SUSTAINABILITY REPORT
2015-2016

Our footprint

Our impact

THE GLOBAL GOALS
For Sustainable Development

Danish Energy Management & Esbensen
A part of Danish Management Group

COMMUNICATION FROM OUR CEO

Danish Energy Management & Esbensen is very excited to be getting involved with the Global Compact, with the initiation of the Sustainable Development Goals (SDGs) in 2015, and looking towards the sustainability targets for 2030. Our internal initiative towards sustainability measurement was spearheaded by our participation in the United Nations Sustainable Development Summit 2015, in New York.

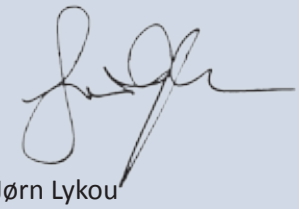
However, the principals of the Global Compact have a long tradition in the organization as a whole. In 2003 the Danish Management Group adopted a Code of Ethics and Business Integrity Management System, which was created following the ten (then nine) principals of the United Nations Global Compact, and the OECD's Guidelines for Multinational Enterprises, using these as a standard for business practice. In this way, our membership to the Global Compact builds upon more than a decade of work that has been done to systematically ensure that human rights are respected, labor standards are upheld, environmental impacts are minimized in all activities, and corruption is combated in all forms.

As we move forward, participating in the Global Compact and working with the SDGs gives us a platform to take the Business Integrity Management System further, by adopting a company vision and strategy that addresses sustainability directly. It is an opportunity to create a clear picture for all of our employees and stakeholders regarding our passion and purpose for working with energy, and how we can measure and benchmark our progress.

At Danish Energy Management & Esbensen we are performing our daily work in a company that actually can and does make a difference toward achieving the Sustainable Development Goals laid out by the United Nations. We work sustainably with Integrated Energy Design of new buildings and urban planning, Energy Policy, Energy Efficiency, Renewable Energy and Monitoring & Evaluation – in accordance with OECD-DAC criteria – worldwide, and with specific support for SDG number: 7) affordable and clean energy, 11) sustainable cities and communities, 13) climate action and 17) partnerships.

Working in full support of the Global Compact's ten principals and Sustainable Development Goals is very important to us because we are now able to measure the impact of our daily work AND put it into perspective. This includes our domestic and international markets and all of our stakeholders globally. We are motivated to embark on this journey, and look forward to where it will lead us in the future.

Yours sincerely



Jørn Lykou
CEO

"We are performing our daily work in a company that actually can and does make difference toward achieving the Sustainable Development Goals laid out by the United Nations"

OUR FOOTPRINT

Danish Energy Management & Esbensen
A part of Danish Management Group

HUMAN AND LABOR RIGHTS

HUMAN RIGHTS

Danish Energy Management & Esbensen respects and protects all internationally proclaimed human rights, and strives to prevent any discrimination practices. In addition, we are committed to ensuring equal opportunities. We respect cultural and religious differences and see these differences as a strength that allows us to achieve our vision and tailor our consultancy services to the needs and requirements of our clients.

LABOR STANDARDS

Danish Energy Management & Esbensen respects all international declarations adopted by the International Labor Organization. Fair wages reflect the qualifications of employees and the local average wage level. We do not accept any form of forced labor and/or child labor under any circumstances and include this as a parameter when choosing sub-suppliers and sub-contractors. In addition we respect the freedom of association and the right to collective bargaining.

We have developed and implemented structured plans for continued education for all groups of our employees and we support employee initiatives to upgrade their qualifications. These standards are enforced in all of our activities including the solutions we provide to our clients as a result of our consultancy.

Danish Energy Management & Esbensen also endeavors to secure the well-being of our employees and their families. We secure a balance between work and family and respect local traditions and needs.

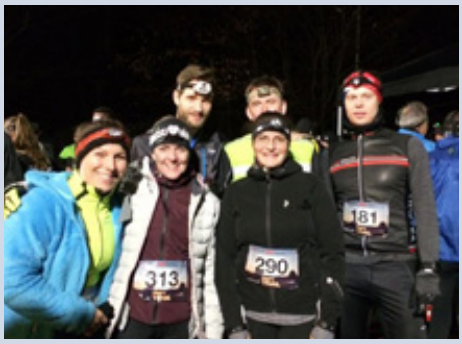
FOCUS ON EMPLOYEES: WORK-LIFE BALANCE

At Danish Energy Management & Esbensen, a number of social arrangements provide employees with the opportunity to socialize in different contexts, often including exercise and outdoor activities. For all group employee activities that promote health, Danish Energy Management & Esbensen sponsors the full cost of participation, as well as sports clothes. And to ensure that there is plenty “hygge” in-house as well, Fridays offer bread rolls in the morning, and refreshments to end the day.

In terms of what is being planned for the future, in 2017 an employee association will be established at the headquarters in Aarhus, for the purpose of arranging a wide range of activities that allow employees to relax and socialize outside of the office setting. Suggestions proposed thus far include wine tasting, bowling, trips to the cinema and arranging trips for employees and their families to go to an amusement park. Family trips are a way to let families get to know one another, and for children to see who mom or dad work with every day. Having an employee association is a way for employees to gather around something other than work, and get to know each other on a more personal level. Employees in Copenhagen and Sønderborg are also encouraged to create their own associations with common activities.

EMPLOYEE HEALTH AND WELL-BEING

- Throughout 2015, employee health was in focus through providing daily fresh fruit for employees, and holding weekly badminton practice at a local sports hall in Aarhus.
- In 2015 Danish Energy Management & Esbensen also participated once again in the DHL Relay Race. The DHL Relay Race is the world's largest with more than 206,000 participants. The DHL Relay Race commits employeees to work together as a team, not only taking responsibility for one's own task, but also having confidence in teammates. The DHL Relay Race is true Danish "hygge" at its best. It combines a team running event with outdoor grilling, tiki lights and ending the evening with fireworks.
- For a number of years, employees have participated in the Danish "We Bike to Work" initiative, where starting May 1st, employees compete in teams to see who can bike the largest number of kilometers in one month, to and from work. The winning team then receives prizes.
- During the dark winters in Denmark, employees are also invited to participate in Night Trail, where small trails, steep hills, mud, water, sand and darkness are combined. This gives employees the opportunity to explore places that they have not been before. Employees participate in a 5 km run in the woods, where trails are well marked, but can only be seen with head lamps. The trails have been tested by some of the world's best orienteering runners.
- From the beginning of 2016, soccer matches have been arranged for employees once a month. Ongoing soccer matches are scheduled with employees' workload taken into consideration. The purpose of these matches is, above all, to have a good time in addition to benefiting from fresh air and exercise.



ENVIRONMENTAL CARBON FOOTPRINT REPORT

INTRODUCTION

Danish Energy Management & Esbensen (DEM-ESB) places major focus on energy projects worldwide within the field of renewable energy, energy efficiency, demand side management, climate change, sustainable development, rural energy/electrification, energy policy and energy legislation. This report follows The Greenhouse Gas (GHG) Protocol Corporate Standard[1], under which DEM-ESB is classified as a service sector/office based organization. Preparation of this report was also aided by the World Resources Institute calculation tool Working 9 to 5 on Climate Change: An Office Guide[2].

