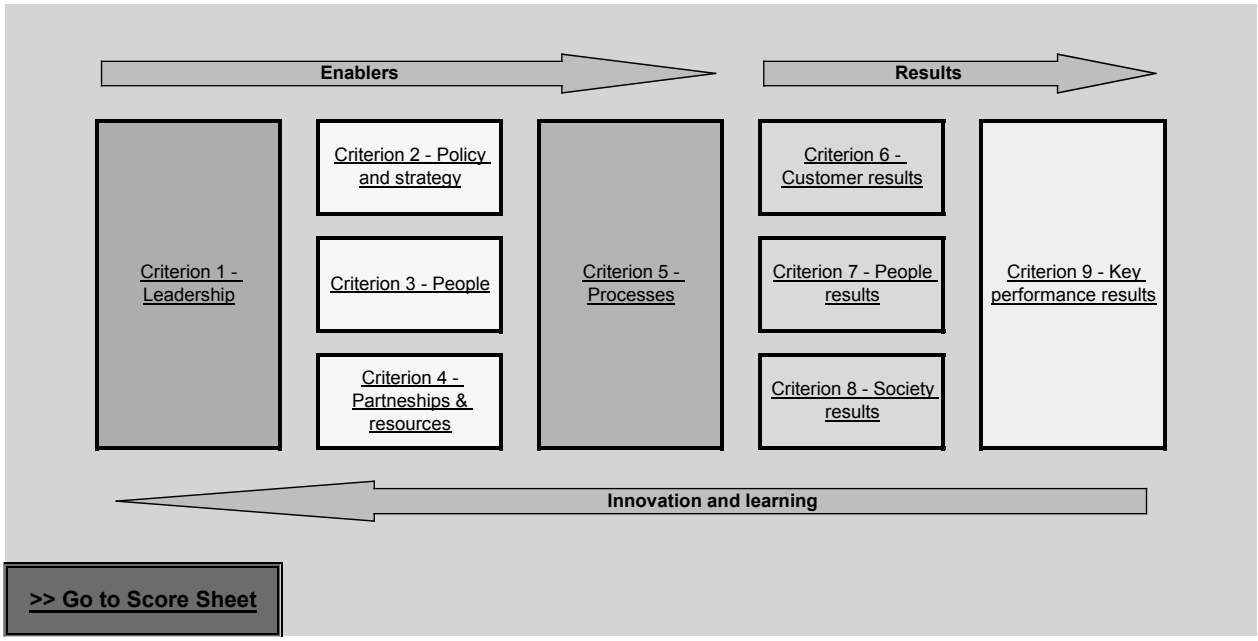


Figure 6: The EFQM Excellence Model

The approach of the questionnaire follows the structure of the EFQM Model which is presented in diagram form below. The arrows emphasise the dynamic nature of the Model. They show innovation and learning helping to improve enablers that in turn lead to improved results.

The main challenge in carrying out these interviews will be to combine the SWOT analysis and the Excellence Model so that the Critical Success Factors that eventually will come out of the SWOT can be categorized in one of the 9 Excellence criteria.

The nine-box structure identifies the main aspects requiring consideration in any organisational analysis. Within each of these boxes a list of criteria is provided. The criteria identify the main issues that need to be considered when assessing an organisation.

The Model's 9 boxes represent the criteria against which to assess an organisation's progress towards Excellence. Each of the nine criteria has a definition, which explains the high level meaning of that criterion.

Questionnaire

The analysis in the following page is intended to be a first step in the mapping of the potential for becoming a Sustainable Energy Community.

Normally, a self assessment such as this focuses on the core organisation of a SEC, e.g. the municipality or regional council. However, this first interview/questionnaire in 3-NITY will take a broader approach, i.e. it will address several stakeholders within the SEC. For this reason, some of the questions may be less relevant for some stakeholders from their own perspective. In such cases, one should try to reply from the perspective of the SEC as a whole.

The scoring goes from 1 to 5 and the panels below indicate what status the SEC-development has come to with reference to the different scores. References to evidence (documents etc) should be provided, however this is not absolute!

Enablers criteria

- Criterion 1 – Leadership

Excellent Leaders develop and facilitate the achievement of the mission and vision. They develop organisational values and systems required for sustainable success and implement these via their actions and behaviours. During periods of change they retain a constancy of purpose. Where required, such leaders are able to change direction of the organisation and inspire others to follow.

- Criterion 2 – Policy and Strategy

Excellent organisations implement their mission and vision by developing a stakeholder focused strategy that takes account of the market and sector in which it operates. Policies, plans, objectives and processes are developed and deployed to deliver strategy.

- Criterion 3 – People

Excellent organisations manage, develop and release the full potential of their people at an individual, team-based and organisational level. They promote fairness and equality and involve and empower their people. They care for, communicate, reward and recognise, in a way that motivates staff and builds commitment to using their skills and knowledge for the benefit of the organisation.

- Criterion 4 – Partnerships and Resources

Excellent organisations plan to manage external partnerships, suppliers and internal resources in order to support policy and strategy and the effective operation of processes. During planning and whilst managing partnerships and resources, they balance the current and future needs of the organisation, the community, and the environment.

