Application Form submitted by the initiatives to participate in the Transformative Cities People`s Choice Award

GENERAL INFORMATION	
Location:	Burgas, Bulgaria
Title of the Transformative Initiative:	Energy Transition of City of Burgas: Going Smart and Sustainable
Name of organization:	Burgas Municipality
Type of organization:	Local public authority
Website:	https://www.burgas.bg/
Category and Edition:	ENERGY. Transformative Cities Award 3er edition (2020).

STORYTELLING

Summary

In its ambitions of constantly improving competitiveness and quality of life of citizens, Burgas city made energy transition one of its main priorities. To boost further the impact of energy efficiency measures and RES, Burgas is actively using smart technologies and approaches to achieve better results and take wise decisions.

Context and problem definition

Through the years, obligations and expectations towards local authorities increase. As climate changes have greater and greater impact on daily life, cities are put under pressure to apply appropriate measures and adapt to new circumstances.

15 years ago, Burgas was in unenviable situation regarding energy management. Energy efficiency measures were not implemented in buildings, street lightning, transport, no RES were installed and smart technologies were not even on the list. This led to very high costs paid by local authority and citizens, as well as poor living conditions and environmental qualities.

Since 2007, sustainable development became main priority of city administration. Involvement of all stakeholders at local level was of key importance for achieving good results. Entire population of Burgas Municipality (232 000 people) is affected by implemented measures.
Main social groups affected:
1. Socially vulnerable people – all public buildings are retrofitted, providing better living conditions to inhabitants.
2. Children, young people, teachers – 98% of educational infrastructure is retrofitted (kindergartens and schools).
3. Population – more than 250 private buildings are retrofitted and living conditions improved.
4. Business – investments in energy efficiency and RES, supported local companies to expand their portfolio and build expertise, which led to their development and growth.

Design and Implementation

Energy efficiency is one of the priorities laid down in the strategic documents of Burgas Municipality- Municipal Plan for Development 2007-2013 and 2014 – 2020 and Sustainable Energy Action Plan of Burgas (SEAP) 2011 – 2020.

In the process of development of its strategic documents, Burgas has undertaken the approach to include the largest possible number of stakeholders. We believe that, the interest of different actors should be best represented. The approach of Burgas is to set up working group at the very beginning, which includes representatives of NGOs, local administration, city council, the state, business, education, etc. Thus, we can get into more depth, understanding the problems of different sectors use their expertise and come up with working solutions. Once priorities and measures are identified, they are presented to the wider public for discussion (through conferences, social networks, official web page of Burgas, etc.). At the end city council approves the document.

Another tool that Burgas uses in the development of its energy efficiency projects is the implementation of public discussions. Before the start of any investment, the city organises an open public discussion. Burgas is also using very actively social networks. Big projects are presented at very early stage and the opinion of the public can be studied.

One approach of Burgas turned to be extremely successful. During the implementation of Energy Efficiency of Multi-Family Residential Buildings National Programme, city administration wanted to involve as many people as possible to participate, because the financial resource was limited and all Bulgarian settlements could apply for it. What Burgas did was at the very beginning to state clearly, which buildings had the right to apply for funding and

what the requirements were. Special administrative units were set up in each neighbourhood with obligations to consult and support citizens in preparing the applications. As a result, the city of Burgas is at 1st place in Bulgaria with most renovated private buildings (205 buildings).

The main issues with communicating our energy efficiency projects is the low attendance of public discussions we organise. Very often, participants are no more than 10 people. It seems that this approach is old- fashioned and in today's busy world, less and less people agree to sacrifice their personal time for events like that.
That is why Burgas is using more and more the digital environment to communicate its intensions, approaches and receive feedback for its policies.

Results achieved and Evaluation

The most relevant result achieved by Burgas Municipality are:

