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## Position paper – SWEDEN

*(WP2 EXPERIENCE AND VIABILITY OF NZE REFURBISHMENT PROJECTS –  
D2.7, position paper)*

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## THE EU INITIATIVE NEARLY ZERO ENERGY HOTELS (neZEH)

neZEH's scope is to accelerate the rate of refurbishment of existing hotels into Nearly Zero Energy Buildings (nZEB), providing technical advice to hoteliers for nZEB renovations, demonstrating the sustainability of such projects, challenging further large scale renovations through capacity building activities, showcasing best practices and promoting the front runners. The project covers seven (7) EU countries: Greece, Spain, Italy, Sweden, Romania, Croatia, France and has a wide EU level impact.

The expected results are:

- An integrated set of decision support tools to assist hoteliers in identifying appropriate solutions and designing feasible and sustainable nZEB projects;
- A dynamic communication channel between the building sector and the hotels industry, which will enable the exchanging between demand and supply side and the endorsement of the nZEB concept;
- Demonstration pilot projects in 7 countries to act as "living" examples; aiming to increase the rate of nZE renovation projects in the participating countries
- Practical training, informational materials and capacity building activities to support nationally the implementation and uptake of nZEB projects;
- Integrated communication campaigns to increase awareness for the nZEB benefits, to promote front runners and to foster replication; challenging much more SMEs to invest in refurbishment projects in order to achieve nZE levels.

In the long term, the project will assist the European hospitality sector to reduce operational costs, to improve their image and products and thus to enhance their competitiveness; contributing in parallel to the EU efforts for the reduction of GHGs.

neZEH started at May 2013 and will end at April 2016 and is co-financed by the Intelligent Energy - Europe (IEE) programme.

## PROJECT PARTNERS

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World Tourism Organization (UNWTO)	EU/Int.
Network of European Regions for a Sustainable and Competitive Tourism (NECSTouR)	EU
Federation of European Heating, Ventilation and Air-conditioning Associations (REHVA)	EU
Agency of Braşov for Energy Management and Environment Protection (ABMEE)	Romania
Creara Consultores S.L. (CREARA)	Spain
ENERGIES 2050 (ENERGIES 2050)	France
Energy Institute Hrvoje Požar (EIHP)	Croatia
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# 1. INTRODUCTION

The main objective of neZEH project is to stimulate and accelerate the rate of refurbishment of existing SME (small and medium enterprises) hotels into Nearly Zero Energy Buildings. National position paper identifies the needs of all involved stakeholders, from owners and policy makers to financial institutions. This document is based on discussions that took place since the beginning of the project with various stakeholders involved in the subject (hotel owners and managers, supporting institutions, policy makers, financial institutions, professionals of the building sector and engineers). These discussions took place on various occasions, either official or informal, such as:

- Meetings with stakeholders:
  - Hotel Association - VISITA
  - Swedish Energy Authority - EM
  - Boverket
  - Energy Auditors - ÅF
- Phone calls and bilateral meetings with:
  - Hotel owners and managers
  - West Göteland region – Department of Industry
  - Architects
  - The Swedish Agency for Economic and Regional Growth
  - Financial institutions
  - Public

Further, the position paper is based on a number of documents, relevant for analyzing the situation of buildings, specifically tertiary sector in Sweden and for identifying potential improvements, supporting mechanisms and overall goals.

- <http://www.boverket.se/sv/om-boverket/publicerat-av-boverket/publikationer/2015/forslag-till-svensk--tillampning-av-nara-nollenergibyggnader/>  
(in swedish)
- Energimyndigheten (2012), Färdplan 2050 - Energimyndighetens underlag för sektorn

bostäder och lokaler till Naturvårdsverkets uppdrag med en färdplan för ett Sverige utan nettoutsläpp av växthusgaser år 2050 . ER 2012:28.

- Propositionen Nationellt program för energieffektivisering och energismart byggande (prop.2005/06:145)
- Boverket och Energimyndigheten (2015), Utvärdering av lågenergibyggnader—en fallstudie:2015:25.

This document is based on the EU level position paper available at NEZEh website provided by project partners Federation of European Heating, Ventilation and Air-conditioning Associations (REHVA) and World Tourism Organization (UNWTO).