ORGANIZATIONAL AND OPERATIONAL BOUNDARIES AND BASE YEAR

This carbon footprint report estimates the GHG-emissions caused by DEM-ESB activities in the reporting year 2015 (May 1, 2015 - April 30, 2016). The 2015 reporting year is also the base year for reporting on verifiable emissions data. This year has been chosen because it was during this time that the company Esbensen Consulting Engineers merged with Danish Energy Management, creating Danish Energy Management & Esbensen A/S. The operational boundary covers scope 1, scope 2, and part of scope 3 (business travel) with relation to all DEM-ESB offices in Denmark. Each scope is defined by the GHG protocol.

The DEM-ESB offices included in the 2015 reporting year are:

- Aarhus
- Sønderborg
- Copenhagen

Activities related to scope 1, scope 2 and scope 3 have been selected based on the operations of DEM-ESB, the accessibility to data, and the possibilities that exist for influencing emissions reduction.

THE ACTIVITIES INCLUDED UNDER EACH SCOPE ARE:

SCOPE 1

- Use of company cars for business purposes – managers
- Use of company cars for business purposes – employees

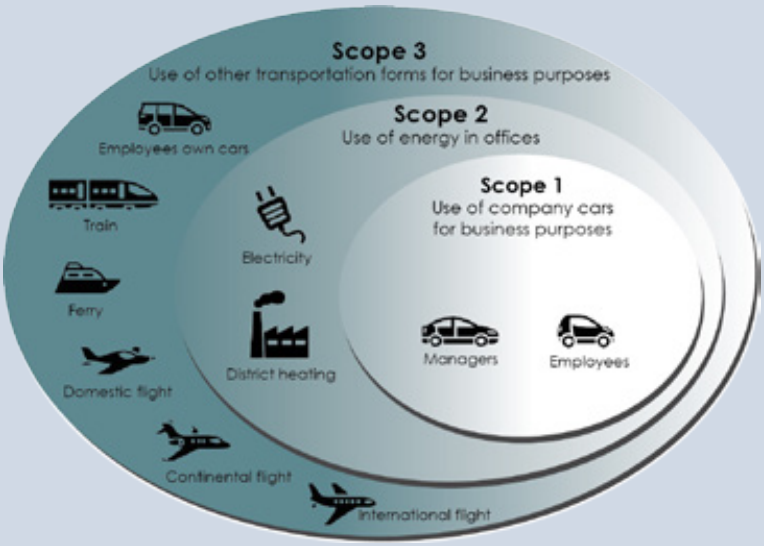
SCOPE 2

- Electricity use in offices
- District heating used in offices

SCOPE 3

- Use of employee cars for business purposes (car allowance)
- Transportation by train
- Domestic air transport
- Continental air transport
- International air transport

1 http://www.ghgprotocol.org/standards/corporate-standard
2 http://www.ghgprotocol.org/files/ghgp/tools/working9-5.pdf



SCOPE 1:
Direct emissions caused by fuel consumption

SCOPE 2:
Indirect emissions caused by consumption of collective energy supply

SCOPE 3:
Indirect emissions caused by consumption of products and services

We do not include "employee commuting in non-company-owned vehicles to and from work" in our base year report. However, DEM-ESB does participate in the campaign "Vi Cykler til Arbejde," which encourages employees to ride their bikes to work, and includes an internal team contest and prizes. During this one-month long campaign (May - June 2015), the 34 participants biked a total of **4031 km**, and saved a total of **657 kg CO_2**.

In future reports, we may include additional activities, old activities may be excluded, or new measurement systems and sources may be applied. In the case that these activities represent a combined 10 percent change in the base year emissions, DEM-ESB will conduct a recalculation and back-cast these data points.

RESULTS 2015

To calculate results, emissions are categorized as either direct (Scope 1) or indirect (Scope 2 & Scope 3). Direct, Scope 1, emissions are those that are directly caused by a source that the company owns or controls.

Indirect, Scope 2 and Scope 3, emissions are derived from the company's consumption of energy products and services, where the company does not own or control the emissions source.

Following the GHG Protocol Corporate Standard, the direct and indirect emissions are divided into three scopes:

Scope 1 (mandatory):

All direct emissions caused by the company, e.g. emissions from company owned cars, or combustion of fossil fuels such as natural gas in company-owned equipment.

Scope 2 (mandatory):

All indirect emissions caused by the company's purchase of energy, including electricity and district heating.

Scope 3 (optional):

Other indirect emissions caused by consumption of products and services e.g. business travel in non-company-owned vehicles (car, plane, and train), waste produced, outsourced activities, etc.

TOTAL CO_2 EMISSIONS IN THE 2015 REPORTING YEAR

	2015	
ACTIVITIES	**CO_2 EMISSIONS (TON)**	**% SHARE**
SCOPE 1		
Use of company cars for business purposes – managers	1.34 tCO_2	0.68 %
Use of company cars for business purposes – employees	3.68 tCO_2	1.86 %
SCOPE 2		
Electricity use in offices	41.82 tCO_2	21.12 %
District heating use in offices	29.74 tCO_2	15.02 %
SCOPE 3		
Use of employee cars for business purposes	17.27 tCO_2	8.72 %
Transportation by train	2.00 tCO_2	1.01 %
Domestic ferry transport	2.70 tCO_2	1.36 %
Domestic air transport	2.95 tCO_2	1.49 %
Continental air transport	19.35 tCO_2	9.77 %
International air transport	77.17 tCO_2	38.97 %
Total	**198.02 tCO_2**	**100 %**
OFFSETS		
Middelgrundens Vindmøllelaug	Electricity generated from DEM-ESB share (300 shares): 352 MWh	196 % of DEM-ESB (119 MWh) electricity that this represents (covering more than office use of electricity)
Hvidebæk biomass district heating plant/ solar thermal	Heat generated from DEM-ESB share (49%): From straw bale: 5793 MWh From solar heating: 1699 MWh Total: 7,492 MWh	4612 % of DEM-ESB (159 MWh) heat that this represents (covering much more than office use of heat)

At DEM-ESB, there are no boilers etc. in buildings that could contribute to own oil/gas use. For this reason, our Scope 1 consists of “use of company cars for business purposes – managers” and “use of company cars for business purposes – employees.” The company cars used by managers as their personal car only registers the kilometers driven to and from work, and to and from clients for business purposes.

ANTI-CORRUPTION

BUSINESS INTEGRITY PLAN

Danish Energy Management & Esbensen follows an applied Code of Ethics and Business Integrity Management to prevent corruption, and encourage integrity, social and ethic responsibility. Our Code of Ethics and Business Integrity Management follows the United Nations Global Compact's ten principles, and we are committed to following OECD's Guidelines for Multinational Enterprises, using these as a standard for business practice. Danish Energy Management & Esbensen is committed to working towards sustainable development with a systematic approach ensuring that human rights are respected, labor standards are met and environmental impact is minimized in all aspects of our activities. In addition, we do not accept any kind of corruption, commission or bribery.

Business integrity is also enforced when choosing our suppliers, subcontractors and external experts, and we encourage our business partners to ensure human rights, labor standards and continuous improvement of their environmental impact. We fully respect all international and national laws and regulations that are relevant for our business in Denmark and other countries where Danish Energy Management & Esbensen has activities.

It is important for Danish Energy Management & Esbensen that all the services we provide are accomplished with integrity. We ensure that throughout the design of projects, planning of services and implementation of projects, we allocate resources to this.

BUSINESS INTEGRITY MANAGEMENT SYSTEM

On each assignment the nominated Business Integrity Manager and the Internal Project Director along with Team Leader will ensure that all activities within this project comply with Danish Energy Management & Esbensen's Business Integrity Management System.