- ✓ Energy efficiency measures implemented in 205 multi-family residential buildings with more than 35 apartments.
- ✓ Implementation of energy efficiency measures in 21 multi-family residential buildings with less than 35 apartments.
- ✓ Implementation of energy efficiency measures in 98% of public educational infrastructure (49 schools and 45 kindergartens).
- ✓ Implementation of energy efficiency measures in more than 10 public buildings.
- ✓ Renovation of the street lighting system in 22 city zones (replacement of 2623 lamps with LED and 24 solar LED luminaires on pedestrian crossings). Estimated annual energy savings: 1 123 038,16 MWh/year and Estimated annual CO2 emission reductions: 1328, 66 tCO2/year. Modernization and upgrade of the existing automated system for management and control of the street lighting.
- ✓ Replacement of municipal vehicles with electric ones – so fat 10 vehicles are replaced.
- ✓ Delivery of 56 electric buses used in the public transport network. Installed 56 electric charging stations. Savings as a result of the investment- 70, 44 tons of NOx and 3,9 tons of PM10 per year.
- ✓ Delivery of 22 trolley buses used in the public transport network.
- ✓ Installation of 30 KW PV system for the needs of the main administrative building of Burgas Municipality.
- ✓ Installation of smart energy meters in public and private buildings

Directly benefited are over 100 000 people in the municipality. The entire population of Burgas Municipality (230 000 people) are indirectly benefited.
Every year Burgas is obliged by law to send annual reports on the saved energy from energy efficient measures applied. The experts in Energy Efficiency department implement regular monitoring and gather required data.

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Political Strategies

Main political strategies are incorporated in the strategic documents of the city: Municipal Plan for Development of Burgas 2007-2013 and 2014 – 2020, Sustainable Energy Action Plan of Burgas (SEAP) 2011 – 2020, Integrated Plan for Urban Renovation and Development of Burgas 2014-2020.

Milestones for the development and implementation of the strategies were:
- Include stakeholders in the process of identifying priorities and prioritize projects and measures;
- Relocate financial and technical resources for energy efficiency and RES projects;
- Monitor the implementation and the achieved results;
- Communicate the results and replicate activities.

As a whole, all stakeholders at local level support the energy efficiency measures implemented by the municipality. However there were few citizens and political parties who claimed that these actions should not be performed, because they will not have the expected effect. Bur after the implementation of so many project and especially the retrofitting of private buildings, even the critics agreed that these actions are necessary and important.

So far, Integrated Plan for Urban Renovation and Development of Burgas 2014-2020 is the most successful plan, as almost 100% of planned measures have been implemented. This is because the financial resources for the projects was secured in advance. The main thing that we realized through the years is that strategic documents of the city should be more of an expert document than a political. It is necessary to be aware of where all the financial resources for the implementation of projects/ measures will come from and plan carefully your goals.

Communication and Cultural Strategies

As most successful campaign could be outlined the one connected with the implementation of Energy Efficiency of Multi-Family Residential Buildings National Programme.
The campaign was implemented in several directions:
1. Info materials- with the start of the programme at every bus stop in every neighborhood were placed posters with a map of the buildings and their numbers eligible to apply. Info materials were placed in every administrative building.

2. Public events- several discussions and press conferences were organized open for everyone. Application process was explained in details and Q&A panel was held.
3. Media – great number of articles, interviews, video reports were produced and broadcasted.
4. Internet - dedicated web page was developed where people could find all the information about the programme, eligible applicants, ask questions.
5. Physical presence- special units responsible for the programme were established. They were situated in every neighborhood and gad obligations to provide information, support applicants in the preparation of the documents, check documents for any mistakes, proceed applications as fast as possible for evaluation.

The entire process continued for about 2 years and as results Burgas is the city with most renovated private buildings in Bulgaria – 205.

Resources, Financing and Transformative Economy

Sustainable energy management and smart technologies are key factors leading to transformation of global economy, and Burgas makes no exception. In its approach, Burgas is led by the principles of providing sustainable mechanisms and approaches leading to sustainable results. The huge investments in energy efficiency, RES, electric vehicles and smart management systems, implemented with the support of EU funds, state, private and own resources are turning the city into smart and sustainable place of living.
Since 2007, significant part of city resources (financial, administrative and operational) are directed to the sustainable energy development. A special directorate specialized in the development and implementation of EU funded projects was established, as most of the measures are implemented with the support of EU. Additional municipal experts in energy efficiency and energy audits and climate change were hired and working actively.
Transformation is ongoing process and Burgas continues to build on the measures implemented so far, as resources are directed to replacement of public vehicles with electric ones, installation of PV systems on retrofitted buildings, improving smart energy systems of the city. The administration established a mechanism for retrofitting private buildings with municipal finances and after that, owners return the investment over a longer period and without an interest.
Being a role model, the local authority managed to convince the private sector that investing in sustainable energy is worth it. Most of the new office buildings are of energy class A or higher. People are active in searching ways for retrofitting their homes (Burgas is country leader with more than 200 residential buildings retrofitted under the National EE Programme). The number of hybrid and e-vehicles in the city is constantly increasing.
Key actors contributing to the transformation of the city, include the municipality, city council, households, NGOs, universities and schools, private business.