- Criterion 5 – Processes

Excellent organisations design, manage and improve processes in order to fully satisfy, and generate increasing value for, customers and other stakeholders.

Results criteria
The key function of this section is to show the results an organization is achieving in relation to the policies, strategies aims, objectives and targets it has set for itself through the enablers. There should therefore be a direct link between what an organization is doing and the results it is achieving. When the results are monitored over a period of time, and presented at least annually, then the organization will be able to show improvements and where negative results have emerged it will also be able to demonstrate why this has happened and the actions taken to improve results.

- Criterion 6 – Customer results

In this results area organizations should be recording their achievements against targets they have set with and for their customers. This may include for example results from customer satisfaction surveys, delivery of products and services and evidence of improvement activity with customer and other stakeholder involvement etc.

- Criterion 7 – People results

In this results area organizations should be illustrating the levels of investment and return on investment in recruitment, training and development. Indices of employee loyalty, commitment and their satisfaction levels with leadership, teamwork, communication, terms and conditions of employment and health and safety arrangements may also be shown. Employee absence levels and labour turnover are just two common indicators measured in this area.

- Criterion 8 – Society results

It is important to recognize here the results of the policies and strategies an organization has in place to improve its overall contribution to environmental, social and economic conditions.

It may also include Societys perception of the organization including its public image.

- Criterion 9 – Key performance results

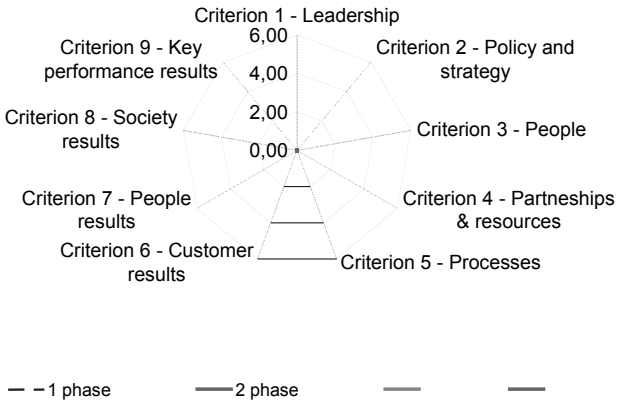
The Financial and Non-Financial Results an organization achieves in relation to its Policy and Strategy are identified here, for example the investment in Research, Innovation and New Technology.

Enablers panel
Score

1. No evidence or only anecdotal evidence of an approach.
2. An approach is planned P (plan).
3. An approach is planned and implemented D (do).
4. An approach is planned, implemented and reviewed C (check).
5. An approach is planned, implemented and reviewed on the basis of benchmarking data and adjusted accordingly A (act).
6. An approach is planned, implemented, reviewed on the basis of benchmarking data, adjusted and fully integrated into the organisation.

Results panel
Score

1. No results are measured.
2. Key results are measured and show negative or stable trends.
3. Results show modest progress.
4. Results show substantial progress.
5. Excellent results are achieved and positive comparisons to own targets are made.



Score sheet
Following the collection of questionnaires, the data will be filled into a score sheet, where eventual qualitative progress can be monitored from one self assessment to the next.

Case Studies

Each of the 8 Sustainable Energy Communities that take part in the 3-NITY project will follow the recommended 3-NITY methodology, including the planning, the measures and activities as well as the Excellence part.

The municipality of Skedsmo has been used as a test-bed for the whole process, and already before the project has reached its interim stage (half way), certain interesting results can be seen:

1. Energy and climate has been incorporated as a separate chapter in the overall Municipal Plan[8].
2. The plan that will be developed during the 3-NITY project will get the status "Municipal sector plan", thus becoming an official and integrated part of the planning hierarchy in Skedsmo.
3. In addition to the quantitative part (KRAM/REAM), the energy- and climate plan is highly activity oriented. As many as 60 specific measures and activities have already been identified. These activities range from introducing the Display Campaign "European Municipal Buildings Climate

8. www.skedsmo.kommune.no

Campaign"[9] where all municipal buildings are labelled, to expanding the already existing district heating system.

4. A number of local stakeholders are now actively engaged in the 3-NITY project. Together with the municipality, these have been invited to provide input to the planning process through in-depth interviews that follow the methodology of the EFQM model. The aim is to identify specific areas where the municipality can improve.

5. Skedsmo is hosting the Regional University "Høgskolen i Akershus"[10]. Together with other local stakeholders such as energy and environmental reseach institutes, local businesses as well as the regional utility "Akershus Energi"[11], the municipality is currently chairing the development of a regional Cluster for energy and environment. As part of this cluster, the regional university will start a new B.Sc programme specifically aiming to support the region with skilled staff.

6. The neighbouring municipalities are eager to follow in the footpaths of Skedsmo, and intitiatives have been taken to carry out similar processes in the other municipalities in the region. The regional council support this initiative, and will furthermore push forward the development of a regional plan which is based on all these local plans. This will requires a common methodology, and the 3-NITY methodology will be well placed to do this.

7. The regional council and the regional utility aims to establish a local/regional energy agency in the region to support the municipalities with technical capacity an information/ dissemination skills. The aim is to prepare a proposal to the Intelligent Energy – Europe programme for this puropse during 2007.

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