CODE OF CONDUCT

Danish Energy Management & Esbensen's Code of Conduct is based on loyalty, impartiality and mutual respect. Employees are aware of its contents and having worked for the EU on a number of occasions, are also aware of the standard rules. We also take our anti-corruption strategy seriously.

ANTI-CORRUPTION STRATEGY

Danish Energy Management & Esbensen has a concrete anti-corruption strategy/ policy and procedures that ensure that it is implemented. The strategy recognizes that individual perceptions of corruption vary and that it can be complex to provide clear guidance to ensure that our employees protect the integrity of the company and that they are not placed in a compromising position. This policy also recognizes that corruption takes several forms: bribery and extortion, collusion, other non-monetary incentives and other initiatives that provide the business with an improper advantage.

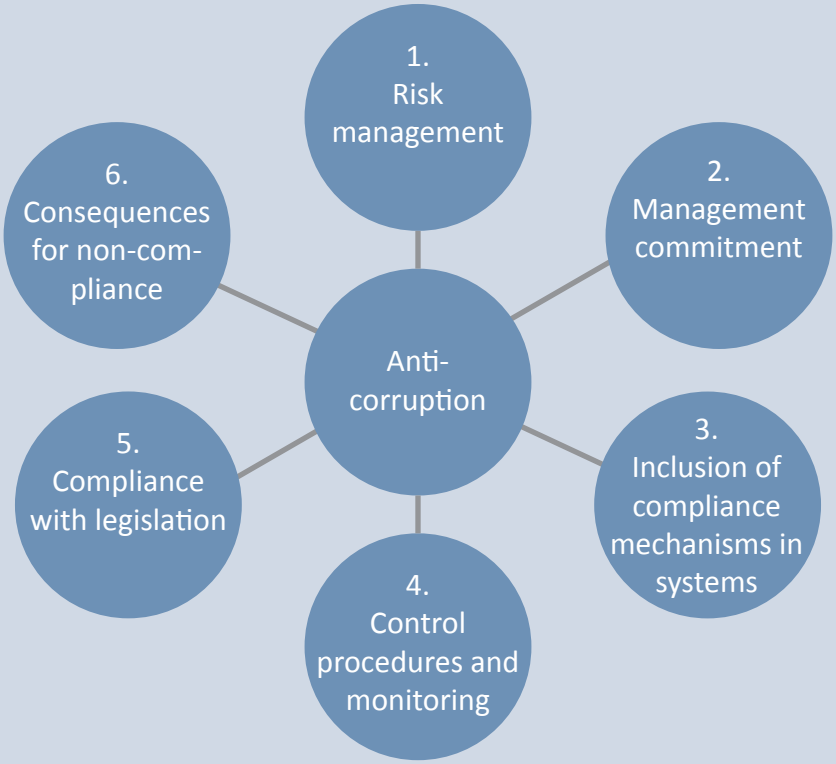
Danish Energy Management & Esbensen's anti-corruption policy ensures:

- ***Client, staff and investor confidence in the company's stability and performance***
- ***Limited Business disruption and that staff time is not distracted from core business***
- ***Prevention of the risk of litigation and prosecution***
- ***Accountability for all employees and agents of the company.***

The team leader is responsible for the daily implementation of the BIMS. Other experts will be responsible for following the guidelines laid out in the BIMS with respect to the objectives of each assignment.

PROCEDURES TO SUPPORT OUR POLICY

The implementation of the anti-corruption strategy incorporates six components:



BUSINESS INTEGRITY MANAGEMENT SYSTEM (BIMS)

TASK	ROLE	RESPONSIBILITY	AUTHORITY
BIMS	Define the BIMS	BIMS Manager	BIMS Manager approves
Implement BIMS	Ensure daily compliance with BIMS	Head of BIP task force (PD / Project Director) Team Leader (TL)	BIMS Manager approves TL implements PD/TL plan
Develop BIMS guideline and procedures	Prepare and update all guideline and procedures	Head of BIP task force (PD)	BIMS Manager approves PD implements and plans
Training and awareness	Identification of training needs, training of employees	Head of BIP task force (PD)	BIMS Manager approves BIMS Manager / PD implement and plan
Communication	– Internal communication – External communication	Head of BIP task force (PD)	PD approves TL/PD implement and plan
BIMS document control	Document control system	QMS Manager (QM)	TL approves QM implements and plans
Monitoring of compliance with BIMS	Develop methods for monitoring and performing monitoring	Head of BIP task force (PD)	BIMS Manager approves PD implements and plans

TARGETS AND ACHIEVEMENTS

Progress: ▲ – Achieved ● – In progress ■ – Delayed

OBJECTIVE	INITIATIVE	DESCRIPTION	TIME FRAME	STATUS
Sustainable energy & contributing to the achievement of 2030 objectives	Solar panels	Solar panel on the roof of HQ to cover a percentage of the energy consumption	2 - 3 years	●
Reduction of CO_2 emissions & contributing to the achievement of 2030 objectives	Hybrid or electric car	As cars need to be replaced for offices in Denmark, replace them with electric or hybrid cars	4 - 5 years	●
Environmental sustainability and contributing to achievement of 2030 objectives	Become an active member in the Global Compact	DEM-ESB participated in the GC Nordic Network in 2016 DEM-ESB plans to present at the GC Nordic Network in 2017	Achieved 1 year	▲ ●
CO_2 reduction and employee health and well-being	"We Bike To Work" initiative	Starting May 1st of each year, employees create teams and compete to see which team has biked the most kilometers during the month	Achieved	▲
CO_2 reduction and contributing to achievement of 2030 objectives	Paper recycling	Separate and recycle paper as confidential material	1 - 2 years	●
Environmental sustainability	Organic fruit and milk		1 - 2 years	●
Environmental sustainability	FSC certified paper	Using only paper which is FSC certified	Achieved	▲
Environmental sustainability and energy savings	Lighting	LED lighting in the offices and motion sensors	Copenhagen Achieved Aarhus & Sønderborg 1 - 5 years	▲ ●
Environmental sustainability and energy savings	Power savings strips	Can substantially reduce the amount of power used when combined with an awareness campaign	1 year	●
Environmental sustainability and employee health and safety	Ventilation	Regulation of the existing ventilation and installation where it is needed, improving energy savings and employee health	4 - 5 years	●

OBJECTIVE	INITIATIVE	DESCRIPTION	TIME FRAME	STATUS
Environmental sustainability and contribution to achievement of 2030 objectives	Water saving	Water saving taps, toilets, dishwashers, etc.	Ongoing	●
Employee well-being and positive work environment	Game nights	Social activity where colleagues meet after working hours to play board games and socialize.	1 year	●
Employee well-being and positive work environment	Employee association	Association that arranges activities for employees and their families at regular intervals.	1 year	●
Employee well-being and positive work environment	Knowledge and innovation project	Three year project in connection with the Danish Innovation Fund focusing on DEM-ESB knowledge sharing and innovation processes	1 year	●
Employee health and safety	Safety equipment	Provide company safety vests and helmets to be used for on-site visits	1 year	●
Employee health, safety and well-being	Workplace risk assessment (APV)	Screening to evaluate work environment and improvement areas	1 year	●
Employee health and well-being	Guideline for working, on an individual basis, with employees effected by stress	A guideline to handle stress on an individual basis, together with their nearest manager, including the opportunity to bring people back to their jobs in a timeframe that meets their needs	1 year	●
Employee health and well-being	Private health insurance	Promoting good health by contributing to access to medicines and vaccination, and early detection of diseases	1 year	●
Employee health and well-being	Incorporate the 6th vacation week	Employees begin getting additional time for vacation in 2016, and the 6th vacation week will be fully rolled out in 2018	3 years	▲
Employee well-being	Pension	Pre-existing pension is being improved by automatic increase which will be fully rolled out in 2019	4 years	▲
Human rights and contribution to the achievement of 2030 objectives	Participation in Refugees Professional Program	Month-long internship placement through participation in the Refugees Professional Program by IDA – providing refugee engineers in Denmark with an insight into the Danish job market	1 year	●
Employee health and well-being	Access to employee shower facilities	For employees who bike to work	1 year	●