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Related legislations
Key strategic documents: **1. SEAP 2011 – 2020.** ENERGY TARGETS: • Reduction of the CO2 emissions in Burgas Municipality 25 % to 2020. • Reduction of the energy usage in Burgas Municipality 27 % to 2020. • RES share in the energy mix of Burgas Municipality 26 % to 2020. **2. Burgas Municipality Development Plan 2014 - 2020** Priority 1. Environment- measures: - Energy audits of buildings; - Implementation of energy efficient measures in buildings; - Implementation of electric charging stations; - Development of joint projects with SME about RES. Priority 2. Integrated territorial cooperation: - Optimisation of transport network; - Purchase of electric buses; - Introducing smart traffic management system. The ongoing smart transformation of the city is reflected in the new strategic documents developed at the moment: - SEAP 2021 – 2030; - Burgas Municipality Development Plan 2021 – 2030; - Climate adaptation strategy of Burgas.
Ecological Transitions
The city of Burgas is located on the Black sea coast and is surrounded by three lakes, which constitute the largest group of lakes in the country. Lakes are proclaimed as protected area and inhabited by a large number of locally and globally endangered species of birds, fish and mammals. These geographic features, determined the development of the city through the years and environmental protection has always been an inseparable part of this process. For this reasons, energy efficiency and energy transition, as well as smart technologies quickly turned into one of the main priorities for the city and was recognised and supported by all local stakeholders.

Investments now in energy efficiency, RES and smart technologies have a significant impact in the future, contributing to reducing energy bills, CO2 emissions, air quality and environmental protection. Investments in retrofitting of residential buildings are made after an initial approval of people living there.

Any investment made by the public authority goes through a public consultation, before its implementation. Increase of sustainable energy projects in the city, led to the establishment of new companies, increase the number of highly qualified personnel and the sensitivity of the society towards environmental issues.

Lessons learned

Through the years, Burgas Municipality realized that investments in sustainable energy and energy efficiency is essential for improving quality of life and turns the city into preferred place for business and living.

To maximise the impact of the measures, participation of all stakeholders is of vital importance. Only with joint and integrated measures, Burgas could succeed in its energy transformation.

Encouraging citizens to invest and participate in programmes for retrofitting of houses turned out to be a huge success and showed how administration and citizens can work together to achieve a common objective.

Use of smart technologies is another important step recognized by the city. IT enables us to better manage and monitor projects and make necessary changes to increase efficiency. Currently all projects go through initial consultation with stakeholders. Whenever possible, the concept of “smart city” is integrated.

One of the things that we could do differently is to set higher energy efficiency class to be achieved for the buildings retrofitted more than 10 years ago, because of the constantly changing legislation and requirements that set higher and higher standards.

One of the best things that we have achieved through the years is the established trust between citizens and municipality in the implementation of joint projects. We promote this on national and European level during events, initiatives, articles, projects, social networks, etc.

Conclusion

City of Burgas could serve as a good example how in a mid-term period of time (about 12 years) a European city could go through a complete transformation. From a city where energy was used and managed highly inefficiently, nowadays Burgas is a smart energy efficient city, implementing the most up-to-date approaches and measures.
We are an example of the importance of local authorities, and how their vision and efforts, could be the main driver for achieving successful and sustainable results.

EXTRA INFO

Supporting documents

1. A FREE INSULATION
https://www.burgas.bg/index.php?/en/news/details/1/24706
2. Energy Efficiency of Multi-Family Residential Buildings National Programme
https://www.mrrb.bg/en/energy-efficiency/energy-efficiency-of-multi-family-residential-buildings-national-programme/
3. Free energy audit:
http://www.fiesta-audit.eu/en/
4. The 'smart' transformation of a Black Sea metropolis:
https://municipalpower.org/articles/the-smart-transformation-of-a-black-sea-metropolis/
5. Street smart:
https://www.100days.eurocities.eu/article/Street-smart

Covid-19 outbreak impact

Covid-19 outbreak did not have any drastic impact on the process of energy efficiency measures implementation, as some of them took place before the emergence of the epidemic. Those initiatives that are currently being implemented involve the execution of all the measures indicated by the National operational headquarter for preventing the spread of COVID 19.