## 2. RATIONALE

**2.1 Tourism in Sweden contributes to 2.6-2.8% of GDP.** Tourism in Sweden accounted for a total of SEK 268.5 billion in 2014, an increase of 5.2 percent since 2013. Foreign visitors spent SEK 96.5 billion while domestic leisure and business travellers spent SEK 172 billion, which is equivalent to increases of 12.5 and 1.4 percent, respectively, compared with the previous year. Since 2000, the total volume of trade in tourism in Sweden has increased by 78.9 percent at nominal prices. Tourism's share of Sweden's GDP since 2000 has oscillated between 2.6 and 2.8 percent, indicating that tourism's share of GDP has remained at a fairly consistent level in relation to the economy in total.

During the last fifty years tourism has experienced continued expansion to become amongst the largest and fastest-growing economic sectors globally. International tourist arrivals worldwide are expected to increase by 3.3% per year between 2010 and 2030 to reach 1.8 billion by 2030. In Europe arrivals grew by 3%, in 2014 covering 51.4% of the total world tourist arrivals.

In 2014, the average number of employees in tourism was 159,200, an increase of almost 22 percent since 2000. Sweden's total employment figure during the same period increased by 10 percent. While employment in many traditional basic industries in Sweden has fallen, tourism has helped to create more jobs in a variety of service industries.

**2.2 Buildings consume 40% of the total of energy and emit 36% of greenhouse gases** in the EU and Sweden, so the building sector is a key priority of the EU's energy efficiency related policies. Two key directives target buildings energy efficiency: the Energy Performance of Buildings (EPBD recast)<sup>1</sup> and the Energy Efficiency Directives (EED)<sup>2</sup> that are to be implemented by every EU Member State. Although not fully defined in the final agreement this is in harmony and priorities of the COP21, where the neZEh project organized and participated in different events.

<sup>1</sup> Directive 2010/31/EU

<sup>2</sup> Directive 2012/27/EU

**2.3 The neZEH initiative provides SME hotels the opportunity to achieve NZEB performance levels**, by defining an acceptable definition of what should be a nearly zero energy hotel (neZEH) level, as well as offering tailored technical assistance for deep energy renovation of the buildings and showcasing best-practice examples. This approach can lead to up to 50% energy consumption reduction and to 70% savings in operational costs. Because of the specificity of the accommodation sector – associated with buildings, but which total use of energy relates as well to a range of hosting and non-hosting functions - the neZEH initiative is addressing this gap by considering and proposing policies related to the specificities of accommodation sector at EU level, within national NZEB policies.

**2.4 The neZEH policy paper aims at addressing the tourism - energy - buildings nexus for EU Policy makers.** It provides some insights of the state of play of the SME-size accommodation industries in relation to the building energy efficiency requirements stated in the EPBD and the EED. It identifies existing and missing supporting measures for the improvement of hotels energy performance, based on countries in which the neZEH Consortium has carried out pilot projects in SME hotels. Ultimately, it provides EU level policy makers identified challenges and gaps, and suggests a set of possible policies and measures.

## 3. EXISTING NATIONAL POLICIES ON NZEB AND ENERGY REFURBISHMENT OF HOTELS

As reported elsewhere, there are no existing nZEB policies with regard to large-scale refurbishment of existing hotel in Sweden. The National Energy Authority has given The Swedish National Board of Housing, Building and Planning – BOVERKET - the assignment to investigate the nZEB definition and values for Sweden and a report with recommendations is expected mid 2016.

The lack of a national definition accounts for the lack of any national policy. This is also reflected in the complete lack of any kind of funding scheme to assist hotels and the plan to refurbish hotels towards nZEB status. There is a clear need for:

1. nZEB definitions and goals in general and for the hospitality sector in particular.
2. National and regional policies for the hospitality sector
3. Technical knowledge/assistance to prepare and implement hotel refurbishment projects to achieve nZEB goals. Current focus is very much on implementing just energy efficiency measures and less on combining this with renewable energy sources, which indicates a lack of understanding of the nZEB concept.
4. Financial support or funding schemes at regional/national levels – currently, as was confirmed by hoteliers, there is a lack of funding to support this initiative. Some banks are beginning to consider “green” loans to businesses, but this is very much in the embryonic stage.
5. National nZEB strategies for the hospitality sector.