OUR IMPACT

THE GLOBAL GOALS
For Sustainable Development

Danish Energy Management & Esbensen
A part of Danish Management Group

OUR PASSION FOR ENERGY

Based on a passion for energy, at Danish Energy Management & Esbensen we strive to build a future where energy is applied efficiently and sustainably in an affordable way. Our sustainability strategy reinforces this passion, directly linking our services to the important work that we do both in Denmark and abroad.

To obtain greater impact for scarce energy resources, and strengthen climate efforts, we continuously develop innovative consulting approaches, methods and tools that improve sustainability. We help our clients, partners & stakeholders achieve sustainability – and measure it – in line with the United Nations Sustainable Development Goals (SDGs)!

Our passion for energy is most directly linked to four of the 17 UN Sustainable Development Goals, namely:

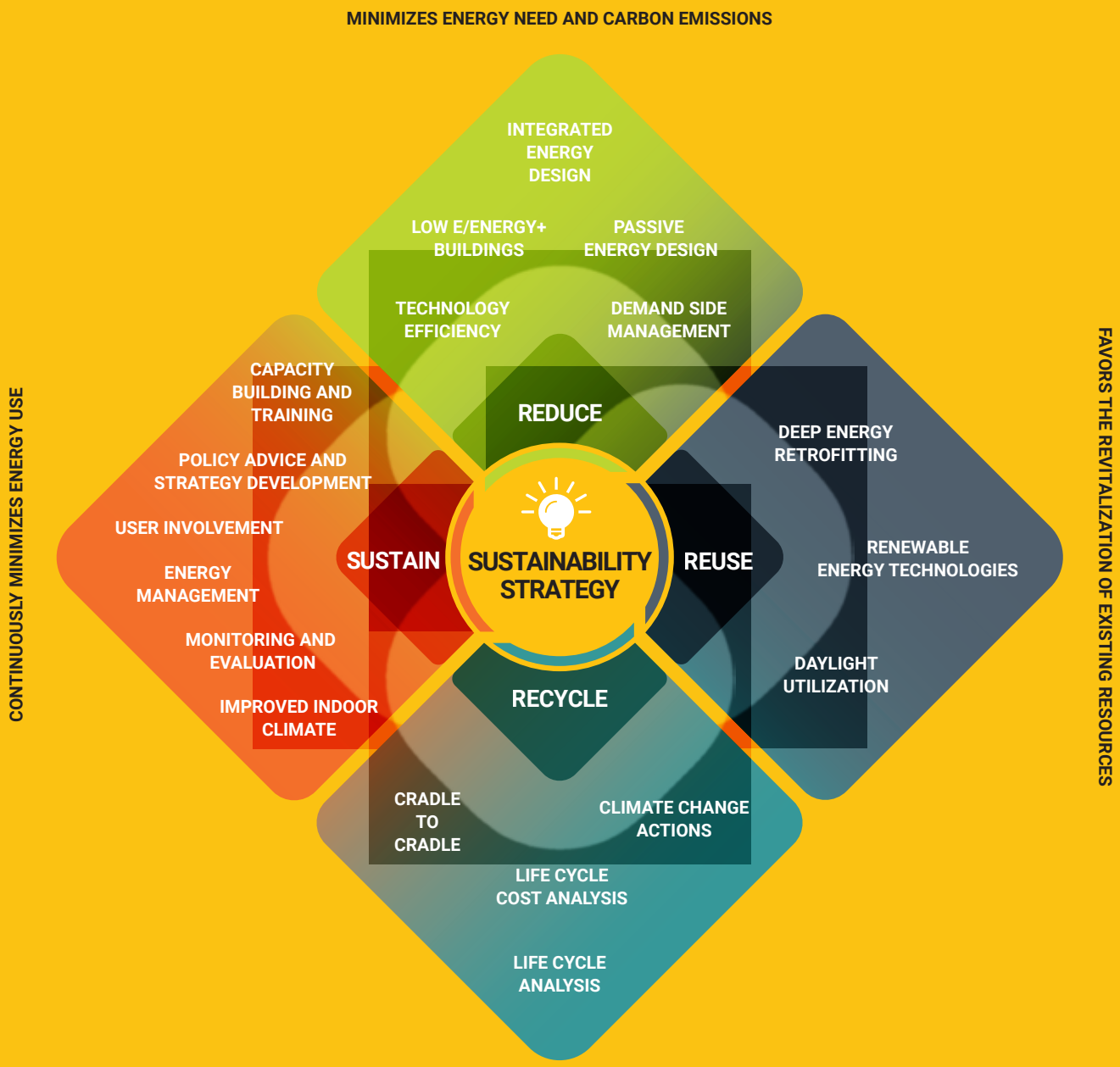
At Danish Energy Management & Esbensen we have developed a model that translates energy-related UN global Sustainable Development Goals (SDGs) into business opportunities. We offer a way to implement, measure, and report on progress being made towards sustainable development as an integrated part of business strategy. This model means that we are now able to:

- make our contribution towards global sustainability tangible for our employees and stakeholders in the wider community
- show where action is being taken and emphasize the difference that is being made
- identify current and future business opportunities
- measure progress towards achieving important CO_2 reduction targets
- keep visibility for sustainability high
- generate performance metrics that can complement official data

Today, we are using the Sustainability Management & Measurement model as a tool for business development and business communication. Implementing this tool is helping our business to become even more sustainable in terms of people, planet and prosperity. This model also makes it easier to communicate work with sustainability within the organization, as well as to partners and all stakeholders.

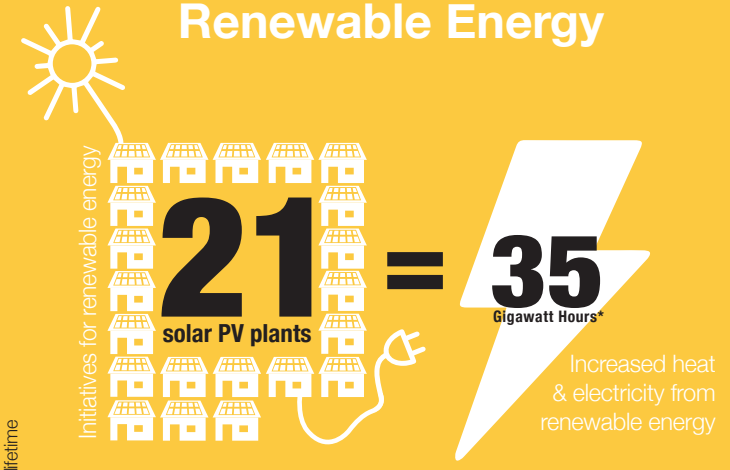
In this report, you can read about how our work is directly managed and measured in line with sustainable development. The following six cases provide an in-depth look at our work with sustainability, and the positive impact that is being made.

OUR SUSTAINABILITY STRATEGY



Aa+: BUILDING ENERGY RENOVATION
Sustainability Measurement

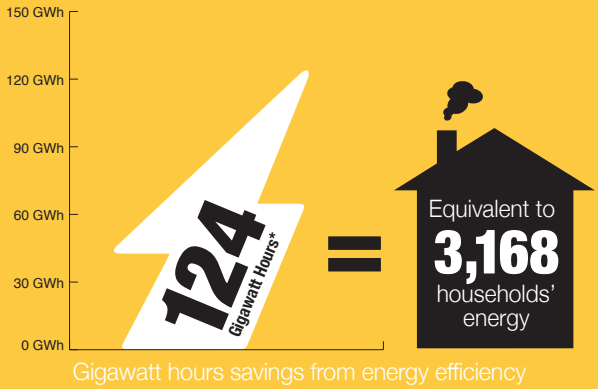
Renewable Energy



*Calculated over 25 years lifetime

Services provided
- 360° process planning
- Holistic assessment of energy efficiency and renewable energy investment potential

Energy Efficiency



*Calculated over 25 year lifetime

Services provided
- Advising on energy efficiency procurement
- Performing energy audits and feasibility studies
- Providing energy management

7 AFFORDABLE AND CLEAN ENERGY
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11 SUSTAINABLE CITIES AND COMMUNITIES
13 CLIMATE ACTION

Renovated Buildings
Based on sustainable energy design

Services provided
- Development of information and communication strategies
- Training and capacity building

Climate Resilience

6,004
tons CO_2 savings, Renewable Energy*

45,702
tons CO_2 reduction, Energy Efficiency*

*Calculated over a 25 year lifetime

Services provided
- Implementation of renewable energy and energy efficiency solutions as an integral part of the project

Properties: 650
(kindergartens, schools, administrative building, etc.)

Time frame: 2013-2019

Client: Aarhus Municipality
(2nd largest city in Denmark)

M²: 1,400,000

Sustainability Management

Aarhus Municipality is investing 450 million Danish kroner to achieve a CO_2 reduction of 40 percent in municipal buildings. This will be accomplished by conducting energy renovation for a building area of 1.4 million square meters. With such a large amount of energy savings, the payback time for this large investment cost will be 15 years.

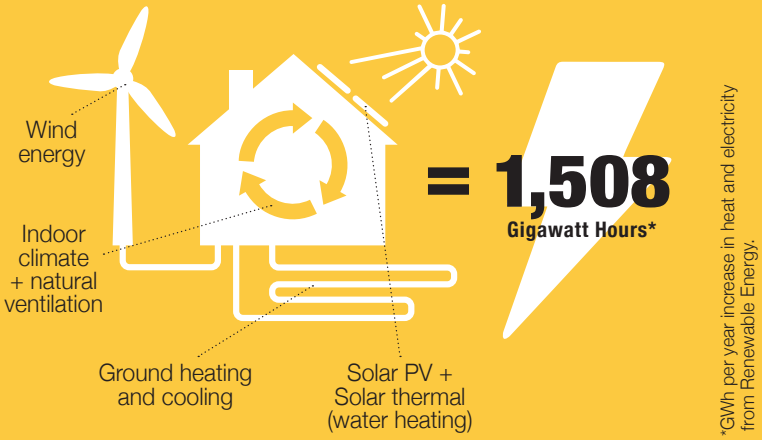
Danish Energy Management & Esbensen is providing a wide range of services that take user's experiences and needs into consideration while conducting e.g. energy audits and feasibility studies. Because there are rarely two buildings that function in exactly the same way, energy renovation is tailored to the needs of the users, incorporating their experiences, and providing plans which provide better indoor climate and better overall building condition. Incorporating energy management strategies into energy renovation projects like Aa+ helps to ensure return on investment, and helps to create a more conscientious and sustainable society at large. Another major aspect of this project that provides both sustainability and return on investment is the building-integrated design and installation of solar panels, which contribute with buildings' own energy production.

"Energy renovation is tailored to user needs and experiences, ensuring plans that provide better overall building condition."

LOW CARBON AREA IN HAIYAN CITY, CHINA

Sustainability Measurement

Renewable Energy

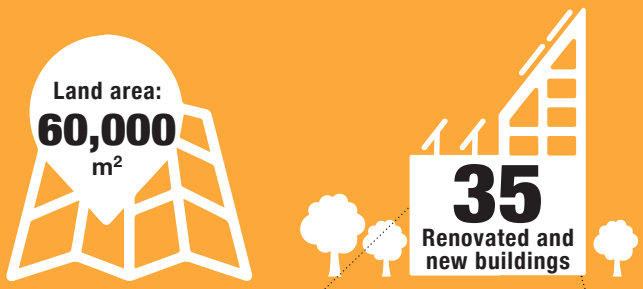


*GWh per year increase in heat and electricity from Renewable Energy.

Services provided

- Efficient use of natural resources
- Integrated energy design & energy management
- Slow speed planning & joint facility planning

Sustainability Assessment



Services provided

- Enhancing the urban nature and environment
- Identifying the sustainable architectural guidelines

7 AFFORDABLE AND CLEAN ENERGY

11 SUSTAINABLE CITIES AND COMMUNITIES

13 CLIMATE ACTION

17 PARTNERSHIPS FOR THE GOALS

Climate action

Climate Change measures

A Sustainability Strategy was presented to the local government in Haiyan, China

Awareness campaigns

- Courses in sustainability for local sales staff in shops
- Sustainability workshops for companies on how to save energy at the office
- Sustainability courses held by the new sustainability office and manager
- Campaign for waste minimization

Services provided

- Minimizing the consumption of resources and environmental impact

Partnerships

Support for national plans and capacity building for sustainable development

This project delivered a feasibility study for Haiyan County to accelerate the development towards a sustainable society. In order to support China's national plans for Haiyan, and build capacity for sustainable development, Danish Energy Management & Esbensen provided a comprehensive strategy that includes frameworks and planning tools, e.g. design guidelines for building design, material selection, mixed-use building functionality, flexible design, renovation of existing buildings, and sustainable landscape design.

Services provided

- Providing sustainable elements both for residents of Haiyan & cooperation with local government