## 4. COMMON FEATURES OF SME HOTELS

The neZEH initiative, through its approach with pilot countries/hotels aims to accelerate the rate of large-scale refurbishment of SME hotels to achieve nearly zero energy status. To meet the challenges facing the accommodation industry in relation with energy performance measures, neZEH project provides an integrated approach to pilot SMEs to respond to these existing challenges.

- SME Hotels highest priority is to reduce their operations costs and to boost their competitiveness. However in the majority of the neZEH countries, reducing energy usage in relation to operational costs requires a heavy investment in energy efficiency solutions.
- SME Hotels lack technical knowledge about and awareness of buildings energy efficiency issues; they do not have skilled technical personnel in charge of the technical building maintenance or dealing with energy management issues.
- The majority of SMEs cannot prepare their own refurbishment plans, are lost when it comes to look for incentives related to energy measures, and do not have access to private loans in the current economic environment.
- SME hotels do not have the capacity to leverage available support policies and do not know how to use available existing support schemes for investing in efficiency. Furthermore, they lack of information on how to plan and implement energy efficiency investments.
- SME Hotels have difficulties in understanding the full economic benefit of investing in energy retrofit in cooperation with private energy consultancy companies
- The SME hotels business model can be a burden in engaging towards neZEH levels. Many hoteliers do not own the building in which they operate.
- Resource efficiency/sustainability certification schemes are the most common approaches SME Hotels can relate to for understanding neZEH level requirements.

The implementation of energy performance measures by the accommodation industry presents opportunities to boost their competitiveness, but is not always well understood or the capacity to engage is limited. Such measures require the attention and support from the related policy makers at the local level.

## 5. SPECIAL CHARACTERISTICS AND NEEDS OF THE LOCAL HOSPITALITY SECTOR AND THE HOTEL BUILDINGS

- In Sweden the total turnover increased with 13,2 billion SEK (corresponds to 5,2 %) during 2014. The export value (the foreign visitors' consumption) increased with 10,7 billion SEK corresponding to recording 12,5 %. Last year the Swedish hospitality sector provided 60,4 million guest nights.

- A large number of Swedish hotels are very dependant on providing conference facilities. Such conference hotels may not necessarily be available to any guest not participating in the conference (some will make rooms available should the situation permit) This means that, as opposed to more traditional hotels, their season is from September to June, and any refurbishments/renovation work is carried out during the summer period when these hotels tend to close due to lack of conferences.
- Not all hoteliers own their hotel building. A common characteristic across Swedish hotels is that the hotel building itself is owned by a property company and leased/rented by the hotelier. This can cause issues when deciding what energy efficiency measure/renewable energy sources to implement and who pays for what. It would be useful for the neZEH project to address this issue and to understand if this is a possible barrier to achieving nZEB status.
- There is a strong positive trend towards sustainability in general terms including energy efficiency, renewables, food, waste, chemicals and materials.
- Hoteliers are overwhelmed by companies selling energy efficiency technology, but without any independent means to assess the feasibility/benefits/advantages of such technology for their hotel. As a result, hoteliers are rather skeptical of sales staff and new solutions.

## 6. POLICY RECOMMENDATIONS FOR REGIONAL AND NATIONAL POLICY MAKERS

**ISSUE 1: National nZEB definitions and associated goals/values are required**

**ISSUE 2: National Incentive schemes required to help the hospitality sector get started and begin accomplishing nZEB goals.** This could extend from providing access to funding independent energy audits to sustainable national incentive schemes.

**ISSUE 3: Independent credibility analysis of technical solutions - Hoteliers are often confronted by a large number of technical solutions, many of which are unfamiliar to them.**

While solutions may seem viable (certainly according to the sales staff), it is often unclear if the investment required will provide the expected return. There is a demand for some form of independent assessment facility. The energy auditors should be an independent source of knowledge here.

**ISSUE 4: Hotels contacted have expressed a need for independent technical support to help them through the renovation process.** There is also an apparent general lack of technical knowledge about what is required to achieve nZEB status.



## neZEh TEAM



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World Tourism Organization



Network of European Regions for a Sustainable and Competitive Tourism



Federation of European Heating, Ventilation and Air-conditioning Associations



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