Properties: 35 buildings

Time frame: 2015

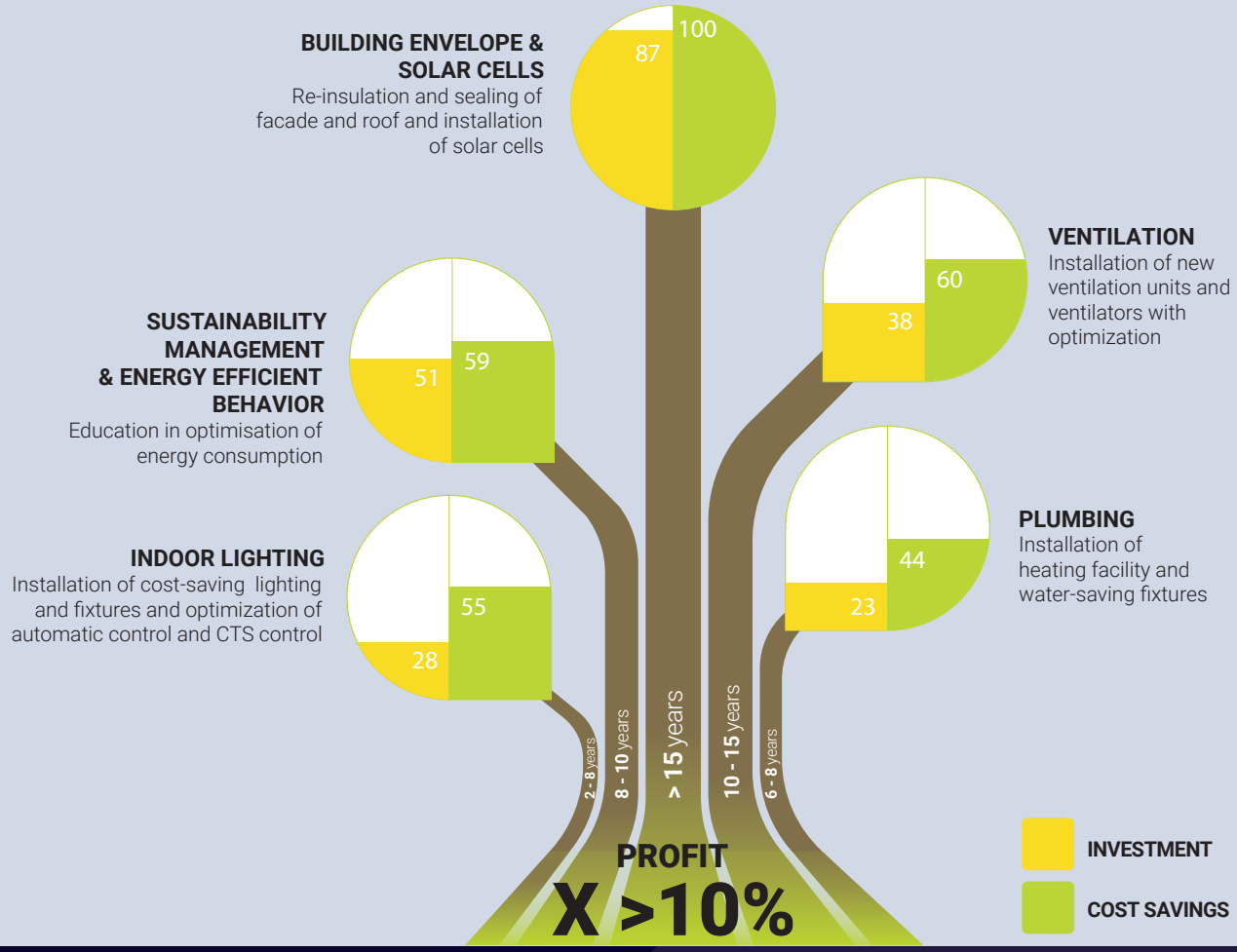
Client: Haiyan County, China

M²: 60,000

Sustainability Management

The objective for the Danish Low Carbon Street in Haiyan, China is to create a smart, lively, walkable, carbon-neutral city. A city that through technological empowerment, social awareness, economic insight and environmental action is sustainable in every way. This cradle-to-cradle, passive design will secure the interests of future generations, while ensuring good quality of life for the city's users today.

The design plan takes existing buildings into account, and new buildings are planned to secure optimal natural daylight internally, and sunlight for solar PV cells and solar water heating on buildings externally. Low carbon emissions are secured for the local water supply, drainage system, waste treatment system and local transportation within the area. Also, a new green line provides an enjoyable walk or bike riding area that perpetuates the story of sustainability by looping around the new energy facility and sustainability center. The planning of the area follows a Sustainability Strategy, which ensures that all initiatives work towards a smart city with low carbon emissions.



"The objective is to create a smart, lively, walkable, carbon-neutral city."

CLEAN DEVELOPMENT MECHANISM (CDM) PROGRAM, MALAYSIA

Sustainability Measurement

Renewable Energy

= **798** Gigawatt Hours*

- **6** biomass plants
- **4** biogas plants
- **1** landfill gas plant

*GWh per year increase in heat and electricity from Renewable Energy

Services provided

- Portfolio management

Certifications/Waste Management

11

Projects with Certified Emission Reductions (CERs) issued

- **1** plant using landfill gas
- **5** plants using co-composting
- **3** plants using co-composting and waste water

Services provided

- Assistance in facilitating contracts between project owners and Danish companies.

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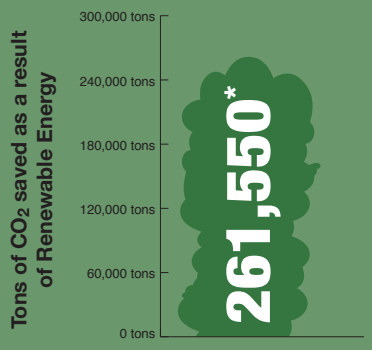
17 PARTNERSHIPS FOR THE GOALS

Climate Resilience



*Savings over 25 year lifetime

16

Projects with climate change measures in national plans

Services provided

- Support for development and implementation of monitoring routines for individual projects and for verification of emission reductions.

Partnerships

€37,740,186

Funds mobilized for sustainable development

18

Projects supporting capacity building

Sustainable development technology sharing

- Monthly meetings with the Danish Embassy in Malaysia to discuss project progress and plan activities
- Facilitating knowledge sharing for Danish technologies in the Malaysian context through networking events

Services provided

- Project pipeline developed and project screening
- Finalized Project Design Documents
- Third party validation
- General technical advice for the Danish Embassy

Number of CDM projects: 18

Time frame: 2007-2016

Client: Danish Energy Agency, Ministry of Climate and Energy

Number of data handling systems: 11

Sustainability Management

The Danish Clean Development Mechanism (CDM) program in Malaysia has provided an important incentive for project owners to develop green and sustainable climate projects. This has led to a greater focus on sustainable solutions in the business sector, which would otherwise have been neglected.

The first step in this process was to identify prospective CDM projects in Malaysia with the potential to generate Certified Emission Reductions (CERs) to be purchased by the Danish Ministry of Foreign Affairs. Then, specific documentation was developed for a number of these projects, including Project Idea Note (PIN) and Project Design Documents (PDDs). Next, a follow-up was provided for approval of these selected projects by the designated national authority, and subsequent approval was then given by the CDM Executive Board.

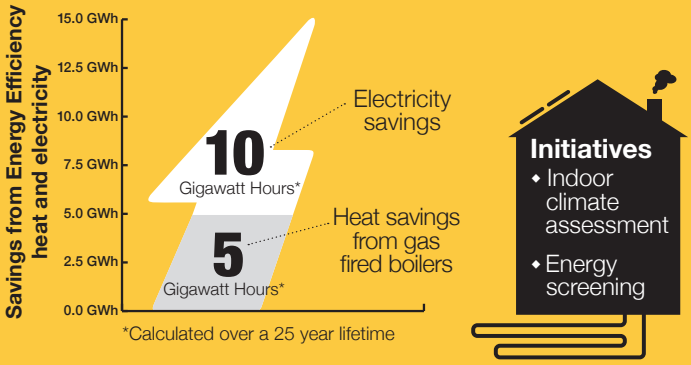
Once projects were designated, Danish Energy Management & Esbensen assisted and advised the Danish Embassy throughout their negotiations regarding their Letter of Intent (LoI) and Emissions Reduction Purchase Agreement (ERPA) as well as participating in monitoring on-going CDM projects generating Certified Emission Reductions (CERs) for Denmark.

Capacity building and awareness-raising also took place with regard to sustainability and the development of green projects by getting local consultants and project owners involved in the identification and preparation of the CDM projects. For the Danish Embassy in Malaysia, Danish Energy Management & Esbensen provided relevant technical advice on climate change, including information on market trends, methodology, developments etc. that would contribute to triple bottom line sustainability with relation to people, planet and profit.

"This program has led to a greater focus on sustainable solutions in the Malaysian business sector, which would otherwise have been neglected."

MINISTRY OF DEFENSE, DENMARK
Sustainability Measurement

Energy Efficiency



Services provided

- Energy audit and development of baselines and Energy Performance Indicators (EnPIs) at building level
- Analysis of technical and financial energy savings
- Energy management

Sustainability Assessment

In line with **ISO 50001** - Energy Management (section 4.4.2 – 4.4.5), a baseline was created for energy use, along with a mapping of work routines that influence energy use. Based on this assessment, the Danish Ministry of Defense has a solid foundation for creating a complete energy management system.

Services provided

- Detailed list of building energy saving measures

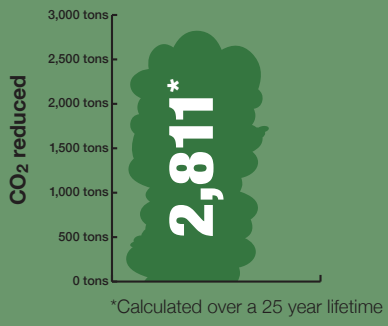
7 AFFORDABLE AND CLEAN ENERGY

11 SUSTAINABLE CITIES AND COMMUNITIES

13 CLIMATE ACTION

Ministry of Defense, Denmark

Climate Action



This CO_2 reduction is based on 7, out of the 39 identified, initiatives which can be calculated with relative certainty. This means that the actual energy savings, and subsequent CO_2 reduction, will be considerably higher.

Services provided

- Minimizing the consumption of resources and environmental impact

Case

Ministry of Defense, Denmark

This assignment provided a thorough overview of one establishment's current situation with regard to energy.

Major energy savings, which contribute to SDG 7, 11 & 13, were identified in a number of areas. One area where the establishment can achieve major energy savings is through the optimization and replacement of ventilation systems with more efficient technologies.

Another area where major savings can be achieved is through heating optimization, where adjusting for the drop in nighttime temperatures can have a large impact not only on energy savings, but also on the overall comfort and work environment related to daytime temperatures.

Properties: 16 buildings

Time frame: 2015-2016

Client: Danish Defense Property Board

M²: 50,000

Sustainability Management

Danish Energy Management & Esbensen provided an energy audit and review for one of the establishments under the Ministry of Defense which consumes a particularly high amount of energy due to e.g. large open hangars and buildings with large ventilation demand. This work provided the foundation for the Danish Ministry of Defense to become more sustainable and save energy-related costs.

The buildings inspected and analyzed have very different usage patterns, and represent a wide range of activities, which make it particularly important to identify how energy is being used, and could be used more efficiently. To achieve this, a survey with follow-up interviews was carried out for all properties in order to identify users' perception of the indoor climate as well as their knowledge about, and motivation for, contributing to energy saving measures.

Energy audits were carried out with a particular focus on the identification of significant energy use, e.g. with relation to equipment and workflow. All audits were carried out with the guidance of a building manager or a local employee who had detailed knowledge of the building, installations & workflow. An energy audit report was provided for each building individually, with Energy Performance Indicators (EnPIs) and an action list identifying proposed energy efficiency measures to be taken.

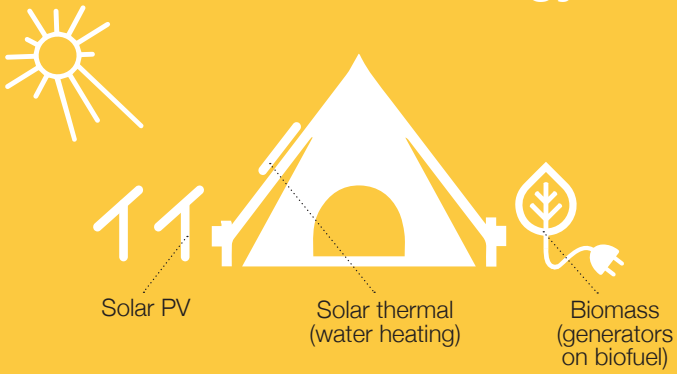
Based on a detailed understanding of the organizational structure within the Danish Ministry of Defense, and positive relationships that were built during this assignment, contracts have been signed for similar assignments.

"This work provided the foundation for the Danish Ministry of Defense to become more sustainable and save energy-related costs."

JAMBOREE DENMARK 2017: ENERGY MASTERPLAN

Sustainability Measurement

Renewable Energy



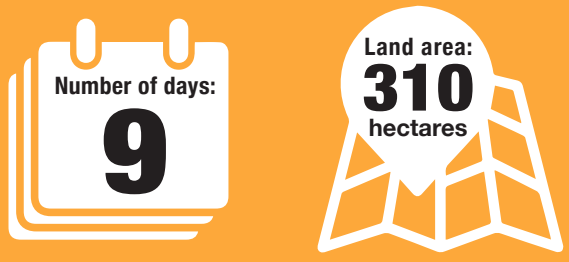
Initiatives for Energy Efficiency

Energy management

Services provided

- Efficient use of natural resources such as sunlight

Waste Management



Waste Management

Reduction of food waste can be achieved through initiatives such as collecting excess food for distribution to homeless

Services provided

- Minimizing the consumption of resources and protecting the urban and natural environment

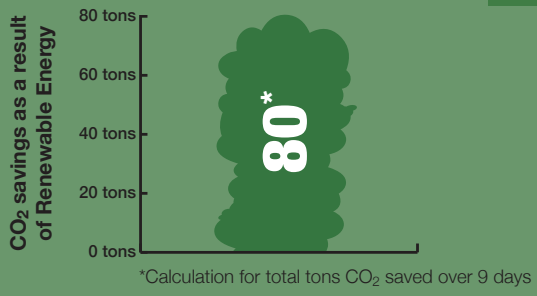
7 AFFORDABLE AND CLEAN ENERGY

11 SUSTAINABLE CITIES AND COMMUNITIES

13 CLIMATE ACTION

Jamboree Denmark

Climate Resilience



*Calculation for total tons CO_2 saved over 9 days

Awareness campaigns

- Awareness and use of organic and sustainable material – e.g. general packaging, food products, etc.
- Campaign for waste minimization
- Awareness and use of sustainable transport
- Collecting rain water for e.g. dish-washing

Services provided

- Helping to create a CO_2 neutral event

Case

Jamboree Denmark 2017

This project provided a comprehensive toolkit for creating a CO_2 neutral scout jamboree in the summer of 2017.

Further examples of the sustainability initiatives:

- Generators based on biofuel for power supplied to toilets and trailers
- "Spinning bikes" for charging smartphones
- Biodegradable disposable tableware
- LED lighting with daylight control
- Organic food

Participants: 40,000 people

Time frame: 2016-2017

Client: Sønderborg Municipality

M^2: 3,100,000

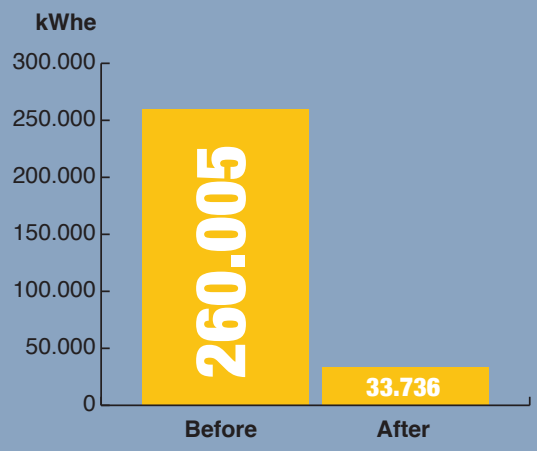
Sustainability Management

Danish Energy Management & Esbensen completed this project in cooperation with Sønderborg Municipality, which through its initiative "Project Zero" has the vision of being Europe's first CO_2 neutral municipality. This vision also closely mirrors that of Jamboree 2017 and the Danish scout's work in general, which is characterized by its high regard for nature and sustainability. Because of these common interests, Danish Energy Management & Esbensen has been involved with helping this Jamboree to send a signal to the greater community regarding CO_2 neutrality.

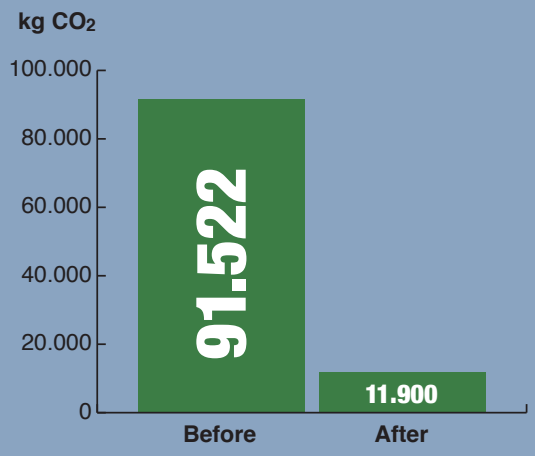
After the event is concluded, an evaluation will be held to determine if the event was CO_2 neutral, which is a success criterion for the event. This evaluation can also act as a lessons learned session for future festivals and events of a similar nature, highlighting the benefits of sustainability.

Reduction of energy use and CO_2 savings based on recommended initiatives

Electricity consumption



CO_2 emissions associated with electricity consumption



"Together with Project Zero, we are helping Jamboree Denmark 2017 send a signal to the greater community regarding the extreme importance of CO_2 neutrality."

ACP-EU ENERGY FACILITY MONITORING
Sustainability Measurement

Access to Energy

Over **13** million people in the African, Caribbean and Pacific (ACP) group of States have gained access to energy supply or to improved energy services since monitoring began in 2009.

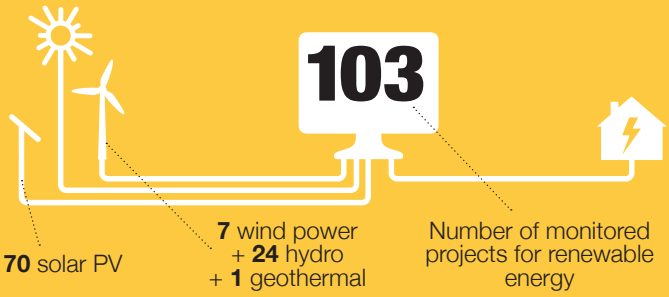
National Studies that include access to affordable, reliable and modern energy services

In addition to finance infrastructure, the ACP-EU Energy Facility also includes capacity building in partner countries. To date, **50** strategies, national studies, legal acts or institutional roadmaps have been developed supporting access to energy as a result of renewable energy or energy efficiency projects.

Services provided (Access to Energy)

- Providing recommendations in order to better reach objectives, monitor achievements, and gather results.

Renewable Energy

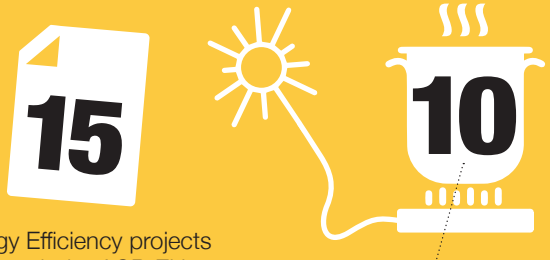


Monitored projects that have been implemented thus far are producing a yearly output in electricity amounting to approximately **60,000,000** kWh.

Services provided (Renewable Energy)

- Monitoring 103 projects including initiatives for renewable energy.

Energy Efficiency



Energy Efficiency projects through the ACP-EU Energy Facility

10 of the Energy Efficiency projects are related to improved cooking methods

Services provided (Energy Efficiency)

- Monitoring **15** energy efficiency projects in the African, Caribbean and Pacific (ACP) group of states.

Partnerships

Supporting national plans and capacity building

Knowledge sharing seminars have been carried out for the purpose of capacity building for sustainable development, as well as supporting national electrification strategies.

Strengthening systemic issues

The ACP-EU Energy Facility projects database has been developed by Danish Energy Management & Esbensen to provide comprehensive data regarding **173** projects.

Services provided

- **6** ACP-EU Energy Facility knowledge sharing seminars
- **1** seminar supporting national electrification strategies in Mauritania
- **1** ACP-EU Energy Facility database providing comprehensive data on **173** projects

Total project number: 173

Time frame: 2009-2019

Client: European Commission

Total EC Commitment: € 402,206,563

Sustainability Management

Danish Energy Management & Esbensen performs energy facility monitoring in order to help ensure that people in rural and peri-urban areas in African, Caribbean and Pacific (ACP) countries can improve their access to affordable and sustainable energy services. Performing Energy Facility monitoring also contributes to an increase in global coherence, efficiency and visibility for projects which are being carried out, as well as ensuring verification of implementation and results that contribute to sustainable development.

Our main activities regarding Energy Facility monitoring include desk-based monitoring, site visits to gather results and lessons learned, missions to projects with problems in implementation, thematic fiches providing a picture of main policy themes relevant to boost investment, and seminars. Information and knowledge sharing is made possible through a website and a database which can generate automatic scorecards, graphics, tables and maps at different levels (project, national, regional or global level) based on data.

Improved Energy Access

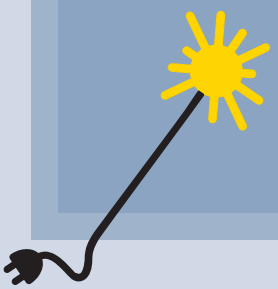
Number of direct beneficiaries with access to grid electricity and to non-grid electricity as a result of the project.

Reading Light

250,813 households with access to reading light

Grid Electricity

739,507 beneficiaries

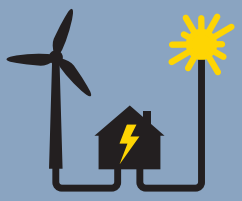


Non-Grid Electricity

4,702,091 beneficiaries

Energy Infrastructure

Increase in energy production and distribution.



RES Generated Energy

59,789,748 kWh

Energy Capacity Added

257,463 kW

Transmission/distribution lines built or upgraded

31,571 km

The Database: database.energyfacilitymonitoring.eu

"Energy facility monitoring helps to ensure improved access to affordable and sustainable energy services."

Danish Energy Management & Esbensen

A part of Danish Management Group

www.dem-esb.dk

SUSTAINABLE DEVELOPMENT GOALS

CERTIFIED cradle to cradle SILVER